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MOTHERCARE/EGYPT
DIAGNOSTIC RESEARCH IN THE GOVERNORATES OF ASWAN AND LUXOR OF EGYPT

FINAL REPORT

SUBMITTED TO

MOTHERCARE/EGYPT PROJECT

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A large number of people have contributed towards the finalization of this report MotherCare staff and Consultants provided technical and administrative support the design of the guidelines of the study USAID, in addition to funding the study, Cairo Health Office staff participated in all the three technical meetings and provided valuable insights The Ministry of Health and Population central and local leadership and staff supported the organization of data collection activities and invested their time in producing and reporting on requested information and data Aswan and Luxor community members in urban and rural areas willingly shared their experiences, attitudes and beliefs SPAAC professionals and field data team worked diligently, ignoring the summer heat, to collect and process such quantity of data in seven weeks Finally SPAAC professional team with support from MotherCare consultants contributed to the analysis and final reporting of the qualitative and quantitative collected data

To all of them we acknowledge with gratitude their contributions, assistance and cooperation

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CHAPTER I

OBJECTIVES AND METHODOLOGY

MOTHERCARE/EGYPT
DIAGNOSTIC RESEARCH IN THE GOVERNORATES OF ASWAN AND LUXOR OF EGYPT

CHAPTER I
OBJECTIVES AND METHODOLOGY

I - INTRODUCTION

This report is submitted by Social Planning, Analysis and Administration Consultants (SPAAC) to present the findings of a diagnostic research carried out for MotherCare/Egypt in support of the achievement of the aim of assisting the Egyptian Ministry of Health and Population (MOHP) to reduce maternal and perinatal mortality in selected governorates

II - BACKGROUND

In recent years there has been a marked improvement in maternal and child health indicators in Egypt There is, however, room for further improvement Moreover, in spite of the improvement in health indicators in the country as a whole, regional differentials are still marked and they show that the status of maternal and child health in Upper Egypt and in particular in the rural areas still lag considerably behind the rest of the country

According to the Egyptian Demographic and Health Survey (EDHS 1995), the infant mortality rate (IMR) in Egypt as a whole has dropped from 146 infant deaths per thousand live-births in the years 1971 -1975 to 63 per thousand in the years 1991 - 1995 The neonatal mortality rate (NNMR) has also dropped in the period quoted from 67 per thousand to 30 per thousand By region however we find that while NNMR and IMR in the years 1986 -1995 were estimated to be 35 6 and 73 per thousand respectively in the whole country, the corresponding figures in urban Lower Egypt were 27 and 38 5 per thousand and in rural Upper Egypt were 49 and 105 per thousand respectively

As regards antenatal care or physician consultation during pregnancy, according to EDHS 1995, out of the births occurring in the five years preceding the study, the proportion in which the mother paid at least one visit to a physician during pregnancy was 39 percent in the total sample, while it was as low as 21 percent in rural Upper Egypt and as high as 65 percent in urban Lower Egypt As regards care during delivery, the mother was assisted at delivery by a physician or trained nurse/midwife in 46 percent of births in the total sample, the proportion rose to 75 percent in urban Lower Egypt while it declined to 23 percent in rural Upper Egypt As a result of this state of affairs deaths caused directly or indirectly by pregnancy and childbirth are much higher in Upper Egypt than in other parts of the country According to the National Maternal Mortality Study (NMMS, 1992-3), the maternal mortality ratio (MMR) in the country as a whole is estimated to be 174 maternal death per 100,000 live-births, while estimates for Upper Egypt are much higher and reach as much as 655/100 000 in Qena governorate

While it is a known fact that Upper Egypt and in particular rural Upper Egypt is less developed than Lower Egypt and the Urban Governorates, it is important to identify deficiencies in health care delivery, training needs of health providers as well as community barriers and constraints which affect the utilization of health services This will help the MOHP to plan and implement interventions needed to improve accessibility, quality of antenatal, delivery, postpartum and new born care to reduce maternal and neonatal morbidity and mortality

III - RESEARCH OBJECTIVES

The main purpose of the research is to diagnose the existing situation in terms of the community and existing quality of care to design interventions to increase survival opportunities for mothers with maternal problems and to provide baseline data to be able to assess the impact of these interventions Consequently, the objectives of the research are

1 To identify operational issues related to service delivery (staffing, equipment, essential drugs) including availability, use and quality of antenatal, delivery, postpartum and neonatal care at all facility levels

2 To determine gaps in the provision of care and the readiness of MOHP facilities to provide quality care

3 To assess levels of knowledge and skills of service providers, and their perception of their training needs

4 To determine the perspective of service users (women), their influentials and health providers in identifying barriers to health service utilization

IV - RESEARCH METHODOLOGY

The research almost completely covers all MOHP health facilities within the governorate of Aswan and Luxor (in Upper Egypt) that provide Mother and Child health services These include all general and district hospitals, MCH Centers, Urban Health Centers, Rural hospitals, Rural Centers, and 80% of rural units of each district

Data is collected through verbal reports of health service managers at governorate, district and health facility levels sample of health providers (Ob /Gyn , pediatricians, general practitioners, and nurses), mothers who have received prenatal and postpartum services from the facilities as well as from mothers who have experienced difficult deliveries, pregnant mothers, mothers of children under two years, husbands, mothers in law and community dayas Data was also collected through registered information and through observation of actual deliveries and prenatal check-ups occurring in hospitals Thus the research collected quantitative data through structured interviews, observations and through review of records, and collected qualitative data from the community through in-depth interviewing and focus group discussions

Thus 14 data collection instruments have been developed in consultation with MotherCare Consultants to cover the following

1 *Governorate Health Directorate and District Health Departments Module for Managers* (Aswan Directorate, five districts in Aswan, and one district in Luxor)
2 *Health Facility Module for Managers* (123 health facilities)
3 *Health Providers Module*(287 health providers)
4 *Antenatal Clients Module* exit interviews and home visits to clients who have received the service from the facility within the last month prior to data collection (165 clients)
5 *Post-Natal Clients Module* exit interviews, clients who were visited at home by health facility providers and post partum mothers at hospitals (84 clients)
6 *Observation of Antenatal Care Module* (48 cases)
7 *Observation of Normal Delivery Module* (25 cases)
8 *Observation of Postpartum Care Module* (25 cases)
9 *Mothers with Previous Delivery Complications In-depth Interview Schedule (IIS)* (56 Cases)
10 *Pregnant Mothers IIS* (39 Cases)
11 *Traditional Birth Attendant (Dayas) IIS* (18 Daya)
12 *Husbands Focus Group Moderation Guide (FGMG)* (12 FG)
13 *Mother FGMG* (12 FG)
14 *Mothers-in-Law FGMG (12 FG)*

The data were collected between August 1, and September 13 of 1997 by 10 different types of selected and trained data collectors

1 The Technical Field Supervisor covered Module 1 from Governorate and District Health Managers
2 Physicians (4) covered Module 2 and 3 from facility managers and health providers
3 Social science females (4) covered Module 4 and 5 for prenatal and postpartum clients
4 Ob /Gyn (2) covered Modules 6, 7, and 8 for observation of prenatal , delivery and postnatal care
5 Female anthropologist to cover IIS for pregnant mothers
6 Female anthropologist to cover IIS for mothers with difficult deliveries
7 Female anthropologist to cover IIS for dayas
8 Female FGM to administer FG for husbands
9 Female FGM to administer FG for mothers
10 Female FGM to administer FG for mothers-in-law

For assurance of data quality control, the following procedures were carried out

1 Two meetings were held with each of Aswan and Luxor Governorate and District Health Managers The first meeting was held prior to data collection operation to explain the objectives and research methodology and to organize field data collection procedures The second meeting was held during data collection operations to report on progress and to address field problems, if any
2 All data collection instruments were field tested prior to finalization

3 All data collection teams were extensively trained by senior Ob /Gyn Consultants, by MotherCare Egypt staff, and by SPAAC senior researchers The training included practical field work operations

4 A Field Technical Advisor (Specialized Public Health Physician from Assiut University) was assigned through the duration of field work operations to supervise the quality of the technical medical aspects of the research and to review Observation Modules 6,7 and 8

5 A Field Supervisor was assigned to organize and supervise all field operations

6 An Assistant Field Supervisor was assigned to organize and supervise all qualitative data collection operations

7 Four Data Controllers were assigned to escort, supervise and review the work of data collectors for Modules 2 3 4, and 5

8 A Data Processing Supervisor was assigned to the field to supervise and review data coding and data entry operations

9 Internal consistency checks were built into the data entry computer program

10 Computer file cleaning operations were carried out prior to the production of tabulations for analysis

CHAPTER II

RESULTS OF READINESS TO PROVIDE THE SERVICES

CHAPTER II
RESULTS OF READINESS TO PROVIDE THE SERVICES

I - POPULATION AND HEALTH FACILITIES OF DISTRICTS

The total size of the population in the Governorates of Aswan and Luxor is around 1 5 million inhabitants presented by districts in Table A1 Over one half of the population (56 3%) reside in rural areas The most rural district is Nasr in Aswan (90 5% rural) followed by Kom Ombo (72 4%), Edfu (67 3%) then Daraw (64 1%) The least rural district is Aswan (17 5% rural) followed by Luxor (56 9%)

Table A1 *Population and Live Births in 1996 By District*

	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
Population Size (000) (1996)	336 5	94 5	270 8	303 2	79 2	375 5
% Rural	67 3	64 1	72 4	17 5	90 5	56 9
% Female	49 9	49 8	49 1	48 6	56 6	49 6
Number of WRA (000)	6 0	18 0	50 0	40 1	14 0	70 3

A total of 37,378 live births were born January to December of 1996 The highest number of reported live births occurred in Luxor (10,229) followed by Edfu District (8,623), then Kom Ombo (7,542) and Aswan (6,744) The least number of reported annual live births occurred in Daraw (2,214) and Nasr (2,026) Districts

Other than hospitals and MCH Centers, it was very difficult to attain actual numbers of Urban Health Centers, Rural Hospitals, Rural Centers and Rural Units Though information was collected prior to the survey, from district departments and from Aswan Health Directorate (Schedule 1), and later was requested from Mother Care staff in Aswan, numbers did not match In addition, a few facilities were classified as Urban Health Centers and as Rural Hospitals, and field data collectors classified them as either Rural Units or Rural Centers

Table A2 *Health Facilities Available By District*

	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
General Hospital	0	0	0	1	0	1
District Hospital	1	1	1	0	1	2
MCH Center	1	1	1	3	1	2
Urban Health Center *	0	1/0	0	3/2	0	4/2
Rural Hospital *	5	2	3/1	3	4	1
Rural Health Center *	1	0	1/3	0	0	3
Rural Health Unit	35/37	7	18	13/14	16/14	16

* There is no consensus on actual numbers as apparently definitions differ

Table A2 presents the best estimate of numbers of health facilities per district There seems to be some differences in definition of health facilities of Urban Health Center Rural Hospital and Rural Centers Hospitals and MCH centers are

the only types of facilities that are well defined With the exception of Luxor, that has one general hospital and two district hospitals, all districts in Aswan Governorate have one hospital with one General Hospital in Aswan City

II - READINESS TO PROVIDE SERVICES

1 STAFFING

According to Health Departments and Aswan Health Directorate, the staffing of almost all categories of health providers is not sufficient Sufficient staffing occurs only in general practitioners of Daraw and Edfu Districts and in nurse supervisors in Aswan District Luxor has sufficient staffing in Ob/Gyns specialists, residents, pediatricians and social workers (See Table 1/4 in Appendix I)

There are positions that are totally lacking in some districts such as Anesthesiologists (Nasr), Laboratory Specialists (4 districts), Pediatricians (2 districts), Pharmacists (2 districts), Lab Technicians (Nasr), Midwife Nurses (3 districts), and Social Workers (2 districts) There are no Blood Transfusion Specialists in any of the districts nor directorate of Aswan Aswan Health Director and all districts Health Managers in Aswan stated that the main reason underlying staff shortages is that the Ministry does not employ sufficient staff Continuous turnover of staff was a factor mentioned by Aswan Health Department and Luxor Health Director Lack of incentives to work in the district was mentioned by health managers of Aswan and Nasr Districts The short supply of certain specializations was a factor mentioned by Nasr District and Luxor Living conditions and being away from the families was another reason for staff shortages mentioned by Aswan District

Table B1 demonstrates different categories of providers by the total stated number available in each district the total number assigned in the heath facilities visited, those who were present on the day of the interview and those that were interviewed In a number of cases, the sums from assigned and present staff at visited facilities did not coincide with numbers reported by district management Such a discrepancy is caused by the difference between formal definition of positions at employment records and those actually performing the functions of the positions at the health facilities

Table B1 ***Staffing Situation By District***

	Edfu				Daraw				Kom Ombo				Aswan				Nasr				Luxor			
	D	A	P	I	D	A	P	I	D	A	P	I	D	A	P	I	D	A	P	I	D	A	P	I
Ob/Gyn	7	10	7	1	2	1	1	1	8	8	6	1	17	15	12	3	1	3	1	1	15	18	13	3
Ob/Gyn Resident	5	1	1	1	2	2	1	1	8	6	3	1	15	18	14	1	0	1	1	1	10	14	7	3
Pediatrician	1	6	4	3	0	0	0	0	2	3	2	2	9	10	5	4	0	0	0	0	20	17	7	4
Anesthesiologist	2	1	1	0	1	1	0	0	1	1	1	0	3	3	3	0	0	0	0	0	5	5	3	0
GPs	44	43	42	35	14	13	10	8	25	21	19	18	32	21	19	16	19	19	17	16	52	36	28	22
Blood Spec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lab Supervisors	0	3	3	0	0	0	0	0	0	0	0	0	3	3	1	0	0	0	0	0	5	1	1	0
Lab Technicians	3	51	42	0	2	11	10	0	4	47	40	0	12	27	24	0	0	15	14	0	29	35	27	0
Pharmacists	3	3	3	0	0	0	0	0	2	2	2	0	6	7	5	0	0	0	0	0	17	3	2	0
Matron / Super	2	4	4	1	3	1	1	1	4	2	1	1	4	4	4	3	6	6	5	0	4	6	4	3
P H Nurse	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
Midwife	1	3	3	36	0	0	0	0	0	2	2	17	5	5	3	23	2	3	3	22	0	1	1	21
Nurses	167	148	118		199	135	90	13	205	144	125		308	320	271		190	155	136		90	93	82	
Social Worker	0	8	7	0	0	0	0	0	3	3	3	0	4	8	1	0	5	2	1	0	21	10	9	0
Total	235	281	235	77	223	164	113	24	262	239	204	40	419	442	363	50	223	204	178	40	268	239	184	56

D= Reported numbers by District managers for all district health facilities (# 1)
A= Assigned numbers as sums of visited health facilities as reported by facility managers (# 2)
P= Present on day of visit as sums of reported numbers at all health facilities visited (# 2)
I= Number of health providers interviewed (# 3)

The highest percentage of total absenteeism was in Daraw District (31 1%) followed by Luxor (20%) The rest are in the range of 13 - 17 percent absenteeism

The surveyed health providers average age and education as shown in Table B2 indicate that nurses have the lowest average age (27 2 years) with the highest standard deviation as their ages range from 17 to 61 years General Practitioners on average have slightly a lower average age than Pediatricians and Ob/Gyn specialists and residents (33 4 34 9 36 1 years on average respectively) More than half of the nurses have nursing diplomas (53 2%) or higher (1 4%) Almost all GPs have only university medical degrees (98 1%)

Table B2 ***Average Age and Percentage Distribution of Health Providers by Educational Attainment by Category of Profession***

	Ob Gyn	Pediatrician	GPs	Nurses
N	18	13	115	141
	%	%	%	%
AGE				
Mean Age (in Years)	36 1	34 9	33 4	27 2
Standard Deviation	7 5	4 1	6 3	9 9
EDUCATION				
% > Secondary				2 1
% Secondary Nursing				32 6
% Midwife Diploma				10 6
% Nursing Diploma				53 2
% University Degree	44 4	23 1	98 1	1 4
% Diploma/MA of Specialization	55 6	76 9	1 7	0 0

Ob/Gyns and Pediatricians who do not have specialized diplomas or MA degrees are residents Only one pediatric specialist working in a MCH Center in Edfu reported that she has a university medical degree only

Table B3 ***Employment Experiences of Health Providers by Category of Profession***

N	Ob Gyn 18	Pediatrician 13	GP 115	Nurses 141
	%	%	%	%
EMPLOYMENT EXPERIENCE				
Average Duration of Employment At Facility (months)	48 9	60 2	28 0	65 0
Standard Deviation	70 9	47 5	40 2	91 0
Additional Time to Stay				
% For Ever	44 4	53 8	12 2	62 4
% Not Decided	5 6	15 4	7 8	11 3
% Would Like to Leave Immediately	5 6	7 7	5 2	7 1
% Gave Period of Time	44 4	23 1	74 8	19 1
Mean Average Additional Time Given * (months)	10 1	9 0	11 6	20 4
Standard Deviation	16 0	13 0	15 5	31 3
Duration of Stay in Previous Position				
% < One Year	16 7	23 1	36 5	12 1
% 1 - < 2 years	27 8	30 7	27 0	9 9
% 2 < 4 years	16 7	23 1	14 8	14 2
% 4 < 6 years	27 8	23 1	4 3	7 8
% 6 < 8 years	5 6	0 0	1 7	5 0
% 8 + years	5 6	0 0	1 7	4 3
% No Previous Position	0 0	0 0	13 9	46 8
PRIVATE PRACTICE				
% Reported no Private Practice	61 1	30 8	82 6	97 9
% Practice in Private Clinic	38 9	69 2	4 4	0 0
% Practice in Private Hospital	0 0	0 0	0 0	1 4
% Make Home Visits	0 0	0 0	13 0	0 7

* For cases that gave time

As expected turn over in staff is highest among GPs whose average duration of employment at the health facility is slightly over one year (28 months on average), two thirds of them gave an average additional time of less than one year to stay in the same facility and more than half (53 8%) stayed for a duration of less than two years in their previous position (See Table B3)

Nurses on the other hand have the least turn over with an average duration of employment in the same facility for over 5 years (65 months), 62 percent expect to stay at the same facility, and almost one half (46 8%) had no previous jobs Pediatricians also have a relatively high average duration of employment at the facility (60 2 months), more than one half intends to stay at the same health facility (53 9%) Ob/Gyn specialists and residents have an average duration of employment at the facility of around four years (48 0 months) and less than one half (44 4%) would like to stay in the same place for good, while around 11 percent remained in their previous position for 6 years or more

Private practice has been under-reported Ob/Gyns who reported no private practice were females and the pediatricians were residents

2 INFRASTRUCTURE, EQUIPMENT AND SUPPLIES

2-1 Facility Infrastructure

* *Maternity and Pediatric Beds*

Data collected on number of beds, maternal and pediatric beds differed between the three source levels the Health Directorate, the Health District Departments and the totals estimated from visited facilities as shown in Table B4

District and general hospitals have assigned maternal and pediatric beds All other health facilities that have in-patient service such as rural hospitals and rural health centers do not assign maternal and pediatric beds

Table B4 *Total Number of Beds Available by Districts and Governorate of Aswan and Those Assigned for Maternal and Pediatric Cases As Reported By Management and Facilities*

	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Total Aswan	Luxor
DIRECTORATE REPORTS							
Total Beds						1 384	
Assigned Maternal						131	
Assigned Pediatrician						48	
DISTRICT REPORTS							
Total Beds	87	90	169	346	125	817	307
Assigned Maternal	10	8	18	16	22	74	37
Assigned Peditrician	9	4	10	10	14	47	28
TOTAL OF FACILITY REPORTS							
Total Beds	231	89	149	550	82	1 101	331
Assigned Maternal	25	8	20	61	18	132	40
Assigned Pediatrician	25	4	14	32	11	86	26

* *Facility Infrastructure*

Table B5 *Percentage Distribution of Facilities with Available Infrastructure Items by District*

	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
FACILITIES INFRASTRUCTURE						
No of Working Ambulances	1	0	0	2	1	7
% of Facilities with Working Tel	50 0	55 6	42 1	31 6	56 3	20 8
% of Facilities with Regular Water	52 8	100 0	63 2	73 7	56 3	83 3
% of Facilities with Regular Elect	77 8	100 0	63 2	100 0	87 5	79 2
GENERAL CONDITION OF BUILDINGS						
% In Good Condition	55 6	66 7	57 9	63 2	68 8	45 8

As shown in Table B5 only 11 working ambulances are available in the total area under study and 7 of them are in Luxor All the governorate of Aswan with a total population of over one million inhabitants has only four working ambulances one in Edfu, one in Nasr and two ambulances in Aswan

Telephone facilities are also inadequate as between one half and four in five of facilities of a district do not have access to working telephones a crucial facility for referrals of complicated cases There are also health facilities without regular potable water, or regular electricity

affecting conditions of sanitation and hygiene as well as operation and maintenance of some equipment, supplies and drugs

* *Infrastructure for Maternal Services*

The infrastructure for maternal services in a significant number of health facilities are not adequate Table B6 presents the number and percentage of facilities that have a place available for waiting mothers, a place that is covered with sufficient and well maintained chairs and/or with a nearby toilet in good condition The same goes for the availability of a maternal examination room, that allows privacy, with sufficient light, a physician stool and an examination table Not all delivery rooms are in good condition, well equipped and with sufficient lighting

Table B6 ***Percentage Distribution of Facilities According to Availability of Maternal Service Infrastructure by District***

	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
MATERNAL SERVICE INFRASTRUCTURE						
Waiting Place for Mothers						
% Place Available	44 4	0 0	26 3	78 9	81 3	62 5
% Covered	38 9	0 0	26 3	78 9	81 3	50 0
% Sufficient/Well Maintained Chairs	25 0	0 0	26 3	36 8	56 3	37 5
% Toilet Near by in Good Condition	13 9	0 0	10 5	26 3	50 0	37 5
Maternal Examination Room						
% Place Available	52 8	22 2	10 5	57 9	87 5	58 3
% Allowing Privacy	47 2	11 1	10 5	57 9	81 3	58 3
% With Sufficient Light	36 1	22 2	10 5	52 6	81 3	50 0
% With Physician Stool	25 0	0 0	10 5	10 5	56 3	37 5
% With Examination Table	52 8	22 2	10 5	57 9	81 3	58 3
Labor Room with Beds						
% Place Available	2 8	11 1	10 5	10 5	25 0	12 5
Delivery Room						
% Well Equipped Room	22 2	22 2	36 8	21 1	56 3	33 3
% Sufficient Lighting	25 0	66 7	57 9	21 1	62 5	41 7
% In Good Condition	27 8	5 6	52 6	15 8	62 5	33 3

2-2 Equipment, Drugs and Supplies

* *Availability*

The number if facilities that have items of the 23 important equipment and supplies, the mean number and standard deviation, and percentage of total number that is in working condition by district is available in Appendix I (Table 2/20) Table B7 presents a summary of all facilities surveyed A number of facilities for example do not have a working sphygmomanometer, stethoscope, scale for children and/or adults which are basic equipment for any health facility

Table B7 ***Items of Equipment by Percentage of Facilities that Have Them, The Sum of Numbers of Items That Available, Percentage in Working Conditions Average***

Items	Facilities having	% from Total (123)	Total no available	% working	Average No available	Standard Deviation
Sphygmomanometer	114	92 7	680	66 18	6 96	10 80
Stethoscope	109	88 6	687	71 47	4 13	9 77
Scale for Children	115	93 4	378	85 45	3 29	3 73
Scale for Adults	113	91 9	212	84 91	1 88	1 43
Fetal Stethoscope	99	80 5	251	91 63	2 53	2 05
Boiler	121	98 4	647	70 79	5 35	7 78
Autoclave	86	69 9	148	76 35	1 72	7 79
Thermometer	110	89 4	2148	63 87	19 53	26 20
Mucus Vaccum	68	55 3	220	80 45	3 23	5 31
Vaginal Speculum	115	93 4	965	94 40	8 39	10 84
Ventouse	18	14 6	30	83 33	1 67	1 03
Delivery Forceps	85	69 1	184	95 65	2 16	2 29
Scissors	122	99 2	1022	90 12	8 38	11 97
Needle/Needle Holder	104	84 4	539	92 95	5 18	9 27
Toothed Artery Forceps	113	91 9	769	88 43	6 80	13 14
Forceps	110	89 4	509	91 16	4 63	8 34
Laryngoscope for Neonates	14	11 3	30	96 67	2 14	2 54
CPR Apparatus for Babies	3	2 4	6	100 00	2 00	1 73
Tongue Depressor for Babies	63	51 2	534	99 63	8 76	15 05
Dressing for Surgical Operations	19	15 4	243	88 07	12 79	22 54
Baby Towels	10	8 1	69	97 10	6 90	7 35
Blankets for Baby	3	2 4	122	100 00	40 67	25 32
Partograph	0	0 0	0	0 00	---	---

The availability of pharmaceutical supplies and drugs essential for mother and neonatal care by district is presented in Table 3/18 in Appendix I Table B8 presents the total picture of the 123 surveyed facilities of the six districts

The table indicates that a number of facilities that provide mother and neonatal care services are not adequately equipped by necessary equipment supplies and/or drugs to ensure adequate and appropriate care A significant proportion of these equipment and supplies are not in working condition indicating a problem with maintenance

All hospitals in Aswan Governorate and two hospitals in Luxor have only blood bank with no sufficient blood supply Health facilities meet blood needs mainly through referral of patients (87%) and a few facilities rely on patients supplying the blood from a blood bank or from relatives or friends Other sources reported by facilities include use of IV solutions or reliance on medical mobile units

Table B8 ***Pharmaceutical Supplies and Drugs***

Variables	Facilities Having	% from Total	Total No Available	% Working	Av No Available	Std Dev
Reusable Gloves (different sizes)	30	24 4	13 779	0 22	459 0	1 355 90
Disposal Gloves (different sizes)	30	24 4	4 618	0 65	153 0	404 00
Disposable Syringes/Needles	84	68 3	123 769	0 07	1 473 4	2 206 80
IV Kits	52	42 3	32 732	0 16	629 5	2 038 10
Cord Ties	13	10 6	68	19 12	5 2	8 20
Blood Transfusion Kits	5	4 1	5 896	0 08	1 179 2	2 144 00
Proteinuria Test Supplies	10	8 13	694	1 44	69 4	131 20
General Anesthetic e g Nitrous Oxide	3	2 4	6	50 00	2 0	1 00
Diazepam/Valium Injections	5	4 1	634	0 79	126 8	122 80
Ketamine Injections	5	4 1	71	7 04	14 2	16 60
Lidocaine 2% or Other Local Anesthetics	19	15 4	1 132	1 68	59 6	126 20
Pethidine Injections	4	3 2	60	0 07	15 0	10 90
Ampicillin Injections	27	21 9	9 549	0 28	353 7	516 60
Ampicillin Caps	27	21 9	23 969	0 11	887 7	821 60
Ampicillin Syrup	100	81 3	19 305	0 51	193 0	403 20
Penicillin Injections	103	83 7	95 199	0 11	924 3	1 059 10
Ceprofluxacin Caps	3	2 4	1 129	0 27	376 3	554 30
Ceftrexone Ampoules	6	6 8	9 607	0 06	1 601 2	2 331 60
Gentamicin Injections	26	21 1	14 719	0 18	566 1	1 283 90
Kanamycin Injections	2	1 6	675	0 30	337 5	194 40
Tetracycline Eye Ointment	53	43 1	7 686	0 70	145 0	196 63
Silver Nitrate Eve Drops	2	1 6	8 210	0 01	4 105 0	5 647 80
Iron Tablets for Anemia	101	82 1	117 130	0 09	1 159 7	1 125 60
Hypotensive Tablets	55	44 7	36 022	0 15	654 9	955 60
Hydralazine Injections	3	2 4	500	0 60	166 7	57 70
Magnesium Sulfate Injections	7	5 7	2 406	0 29	343 7	458 10
Tetanus Toxoid	91	74 0	614	14 82	6 7	13 64
BCG	63	51 2	307	20 52	4 9	5 26
Ecbolics	28	22 8	3 127	0 90	111 7	103 40
Antiseptics	93	75 6	1 135	8 19	12 2	49 70
Saline	86	69 9	12 619	0 69	146 7	443 50
Glucose	101	82 1	13 681	0 75	135 4	388 50
Other Solutions	26	21 1	16 924	0 15	650 9	1 142 40
Oral Contraceptives	117	95 1	14 817	0 79	126 6	139 80
Injectable Contraceptives	110	89 4	3 832	2 87	34 8	36 60
Condoms	79	64 2	13 029	0 61	164 9	255 50
IUCDs	115	93 5	5 892	1 95	51 2	63 50

* *Opinion on Critical Shortages in Equipment Supplies and Drugs*

Facility Managers (123) and health providers (287) were asked about the most important supplies, drugs, and/or equipment related to mother and neonatal care that are in shortage Table 3/19 in Appendix I provide the response of managers and health providers by category and sub-category by districts

Table B9 presents the total picture for all districts One third of health providers (32 7%) reported no shortages in supplies and drugs and a half (50 9%) reported no shortages in basic equipment

necessary for mother and neonatal care Managers of facilities however, are more aware of such shortages but they have no authority nor resources to meet these shortages

Table B9 *Percentages of Managers of Facilities and of Health Providers by Reported Shortages in Equipment, Drugs, and Supplies*

	Shortages Reported By Facility Managers (N = 123) %	Shortages Reported By Health Providers (N = 287) %
Shortage in Supplies		
Reported No Shortages	19 5	32 7
Do Not Know	2 4	5 6
Reported Shortage in Supplies	11 2	11 8
Shortage in Anesthetics	1 6	1 0
Shortage in Antibistics	52 8	26 5
Shortage in Iron Tablets	30 1	24 0
Shortage in Other Drugs	50 4	34 0
Shortage in Vaccines	35 8	20 9
Shortage in Intravenous Solution	4 9	4 2
Shortage in Basic Equipment		
Reported no Shortages		50 9
Do Not Know		2 8
Reported Shortage in Basic Equipment		57 5
Reported Shortage in Delivery Equipment		35 2

* The category types and subtypes of reported shortages in equipment, supplies and drugs are mulleple answers so the sum is more than 100%

On the other hand, Aswan Health Directorate and Daraw District Health Managers report that there are no shortages faced Districts that acknowledge shortages attribute the factors underlying shortages to late distribution insufficiency of funds, shortages occurring at distributors level and/or delayed ordering

Drugs and Supplies are distributed every 3 months (Kom Ombo District reported that the distribution is every 2 months) and it is the responsibility of facilities to transport them

From the point of view of facility managers, 38 2 percent reported that their estimated needs for drugs and supplies are based on quantities actually used in the previous period All others reported that estimates of quantities are predetermined (26 0%), determined by Health Department (23 6%) or determined by the Health Directorate (10 6%)

Less than half of facility managers reported that essential drugs (48 8%) and essential supplies (47 2%) for pregnancy and delivery are delivered on regular basis, all others (51 2% and 52 8% respectively for drugs and supplies) reported they were not Around one fourth (24 4%) reported that they receive the items and quantities of drugs and supplies they request Thus, it seems that procurement of adequate supplies and drugs depends an extent on the bargaining power of the facility manager

Facility managers cope with shortages mainly through requesting the patients to buy the necessary drugs and/or supplies (7 5% of total as shown in Table 2/8 in Appendix I) A few buy locally from special funds (mostly hospitals) or refer cases to other facilities Only 11 facilities supply other units with drugs and supplies

Thus in general the flow of drugs and supplies seem to be supply driven rather than demand driven

Other constraints mentioned by some district managers, in addition to shortages are lack of adequate transportation facilities, shortages in pharmacists Kom Ombo District experienced in the previous year frequent transfer of the warehouse which was responsible for delayed distributions

3 RECORD KEEPING/INFORMATION SYSTEM

3-1 Receipt and Use of New Registration Records

All districts stated receiving the new records for registering maternal and neonatal services Also all districts, with the exception of Aswan and Kom Ombo Districts, stated that the new forms had been distributed to ALL health facilities in the district

Antenatal (first and follow-up visits) and delivery care new records were claimed to be used by the majority of surveyed facilities (between 88% to 95% of the facilities) of each district, except Edfu District (annexed table 2/6) The proportion of facilities using child care new records were also high in those same districts, but slightly lower in Luxor District (83%) In Edfu District, 23 facilities (64% of facilities in Edfu) claimed using the new forms for antenatal, while 53 percent and 56 percent used the new forms for delivery and for child care respectively This low proportion is a result of non availability of either new or old forms in a good proportion of Edfu facilities (22% for antenatal care, 36% for delivery, and 31% for child care) Few facilities in other districts, with the exception of Daraw, also lack new or old forms (ranging between zero to two facilities)

Postnatal new records were used by lesser proportions of facilities of all districts with the exception of Daraw District The proportions were low in Aswan (26% of facilities), Edfu (31%), and Luxor (38%) The proportions were higher in Kom Ombo (63%), Nasr (75%) and Daraw (89%) which reported use of new postnatal forms for all records The absence, however, of postpartum records (new or old) in a high proportion of facilities of most districts (Luxor 67% Aswan 63%, Edfu 56%, and Nasr 25%), probably imply that no postnatal care takes place in those facilities, most likely because of the shortage of female nurses

The incubator new registration record form was only used in one facility in each of Kom Ombo and Luxor districts, while the old record form is used in one facility in Edfu The few numbers of facilities using such record is probably attributed to the availability of incubators in only limited number of facilities

In total, about two fifths (41 5%) of interviewed providers stated that they fill registration forms (table 3/17) The proportion was as low as 36 percent of providers in Edfu, and as high as 55 percent in Nasr District

Nurses were the sole health providers who stated recording information themselves in Daraw District and the prime provider in other districts, where some general practitioners also fill forms Only one pediatrician in each of Edfu and Luxor stated filling the forms The magnitude of the type of records claimed to be filled by those providers were, in general, consistent with

results on use of the forms as claimed by the facility interview, i e generally high for antenatal delivery and child care, low for post natal care, and lower in Edfu than in other districts

3-2 Reporting of Information

Non of the district managers claimed receiving the completed MCH/MIS report of June 1997 on time (by the time of the interview, July/August) from ALL facilities (Table 1/13 in the Appendix) The calculated proportion, however was generally higher (77%) for urban health centers, MCH centers, and rural health centers/units but lower for rural hospitals (61 5%) and least (3 out of 8) for general/district hospitals The situation was better in Kom Ombo District and worst in Edfu District

On average maternal and infant deaths were claimed to be notified regularly to the governorate/district by 75 percent of facilities, neonatal deaths by 72 percent, and stillbirths by 61 percent (Table 2/6 in Appendix I) The four types of deaths were consistently claimed to be reported bv 94 percent of facilities in Nasr District, 89 of in Daraw, and 53 percent in Aswan Districts Edfu facilities experienced the lowest rates, (i e 69% for maternal and infant deaths and 58% for neonatal deaths) Proportionally, more facilities in Kom Ombo stated notifying maternal and neonatal deaths (90%), and infant deaths (84%), compared to Luxor facilities (71% for maternal deaths, and 75% for neonatal and infant deaths) In the districts of Edfu Kom Ombo and Luxor, stillbirths were consistently the lowest conditions being notified by the facilities of the three districts (42%, 58% and 67% respectively)

In all districts, the main channel for notification was the regular monthly report (34% of facilities that claim reporting), while only 20 percent cited the phone as the mean for notification with a higher proportion notifying by phone than the monthly report by Kom Ombo facilities (32% versus 16% respectively) A messenger was cited as a mean of notification by a few facilities while almost two fifths of facilities stated weekly reporting as the mean for notification

3-3 Policv for Information Review

All district managers stated that they have a policy for review of information at facility level Five of the six district managers claimed implementation of this policy Only Edfu district manager pointed out that not ALL facilities in the District comply to the adopted policy, where the stated single reason for non-compliance was lack of training of staff to do so

3-4 Use of Collected Information

All district managers stated that the district makes use of the information collected and received

At the facility level information was claimed to be used for one or more purposes In total, 59 percent of facilities claimed its use for the purpose of follow-up of individual cases, 35 percent for detection of community health problems 27 percent for service quality assessment, 24

percent for service improvement, and only 11 percent stated use of information for the purpose of assessing accuracy of recorded data The latter purpose was the least frequently mentioned purpose by facilities of all districts, and negates the statement compliance to the policy for information review as referred to above Though the overall sequence of frequency was maintained for four districts, it varied for Daraw and Aswan Districts (table 2/6) In Daraw facilities, service quality assessment had the highest frequency (stated by 2/3 of facilities), while in Aswan District service improvement the second frequency, rather than the third as with the other four districts

Overall, about three quarters of interviewed health providers claimed using the information collected The proportion ranged between 67 5 percent of health providers interviewed from Edfu facilities, and 80 percent in both Aswan and Nasr District health providers The frequency of purposes of information use stated by providers (as a percentage of users of information) were

* Monitoring performance (69 3%), ranging between 61 5 percent by Edfu providers and 90 5 percent by Luxor providers (Table 3/17 in the Appendix),
* Evaluating performance (35 5%), ranging between 15 6 percent by Nasr providers and 66 7 percent by Daraw providers,
* Writing reports (19 8%), ranging between 3 6 percent by Kom Ombo providers and 50 0 percent by Nasr providers,
* Collecting incentives was cited by only one provider from Luxor, and
* Ten percent stated other purposes, the vast majority were from Nasr and Edfu Districts

The above listed pattern of order was consistent among all districts except Nasr District, where writing reports was the purpose reported with the highest frequency

Providers training on maintaining, monitoring, analyzing and using collected data is presented under Training Need Assessment section

4 SUPERVISION

Directorate and District Managers were asked about technical supervisors of different categories of health providers in different types of facilities Managers of facilities were also asked who provide technical supervision to the different categories of health providers in their facility In addition, each interviewed health provider was asked who was his technical supervisor Analyzing responses at the three different levels indicate no system of technical supervision Even at the level of urban hospital nurses the technical supervisors vary by respondents

In total 26 5 percent of interviewed HPs reported that they had no technical supervisor and that was at the level of all categories of HPs physicians and nurses

Answers also varied as to the frequency at which the supervisor visits the supervised No pattern seems to exist merely ad hoc answers This condition may be a result of lack of differentiation of administrative versus technical supervision It may also be the result of non-clarity in the system for "technical" supervision

5 IEC AND COMMUNITY-BASED ACTIVITIES

5-1 IEC Materials

Data collected on IEC materials available at District Management Level indicate great differentials among districts in quantities and types of materials, as well as subjects covered (as shown in see table B10) Some materials seem to be in excess in some districts (e g posters in Kom Ombo), while unavailable or in great shortage in other districts (e g brochures in Daraw and Luxor), denoting real shortage and mal-distribution of the materials

It also seems that Aswan District, being the located in the capital of the Governorate, probably is dependent on the Governorate IEC materials

No IEC materials are available on the subject of "sterilization and delivery" Non of the other subjects are covered by all types of materials in any single district Materials on the subject of "importance of breast feeding (BF)" seem to be more available than any other subject in terms of both types (all types except video tapes), and probably quantities

Table B10 *Number of IEC Materials Cited To Be Available at Districts of Aswan and Luxor Governorates, by Type and Subject of Materials*

IEC Material	Districts						
	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Aswan Gov	Luxor
Type							
Posters	20	7	251	--	52	2	10
Brochures	--	2	-	--	102	505	10
Flip Charts	20	-	6	---	24	150	---
Booklets	--	--	--	--	21	90	4
Video tapes	-	3	1	--	3	--	---
Subject							
At Risk Pregnancy	---	8	---	--	4	50	2
Antenatal Care	---	2	---	---	3	---	2
TT Vaccination	---	1	20	--	--	--	10
BF importance	20	1	200	--	24	97	---
Proper BF	20	--	---	-	20	100	--
Neonatal Care	---	---	38	-	151	500	10
Sterilization & Delivery	-	--	--	--	-		

Source table 1/16

Nasr District is the single district that claimed to have all questioned types of IEC materials, in one form or another that covers all subjects, with the exception of the topics of "TT vaccination" and "sterilization and delivery" The materials available in Edfu are on only the subjects of "importance of breast feeding" (in the form of posters) and "proper breast feeding" (flip charts) All the three video tapes in Daraw District are on the subject of "at risk pregnancy", while the three at Nasr District are on "at pregnancy risk", "antenatal care", and "neonatal care", and the one at Kom Ombo is on "neonatal care"

The facility survey reveals that only limited numbers of facilities have any IEC materials on any of the subjects, including "sterilization and delivery" (Table 2/12 in the Appendix) The subject of "Importance of breast feeding" has IEC materials in some facilities of by all districts in two or more IEC material types These findings indicate the shortage of IEC materials both at facility levels as well as at district management level, so even available materials would not be replenished

5-2 Health Education Activities

The Health Directorate in Aswan and district managers were asked about educational activities carried out at that level No health education activities have taken place during the past three months by Aswan Health Directorate, and Edfu and Kom Ombo Districts Health education activities by other districts, including Aswan District, were limited to meetings, either in- or out-of-facilities (See Table 1/17 in Appendix) The meeting in Aswan District addressed Raidat Rifiyat (a cadre of community health workers) and covered the subjects of diarrhea/ dehydration/ORS issues The meeting in Daraw addressed mothers on breast feeding The meeting in Nasr District addressed mothers on vaccination In Luxor, in-facility meetings were claimed to address mothers, and a meeting out-of-facility addressed community leaders with claimed subjects (for either or both) including breast feeding, antenatal care, vaccination, and ORS

At facility level, the proportion of facility managers that claimed to have implemented health education activities during the past three months varied between districts The proportion of facilities were as low as 36% in Edfu and as high as 78% in Daraw Group meetings was almost the sole form of activity in the majority of facilities An educational meeting was held in one facility in each of Aswan and Luxor Districts, and microphone was used by three facilities in Nasr District

The proportions of interviewed providers who stated involvement in health education activities during the past three months also varied among districts (Table 3/23 in Appendix) The proportions were one quarter in Kom Ombo, about one third of providers in each of Edfu, Daraw, and Aswan districts, half in Luxor, and 60% in Nasr District Claimed activities were in the form of in-facility sessions, meetings, or lectures, addressing mothers as the target audience

5-3 Home Visiting

Table B11 *Results of Facility and Provider Surveys on home Visiting Activities During the Past Three Months by District, 1997*

Variables	Districts											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	No	%	No	%	No	%	No	%	No	%	No	%
Facilities Surveyed	36		9		19		19		15		24	
Facilities Providing HVs	22	61 1	8	88 9	14	73 7	14	73 7	13	86 7	18	75 0
Average No HV/Facility	33 2		20 7		29 6		1 0		9 8		74 2	
Average No of HV Staff	1 5		1 9		1 5		2 3		1 9		2 0	
Average No HV/Staff	22 1		2 6		19 7		0 4		5 2		37 1	
Providers Surveyed	77		24		40		50		40		56	
Providing Home Visits	68	88 3	20	83 3	35	87 5	46	92 0	40	100 0	50	89 3
Average No HV/Provider	30 5		29 6		28 1		15 4		6 5		16 8	

Home visiting is required by MCH program on several occasions, mostly for postnatal care The facility survey revealed that, during the 3 months prior to the survey, between 61 percent and 89 percent of facilities surveyed stated providing home visiting service as shown in Table B11 The quarterly average

number of home visits carried out per facility conducting home visits was eligible or too modest Aswan and Nasr facilities almost are not doing home visiting, though most likely do not suffer acute shortage of female nurses The highest average number of home visits (74 2 home visits on average in 3 months) per facility in Luxor, translates to around 1 1 visits per working day The average number of home visits during the past three months one staff that provides this service per in those facilities indicates that the level of effort is also so modest or negligible, particularly so for Aswan, Daraw and Nasr Districts The Daraw figure substantiates the notion that, most probably, the low level of home visits is not a function of staff shortage

On the other hand the majority of interviewed providers, tended to claim doing home visiting service, though many of them are not required to do home visiting by reasons of discipline, gender, or facility type The average level of effort by provider of those who claim carrying out home visits is generally low (not exceeding 17 8 visits on average in three months)

5-4 Daya (TBA) Training

Data on dava program collected from both governorate and district levels are to some degree inconsistent, particularly for estimated data The small discrepancy between sources of data, i e the sum of Aswan districts data, and data from the Governorate Health Directorate (Table 1/15 in Appendix) might be attributable to attrition or to lack of records, as daya training in Egypt was supported by external funds, where books are usually kept centrally Data, however, indicate that training was initiated in Aswan Governorate at an early stage (the year 1982) As training is a prerequisite to registration all registered dayas had been trained Data on refresher training of registered dayas show that all registered dayas in four of the six districts have been exposed to refresher training, though the time frame for this question was not specified

At facility level the reported estimation of the numbers of dayas varied extremely (Table 2/10 in the Appendix) Only 38 facilities (out of 123 facilities) gave information on estimated number of dayas Two facilities out of the 38 facilities (one in Edfu and one is Nasr districts) reported that there are no registered dayas in the community the facility serves The majority of facilities (32 facilities) gave estimated numbers of registered dayas that ranged between one to six dayas The highest number of dayas given was 42 registered dayas in one facility in Daraw (which explains the high average of 28 5 dayas per facility in Table 2/10) The average number of trained dayas are higher than the average number of registered dayas because in two facilities (one in Edfu and one in Kom Ombo) the facility manager reported the number of trained dayas and did not know the number of registered dayas, and two cases in Aswan the managers gave and estimate of registered data but did not know the number of trained dayas

As the population base is different among the districts (Table 1/1 in the Appendix), comparing districts on the basis of numbers of dayas

Table B12 *Dayas Ratio per 10,000 Population by District*

Source for Ratio Calculation	Districts						
	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor	Total
District Managers	3 57	4 44	5 87	6 23	NA*	1 33	3 95
Facility Managers	3 00	27 18	1 4	6 48	NA*	2 24	4 82

* Population size for Nasr District is not available

(registered or not trained yet) might not be useful The same reservation applies for the averages per facility The surveyed rural facilities represent around 80% of actual rural facilities which are mainly primary health care facilities For comparative purposes of access to trained dayas, it would have been better to calculate the daya-population ratios, not only at the district level, but also per village or hamlet, and to put into consideration, availability of other service outlets The calculated number of dayas per 10,000 population per district (Table B12) reflects, however, a relatively better comparison The ratios indicate the differentials among districts, as well as the inconsistencies of data by source

As for health providers, involvement with dayas, almost one third of interviewed providers are involved in activities with dayas in their areas The proportion widely varies among districts, ranging from as low as 8 3% in Daraw, to as high as 51 8% in Luxor If pediatricians and hospital providers are excluded (as noted earlier), the proportions will improve The low proportion in Edfu District (29 1%) is surprising, in light of the ongoing community health worker project in that District

The types of support given to dayas by those providers who are involved are displayed in Table 3/21 in the Appendix Support was stated to be given in the form of

* Management of referred cases (46 7%)
* Supervision (37 8%)
* Training (28 9%)
* Provision of supplies (13 3)
* Collecting information (3 3%)
* Other (3 3%)

5-5 NGOs activities

Non of the districts nor facilities mentioned knowledge of any NGO active in maternal and neonatal health care in their served constructions this reflects district official unawareness of NGOs existence or role, and subsequently, it would be expected that they would deny any mutual support, unless they become oriented to the potential role of NGOs in that field

6 Training Need Assessment

6-1 Previous Exposure to Training on Maternal & Neonatal Care

Data collected from district and facility managers on numbers of health providers trained (during the period July 1996 through June 1997) on maternal and neonatal care programs are not consistent This finding probably reflects the absence of record keeping, which is a common practice in training courses organized by vertical programs, not involving the governorate training officers The health providers interviewed provide more reliable data Table B13 summarizes findings displayed in annexed Table 3/10 In general, small proportions of interviewed providers received training, with the exception of pediatricians on neonatal care The highest proportion of pediatricians received training, while OB/GYN were the least Though

nurses were trained on almost all programs, their proportions are also modest Non of the nurses (and OB/GYN) were trained in health education skills, despite their basic role in client education

More critical is the relatively short duration of those courses, particularly for providers other than general practitioners This finding implies that training courses are most probably theoretical class room-based, rather than practical skill development sessions

6-2 Sub-Topics Covered in Training on Maternal & Neonatal Care

The following is the list of sub-topics covered in training of each program Non of the training programs had covered all subjects/topics as identified by a specialist

Antenatal	* Procedures * Ectopic pregnancy	* Anemia during pregnancy
Delivery	* Follow-up procedures * Management of labor	* Preterm labor
Neonatal	* Procedures * Inflammations * Prematurity	* Asphyxia * Vaccination * Hypothermia
Postnatal Care	* Procedures	* Hemorrhage
Breast Feeding	* Importance of BF * Practices inhibiting BF	* Method of BF
Health Education	* Maternal and infant nutrition * Infant morbidity * Pregnancy risk factors	* Immunization * Personal hygiene * Healthy practices
H Service Mngmnt	* Service quality * Evaluation	* Supervision * Health systems research

Table B13 *Percentage Distribution of Providers Trained Last Year by Provider Category, Program, and Average Duration (In Days)*

Program	Provider Category							
	Ob/Gyns 18		Pediat-ricians 13		GPs 115		Nurses 141	
	%	Dur	%	Dur	%	Dur	%	Dur
Antenatal	5 6	30			21 7	3 8	9 9	1 9
Delivery					14 8	4 7	5 0	3
Postnatal					14 8	5 1	4 3	2 2
Neonatal	5 6	2	69 2	4 4	10 4	4 5	12 1	2 3
Breastfeeding			30 8	3 5	6 1	4 9	9 9	2 9
Health Education			23 1	6	3 5	8 3		
Health Service Mngmnt	5 6	3	7 7	6	5 2	17 4	0 7	4

* Duration of training is average in days

6-3 Training on Use of Protocols and Live Saving Skills

Only two providers (one from each of Aswan and Luxor Districts reported having been exposed to training of trainers (TOT) in the areas of use of maternal and neonatal protocols, and one provider (from Nasr District) reported receiving training on that area as a service provider Only two providers (from Edfu), reported being trained as trainers on life saving skills

6-4 Training on maintaining, analyzing and using data

In total 37 facilities (30%) claimed having trained personnel on use of data The differences among districts are apparent, in terms of

Table 14 *Proportion of Facilities with Trained Personnel on Information Use, By Aswan and Luxor Districts*

Variables	Districts													
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Facilities with Trained Personnel	6	16 7	6	66 7	2	10 5	10	52 6	1	6 3	12	50 0	37	30 1
Number Trained	14		14		6		22		1		22		79	
Average/Facility	2 3		2 3		3 0		2 2		1 0		1 8		2 1	

(i) The proportion of facilities with trained personnel varied widely among districts from as low as 6% in Nasr District, to as high as 67% in Daraw District (Table B14 and Table 2/6 in the Appendix) This finding implies unequal chances for such type of training

(ii) The average numbers of trained personnel in those facilities imply selectivity of facilities (which might be legitimate) or mal-distribution of the trained personnel

(iii) More than half (55 7%) of trained personnel are nurses, 26 6 percent general practitioners, 5 1 percent statistics technicians, and 12 7 percent are statistics clerks However, proportionally more nurses were trained in Edfu, Kom Ombo and Aswan Districts Five general practitioners were trained in each of Daraw and Aswan (out of 14 and 22 trained personnel respectively), 8 in Luxor (out of 22) but no one in Kom Ombo Luxor seems to be more lucky to have trained 8 (out of 22 total trained personnel) statistics technicians/clerks, more than the other districts of Aswan Governorate in absolute and proportional terms

Results of interviewed health providers (not including service managers or statistics technicians/ clerks) reveal that more personnel were trained Fifty providers (17 4%) were trained as trainers on monitoring data quality, 42 providers (14 6%) were trained on maintaining, analyzing and using data

6-5 Available Physical and Human Resources for Training

In response to available physical facility for training on maternal and neonatal care two districts Edfu and Aswan, have no such facilities Two districts (Daraw and Luxor) use an urban health center for training Kom Ombo uses an MCH center, and Nasr uses the district hospital

As far as human resources for training, the situation is summarized as follows

* Edfu - 1 trainer who is the Deputy Director of the District Health Department, who is familiar with the program
* Daraw - Two trainers who are the District Headman Director and the District Nurse Supervisor
* Nasr - Six trainers, from the District Health Department and the Governorate Health Directorate Areas of interest were not mentioned
* Kom Ombo - Has no trainers and is dependent on trainers from Cairo, implying that training is organized by Cairo seated vertical projects
* Luxor - The most lucky district, has 8 trainers (titles were not mentioned) but all of them had TOT experience, most probably in other programmatic areas

6-6 Perceived Training Problems

The problems facing training as perceived by the district level responsible were

* Edfu - Un-available training center and teaching
* Daraw - Lack of trainee incentives and interest
* Kom Ombo - Inadequate number of rural GPs, to allow them to take training leaves, without jeopardizing the work
* Aswan - Un-involvement of District Health Department in training activities
  - Short time announcement to allow for proper nominations
  - No feedback to the district on training activities

- Local training encourages unsystematic attendance It was not spelled out of whom, but probably both trainees and trainers

* Nasr - Lack of teaching aids and facilities
* Luxor - No training budget

6-7 Follow-Up of Trainees Performance

All district managers answered positively to the question on presence of a monitoring system to measure post-training performance of personnel Non of the respondents, however explained the system they just gave brief statement on who or the means of assessing the personnel performance Responses are

* Edfu - The Deputy Director (who was the respondent) in his capacity as the trainer
* Daraw - A non-explained system
* Kom Ombo - By director of the District Health Departments and head of training in the Health Directorate
* Aswan - A non-explained system
* Nasr - Through periodic supervision assessment reports and review of service statistics
* Luxor - Through supervision

6-8 Management of Selected Complications

Interviewed providers were asked what to do (treat assist or refer) some selected complications if they face any Results As shown in Table B15 indicate that

* Ob/Gyn generally treat those cases more than assist or refer Ob/Gyn resident assist seniors or refer cases supposed to be managed by senior specialists such as antepartum hemorrhage or abnormal presentation

* The expected pattern among general practitioners is referral of most of complicated Contrary to this assumption, a significant proportion treat conditions such as puerperal sepsis or complications of incomplete abortion, yet this does not imply that they are skilled enough

Table 15 ***Providers' Management of Selected Complication***

Complications	Ob/Gyns (18)			GPs (115)			Nurses (141)		
	Trt	Asst	Ref	Trt	Asst	Ref	Trt	Asst	Ref
PP Hemorrhage	72 2	11 1	16 7	7 9	36 8	55 3	1 6	16 4	82 0
AP Hemorrhage	61 1	11 1	27 8	2 6	6 1	91 2		14 1	85 9
Pre-eclampsia/ Eclampsia	61 1	22 2	16 7	5 3	11 4	83 3	1 6	7 0	91 4
Abnormal Presentation	55 6	22 2	22 2	9 6	15 8	74 6	2 3	7 8	89 8
Purpeural Sepsis	55 6		44 4	42 1	17 5	40 4	2 3	13 3	84 4
Complications of Abortion	72 2	11 1	16 7	18 4	12 3	69 3	4 7	12 5	82 8
Tied Umbilical Cord	88 9		11 1	65 8	6 1	28 1	13 3	6 3	80 5

to perform them On the other hand, a relatively significant proportion of them (28%) refer cases of tied umbilical cord, a condition that was not perceived by most of the GPs interviewed as an emergency condition

* Surprisingly, the majority of nurses reported referring all conditions, relatively few of them assist, and a few reported treating complicated cases with the exception of antepartum hemorrhage to treat

* In conclusion, it seems that there are certain deficiencies that need to be addressed in terms of responsibilities and skills

6-9 Referral of Antenatal Complicated Cases

Providers were asked if they refer antenatal (AN) cases to a higher level Results indicate that 10 of the 16 interviewed Ob/Gyn (56%), 98 percent of GPs, and 72 percent of nurses stated tat they refer AN cases When asked to mention what cases, responses (See Table B16) indicated the following references

Table B16 ***Percentage Distribution of Health Providers by AN Cases Reported to be Referred by Them***

Conditions	Ob/Gyn (10)	GPs (113)	Nurses (102)
Age < 18 yrs		9 7	3 9
Age > 35 yrs		14 2	13 7
Height < 145 cms	10 0	7 1	2 0
Diabetic mother	10 0	38 9	29 4
Anemia	30 0	20 4	16 7
Heart Failure	10 0	28 3	18 6
Pre eclampsia	30 0	80 5	72 5
Fetal Death	10 0	21 2	10 8
Abnormal Presentation	30 0	41 6	27 5
Twin Pregnancy	10 0	11 5	3 9
Prev Difficult labor/CS	20 0	30 1	25 5
AN Hemorrhage	30 0	46 0	32 4
Other Conditions			
Repeated Abortion		3 5	2 9
Eclampsia	20 0	9 7	6 9
Chest Diseases		2 7	
Renal Diseases	10 0	0 9	
Hectic Diseases		0 9	
Others	10.0	6.2	2.9

* Non of Ob/Gyn mentions referral of young or old age pregnant women, while only one stated height <145cm Some conditions that are assumed to be cared of by specialists such as anemia during pregnancy or pre-eclampsia, were mentioned by three of the 10 Ob/Gyn

* Against all expectations, pre-eclampsia was the most commonly condition mentioned to be referred by GPs (80%),m while a lesser proportion mentioned referral of more serious condition, such as antepartum hemorrhage (46%), abnormal presentation (42%), heart failure (28%), or fetal death (21%) The same pattern is also observed for nurses even to at a lower rate

In conclusion, results also indicate that areas of training deficiency are not only limited to clinical practices but extends to deficient knowledge of risk factors as anthropometric measures, age, or maternal related morbidity conditions

7 SERVICES PROVIDED

7-1 Services and Assigned Time

According to Health policies of Aswan Directorate and Luxor all health facilities provide antenatal, postpartum and infant care during working hours of the facility, six days a week (8 00 am to 2 00 pm) Hospitals though do not provide postpartum care

The exception to this policy was in Nasr and Edfu hospitals where district managers reported that antenatal care was during working hours but for 2 and 3 days a week respectively Also in Luxor hospitals antenatal and infant care were provided six days a week but only from 8 30 to 11 00

From facility managers' reports, not all facilities provide antenatal care six days a week with a high number in Luxor (2 7 days a week, the average for all 24 facilities) Post-partum and infant care is provided by 115 and 120 facilities respectively out of 123 six days a week except in a few facilities in Edfu and Daraw Sonar services are provided by 8 facilities in Aswan Governorate and by non in Luxor and Hemoglobin analysis is provided bv only 28 facilities in Aswan Governorate and ten facilities in Luxor

7-2 Services by Health Providers

As shown in Table B17, all Ob/Gyns, residents, GPs (with the exception of one Ob/Gyn resident) and almost 90 percent of nurses participate in antenatal care Around two out of five (40 4%) of nurses to not take part in deliveries nor post partum care Other than Ob/Gvn specialists, a few participate in ultrasound services

Table B17 ***Percentage Distribution of Different Categories of Health Providers Who Do Not Participate by Type of Service***

	Ob/Gyns & Residents	Pediatricians	GPs	Nurses
N	18	11	115	141
% Do Not Participate In				
Antenatal Care	5 6		0 0	10 6
Deliveries	0 0	-	7 8	40 4
Post Partum Care	11 1	-	8 7	40 4
Neonatal Care	66 7	0 0	5 2	23 4
Infant Care	83 3	0 0	1 7	25 5
Ultrasound	55 6	92 3	96 5	96 5
Analysis Tests	94 4		62 6	75 9
% Do Not Participate In				
Mothers / Neonate Emergency Care at Nights on Holidays	22 2	61 5	12 2	59 6
% Do Not Receive Mothers on Arrival	61 1	-	27 0	17 7

8 REFERRALS POLICY AND STANDARDS

According to Aswan Health Directorate the referral policy is that the referral center should immediately attend to referred cases and that if feasible, referral centers should be notified by phone before receiving the referred cases

As for district managers, the policy of notifying by phone referral centers upon referral of a case is not reinforced due to shortages in telephone facilities Only in Aswan District the manager mentioned that was only "recommended"

8-1 Referrals at Facility Level

General hospitals (2 cases) do not refer Four District hospitals (out of 6) refer cases to general hospitals that are 3, 12 26 and 30 km away

Three MCH centers refer cases to general hospitals and 6 refer to district hospitals and the distances range from less than one km to 7 kms Urban Health Centers (4) refer to general hospitals (2) and to district hospitals (2) for distances that range between 1 and 30 kms Rural Hospitals refer to general hospitals (3) district hospitals (7) or to district hospitals outside district (3) The distances travelled rangers from 5 to 22 kms Rural health centers refer cases to district hospitals with the exception of one center that refers to a district hospital in a different district for distances that range from 3 to 30 kms Rural Units refer mainly to district hospitals (74 4%) and some refer to general hospitals (11%) or to district hospital in another district (14 6%) for distances that range between 2-60 kms

Around one half of the Health facilities (48 7%) stated critical cases that are referred take 5 minutes or less to reach the referral center In less than one third of facilities (31 7) the referral center is 20 to 30 minutes away and a few facilities (8 1%) are 35 to 45 minutes away Yet 10 facilities (12 3% mainly rural units and one rural hospital) are an hour or three hours away from the referral facility

Only 12 facilities (and district hospitals are not one of them nor are Urban Health centers) inform the referral centers by phone upon referring the critical case and 8 facilities reported that they do that sometimes Eighty percent of the facilities do not practice such a routine

In the majority of cases (61 8%) critical cases are referred with no escorts, and in less than one quarter of the facilities (22%) a physician escorts the case, or a nurse (9 8%)

Only 49 6 percent of facilities follow up on referred cases District and rural hospitals are the least that follow up (3 out of 17 hospitals) Urban Health Centers have the highest proportion (3 out f 4)

Follow up is basically carried out on informal basis Facilities that do not follow up on referred cases do so mainly because it is not called for or because it is difficult to follow up

8-2 Referrals of Health Providers

Of the 159 HPs that reported referring complicated cases, only 13 1 percent said that they report the referral by telephone to the referral center with almost equal proportion among Obgyn/residents, pediatricians, GPs and Nurses Around one in ten (10 9) escort the case to the referral center On the other hand, 61 2 percent reported that they follow up on the referred case, mainly informally The main reason given for not following up on referred cases are the difficulty to follow up, and that follow up is not requested

CHAPTER III

QUALITY OF SERVICES

CHAPTER III
QUALITY OF SERVICES

This Chapter analyzes the quality of antenatal, natal, postnatal and neonatal care form a variety of sources Client exit interviews provide recall data on what actually took place when antenatal and post partum mothers received the service from health facilities covered in the survey Through actual observation and registration of activities as they occur provide data on antenatal services, natal and postnatal services

I - ANTENATAL CARE FROM THE CLIENT PERSPECTIVE

Exit interviewing of antenatal care clients at health facilities was difficult due to rarity of the situation Thus of the 165 cases interviewed, 116 cases (70 3%) were interviewed at their homes as clients who had received the service at the facility within the previous 4 weeks at maximum

Over two thirds of clients said they visited the health facility for the TT injections (65 5%) and another 5 5 percent gave TT injection as a second reason for visiting the health facility Only 13 3 percent mentioned periodic antenatal care check up as a reason for the visit Around one fourth (22 4%) had physical ailments, and 6 percent wanted to confirm pregnancy

1 ACCESSIBILITY

Over one quarter of the interviewed clients did not know the distance they have travelled Those who knew, the distance averaged between 0 9 kms in Luxor to 3 6 kms in Edfu (with a standard deviation of 1 0 and 6 3 respectively) Those who could tell how long it took them to get to the health facility gave an estimated average that ranged from 12 4 minutes on average in Nasr to 27 minutes on average in Aswan District Yet the majority went to the health facility on foot (78 2%), some used a taxi (18 8%), and a few used a boat, a private car or other transportation facility

Around one half of clients (46 1%) went to the facility alone, over one third (39 4%) went with a friend or relative, and less than one in ten went with the husband (8 5%) Hence the majority had easy access to the health facility to receive prenatal care

2 RECEPTION

The waiting time to be received ranged from 5 minutes to 2 to 3 hours with an average time that ranged between 17 2 minutes (in Nasr) to 42 9 minutes (Daraw)

The majority of clients (61 2%) were first met by a nurse Some were met by a clerk (18 2%) or an orderly (13 3%) A few were met by a porter or other lower staff Yet almost all reported that the person who received them made them feel welcomed (98 8%) and was helpful (98 8%) The

waiting place was reported to be comfortable by the majority (86 7%) or somewhat comfortable (7 3%)

3 MEETING WITH NURSE

With the exception of 27 cases (16 4%), all others met a nurse in the visit and the time it took to meet the nurse was negligible as it averaged 3 minutes which was considered reasonable time for all clients with the exception of 3 clients in Edfu

As there is no protocol for the nurse in terms of her services to the antenatal care client what nurses did and did not do varied Nurses were reported to have weighed the clients in 39 4 percent of the cases, measured height in 29 1 percent of the cases took a urine sample in 29 7 percent of cases, and took a blood sample in 17, 6 percent of cases

Only 28 5 percent of clients reported that the nurse explained to them what is being done and why

4 MEETING WITH THE PHYSICIAN

Slightly over one half of the clients (56 4%) met with a physician on this visit They had to wait, on the average, 22 minutes to be received by the physician yet only 14 percent considered the waiting time long, all others considered the waiting time as reasonable

All clients exported that the physician was nice and friendly Almost all reported that the physician inquired about the duration of the pregnancy (92 5%) The physician enquired about the previous experiences in pregnancy and delivery in 86 7 percent of the cases, but asked about the previous experience in breast-feeding in only 38 7 percent of the cases

The physician carried out the examination privately on 87 1 percent of the cases Of the 12 clients that were examined before others, only 5 stated that this lack of privacy bothers them

The physicians examined the heart with a stethoscope in 67 7 percent of the 93 cases that met with a physician, 77 4 percent measured the blood pressure, 73 1 percent examined the abdomen, 59 1 percent examined the breasts but only 15 4 percent examined the client gynecological Five cases reported examination by an ultrasound

In only 28 5 percent of the cases did the clients report that the physicians explained to them what they were doing and why

5 COUNSELLING

Clients who reported that they were counselled and advised on important issues related to pregnancy care in most cases did not exceed one quarter of respondents Risky signs of

pregnancy or delivery were explained to 23 6 percent of the clients How to act when such signs occur was explained to 22 4 percent of the clients Proper nutrition was explained to 29 7 percent of clients, personal hygiene to 19 4 percent, how to exercise to 17 6 percent, and breast hygiene was explained to 23 6 percent of the clients

Place of delivery was discussed on 8 2 percent of the cases Yet over one half (53 3%) reported that they were told the time for the next visit

It is important to note that only 58 8 percent of clients had the accessibility pregnancy card (either with them or at home), while 41 2 percent received no cards

6 Previous Visits for the Same Pregnancy

Of the 165 interviewed cases, 77 had visited the facility before for the same pregnancy (46 7%) They have visited the facility for an average of 2 7 times (standard deviation 1 13)

In these previous visits, 27 3 percent had height measured, 42 9 percent had their weight measured 40 3 percent had urine analysis, 22 percent had blood analysis, 44 percent had their breast examined, 58 4 percent had measured blood pressure, 18 2 percent had genital examination, 62 3 percent were given TT injections, and only 2 cases were examined by ultrasound

In terms of counselling, 29 9 percent reported that in the previous visits health providers explained pregnancy risk factors and what to do when they occur, 40 2 percent were counselled on nutrition and personal hygiene during pregnancy and 27 3 percent were prescribed iron pills Less than one third (31 2%) had a chance to ask questions of concern and all were satisfied with answers received

A time was set for the following visits in 40 2 percent of the cases (77 cases)

7 Satisfaction With Service Received

The majority of clients (87 9%) declared satisfaction with the services received during the surveyed visit Reasons given for this satisfaction in a descending order of frequency mentioned were friendliness of health providers (mentioned by 52 4 % of those satisfied), prescribed medications (42%), became more assured and less anxious (26 9%), did not have to wait long (12 4%), were given appropriate instructions (11%) and/or the place for waiting was comfortable (2 7%)

The 20 clients that were not satisfied gave reasons such as unfriendly reception (2 cases) not sufficiently assured (3 cases), long waiting time (2 cases) not examined as expected (14 cases), not given medications as expected (3 cases) and/or other reasons (4 cases)

Not all who declared satisfaction with the visit felt that the service received was adequate as only two thirds (66 1%) stated that they expected nothing else to be provided or done during the visit Others expected or wanted better examination (26 cases), more tests (22 cases), more prescribed medications (10 cases), sonar checkup (9 cases), more information or instructions (10 cases) and/or to be prescribed iron or vitamins (3 cases)

While only 84 8 percent stated that they intend to come back to the facility for services, 90 9 percent stated that they will recommend the facility to others

On the other hand less than two thirds (64 8%) visited another health facility for the same pregnancy, mainly a private physician The reasons given for seeking the service in another facility in a descending order were treatment of ailments (41 1% of those who visited other facilities reassurance on their health and well being (26 2%), to assure there pregnancy (15 9%) or for regular antenatal care (14%)

2 ANTENATAL CARE FROM OBSERVATION

Observation of antenatal care covered 48 cases from MCH centers (27 cases), district hospitals (18 cases) and from a general hospital (3 cases) The check-up was carried out by the department head of Obstetric department (3 cases), an Ob/Gyn specialist (1 case), senior resident (2 cases), resident (20 cases), or the physician on duty (18) A pediatrician carried out the antenatal examination in 4 cases Nurses assisted in 71 percent of the cases

While all HP welcomed the client, only 71 percent reassured them The HP clearly explained the procedures to be followed in 8 cases only (16 7%) Personal data were asked in all cases and the majority (85 4%) recorded the data

When the physical examination was carried out in only 4 of the cases the HP explained what was going to follow in one case the HP washed hands with soap and water, and out of 11 cases that had vaginal examination, in one case only the HP used clean gloves

At the beginning of the physical examination the majority measured height (87 5%), weight (85 4%) and blood pressure (97 9%)

With the exception of how to manage anemia, adequate nutrition, nausea and vomiting (1st trimester) and urinary symptoms (3rd trimester) which between around one third or one fourth of HPs counselled clients, all other aspects were explained by fewer members of HPs

In general, out of the 48 observed cases the observers commented that in 21 cases the HP was competent in providing antenatal case, yet in 34 cases the observers noted that the HP needed support to strengthen skills

3 INTRA PARTUM OBSERVATION

Twenty five cases of delivery were observed 12 cases at general hospitals and 13 cases at district hospitals The main actors were Ob/Gyn in 8 cases, assistant specialists in one case and residents in 18 cases Nurses assisted in 13 cases Thus young staff tend to do the job

Prior to starting the physical examination, only 2 HPs explained what they were going to do, 2 HPs asked the client to pass urine to empty bladder, and 7 out of 25 washed their hands with soap and water

The HPs failed to measure height in 92 percent of the cases, weight in 60 percent of the cases, respiration in 16 percent of the cases and heart rate in 24 percent of the cases

In general, most of them did not explain to clients what they will be doing nor explain findings Also recording of information was not always done

During vaginal examination, 60 percent made sure the area was disinfected, 20 percent used sterile surgical gloves and only 4 cases (16%) of HPs scrubbed their hands in antiseptic solution

At the end of the observation, the observers rated 18 out of the 25 HPs as incompetent in providing intra-partum care and 22 HPs as needing support to strengthen skills

4 POST PARTUM CARE FROM CLIENT PERSPECTIVE

4-1 Description of the Sample

Post partum clients were clients that presumably received a postpartum visit from primary health facility (66 cases constituting 78 6% of those interviewed) Others were service exit clients (2 cases) or hospital patients that stayed in the hospital for few days after delivery (16 cases, i e 19% of sample) The average age of the total sample (84 cases) was 25 9 years (6 05 standard deviation)

Over half of the deliveries took place at home (52 4%), one third (33 3%) were in general or district hospitals, and 12 cases (14 3%) took place either in another MOH facility, or at a private clinic/hospital (4 cases)

Five cases had twins and two cases had stillbirths The average age of the new born on the day of interview was 13 4 days (standard deviation of 10 43)

Over two thirds were assisted in their delivery by either an Ob/Gyn (38 1%) or a General Practitioner (35 7%), and 17 9 percent were assisted by a nurse Only 7 cases (8 3%) reported assistance in delivery by a traditional birth attendant Daya

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The majority experienced a normal delivery (70 2%) but 25 cases (29 8%) had a complicated one A Cesarian section was done in 12 cases (14 3% of total sample), seven cases had prolonged labor, another seven had vaginal incision and seven cases experienced post-partum hemorrhage

One fifth of the cases (20 2%) previously experienced a complicated delivery, 36 9 percent had experienced at least one abortion (16 7% experienced 3 abortions), 17 9 percent had experienced at least one still birth (three cases, 3 6% had more than three still births)

Of the 66 post-partum cases interviewed at home only 38 cases were actually visited for post-partum care (57 6% of the home interviewed) Twelve cases (18 2%) would have liked to be visited by a health provider from the facility to be assured of her health and the health of the neonate Sixteen cases (24 2%) were glad they were not visited because they felt the visit would not have been useful nor needed

Only one of the mothers who were not visited reported that the physician had asked her to come to the health facility with her neonate after 7 days for check-up Two others went for post-partum check-up Seven cases (10 65) reported that thev intend to go for a check-up

Those who received a postpartum home visit the visit was made by a nurse in 80 percent of the times or by a physician (20%) The visits ranged between 1 to 17 days after birth with the mode (51 4%) reported that the visit was on the second day after the delivery day

The two exit post partum clients were at the facility for the first visit One suffered from ailments and one was coming for family planning They both met the physician

The sixteen cases that were interviewed at the hospital after few days of delivery had been at the hospital for an average duration that ranged for 1 5 days to 16 5 days by district They all came to the hospital for delivery One suffered from post-partum hemorrhage, 13 cases had "an operation" and two cases had other reasons

They were all checked mainly by a physician (14 out of 16 cases) between the same day of the interview and two days before

4-2 Post-Partum Care

Of the 59 cases who were seen at post partum by a physician or a nurse either at home, at the outpatient clinic, or while still at the hospital after delivery

* 62 7% were asked about bleeding
* 50 8% were asked about vaginal discharge
* 61 0% were asked about constipation
* 72 9% had their fever checked
* 27 5% had their blood pressure checked
* 52 5% had their abdomen checked

* 45 8% had their breasts checked
* 33 9% had their genitalia checked
* 57 6% had their neonate checked

4-3 Post-Partum Counselling

Of all the postpartum clients

* 59 3% were counselled on appropriate nutrition
* 15 3% were counselled on exercise
* 50 8% were counselled on personal hygiene
* 47 5% were counselled on care for the baby
* 47 5% were counselled on infant immunization
* 37 9% were counselled on family planning

Over one third (35 6%) had a chance to ask about issues that concerned them and the answers they received were considered very useful Less than half (47 5%) had no concerns, but 10 clients (16 9%) did not have a chance to discuss their concerns On average the check up time took 24 2 minutes (standard deviation 16 0)

4-4 Satisfaction with Services

The majority of the clients (94 9%) stated that the health provider was nice and friendly and that they were satisfied with the visit because they were well received (45 8% of clients), they were assured of being well (45 8%), they were counselled and given advice (39 0%), and/or they were given medication (25 4%)

Only three clients were not satisfied because the health providers did not treat them well, they did not receive what they came for, or that they were not checked properly as expected

4-5 Cost of Service

The post-partum visit costs three fourths of the client nothing (74 6%) Only 15 cases incurred costs that averaged LE 16 7 (standard deviation 15 1) This cost included the cost of transportation (for 4 clients), the cost of the check-up (12 clients) and the cost of medications (8 clients)

5 Post Partum Care Observation

Twenty five post partum cases were observed The health providers checked the pulse in 20 cases, blood pressure in 22 cases checked temperature in 4 cases, checked amount of bleeding and fundal height in all cases uterine atony in 23 cases and lacerations in 15 cases Only 4 HPs recorded findings

As for counselling, 13 cases were counselled on what to do when she goes home Not all were given clear indicators about reporting back in case of hemorrhage (6 were not told), pain (10 were not told), offensive discharge (14 were not told), and fever (8 were not told) Only 8 were given appointments to come to see a physician in 4 weeks Seven were given counselling on contraceptives

6 Conclusions and Quality of Care

From reports of clients on care received and from actual observation of care practices the following genera conclusions can be reached

* **Absence of Protocols**
  Quality of care differs indicating no agreement on standard protocols of what need to be done or checked and one what constitute risk factor problems to investigate

* **Sepsis and Infection Control Procedures**
  HP practices indicate deficiency in practices of sanitation and hygiene to control sepsis and infection

* **Information to Clients**
  HPs do not sufficiently inform clients or communicate with them on what will take place during performance of tasks not results of check-up This indicates lack of respect to the right of the client to know

* **Recording**
  Not all HPs record information and data procured during the service, a practice that affect continuity of quality of care

* **Junior Staff Performance**
  As on the job training without sufficient intervention from senior staff to ensure quality performance

* **Counselling**
  Clients do not receive sufficient counselling on necessary practices to either prevent or manage risk factors

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CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

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CONCLUSIONS AND RECOMMENDATIONS

Number of health facilities by type are sufficient in all districts as per population size however there are conditions of shortages that may affect the readiness of a health facility in providing the necessary prenatal delivery, postnatal and neonatal services especially for complicated cases

* Certain important specializations are either in short supply or totally lacking
* Important health facility infrastructure is lacking in some facilities such as working ambulances, telephone, regular potable water and electricity, adequate infrastructure for maternal services
* Equipment, drugs and supplies tend to be supply driven rather than by demand thus there are shortages in important equipment, drugs and supplies
* Record keeping and information management are not accurate nor systematic
* IEC materials are short in quantities and subject matter

As for training needs assessment

* Job descriptions for each health provider are not available in almost ant health facility In addition, the health providers are not familiar with its function
* No standard protocols on essential maternal and perinatal case management are available Nevertheless, there is an MCH instruction manual which doesn't constitute a complete standard protocol
* There is no program for training on essential obstetric and perinatal cases management protocols
* There is no program for training of trainers on emergency obstetric case management skills
* No health providers were trained in essential maternal and perinatal case management protocol or emergency obstetric case management skills
* Poor infection prevention or control procedures (prenatal , natal and postnatal) were observed those practicing minimal basic procedures were no more than 2% in prenatal and 28% before conducting the delivery
* Health providers still do not monitor delivery by partograph, which is not available in any health facilities
* There is minimal training for GPs in the field of prenatal (22%) and postpartum (15%) packages Other health providers received negligible training
* In all district, there is a very high degree of client satisfaction towards the client friendly practices of the health provider However, it is to be noted that these women do not have alternative outlet health facility, they are highly tolerant and do not know what to expect from the health provider Moreover the client-friendly environment should be judged combined with other elements affecting the friendly atmosphere
* There is no clear functional monitoring system to monitor post-training performance although all interviewed policy makers stated that they have a monitoring system to monitor post-training performance
* There are generally low percentages of personnel trained to maintain, analyze and to use data More nurses were trained than other health providers to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu to a high of 44 4% in

- Drugs and medical supplies
- Referral systems
- Training plan

* Train supervisors to monitor and assess use of partograph and system skills using performance-base systematic approach (checklist/standards) based on the protocols

Daraw and 47 4% in Kom Ombo

* The supervision system seems to be not properly fulfilled at all levels In the clinical/technical aspect, there is lack of clarity in the line of hierarchical supervision

A committee was formed to review findings and developed the following recommendations

* Review, specify, update and disseminate job descriptions for all categories of health providers working in the field of maternal and perinatal health services
* Develop, field-test and revise standard protocols on essential maternal and perinatal case management
* Develop and conduct at TOT program on maternal and perinatal on emergency obstetric case management skills
* Train health personnel in essential maternal and perinatal case management protocols and emergency obstetric case management skills
* Develop and incorporate the standards of infection control practices on maternal and perinatal case management protocols
  - Train trainers in infection control standards
  - Train health providers in infections control standards
* Institutionalize the use of the partograph for monitoring deliveries by
  - Establish MOHP policy on the mandatory use of the partograph to monitor deliveries
  - TOT in the use of the partograph
  - Train health providers in the use of the partograph
* Develop and conduct TOT in the use of the prenatal and postpartum package of services and train health providers in the use of the prenatal and postpartum package of services
* Incorporate IPC and counseling in TOT and service providers training and provide client friendly atmosphere by up-grading facilities and work conditions
* Develop a monitoring system (standards/checklists) for monitoring skills mastery during training and post-training performance of trainers and health providers
* Review and update materials for maintaining, analyzing and using data, TOT in maintaining, analyzing and using data and train health personnel in maintaining, analyzing and using data
* Training supervisors in the relevant skills concerning
  - Use of standard protocols on essential maternal and perinatal case management
  - Emergency case management skills
  - Infection control standards
  - Use of the partograph
  - Use of prenatal and postpartum package of services
  - IPC skills
  - Monitor post-training performance
* Training supervisors in the management support systems skills
  - Communication
  - Health information systems (data analysis and reporting)
  - Staffing
  - Facilities maintenance
  - Equipment

CHAPTER V
COMMUNITY DIAGNOSIS *

This report details the preliminary findings of a study of the experience and understandings of women in Aswan and Luxor in terms of pregnancy, delivery and the first 40 days after delivery, the period of the *nefaas* The purpose of the preliminary report is to provide sufficient information to allow planning for MotherCare activities over the next 10 months

The data base for this study consists of lengthy interviews and focus group sessions, carried out during August of 1997 Thirty-six focus groups were carried out with three different categories of people women with children under two years, mothers-in-law, and husbands of women under age two A separate protocol for each category of people was used for the focus groups These protocols are shown here as Annex A A distribution of these groups is shown here as Annex B

In-depth interviews were made with 117 women in the same communities, including 60 women who had experienced complicated deliveries during the past two years, 41 currently pregnant women and 16 traditional midwives or *dayas* [1] The interviews were based on an interview protocol which outlined the topics for discussion These interview protocols are included here as Annex C These interviews were evenly distributed across the five districts of Aswan Governorate and the city and rural hinterland of the City of Luxor Interviews were carried out in two villages and one city in each district included in the study

The final report on this study will be submitted in January 1998 It will provide the full analysis of data collected as part of this study, and will include as appendices the texts of the interviews It needs to be emphasized that neither the findings of the preliminary report, nor those of the final report can be taken to represent the wider Egyptian community, or even the Upper Egyptian community Aswan has a substantial population of Nubians, who are in some ways quite different than other populations in Upper Egypt in terms of health care service utilization patterns and traditional beliefs and practices related to pregnancy and delivery The regularities in the present sample are however, sufficient to permit an assumption that a fair representation of the existing situation in Aswan and Luxor has been achieved

The pace of social change in the study communities of Luxor and Aswan is rapid Education of girls has risen sharply over recent years There has been an influx of physicians opening private clinics not only in cities but also in villages of Aswan in particular Large numbers of telephones have been installed in the villages over the past several years Many traditional social patterns are weakening, as is the influence of the older generation over the younger The impact of these changes is not uniform some villages are modernizing much more rapidly than others, but all are changing

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1 As shown in Annex A the total number of interviews reached was expected to be 108 but actually reached 117 Two villages had no dayas so that the total interviewed was 16

* This chapter was prepared by Dr Linda Oldham incorporating an initial report on Focus Group findings prepared by Dr Reynaldo Pareja

I - PATTERNS OF PRENATAL MEDICAL CARE

1 ROUTINE PRENATAL CARE

Medical care has become more accessible in Aswan and Luxor over the recent past Women consult with one another about gynecologists, and most women can name multiple alternatives for medical care in pregnancy, some of them at considerable distances from their own communities However, there is very little regular prenatal medical care, although there are many visits to physicians during pregnancy

Like medical care in general, prenatal care is defined as curative, not preventative, so that although some gynecologist/obstetricians offer packages of antenatal care in their private clinics most prenatal visits are for curative care Based solely on the reports of the women interviewed doctors appear to share this view of prenatal care as curative, as it is seldom that doctors suggest regular follow-up of pregnancy unless the woman has come for treatment for a specific problem This definition is reflected in the vocabulary of medical care Nearly all women reporting that they had follow-up on their pregnancies explained this follow-up as the tracking of specific problems

Similarly, while women in focus groups said that monthly visits should be made to a physician during pregnancy, the greatest benefit of prenatal care was stated as having a sonograph to make sure that the fetus is all right Other benefits included getting blood pressure taken and a gynecological examination made[2] , she can be examined to see if she has any problems, and she can be told where to deliver the baby and get an analysis for diabetes made [3]

The decision to see a doctor to confirm pregnancy has no connection with the assessing of antenatal care Selection of the doctor depends chiefly on two factors 1) the doctor's possession of a sonograph machine, and 2) location The sonograph far outweighs the location--women will not consult a doctor who lacks a sonograph in order to confirm pregnancy, or, for that matter for problems arising in pregnancy This means that these consultations are with private physicians

The rural health unit is virtually unused for prenatal care other than tetanus shots Women with problems in their pregnancy but lacking the money to consult a private doctor typically visit no doctor at all unless their problems become very acute

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[2]Interview data show, however that women do not like gynecological examinations, and that the possibility that the doctor will perform such an examination is a disincentive to see the doctor

[3]It is most unusual that such tests are made

Who do you go to see if your pregnancy is going well?
I don t go to anyone
Neither in Daraw nor in any place at all?
No
And with the first child?
I didn t go at all
And what do you do when you are tired?
I don t go
But your husband works in the health unit Why don t you go for follow up in the health unit?
I just don t go
And your husband doesn t tell you to go?
No

When they measured the blood pressure [at delivery] they sai
This woman has high blood pressure
You mean you went and you had high blood pressure and zulaal
Yes but I didn t know
Why your legs weren t swollen?
No my legs were swollen
You didn t ask the doctor why your legs were swollen?
I didn t go [to the doctor] From the fifth month my le
were hurting me
Did you have headaches?
Continuously
And you didn t say Perhaps I have high blood pressure and v
didn t ask [a doctor]?

Focus group data show that barriers to accessing medical care during pregnancy include cost, which was mentioned by the majority of groups, not being comfortable with gynecological examinations, and fear that the physician would prescribe drugs which would harm the fetus Prenatal care provided by hospitals was described as unacceptable on grounds that there is no follow-up and the doctors are not specialists, that the institutions do not care for women and that they neglect their patients

Many women stated that prenatal care was not needed for all women Only women who have problems need to go, as in the interviews, the women in the focus groups regard prenatal care as a solution to problems, not a preventive measure

2 REGULARITY OF CARE

Most women see a physician twice during their pregnancies, once or twice for tetanus shots at the local health unit, and once to have a sonar to confirm that they are pregnant [4] After that, very few consult a physician again before delivery unless they encounter problems

I went to a private doctor to make a sonar and make sure whether I was pregnant or not
Was the doctor good with you?
Yes he was He did the sonar and told me to come very month while I was pregnant
And did you go again?
What is that the sonar? I only wanted to see if the fetus was okay or not I didn t go to him continually I went to him in the third month and then in the seventh and after that I didn t go again

[4] It is difficult to understand the purpose of the initial sonograph Most women say that they do it because they want to be sure that they are pregnant though often they do not do the sonograph until the third month or even later and most of them who say this also say that they already knew they were pregnant from their symptoms of vomiting or dizziness The other purpose which they report is to make sure that the child is all right It almost appears that there is an understanding that if the child is all right at three months the mother need not worry about him after that--that is to say that problems in pregnancy are all present and detectable from the outset, despite the women's knowledge of complications in the pregnancies and deliveries of others and even their own

And even when there is a problem, follow-up is erratic This appears due to two separate causes either the doctor has not asked the woman to come regularly (or possibly she has not understood that this is what is expected), or she sees no reason to visit the doctor when her symptoms are in abeyance

They talk about antenatal care What does that mean?
To take care of the child who is in your stomach? At the doctor?
I m asking you Did you go to the doctor for follow-up in your first pregnancy?
By God I didn t do it, neither with the first child nor the second
What is involved in follow up of pregnancy?
I don t know
Why didn t you go to a doctor during pregnancy?
I wasn t feeling any tiredness

This woman had an IUD which was bothering her and she went to check with a private doctor in Edfu and this doctor said she had an abscess in her uterus She next went to another private doctor this time in Aswan and he said she had no abscess but that her IUD needed to be changed and removed it He gave her medicine to take for a month and asked her to come back when the medicine was finished so that she could insert a new one That month she became pregnant In her fourth month of pregnancy she went to a private gynecological clinic because she felt unwell The physician prescribed vitamins In the sixth month she was badly swollen and she returned to this clinic The doctor said she had salts She was not certain of this diagnosis so she went to a mosque clinic which had a laboratory and the diagnosis was confirmed He gave her a diuretic telling her to take it whenever she was swollen and said that she would deliver in the eighth month In the ninth month she began to have contractions and she went to the Edfu General Hospital where she was told that she would not deliver for a day or two Her husband said she could come home and return when the contractions became stronger The next evening she began to have a watery yellow discharge perhaps of amniotic fluid She returned to the doctor s clinic where she was told that her fetus had been dead for four days She asked how that could be as she had been followed up on in his clinic and reminded him that he had said she would deliver in her eighth month He asked why she hadn t come and she said she thought she had miscalculated He transferred her to the hospital where the doctors said that the child was alive The child was very large and quite dead upon delivery and the placenta looked as if it had begun to melt He had blood coming out of his nose at delivery The doctor told the mother she must have been angry during her pregnancy and that her blood was poisoned She left the hospital and went to a new doctor and she returned to the mosque clinic for blood tests where she was told that she had an allergy in her blood She received medications but she has continued to feel weak and reports that she is having fits She would like to return for a check-up but she fears that the physician will give her medication to make her become pregnant She remains very upset about the child who was born dead She comments From the fifth and sixth month I felt that the child was not all right in my stomach I would go to the doctor and the doctor wouldn t advise me And he didn t say You must come because I have to do a sonograph and see what the child is doing He didn t warn me If he had warned me I would have taken care from the beginning

Where there are problems, women may consult doctors multiple times The curious thing is that many women shift physicians each time they make a visit There are numerous factors in this pattern Tetanus shots are given only in government facilities Women strongly prefer to be seen by doctors in the private sector, but many cannot afford to deliver there, so a common sequence is visits to one or more private clinics, followed by delivery in the district hospital In addition, many women, particularly at the beginning of their childbearing years, deliver at the homes of their parents, which are frequently not in the same villages as the homes of their husbands

As far as the women themselves know, only one practitioner mentioned in this study actually kept records on his patients And the various physicians contradict one another, which confuses the women and may be adding to their general uncertainty as to whether these doctors actually know what they are talking about The women typically arrive at a new doctor not fully understanding what the previous doctor has told them The excerpt below is from an interview of a woman who saw seven different physicians over a period of several months, without ever understanding what her health problem was

One Daraw woman had nine pregnancies in ten years delivering eight premature infants who died before or soon after delivery and one premature infant who survived These children were delivered in Daraw Komombo Aswan and Cairo She consulted seven physicians during various pregnancies in their private clinics and was an inpatient at the Boulaq El Dakrour Hospital in Cairo and the Chatby Hospital in Alexandria. Each delivery was accompanied by hemorrhage and all were performed by physicians During the sole pregnancy which produced a surviving child she was told by a doctor that she had a fever in her stomach and he gave her 20 penicillin shots per month through the seventh month Her ninth delivery was via Caesarean section and during the operation the doctor discovered that she had a double uterus He told her afterwards that he had stitched the two parts together so that she would not have premature labor in the future Both her mother and her sister had suffered multiple premature labors apparently from the same cause

3 Interaction between Physicians and Patients in Prenatal Care

No interviews or observations of obstetricians were carried out as part of the qualitative research, to the portrait of physician/patient interaction is based entirely on the reports of women patients More than half of the women interviewed other than the *dayas*, had experienced complications of delivery, and it may be that their view of doctors has been affected by what they have gone through An observation/interview study of patient/physician interaction is needed in Aswan and Luxor to complement the findings of the present study

Judging by the stories told by many of the women who were interviewed, the interaction between physicians and patients at prenatal visits can be highly problematic They essentially consist of a woman stating what her complaint is the doctor examining her, naming the complaint for her, instructing her on what to do, and payment of a fee Examination frequently, but not always, includes measuring of blood pressure It almost never includes weighing or laboratory tests Sonography is a very important part of prenatal care Virtually every visit includes prescription of some kind of medication, whether the woman has come for treatment of a problem or is simply having a routine visit

There is hardly any evidence in the interviews of doctors explaining the meaning of a woman's symptoms Some doctors ask women who are having problems to return but they do not tell her why that is important Doctors typically label the woman s condition for her but do not tell her its source its implications for prenatal care or signs that she should watch for At the same time, the women do not ask for information about their conditions beyond confirmation that the child is doing well or, in a few cases, for reassurance that they will not have to have Caesarean deliveries

It appears that educated women fare much better with their doctors than women who have attended little or not school This is most likely the result of several factors 1) more educated women feel more confidence in dealing with people from outside their own communities, 2) physicians have more confidence in dealing with educated women, and 3) more educated women are generally also women who seek to take a more "modern" attitude toward the world, and therefore credit the words of the physician more It may also be that the more educated women are better off financially

After he delivered me the doctor said O Sa adeya, don t get pregnant again " I said "Why? He said It is dangerous for you and the fetus I said Why O Bey? ' He said 'It s like I'm telling you How many children do you have? I told him, "I have three children ' He said ' That s enough for you Like I told you it s dangerous for

One woman from Daraw had two miscarriages, and consulted a doctor after the second of these The doctor diagnosed her problem as having RH negative blood She did not understand his label

When I miscarried a second time I transferred myself to a private clinic in Aswan The doctor said You have zafarra fil dam and that s why you miscarry
What does it mean, *zafarra fil damm?*
I don t know

He instructed her to have antenatal care with each pregnancy, and she did have this care for the subsequent two pregnancies, but after that she stopped because she was financially pressed She reported that, "the doctor said that I shouldn't be afraid, because a percentage of the shots was still in me "

It also appears from the interviews that the physicians attempt to label illnesses in a way that the women can understand, leading to some quite strange ideas on the part of the women of what is wrong with them

4 Identification of Problems in Need of Immediate Care

4-1 Interview Data

In general women are quick to consult a doctor if they begin to bleed during pregnancy, because they know that this can cause miscarriage When the physician instructs the woman to stay flat on her back for a period of days, she does this Swelling of the legs or of the whole body does not invariably lead to consultation, and when it does, women do not understand that they must have regular care for the remainder of the pregnancy

4-2 Focus Group Data

Focus group data showed that bleeding was the sign most often cited by women as needing the care of a doctor Bleeding during pregnancy was attributed to impending abortion, lifting of heavy objects, and signaling delivery of the child Half of the focus groups had reports that bleeding could result from premature opening of the cervix This explanation was reported equally among city and village groups Mothers-in-law also identified bleeding, and added that overwork and falling could also cause bleeding A summary of important signs of complications identified in focus groups is shown here as Annex D

Both men and women reported swelling of the legs as a problem occurring in pregnancy, but there was no mention of swollen hands or faces Three reasons, each given by a separate focus group session, were given for swelling swelling is a normal part of early pregnancy, it is due to an increase in the child's weight, it may be due to taking of medications

When women participants in focus groups were asked directly as to whether pregnant women could develop toxemia, more than half of the groups said they could Toxemia was attributed to the death of the child in the uterus[5], in one focus group toxemia was attributed use of dirty instruments by the *daya*, or alternatively to cat bite

In the majority of groups, the majority of the women stated that the pregnant woman could have blurring of vision Reasons given for blurred vision included headache and dizziness caused by anemia, weakness caused by inadequate nutrition, and repeated pregnancies Mothers-in-law attributed blurred vision to weakness and high blood pressure

The majority of women in the majority of focus groups said that the baby could die in the uterus The most common cause was thought to be trauma, other causes included a weak uterus fibrosis and a narrow uterus, and intrauterine bleeding

In almost half of the groups, women said that a baby could be born before his due date Women reported that it was a normal phenomenon for a baby to be born in the eighth month Otherwise early delivery was attributed to a hot abdomen which cannot tolerate the baby and to lifting heavy weights Other causes of premature delivery included the placenta preceding the child anger, extra blood, hypertension urinary tract problems, diabetes, varicose veins, prolapse hemorrhoids, death of the fetus, genital infections Mothers-in-law also said that babies could be born early Reasons for miscarriage included carrying heavy weights, falls, a weak uterus, and anger or bad dreams [6] In four focus groups with husbands, it was stated that a fetus could die in the uterus, due to lifting heavy weights or fever In one focus group it was mentioned that a woman might abort if her husband hit her

Mothers-in-law attributed eclampsia to fever exhaustion exposure to air, depression, rage, failure to take tetanus shots, inadequate nutrition, and poor hygiene

5 THE IMPACT OF POVERTY

Women who are poor are no less committed to care from a private practitioner than are women who can afford such care The frequent result is that they do not get the care that they need It seems that poor women who live closer to an MCH Center are more likely to get care than those who have close access to rural health units only, because the MCH Centers have sonography and specialists like private clinics, but are much more affordable

There is an interaction between poverty and lack of understanding of the severity of problems, an interaction which acts against the appropriate treatment of health problems Even quite poor families quickly generate the money needed to treat a case of hemorrhage, for instance, because

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5 Fewer husbands identified this cause

6 As for instance, when a woman dreams she has a miscarriage, a sign that she will have one on the following day

The doctor told me You have to be treated You have high blood pressure and zulaal acute aulaal You have to be treated

Did she give you medication?

No I went and got it outside

She prescribed it for you?

Yes

And you bought it?

No

Why? *Because of the circumstances [poverty] If there is no money what can I do--it s over*

all are prepared to go into debt to protect the health of the mother and child However, if the urgency of an expenditure is not clear, then medication and treatment may be forgone

II - PATTERNS OF DELIVERY

Women are delivered at home by dayas, the rural health unit doctor, or, in one community a nurse, or in private clinics and public hospitals The path to delivery is quite varied, but the more complicated the delivery, the more likely a woman is to arrive at the public hospital Sometimes she arrives in the hospital after having been cared for by the *daya* and by a private doctor Focus group data showed that about half of women preferred health facility delivery (mostly urban women) and half home delivery with a *daya*, and that those who preferred home delivery really preferred to have a nurse or doctor at a home delivery Principle barriers to hospital delivery were that 1) women delivering in hospitals are not able to have their friends and relatives around them while delivering, and 2) that there is less care given at the hospitals Benefits include the presence of nurses to aid the doctors with delivery, and that if a Caesarean can be given, it can be done immediately

Women are clearly the decision-makers in terms of where babies will be delivered In the case of home delivery the husband is expected to remain in or near the home, although never in the room where the woman is being delivered, because his assistance may be needed in managing transportation to the hospital or in paying the person managing the delivery

1 HOSPITAL DELIVERY

Almost all women who are delivered by physicians strongly prefer to be delivered in a private clinic but the costs are prohibitive for most of them [7] A common pattern is to have some form of prenatal care from a private clinic, but to deliver in the district hospital Their level of satisfaction with hospital care varies by the hospital in question The Komombo Hospital is thought by many women to be good Daraw is viewed as underequipped and understaffed, so women from Daraw may bypass their own hospital and go to Komombo The most complaints about hospital delivery come from women who have delivered in Edfu and Aswan

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[7] Costs of normal delivery in private clinics ranging from LE 700-1 000 were cited by this group of women Some Caesareans are reported to be performed in private clinics but none of the women in our sample had such a Caesarean Costs of Caesareans in public hospitals can easily reach LE 1,000 if the cost of drugs and supplies transport for family members who are coming and going during the hospitalization and tips to hospital employees are included

Many stories are told in the communities about treatment in the district and general hospitals Some of these stories may well not be true, as they are not always based on the first-hand experience of the woman recounting them However, whether all of them are true or not, these stories have the effect of frightening many women about hospital delivery There are many complaints about mistreatment, including being left to wait for hours while in labor before being treated, being given repeated gynecological examinations by various doctors, insults and even being hit by doctors for shrieking during delivery Stories are also told about women being left naked and uncovered in the delivery room while staff come and go Focus group discussions also state privacy as a primary motive for not delivering in the hospital

Women are very afraid of Caesarean sections, particularly as they do not know why Caesareans are done to begin with There are rumors in the communities that going to the hospital for delivery automatically means Caesarean, whether needed or not One reason for this is that doctors do not tell women that they may need to have Caesarean delivery even when they are sending them to the hospital for just that reason

As discussed in the reports on district hospitals in Aswan and Luxor, there are gaps in the equipment and supplies of these facilities Pharmaceutical needed during delivery, even Caesarean delivery, are not problematic for families, as pharmacies in the area of each hospital stock the needed items and families can readily purchase them The critical problem is blood Friends and relatives are generally willing to give blood, but many of the women delivering in public hospitals are far from their own villages, making it difficult to get blood One woman from a village in Nasr El Nuba reported that she had had a Caesarean birth in the Komombo Hospital, a long distance from her home

> The doctor told the nurses Prepare the operating room immediately They came and took blood and they said Her type is rare and we need four liters of blood We said Where will we get this blood? My brother and husband brought a car and went and got people The people of the community came by car and there were many people They went to the bank and got the blood and gave it to me and the operation began I hemorrhaged while they were delivering me Four doctors were drowning in blood The blood that I had taken all came out of me [As she came out of the anesthetic she heard the doctor saying] Tonight the kidney which is working will stop This woman doesn t have a drop of blood in her body If you don t find her some liters of blood to give her tonight and some more tomorrow her working kidney will stop I began to cry My mother said Why are you crying my daughter? Your husband and your siblings will collect the blood and give it to you By God the driver came from here to Komombo four times He would bring the people and the blood wouldn t turn out the type He would take people back and bring new people He took LE 300 for us for that day The type didn t appear We found a gypsy sitting in the stairway We didn't know him He said I m going to give her blood because there were people who once gave me blood We took two liters from the blood bank and two liters from him

A woman from a village near Luxor hemorrhaged when she was about to go into labor with her fifth child Her mother-in-law, who is a *daya*, rushed her to the Luxor General Hospital She and her mother-in-law recounted the problems of getting blood for her Caesarean

> MIL When it came to the question of blood I said Is there something for God or is there nothing for God? Oh Doctor is there nothing for God in this place
> D was crying because we hadn t been able to find the blood I thought I was going to die
> [And you didn t ask any of the neighbors if they would give blood?]
> MIL I was in Luxor!
> [There was no one in Luxor who is related to you?]
> No

The problems of blood supply may be directly life-threatening when a woman needs transfusion A more frequent complaint, which has an indirect but probably profound impact on decision-making concerning delivery is maltreatment in the public hospitals Some of the stories of mistreatment come from older women, rather than the experience of the women in our sample, and they may not be true, but for women who have never delivered in a hospital, they are a powerful disincentive to seek care there

> Why don t you go to the hospital to deliver?
>
> *In the hospital you are abused. The woman can t bear it It s different than in the house In the house you give birth in comfort different than the free care*
>
> How is it abuse?
>
> If there is a woman who can't bear the pain of contractions and delivery they speak abusively and they hit her That s what happens to the women who give birth in the hospital My mother told me that is what happens--I said that if God rewarded me with another child I'll not give birth in the hospital

There are also complaints about the cleanliness of public hospitals, the incessant demands for tips from orderlies and cleaners, and the examination of women by many doctors

Focus group discussions found the negative aspects of public hospital delivery to be as follows bad treatment/poor service/neglect, and for the health units, absence of doctors and limited hours

Despite all of these complaints many women prefer delivery in public hospitals over delivery at the hands of a daya These are women who have had previous experience delivering in the hospital and have not had major complaints, or who have had serious complications and do not wish to risk a repeat without the capabilities of the hospital In focus groups, women who had had positive experience with hospital delivery said that hospitals treated women well, that they have specialized doctors, and that they are capable of saving lives in emergencies

> What pleased me was that the doctor that was on shift that day didn t leave me at all He would come every little bit to see if I had neared delivery or not yet And when I was near delivery it was almost exactly at the dawn call to prayer and he came immediately He s not the type that sleeps leaving the woman who is sick downstairs and tired And he stayed with me until he delivered me and made sure of me and the child beside me In the delivery room he didn t leave me As soon as I tired he gave me an anesthetic because it was the last stage the stage in which the child is born and I tired and I didn t have breath He said She has to have an anesthetic--I can t lose her or the child that is coming And the opening from below and the sewing was very clean and there was no problem at all The cleaning after the delivery was very good And the cleaning is excellent They employ Care Services They was the floors in the daytime and they work at night And the director of the hospital is strict with them He doesn t leave them alone He always insists on cleanliness

Experience of women is particularly positive concerning the Komombo and Luxor Hospitals, which seems to have better physical conditions and more tender care than the other district hospitals of the study

Curiously, this woman, though very pleased with the Komombo Hospital, had decided to have her next child in a private clinic because she had heard that in the hospital such care was not given to women delivering their second children

I went to the General Hospital in Luxor The doctors were good The minute I arrived, the doctor was with me He brought something and put it on my stomach to see and put his ear to hear and he said Not yet Let her walk a little in the ward

You were afraid to go to the hospital?

Yes but I decided that this time I would deliver in the hospital

Why were you afraid?

Because of the Caesarean and the anesthetic and the operations and these things

Did you think that anyone who went to the hospital?

Yes that they would immediately open her stomach

Was there anything that didn t suit you in the hospital?

Everything was clean There is nothing that doesn t please

2 DAYA DELIVERY

The *dayas* are still delivering a large number of babies in the study areas, but their share in the total number of deliveries appears to be decreasing rapidly The *dayas* interviewed in this study were mostly over 55 None of them were training younger women to take over for them and several said that younger women are not interested in becoming *dayas* any more *Dayas* also remark that the generation of women now entering their childbearing years are much more interested in care from doctors than were preceding generations The women themselves appear to have mixed feelings about *dayas* Some women are delivered exclusively by physicians, others have some of their babies with *dayas* and some with doctors, some have only *daya* deliveries Some communities, such as El Tawaisa in Daraw and Bellana in Nasr El Nuba, lack *dayas* altogether Nubian communities make relatively little use of *dayas*

Not only are *dayas* losing some of their clientele to physicians so far as delivery is concerned, but they are also losing business in other critical rituals of womanhood More families are circumcising their daughters in doctor's offices and there has been a sharp decrease in the old practice of having the *daya* participate in the traditional wedding night test of virginity of the new bride

Nevertheless delivery by a *daya* continues to offer a number of advantages over what women see as the problems of delivery in a hospital *Dayas* deliver at the woman's home, and the women are surrounded by and supported by their female kin and friends during delivery *Dayas* take considerable care to protect women from the view of others during delivery, the woman's genitals are never exposed to the view of others in the room Once women have decided to be delivered by a doctor, the gender of the doctor is not of critical importance, but it is quite important to many of the women who opt to be delivered by *dayas* The women who have opted to be delivered by doctors nearly all say that the inability of the *daya* to administer glucose, and, for some *dayas*, shots to speed contractions are important reasons not to deliver with a *daya*

The *dayas* are plainly quite concerned about being blamed by physicians for attempting to deliver cases which have complications All *dayas* included in this study insist that they never under any circumstances, deliver a woman who has a complication such as malpresentation, hemorrhage, or *zulaal* Judging by the reports of their clients, this is not entirely true Several cases were encountered in which the *daya* waited very late in delivery to transfer a client to a doctor One *daya* insisted that she never delivered a woman who had not had prenatal care and

been certified by a physician to be expecting a normal birth Most of these *dayas* also report that they never under any circumstances circumcise girls, this is untrue, although fewer circumcisions take place with *dayas* than in the past

Most of the *dayas* report that they have a role in prenatal care, but the women who have delivered with *dayas* say they do not Postnatal care is limited to checking the umbilicus of the child at some time during the first week after delivery and to ceremonial functions such as the seventh day celebration

3 Health Unit Physician Delivery

A small number of women in this sample were delivered by the physicians of the local health unit, and they all expressed satisfaction with the delivery and with the doctor Curiously, none of these women had prenatal care from this doctor except for tetanus shots, preferring private clinics for treatment of any problems that occurred in pregnancy It appears that the health unit doctor is sometimes asked to deliver babies in almost the same way as the daya he bears no responsibility for prenatal care but he is easily accessible at time of delivery, and will deliver in the woman's home His advantage over the *daya*, according to the women, is that he can give glucose and shots to speed contractions

> A popular doctor in a health unit in Aswan sees pregnant women giving them test blood and urine tests measuring blood pressure and weighing the women This doctor is resident in the village and can be called upon day and night. One woman recounted her doctor visits during her pregnancy saying that she though that the health unit doctor was wonderful and that of course she went to him because he makes a file on each patient and weights them This having been done she went several times to a private doctor who neither weighs nor maintains records but who does do sonographs She did not return to the health unit doctor for any care She stressed that it was important to keep seeing the same doctor throughout pregnancy However, it was her intention to deliver the baby at home with the help of the health unit doctor

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4 Identification of Complications of Delivery

4-1 Interview Data

In general, women do not identify complications of delivery for themselves unless there is bleeding or pain By and large it is the *daya* or the non-hospital physician who makes the judgme

4-2 Focus Group Data

The most frequently recognized complication of delivery was bleeding Malpresentation of the child was the second most frequently mentioned Husbands found this complication less severe than difficult labor, women appear to have a better idea of the danger represented by malpresentation A few women reported the following signs of complication death of fetus, rupture of uterus, uterine prolapse, hypertension, small uterus, and suffocation of the child by the placenta

III - POST NATAL CARE

1 IDENTIFICATION OF PROBLEMS DURING THE POSTNATAL PERIOD

1-1 Interview Data

No postnatal care is reported for deliveries except in cases where there are stitches to be removed and wounds to be cleaned, or if a woman experiences postpartum hemorrhage or puerperal fever and therefore returns for further treatment

1-2 Focus Group Data

he postpartum complications most identified by women were puerperal fever, this was mentioned in all focus groups, and in half of the focus groups the agreement was unanimous Also frequently mentioned were colic from blood loss, taking of medication, hot food and drink given immediately after labor A few women in a few focus groups also mentioned bleeding, dizziness, weakness, tetanus, lactation problems, and episiotomy pain Mothers-in-law also reported hemorrhage and fever as the most serious post-partum complications, followed by abdominal pain colic and weakness Hemorrhage was attributed to retention of part of the placenta, a weak uterus or general weakness Village focus groups mentioned abdominal pain Husbands also reported infection/fever and bleeding as post-partum complications more frequently than other causes

IV - COMPLICATIONS IN THE NEONATE

The two most commonly mentioned complications in the neonate were fever and cough, which were mentioned by the majority of the groups of women Most groups also identified jaundice and colic due to bottle feeding Jaundice was taken as a reason to consult a physician Diarrhea and umbilical cord problems were most mentioned in the villages It does not appear that umbilical cord problems and neonatal tetanus are associated in the minds of the focus group participants

Mothers-in-law identified the major complications of the neonatal period as including fever, jaundice, diarrhea/umbilical cord problems, and cold and coughing Fever is attributed to hot

weather, fever in the mother, a difference between the temperature within the uterus and that in the outside world, a hot baby sleeping beside a fan, and the mother exposing the baby to air Jaundice was said to be caused by jaundice in the mother, lack of calcium, and weakness/fever/and eating of too much salty food by the mother Diarrhea and umbilical cord problems were attributed to the child s drinking from an unclean cup, fever in the mother, dirt

Husbands identified the primary complications of the neonatal period as retarded growth during the fetal period, fever (mostly cited by village groups), and diarrhea and vomiting A few husbands mentioned lactation problems, jaundice, congenital abnormalities, and respiratory diseases

V - LACTATION

1 INTERVIEW DATA

Breastfeeding is strongly encouraged by physicians in public and private hospitals, private clinics health units and the wider community Nearly all mothers reported breastfeeding from the first hour, with the exception of women who were recovering from anesthetics The value of colostrum is well understood Typically mothers teach their daughters how to breastfeed once the child is born Most women were given specific foods thought to increase the milk supply, including various green vegetables (most notably lettuce), fenugreek tea, milk, eggs, and sesame paste candy All children, however, are fed substances other than breast milk on the first day of life and throughout infancy, usually tisanes and/or sugar water

Women generally breastfeed for extended periods, but there are many problems reported in satisfactory establishment of lactation There is very little consultation of physicians regarding lactation until the point at which mothers have given up, and the consultation in this case is for prescription of artificial formula There is an elaborate complex of beliefs in all of these communities concerning threats to successful establishment of lactation during the first 40 days after delivery their prevention sources and treatments This complex of beliefs will be detailed and analyzed in the final report on this study

2 FOCUS GROUP DATA

Cracked nipples were reported in nearly all of the women's focus groups as being the primary problem associated with breastfeeding Contrary to the findings of the interview-based study, a high percentage of the women in focus groups said that there was inadequate training in breastfeeding Urban women in particular said that inadequate milk production should be handled by consulting a doctor for a prescription for infant formula, but almost all groups also listed foods which could help to generate milk green vegetables, sesame paste candy, fenugreek tisane milk and eggs

Mothers-in-law cited as the two most important problems in lactation wounded nipples and insufficient milk production

Husbands said that lactation problems included failure to initiate breastfeeding, failure of the mother to eat foods which produce milk, the evil eye, too short a lactation period, and scanty milk production

VI - COMMUNITY UNDERSTANDING OF PREGNANCY AND DELIVERY

Management of pregnancy and delivery is chiefly in the female province A hierarchy of expertise is recognized, with older women knowing most about these questions, followed by younger women who have previously delivered, followed by first-time mothers, followed at a great distance by husbands Both doctors and *dayas* are credited with greater understanding than all other categories, objection to one or the other group is associated with factors other than expertise

Married women in all of the locations visited, and at all levels of education and in all ages, are very much concerned with issues of reproductive health There is differentiation of ideas and knowledge among women in a single community and among various communities but the concern is a shared one Women spend considerable time in sharing information and understanding concerning pregnancy and childbirth, their understanding-building activities are highly concentrated when they or their daughters are pregnant Women track one another's pregnancies and deliveries, and there is particularly close sharing of information among women who are pregnant at the same time

Any information coming into a community is rapidly shared with women in general The problem is that so little new information is provided There is virtually no reproductive health education, even women who have experienced severe complications of delivery are generally left on their own to figure out their causes and implications Women interviewed for this study tend to feel uncertain about coping with doctors and hospitals, switching of providers and intermittent antenatal care is one evidence of this uncertainty

VII - COMPETENCE IN ASSESSING COMPLICATIONS

Just as antenatal care per se is lacking in the system, so too is reproductive health education from the point of view of modern medicine Women know much more about traditional explanations of problems in pregnancy, and of their prevention and treatment than they do about modern medical explanations, and although there is some slight improvement in knowledge on the basis of treatment for problems in pregnancy and delivery the level of improvement is disappointing Terminology is quite different between doctors and communities It can even be said that there is a quite different vocabulary for complaints and complications characterizing pregnancy, delivery, and the antenatal period

Despite this gulf between physicians and women utilizing their services during antenatal care and delivery, and the very poor level of meaningful communication between these two groups, there is strong reason for optimism that this situation can be much improved Mothers and their mothers are very much focused on understanding pregnancy and delivery, and knowing when

complications require intervention by a physician, but they have very few sources of information on which to build such an understanding The young women now entering their reproductive years are particularly eager to have a solid understanding, and can be expected to be quite responsive to health education programs

IX - COMMUNITY SUPPORT TO PREGNANT AND DELIVERING WOMEN

There is a very high level of support to women who are pregnant or delivering This support comes from a broad network of kin and friends It takes in at least three generations, and often extends into other villages of Upper Egypt and even into Cairo Contrary to common belief in Egypt, women in this group are protected helped through pregnancy and delivery, psychologically, financially, and logistically In the main, women's work loads diminish considerably during pregnancy Many people admonish pregnant women not to overdo on housework Men carry heavy things, other women in the household or in the neighborhood take over bread baking, household resources are expended on medical care and special foods for the pregnant woman Women with several children sometimes express pride in not altering their daily workloads as a result of pregnancy, but other women, and particularly women having their first babies, are offered and accept considerable help

The system of support is particularly visible at delivery, it is almost always the case that numerous people are in attendance at a delivery, whether it be in the hospital or at home In the event of an emergency delivery in a hospital and the household does not have the money to pay for care, the community generates the needed money, as loans or gifts No cases were seen in which women were in need of money for hospital care and did not receive it immediately The same networks produce quantities of blood when transfusion is needed Women rarely even go to consult a doctor in non-emergency situations without being accompanied by one or more others

Contrary to what is often stated about the Upper Egyptian family, women have a high degree of autonomy in terms of health care during pregnancy and delivery Pregnant women decide if and when to visit the doctor, and which doctor to consult, regardless of the views of their mothers-in-law Husbands are overwhelmingly supportive, and very often accompany their wives to the doctor These findings of the interview study are echoed in the focus groups

ANNEXES

ANNEX (A)
DISTRICT PROFILE

ANNEX (B)
FOCUS GROUP RESULTS

ANNEX (C)
COMPOSITION OF FOCUS GROUPS

ANNEX (D)
CASE STUDIES

ANNEX (A)

DISTRICT PROFILE

by:
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I - EDFU DISTRICT

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

I - EDFU DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthy practices using health education and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated, usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993 Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia detect and treat infection (including STDs), and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart) but are not necessarily effective (if the fetus has no heartbeat, it is too late to do anything)

Similarly information education and communication (IEC) are important rights of women, and may necessary for communicating essential information (like where one can deliver) Nevertheless, there is no good evidence that health education and counseling interventions change behavior (Oakley 1995)

Finally the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits and various practitioners in the US and UK are experimenting with do it yourself antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole the median number of visits is 6 5 and most women go fairly early at a median of 2 9 months and 92% have

attended by the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services, 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediately postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However, the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning, it is unlikely to address problems such as post-partum hemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectively 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN EDFU

Edfu has an estimated 10,000 births per year If each woman had one antenatal care visit in the public sector, 10 000 first visits would be expected If women had the recommended 4+ in the public sector, then at least 30 000 repeat visits would be expected making a total of over 40,000 antenatal visits per year If all births had one postpartum follow up visit, Edfu should expect 2,500 postpartum check-ups

B IS EDFU PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Edfu has up to forty five facilities capable of providing antenatal and postnatal care one MCH center, one rural health center, thirty five or thirty seven rural health units, five rural hospitals and a district hospital (A2) Edfu also has ten private ob/gyn clinics, twenty private dispensaries or clinics and two private hospitals It is worth finding out what these are and what services they may provide (1/19) According to the district manager, there are no NGOs active in maternal health in the Edfu district (1/17)

All public sector facilities in Edfu (except hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 8 00 to 1 00 pm six days a week Hospitals provide antenatal care but not post natal care from 9 00 to 1 00 three days per week However according to facility managers not all provide six days in particular 1 rural hospital, 1 rural health center and 3 rural health units provide antenatal care 1 day a week, the MCH provides 2 days a week and 1 rural hospital and 1 rural health unit provide 3 days per week Facilities provide slightly less than six hours per day on average 9 facilities (3 rural hospital, 1 rural health center and 5 rural health units provide between 3 to 5 hours of care (T/1)

Of the thirty six facilities visited in Edfu thirty five provide antenatal care, thirty one provide post partum care two can provide ultrasound scans and seven laboratory hemoglobin and thirty five of thirty six can analyze urine

Nineteen of the thirty six health facilities visited in Edfu had regular water and twenty eight had regular electricity About half (twenty of thirty six) were judged to be in good condition(2/14) Sixteen of the facilities had waiting areas but only nine had chairs Around half of the maternal examination rooms were adequate Nine facilities had stools for the doctor and seventeen allowed privacy Half had a working telephone (2/5 2/14)

60 antenatal users were interviewed in Edfu, 15% (9 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 18 minutes to get to the facility and 3 6 kilometers was the average distance (4/1) Most traveled on foot (48 cases), the remaining took a microbus or taxi Those who went by vehicle paid on average 112 piasters (between 50-400) 25 went alone, 5 went with their husbands and 30 went with relatives or neighbors (4/2,T/2)

These data suggest an available physical infrastructure, that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case and that women who use services seem willing to travel to seek them

B-2 Drugs and Equipment

In Edfu in general shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) Within the thirty six facilities inventoried for drugs and equipment, Thirteen of thirty six facilities had shortages in antibiotics and ten of thirty six mentioned shortages in iron Also mentioned were shortages in ecbolics (thirteen of thirty six facilities) and in antipyretics (four of thirty six facilities) 2/8 Overall fifty four of seventy seven providers interviewed in Edfu reported drug and supply shortages (3/18) Three facilities in Edfu had antenatal and post partum service protocols (2/18)

Shortages in basic equipment were reported by fifty of seventy seven of health providers (3/18) However thirty five of thirty six facilities have working sphygmanometers and most have several Thirty four of thirty six facilities have stethoscopes (2/20) Thirty five facilities have boilers and twenty two of thirty six have autoclaves Twenty seven have thermometers (2/20)

B-3 IEC Materials and Sessions

The Edfu district manager appears to have some IEC material on breast feeding, largely posters and flip charts According to the facility managers three of thirty six have material on at-risk pregnancy one on antenatal care fifteen on the importance of breast feeding nine on the proper way to breast feed six on the importance of tetanus and one on neonatal care and sterilization and delivery

In the previous three months the district manager in Edfu reported no IEC activities Thirteen of thirty six health facility managers also reported having held group meetings and twenty two provided home visits (2/13)

B-4 Actual Practice of Antenatal Care

As a absolute minimum requirement, routine antenatal care by health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy
* that tetanus toxoid is given to all women with inadequate tetanus vaccination
* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

Seventy of the seventy seven providers in Edfu participated in antenatal care and postpartum care(3/2) Among the sixty three involved in receiving patients, the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (forty six and forty three) Asking information on personal details also mentioned (thirty six providers of sixty three) The most common measures mentioned were blood pressure (thirty nine), temperature (thirty eight), weight (thirty three) and pulse (twenty eight) Urine and blood measures were mentioned (Twenty nine of sixty three and six of sixty three) Most also explained what women should expect (forty eight of sixty three) and some (twelve of sixty three) mentioned where to go (for delivery?) (3/4) Seventeen answered questions or concerns

According to Women

60 exit interviews were conducted in Edfu These women were not a random sample Women sought care to get tetanus toxoid (53 of 60) or because they felt tired (ill) (4 of 60) (4/11) In Edfu most planned their delivery at home (41 of 60), but 10 planned to use MOH facilities 4/12) 36 of 60 preferred physicians for delivery (4/13) They had paid 10-250 pounds for their delivery, with an average of 41 pounds (T/4)

Of 60 women interviewed 25 were received by nurses and 20 by clerks All but 2 felt welcome and that the person receiving them was welcoming Most felt the waiting place as very comfortable (48 of 60) or somewhat comfortable (5 of 60) (4/3) Most saw a nurse at some point (40 of 60), and all saw her right awav or after 5 minutes This was judged reasonable by everyone (4/3,4/5) 25 of 60 also met with physician and on average waited 21 minutes to do so (though 5 woman waited between 50 to 90 minutes) Physicians were all friendly and polite (4/6)

20 of 25 examined by physicians were examined with privacy Only one of the 5 who were not was bothered by this A history was taken (19 cases of 25) and duration of current pregnancy (22 of 25 women) Of the important activities (examining the heart with stethoscope, measuring blood pressure and examining the abdomen), 14 of 25 women were examined for each (4/7) For 12 women one of these three aspects of antenatal care was a failure (T/5) Weight height, urine and blood were less frequent (12 5 4 and 3 cases respectively) (4/5) Other activities (ie examining breast, gynecologic exam and ultrasound) were also done infrequently 12, 5, 2 respectively (4/7) As there is no evidence these activities are needed routinely in every visit, this may not be a problem 53 of 60 were given TT injections in their current and 10 had been given one before Six had not been given one either at the current visit or earlier (T/6) Six were given iron pills and 5 given other unknown medications (4/8)

Communication was not good as only 7 had it explained to them what as being done and why (4/7) Advice was also given to women on personal hygiene (6 cases) and breast hygiene (7 cases), exercise (6 cases) and nutrition (9 cases) though again there is no evidence this works (4/8) Six of 60 women (10%) were advised on risky signs or pregnancy and how to act if risky signs occur Also, place of

delivery was only discussed with 5 clients This is a missed opportunity Only 31 women were told when to come next (4/8)

50 women were satisfied with service, citing the friendly reception reassurance and instruction and the curative treatment as reasons The 10 dissatisfied women said they were not examined as expected (8 cases), waited a long time or got an unfriendly reception (3 cases) or were not given medication as expected (2 cases) Women felt the service could be made better with better examinations more provision of medication vitamins and iron pills, and more information and instructions (12 9 and 6 respectively) 45 said they intended to come back and 50 would recommend the facility to others (4/9) Overall in Luxor and Aswan, 59% of women had an accessibility card, and 96% of women brought their card with them In Edfu, 23 women had an accessibility card, and 22 brought it with them (4/10) The other 37 women were never given one

25 of the 60 women had had a previous visit In previous visits, some (7 of 25) were given dates for revisiting and 7 of 25 were explained risk factors, told how to act, and counseled on nutrition and personal hygiene Weight and blood pressure were measured in 6 of 25 and 9 of 25 respectively Only 2 said they had a chance to ask questions but both of these were given helpful answers (4/14) Most (40 of 60) visited other facilities largely private ob/gyn (36 cases) (4/15)

Most of the 43 women with a previous delivery (37 of 43) had delivered at home while 5 delivered in MOH facilities (4/18) Most were not visited after delivery (23 of 43)(4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital, 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42 women had pregnancy problems worth reporting as assessed by the observer However, antenatal history was appropriately recorded by only 29 of 42 HPs

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[1]According to the National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994 cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

This is a high prevalence of complications and is unlikely to be similar in the general population

Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination, only 1 of 15 of HPs took minimum antiseptic precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation, but less than ¾ of findings were correctly recorded in the client's record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient, too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not?)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Edfu should have 10,000 new antenatal visits and at least 30,000 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services, which would mean 610 first visits and at least 3 times that many repeat visits 66 3% (or 6630) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

According to the district manager data, Edfu health facilities report 1862 new antenatal care visits in the year 1996 This would suggest 19% pregnant women used public facilities (this seems a bit high unless tetanus toxoid alone merits recording as a new antenatal care client) In the second quarter of 1997, the number was 654 Revisits were less frequent (n= 941 and 230 for 1996 and 1997 respectively) making the average number of visits to public facilities between 1 4-1 7 (1/18) Eight facilities reported a total

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

74

of 725 antenatal visits for 1996 (range 15-210) However in the second quarter of 1997, 20 facilities reported antenatal visits The district hospital did not report however visits in other facilities ranged between 7-72 Altogether, 539 first visits were reported for the second quarter in 1997 which is about 22% of all expected births in the same quarter Nevertheless, the average numbers of new clients seen is between less than one per day and less than one per week Even adding revisits does not give a very heavy workload as only about half of women return for a revisit

If we look at health facility r statistics on the content of care in the second quarter of 1997 notably at tetanus toxoid immunization and cases of anemia we find the following 387 immunizations and 94 cases of anemia

Edfu should also have 10 000 postpartum check-ups if all births were followed up postpartum but in practice the number is estimated at slightly over 12% (n=1200) The expected number in the public sector is not known 200 postpartum visits were reported from the governorate level for 1996 (1/18) Among facilities there were 165 postpartum visits in 1996 (range 15-80 per facility) and 231 in the second quarter of 1997 (range 10-65) This is less than one client per day (T/6)

C-2 What Are Reporting and Recording Practices?

According to the district manager, all health facilities have the new registration forms and thirteen of forty five provide complete MIS forms and review data (1/12 1/13) Twenty eight facilities in Edfu had forms, and twenty three were using the new forms for antenatal 1st visit, antenatal revisit eleven for postpartum care) (2/6) Facilities reported using data to follow up cases (fourteen facilities) to detect community health problems (nine) and to ascertain quality of services in (eight) Twenty five of thirty six facilities regularly notified reporting events by telephone monthly report, messenger or other means (2/6)

Six of thirty six facilities have persons trained to use data largely nurses but some GPs, clerks and one statistician When providers were interviewed, eight of the twenty eight involved in recording information said they had been trained to look at data quality but only five were trained on how to used data (3/17) The most common use of data (according to providers) is to monitor and evaluate performance (3/17)

D DISTRICT WIDE ISSUES

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

Fifty seven of seventy providers involved in antenatal care reported referring cases When asked what cases they referred thirty nine mentioned preeclampsia thirty three mentioned antenatal hemorrhage, twenty one abnormal presentation twenty previous c-section twenty diabetes fourteen eclampsia and

thirteen heart failure Only seven communicate with facilities they referred to and six accompanied cases routinely Twenty five followed up on cases but this was done informally by twenty three Those who did not follow up clients stated it was not required it was difficult or there were no records (3/16)

E PROVIDERS

In Luxor and Aswan governorates as a whole most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses, 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers, seventy of the seventy seven interviewed provide antenatal care and fifty one provide postpartum care though twenty six and eight respectively do so in the capacity of assisting (3/2)

Seventeen of seventy seven providers in Edfu reported using IEC material on tetanus toxoid, and twenty eight on breast-feeding positioning Thirty five did not have IEC materials but most common were posters flip charts and booklets (3/22)

Training Overall in Luxor and Aswan governorates, 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy, preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care, again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol GPs and Obs did not use these

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2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN EDFU DISTRICT

Edfu has a total population of 336 514 168,051 are women and an estimated 60,000 (36% of all women) are women of reproductive age(1/1,1/2)

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Edfu, there are between 10-12 000 births per year in Edfu According to the health statistics the district manager said there are 8623 births in 1996 (giving CBR = 26/1000, GFR = 144/1000) (Table 1/2) These figures are lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 10,000 births in Edfu

B IS EDFU PREPARED TO PROVIDE EOC?

According to WHO recommendations there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500 000 population According to these criteria 1 CEOC and 3 BEOC would be more than adequate for Edfu, with its population of 336 514 (It is interesting to note that the district hospital only considers its catchment area to be a population 130 000 population (Q2))

We investigated the district of Edfu to check its preparedness to provide EOC and found the building infrastructure to be in place Edfu has a district hospital (the nearest general hospital is in Aswan four hours away (L5)) and 2 private hospitals There are five rural hospitals (four with beds), 1 MCH centre, and 1 rural health centre There is some lack of clarify regarding the number of rural health units which are variously reported at 35 or 37 (Table A2) There are also an estimated 10 private ob/gyn clinic, although this figure seems low according to the qualitative data from women (L3) (see map)

Most public facilities said they were available (in principle) to provide EOC to provide 24 hours emergency care but it is likely that most facilities are severely limited by the fact that they have no beds and that their opening hours are restricted from 8 00 or 9 00 am to 11 00 am or 1 00pm, six days a week (1/9) Qualitative research shows that the specialist doctors in public facilities including the district hospital are dependably present only during the morning hours and often not even then because their primary focus is on their private clinics (L4)

B - 1 Preparedness of the CEOC Facility

Edfu's main public facility conducting births is the district hospital According to the district manager it has a total of 70 beds and 5 maternity beds (the entire district was reported to have 10 maternity beds (B3)) According to the hospital director the facility has 150 beds and 25 maternity beds The latter number is adequate judged by WHO standards (24 maternity beds per district hospital)

The hospital has a covered waiting area for women which is judged sufficient and well maintained However there is no toilet available nearby There are no labour room beds There is a maternal examination room (with examination table) which allows privacy The delivery room well prepared and private with good lighting But the general situation of the room is not good Data were not collected on the operating theatre

In term of staffing for emergency functions, the district hospital has 1 anaesthetist, 7 ob/gyn specialists, 1 obstetrics resident, 3 pediatricians 3 pharmacists, 3 laboratory specialist and 3 lab technicians There is no blood bank specialist, although it seems this functional title may not exist in Egypt This level of staffing seems more than adequate expect perhaps on the need for 24 hour reliance on a single anaesthetist However, it is noted that the district manager felt there were shortages in obstetric and nursing staff (and needed 11 and 167 more respectively)(1/4) In other questions, district manager expressed that a shortage of pharmacists occurred (1/8), and that a shortage of nursing staff (and supplies) was the major problem facing the district (1/14) Given the low number of deliveries (12 5 per week) the number of obstetricians (8) does not seem low In terms of staffing for neonatal care, the hospital has 3 pediatricians but no resident pediatricians

Delivery services in the district hospital were available on a 24 hour basis with an ob/gyn on call at night and on holidays Emergency pediatric services were also available on the same basis The hospital said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The hospital did not report transferring any cases and did not provide any information as to where they would send cases In case of need of emergency referral, the hospital had no ambulance and reported it would have to rely on an external one The nearest general hospital is four hours away (L5)

The facility has a telephone (and so can be contacted in case of emergency, although only 50% of other facilities have a telephone according to the district manager (B/4)) It has regular supplies of electricity and water There is a blood bank but no information provided on equipment at the blood bank(refrigerator centrifuge, microscope, screening kits) Blood supplies are inadequate, patient are asked to supply from relatives and friends Qualitative data indicate that this is sometimes the case even in emergencies Qualitative data indicate that patients are readily able to obtain medications and supplies for hospital delivery including sutures and anaesthetics, in nearby pharmacies, but blood is extremely problematic, particularly as many of the women who are in need of blood do not live in Edfu City, where the district hospital is, and therefore cannot promptly access kin (L6)

Based on WHO recommendations this hospital has most of the basic equipment and staffing to manage obstetric emergencies However, there were major deficiencies in some areas there are no anaesthetic agents and nothing for managing pre- eclampsia/ eclampsia (ie no nitrous oxide, no diazepam no ketamine no lidocaine, no pethidine, no magnesium sulphate, no hydralazine) All antibiotics were available expect for kanamycin suggesting that antibiotic shortage is not a problem for the district hospital The questionnaire did not assess availability of suture materials (reported to often be in short supply) or manual vacuum aspirators Partographs are not use at all The district manager did report difficulties with supplies as a major problem though might affect other facilities and not the district hospital (1/14) It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

Observational work observing deliveries identified problems associated with poor communication to the client asepsis and heavy reliance on forceps These observations are not specific to Edfu but among the deliveries observed in Edfu

B - 2 Preparedness for Neonatal Care at District Hospital

In order to provide neonatal care the district hospital requires other material beyond those required for CEOC The district hospital has adequate equipment except it lacks any infant laryngoscope or ambubag (bag and mask) which are critical for resuscitation Silver nitrate is not available but tetracycline (which is preferable) is present

B - 3 Basic Emergency Obstetric Care

The only other facilities with beds (and thus capable of doing facility deliveries) are the rural hospitals According to the district manager, these have an additional 5 maternity beds Four of the rural hospital directors report having 13,14,16,18 beds though none of these were specified as maternity beds (R/1) Maternity beds were not present at MCH centres, rural units or rural health centres No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC

These basic facilities have some way to go in terms of being able to provide BEOC (see table R/6) In particular there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies, and some items of equipment need to be redistributed

B - 4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement routine labour, delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken and recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions including vaginal examinations adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* all instruments used for maternal and neonatal care are sterile

25 deliveries were observed by a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However, we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[1] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When

[1]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[2] Only 17/25 of the HPs checked the fetal heart at regular intervals [3]

Delivery occurred in all cases with the mother lying on her back[4] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights, anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data it was not clear if women were encouraged to change their position frequently in labour and to empty their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study, Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy, 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt, too the mother is in more danger of losing her life in immediate postpartum period the mother than during any other time in her pregnancy Care in the immediate postpartum period requires the early detection of complications, and an appropriate response to them Early detection requires regular and systematic observation of the mother's vital signs including pulse blood pressure and blood loss

Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so, those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records

Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25)

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[2]Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994

It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[4] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod a drop in blood pressure decreased placental perfusion and fetal distress

or fever (16/25) Contraceptive advise was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse, blood pressure or temperature did not provide advice for the postpartum period either

Interpretation

The activities of HPs are determined bv many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks, motivation, knowledge and skills One can assume that all HPs had the ability knowledge and skills to take routine observation (fetal heart, maternal temperature blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem (Aswan General Hospital has no proteinuria test kits) Even where the facility has a particular piece of equipment, it may not be accessible (Luxor General Hospital has only 1 working sphygmanometer 1 autoclave, 1 working stethoscope and 1 infant weighing scale, 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they mav have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed, but the best possible case

Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as "yet another vaginal examination" or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour which is more than twice the rate as used in most labour wards in the UK

Care in this sample was provided bv specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery it mav not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed

Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

B - 5 Referral / Transport

According to the district manager physicians from lower level units were asked to transfer complicated cases to the district hospital immediately He did not request that critical cases be accompanied or that telephone contact be made or an ambulance used The district manager reported one working ambulance (R/4) which is located in a rural hospital

Lower level health facilities generally did not possess ambulances (with one exception) (or a means of transport but how get drugs) 32 facilities reported that they would refer complications to the district hospital but three stated thev would refer them to the MCH (This could lead to useless delay the MCH has no capacity to deal with complications) When referrals were made facilities said that in two thirds of cases women were not accompanied by medical or nursing staff (68 6%) Among the rest these only

accompanied women occasionally In 63% there is no follow-up, and what is done is generally done informally This picture is confirmed by interview with providers (2/4) Referral distances were generally short (12 1 kg ± 7 7kilometers and travel time was 27 minutes ± 17 minutes (2/4) The district hospital did not report referring anyone but should the need arise would rely on an external ambulance service so there appears to be such a thing in Edfu (B/4) Qualitative work found no cases of women arriving at the district hospital not accompanied by relatives (L8)

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C - 1 Where Do Women in Edfu District Deliver and Who Delivers Them?

We assumed that 10 000 women deliver every year in Edfu district If 1995 DHS data for upper Egypt are applied to Edfu, 78,5% of births take place at home (n=7850), 12 1% in public health facilities (n=1210) and 9 1% in private facilities (n=910) 60 9% are attended by dayas (n=6090), 26 0% by doctors (n= 2600), 6 2% by nurses/midwives (n=620) the remainder (n=690) deliver with relatives or alone

However the district manager only has data on 1520 deliveries (15 2% of all deliveries)(1/18) Presumably these are deliveries conducted through the public sector and include public facility and home based deliveries attended by the public sector providers It is unclear whether the district manager includes data on the district hospital in his statistics, and whether the district hospital falls within his remit

Of the 36 facilities visited, 2 facilities did not report births and 28 did not have books for 1996 Among the 6 facilities that reports births, there were data on 753 deliveries in 1996 For the three months in 1997, 15 facilities reported 567 births (9 facilities were not registering births and 12 were without books)(R0/R2)

Not all deliveries registered in facilities actually occur in the facilities Indeed many facilities do not actually have beds in Edfu only the district hospital and 4 of 5 rural hospitals actually have beds Others facilities (including the MCH) do not appear to conduct deliveries inside the facilities since they reported having no beds (R/3) If one looks at deliveries inside the facilities with beds, we found no data on deliveries from the hospital for 1996 In the quarter of 1997 though, the hospital reported conducting 163 deliveries (12 5 per week) making an estimated annual total of 652 deliveries The 4 rural hospitals with beds reported conducting 49 deliveries in the same quarter (R/0) This makes a maximum expected total of 848 births per year in public facilities (compared to an estimated 1210 in public facilities from the DHS) (R/0)

C - 2 What Are the Health Statistics for Edfu ?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Edfu this would mean 490 neonatal deaths and 560 post neonatal deaths making a total of 1050 infant deaths per year According to the district manager, in 1996 there were 40 stillbirths 14 early neonatal deaths 8 late neonatal deaths and 8 post neonatal death (a total of 22 neonatal and 30 infant deaths) (1/18) Even using the 8623 births reported to the MOH the following indicators can be derived a still birth rate of 4 6 per 1000 live and stillbirth a perinatal mortality ratio

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of 6 2 per 1000 live and still births neonatal mortality rate of 2 6 per 1000, and an infant mortality rate of 3 4 per 1000 These rates are too low Qualitative data indicate no reason to anticipate lower mortality rates in Edfu than elsewhere in Upper Egypt (L1)

Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100,000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 22 maternal deaths in Edfu No data were available on maternal deaths from the district level (1/13,1/18), although the district hospital reported one maternal death (in the quarter of 1997) giving an MMR of 40 per 100,000 (1 death in 2500 births expected in Edfu in 3 months) but an in-hospital MMR of 613 per 100,000 (1 maternal death per 163 deliveries) No other facilities reported maternal deaths (R/5)

What Are Complication Rates?

With 10 000 births in Edfu 1000-1500 women are expected to have complications, based on an assumption of 10-15% As over 21 1% of women deliver in public or private health facilities according to DHS it is possible that women with complications are reaching health services However facility data show that nearly three-quarters of their deliveries are normal indicating there may well be some unmet need

The district manager has data on 1520 deliveries of which 91% (n=1386) were normal, and the rest (n=134) were complicated Assuming 1000 complicated pregnancies in Edfu, this gives a "met need" indicate of 13 4% Using health facility data we find that for the 136 reported births at the district hospital (in the quarter of 1997) the vast majority of these (n=118) were normal (72%), while 45 (28%) were complicated This latter number would suggest 180 complicated cases are treated by the hospital per year giving a "met need" indicator of 18%

Other facilities also report complications for the four rural hospital with beds, complications rates are 0% 0% 15% and 50% (R/4) The 10 other facilities which reported managing deliveries also reported complication rates of 0-44% However because such facilities may refer women with complications to the district hospital it is not easy to estimate absolute number of complicated cases managed by the public sector (just adding up reported complications would lead to double counting)

The hospital data also show 27 c-sections were done This gives an institutional c-section rate of 17% but a district level rate of 1 1% This latter rate is less than the 5% c-section rate expected per district (although we do not have data on c-sections in the private sector which may account for more c-sections) There were also 62 cases of forceps reported in the hospital (with no use of suction) which may be high (but is difficult to interpret given the lack of information collected on the indication for forceps use) Observational studies of 25 deliveries in Aswan and Luxor showed over use of forceps with little indication

There were no ectopic pregnancies recorded in the hospital but 78 abortion complications were recorded There were no other data available on specific complications The ratio of abortion complications to deliveries indicates that managing abortion complications is a large part of the district hospital workload (slightly less than one third of obstetric events) and that some attention should be devoted to this issue

The case fatality rate for the district hospital is 2 2% (1 death out of 45 complications) which is higher than the level of 1% set by UNICEF However this indicator is difficult to interpret since it is

susceptible to the definition of complications for example, if c-sections and forceps are included as complications then an additional 89 complication will be added to the denominator, making the case fatality rate 1 death out of 134 complicated deliveries or 0 7%

Limited data are available on neonatal care 32 neonates were cared for in the hospital in the quarter of 1997 (82 for 1996)

These data on maternal and perinatal complications appear to be of poor quality The health facility data on the three months from 4-6 1997 are inconsistent with numbers for the 12 months of 1996 (one expects annual figures to be roughly four times higher than quarterly data) No data are available the frequency of specific complications at the district level or the health facility level, and data on referral of complicated cases appears to be non-existent Qualitative data indicate a strong preference of Edfu women for delivering in private clinics, some of the women experiencing complications are transferred to the public sector health facilities but many are not (L2) Nevertheless, if only 200 complications were seen in all facilities, this means only one fifth of the expected complications are receiving care While it is possible that some care is occurring in private facilities, or that complications in the health facilities are under-reported, this low figure nevertheless suggests a high level unmet need

C - 3 Summary of Data on Outputs and Outcomes

According to the district manager, 13 of 37 facilities in Edfu provided complete MCH/HIS forms promptly for the month of June 1997 The Edfu district manager pointed out that facilities did not comply because of lack of training Edfu itself was the only district not to provide Aswan Governorate with an activity report (1/13)

There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu to 44 4% in Daraw and 47 4% in Kom Ombo (TNA 3 2/3 3) Moreover, reporting is only the initial requirement for an HIS, interpretation and use of data to change practice is a greater requirement and also needs training

The under-reporting compared to expected numbers of births deaths and complications the lack of register books and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes However , until such data are useful to providers and planners reporting and recording should not be the focus of efforts

The project should use data such as those synthethized in this report to sensitize district managers and other influential to build political commitment for safe motherhood Limited changes made to the district hospital record (two added columns) may be needed for the MotherCare project to monitor complications and referrals (The model to use has been introduced in Indonesia by Mothercare)

D DISTRICT SYSTEM/MANAGEMENT

D - 1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this

we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

This general picture was also the case in Edfu 12 facilities (roughly one third) reported no supervision (2/17) Where providers reported having supervision the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see table 3/6)

In Edfu the district manager stated that the job descriptions were available for 8/10 main functions (1/15), though there were none for health education officers and lab physicians However, no functional job descriptions were seen in Edfu This means that managers cannot use these to call on their staff to do specific things In general in Aswan and Luxor, job descriptions for each health professional are not available in most any health facility In addition, health providers are not familiar with their functions (TNA1 2) At the hospital level in Edfu job description exist for physicians and the head of the facility but only the former was seen Nurses do not have job descriptions

The Edfu district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However it is to be noted that these women do not have an alternative outlet health facility they are highly tolerant and do not know what to expect from the health provider Moreover, the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

D - 2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in service training for GPs in the field of prenatal (22%) and pos partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Edfu only 2/58 providers participating in delivery reported use of protocols (3/2,3/3) As in the rest of Aswan and Luxor health providers still do not monitor delivery by partograph, and these are not available in any health facility (TNA 1 9) Observation showed that poor infection prevention and control procedures (prenatal delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

D - 3 Logistics

The Edfu district manager did not report a mechanism for ordering supplies rather it was supply-driven and distributed based on requested amounts from lower levels Shortages were faced in supplies (due to insufficient funds) but not in drugs or equipment As in all other districts drugs and supplies were transported by facilities every three months This was done when the facility finished its supplies (contradictory) The lack of transport facilities for drugs and supplies was perceived as problematic Also shortage of pharmacists was an issue (1/8)

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E ACTIVITIES OF PROVIDERS DOING DELIVERIES

77 providers were interviewed in Edfu of whom 44 (57%) actually conducted deliveries Of these 38 provided 24 hour emergency care Of the 33 providers who did not do deliveries 12 said they would provide emergency care (R/8,R/9) As expected, both of the 2 obstetricians interviewed did deliveries Among GPs 94% reported doing deliveries, while 25% of nurses actually performed deliveries These percentages are exclusive of the number who also assisted in deliveries Providers from all types of facilities were involved in doing deliveries (R/10)

Of the 24 most recent complications seen (within a year), 15 were seen at home, and 2 in private clinics Only 7 complications were seen in public facilities (29%) (R/11) The most common complications reported related to abnormal lie and prolonged labour (R/12) 25% of providers said they accompanied women These were largely GPs (34%) and nurses (17%) (R/14)

53% of providers interviewed reported being responsible for the technical supervision of other staff Those not supervising came largely from the cadre of nurse where 32 out of 36 nurses did not supervise Also 4 out of 35 GPs did not supervise anyone (R/10)

F DAYAS

Edfu reports 120 registered dayas all of which have been trained since 1994, and 7 of whom have received refresher training It also estimates there are 60 unregistered dayas, making a total of 200 dayas Assuming 6090 births attended by dayas suggests they are doing a average of 30 deliveries a year (2 5 per month) Note that if district hospital statistics are correct dayas are doing more average deliveries per week than obstetricians

II - DARAW DISTRICT

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

II - DARAW DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthy practices using health education and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993, Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia detect and treat infection (including STDs) and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart), but are not necessarily effective (if the fetus has no heartbeat it is too late to do anything)

Similarly, information education and communication (IEC) are important rights of women, and may necessary for communicating essential information (like where one can deliver) Nevertheless there is no good evidence that health education and counseling interventions change behavior (Oakley 1995)

Finally the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC, some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits and various practitioners in the US and UK are experimenting with do it yourself' antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole the median number of visits is 6 5 and most women go fairly early at a median of 2 9 months and 92% have

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attended by the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services, 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediately postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However, the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning, it is unlikely to address problems such as post-partum hemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectively 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN DARAW

Daraw has an estimated 3200 births per year If each woman had one antenatal care visit in the public sector, 3200 first visits would be expected If women had the recommended 4+ in the public sector, then at least 9600 repeat visits would be expected making a total of over 12,800 antenatal visits per year If all births had one postpartum follow up visit, Daraw should expect 3200 postpartum check-ups

B IS DARAW PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Daraw has twelve facilities capable of providing antenatal and postnatal care one MCH center, one urban health center (there was no urban health unit according to the district manager), 7 rural health units 2 rural hospitals and a district hospital (A2) Daraw also has 9 other public sector hospitals or clinics and three private ob/gyn clinics It is worth finding out what these are and what services they may provide (1/19) According to the district manager, there are no NGOs active in maternal health in the Daraw district (1/17)

All public sector facilities in Daraw (including hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 9 00 to 1 30 pm six days a week, and MCH centers and rural health units have the same hours (1/9) However, according to facility managers not all provide six days in particular the MCH and one rural hospital provide antenatal care 2 and 3 days respectively Facilities provide slightly less than six hours per day on average The rural hospital and both the MCH and the district hospital provide 5 and 4 hours of care (T/1)

Nine facilities were visited in Daraw (all except the urban health centre which may not exist, and 2 rural health units) all 9 provided antenatal and post partum care (2/1) Only one (the district hospital) can provide ultrasound scans and laboratory hemoglobin but all nine can analyze urine(2/2)

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All 9 health facilities visited in Daraw had regular water and electricity, but only two thirds (6 of 9) were judged to be in good condition(2/14) None of the facilities had waiting areas and 7 of nine maternal examination rooms were very poorly arranged, with had inadequate space and lighting Only 2 had an examination table No facility had no stools for the doctor and only 1 allowed privacy Only slightly over half (5 of 9) had a working telephone (2/5,2/14)

14 antenatal users were interviewed in Daraw, two thirds (9 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 15 minutes to get to the facility and 2 5 kilometers was the average distance (4/1) Most traveled on foot (9 cases), the remaining 5 took a microbus or taxi Those who went by vehicle paid less than 50 piasters 5 went alone, 2 went with their husbands and 7 went with relatives or neighbors (4/2,T/2)

These data suggest an available physical infrastructure that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case, and that women who use services seem willing to travel to seek them

B-2 Drugs and Equipment

Shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) Within the nine facilities inventoried for drugs and equipment, 7 of 9 facilities had shortages in antibiotics and 5 of 9 had mentioned shortages in iron Also mentioned were shortages in antipyretics (4 of nine facilities) and calcium injections (1 of 9 facilities) 2/8 Overall, 15 of 24 providers interviewed in Daraw reported drug and supply shortages (3/18) Daraw had no service protocols (2/18)

Shortages in basic equipment were reported by 13 of 24 of health providers (3/18) However, 8 of 9 facilities have working sphygmanometers and most have several All facilities have stethoscopes (2/20) All facilities have boilers and 6 of 9 have autoclaves All have thermometers (2/20)

B-3 IEC Materials and Sessions

The Daraw district manager appears to have some IEC material largely posters on 'at risk pregnancy, antenatal care breast-feeding and tetanus toxoid vaccine (1/16) He/she also has video tapes on 'at risk' pregnancies According to facility managers three (of 9) had materials on antenatal care seven on breast-feeding five on the proper way to breast-feed (2/12)

In the previous three months the district manager reported one meeting in Daraw on the importance of breast-feeding(1/17) 7 of 9 health facility managers also reported having held group meetings and 8 of 9 provided home visits (2/13)

B-4 Actual Practice of Antenatal Care

As a absolute minimum requirement routine antenatal care by health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy
* that tetanus toxoid is given to all women with inadequate tetanus vaccination

* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

23 of the 24 providers in Daraw participated in antenatal care and postpartum care(3/2) Among the 17 involved in receiving patients, the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (16 and 15 of 17 respectively) Asking information on personal details also mentioned (11 providers of 17) The most common measures mentioned were blood pressure (14 of 17) and weight (12 of 17) Urine and blood measures were not mentioned frequently (3 of 17 and 1 of 17) Most also explained what women should expect (15 of 17) and some (8 of 17) mentioned where to go (for delivery?) (3/4)

According to Women

14 exit interviews were conducted in Daraw These women were not a random sample Women sought care to get tetanus toxoid (5 of 14) or because they felt tired (ill) (9 of 14) (4/11) In Daraw most planned their delivery the HIO (health insurance?)facility (4/12) 12 of 14 preferred physicians for delivery (4/13) They had paid 20-200 pounds for their delivery, with an average of 87 pounds (T/4)

Of 14 women interviewed, 12 were received by nurses All felt welcome and that the person receiving them was welcoming Most felt the waiting place as very comfortable (12 of 14) or somewhat comfortable (2 of 14) (4/3) Most saw a nurse (13 of 14), and all saw her right away or after 5 minutes This was judged reasonable by everyone (4/3,4/5) All also met with physician, and most waited less than 15 minutes (though 1 woman waited an hour) Physician were all friendly and polite (4/6) The total visit was 43 minutes on average (range 15-105 minutes)(T/9)

13 of 14 were examined with privacy and the one who was not was not bothered by this A history was taken and duration of current pregnancy in 12 of 14 women Of the important activities (examining the heart with stethoscope measuring blood pressure and examining the abdomen), 11, 12 and 11 women out of 14 were examined respectively (4/7) For five women one of thee three aspects of antenatal care was a failure and for 1 woman none of these was done (T/5) Weight was a common measurement taken (8 of 14) cases Height, urine and blood were less frequent (6, 4, and 1 cases respectively) (4/5) Other activities (ie examining breast, gynecologic exam and ultrasound) were done less frequently 8 4, 2 respectively (4/7) As there is no evidence these activities are needed routinely in every visit this may not be a problem Nine of 14 were given TT injections in their current and seven had been given one before Three had not been given one either at the current visit or earlier (T/6) Five were given iron pills and 9 given other unknown medications (4/8)

Communication was not good as only 6 had it explained to them what as being done and why (4/7) Advice was also given to 6 women on personal and breast hygiene, exercise and nutrition though again there is no evidence this works (4/8) 9 of 14 women (64%) were advised on risky signs or pregnancy and how to act if risky signs occur Also place of delivery was only discussed with 6 clients This is a missed opportunity Only 8 women were told when to come next (4/8)

13 women were satisfied with service citing the friendly reception and the curative treatment as reasons The only dissatisfied women said she was not examined as expected Women felt the service could be made better with more tests more examinations and ultrasound (5, 2 and 3 respectively) 12 said they intended to come back and all would recommend the facility to others (4/9) Overall in Luxor and Aswan 59% of women had an accessibility card and 96% of women brought their card with them In

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Daraw 8 women had an accessibility card and 7 brought it with them (4/10) The other 6 women were never given one

9 of the 14 women had had a previous visit In previous visits, most (8 of 9) were given dates for revisiting and 7 of 9 were explained risk factors and how to act, and counseled on nutrition and personal hygiene Weight and blood pressure were measured in 8 of 9 6 say they had a chance to ask questions and all 6 were given helpful answers (4/14) Most (11 of 14) visited other facilities largely private ob/gyn (10 cases) and the health insurance facility (1 case) (4/15 Most of the 10 women with a previous delivery were not visited after delivery (8 of 10)(4/18 5 of 10 had delivered in the general hospital (I think this is the HIO facility) (4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital, 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42 women had pregnancy problems worth reporting as assessed by the observer However, antenatal history was appropriately recorded by only 29 of 42 HPs

Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination only 1 of 15 of HPs took minimum antiseptic

[1]According to the National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994 cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

[3]This is a high prevalence of complications and is unlikely to be similar in the general population

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

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precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation, but less than ¾ of findings were correctly recorded in the client s record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient, too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not?)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Daraw should have 3200 new antenatal visits and at least 9600 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services, which would mean 195 first visits and at least 3 times that many repeat visits 66 3% (or 2122) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

According to the district manager data, Daraw health facilities report 844 new antenatal care visits in the year 1996 This would suggest 28% pregnant women used public facilities (this seems high unless tetanus toxoid alone merits recording as a new antenatal care client) In the second quarter of 1997, the number was 249 Revisits were less frequent (n= 640 and 140 for 1996 and 1997 respectively) making the average number of visits to public facilities between 1 6-1 8 (1/18) The only facility to report antenatal visits for 1996 was the district hospital which reported 497 births However, in the second quarter of 1997 all facilities except a rural unit reported antenatal visits The number of visits in the district hospital was 244 Visits in other facilities ranged between 8-80 (the MCH was 75) Altogether, 497 first visits were reported which is about 62% of all expected births in the same quarter Nevertheless the average numbers of new clients seen is between less than one per day and less than one per week The exception is the district hospital which is seeing slightly less than 2 new clients per day Even adding revisits does not give a very heavy workload as only about 70% of women return for a revisit

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

If we look for statistics on the content of care, notably at tetanus toxoid immunization and cases of anemia we find the following 342 immunizations (mainly from rural health centers, MCH and rural health unit (n=97, 70, 70) There is no reported anemia

Daraw should also have 3200 postpartum check-ups if all births were followed up postpartum, but in practice the number is estimated at slightly over 12% (n=416) The expected number in the public sector is not known No data on actual postpartum visits were available from the governorate level for either the woman or the infant (1/18) Among facilities only the MCH reported postpartum visits 87 in 1996 and 62 in the second quarter of 1997 This is less than one client per day (T/6)

C-2 What Are Reporting and Recording Practices?

According to the district manager, all health facilities have the new registration forms and all provide complete MIS forms and review data (1/12 1/13) By and large all facilities in Daraw had forms and 8 of 9 were using the new forms (for antenatal 1st visit antenatal revisit and postpartum care) (2/6) Facilities reported using data to follow up cases (in 5 facilities) and to ascertain quality of services (in 6 facilities) 8 of nine facilities regularly notified reporting events by telephone monthly report or other means (2/6)

6 of 9 facilities have persons trained to use data 3 have nurses, 2 have clerks and one has a nurse and a clerk These statistics were better in Daraw than in other districts (T/7) When providers were interviewed 6 of the 11 involved in recording information said they had been trained to look at data quality but only 4 were trained on how to used data (3/17) The most common use of data (according to providers) is to monitor and evaluate performance (3/17)

D DISTRICT WIDE ISSUES

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

All 23 providers involved in antenatal care reported referring cases When asked what cases they referred 13 of 23 mentioned preeclampsia, 5 of 23 mentioned no fetal movement, and 5 or 23 mentioned diabetes Age>35 anaemia abnormal presentation were also mentioned by 3 of 23 providers Only 4 communicate with facilities they referred to and no one accompanied cases routinely 18 followed up on cases but this was done informally The 6 providers that did not follow up clients stated it was not required (3/16)

E Providers

In Luxor and Aswan governorates as a whole, most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses, 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers, 23 of the 24 interviewed provide antenatal care and postpartum care, though 12 and 13 respectively do so in the capacity of assisting (3/2)

17 of 24 providers in Daraw reported using IEC material on tetanus toxoid, and 15 on breast-feeding positioning 3 did not have IEC materials but most common were posters, flip charts and booklets (3/22)

Training In Daraw in the previous year, one of nine nurses had review training in antenatal and post natal care and 3 nurses, plus 1 nurse supervisor, and 2 of 9 GPs had received training in neonatal care 4 nurses had received training in breast-feeding (T/8) Overall in Luxor and Aswan governorates, 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care, again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol GPs and Obs did not use these

RECOMMENDATIONS

1 Circulate the findings of the report to the health care providers participating in the survey
2 Build commitment among opinion leaders in the medical community (eg Prof of Ob/Gyn) to encourage the importance of the correct management of normal antenatal period and the principles of minimal intervention
3 Determine if practices of limited clinical value such as routine vaginal examinations in the antenatal clinic are standard procedures and how they could be discontinued
4 Ask HPs to set their own personal minimum standards for the antenatal care (If I see a woman in the antenatal clinic I will type of thing)
5 Determine if lack of knowledge is a limiting factor for adequate antenatal care
6 Consider supplying 1 basic evidence based text book and 1 good manual on good practice to all units providing delivery antenatal(mini library)
7 Determine if lack of skills is a limiting factor for adequate intrapartum and neonatal are for women in normal and complicated labour
8 Arrange formal workshops if lack of knowledge or skills are identified as the most important factors for the low standard of care
9 If lack of knowledge or skills are not the most important factors for the low standard of care, it maybe better to arrange peer education (eg 7 HPs used protocols for prenatal history <u>and</u> laboratory investigations in antenatal care) using high standard care providers care as champions of change where ever possible

2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN DARAW DISTRICT

Daraw has a total population of 94,528, 47,109 are women, and an estimated 18,000 (38% of all women) are women of reproductive age (Table 1/1,1/2)

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Daraw, there are between 3 200-3,500 births per year in Daraw According to the health statistics the district manager said there are 2 214 births in 1996 (giving CBR = 23/1000, GFR = 123/1000) (Table 1/2) These figures are lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 3,200 births in Daraw

B IS DARAW DISTRICT PREPARED TO PROVIDE GOOD QUALITY OBSTETRIC, DELIVERY AND NEONATAL CARE?

According to WHO recommendations there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500 000 population According to these criteria Daraw would require 1 CEOC and 1 BEOC facility for its population of 94,528 Daraw has one District hospital and could choose a facility for BEOC among its MCH centre and its 2 rural hospitals which should be able to provide 24 hour obstetric and paediatric services

We investigated the district of Daraw to check its preparedness to provide EOC and found the building infrastructure to be in place Daraw has a district hospital (L5) and 2 private hospitals There are two rural hospitals (without maternity beds) and 1 MCH centre (without maternity beds) There are also an estimated 3 private ob/gyn clinics (Table 1 19) Most public facilities said they were available (in principle) to provide EOC to provide 24 hours emergency care but it is likely that most facilities are severely limited by the fact that thev have no beds and that their opening hours are restricted from 9 00 am to 1 30pm six days a week (Table 1/9)

B - 1 Preparedness of the CEOC Facility

Daraw s main public facility conducting births is the district hospital According to the district manager and the facility derived data it has a total of 62 beds and 8 maternity beds which are all the maternity beds of the district (Table 1/20) (Table B3)) This would bit be adequate as judged by WHO standards (24 maternity beds per district hospital serving a population of 500,000))

The hospital has no waiting area for women and information about the accessibility of a toilet or privacy was not available from the data provided There was no special room set aside of examination and women were examined in the delivery room which had beds and light but was judged to be in poor condition as was the rest of the building in general Data were not collected on the operating theatre

In term of staffing for emergency functions the district hospital has 1 anaesthetist 1 ob/gyn specialist 2 obstetric residents no pediatricians no pharmacists no laboratory specialist and 2 lab technicians There is no blood bank specialist although it seems this functional title may not exist in Egypt This level

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of staffing seems adequate for a facility attending in average 18 5 normal and 1 5 abnormal deliveries per week (in the second quarter of 1997)

Perhaps the reliance on a single ob/gyn specialist and on a single anaesthetist needs to be addressed should Daraw district hospital function as a referral for a larger catchment area This impression was partially shared by the district manager, who felt there were shortages in obstetric and nursing staff (and needed 3 and 199 more respectively)(Table 1/4) In other questions, district manager expressed that the lack of incentives for trainees was one of the major problem facing the district (Table 1/14) Given the low number of deliveries at the district hospital (20 per week in the second quarter of 1997) the number of obstetricians (2) does not seem low In staffing for neonatal care of the hospital and the district is inadequate(Table B1)

Delivery services in the district hospital were available on a 24 hour basis with an ob/gyn on call at night and on holidays Emergency pediatric services were also available on the same basis The hospital said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The hospital did not report transferring any cases and did not provide any information as to where they would send cases In case of need of emergency referral, the hospital and the district had no ambulance (B/4) The distance to the nearest general hospital is 30 km which according to the data provided can be reached within 30 minutes

The facility has a telephone (and so can be contacted in case of emergency, although only 56% of other facilities have a telephone according to the district manager (B/4)) It has regular supplies of electricity and water There is a blood bank but no information provided on equipment at the blood bank (refrigerator, centrifuge, microscope, screening kits) Blood supplies are inadequate, patient are asked to supply from relatives and friends Qualitative data indicate that this is sometimes the case even in emergencies

Based on WHO recommendations this hospital has most of the basic equipment and staffing to manage obstetric emergencies However, there were major deficiencies in some areas there were no disposable or re-usable gloves, no cord ties no anaesthetic agents and an inadequate supply of drugs for the management of hypertension (ie no nitrous oxide no diazepam, no ketamine, no hydralazine) All antibiotics were available, expect for kanamycin suggesting that antibiotic shortage is not a problem for the district hospital The questionnaire did not assess availability of suture materials (reported to often be in short supply Partographs are not use at all The district manager did report difficulties with supplies as a major problem

Daraw District Hopsital has a stock of 2475 intravenous kits (more than twice as much as in the other district hospitals in Aswan governorate together) 1000 ampules of ampicillin (as much as in the other district hospitals in Aswan governorate together),800 ampules of Ceftriaxone (more than three as much as in the other district hospitals in Aswan governorate together), and 800 ampules of magnesium sulfate (more than a 5 years supply) while the district hospitals in Edfu and Kom Ombo had no magnesium sulfate at all Excluding the magnesium sulfate held at Aswan general hospital (1186 ampules) the stock in Daraw is twice the stock held in all health units in Aswan and Luxor governorate together

B - 2 Preparedness for Neonatal Care at District Hospital

In order to provide neonatal care the district hospital requires other material beyond those required for CEOC The district hospital has adequate equipment It has 2 infant laryngoscopes but no ambu bag (bag

and mask) which are critical for resuscitation[1] It is unclear if effective ventilation can be provided with the available equipment This would require (either a bag or bellows for ventilation or) pressurised or piped air or better oxygen and a blow off valve set at no more than 40 cm H_2O Without this an infant laryngoscope alone is useless No information as to any heating in the resuscitation area was provided in the data collected This is could be particularly serious as no towels to dry the baby and no blanket to wrap the baby were found Silver nitrate is not available but tetracycline (which is preferable) is present

B - 3 Basic Emergency Obstetric Care

The only other facilities adequately equipped for deliveries are the rural hospitals and the MCH centre None of them has designated maternity beds (Table 1/20) No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC

These basic facilities have some way to go in terms of being able to provide BEOC (see Table R/6) In particular there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies and some items of equipment need to be redistributed A survey in 9 facilities found deficiencies for iron tablets [5/9] antipyretrics / analgesics [4/9] and antibiotics[7/9](Table 1/14 and 2/8)

It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

B - 4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement routine labour delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken and recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions including vaginal examinations adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* that all instruments used for maternal and neonatal care are sterile

25 deliveries were observed by a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

[1] Swedish data suggests that 1 in 500 full term babies and one in 10 babies requiring resuscitation benefits from intubation A laryngoscope and endotracheal tubes are thus not required for the vast majority of resuscitation procedures An method to inflate the baby s chest (eg an Ambu bag with a working blow off valve or pressurised gases with a T-piece and a working blow off valve is more important for neonatal resuscitation than a laryngoscope) Absence of an Ambu bag may not be worse than the presence of an Ambu bag or pressurised gases without a blow off valve

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother, nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[2] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate, only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[3] Only 17/25 of the HPs checked the fetal heart at regular intervals [4]

Delivery occurred in all cases with the mother lying on her back[5] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights, anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data, it was not clear if women were encouraged to change their position frequently in labour and to empty their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy, 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt too the mother is in more danger of loosing her life in immediate postpartum period the mother than during any other time in her pregnancy Care in the immediate postpartum period requires the early detection of complications, and an appropriate response

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[2]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

[3] Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994

[4]It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[5] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod a drop in blood pressure decreased placental perfusion and fetal distress

to them Early detection requires regular and systematic observation of the mother's vital signs including pulse, blood pressure and blood loss

Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records

Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25) or fever (16/25)

Contraceptive advise was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse, blood pressure or temperature did not provide advise for the postpartum period either

Interpretation

The activities of HPs are determined by many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks motivation, knowledge and skills One can assume that all HPs had the ability knowledge and skills to take routine observation (fetal heart, maternal temperature blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem (Aswan General Hospital has no proteinuria test kits) Even where the facility has a particular piece of equipment, it may not be accessible (Luxor General Hospital has only 1 working sphygmanometer 1 autoclave, 1 working stethoscope and 1 infant weighing scale 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they may have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed but the best possible case Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as "yet another vaginal examination' or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour, which is more than twice the rate as used in most labour wards in the UK

Care in this sample was provided by specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery, it may not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

B - 4 Referral / Transport (Table 2/4)

According to the district manager, physicians from lower level units were asked to transfer complicated cases to the district hospital immediately He did not request that critical cases be accompanied or that telephone contact be made, or an ambulance used The district manager reported no working ambulance (R/4)

Most facilities reported that they would refer complications to the district hospital but three stated they would refer them to the MCH (This could lead to useless delay the MCH has no capacity to deal with complications) Only 2 facilities [2/9] reported that when referrals were made, women would be accompanied at all (by a nurse) As this is a self reported figure it may not reflect routine practice All responding facilities [8/8] reported informal follow-up Referral distances were generally short (11 1 ± 10 1 kilometres and travel time was 31 4 ± 37 minutes Given that quoted referral times often present the best possible circumstances rather than the routine situation, it is likely that decision to arrival intervals exceed 1 hour in more than 25% of cases referred

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C - 1 Where Do Women in Daraw District Deliver and Who Delivers Them?

We estimated that 3200 deliveries occur annually in Daraw District If 1995 DHS data for upper Egypt are applied to Daraw, 78,5% of births take place at home (n=2512), 12 1% in public health facilities (n=387) and 9 1% in private facilities (n=292) 60 9% are attended by dayas (n=1948), 26 0% by doctors (n= 832) 6 2% by nurses/midwives (n=198), the remainder (n=222) deliver with relatives or alone (Reggie, please get cross tabs of where by who)

However the district manager only has data on 1057 deliveries[6] (33 0% of all deliveries)(Table 1/18) Presumably these are deliveries conducted through the public sector and include public facility and home based deliveries attended by the public sector providers It is unclear whether the district manager includes data on the district hospital in his statistics and whether the district hospital falls within his remit

Of the 9 facilities visited, 4 facilities did not report births Among the 5 facilities that reports births there were data on 944 deliveries in 1996 For the second quarter in 1997, 8 facilities reported 591 births (1 facilities were not registering births) (R0/R2) The number of births recorded during the first 3 months of 1997 exceeded 60% of the total for 1996[7] The changes in reported births may be important as previous requirements are used to calculate needs for supplies and drugs

Not all deliveries registered in facilities actually occur in the facilities Indeed many facilities do not actually have beds in Daraw, only the district hospital actually has maternity beds Others facilities (including the MCH) do not have any inpatient facilities Approximately ¼ to ½ of all institutional deliveries occur in these facilities [227 of 944 = 24% in 1996 241 of 591 = 40% in 1997) are conducted

[6]For the period of Jan -Dec 1996 the number of total deliveries recorded was given as 757 the number of normal deliveries was given as 989 and the number of complicated delivery cases as 68

[7]This may be due to improved utilisation or seasonal fluctuations of delivery rates However the most likely explanation are improvements in reporting and data quality

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in institutions with no beds (maternity beds or other beds) (R/2)[8] In thesecond quarter of 1997 though, the hospital reported conducting 247 deliveries (20 5 per week) The other institutions with beds reported 103 deliveries in the same quarter and institutions without inpatient facilities reported 241 deliveries (R/0) This suggests an expected total of 2364 births per year in public facilities This is over 3 imes the number reported for 1996 and over 6 times the annual estimate (387) for public facilities from the DHS data (R/0)[2 9]

C - 2 What Are the Health Statistics for Daraw ?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Daraw this would mean 157 neonatal deaths and 179 post neonatal deaths making a total of 336 infant deaths per year The district manager had no data on stillbirths but had reports of 3 early neonatal deaths and 5 late neonatal deaths (Table 1/18) Even using the 1057 births reported to the MOH a neonatal mortality rate of 7 5 per 1000 can be derived This rate appears very low[10]

Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100 000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 7 maternal deaths in Daraw No data were available on maternal deaths from the district level (Table 1/13,1/18)

What Are Complication Rates?

With 3 200 births in Daraw, 320-480 women are expected to have complications, based on an assumption of 10-15% In 1996 nearly 30% [944 of 3200] of women delivered in public health facilities (R/2)[2] it is possible that women with complications are reaching health services However facility data show that the vast majority of deliveries are normal, indicating there may well be some unmet need

For 1996 district manager has data on 1057 deliveries of which 94% (n=989) were normal the rest (n=68) were complicated Assuming 400 complicated pregnancies in Daraw, this gives a "met need" indicate of 17% Using health facility data we find that for 247 reported births at District Hospital (in the second quarter of 1997) the vast majority of these (230) were normal (93)%, 17 (7%) were reported as complicated This latter number would suggest 68 complicated cases are treated by hospital per year The district hopsital could therefore meet 14-21% of the need for care for pregnacy and labour complications of the district[11]

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[8]The data provide does not distinguish between deliveries which occurred within an institution and deliveries which occurred outside an institution but were registered by the institutions [usually because they were attended by a health worker attached to the institution]

[9]This assumes no major seasonal fluctuations in institutional deliveries

[10] Typical stillbirth and neonatal mortality rates in developed countries are 5 to 10 events per 1000 births The infant mortality rate of 58 per 1000 and a stillbirth rate 59 per 1000 reported by Luxor Governotate is more likely to be accurate

[11]There is a high likelihood of underreporting of complications eg among 247 deliveries one would have expected 5 to 15 cases of postpartum haemorrhage - none was reported Given the poor standard of reporting the

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Other facilities also report complications However, because such facilities may refer women with complications to the district hospital, it is not easy to estimate absolute number of complicated cases managed by the public sector (just adding up reported complications would lead to double counting) while ignoring them (as done here) would discount the effect of any treatment provided at more peripheral units (eg atonic uterine haemorrhage can be effectively controlled with oxytocic drugs in the majority of cases)

Reporting of pregnancy and delivery complications in Daraw was poor while a total of 68 complications was reported no data was available for specific complication or complicated pregnancy outcomes and no rates no further rates or ratios could be calculated The data on maternal and perinatal complications for 1996 are thus of poor very quality and the health facility data on the three months from 4-6 1997 are not any better No data are available the frequency of specific complications at the district level or the health facility level, and data on referral of complicated cases appears to be non-existent While it is possible that some care is occurring in private facilities or that complications in the health facilities are under-reported this low figure nevertheless suggests a high level unmet need

B - 3 Summary of Data on Outputs and Outcomes

According to the district manager 10 of 20 facilities in Daraw provided complete MCH/HIS forms promptly for the month of June 1997(Table 1/13)[12] Notably, no forms were returned from the District Hospital and the MCH Centre

There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu, to 44 4% in Daraw and 47 4% in Kom Ombo (TNA 3 2/3 3) Moreover, reporting is only the initial requirement for an HIS, interpretation and use of data to change practice is a greater requirement and also needs training

The under-reporting compared to expected numbers of births, deaths and complications, the lack of register books and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes However , until such data are useful to providers and planners reporting and recording should not be the focus of efforts

D DISTRICT SYSTEM/MANAGEMENT

D - 1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect, there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

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met need indicator appears of questionable value in Daraw District

[12]Table 1/13 shows that one urban health centre returned MCH/MIS forms while table 1/19 knows of no such a centre in Daraw Table 1/19 also lists 9 other public sector hospitals/clinics This category does not occur in Table 1/13

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This general picture was also the case in Daraw While all facilities reported supervision [9/9] (2/17) guidance and training was only reported by 7 (78%) of facilities Where providers reported having supervision, the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see Table 3/6)

No information concerning job descriptions of main functions was reported from Daraw Data from Edfu, KomOmbo Aswan, and Luxor district show a wide variation in availability of job descriptions and do not allow an extrapolation to Daraw district In general in Aswan and Luxor, job descriptions for each health professional are not available in most any health facility In addition health providers are not familiar with their functions (TNA1 2)

The Daraw district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However, it is to be noted that these women do not have an alternative outlet health facility they are highly tolerant and do not know what to expect from the health provider Moreover the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

D - 2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in service training for GPs in the field of prenatal (22%) and pos partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Daraw only no medically trained provider interviewed used protocols (3/2,3/3) As in the rest of Aswan and Luxor health providers still do not monitor delivery by partograph, and these are not available in any health facility (TNA 1 9) Observation showed that poor infection prevention and control procedures (prenatal delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

D - 3 Logistics

The Daraw district manager reported that supplies were ordered at regular intervals according to a set quota system based on previous requirements Shortages of drugs and supplies was no problem As in most other districts drugs and supplies were transported by facilities every three months (Table 1/6 1/7) The lack of transport facilities was perceived as a main obstacle within the district (Table 1/14) but was not mentioned as a problem with regards to procurement and distributions of drugs and supplies

E ACTIVITIES OF PROVIDERS DOING DELIVERIES

24 providers were interviewed in Daraw of whom 22 (92%) actually provide care during deliveries (Table 3/2) Of these 12 provided 24 hour emergency care

F DAYAS (Table 1/15)

Daraw reports 42 registered dayas all of which have been trained since 1994 All dayas have received refresher training It also estimates there are 7 unregistered dayas making a total of 49 dayas Assuming 1948 births attended by dayas suggests they are doing a average of 40 deliveries a year (3 3 per month)

III - KOMOMBO DISTRICT

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

III - KOM OMBO DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthy practices using health education, and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated, usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993, Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia, detect and treat infection (including STDs), and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart), but are not necessarily effective (if the fetus has no heartbeat, it is too late to do anything)

Similarly, information education and communication (IEC) are important rights of women, and may necessary for communicating essential information (like where one can deliver) Nevertheless, there is no good evidence that health education and counseling interventions change behavior (Oakley, 1995)

Finally, the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC, some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits, and various practitioners in the US and UK are experimenting with 'do it yourself' antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care, bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole, the median number of visits is 6 5, and most women go fairly early, at a median of 2 9 months, and 92% have

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attended by the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediately postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning it is unlikely to address problems such as post-partum hemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectively 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN KOMOMBO

Komombo has an estimated 9000 births per year If each woman had one antenatal care visit in the public sector 9000 first visits would be expected If women had the recommended 4+ in the public sector then at least 27000 repeat visits would be expected making a total of over 36,000 antenatal visits per year If all births had one postpartum follow up visit, Komombo should expect 9000 postpartum check-ups

B IS KOMOMBO PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Komombo has up to 26 facilities capable of providing antenatal and postnatal care one MCH center, 1-3 rural health centres 18 rural health units, 1 or 3 rural hospitals and a district hospital (A2) Komombo also has 25 private dispensaries, 2 private hospitals, and 8 private ob/gyn clinics It is worth finding out what these are and what services they may provide (1/19) According to the district manager, there are no NGOs active in maternal health in the Komombo district (1/17)

All public sector facilities in Komombo (including hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 8 30 to 2 00 pm six days a week, and MCH centers and rural health units have the same hours (1/9) However according to facility managers not all provide six days in particular one MCH and two rural health units provide antenatal care 2 days a week, and one rural health unit provides it only for one day Facilities provide slightly less than six hours per day on average The district hospital and one rural health unit provide 3 hours of service a day while the MCH provide 4 hours of care Two rural health units provide 5 hours of service per day (T/1)

Nineteen facilities were visited in Komombo, and 18 of 19 provided antenatal and post partum care (2/1) Three can provide ultrasound scans and 4 have laboratory hemoglobin but 18 can analyze urine(2/2)

12 of 19 health facilities visited in Komombo had regular water and electricity, but only half (10 of 19) were judged to be in good condition(2/14) Only 5 facilities had waiting areas and 90% had maternal examination rooms which were inadequate Only 2 had an examination table and only 2 allowed privacy Less than 8 of 19 had a working telephone (2/5 2/14)

24 antenatal users were interviewed in Komombo, a quarter (6 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 15 minutes to get to the facility and 1 1 kilometers was the average distance (4/1) Most traveled on foot (17 cases), the remaining 7 took a microbus or taxi Those who went by vehicle paid on average 55 piasters 6 went alone, 1 went with her husband and 17 went with relatives or neighbors (4/2,T/2)

These data suggest an available physical infrastructure that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case, and that women who use services seem willing to travel to seek them

B-2 Drugs and Equipment

In general in Luxor and Aswan governorates shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) Within the nineteen facilities inventoried for drugs and equipment, 17 of 19 facilities had shortages in antibiotics 8 of 19 in ecbolics and 2 of 19 had mentioned shortages in iron Also mentioned were shortages in antipyretics (5 of nineteen facilities) 2/8 Overall, 27 of 40 providers interviewed in Komombo reported drug and supply shortages (3/18) One facility in Komombo had antenatal service protocols (2/18)

Shortages in basic equipment were reported by 16 of 40 of health providers (3/18) However, all 19 facilities have working sphygmanometers and most have several All facilities have stethoscopes (2/20) All facilities have boilers and 17 of 19 have autoclaves All have thermometers (2/20)

B-3 IEC Materials and Sessions

The Komombo district manager appears to have some IEC material largely posters and flip charts on 'at risk' pregnancy, neonatal care breast-feeding and tetanus toxoid vaccine (1/16) He/she also has 1 video tape on neonatal care According to facility managers one (of 19) had materials on antenatal care, 11 of 19 on breast-feeding, four on the proper way to breast-feed 9 on neonatal care , and 2 on tetanus (2/12)

In the previous three months there were no IEC activities reported in Komombo (1/16,2/13)

B-4 Actual Practice of Antenatal Care

As a absolute minimum requirement, routine antenatal care by health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy
* that tetanus toxoid is given to all women with inadequate tetanus vaccination
* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

37 of the 40 providers in Komombo participated in antenatal care and postpartum care(3/2) Among the 22 involved in receiving patients the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (16 and 17 of 22 respectively) Asking information on personal details also mentioned (15 providers of 22) Common measures mentioned were blood pressure (13 of 22) and urine (10 of 22) Weight (6 of 22), height (5 of 22) and blood measures were not mentioned frequently (3 of 22) Most also explained what women should expect (13 of 22) and some (5 of 22) mentioned where to go (for delivery?) (3/4)

According to Women

24 exit interviews were conducted in Komombo These women were not a random sample Women sought care to get tetanus toxoid (17 of 24) or because they felt tired (ill) (8 of 24) (4/11) In Komombo most planned their delivery at home (14 of 24) or in private facilities (7 of 24) (4/12) 14 of 24 preferred physicians for delivery while 6 preferred dayas (4/13) They had paid 10-500 pounds for their delivery with an average of 94 pounds (T/4)

Of 24 women interviewed 11 were first received by nurses All felt welcome and that the person receiving them was welcoming Most felt the waiting place as very comfortable (22 of 24) or somewhat comfortable (1 of 24) (4/3) Most saw a nurse at some point (19 of 24), and all saw her right away or after 5 minutes This was judged reasonable by everyone (4/3,4/5) 10 of 24 also met with a physician, and waited on overage 28 minutes (though 3 women waited between 50-90 minutes) Physician were all friendly and polite (4/6)

9 of the 10 who saw a physician were examined with privacy The one who was not was bothered by this A history was taken in all 10 women as was the duration of current pregnancy Of the important activities (examining the heart with stethoscope, measuring blood pressure and examining the abdomen), 5 6 and 7 women out of 10 were examined respectively (4/7) For 6 women one of these three aspects of antenatal care was a failure (T/5) Weight was measured in 6 of 24 cases, and height, urine and blood were measured 3 5 and 3 cases respectively (4/5) Other activities (ie examining breast, gynecologic exam and ultrasound) were also infrequent (4 4 0 respectively) (4/7) As there is no evidence these activities are needed routinely in every visit this may not be a problem Nine of 24 were given TT injections in their current and five had been given one before Six had not been given one either at the current visit or earlier (T/6) Four were given iron pills and 3 given other unknown medications (4/8)

Communication was not good as only 4 had it explained to them what as being done and why (4/7) Advice was also given to women on personal hygiene (2 women)and breast hygiene (1 woman) and nutrition (3 women) though again there is no evidence this works (4/8) No women were advised on risky signs in pregnancy and how to act if risky signs occur Also, place of delivery was only discussed with 7 clients This is a missed opportunity Only 12 women were told when to come next (4/8)

20 of 24 women were satisfied with service, citing the friendly reception, reassurance and the curative treatment as main reasons The dissatisfied women said they were not examined as expected, waited a long time and did not receive what they came for Women felt the service could be made better with more tests more examinations and more instructions (6 and 2 respectively) 22 said they intended to come back and 23 would recommend the facility to others (4/9) Overall in Luxor and Aswan, 59% of women had an accessibility card, and 96% of women brought their card with them In Komombo, 14

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women had an accessibility card and 13 brought it with them (4/10) The other 10 women were never given one

8 of the 24 women had had a previous visit In previous visits, most (2 of 8) were given dates for revisiting but none were explained risk factors and how to act, or counseled on nutrition and personal hygiene Weight was measures in 2 and blood pressure in 4 of 8 Two said they had a chance to ask questions and were given helpful answers (4/14) Most (11 of 24) visited other facilities, largely private ob/gyn (8 women) and private physicians (2 women) (4/15)

Most of the 17 women with a previous delivery delivered at home (10 of 17), but 3 delivered in a private clinic and 2 used the district hospital 4 of the 17 were visited after delivery (4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital, 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42[3] women had pregnancy problems worth reporting as assessed by the observer However, antenatal history was appropriately recorded by only 29 of 42 HPs

Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination only 1 of 15 of HPs took minimum antiseptic

[1]According to the National Maternal Mortality Study, Egypt 1992-3 MoH Child Survival Project, Cairo 1994, cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

[3]This is a high prevalence of complications and is unlikely to be similar in the general population

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation but less than ¾ of findings were correctly recorded in the client's record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient, too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not?)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Komombo should have 9000 new antenatal visits and at least 27000 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services which would mean 549 first visits and at least 3 times that many repeat visits 66 3% (or 5967) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

The district manager has no data on antenatal visits in 1996 In the second quarter of 1997, the number was 505 Revisits were less frequent (n= 730 for 1997), making the average number of visits to public facilities 2 4 (1/18) The only facility to report antenatal visits for 1996 was a rural health center which reported 146 births However in the second quarter of 1997, 13 facilities reported antenatal visits The number of visits reported ranged between 7-196 making a total of 631 This figure is about 28% of all expected births in the same quarter Nevertheless, the average numbers of new clients seen is between less than one per day and less than one per week The exception is the MCH which is seeing slightly more than 2 new clients per day Even adding revisits does not give a very heavy workload as women have less than 2 5 visits in total

If we look for statistics on the content of care, notably at tetanus toxoid immunization and cases of anemia we find the following in the second quarter of 1997 390 immunizations (range 2-157) and 3 cases of anemia reported from the district hospital

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

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Komombo should also have 9000 postpartum check-ups if all births were followed up postpartum but in practice the number is estimated at slightly over 12% (n=1080) The expected number in the public sector is not known 115 postpartum visits were reported in the second quarter of 1997 according o district level data In the facilities non were reported for 1996 and 189 in the second quarter of 1997 (61 in an MCH and 128 in a rural health center) This is slightly more than one client per day (T/6)

C-2 What Are Reporting and Recording Practices?

According to the district manager, 25 of 26 health facilities have the new registration forms and 22 provide complete MIS forms and review data (1/12 1/13) By and large most facilities in Komombo had forms, and 18 of 19 were using the new forms for antenatal 1st visit and antenatal revisit Only 12 were using them for postpartum care (2/6) Facilities reported using data to follow up cases (12 facilities) and to detect community health problems (9 facilities) and quality of care (6 facilities) 17 of 19 0 ascertain quality of services in 6 facilities) 17 of nineteen facilities regularly notified reporting events by telephone messenger monthly report or other means (2/6)

2 of 19 facilities have persons trained to use data (nurses and clerks) When providers were interviewed, 2 of the 16 involved in recording information said they had been trained to look at data quality (3/17) The most common use of data (according to providers) is to monitor and evaluate performance (3/17)

D District Wide Issues

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers, the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

33 of 37 providers involved in antenatal care reported referring cases When asked what cases they referred 25 of 37 mentioned preeclampsia 12 of 37 mentioned APH, and 12 of 37 mentioned diabetes Pervious c-section (11 of 33) and abnormal presentation (13 of 37) were also mentioned Only 4 providers communicate with facilities they referred to and 4 accompanied cases 21 followed up on cases but this was largely done informally (13 cases) The providers that did not follow up clients stated it was not required or there were no records (3/16)

E Providers

In Luxor and Aswan governorates as a whole most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers 37 of the 40 interviewed provide antenatal care and 26 of 40 provided postpartum care, though 12 and 13 respectively do so in the capacity of assisting (3/2)

17 of 40 providers in Komombo reported using IEC material on tetanus toxoid, and 18 on breast-feeding positioning 20 did not have IEC materials but most common were posters, flip charts and booklets (3/22)

Training Overall in Luxor and Aswan governorates, 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy, preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care, again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol GPs and Obs did not use these

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2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN KOM OMBO DISTRICT

Kom Ombo has a total population of 270 852 133128 are women and an estimated 50 000 (38% of all women) are women of reproductive age (Table 1/1 1/2)[1]

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Kom Ombo there are between 8 200 and 9 400 births per year in Kom Ombo According to the estimated health statistics the district manager said there are 7542 births in 1996 (giving CBR = 27/1000, GFR = 150/1000) (Table 1/2) These figures are lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 9,000 births in Kom Ombo

B IS KOM OMBO DISTRICT PREPARED TO PROVIDE GOOD QUALITY OBSTETRIC, DELIVERY AND NEONATAL CARE?

According to WHO recommendations there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500,000 population According to these criteria Kom Ombo District requires 1 CEOC and 2 BEOC facilities for its population of 270,852 The CEOC facility of Kom Ombo District is its 1 district hospital Kom Ombo District also has 1 MCH Centre and 1 Rural Hospital which would be sufficient BEOC facilities if they would provide 24 hour obstetric and paediatric services

We investigated the district of Kom Ombo to check its preparedness to provide EOC and found the building infrastructure to be in place Kom Ombo has a district hospital and 2 private hospitals There is 1 rural hospital (without maternity beds) and 1 MCH centre (without maternity beds) There are also an estimated 8 private ob/gyn clinics (Table 1 19)

Most public facilities said they were available (in principle) to provide EOC to provide 24 hours emergency care but it is likely that most facilities are severely limited by the fact that they have no beds and that their opening hours are restricted from 8 30 am to 2 00pm six days a week (Table 1/9) Facility based data however suggested that 18/19 facilities offer delivery services and 19/19 emergency services for infants on a 24 hour basis One facility had a 24 hour on call obstetric specialist and 2 had 24 hour paediatric specialist services (Table 2/3) It remains unclear how a 24 hour service can be provided in institutions without inpatient facilities and with 5 hours opening time / day

B - 1 Preparedness of the CEOC Facility

Kom Ombo s main public facility conducting births is the district hospital According to the district manager it has a total of 94 beds and 18 maternity beds which are all the maternity beds of the district (Table 1/20) (B3)) According to the hospital director the facility has 131 beds and 16 maternity beds This would be adequate as judged by WHO standards (24 maternity beds per district hospital serving a population of 500 000)

[1]Facility based data suggested that the district hospital has a catchment area of 800 000

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Hospital Infrastructure

Space in the waiting area for women was judged as "not available" the rest of the assessment including the inspection of toilets was judged as "not applicable" Space was again a problem in the maternal examination room as was privacy Examination place, light, stool and examination table were assessed as "not applicable" According to the data, the delivery room was well prepared, with good lighting and was in a good condition (privacy was not assessed separately), as was the general condition of the hospital building Data were not collected on the operating theatre

Facility based and district based data shows that in terms of staffing for emergency functions, the district hospital has 1 anaesthetist, 8 ob/gyn specialists, 6 obstetrics resident, 2 paediatricians, 2 pharmacists, no laboratory specialist and 4 lab technicians There is no blood bank specialist, although it seems this functional title may not exist in Egypt This level of staffing seems more than adequate, expect perhaps for the 24 hour reliance on one anaesthetist However it is noted that the district manager felt there were shortages in obstetric and nursing staff (and needed 16 and 205 more respectively) (Table 1/4) In other questions district manager expressed that the lack of specialized physicians at the MCH centre was one of the major problem facing the district (Table 1/14) Given the number of deliveries at the district hospital (63 per week during the second quarter of 1997) the number of obstetricians and residents does not low at all In staffing for neonatal care of the hospital and the district is inadequate(Table B1)

Delivery services in the district hospital were available on a 24 hour basis with an ob/gyn on call at night and on holidays Emergency pediatric services were also available on the same basis The hospital said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The hospital did not report transferring any cases and did not provide any information as to where they would send cases In case of need of emergency referral, the hospital and the district had no ambulance (B/4) As the hospital does apparently not refer cases the information of referral time and distance to the nearest general hospital was given as " not applicable" in the data provided

The facility has a telephone (and so can be contacted in case of emergency, although only 56% of other facilities have a telephone according to the district manager (B/4)) It has **NO** regular supplies of electricity and water

There is a blood bank with adequate equipment (refrigerator centrifuge, microscope, screening kits) Blood supplies are inadequate, patient are asked to supply from relatives and friends Qualitative data indicate that this is sometimes the case even in emergencies

Based on WHO recommendations this hospital has most of the basic equipment and staffing to manage obstetric emergencies Information from hospital data suggested that unspecified antibiotics are the only drug group in short supply[2] However there were major deficiencies in some areas there are no reusable or disposable gloves urine test kits to detect proteinuria, there was adequate supply of anaesthetic agents including ketamine[3] but there are insufficient drugs to treat eclampsia (ie no magnesium sulphate

[2] Given the high staff number (8 ob/gyn specialists and 6 residents it could be possible that the respondent to the question might not have requested antibiotics recently His/her response may not reflect the true local situation

[3] There was an appropriate supply of nitrous oxide or other general anaesthetic agents If nitrous oxide (rather than ether) is used a safe and secure supply of oxygen has to be available, too The data provide no information about this

[diazepam is available] and no hydralazine)

Oxytocic drugs and all antibiotics expect for kanamycin were available and are probably oversupplied (eg there were 1152 ampules of Gentamycine available), suggesting that antibiotic shortage is not a problem for the district hospital Oversupply may also be a problem for other drugs (eg oral antihypertensives where this hospital had more stocks than all other district hospitals in Aswan governorate together) The questionnaire did not assess availability of suture materials (reported to often be in short supply) Partographs are not use at all and no other standard record forms appear to be available (antenatal delivery, postpartum, child care incubator records)

B - 2 Preparedness for Neonatal Care at District Hospital

In order to provide neonatal care, the district hospital requires other material beyond those required for CEOC The district hospital has more than its fair share of equipment (one infant laryngoscope and 4 Ambu bags)[4] which has been judged to be in a working condition It would be useful to know that the blow of valves at the Ambu bags and any other equipment used for ventilation has been set no higher than 40 cm H_2O pressure No information is available concerning facilities to keep the baby warm during resuscitation Silver nitrate is not available but tetracycline (which is preferable) is present

B - 3 Basic Emergency Obstetric Care

The only other facilities with beds (and thus capable of doing facility deliveries) is the rural hospital It has no designated maternity beds (Table 1/20) No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC

These basic facilities have some way to go in terms of being able to provide BEOC (see table R/6) In particular there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies, and some items of equipment need to be redistributed The district manager did report difficulties with supplies as a major problem though the facility survey found deficiencies only for unspecified antibiotics (18/19) (Table 1/14 and 2/8) It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

B - 4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement, routine labour delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken <u>and</u> recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions, including vaginal examinations adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* that all instruments used for maternal and neonatal care are sterile

[4] Swedish data suggests that 1 in 500 full term babies and one in 10 babies requiring resuscitation benefits from intubation A laryngoscope and endotracheal tubes are thus not required for the vast majority of resuscitation procedures An method to inflate the baby s chest (eg an Ambu bag <u>with</u> a working blow off valve or pressurised gases with a T-piece and a working blow off valve is more important for neonatal resuscitation than a laryngoscope) Absence of an Ambu bag may not be worse than the presence of an Ambu bag or pressurised gases without a blow off valve

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25 deliveries were observed by a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department, 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[5] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate, only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[6] Only 17/25 of the HPs checked the fetal heart at regular intervals [7]

Delivery occurred in all cases with the mother lying on her back[8] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data it was not clear if women were encouraged to change their position frequently in labour and to empty

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[5]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

[6]Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994

[7]It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[8] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod a drop in blood pressure decreased placental perfusion and fetal distress

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their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable, it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study, Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy, 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt, too the mother is in more danger of losing her life in immediate postpartum period the mother than during any other time in her pregnancy

Care in the immediate postpartum period requires the early detection of complications, and an appropriate response to them Early detection requires regular and systematic observation of the mother's vital signs including pulse, blood pressure and blood loss Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so, those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records

Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25) or fever (16/25)

Contraceptive advice was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse, blood pressure or temperature did not provide advise for the postpartum period either

Interpretation

The activities of HPs are determined by many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks motivation, knowledge and skills One can assume that all HPs had the ability knowledge and skills to take routine observation (fetal heart, maternal temperature blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem (Aswan General Hospital has no proteinuria test kits) Even where the facility has a particular piece of equipment, it may not be accessible (Luxor General Hospital has only 1 working sphygmanometer 1 autoclave, 1 working stethoscope, and 1 infant weighing scale 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they may have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed, but the best possible case Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as "yet another vaginal examination or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour which is more than twice the rate as used in most labour wards in the UK

Care in this sample was provided by specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery, it may not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

B - 5 Referral / Transport

According to the district manager, physicians from lower level units were asked to transfer complicated cases to the district hospital immediately He did not request that critical cases be accompanied or that telephone contact be made, or an ambulance used The district manager reported no working ambulance (Table 2/5) Referral from the MCH was identified as one of the main problems in the district by the district manager (Table 1/14)

Respondents in 1 facility reported that they would refer to a urban health centre This could lead to useless delay an urban health centre[9] may not have the capacity to deal with complications Respondents form 1 facility did either not have any referrals or did principally not refer Only 8 facilities [8/19] reported that when referrals were made, women would be accompanied at all (Table 2/4) As this is a self reported figure it may not reflect routine practice Nearly all responding facilities [10/11] reported informal follow-up (Table 2/4) Referral distances were generally short (13 $\pm$ 14 kilometres, and travel time was 32 minutes $\pm$ 41 minutes (Table 2/4) Given that quoted referral times often present the best possible circumstances rather than the routine situation, it is likely that decision to arrival intervals exceed 1 hour in more than 25% of cases referred

C DATA ON HEALTH OUTPUTS AND OUTCOMES IN KOM OMBO DISTRICT

C - 1 WHERE DO WOMEN IN KOM OMBO DISTRICT DELIVER AND WHO DELIVERS THEM?

We assumed that 9 000 women deliver every year in Kom Ombo district If 1995 DHS data for upper Egypt are applied to Kom Ombo, 78 5% of births take place at home (n=7065), 12 1% in public health facilities (n=1089) and 9 1% in private facilities (n=819) 60 9% are attended by dayas (n=5481), 26 0% by doctors (n= 2340), 6 2% by nurses/midwives (n=558) the remainder (n=621) deliver with relatives or alone

The district manager has no data of reported (rather than estimated) deliveries for 1996 (Table 1/18) Of the 19 facilities visited, 15 facilities did not report birth in 1996 Facility based data was not available for the district hospital However 391 deliveries have been recorded in facilities without beds (4 3% of all expected deliveries) Presumably these are deliveries conducted through the public sector and include public facility and home based deliveries attended by the public sector providers For the second quarter

[9] There are no such facilities in Kom Ombo

of 1997 13 facilities reported 1039 births[10] (3 facilities were not registering births and 3 had an insufficient reporting system) The number of births recorded during the second 3 months of 1997 is more than double the total for 1996[11] These changes in reported births may be important as previous requirements are used to calculate needs for supplies and drugs

Not all deliveries registered in facilities actually occur in the facilities In Kom Ombo District, only the district hospital has maternity beds All reported deliveries in 1996 occurred in facilities without beds During the second 3 months of 1997, 795 of the 1039 reported deliveries occurred in the district hospital (average 67/weeks = 3180/year[1]) and 252 in institutions without beds (= no inpatient facilities) This suggests an expected total of 4156 births per year in public facilities (compared to an estimated 1089 in public facilities from the DHS)[12]

C - 2 WHAT ARE THE HEALTH STATISTICS FOR KOM OMBO ?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Kom Ombo, this would mean 441 neonatal deaths and 504 post neonatal deaths making a total of 945 infant deaths per year
The district manager had reports of (Table 1/18)

	1996	**second quarter of 1997**
Stillbirths	112	20
Early neonatal deaths	4	0
Late neonatal deaths	8	1

Using the 403 births and 1 neonatal death reported to the MOH, a neonatal mortality rate of 2 4 per 1000 can be derived[13]

Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100 000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 20 maternal deaths in Kom Ombo No data were available on maternal deaths from the district level (Table 1/13,1/18)

What Are Complication Rates?

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[10]For the period of Jan -March 1997 the number of total deliveries known to the district manager was 403, the number of normal deliveries was given as 403 and the number of complicated delivery cases was not available (Table 1/18)

[11]This may be due to improved utilisation or seasonal fluctuations However improved reporting of deliveries appears the most likely explanation

[12]This assumes no major seasonal fluctuations in the number of institutional deliveries

[13]This rate appears too low to be true Typical stillbirth and neonatal mortality rates in developed countries are 5 to 10 events per 1000 births It is likely that the ' favourable ' figures for Kom Ombo are the result of under reporting and miscalssification Stillbirth usually accounts for ⅓ to ½ of all cases of perinatal mortality (= stillbirth + early neonatal death) Kom Ombo reports 30 times more stillbirth than early neonatal deaths

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With 9,000 births in Kom Ombo, 900-1,345 women are expected to have complications, based on an assumption of 10-15% In 1996 less than 5% [391 of 9000] of women were reported to have delivered in public health facilities (R/2)[2] As deliveries at the district hospital were not reported it is not possible to estimate how many women with complications did receive care in an appropriate facility

During the second quarter of 1997, 795 deliveries were recorded at the district hospital If the total number of number deliveries during this period was approximately 2250 (= 9,000 x ¼) over ⅓ of all deliveries would have occurred in the district hospital[14] It therefore possible that all women with complications are reach the health service

The district manager has no data on deliveries for 1996 For the second quarter of 1997 he has data on 403 deliveries All deliveries reported to the district manager in were uncomplicated Reporting of pregnancy and delivery complications in Kom Ombo does not permit the calculation of any met need indicators in general or for specific complication or complicated pregnancy outcomes

Using health facility data we find that for the 795 reported births at the district hospital (in the second quarter of 1997), the vast majority of these (n=485) were normal (61%), while 310 (39%) were complicated This latter number would suggest 1240 complicated cases are treated by the hospital per year giving a 'met need" indicator of (1240 of 900-1,345 cases) of 92-137% Among the 310 complicated deliveries were 21 Caesarean sections (Caesarean section rate of 2 6%[15]), 45 cases requiring blood transfusion, 10 cases of antepartum haemorrhage, 4 cases of postpartum haemorrhage, 1 breech delivery [16] 19 cases of pre-eclampsia, 4 cases of eclampsia[17], and 2 cases of ruptured uterus

Other facilities also report complications However, because such facilities may refer women with complications to the district hospital, it is not easy to estimate absolute number of complicated cases managed by the public sector (just adding up reported complications would lead to double counting) while ignoring them (as done here) would discount the effect of any treatment provided at more peripheral units (eg atonic uterine haemorrhage can be effectively controlled with oxytocic drugs in the majority of cases)

C - 3 Summary of Data on Outputs and Outcomes

According to the district manager 21 of 25 facilities in Kom Ombo provided complete MCH/HIS forms promptly for the month of June 1997(Table 1/13) Notably no forms were returned form the District Hospital

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[14] If 1995 DHS data for upper Egypt are applied to Kom Ombo no more 12 1% of all deliveries would occur in all public health facilities The high number of deliveries recorded at the district hospital during the second quarter of 1997 should thus be interpreted with caution

[15] There is no consensus as to the correct Caesarean section rate for a country or an institution 5% is a very arbitrary assumption based on the lowest Caesarean section rates reported form large institutions in W Europe with good maternal and perinatal outcomes To reach such a low rate very stringent criteria would have to be applied Nearly all hospital obstetric units in the UK have Caesarean section rates between 10% and 15%

[16] In random sample of approximately 800 deliveries in UK one would approximately expect 8 cases of antepartum haemorrhage 40 cases of postpartum haemorrhage 12 breech presentations at term (some of which would be delivered by Caesarean section)

[17] In the UK one would expect one case of eclampsia for every 300 cases of pre eclampsia

There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu, to 44 4% in Daraw and 47 4% in Kom Ombo (TNA 3 2/3 3) Moreover reporting is only the initial requirement for an HIS, interpretation and use of data to change practice is a greater requirement and also needs training

The under-reporting compared to expected numbers of births, deaths and complications, the lack of register books, and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes However, until such data are useful to providers and planners reporting and recording should not be the focus of efforts

D DISTRICT SYSTEM/MANAGEMENT

D - 1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

This general picture was also the case in Kom Ombo While all facilities reported supervision [19/19] (Table 2/17) guidance and training was only reported by 5 (26%) of facilities Where providers reported having supervision, the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see table 3/6)

Job descriptions in Kom Ombo were available for 4 out of 10 key cadres of health workers However, no job descriptions were seen (Table 1/5) at district management level In general in Aswan and Luxor, job descriptions for each health professional are not available in most any health facility In addition, health providers are not familiar with their functions (TNA1 2) In Kom Ombo, job description exist for district health officers district nurse/supervisors rural health physicians and rural health centre midwives only No job descriptions exist for hospital based health workers

The Kom Ombo district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However, it is to be noted that these women do not have an alternative outlet health facility they are highly tolerant and do not know what to expect from the health provider Moreover, the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

D - 2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in

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service training for GPs in the field of prenatal (22%) and pos partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Kom Ombo, only no medically trained provider interviewed used protocols (Table 3/2,3/3) As in the rest of Aswan and Luxor, health providers still do not monitor delivery by partograph, and these are not available in any health facility (TNA 1 9)

Observation showed that poor infection prevention and control procedures (prenatal, delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

D - 3 Logistics

The Kom Ombo district manager reported that supplies were ordered at regular intervals according to a set quota system based on previous requirements Shortages of drugs and supplies was a problem particularly for antibiotics and antipyretics/analgesics Drugs and supplies were transported by facilities every two months (Table 1/6,1/7) (In all other district 3 monthly supply is the rule) The lack of transport facilities was perceived as a main obstacle within the district (Table 1/14) but was not mentioned as a problem with regards to procurement and distributions of drugs and supplies

E ACTIVITIES OF PROVIDERS DOING DELIVERIES

40 providers were interviewed in Kom Ombo of whom 31 (78%) actually provide care during deliveries (Table 3/2) Of these 30 provided 24 hour emergency care

F DAYAS (Table 1/15)

Kom Ombo reports 159 registered dayas, all of which have been trained since 1982[18] All dayas have received refresher training It also estimates there are 5 unregistered dayas, making a total of 164 dayas Assuming 5481 births attended by dayas suggests they are doing a average of 33 deliveries a year (2 7 per month) No information concerning their activities or standard of care was available form the survey

[18] It is unlikely that all davas trained in 1982 are living in the area and are still practising 15 years later

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IV - ASWAN DISTRICT

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

IV - ASWAN DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthv practices using health education, and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated, usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993, Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia, detect and treat infection (including STDs), and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart), but are not necessarily effective (if the fetus has no heartbeat, it is too late to do anything)

Similarly information education and communication (IEC) are important rights of women, and may necessarv for communicating essential information (like where one can deliver) Nevertheless, there is no good evidence that health education and counselling interventions change behaviour (Oakley, 1995)

Finally, the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits and various practitioners in the US and UK are experimenting with 'do it yourself' antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care, bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low, those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole, the median

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number of visits is 6 5, and most women go fairly early, at a median of 2 9 months, and 92% have attended bv the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services, 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediatelv postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However, the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning it is unlikely to address problems such as post-partum haemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectively 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN ASWAN

Aswan district has an estimated 7500 births per year If each woman had one antenatal care visit in the public sector 7500 first visits would be expected If women had the recommended 4+ in the public sector, then at least 22500 repeat visits would be expected, making a total of over 30,000 antenatal visits per year If all births had one postpartum follow up visit, Aswan should expect 7500 postpartum check-ups

B IS ASWAN PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Aswan has up to 24 facilities capable of providing antenatal and postnatal care three MCH centers, 2-3 urban health center, 13-14 rural health units, 2 rural hospitals and a general hospital (A2) Aswan has no information on the private sector though it may be worth finding out what services exist (1/19) According to the district manager, there are no NGOs active in maternal health in the Aswan district (1/17)

All public sector facilities in Aswan (including hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 8 30 to 2 00 pm six days a week, and MCH centers and rural health units have the same hours (1/9) However, according to facility managers not all provide six days in particular one MCH provides services 2 days per week Facilities provide slightly less than six hours per day on average One urban health centre provides 4 hours per day while 2 rural health units provide 5 hours per day (T/1)

Nineteen facilities were visited in Aswan 18 of 19 provided antenatal and post partum care (2/1) Only one (the general hospital) can provide ultrasound scans, while 9 provide laboratory hemoglobin but 18 can analyse urine(2/2)

14 of 19 health facilities visited in Aswan had regular water and electricity, but only two thirds (12 of 19) were judged to be in good condition(2/14) 15 of the facilities had waiting areas, and about half or the maternal examination rooms were adequate Only 11 of 19 had an examination table Two facilities had stools for the doctor and only 11 allowed privacy Only slightly less than one third (6 of 19) had a working telephone (2/5,2/14)

27 antenatal users were interviewed in Aswan roughly one third (9 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 27 minutes to get to the facility and 2 1 kilometres was the average distance (4/1) Most travelled on foot (21 cases), three went by boat 2 took a microbus or taxi, and one took a private car Those who went by vehicle paid on average 100 piastres 4 went alone, 1 went with her husband and 12 went with relatives or neighbours (4/2,T/2)

These data suggest an available physical infrastructure, that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case, and that women who use services seem willing to travel to seek them

B-2 DRUGS AND EQUIPMENT

In general in Luxor and Aswan governorates, shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) In Aswan district, within the nineteen facilities inventoried for drugs and equipment 7 of 19 facilities had shortages in antibiotics and shortages in iron Also mentioned were shortages in antipyretics (4 of 19 facilities), ecbolics (??) (5 of 19), and antihypertensive tablets (3 of 19) 2/8 Overall 31 of 50 providers interviewed in Aswan district reported drug and supply shortages (3/18) One facility in Aswan had antenatal protocols (2/18)

Shortages in basic equipment were reported by 3 of 50 of health providers (3/18) However, all facilities have working sphygmanometers and most have several All facilities have stethoscopes (2/20) 18 of 19 facilities have boilers and 17 of 19 have autoclaves 17 of 19 have thermometers (2/20)

B-3 IEC MATERIALS AND SESSIONS

The Aswan district manager appears to no IEC material 1/16) According to facility managers, 4 of 19 had materials on antenatal care, 15 on breast-feeding, 4 on the proper way to breast-feed (2/12)
In the previous three months the district manager reported one meeting in Aswan aimed at liaison officers on the importance of ORS(1/17) 7 of 19 health facility managers also reported having held group meetings, and 14 of 19 provided home visits (2/13)

B-4 ACTUAL PRACTICE OF ANTENATAL CARE

As a absolute minimum requirement, routine antenatal care bv health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy

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* that tetanus toxoid is given to all women with inadequate tetanus vaccination
* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

42 of the 50 providers in Aswan participated in antenatal care and postpartum care(3/2) Among the 37 involved in receiving patients, the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (24 and 18 of 37 respectively) Asking information on personal details also mentioned (19 providers of 37) The most common measures mentioned were temperature (25 of 37), blood pressure (20 of 37), pulse and weight (19 of 37) and height (16 of 37) Urine and blood measures were mentionedsomewhat infrequently (12 of 37 and 15 of 37) Most also explained what women should expect (31 of 37) and some (9 of 37) mentioned where to go for delivery (3/4)

According to Women

27 exit interviews were conducted in Aswan These women were not a random sample Women sought care to get tetanus toxoid (15 of 27), to get a regular check-up (8) or because they felt tired (ill) (6) (4/11) In Aswan 9 planned their delivery at home and 7 planned to use MOH facilities 14 preferred physicians for delivery while 3 preferred davas (4/13) They had paid 0-150 pounds for their delivery, with an average of 43 pounds (T/4)

Of 27 women interviewed, 19 were received by nurses when they arrived in the facility All felt welcome and that the person receiving them was welcoming Most felt the waiting place as very comfortable (24 of 27) or somewhat comfortable (2 of 27) (4/3) 26 saw a nurse at some point, and all saw her right away or after 5 minutes This was judged reasonable by everyone (4/3,4/5) 20 of 27 also met with physician, and waited on average 22 minutes to do so (though 2 women waited 70 and 90 minutes) Physician were all friendly and polite (4/6)

All 20 of those examined by a physician had privacy A history was taken (19 of 20) and duration of current pregnancy (all 20 women) Of the important activities (examining the heart with stethoscope, measuring blood pressure and examining the abdomen) 16 19, and 17 women out of 20 were examined respectively (4/7) For five women one of these three aspects of antenatal care (T/5) Weight was measured in 16 cases Height, urine, blood, and breast exam were 15, 14, 12, and 14 cases respectively (4/5) Other activities (ie gynecologic exam and ultrasound) were done less frequently (1 and 0 respectively) (4/7) As there is no evidence these activities are needed routinely in every visit, this may not be a problem 22 women were given TT injections in their current visit and 5 had been given one before Four had not been given one either at the current visit or earlier (T/6) Four were given iron pills and 6 given other unknown medications (4/8)

Communication was not good as only 14 had it explained to them what as being done and why (4/7) Advice was also given to 6 women on personal hygiene (7) and breast hygiene (13), exercise (8) and nutrition (10) though again there is no evidence this works (4/8) 10 of 27 women (37%) were advised on risky signs or pregnancy and 9 (33%) on how to act if risky signs occur Also, place of delivery was only discussed with 10 clients This is a missed opportunity Only 15 women were told when to come next (4/8)

24 women were satisfied with service, citing the friendly reception and the curative treatment as reasons The only dissatisfied women said she was not examined as expected Women felt the service could be

made better with better examinations more tests and provision of medication (2 cases each) 25 said they intended to come back and 26 would recommend the facility to others (4/9) Overall in Luxor and Aswan 59% of women had an accessibility card, and 96% of women brought their card with them In Aswan 21 women had an accessibility card, and all brought it with them (4/10) The other 6 women were never given one

9 of the 27 women had had a previous visit In previous visits, 5 were given dates for revisiting, and 2 of 9 were explained risk factors and how to act, and 5 of 9 were counseled on nutrition and personal hygiene Weight and blood pressure were measured in 3 and 5 respectively, and 3 say they had a chance to ask questions and were given helpful answers (4/14) 18 of the 27 had visited other facilities largely private ob/gyn (17 cases) (4/15)

8 of the 20 women with a previous delivery had delivered at home and 9 had used MOH facilities Most (16 of 20) were not visited after delivery (4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital, 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However, we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother, all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42[3] women had pregnancy problems worth reporting as assessed by the observer However, antenatal history was appropriately recorded by only 29 of 42 HPs

Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

[1]According to the National Maternal Mortality Study, Egypt 1992-3 MoH Child Survival Project, Cairo 1994, cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

[3]This is a high prevalence of complications and is unlikely to be similar in the general population

The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination, only 1 of 15 of HPs took minimum antiseptic precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation, but less than ¾ of findings were correctly recorded in the client's record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not?)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Aswan should have 7500 new antenatal visits and at least 22,500 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services, which would mean 458 first visits and at least 3 times that many repeat visits (n=1374) 66 3% (or 4973) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

According to the district manager data, Aswan health facilities report 1248 new antenatal care visits in the year 1996 This would suggest 17% pregnant women used public facilities (this seems a bit high unless tetanus toxoid alone merits recording as a new antenatal care client) In the second quarter of 1997 the number was 654 Revisits were less frequent (n= 941 and 230 for 1996 and 1997 respectively) making the average number of visits to public facilities between 1 4-1 8 (1/18) Only the 2 MCH facilities reported antenatal visits for 1996 (331 and 491 visits) However, in the second quarter of 1997, 16 facilities reported antenatal visits Visits in facilities ranged between 3-218 (the MCHs were 178, 218 and 108) Altogether, 700 first visits were reported which is about 37% of all expected births in the same quarter Nevertheless, the average numbers of new clients seen is between less than one per day and

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

less than one per week The exceptions are the MCHs which are seeing around 2 new clients per day Even adding revisits does not give a very heavy workload as only about 70% of women return for a revisit

If we look for statistics on the content of care, notably at tetanus toxoid immunization and cases of anemia we find the following in the second quarter of 1997 389 immunizations (ranging from 2-113) and 176 cases of anemia, mostly in the general hospital and he MCH

Aswan should also have 7500 postpartum check-ups if all births were followed up postpartum but in practice the number is estimated at slightly over 12% (n=900) The expected number in the public sector is not known 200 postpartum visits were reported in 1996 to the district manager (1/18) Among facilities there were no postpartum visits in 1996 and 75 in the second quarter of 1997 (range 5-51) This is less than one client per day (T/6)

C-2 What Are Reporting and Recording Practices?

According to the district manager, 19 of 24 health facilities have the new registration forms and 16 provide complete MIS forms and review data (1/12,1/13) By and large most facilities in Aswan had forms and 18 of 19 were using the new forms for antenatal 1st visit, antenatal revisit, and 5 of 19 were using them for postpartum care (2/6) Facilities reported using data to follow up cases (11 facilities) detect community health problems (4 facilities) and to assess services (6 facilities) 10 of nineteen facilities regularly notified reporting events by telephone messenger, monthly report or other means (2/6)

19 of 24 facilities have persons trained to use data, largely nurses, and GPs When providers were interviewed 16 of the 19 involved in recording information said they had been trained to look at data quality but only 13 were trained on how to use data (3/17) The most common use of data (according to providers) is to monitor and evaluate performance (3/17)

D District Wide Issues

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers, the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

41 of 42 providers involved in antenatal care reported referring cases When asked what cases they referred 29 of 41 mentioned preeclampsia, 13 of 41 mentioned APH, and 7 of 41 mentioned health failure Only 3 communicate with facilities they referred to and 3 accompanied cases routinely 12 followed up on cases but this was done informally in 7 of the 12 providers The 25 providers that did not follow up clients stated it was not required there were no records and it as difficult to follow up clients (3/16)

E PROVIDERS

In Luxor and Aswan governorates as a whole most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses, 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers interviewed in Aswan district, 42 of the 50 interviewed provide antenatal care and 29 of 50 provide postpartum care 16 and 7 respectively do so in the capacity of assisting (3/2)

41 of 50 providers in Aswan reported using IEC material on tetanus toxoid, and 34 on breast-feeding positioning 3 did not have IEC materials but most common were posters, flip charts and booklets (3/22)

Training Overall in Luxor and Aswan governorates, 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy, preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol GPs and Obs did not use these

2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN ASWAN DISTRICT

Aswan District has a total population of 240 821, 117,047 are women, and an estimated 40 121 (38% of all women) are women of reproductive age (Table 1/1 1/2)

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Aswan District there are between 8 300 births (using CBR) and 6580 (using GFR) per year in Aswan District According to the health statistics the district manager said there are 6,744 births in 1996 (giving CBR = 28/1000) (Table 1/2) These figures are lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 7,500 births in Aswan District

B IS ASWAN DISTRICT PREPARED TO PROVIDE GOOD QUALITY OBSTETRIC, DELIVERY AND NEONATAL CARE?

According to WHO recommendations, there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500,000 population According to this Aswan district requires one district hospital and 2 BEOC facilities for its population of 240,821

Aswan district has 1 General Hospital and can choose which of its 3 MCH Centres and 3 Rural Hospitals should serve as BEOC facilities with 24 hour access to obstetric and paediatric care

We investigated the district of Aswan District to check its preparedness to provide EOC and found the building infrastructure to be in place Aswan District has a General Hospital but no district hospitals (L5) There are 3 rural hospitals (without a total of 32 beds but no maternity beds) and 3 MCH centres (without beds) No data on private hospitals and private ob/gyn clinics was provided (Table 1 19)

Most public facilities said they were available (in principle) to provide EOC to provide 24 hours emergency care, but it is likely that most facilities are severely limited by the fact that they have no beds and that their opening hours are restricted from 8 30 am to 2 00pm, six days a week (Table 1/9) Other data however suggested that 16/19 facilities offer emergency delivery services and 16/19 emergency services for infants on a 24 hour basis (Table 2/3) One facility had a 24 hour on call obstetric and paediatric specialist services It remains unclear how a 24 hour service can be provided in institutions without inpatient facilities and with 5 hours opening time / day

B - 1 Preparedness of the CEOC Facility

Aswan District s main public facility conducting births is the General hospital According to the district manager it has a total of 314 beds and 16 maternity beds which are all the maternity beds of the district (Table 1/20) (B3)) According to the hospital director, the facility has 150 beds, and 25 maternity beds The latter number is adequate judged by WHO standards (24 maternity beds per district hospital serving a population of 500,000)

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The hospital has a covered waiting area for women which is judged sufficient and well maintained However, there is no toilet available nearby There are no labour room beds There is a maternal examination room (with examination table) which allows privacy The delivery room well prepared and private with good lighting But the general situation of the room is not good(?) Data were not collected on the operating theatre

In terms of staffing for emergency functions, the General Hospital has 3 anaesthesiologists, 13 ob/gyn specialists 15 obstetrics resident, 7 paediatricians 4 pharmacists, 13 laboratory specialist and 12 laboratory technicians There is no blood bank specialist, although it seems this functional title may not exist in Egypt This level of staffing seems more than adequate However, it is noted that the district manager felt there were shortages in obstetric and nursing staff (and needed 17 and 308 more respectively) (Table 1/4) In other questions, district manager expressed that the lack of female nurses and the lack of training for nurses on MCH services were the major problem facing the district (Table 1/14)[1]

Delivery services in the General Hospital were available on a 24 hour basis with an ob/gyn on call at night and on holidays Emergency paediatric services were also available on the same basis The hospital said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The hospital did not report transferring any cases and did not provide any information as to where they would send cases In case of need of emergency referral, the hospital and the district had 2 ambulances (Table 2/5)

The facility has a telephone (and so can be contacted in case of emergency, although only 31% of other facilities have a telephone according to the district manager (Table 2/5)) It has regular supplies of electricity and water There is a blood bank with appropriate equipment at the blood bank (refrigerator, centrifuge microscope, screening kits) Blood supplies are inadequate, patient are asked to supply from relatives and friends Qualitative data indicate that this is sometimes the case even in emergencies

Based on WHO recommendations, this hospital has most of the basic equipment and staffing to manage obstetric emergencies However, there were major deficiencies in some areas the hospital has no urine test kits for proteinuria, and the supply with anaesthetic agents and drugs for managing pre- eclampsia/ eclampsia appears inadequate (ie no nitrous oxide no diazepam no ketamine, insufficient lidocaine and pethidine no magnesium sulphate, no hydralazine) All antibiotics were available, expect ciprofloxacin capsules and for kanamycin injections (of which Nasr District Hospital has 200 ampoules) suggesting that antibiotic shortage is not a problem for the General Hospital The questionnaire did not assess availability of suture materials (reported to often be in short supply) Partographs are not use at all It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

B - 2 Preparedness for Neonatal Care at General Hospital

In order to provide neonatal care, the General Hospital requires other material beyond those required for CEOC The staffing for neonatal care of the General Hospital appears adequate(B1) and the General hospital has adequate equipment , except it lacks any infant laryngoscope or Ambu bag (bag and mask)

[1] Aswan General Hospital should function as a referral centre for Aswan Governorate, the main function of some of the specialists may (and indeed should) be outreach to other district hospitals Counting them as staff at Aswan General Hospital may not be appropriate

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which are critical for resuscitation[2] (El Ramadi Bahari rural hospital in Edfo district has 3 DarawDistrict Hospital has 2 infant laryngoscopes) Even more important is the absence of towels dry the baby and blankets to keep the baby warm The available data provides no information about the presence or absence of a heated/warmed infant resuscitation area Silver nitrate is not available but tetracycline (which is preferable) is present

B - 3 Basic Emergency Obstetric Care

The only other facilities with beds (and thus capable of doing facility deliveries) are the rural hospitals None of them has designated maternity beds (Table 1/20) No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC

A survey of 19 facilities found deficiencies only for antibiotics, iron tablets and antipyretrics / analgesics (Table 1/14 and 2/8) The basic facilities have some way to go in terms of being able to provide BEOC In particular there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies, and some items of equipment need to be redistributed

B - 4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement, routine labour, delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken <u>and</u> recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions, including vaginal examinations, adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* that all instruments used for maternal and neonatal care are sterile

Observation of 25 deliveries identified problems associated with poor communication to the client, asepsis and heavy reliance on forceps 25 deliveries were observed by a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However, we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department, 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

[2] Swedish data suggests that 1 in 500 full term babies and one in 10 babies requiring resuscitation benefits from intubation A laryngoscope and endotracheal tubes are thus not required for the vast majority of resuscitation procedures An method to inflate the baby's chest (eg an Ambu bag <u>with</u> a working blow off valve or pressurised gases with a T-piece and a working blow off valve is more important for neonatal resuscitation than a laryngoscope) Absence of an Ambu bag may not be worse than the presence of an Ambu bag or pressurised gases without a blow off valve

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother, nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[3] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate, only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[4] Only 17/25 of the HPs checked the fetal heart at regular intervals [5]

Delivery occurred in all cases with the mother lying on her back[6] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights, anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data, it was not clear if women were encouraged to change their position frequently in labour and to empty their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study, Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy, 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt, too the mother is in more danger of losing her life in immediate postpartum period the mother than during any other time in her pregnancy Care in the immediate postpartum period requires the early detection of complications, and an appropriate response

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[3]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

[4]Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study, Egypt 1992-3 MoH Child Survival Project, Cairo 1994

[5]It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[6] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod, a drop in blood pressure decreased placental perfusion and fetal distress

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to them Early detection requires regular and systematic observation of the mother's vital signs including pulse blood pressure and blood loss

Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records

Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25) or fever (16/25)

Contraceptive advise was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse, blood pressure or temperature did not provide advice for the postpartum period either

Interpretation

The activities of HPs are determined by many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks, motivation, knowledge and skills One can assume that all HPs had the ability, knowledge and skills to take routine observation (fetal heart, maternal temperature, blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem (Aswan General Hospital has no proteinuria test kits) Even where the facility has a particular piece of equipment, it may not be accessible (Luxor General Hospital has only 1 working sphygmanometer 1 autoclave, 1 working stethoscope, and 1 infant weighing scale 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they may have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed, but the best possible case

Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as 'yet another vaginal examination" or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour which is more than twice the rate as used in most labour wards in the UK

Care in this sample was provided by specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery it may not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

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B - 5 Referral / Transport (Table 2/4)

According to the district manager, physicians from lower level units were asked to transfer complicated cases to the General hospital immediately He did not request that critical cases be accompanied or that telephone contact be made, or an ambulance used The district manager reported 2 working ambulance (Table 2/5)

Respondents in 1 facility reported that they would refer to a urban health centre and one facility stated that they would refer to a district hospital[7] Respondents form an other facility mentioned that they would refer complications to the MCH This could lead to useless delay the MCH has no capacity to deal with complications Only 8 facilities [8/19] reported that when referrals were made, women would be accompanied (Table 2/4) As this is a self reported figure it may not reflect routine practice All responding facilities [8/8] reported mainly informal follow-up (Table 2/4) Referral distances were generally short (10 ± 12 kilometres, and travel time was 21 minutes ± 18 minutes (Table 2/4) Given that quoted referral times often present the best possible circumstances rather than the routine situation, it is likely that decision to arrival intervals exceed 1 hour in more than 20% of cases referred

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C - 1 Where Do Women in Aswan District Deliver and Who Delivers Them?

We assumed that 7500 women deliver every year in Aswan district If 1995 DHS data for upper Egypt are applied to Aswan District, 78,5% of births take place at home (n=5887), 12 1% in public health facilities (n=907), and 9 1% in private facilities (n=682) 60 9% are attended by dayas (n=4567), 26 0% by doctors (n= 1950), 6 2% by nurses/midwives (n=465), the remainder (n=518) deliver with relatives or alone

The district manager has data on 115 deliveries in 1996 (Table 1/18) Data from the two facilities that reported birth suggests that at least 2842 deliveries occurred in facilities during 1996 (R2) Most of these deliveries were reported from the General hospital (n=2829)[8]

Of the 19 facilities visited, only 2 reported any birth in 1996 (one had no births, 14 kept no books and 2 kept books but were unable to report figures) (R2) For the second quarter of 1997 all institutions kept records and 10 facilities reported a total 809 births in the facility based survey[9], a further 5 institutions reported that no deliveries had occurred while 4 institutions kept records but were not able to supply numbers The number of births recorded in institutions during the first 3 months of 1997 is more than

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[7]Aswan district has a General but no District Hospital, it is unclear if this would constitute a referral to a district hospital outside of Aswan district

[8]The Aswan General Hospital functions as a district hospital and a referral facility for other district hospitals Its catchment area is therefore Aswan district and Aswan Province! All further calculations were conducted assuming that the main function of Aswan General Hospital is that of a district hospital to Aswan district and that the number of cases referred to Aswan General Hospital from other district hospitals in Aswan province is small and can be neglected This assumption may not be true Information obtained at the General hospital suggested that the Hospital covers a population of 500,000

[9]For the same period of 1997 the number of total deliveries known to the district manager was 39, the number of normal deliveries was given as 36 (Table 1/18)

¼ (28 5%) of the deliveries reported in 1996[10] These changes in reported births may be important as previous requirements are used to calculate needs for supplies and drugs

Not all deliveries registered in facilities actually occur in the facilities Indeed many facilities do not actually have beds It is possible that some of the deliveries reported at institutions have actually occurred at the patients home and have only been recorded in the register of the institution In Aswan District only the General hospital actually has maternity beds During the second 3 months of 1997, 766 of the reported 809 deliveries occurred in the General Hospital (average 64 per week), 7 in one other institution with beds and 43 in institutions without beds (=no maternity beds and no inpatient facilities) (4 institutions with beds provided no data) (R/0) This suggests an expected total of 3,236 births per year in public facilities (compared to an estimated 907 in public facilities from the DHS) (R/0)[11]

C - 2 What Are the Health Statistics for Aswan District?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Aswan District this would mean 367 neonatal deaths and 420 post neonatal deaths making a total of 787 infant deaths per year The district manager had reported the following figures for stillbirths and neonatal deaths (Table 1/18)

	stillbirths	**early neonatal deaths**	**late neonatal deaths**
1996	4	18	26
second quarter of 1997	1	4	12

Using the 2842 births and 44 neonatal deaths reported to the MOH, a neonatal mortality rate of 15 4 per 1000 and a stillbirth rate 1 4 per 1000 of can be derived for 1996[12]

Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100 000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 16 maternal deaths in Aswan District No data were available on maternal deaths from the district level for 1996 or the first quarter of 1997 (Table 1/13 1/18)

What Are Complication Rates?

[10] This may reflect improved utilisation rates seasonal fluctuations of delivery rates or a combination of these factors However improved reporting by more institutions and improved data quality are the most likely explanations

[11] This assumes no major seasonal fluctuations in the number of institutional deliveries

[12] This rates appears unlikely to be correct Typical stillbirth and neonatal mortality rates in developed countries are each 5 to 10 events per 1000 births It is likely that the "favourable" stillbirth rates for Aswan are the result of under reporting and misclassification Stillbirth and early neonatal deaths usually account for similar proportion of cases of perinatal mortality (= stillbirth + early neonatal death) Aswan District reports 5 times more early neonatal deaths than stillbirths in 1996

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With 7,500 births in Aswan District, 750-1,125 women are expected to have complications, based on an assumption of 10-15% In 1996 38% [2842 of 7500] of women were reported to have delivered in public health facilities (R/2) with virtually all recorded public health service delivery occurred in the General Hospital During the second quarter of 1997, 766 deliveries were recorded at the General Hospital If the total number of number deliveries during this period was approximately 1875 (= 7,500 x ¼) over ⅓ of all deliveries would have occurred in the General hospital[13] It therefore possible that women with complications are reaching health services However facility data shows that most of their deliveries are normal, indicating there may well be some unmet need

329 Caesarean sections were reported to the district manager in for 1996 and 35 in the first quarter of 1997 The reported numbers for forceps deliveries were 9 in 1996 and 5 in the second quarter of 1997 [14] Assuming that 5% of the expected 7500 pregnancies should be terminated by Caesarean section[15] one would have expected 375 Caesarean sections to be performed in 1996 and 93 during the first quarter of 1997 If one assumes that all Caesarean sections performed were reported to the district AND that all Caesarean sections performed were indicated Caesarean section met need of > 83% can be calculated This would be an excellent achievement![16]

Using health facility data we find that for the 766 reported births at the General hospital (in the second quarter of 1997), the vast majority of these (708 - 92%) were reported as" normal" , while 58 (8%) were reported as "complicated"[17] This latter number would suggest 230 complicated cases are treated by the General Hospital per year giving indicating that the General Hospital provides between 20 and 30% of the care needed bv women with obstetric complications in Aswan district

Other facilities also report complications However, because such facilities may refer women with complications to the district hospital, it is not easy to estimate absolute number of complicated cases

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[13] If 1995 DHS data for upper Egypt are applied to Aswan District no more 12 1% of all deliveries would occur in all public health facilities The high number of deliveries recorded at the General hospital during 1996 and the first quarter of 1997 should thus be interpreted with caution

[14] Note that the number of total deliveries (n=115 for 1996) (presumably vaginal deliveries) reported to the district manager (table 1/18) is less than the number of Caesarean sections(329 for 1996) If the data would be correct the Caesarean section rate for Aswan District for 1996 would have been 329/444 (73%)

[15] There is no consensus as to the correct Caesarean ection rate for a country or an institution 5% is a very arbitrary assumption based on the lowest Caesarean section rates reported form large institutions in W Europe with good maternal and perinatal outcomes To reach such a low rate very stringent criteria would have to be applied Nearly all hospital obstetric units in the UK have Caesarean section rates between 10% and 15%

[16]Data from other areas in Egypt suggests that Caesarean section rates among high social classes (which are less at risk of obstetric complications) are over 4 times higher than among the lowest social class (which are at increased risk of obstetric complications) The data presented here does not permit to determine if a similar findings would occur in Aswan district, too A met need of > 83% does therefore not indicate that 83% of women who required a Caesarean section received one It may even indicate that may women of high social class received a Caesarean section when they didn't need one and that many women of low social class did not have a Caesarean section despite definite need

[17]For the second quarter of 1997 Aswan General Hospital also reported 75 cases of pre-eclampsia, 53 Caesarean sections, 28 cases of antepartum haemorrhage, 8 cases of post partum haemorrhage, 5 breech and 5 forceps deliveries and 2 cases of ruptured uterus While one cannot add u these complications as double counting may occur it is likely that real number of complicated cases exceed the figure of 58

managed by the public sector (just adding up reported complications would lead to double counting) while ignoring them (as done here) would discount the effect of any treatment provided at more peripheral units (eg atonic uterine haemorrhage can be effectively controlled with oxytocic drugs in the majority of cases)

C - 3 Summary of Data on Outputs and Outcomes

According to the district manager, 17 of 24 facilities in Aswan District provided complete MCH/HIS forms promptly for the month of June 1997(Table 1/13) There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu to 44 4% in Daraw and 47 4% in Aswan District (TNA 3 2/3 3) Moreover reporting is only the initial requirement for an HIS interpretation and use of data to change practice is a greater requirement and also needs training

The under-reporting compared to expected numbers of births, deaths and complications the lack of register books and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes

D DISTRICT SYSTEM/MANAGEMENT

D - 1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect, there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

This general picture was also the case in Aswan District While all facilities reported supervision [18/19] (table 2/17) guidance and training was only reported by 6 (32%) of facilities Where providers reported having supervision the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see table 3/6)

Job descriptions in Aswan Governorate were available for all key cadres of health workers However only 2 job descriptions (2/10) were seen (Table 1/5) at district management level In general in Aswan and Luxor job descriptions for each health professional are not available in most any health facility In addition health providers are not familiar with their functions (TNA1 2)

The Aswan district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However, it is to be noted that these women do not have an alternative outlet health facility, they are highly tolerant and do not know what to expect from the health provider Moreover the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

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D - 2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in service training for GPs in the field of prenatal (22%) and post partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Aswan District only 1 of the 4 Ob/Gyn specialist interviewed used no protocols (Table 3/2,3/3) All other health care providers interviewed did not use protocols As in the rest of Aswan and Luxor, health providers still do not monitor delivery by partograph, and these are not available in any health facility (TNA 1 9)

Observation showed that poor infection prevention and control procedures (prenatal, delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

D - 3 Logistics

The Aswan district manager reported that supplies were either ordered when necessary or supplied without special requests according to a set quota system based on previous requirements Shortages of drugs and supplies was a problem particularly for antibiotics and antipyretics/analgesics and iron tablets As in most other districts, drugs and supplies were transported by facilities every three months (Table 1/6 1/7)

Late distribution shortage at distributor level and delayed ordering but not insufficient funds to purchase drugs were identified by the district manager as reasons for drug shortage Drugs were NOT the main problem faced by the district as described by the district manager

E ACTIVITIES OF PROVIDERS DOING DELIVERIES

40 providers were interviewed in Aswan District of whom 31 (78%) actually provide care during deliveries (Table 3/2) Of these 30 provided 24 hour emergency care

F DAYAS (Table 1/15)

Aswan District reports 150 registered dayas, all of which have been trained since 1993 110 dayas have received refresher training It also estimates there are 50 unregistered dayas, making a total of 200 dayas Assuming 4567 births attended by dayas suggests they are doing a average of 23 deliveries a year (1 9 per month) No information concerning other activities or standard of care was available form the survey

V - NASR DISTRICT

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

V - NASR DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthy practices using health education, and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated, usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993, Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia detect and treat infection (including STDs), and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart), but are not necessarily effective (if the fetus has no heartbeat, it is too late to do anything)

Similarly information education and communication (IEC) are important rights of women and may necessary for communicating essential information (like where one can deliver) Nevertheless, there is no good evidence that health education and counseling interventions change behavior (Oakley, 1995)

Finally, the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits and various practitioners in the US and UK are experimenting with 'do it yourself' antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care, bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low, those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole, the median number of visits is 6 5, and most women go fairly early, at a median of 2 9 months, and 92% have

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attended by the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services, 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediately postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However, the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning, it is unlikely to address problems such as post-partum hemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectively 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN NASR

Nasr has an estimated 2500 births per year If each woman had one antenatal care visit in the public sector, 2500 first visits would be expected If women had the recommended 4+ in the public sector, then at least 7500 repeat visits would be expected, making a total of over 10,000 antenatal visits per year If all births had one postpartum follow up visit, Nasr should expect 2500 postpartum check-ups

B IS NASR PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Nasr has twenty two facilities capable of providing antenatal and postnatal care one MCH center, one urban health center fourteen or sixteen rural health units, four rural hospitals and a district hospital (A2) Nasr also has one private ob/gyn clinic, five private dispensaries and one private hospital It is worth finding out what these are and what services they may provide (1/19) According to the district manager, there are no NGOs active in maternal health in the Nasr district (1/17)

All public sector facilities in Nasr (except hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 8 00 to 2 00 pm six days a week Hospitals should provide antenatal care from 8 30 to 2 00 two days a week and post partum care from 8 30 to 2 00 six days a week However, according to facility managers fewer provide six days in particular one rural health centre and 1 rural health unit provide antenatal care 1 day per week Facilities provide slightly less than six hours per day on average The district hospital provides 4 hours per day and the rural hospital provides 5 hours per day Five rural health centers and rural health units provide between 2-5 hours (T/1)

Sixteen facilities were visited in Nasr (all except the urban health centre which may not exist, and 2 rural health units) all sixteen provided antenatal and post partum care (2/1) One can provide ultrasound scans, seven can provide laboratory hemoglobin and all sixteen can analyse urine

Of the sixteen health facilities visited in Nasr nine had regular water and fourteen had electricity eleven of the sixteen were judged to be in good condition(2/14) Fourteen of the facilities had waiting areas most of which (about 80%) were adequate Thirteen had an examination table nine had a stool for the doctor and only thirteen allowed privacy Only slightly over half (9 out of 16) had a working telephone (2/5,2/14)

16 antenatal users were interviewed in Nasr half (8 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 12 minutes to get to the facility and 1 5 kilometers was the average distance (4/1) Most traveled on foot (13 cases), the remaining 3 took a microbus or taxi Those who went by vehicle paid on average 67 piasters 14 went alone, 1 went with her husbands and 1 went with relatives or neighbors (4/2,T/2)

These data suggest an available physical infrastructure, that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case and that women who use services seem willing to travel to seek them

B-2 Drugs and Equipment

In Nasr in general shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) Within the sixteen facilities inventoried for drugs and equipment, fourteen of sixteen facilities had shortages in antibiotics and nine of sixteen mentioned shortages in iron Also mentioned were shortages in ecbolics(?) (eleven of sixteen) 2/8 Overall twenty seven of forty providers interviewed in Nasr reported drug and supply shortages (3/18) Nasr had one antenatal and one post partum service protocol (2/18)

Shortages in basic equipment were reported by twenty three of forty health providers (3/18) However, ten of sixteen facilities have working sphygmanometers and most have several Thirteen facilities have stethoscopes (2/20) All facilities have boilers and seven out of sixteen have autoclaves Fourteen have thermometers (2/20)

B-3 IEC Materials and Sessions

The Nasr district manager appears to have a range of IEC material, including posters, flip charts, booklets and video tapes These cover at-risk pregnancy, breast feeding and neonatal care According to the facility manager fifteen have information on breast feeding, thirteen on the proper way to breast feed ten on the importance of tetanus eight have information on neonatal care and seven on antenatal care three have at-risk pregnancy information and one sterilization and delivery

In the previous three months the district manager in Nasr reported a meeting with mothers on vaccination Eleven health facility managers also reported having held group meetings, and thirteen provided home visits (2/13)

B-4 Actual Practice of Antenatal Care

As a absolute minimum requirement, routine antenatal care by health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy
* that tetanus toxoid is given to all women with inadequate tetanus vaccination
* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

Thirty seven of the forty providers in Nasr participated in antenatal care and postpartum care(3/2) Among the thirty seven involved in receiving patients, the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (thirty two and thirty seven respectively) Asking information on personal details also mentioned (thirty six providers) The most common measures mentioned were blood pressure (twenty five), temperature (twenty two), pulse (nineteen) and weight (eighteen) Urine and blood measures were mentioned reasonably frequently (seventeen and five) Most also explained what women should expect (thirty three of forty) but only three mentioned where to go for delivery Thirty three answered questions or concerns

According to Women

16 exit interviews were conducted in Nasr These women were not a random sample Women sought care to get tetanus toxoid (10 of 16), for a regular check-up (7 of 16) or because they felt tired (ill) (1 of 16) (4/11) In Nasr, 4 planned their delivery at home while 3 planned to use MOH (4/12) 14 of 16 preferred physicians for delivery (4/13) They had paid 15-400 pounds for their previous deliveries, with an average of 118 pounds (T/4)

Of 16 women interviewed, 15 were received by nurses All felt welcome and that the person receiving them was welcoming All felt the waiting place as very comfortable(4/3) All 16 saw a nurse at some point, and all saw her right away or after 5 minutes This was judged reasonable by everyone (4/3,4/5) 11 of the 16 also met with physician, and on average waited 9 minutes to do so (though 1 woman waited an half an hour) Physician were all friendly and polite (4/6)

All 11 who met the physician were examined with privacy and the one who was not was not bothered by this A history was taken (for 9 of 11) and duration of current pregnancy (11 of 11) women Of the important activities (examining the heart with stethoscope measuring blood pressure and examining the abdomen) 10 11 and 9 women out of 11 were examined respectively (4/7) For two women one of these three aspects of antenatal care was a failure (T/5) Weight, height, urine and blood were less frequent (8 9, 13 and 4 cases of 16 respectively) (4/5) Other activities (ie examining breast, gynecologic exam and ultrasound) were also infrequently 9, 0, 1 respectively (4/7) As there is no evidence these activities are needed routinely in every visit, this may not be a problem Eleven of 16 were given TT injections in their current and 12 had been given one before Three had not been given one either at the current visit or earlier (T/6) Two were given iron pills and 7 given other unknown medications (4/8)

Communication was not good as only 9 had it explained to them what as being done and why (4/7) Advice was also given to women on personal hygiene (12 women) and breast hygiene (9 women), exercise (8 women) and nutrition (13 women) though again there is no evidence this works (4/8) 10 of 16 women (63%) were advised on risky signs or pregnancy and how to act if risky signs occur Also, place of delivery was only discussed with 7 clients This is a missed opportunity Only 10 women were told when to come next (4/8)

16 women were satisfied with service citing the friendly reception the curative treatment and the reassurance and instructions as reasons Women felt the service could be made better with more tests, more examinations and ultrasound (9 2 and 1 respectively) 15 said they intended to come back and 15 would recommend the facility to others (4/9) Overall in Luxor and Aswan 59% of women had an accessibility card and 96% of women brought their card with them In Nasr, 13 women had an accessibility card and all brought it with them (4/10) The other 3 women were never given one

13 of the 16 women had had a previous visit in the facility In previous visits, a few (5 of 13) were given dates for revisiting, and 10 of 13 were explained risk factors and how to act, and 12 of 13 were counseled on nutrition and personal hygiene Weight and blood pressure were measured in 8 and 12 of 13 respectively 8 said they had a chance to ask questions and all 8 were given helpful answers (4/14) Most (10 of 13) visited other facilities, largely private ob/gyn (10 cases) (4/15)

Half of the 10 women with a previous delivery (5 of 10) had previously delivered at home 4 of 10 had used an MOH facility(4/18) Most were not visited after delivery (4 of 10)(4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital, 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42[3] women had pregnancy problems worth reporting as assessed by the observer However antenatal history was appropriately recorded by only 29 of 42 HPs

Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

[1]According to the National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994 cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

[3]This is a high prevalence of complications and is unlikely to be similar in the general population

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The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination only 1 of 15 of HPs took minimum antiseptic precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation, but less than ¾ of findings were correctly recorded in the client's record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient, too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Nasr should have 2500 new antenatal visits and at least 7500 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services which would mean 153 first visits and at least 3 times that many repeat visits 66 3% (or 1658) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

According to the district manager data Nasr health facilities report 789 new antenatal care visits in the year 1996 This would suggest 32% pregnant women used public facilities (this seems high unless tetanus toxoid alone merits recording as a new antenatal care client) In the second quarter of 1997, the number was 291 Revisits were less frequent (n= 1232 and 208 for 1996 and 1997 respectively) making the average number of visits to public facilities between 1 7-2 5 (1/18) Ten facilities reported 470 antenatal visits for 1996 (range 2-120 visits per facility) However, in the second quarter of 1997, all facilities reported antenatal visits The number of visits in the district hospital was 60 Visits in other facilities ranged between 2-36 Altogether, 257 first visits were reported which is about 41% of all expected births in the same quarter Nevertheless, the average numbers of new clients seen is between

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

less than one per day and less than one per week Even adding revisits does not give a very heavy workload as women only have about 1 revisit on average

If we look at facility level statistics on the content of care notably at tetanus toxoid immunization and cases of anemia we find the following 200 immunizations (between 2-43 per facility) and 111 cases of anemia (mainly from the district hospital

Nasr should also have 2500 postpartum check-ups if all births were followed up postpartum but in practice the number is estimated at slightly over 12% (n=300) The expected number in the public sector is not known 2119 postpartum visits were made in 1996 according to the governorate level data Among facilities postpartum visits were reported as 463 in 1996 (range 3 to 120) and 155 in the second quarter of 1997 (range 2 to 20) This is slightly more than one client per day (T/6)

C-2 What are Reporting and Recording practices?

According to the district manager all health facilities have the new registration forms and fifteen out of sixteen provide complete MIS forms and review data (1/12 1/13) Fifteen out of sixteen facilities in Nasr had forms and fifteen out of sixteen were using the new forms for antenatal 1st visit antenatal revisit and twelve out of sixteen for postpartum care) (2/6) Facilities reported using data to follow up cases (thirteen facilities) to detect community health problems (nine) and to improve services (seven) Fifteen of sixteen facilities regularly notified reporting events by telephone, monthly report, messenger or other means (2/6)

One of sixteen facilities have persons trained to use data (a GP) When providers were interviewed, three of the twenty two involved in recording information said they had been trained to look at data quality, and three were trained on how to used data (3/17) The most common use of data (according to providers) is to write reports and monitor performance

D District Wide Issues

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers, the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

Twenty nine of thirty seven providers involved in antenatal care reported referring cases When asked what cases they referred twenty five mentioned preeclampsia, twenty mentioned diabetes, twenty two abnormal presentation, sixteen heart failure fourteen antenatal hemorrhage and fourteen previous c-section Only 4 communicate with facilities they referred to and three accompanied cases Four followed up on cases but this was done informally The seventeen providers who did not follow up clients stated it was not required or there were no records (3/16)

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E PROVIDERS

In Luxor and Aswan governorates as a whole most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers, thirty seven of the forty interviewed provide antenatal care and thirty of forty, postpartum care, though in both cases one does so in the capacity of assisting (3/2)

Three of forty providers in Nasr reported using IEC material on tetanus toxoid, and thirty five on breast-feeding positioning The most common IEC materials were posters, flip charts and booklets (3/22)

Training Overall in Luxor and Aswan governorates, 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy, preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care, again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol \GPs and Obs did not use these

2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN NASR DISTRICT

Nasr has a total population of 79 189 and an estimated 14 250 of these are women of reproductive age(1/1,1/2)

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Nasr , there are between 2800 and 2300 births per year in Nasr According to the health statistics the district manager said there are 2026 births in 1996 (giving CBR = 25 6/1000, GFR = 142/1000) (Table 1/2) These figures are lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 2500 births in Nasr

B IS NASR DISTRICT PREPARED TO PROVIDE GOOD QUALITY OBSTETRIC AND NEONATAL CARE?

According to WHO recommendations there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500 000 population According to these criteria, Nasr district with a population of 79,189 requires 1 CEOC and 1 BEOC facility Nasr district has one district hospital (CEOC facility) and can choose which of its 2 rural hospitals and 1 MCH centre should serve as BEOC facility with 24 hour access to obstetric and paediatric care

We investigated the district of Nasr to check its preparedness to provide EOC and found the building infrastructure to be in place Nasr has a district hospital (6 maternity beds), 1 private hospital 2 rural hospital (with combined 10 maternity beds), 1 MCH centre (with no maternity beds), and 2 rural health centres (with combined 6 maternity beds) There are also 1 private ob/gyn clinics (Table 1 19, 1/20)

Most public facilities said they were available (in principle) to provide EOC to provide 24 hours emergency care but it is likely that most facilities are severely limited by the fact that they have no beds and that their opening hours are restricted from 8 00 or 8 30 am to 2 00 pm, six days a week (table 1/9) Facility based data however suggested that 15/16 facilities offer delivery services and 14/16 emergency services for infants on a 24 hour basis According to data provided by the district manager, no facility had 24 hour on call obstetric specialist or paediatric specialist services (Table 2/3) It remains unclear how a 24 hour service can be provided in institutions without inpatient facilities and with 5 hours opening time / day

B - 1 Preparedness of the CEOC Facility

Nasr's main public facility conducting births should be the district hospital According to the district manager it has a total of 45 beds 6 of which are maternity and 4 paediatric beds

(Table 1/20) (B3)) WHO standards suggest a minimum of 24 maternity beds per district hospital serving a population of 500,000 The contribution of the district hospital to the obstetric care within Nasr district is very small In 1996 only 17 deliveries were reported by the district hospital Assuming an average admission duration of 10 days per delivery [1] a bed occupancy of maternity beds of 7% can be calculated This is not enough to fill a single bed all the year round[1] It is obvious that Nasr district hospital does not

[1] 1 to 2 days would be a more realistic estimate

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require further maternity beds at present The poor utilisation of the district hospital suggest that women choosing to deliver elsewhere A secondary analysis of the data will not permit to pinpoint deficiencies at Nasr district hospital This may best be achieved through an unannounced visit to the facility

The hospital has a covered waiting area for women which is judged sufficient and well maintained as was the maternal examination room There was a delivery room with beds However it was poorly prepared without adequate lighting and was judged to be in a poor condition as was the building in general No information about privacy was provided

In term of staffing for emergency functions, the district hospital has no anaesthetist, 3 ob/gyn specialists, 1 obstetrics resident, 1 pediatricians, 1 lab technician, no pharmacists, and no laboratory specialist There is no blood bank specialist, although it seems this functional title may not exist in Egypt This level of staffing seems more than adequate While it would be principally desirable to offer anaesthetic and paediatric support at district hospital level, the current and projected workload at the district hospital would not justify the recruitment of further staff to this facility as a priority intervention There may still be a shortage of staff with obstetric / midwifery skills particularly at institutions conducting the majority of deliveries in Nasr district (ie the rural hospitals and rural health centres) and at district level for supervision and training Table 1/4 describes the staff requirements for Aswan Governorate Of all districts Nasr has the lowest needs for extra staff (as determined by those who compiled the table) While no paediatricians and anaesthesiologists are currently working in Nasr, no deficit of these specialists is mentioned in the table The district officer identified the lack of Ob/Gyn specialists and general practitioners as a priority problem of the district

Facility based data suggests that obstetric and paediatric services in the district hospital were available on a 24 hour basis with an ob/gyn on call at night and on holidays The hospital said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The hospital did not report transferring any cases and did not provide any information as to where they would send cases In case of need of emergency referral, the hospital and the district had a ambulance (B/4) The distance to the nearest general hospital is 12 km which according to the provided estimates can be reached in 30 minutes

The facility has a telephone (and so can be contacted in case of emergency, although only 56% of other facilities have a telephone according to the district manager (B/4)) It has regular supplies of electricity and water There is a blood bank but with adequate equipment except for screening kits Blood supplies are inadequate patient are asked to supply from relatives and friends, but given the work load this should not make any difference Qualitative data indicate that this is sometimes the case even in emergencies

Based on WHO recommendations, this hospital has most of the basic equipment and staffing to manage obstetric emergencies (but is missing a fetal stethoscope, the most basic equipment to supervise the fetal wellbeing in labour) However, there were major deficiencies in some areas, there is no autoclave, no anaesthetic agents other than ketamine and nothing for managing pre- eclampsia/ eclampsia (no magnesium sulphate, no hydralazine) All antibiotics were available, including 200 ampoules of kanamycin which is the complete stock available in all health facilities in Aswan Governorate suggesting that antibiotic shortage is not a problem for the district hospital The questionnaire did not assess availability of suture materials (reported to often be in short supply) Partographs are not in use at all

Observational work observing deliveries in Aswan Governorate identified problems associated with poor communication to the client, asepsis and heavy reliance on forceps These observations are likely to apply also to Nasr

B - 2 Preparedness for Neonatal Care at District Hospital

In order to provide neonatal care the district hospital requires other material beyond those required for CEOC The district hospital has adequate equipment except it lacks any infant laryngoscope or Ambu bag (bag and mask) which are important for resuscitation[2] The data does not provide information about a warm area for infant resuscitation This is particularly important as there are no towels to dry the baby or blankets to wrap the baby up in Silver nitrate is not available but tetracycline (which is preferable) is present The district manager identified neonatal care as one of the priority problems within the district He suggested the provision of incubators as a priority intervention[3] Without further information it is unclear if the purchase of incubators will improve neonatal health services in Nasr district While thermoregulation (keeping the baby warm) must have a high priority in neonatal care, many neonatologists in the UK and other W European countries now recognise the dangers of incubators especially if not appropriately maintained and supervised Alternatives, such as direct skin to skin contact with the mother (kangaroo method) have achieved equally good results in teaching hospitals in the UK and resource poor countries

B - 3 Basic Emergency Obstetric Care

The only other facilities with beds (and thus capable of doing facility deliveries) are the rural hospitals and health centres No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC The basic facilities have some way to go in terms of being able to provide BEOC (see table R/6) In particular there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies, and some items of equipment need to be redistributed

For Nasr district difficulties with supplies were reported as a major problem by the district manager though the facility survey found deficiencies only for iron tablets (9 out of 16 institutions surveyed) and antibiotics (13/16) (Table 1/14 and 2/8) It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

B - 4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement routine labour delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken and recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions including vaginal examinations adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* that all instruments used for maternal and neonatal care are sterile

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[2] Swedish data suggests that 1 in 500 full term babies and one in 10 babies requiring resuscitation benefits from intubation A laryngoscope and endotracheal tubes are thus not required for the vast majority of resuscitation procedures An method to inflate the baby's chest (eg an Ambu bag with a working blow off valve or pressurised gases with a T-piece and a working blow off valve is more important for neonatal resuscitation than a laryngoscope) Absence of an Ambu bag may not be worse than the presence of an Ambu bag or pressurised gases without a blow off valve

[3] The only perinatal problems reported by the district manager were 6 stillbirths in the first quarter of 1997

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25 deliveries were observed by a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother, nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[4] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[5] Only 17/25 of the HPs checked the fetal heart at regular intervals [6]

Delivery occurred in all cases with the mother lying on her back[7] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data, it was not clear if women were encouraged to change their position frequently in labour and to empty

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[4]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

[5]Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study, Egypt 1992-3 MoH Child Survival Project Cairo 1994

[6]It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[7] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod a drop in blood pressure decreased placental perfusion and fetal distress

their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study, Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt, too the mother is in more danger of losing her life in immediate postpartum period the mother than during any other time in her pregnancy Care in the immediate postpartum period requires the early detection of complications, and an appropriate response to them Early detection requires regular and systematic observation of the mother's vital signs including pulse blood pressure and blood loss

Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records
Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25) or fever (16/25)

Contraceptive advise was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse blood pressure or temperature did not provide advice for the postpartum period either

Interpretation

The activities of HPs are determined by many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks motivation, knowledge and skills One can assume that all HPs had the ability knowledge and skills to take routine observation (fetal heart maternal temperature blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem (Aswan General Hospital has no proteinuria test kits) Even where the facility has a particular piece of equipment, it may not be accessible (Luxor General Hospital has only 1 working sphygmanometer, 1 autoclave, 1 working stethoscope, and 1 infant weighing scale 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they may have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed but the best possible case

Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as "yet another vaginal examination" or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour which is more than twice the rate as used in most labour wards in the UK

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Care in this sample was provided by specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery, it may not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

B - 5 Referral / Transport (Table 2/4)

According to the district manager, physicians from lower level units were asked to transfer complicated cases to the district hospital immediately He did not request that critical cases be accompanied or that telephone contact be made or an ambulance used The district manager reported 1 working ambulance (Table 2/5) Inadequate transport was identified as one of the main problems in the district by the district manager

Respondents in 11 facilities reported that they would refer to a MCH This could lead to useless delay a MCH may not have the capacity to deal with complications (Table 2/4) Only 7 facilities [out of 16] reported that when referrals were made women would be accompanied by a health worker (Table 2/4) As this is a self reported figure it may not reflect routine practice All responding facilities [5/5] reported informal follow-up (Table 2/4) Referral distances were generally short (14 $\pm$ 11 kilometres and travel time was 22 minutes $\pm$ 13 minutes (Table 2/4) Given that quoted referral times often present the best possible circumstances rather than the routine situation, it is likely that decision to arrival intervals exceed 1 hour in more than 25% of cases referred Given the low case load of the district hospital it is likely that institutions outside of Nasr district receive referrals form rural health units and the MCHs in Nasr district No information was available to estimate the decision arrival interval to facilities outside Nasr district

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C - 1 Where Do Women in Nasr District Deliver and Who Delivers Them?

We assumed that 2500 women deliver every year in Nasr district If 1995 DHS data for upper Egypt are applied to Nasr 78 5% of births take place at home (n=1963 12 1% in public health facilities (n=303), and 9 1% in private facilities (n=228) 60 9% are attended by dayas (n=1522), 26 0% by doctors (n= 650) 6 2% by nurses/midwives (n=155), the remainder (n=173) deliver with relatives or alone According to the estimated health statistics the district manager said there are 2,026 births in 1996 (giving CBR = 22/1000,) (Table 1/2) These figures are lower than expected and reflect the under-reporting that is known to exist in MOH statistics

The district manager has data from reported 732 (rather than estimated) deliveries for 1996[8](Table 1/18) Facility based data suggest that at least 306 deliveries occurred in facilities during 1996 (table R2) It is unclear where the deliveries which were reported to the district officer occurred Presumably they include all deliveries conducted through the public sector and include public facility and home based deliveries

[8]All these deliveries were reported to be normal deliveries"

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attended by the public sector providers The facility based survey reported only that only 17 births had occurred at the Nasr District Hospital during the period Jan to Dec 1996 Nine of the 10 facilities visited reports births in 1996 Only 3 institutions in Nasr district reported fewer deliveries (0 3,15) but 6 institutions reported more deliveries than the district hospital (25,35,40 50,51,70) for 1996

For the second quarter of 1997 13 facilities reported 129 births[9] (3 were recording births but had no birth to report) (R0/R2) The number of births recorded during the first 3 months of 1997 is more than ⅓ of the total for 1996[10] These changes in reported births may be important as previous requirements are used to calculate needs for supplies and drugs

Not all deliveries registered in facilities actually occur in the facilities Indeed only 138 of the 306 (45%) deliveries reported by facilities in 1996 occurred in institutions with beds During the second quarter 1997 10 of the 129 reported deliveries occurred in the district hospital (average 0 8/weeks = 40/year[1]) and 74 in institutions without beds (R/2) If the trend established in the first quarter of 1997 were to continue for the rest of 1997 one would expect 516 births in public facilities (compared to an estimated 303 in public facilities from the DHS) (R/2)[11] This would account approximately 1/5 of all deliveries (20 6%)

C - 2 What Are the Health Statistics for Nasr ?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Nasr, this would mean 123 neonatal deaths and 140 post neonatal deaths making a total of 263 infant deaths per year For 1996 the district manager has no data on perinatal , neonatal or post neonatal losses The number of early and late neonatal losses for the second quarter of 1997 was unknown too but 6 stillbirths were reported to the district manager (table 1/18) Using the 129 births reported to the MOH from public health facilities for the first quarter of 1997 a still birth rate of 46 5 1000 can be derived This rate appears very high[12]

Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100 000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 5 or 6 maternal deaths in Nasr No data were available on maternal deaths at the district level (table 1/13,1/18)

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[9]For the second quarter of 1997 the number of total deliveries known to the district manager was 233 the number of normal deliveries was given as 239 5 cases of sepsis were known while no data was available on other delivery complications (Table 1/18)

[10] This may reflect improved utilisation or seasonal fluctuations However improved record keeping is the most likely explanation

[11]This assumes no major seasonal fluctuations in the number of institutional deliveries

[12] Typically stillbirth accounts for ⅓ to ½ of all cases of perinatal loss However even assuming that all perinatal losses have been misclassified as stillbirth the perinatal mortality rate appears high even for a poor country The calculated rate should be taken with caution Reported births and stillbirth may not come from the same sample

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What Are Complication Rates?

With 2 500 births in Nasr, 250-375 women are expected to have complications based on an assumption of 10-15% In 1996 slightly more than 12% [306 of 2500] of women delivered in public health facilities (R/2) it is possible that women with complications are reaching health services

The district manager has data on 732 deliveries all of which were normal the district directors data would thus indicates that 0% of the necessary treatment for complicated cases was provided Using health facility data of 1996 we found 17 reported births at the district hospital and a further 121 at other facilities with beds Using the very best assumption that all of these 138 deliveries which occurred in institutions with beds experienced complications and that these complications were appropriately managed 36-55% of the districts need for BEOC would have been met It is likely that the true figure is closer to 0 than to 55% as the majority of women delivering in institutions have no complications

Complications could also occur in facilities without beds However, because such facilities may refer women with complications to the district hospital it is not easy to estimate absolute number of complicated cases managed by the public sector (just adding up reported complications would lead to double counting) while ignoring them (as done here) would discount the effect of any treatment provided at more peripheral units (eg atonic uterine haemorrhage can be effectively controlled with oxytocic drugs in the majority of cases)

These data on maternal and perinatal complications for 1996 are thus of poor quality and the health facility data for the second quarter of 1997 are not any better No data on the frequency of specific complications was available at district level or health facility for 1996 During the second quarter of 1997, 6 delivery complications, 28 cases of anaemia 5 cases of sepsis, and 6 stillbirths were mentioned among the 239 deliveries reported This would suggest that complication rates in Nasr are at the indeed in the region of 5 to 10% [13] Standards of reporting of pregnancy and delivery and its complications in Nasr were too poor to allow any further estimates of complication rates Greatest care should be taken when interpreting any rate provided in this report as the majority of the rates are based on assumptions

C - 3 Summary of Data on Outputs and Outcomes

According to the district manager, 17 of 21 facilities in Nasr provided complete MCH/HIS forms promptly for the month of June 1997(Table 1/13 1/9) Notably, no forms were returned form the MCH

There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu, to 44 4% in Daraw and 47 4% in Nasr (TNA 3 2/3 3) Moreover reporting is only the initial requirement for an HIS interpretation and use of data to change practice is a greater requirement and also needs training

The under-reporting compared to expected numbers of births, deaths and complications, the lack of register books and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes

[13]This is a bold assumption as double recording is likely (a mother with anaemia and sepsis may well have a stillbirth which of course would all classify as complicated delivery)

D DISTRICT SYSTEM/MANAGEMENT

D - 1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect, there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

This general picture was also the case in Nasr While all facilities reported supervision [16/16] (Table 2/17) guidance and training was only reported by 14/16 of facilities Where providers reported having supervision the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see table 3/6)

No information about job descriptions in Nasr district was provided (Table 1/5) In general in Aswan and Luxor job descriptions for each health professional are not available in most any health facility In addition health providers are not familiar with their functions (TNA1 2)

The Nasr district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However, it is to be noted that many of these women do not have an alternative outlet health facility, they are highly tolerant and do not know what to expect from the health provider Moreover, the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

D - 2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in service training for GPs in the field of prenatal (22%) and post partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Nasr only one general practitioner interviewed used protocols (table 3/2,3/3) As in the rest of Aswan and Luxor Governorate health providers still do not monitor delivery by partograph and these are not available in any health facility (TNA 1 9)

Observation showed that poor infection prevention and control procedures (prenatal, delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

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D - 3 Logistics

The Nasr district manager reported that supplies were ordered at regular intervals according to a set quota system[14] Shortages of drugs and supplies was a problem particularly for antibiotics and antipyretics/analgesics As in most other districts drugs and supplies were transported by facilities every three months (table 1/6 1/7) The lack of transport facilities was not perceived as a main obstacle within the district (table 1/14) but was mentioned as a key problem with regards to procurement and distributions of drugs and supplies (table 1/8)

E ACTIVITIES OF PROVIDERS DOING DELIVERIES

40 providers were interviewed in Nasr of whom 23 (58%) actually provide care during deliveries and 24 hour emergency care (Table 3/2)[15]

F DAYAS (Table 1/15)

Nasr reports 45 registered dayas all of which have been trained since 1994 All dayas have received refresher training It also estimates there are 30 unregistered dayas making a total of 75 dayas Assuming 1522 births attended by dayas suggests they are doing a average of 20 deliveries a year (during 1996 the entire district hospital recorded 17 deliveries!) No information concerning their activities or standard of care was available form the survey

[14]Drug supply based on a quota system may lead to massive over supply if the institution receiving the drugs is not attended by a sufficient number of patients requiring these drugs This may well be the case of the obstetric services at Nasr district hospital (eg Kanamycin)

[15]Table 3/2 states that 23 health workers providers delivery care and 26 provide 24 hrs/day emergency care

VI - LUXOR GOVERNORATE

1. Antenatal and Postnatal Care
2. Delivery and Neonatal Care

DISTRICT PROFILE

VI - LUXOR DISTRICT

1 ANTENATAL AND POSTNATAL CARE

I - INTRODUCTION

Antenatal care is a traditional component of maternity care that is often emphasized as part of primary health care Women are usually advised to seek antenatal care early, and to have a minimum for four visits The purpose of antenatal care is to detect and treat problems in pregnancy, to promote healthy practices using health education, and to identify women at risk of complications in order to ensure more skilled care for such women Postpartum care is also advocated, usually in the form of a single check-up at six weeks

However recent reviews care call into question the effectiveness of antenatal care practices in reducing mortality and morbidity in the woman and child (Rooney WHO 1993, Chalmers) While some interventions are of scientifically proven effectiveness for detecting and/or treating the problems in pregnancy are those which detect and treat anaemia, detect and treat infection (including STDs), and detect hypertension Others are part of traditional medical practice (such as detecting fetal heart), but are not necessarily effective (if the fetus has no heartbeat, it is too late to do anything)

Similarly, information education and communication (IEC) are important rights of women, and may necessary for communicating essential information (like where one can deliver) Nevertheless, there is no good evidence that health education and counseling interventions change behavior (Oakley, 1995)

Finally the use of high risk screening to predict complications is not an effective way to organize maternity care One reason is that risk factors used to screen women give too many false positives (women who have the risk factor but no subsequent problem) and too many false negatives (women who have no risk factors but subsequently develop a problem) Another reason is that women identified as high risk often fail to deliver in the recommended place

Given the lack of evidence of efficacy of ANC, some people are also questioning the number of antenatal visits required WHO is conducting multi-centered trials to examine the value of a reduced regimen of 4 visits compared to standards of 12 or more visits and various practitioners in the US and UK are experimenting with 'do it yourself' antenatal care and single antenatal assessments

1995 DHS data for upper Egypt show that 28 2% of all women report having antenatal care There are marked differences in urban and rural areas (51 2% and 20 8% respectively) A total of 20 8% have antenatal care and tetanus toxoid immunization while 7 5% have antenatal care with out immunization A further 45 5% report have tetanus toxoid only without any antenatal care, bringing the total of women immunized for tetanus toxoid to 66 3% (33 0% have no immunization 23 9% have one dose and 42 4% have 2+ doses) Tetanus toxoid coverage has increased dramatically following public education campaigns

Although coverage of antenatal care is low, those women who do have antenatal care seem to use services frequently 63 5 in upper Egypt have four or more visits In Egypt as a whole, the median number of visits is 6 5 and most women go fairly early, at a median of 2 9 months, and 92% have

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attended bv the 6th month Qualitative work in Aswan and Luxor shows that women seek their antenatal care from a variety of providers, often switching In the 1995 DHS for upper Egypt, 100% of those who had had antenatal care reported seeing a doctor (when asked about the most skilled ANC provider) 5 9% of all women used public sector services, 22 6% used private sector services and 0 2% used both private and public sectors This means only 22% of women who use ANC use public sector services ((5 9%+0 2)/28 2%) The percentages of public sector use among those using ANC for urban and rural upper Egypt are 24% and 20% respectively This suggests rural residents are not only less likely to use ANC services but are more likely to pay for private ones

Less research has been done on the value of a postpartum checkup Many complications occur immediately postpartum or in the few days following delivery The presence of skilled professional at this time would probably have an impact However, the conventional timing for a post-partum check is 6 weeks While this may be an appropriate time for some aspects of postpartum care such as family planning, it is unlikely to address problems such as post-partum hemorrhage Data from the 1991 PAPChild survey for upper Egypt indicates 21 2% and 12 2% of women have a postpartum checkup in urban and rural areas respectivelv 81% and 85% of such check-ups respectively are done by doctors In urban upper Egypt, a further 10 4% are done by nurses The remainder are done by dayas

A POPULATION STATISTICS IN LUXOR

Luxor has an estimated 12,000 births per year If each woman had one antenatal care visit in the public sector, 12 000 first visits would be expected If women had the recommended 4+ in the public sector, then at least 36 000 repeat visits would be expected, making a total of over 48,000 antenatal visits per year If all births had one postpartum follow up visit Luxor should expect 12,000 postpartum check-ups

B IS LUXOR PREPARED TO PROVIDE ANTENATAL AND POSTPARTUM CARE?

B-1 Antenatal and Postnatal Care Infrastructure

Luxor as many as 29 facilities capable of providing antenatal and postnatal care 2 MCH centers, 2 or 4 urban health center 3 rural health centers, 16 rural health unit 1 rural hospital, 2 district hospitals and a general hospital (A2) Luxor also has 15 other voluntary sector facilities, 57 clinics, and 20 private ob/gyn clinics It is worth finding out what these are and what services they may provide (1/19) According to the district manager, there are no NGOs active in maternal health in the Luxor district (1/17)

All public sector facilities in Luxor (except hospitals) appear to be involved in providing antenatal and postpartum care according to the district manager Hours for such services should be 8 30 to 2 00 pm six days a week Hospitals provide ANC from 8 30-11 00 6 days a week They do not provide postpartum services (1/9) However, according to facility managers not all provide six days in particular the 2 MCHs, 1 urban health centre and 3 rural units and one rural hospital provide antenatal care 2 days The other rural hospital 2 rural health centres and 7 rural health units provide ANC 1 day a week Facilities provide slightly less than six hours per day on average, and 4 facilities provide only 4 hours of care One MCH hospital provides 4 hours of care and the other provides 7 (T/1)

Twenty four facilities were visited in Luxor (all except 2 urban health centres which may not exist, 1 rural health centre and 2 rural health units) All 24 provided antenatal care , and 23 provided post partum

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care (2/1) None can provide ultrasound scans but 10 can do laboratory hemoglobin and 21 can analyze urine(2/2)

20 of 24 health facilities visited in Luxor had regular water, and 19 of 24 had electricity Less than half (11 of 24) were judged to be in good condition(2/14) 15 facilities had waiting areas, but only 9 had chairs Around half of maternal examination rooms were inadequate Only 14 had an examination table, 9 had stools for the doctor and only 14 allowed privacy Only one fifth (5 of 24) had a working telephone (2/5 2/14)

14 antenatal users were interviewed in Luxor, two thirds (9 cases) in the facility itself (4/0) These women were not selected at random They reported taking on average 15 minutes to get to the facility and 0 9 kilometers was the average distance (4/1) Most traveled on foot (9 cases), the remaining 5 took a microbus or taxi Those who went by vehicle paid on average 60 piasters (between 50-80) 12 went alone and 12 went with relatives or neighbors (4/2,T/2)

These data suggest an available physical infrastructure, that is relatively accessible to those using the service Data for Egypt in general show most women have easy geographical access to services but it is not possible to judge if those not using services are put off by cost or distance Qualitative data suggest this is not the case and that women who use services seem willing to travel to seek them

B-2 Drugs and Equipment

In Luxor and Aswan governorate in general, shortages of iron tablets were reported by 30% of facility managers and 24% of health providers The shortage figures for vaccines and antibiotics were reported by health facility managers as 35 8% and 52 8% respectively and by health providers as 26 5% and 20 9% respectively (B7) Within the 24 facilities inventoried for drugs and equipment, 7 of 24 facilities had shortages in antibiotics and 4 of 24 had mentioned shortages in iron (2/8) Overall, 21 of 56 providers interviewed in Luxor reported drug and supply shortages (3/18) One facility in Luxor had ANC service protocols with one nurse and one GP trained to use them (2/18)

Shortages in basic equipment were reported by 28 of 56 health providers (3/18) However, 23 of 24 facilities have working sphygmanometers and most have several All facilities have stethoscopes (2/20) All facilities have boilers and 17 of 24 have autoclaves All have thermometers (2/20)

B-3 IEC Materials and Sessions

The Luxor district manager appears to have some IEC material largely posters and flip charts on tetanus toxoid vaccine and neonatal care (1/16) According to facility managers, three (of 24) had materials on antenatal care, 16 on breast-feeding, 7 on the proper way to breast-feed, 1 on at risk pregnancy, 8 on TT immunization and 10 on neonatal care (2/12)

In the previous three months the district manager reported two meetings in Luxor on the importance of breast-feeding antenatal care, vaccination and ORS (1/17) 14 of 24 health facility managers also reported having held group meetings and 18 of 24 provided home visits (2/13)

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B-4 Actual Practice of Antenatal Care

As a absolute minimum requirement routine antenatal care by health care providers (HPs) should ensure

* that prophylactic or therapeutic iron medication is provided to all women at risk of anaemia in pregnancy
* that tetanus toxoid is given to all women with inadequate tetanus vaccination
* that all women know how to receive skilled care in case of pregnancy complications

According to Providers

49 of the 56 providers in Luxor participated in antenatal care and postpartum care(3/2) Among the 31 involved in receiving ANC patients, the following results were obtained when providers were asked what they did reasons for visit and a medical history were frequently taken (25 each) Asking information on personal details also mentioned (20 providers of 31) The most common measures mentioned were blood pressure (22 of 31) and weight (22 of 31) Urine and blood measures were not mentioned frequently (11 of 31 each) Most also explained what women should expect (29 of 31) and some (6 of 31) mentioned where to go (for delivery?) (3/4)

According to Women

24 exit interviews were conducted in Luxor These women were not a random sample Women sought care to get tetanus toxoid (17 of 24) or because they felt tired (ill) (4 of 24) Three went for a regular checkup (4/11) In Luxor most planned their delivery at home (10 of 24) and 5 planned to use a MOH facility (4/12) 11 of 24 preferred physicians for delivery and 8 preferred nurses(4/13) Women with a pervious delivery had paid up to 150 pounds for their delivery, with an average of 33 pounds (T/4)

Of 24 women interviewed, 19 were received by nurses All felt welcome and that the person receiving them was welcoming Most felt the waiting place as very comfortable (21 of 24) or somewhat comfortable (2 of 24) (4/3) All 24 saw a nurse and most saw her right away or after 5 minutes This was judged reasonable by evervone (4/3 4/5) 13 of 24 also met with physician, and on average waited 33 minutes to do so (though 3 woman waited between and hour and an hour and a half) Physician were all friendlv and polite (4/6)

8 of 13 who were examined by physicians were examined with privacy Three of the five who were not seen privately were bothered by this A history was taken and duration of current pregnancy in 11 of 13 women Of the important activities (examining the heart with stethoscope, measuring blood pressure and examining the abdomen), 7, 10 and 10 women out of 13 were examined respectively (4/7) For six women one of these three aspects of antenatal care was a failure (T/5) Weight was a common measurement taken (8 of 14) cases Height urine and blood were less frequent (6, 4, and 1 cases respectively) (4/5) Other activities (ie examining breast, gynecologic exam and ultrasound) were done less frequently 8 4, 2 respectively (4/7) As there is no evidence these activities are needed routinely in every visit this may not be a problem Nine of 14 were given TT injections in their current and seven had been given one before Three had not been given one either at the current visit or earlier (T/6) Five were given iron pills and 9 given other unknown medications (4/8)

Communication was not good as only 6 had it explained to them what as being done and why (4/7) Advice was also given to 6 women on personal and breast hygiene, exercise and nutrition though again

there is no evidence this works (4/8) 9 of 14 women (64%) were advised on risky signs or pregnancy and how to act if risky signs occur Also, place of delivery was only discussed with 6 clients This is a missed opportunity Only 8 women were told when to come next (4/8)

13 women were satisfied with service citing the friendly reception and the curative treatment as reasons The only dissatisfied women said she was not examined as expected Women felt the service could be made better with more tests more examinations and ultrasound (5, 2 and 3 respectively) 12 said they intended to come back and all would recommend the facility to others (4/9) Overall in Luxor and Aswan, 59% of women had an accessibility card and 96% of women brought their card with them In Luxor 8 women had an accessibility card and 7 brought it with them (4/10) The other 6 women were never given one

9 of the 14 women had had a previous visit In previous visits, most (8 of 9) were given dates for revisiting and 7 of 9 were explained risk factors and how to act, and counseled on nutrition and personal hygiene Weight and blood pressure were measured in 8 of 9, 6 say they had a chance to ask questions and all 6 were given helpful answers (4/14) Most (11 of 14) visited other facilities, largely private ob/gyn (10 cases) and the health insurance facility (1 case) (4/15

Most of the 10 women with a previous delivery were not visited after delivery (8 of 10)(4/18 5 of 10 had delivered in the general hospital (4/18)

According to Observation

48 antenatal provider - user interaction (visits) were observed by a specialist obstetrician 3 antenatal visits were observed in a general hospital 18 in a district hospital and 27 in a MCH centre The sample of antenatal visits was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

The data provided show that the observer perceived the service as friendly (44 of 48) When meeting a mother all (48 of 48) HPs welcomed and most HPs reassured her (34 of 48) but only 8 of 48 HPs explained clearly to the woman what will be done

The observer assessed prenatal history taking as inadequate in ¼ of observation (13 of 48, 1 in a district hospital and 12 in an MCH) This does not appear a harsh judgement as most HPs did no ask about previous complications of delivery and only 25 of 48 asked about bleeding in the current pregnancy 2 of 12 cases with symptoms or history suggestive of rheumatic heart disease[1] and none of the 10 women who had antepartum vaginal bleeding[2] were appropriately identified by HPs According to the data provided 42[3] women had pregnancy problems worth reporting as assessed by the observer However, antenatal history was appropriately recorded by only 29 of 42 HPs

[1]According to the National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994 cardiac disease (mainly caused by rheumatic heart disease) accounts for 13% of all maternal deaths in Egypt Only postpartum haemorrhage and hypertensive disease in pregnancy cause more maternal deaths

[2] In a random sample of 50 women one would expected no more than 2 women with antepartum bleeding

[3]This is a high prevalence of complications and is unlikely to be similar in the general population

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Prior to antenatal physical examination only 4 HPs explained to the mother what they were going to do and only 1 washed his of her hands All 15 women who attended for their first visit had their heart auscultated but 14 of 15 had their blood pressure taken correctly and only 2 of 15 had their chest examined at all

The fetal presentation and lie was determined in all women (>28 weeks) attending at district hospital level (9 of 9) but less than ½ (12 of 25) the women (>28 weeks) attending MCHs for antenatal care[4] More importantly when performing a vaginal examination only 1 of 15 of HPs took minimum antiseptic precautions and used clean gloves[5] As in all other observations of HP activities, recording of antenatal examination findings was often deficient (17 of 48)

Antenatal laboratory investigations were relatively frequently performed but only ⅓ the women attending at their first visit had their VDRL (test for syphilis) checked Nearly all women had some kind of laboratory investigation, but less than ¾ of findings were correctly recorded in the client's record and only ½ were correctly interpreted

Health education in the antenatal clinic was deficient, too Only ½ of all women attending during the third trimester received information about the importance of vaginal bleeding and only 7 of 48 were informed about the signs of pre-eclampsia and antepartum bleeding Antenatal care by a senior doctor did not guarantee better care as only ¾ (3 of 4) of the senior doctors who saw women in the third trimester informed them these two risks

The data do not permit an analysis of the HPs attitude and activities to preventing anaemia (is iron supplementation given routinely or not?)

The observer assessed less than ½ (21 of 48) of the providers as competent in providing antenatal care and suggested that 34 of 48 would benefit from efforts to strengthen and support their skills

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women Seek Antenatal and Postnatal Care?

Luxor should have 12,000 new antenatal visits and at least 36,000 repeat visits per year In practice only 6 1% of women in upper Egypt use public sector services, which would mean 7320 first visits and at least 3 times that many repeat visits (21,960 revisits) 66 3% (or 7956) women have at least one tetanus toxoid immunization The bulk of those getting it with antenatal care are using private providers, but it is unclear where the remainder are getting immunized These women may be using public sector services

According to the district manager data Luxor health facilities report 3983 new antenatal care visits in the year 1996 This would suggest 33% pregnant women used public facilities (this seems high unless tetanus toxoid alone merits recording as a new antenatal care client) In the second quarter of 1997, the number was 2385, giving 9540 per year Revisits were 5006 and 2355 for 1996 and the second quarter

[4]The value of routinely determining the fetal lie before 34 weeks gestation is uncertain

[5]The value of vaginal examination in pregnancy is uncertain and routine vaginal examinations are not performed in the UK at any time before the onset of labour

of 1997 respectively) making the average number of visits to public facilities between 2 3 and 2 0 (1/18) Five facilities reported antenatal visits for 1996 1 rural district hospital 3 rural health units and an MCH These ranged from 120-308 and totaled 1041 the greatest number being at a rural health unit However in the second quarter of 1997 all facilities except the central and district hospital and a rural unit reported antenatal visits The greatest number of visits was in a rural unit (n=160) Visits in other facilities ranged between 20-143 (the MCHs were 50 and 59) Altogether 1424 first visits were reported which is about 47% of all expected births in the same quarter Nevertheless, the average numbers of new clients seen is between less than one per day and less than one per week The exceptions are a few rural units which see slightly less than 2 new clients per day Even adding revisits does not give a very heavy workload as these just slightly more than double the workload

If we look for statistics on the content of care, notably at tetanus toxoid immunization and cases of anemia we find the following In 1996, 10 facilities reported immunizations (ranging from 90-180 per facility 19 facilities reported in the second quarter of 1997 (all except the district and general hospitals and 2 rural health units The range was between 8 and 87 and totaled 917 Anemia reported by facilities in 1996 ranged from 50-120 and totaled 230 In the second quarter of 1997, anemia cases ranged from 2-60 per facilty and totaled 137 cases

Luxor should also have 12,000 postpartum check-ups if all births were followed up postpartum, but in practice the number is estimated at slightly over 12% (n=1440) The expected number in the public sector is not known No data on actual postpartum visits were available from the governorate level for either the woman or the infant (1/18) Among facilities (up to 6 reported data), there were total of 270 visits (range 50-120) in 1996 and a total of 132 (range 6-60) in the second quarter of 1997 This is less than one client per day (T/6)

C-2 What are Reporting and Recording practices?

According to the district manager all health facilities have the new registration forms and 21 of 24 provide complete MIS forms and review data (1/12 1/13) Within the facilities, we found 23 of 24 facilities in Luxor had forms and 21 were using the new forms for antenatal 1st visit, antenatal revisit and 9 were using them for postpartum care (2/6) Facilities reported using data to follow up cases (17 facilities) to detect community heath problems (11 facilities) and to ascertain quality of services (7 facilities) 18 of 24 facilities regularly notified reporting some events, largely by monthly report or other means (2/6)

12 of 24 facilities have persons trained to use data, largely GPs and nurses but also including clerks and statisticians (T/7) When providers were interviewed 15 of 23 involved in recording information said they had been trained to look at data quality, but only 13 were trained on how to used data (3/17) The most common use of data (according to providers) is to monitor and evaluate performance and to write reports(3/17)

D DISTRICT WIDE ISSUES

D-1 Supervision

Overall in Luxor and Aswan governorates health providers report that supervisors typically visit e very two weeks though 45% are visited every 3-4 weeks For 5% of health providers, the supervisor visits only every 3-6 months or even more infrequently (3/3) Slightly over half of health providers are

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involved in supervision themselves Few providers have training in management (6 of 115 GPs and 1 of 114 nurses)

D-2 Referral

42 of 49 providers involved in antenatal care reported referring cases When asked what cases they referred 37 mentioned preeclampsia 14 mentioned antepartum hemorrhage, 12 mentioned diabetes Anaemia and abnormal presentation were also mentioned by 8 and 13 providers respectively Only 2 communicate with facilities they referred to and 4 accompanied cases routinely 28 followed up on cases but this was done informally by 21 of them The 6 providers that did not follow up clients stated it was not required or there were no records (3/16)

E PROVIDERS

In Luxor and Aswan governorates as a whole, most providers reported being involved in antenatal care only 10 6% of nurse and 5 6% of ob/gyns were not involved in antenatal care All GPs were involved in antenatal care There was less involvement in postpartum care 40 4% of nurses, 11 1 % of obstetricians and 8 % of GP were not involved in postpartum care (B8) Of the providers, 49 of the 56 interviewed provide antenatal care and 46 of 56 provided postpartum care Of these 10 and 9 respectively do so in the capacity of assisting (3/2)

30 of 56 providers in Luxor reported using IEC material on tetanus toxoid, and 31 on breast-feeding positioning 14 did not have IEC materials but most common were posters, flip charts and brochures (3/22)

Training Overall in Luxor and Aswan governorates 25 of 115 GPs (21 7%) had been trained in antenatal care mostly in training centers (22 of 25) though some had been trained in universities (3 of 25) This included preventative care procedures and anaemia during pregnancy, preventive delivery care and delivery follow up procedures 17 of 115 (14 8%) had been trained in postpartum care, again largely in training centers (15 of 17) Nurses were given less training than GPs However 14 of 141 were trained in antenatal care (9 9%) and 6 in post natal care (4 3%) A further 14 (9 9%) were trained in breast-feeding (3/10) Only one nurse reported using an prenatal protocol and a post partum protocol GPs and Obs did not use these

2 DELIVERY AND NEONATAL CARE

A POPULATION STATISTICS IN LUXOR GOVERNORATE

Luxor Governorate has a total population of 375 515 186,148 are women, and an estimated 70 353 (38% of all women) are women of reproductive age (Table 1/1,1/2)

1995 DHS estimates for upper Egypt provide crude birth rates (CBR) and general fertility rates (GFR) of 34 5/1000 and 164/1000 respectively If these data are applied to the total population of Luxor Governorate there are between 11 500 and 13 000 births per year in Luxor District According to the health statistics the district manager said there are 10 229 births in 1996 (giving CBR = 27 3/1000) (Table 1/2) These figures are very slightly lower than expected and reflect the under- reporting that is known to exist in MOH statistics This report will assume the figure of 12,000 births in Luxor Governorate

B IS LUXOR GOVERNORATE PREPARED TO PROVIDE GOOD QUALITY OBSTETRIC AND NEONATAL CARE?

According to WHO recommendations there should be one facility capable of providing comprehensive essential obstetric care (CEOC) and 4 basic essential obstetric care facilities (BEOC) per 500,000 population According to these criteria 1 CEOC (from among 1 General hospital, two district hospitals) and 3 BEOC (could be selected from the 2 district hospitals, 2 MCH Centres and 1 Rural Hospital) would be adequate for Luxor Governorate with its population of 375,515

We investigated the district of Luxor Governorate to check its preparedness to provide EOC and found the building infrastructure to be in place Most public facilities said they were available (in principle) to provide EOC 24 hours emergency care but it is likely that most facilities are severely limited by the fact that they have no beds and that their opening hours are restricted from 8 30 am to 11 00 am or 2 00pm, six days a week (Table 1/9) Facility based data however suggested that 17/24 facilities offer delivery services and 18/24 emergency services for infants on a 24 hour basis Two facilities had a 24 hour on call obstetric specialist and 2 had 24 hour paediatric specialist services (Table 2/3) It remained unclear how a 24 hour service can be provided in institutions without inpatient facilities and with 5 hours opening time/day

B-1 Preparedness of the CEOC Facility

According to the district manager Luxor governorate has a total of 1384 beds in public and 482 beds i n private health facilities It has 131 maternity beds in the General and district hospitals Luxor's main public facility conducting births is the General hospital According to the hospital director, the facility has 201 beds and 22 maternity beds The district hospitals have 70 and 22 beds and 15 and 3 maternity beds[1] This again is much more than adequate as judged by WHO standards (24 maternity beds per district hospital serving a population of 500 000)

The General Hospital has a covered waiting area for women which is judged sufficient and well maintained It has an appropriately equipped and maintained maternal examination room (with

[1]According to the district manger the General Hospital has 528 beds and 53 maternity beds and the district hospitals have combined 510 beds and 28 maternity beds

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examination table) The delivery room is well prepared and provides adequate privacy and lighting The overall assessment of the delivery room was good as was the building in general Data were not collected on the operating theatre The only criticism of infrastructure in the General Hospital was a lack of privacy in the maternal examination room

Neither of the district hospitals has a maternal waiting area The larger district hospital has a well maintained maternal examination and delivery room Again the only criticism of this hospital was a lack of privacy in the maternal examination room The smaller district hospital has no maternal examination room and the delivery room was judged to be inadequate in every aspect as was the general condition of the building

In terms of staffing for emergency functions the General Hospital has 4 anaesthesiologists, 15 ob/gyn specialists 10 obstetrics resident 9 paediatricians 2 pharmacists 7 laboratory specialist and 6 laboratory technicians There is no blood bank specialist, although it seems this functional title may not exist in Egypt This level of staffing in obstetric anaesthetic neonatal and supporting services seems more than adequate The district hospitals had a combined staff of has 1 anaesthesiologist, 3 ob/gyn specialists, 4 obstetrics resident 3 paediatricians 0 pharmacists 0 laboratory specialist and 7 laboratory technicians

In other questions district manager expressed that the lack of training of physicians and nurses and shortage and high turn over of staff were the major problem facing the district (Table 1/14)

All three hospitals in Luxor provide delivery services on a 24 hour basis but only the General and the larger district hospital have an ob/gyn and paediatrician on call at night and on holidays All 3 hospital managers said it would only take 5 minutes to attend to complications (though this seems unrealistically short) The General hospital did not report transferring any cases Both district hospitals were referring cases to the General Hospital In case of need of emergency referral, the hospital and the district had 7 ambulances (Table 2/5)

The General but none of the district hospitals have a telephone (and so can be contacted in case of emergency although only 5 of 24 (21%) of other facilities have a telephone according to the district manager (B/4)) All hospitals have a regular water supply General Hospital and the larger but not the smaller district hospital have a regular electricity supply There is a blood bank with appropriate equipment at the blood bank in the General Hospital and the larger district hospital (refrigerator, centrifuge microscope screening kits) Blood supplies are inadequate, patient are asked to supply from relatives and friends Qu ilitative data indicate that this is sometimes the case even in emergencies

Based on WHO recommendations this hospitals have most of the basic equipment and staffing to manage obstetric emergencies However, there were major deficiencies in some areas According to the data provided the General Hospital has only 1 working sphygmanometer, 1 working stethoscope, and 1 infant weighing scale while the smaller hospital has 30 25, and 26[1] The General Hospital has on two fetal stethoscopes It appears that there is a serious problem of maldistribution among the hospitals in Luxor governorate This lack of basic equipment at the General Hospital is likely to be extremely detrimental to the the level of care which can be provided to mothers and babies

[1] Luxor General Hospital should function as a referral centre for Luxor Governorate, the main function of some of the specialists may (and indeed should) be outreach to other district hospitals Counting them as staff at Luxor General Hospital may not be appropriate

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Equipment in Working Conditions	Smaller District Hospital	General Hospital
Scissors	50	1 (what if they need to be sterilized?)
Suture Needles and Suture Material	22	4
Artery Forceps	22	3
Utility Forceps	22	3
Infant Laryngoscope	10	1
Bag and Mask for Neonatal Resuscitation	0	1
Surgical Clothing (shoes/aprons)	26	2
Reusable Gloves	0	600
Disposable Gloves	0	550
IV Kits	0	9998
Blood Transfusion Kits	0	5000
Cord Ties	0	5 (30 in larger district hospital)
Proteinuria Test Supplies	0	20 (0 in larger district hospital)

The General Hospitals has an inadequate supply of anaesthetic agents and drugs for managing pre-eclampsia/ eclampsia (ie no nitrous oxide, no ketamine insufficient lidocaine and pethidine no hydralazine) All antibiotics expect ciprofloxacin capsules and for kanamycin injections (of which Nasr district Hospital has 200 ampoules) were available suggesting that at least at the General Hospital antibiotic shortage is not a problem Partographs are not use at all

B-2 Preparedness for Neonatal Care at General Hospital

In order to provide neonatal care, the General Hospital requires other material beyond those required for CEOC The General hospital has adequate equipment except it lacks infant laryngoscopes or Ambu bags (bag and mask) which are critical for resuscitation (one is not enough!)[3] Even more important is the lack of towels dry the baby and blankets to keep the baby warm The available data provide no information about the presence or absence of a heated/warmed infant resuscitation area Silver nitrate is not available but tetracycline (which is preferable) is present but in short supply (at the time of assessment the available stock should not last longer than 2 weeks) It is unclear how the hospital can provide good neonatal care in the virtual absence of essential resuscitation equipment In this context it is far more important to obtain further Ambu bags than infant laryngoscopes

B-3 Basic Emergency Obstetric Care

The only other facilities with beds (and thus capable of doing facility deliveries) are the rural hospitals None of them has designated maternity beds (Table 1/20) No information is available on private sector beds and on private sector capacity to provide BEOC or CEOC The basic facilities have some way to

[3] Swedish data suggests that 1 in 500 full term babies and one in 10 babies requiring resuscitation benefits from intubation A laryngoscope and endotracheal tubes are thus not required for the vast majority of resuscitation procedures An method to inflate the baby s chest (eg an Ambu bag with a working blow off valve or pressurised gases with a T-piece and a working blow off valve is more important for neonatal resuscitation than a laryngoscope) Absence of an Ambu bag may not be worse than the presence of an Ambu bag or pressurised gases without a blow off valve

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go in terms of being able to provide BEOC (see table R/6) In particular, there appear to be major problems in terms of expendable supplies and antibiotic drugs Specific hospitals were also missing specific supplies and some items of equipment need to be redistributed A survey of basic facilities found deficiencies only for antibiotics (Table 1/14 and 2/8) It was not possible to state whether drugs and equipment these are located in the correct room and or were readily accessible

B-4 Analysis of Intrapartum, Postpartum, and Neonatal Care

As a minimum requirement routine labour delivery and neonatal care by health care providers (HPs) should ensure

* that all women in labour and neonates have routine observations taken and recorded
* that women are encouraged to be mobile while in labour and not to deliver lying on their backs
* that interventions including vaginal examinations adhere to minimum standards of hygiene
* that interventions are restricted to an absolute minimum
* that all instruments used for maternal and neonatal care are sterile

25 deliveries were observed bv a specialist obstetrician in 13 district and 12 general hospitals The sample of deliveries was not chosen by random and is not specific for any Governorate or district However we still believe that many of the findings would be similar in other units

Most deliveries were attended by junior or resident medical staff (13) while 7 were attended by the head of the department 1 by a specialist and 4 by an assistant specialist or senior resident In no case were nurses the main care providers 19 of the 25 deliveries were normal vaginal deliveries There were 3 forceps and 2 breech deliveries while one Caesarean section was performed (for the single reported case of ruptured uterus) There was also a case of preterm labour Approximately ⅓ of all women underwent some kind of intervention including augmentation or induction of labour

The data provided show that women perceive the service as friendly, but do not receive much (if any) explanations about the progress of labour or activities to be done by HPs When meeting a mother, nearly all (24/ 25) HPs welcomed and reassured her (20/25) and were perceived as friendly (24/25) HPs generally helped women to get ready for examinations (24/25) but virtually never explained their findings to the mother (1/25)

General history taking was adequate (24/25) but only ⅔ (16/25) of HPs asked if the membranes had ruptured and if the mother had attended an antenatal clinic (16/25)[4] Only 21/25 HPs measured the mothers blood pressure and 16/25 took her heart rate only 20/25 performed an adequate physical examination and only 19/25 recorded antenatal and intrapartum history and findings accurately When performing a vaginal examination only 12/25 of HPs took minimum antiseptic precautions and only 5/25 used sterile gloves[5] Only 17/25 of the HPs checked the fetal heart at regular intervals [6]

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[4]The longer the period between rupture of membranes and delivery the higher the risk of infection for mother and baby Even poor quality antenatal care should identify some abnormalities such as antepartum haemorrhage

[5]Frequent and/or unhygienic vaginal examination in labour are one of the most important risk factors for puerperal sepsis which is the 3rd most common direct cause of obstetric mortality in Egypt National Maternal Mortality Study Egypt 1992-3 MoH Child Survival Project Cairo 1994

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Delivery occurred in all cases with the mother lying on her back[7] Less than half the instruments used for delivery were clean and sterilized Even more seriously unsterile instruments or thread was used in more than ⅔ of cases to cut and tie the umbilical cord At least 4 out of 25 babies were exposed to unnecessary cold stress (not dried or not covered with blankets) None of the babies was formally assessed at birth (no weights anthropometrical measurements or Apgar scores at all) Only half the mothers were informed that their baby was fine and half were encouraged to breast feed Management of the third stage is not described in the data

During all observed labours and deliveries no partograph were used, nor were any type of protocol or checklists The available data does not provide information concerning the accuracy of the findings of any examination including blood pressure and findings on vaginal examination From the provided data it was not clear if women were encouraged to change their position frequently in labour and to empty their bladder regularly (as it should be the case) While the data provide information about procedures which are desirable it does not list unnecessary or harmful intervention such as routine enemas in labour

Postnatal Care

The National Maternal Mortality Study Egypt, 1992-1993 showed that postpartum haemorrhage was the most common direct cause of maternal mortality (178 deaths) and caused more maternal deaths than the second (hypertensive disease in pregnancy, 114 deaths) and third most important causes (genital sepsis, 60 deaths) together This confirms that in Egypt too the mother is in more danger of losing her life in immediate postpartum period the mother than during any other time in her pregnancy Care in the immediate postpartum period requires the early detection of complications, and an appropriate response to them Early detection requires regular and systematic observation of the mother's vital signs including pulse blood pressure and blood loss

Only 20 of the 25 HPs observed took a blood pressure and 3 did not take a maternal blood pressure or a pulse The majority of HPs (16/25) left the woman within 15 minutes of delivery and immediately after delivery of the placenta (13/25) and would not have been able to observe slow but steady blood loss It is not clear if they delegated the task of observing the mother to other HPs If they did so those HPs would have to rely on adequate records to provide continuity of care However only 3/25 recorded their postpartum observations in the patients records

Insufficient communication between HP and mother was also a problem during the postpartum period Only a fraction of the providers informed the mother to report back in the case of haemorrhage (18/25) or fever (16/25)

Contraceptive advise was offered only by 7/25 HPs The 3/25 HPs who did not measure pulse, blood pressure or temperature did not provide advice for the postpartum period either

[6]It is likely that this is better than the regional average as 94 of the small er health units (total 123) visited for the complete survey had no fetal stethoscope at all

[7] This is a bad position as the weight of the gravid uterus can easily occlude the inferior vena cava which will lead to a decreased prelaod a drop in blood pressure decreased placental perfusion and fetal distress

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Interpretation

The activities of HPs are determined by many factors which are not recorded in this analysis such as the availability of supplies necessary to perform certain tasks motivation knowledge and skills One can assume that all HPs had the ability knowledge and skills to take routine observation (fetal heart maternal temperature blood pressure and pulse rate) but only ⅔ did so

It is possible that supplies could have been a problem Even where the facility has a particular piece of equipment it may not be accessible (Aswan General Hospital has no proteinuria test kits and Luxor General Hospital has only 1 working sphygmanometer 1 autoclave, 1 working stethoscope, and 1 infant weighing scale 1 pair of scissors and two fetal stethoscopes) If the equipment was accessible it may have been used preferentially (because of the observation) As HPs were observed by a senior colleague they may have changed their practice for the period of observation to their "best possible practice" The recorded observations may thus not reflect routine practice by the HPs observed, but the best possible case

Without adequate observation of labour it will be difficult to perform necessary interventions in time On the other hand the lack documentation of labour often leads HPs to assume that the progress of labour is slow which in turns causes unnecessary interventions such as "yet another vaginal examination" or injections to stimulate labour In the sample observed 10 out of 25 women received drugs to stimulate labour which is more than twice the rate as used in most labour wards in the UK

Care in this sample was provided by specialists or those undergoing specialist training As specialist are concerned with abnormal labour and delivery it may not be surprising that they were not very good at managing normal deliveries The observer judged delivery care as competent in 7/25 of cases and felt that support and strengthening of skills is required in approximately 22/25 of cases observed

To reduce the risk of adverse outcomes of normal deliveries it is necessary to avoid unnecessary intervention and to ensure minimum standards of cleanliness and sterility From the data provided it does not appear that these principles are followed Changes in routine care for women in the immediate postpartum period are likely to lead to more health gains for mothers and babies than changes during the antenatal or intrapartum period

B-5 Referral / Transport

According to the district manager physicians from lower level units were asked to transfer complicated cases to the General hospital immediately He did not request that critical cases be accompanied or that telephone contact be made or an ambulance used The district manager reported working 7 ambulance (table 2/5)

Respondents form 2 facilities mentioned that they would refer complications to the MCH This could lead to useless delay the MCH has no capacity to deal with complications Only 4 facilities [4/24] reported that when referrals were made women would be accompanied (table 2/4) As this is a self reported figure it may not reflect routine practice All responding facilities [16/16] reported mainly informal follow-up (Table 2/4) Referral distances were generally short (10 $\pm$ 9 km, and travel time was 19 minutes $\pm$ 9 minutes the smaller district hospital is only 3 km form the General Hospital (Table 2/4) Given that quoted referral times often present the best possible circumstances rather than the routine situation it is likely that decision to arrival intervals exceed 1 hour in more than 20% of cases referred

C DATA ON HEALTH OUTPUTS AND OUTCOMES

C-1 Where Do Women in Luxor Governorate Deliver and Who Delivers Them?

We estimated that 12 000 deliveries occur annually in Luxor Governorate

If 1995 DHS data for upper Egypt are applied to Luxor Governorate 78,5% of births take place at home (n=9420) 12 1% in public health facilities (n=11452) and 9 1% in private facilities (n=1092) 60 9% are attended by davas (n=7308) 26 0% by doctors (n= 3120), 6 2% by nurses/midwives (n=744), the remainder (n=828) deliver with relatives or alone

The district manager has data on 2081 deliveries in 1996 (Table 1/18) Data from health facilities which recorded birth suggests that at least 3532 deliveries occurred in facilities during 1996 (R2) Of the 24 facilities visited 14 facilities (including the two district hospitals) did not report birth in 1996 For second quarter of 1997 17 facilities reported 1608 births The number of births recorded in institutions during the second 3 months of 1997 is nearly ½ (45 5%) of the deliveries reported in 1996[8] This suggests an expected total of 6432 births per year in public facilities (compared to an estimated 1512 deliveries in public facilities from the DHS) (R/0)[9] 852 (52 9%) of the deliveries reported in facilities were known to the district manager These irregularieties in reported births may be important as previous requirements are used to calculate needs for supplies and drugs

Not all deliveries registered in facilities actually occur in the facilities Indeed many facilities do not actually have beds It is possible that some of the deliveries reported at institutions have actually occurred at the patients home and have only been recorded in the register of the institution In Luxor Governorate only the General Hospital two district hospitals and a rural hospital have inpatient facilities In the second quarter of 1997 institutions without beds reported 746 deliveries while the hospitals reported 862 (53%) of all deliveries recorded at facility level[10]

C-2 What Are the Health Statistics for Luxor District ?

Neonatal and Infant Mortality

The 1995 DHS data for rural upper Egypt reports the neonatal mortality rate as 49 per 1000 and the infant mortality rate as 105 per 1000 In Luxor District this would mean 367 neonatal deaths and 420 post neonatal deaths making a total of 787 infant deaths per year For 1996 the district manager has report on 123 stillbirths 78 early neonatal deaths and 43 late neonatal deaths In the second quarter of 1997 the figures were 33 27 and 5 respectively Using the 2081 births and 121 neonatal deaths reported to the MOH an infant mortality rate of 58 per 1000 and a stillbirth rate 59 per 1000 of can be derived for 1996 These figures are high but likely to be accurate

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[8]This may be due to better utilisation or seasonal fluctuations of delivery rates However, improved record keeping and reporting appears the most likely explanation

[9]This assumes no major seasonal fluctuations in the number of institutional deliveries

[10]The 2 district hospitals dis not return delivery reports for the second quarter of 1997

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Maternal Mortality

If we assume an maternal mortality ratio (MMR) of 217 per 100 000 live births (based on the maternal mortality ratio for upper Egypt) there would be on the order of 26 maternal deaths in Luxor Governorate For the year of 1996 the district manger has data of 23 maternal deaths and 5 deaths for the second quarter of 1997 All maternal deaths are classified as "post partum deaths" Data from The National Maternal Mortality Study Egypt 1992-3 showed that only 35% of maternal deaths occurred in the post partum period It appears therefore likely that the absolute number of maternal deaths but not their causes or timing are reasonable accurate (Table 1/13 1/18)

What Are Complication Rates?

With 12 000 births in Luxor Governorate 1200-1 800 women are expected to have complications, based on an assumption of 10-15% In 1996 38% [2618 of 12000] of women were reported to have delivered in public health facilities (R/2) As these deliveries occurred in the General or two district hospitals these women could have received appropriate care to deal this complications It therefore possible that women with complications are reaching health services However facility data show that most deliveries in health care facilities are normal indicating there may well be some unmet need

209 Caesarean sections were reported to the district manager in for 1996 and 15 in the second quarter of 1997 The reported numbers for forceps or vacuum deliveries were 0 and 0 in 1996 and the second quarter of 1997 Assuming that 5% of the expected 12 000 pregnancies should be terminated by Caesarean section one would have expected 600 Caesarean sections to be performed in 1996 and 150 during the second quarter of 1997 If one assumes that all Caesarean sections performed were reported to the district AND that all Caesarean sections performed were indicated Caesarean section met need of > 35% for 1996 and 10% for the second quarter of 1997 can be calculated[11]

Other facilities also report complications However because such facilities may refer women with complications to the district or general hospital it is not easy to estimate absolute number of complicated cases managed by the public sector (just adding up reported complications would lead to double counting) while ignoring them (as done here) would discount the effect of any treatment provided at more peripheral units (eg atonic uterine haemorrhage can be effectively controlled with oxytocic drugs in the majority of cases)

C-3 Summary of data on outputs and outcomes

According to the district manager all 21 facilities provided complete MCH/HIS forms promptly for the month of June 1997(Table 1/13) There are generally low percentages of personnel trained to maintain and analyse and use the data More nurses were trained than any other health provider to maintain data The percentage of trained nurses ranged from a low of 0% in Nasr and 11% in Edfu, to 44 4% in Daraw and 47 4% in Aswan District (TNA 3 2/3 3) Moreover reporting is only the initial requirement for an HIS interpretation and use of data to change practice is a greater requirement and also needs training

[11] There is no consensus as to the correct Caesarean section rate for a country or an institution 5% is a very arbitrary assumption based on the lowest Caesarean section rates reported form large institutions in W Europe with good maternal and perinatal outcomes To reach such a low rate very stringent criteria would have to be applied Nearly all hospital obstetric units in the UK have Caesarean section rates between 10% and 15%

The under-reporting compared to expected numbers of births, deaths and complications the lack of register books and the lack of use of data for management all give reason to believe there are major problems with the data on health outputs and outcomes However until such data are useful to providers and planners reporting and recording should not be the focus of efforts

D DISTRICT SYSTEM/MANAGEMENT

D-1 Supervision

The analysis of data for all of Aswan and Luxor suggest there is no mechanism in place for technical supervision of work The supervision system seems not to be properly fulfilled at all levels In the clinical/technical aspect, there is lack of clarity in the line of hierarchical supervision (TNA 3 4) By this we mean supervision by someone who is competent to review the content of the work rather than administrative things like staff absenteeism

This general picture was also the case in Luxor Governorate While all facilities reported supervision [24/24] (table 2/17) guidance and training was only reported by 9 (38%) of facilities Where providers reported having supervision the categories of person providing the supervision were erratic and suggested that the majority was not technical supervision (see table 3/6)

Job descriptions in Luxor Governorate were available for all key cadres of health (Table 1/5) In general in Luxor and Luxor job descriptions for each health professional are not available in most any health facility In addition health providers are not familiar with their functions (TNA1 2)

The Luxor district manager encourages client friendly practices by instructing staff to provide a good quality service and to provide integrated care In all districts there is a very high degree of client satisfaction toward client friendly practices of the health provider However, it is to be noted that these women do not have an alternative outlet health facility they are highly tolerant and do not know what to expect from the health provider Moreover the client friendly environment should be judged combined with other elements affecting friendly atmosphere (TNA 2 3) and technical competence and effectiveness

D-2 Protocols

No standard protocols on essential maternal and perinatal case management are available (TNA1 3) Consequently there is no programme for training on essential obstetric and perinatal case management protocols (TNA 1 4) and no programme for training of trainers on emergency obstetric case management skills (TNA1 5) Health providers also lacked training in essential maternal and perinatal case management protocols or emergency obstetric case management skills (TNA 1 6) There is minimal in service training for GPs in the field of prenatal (22%) and post partum packages (15%) Other health providers are offered negligible in service training (TNA 2 1) There is no clear functional monitoring system to monitor post training performance although all interviewed policy makers stated they have a monitoring system to monitor post training performance (TNA 2 5)

In Luxor Governorate None of the 4 Ob/Gyn specialist and none of the 24 nurses, 1 of the 4 pediatricians and 1 of the 22 GPS interviewed used protocols (Table 3/2 3/3) As in the rest of Luxor and Luxor, health providers still do not monitor delivery by partograph, and these are not available in any health facility (TNA 1 9)

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Observation showed that poor infection prevention and control procedures (prenatal delivery and post natal) Those practising minimal basic procedures were no more than 2% in prenatal and 28% in post natal before and after conducting the delivery (TNA 1 8)

D-3 Logistics

The Luxor district manager reported that supplies were either ordered when necessary or supplied at regular intervals according to a set quota system based on previous requirements As in most other districts drugs and supplies were transported by facilities every three months (Table 1/6 1/7) As shown above this system can lead to maldistribution of essential items Late distribution, shortage at distributor level and delaved ordering but not insufficient funds to purchase drugs were identified bv the district manager as reasons for drug shortage Drugs were NOT the main problem faced by the district as described by the district manager

E ACTIVITIES OF PROVIDERS DOING DELIVERIES

56 providers were interviewed in Luxor District of whom 44 (79%) actually provide care during deliveries (Table 3/2) Of these 32 provided 24 hour emergency care

F DAYAS (Table 1/15)

Luxor District reports 50 registered dayas all of which have been trained since 1990[12] but none has received refresher training since their original training It also estimates there are 50 unregistered dayas Assuming 7613 births attended by davas suggests they are doing a average of 76 deliveries a year (6 per month) No information concerning other activities or standard of care was available form the survey

[12] It is unlikely that all dayas trained in 1990 are living in the area and are still practising 7 years later

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ANNEX (B)

FOCUS GROUP RESULTS

by: Reynaldo Pareja

I - INTRODUCTION

COMPOSITION OF THE FOCUS GROUPS

The were a total of 36 focus groups (FG) carried out in 6 cities and 6 villages of 6 Districts Kom Ombo Edfu Daraw Aswan Nasr and Luxor These FG were done with women with children under two years (109), with mothers-in-law (99), and with husbands (102) of women with children under two curretnly pregnant or not and who participated according to the following distribution

Site	No of participants per FG		
	Women	Mothers-in-Law	Husbands
City			
Kom Ombo	10	8	8
Sebaeia	8	8	8
Daraw	8	8	8
El Seil El Rifi	12	8	9
Nasr	7	8	7
Luxor	11	9	9
Villages			
Gaefar El-Sadek	10	9	10
Geziret El Malakeia	8	9	8
El Teweeissa	8	7	8
West Soheil	8	8	10
El Ballana	10	8	10
El Odaisat	8	9	8
	9	8	9
Total	109	99	102

II - CONSIDERATIONS AROUND PREGNANCY

The Focus Groups gave quite a bit of opinions regarding the multiple changes that take place around pegnancy The most important were those related around the change of activity a woman should have and her feeding habits

II - 1 CHANGES THAT TAKE PLACE IN THEIR LIVES

Women

Husband s Feelings in the majority of the groups the women said their husbands felt very happy, they rejoiced with their pregnancies

Activity all the focus groups agreed that the a pregnant woman should do less amount of heavy work should not lift heavy objects This idea was backed up by the comment made in all the focus groups that the husband allow wives to rest more limit their demands and orders and help them with the lifting of heavy objects and lessen their field duties of the plowing duties But the normal household work is still expected to be done by the pregnant woman, because the pregnancy does not impeder to live a normal life

More Attention the husband pays more attention to her accompanies her to the doctor or lets her go and takes on the responsibility to prepare any money needs

Foods there were divided opinions since many women thought a pregnant woman could eat everything and yet when it came to specifics a lot of them said she should not eat salty, spicy foods but it was OK to eat light food such as yoghurt, cheese and milk fruits and proteins

Stress/Help she should have less stress at home and rest much more Most women in all of the FG affirmed that the mother-in-law helps her while pregnant, as well as her mother

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Medication/Drugs/Vitamins

most women agree in the focus groups where mentioned that a pregnant woman should not take drugs (especially during the firs three months), should not take medication unless prescribed and should take vitamins and iron

The TT Vaccine was said to be taken by majority of the women, but when asked whether they had actually received the vaccine only some of the women of only a few of the FG said they had received it

Husbands

Activity in a good number of focus groups the men agreed that the a pregnant woman should do less amount of heavy work, should not lift heavy objects should rest more, they should help her with the lifting of heavy objects and in the field do less of the plowing duties

More Attention the husbands said they pay more attention to their wives that they accompany them to the doctor (which was not backed up by the opinions of the women) or that they give them permission for them to go (which most women did not think they needed his permission to go)

Foods husbands feel a pregnant woman should change some of eating habits she should eat light food such as yoghurt, cheese and milk, fruits and proteins, and that she should not eat salty, spicy foods

II - 2 Recognition of Signs of Complication

1 General Observation

The Focus Groups showed that all three audiences have a large list of recognized signs of complications for all the stages of pregnancy delivery, postpartum and management of the neonate There are a number of these signs which are very widely recognized by most of the participants of all three audiences in most of the FG and a series of other signs which were mentioned only by a few of them in very few F G For the benefit of the reader and to get an overall idea of how these signs were distributed they have been grouped by the stage of the reproductive process and by the instensity of the recognition

There was also a clear statement that those signs recognized by the majority indicated to the women, mothers-in-law and husbands that they were manifestation of a serious condition of the woman and that they should seek medical care It was not too clear what signs merrited to go to the hospital strictly speaking and which were for the private doctor mostly Yet the percetion is that these signs are important enought to pay close attention and act on them as soon as possible

2 Pregnancy

Women

The signs of complication during pregnancy most recognized by women were

Bleeding (Nazeef) this sign most cited coincide with the husbands' identification The causes attributed to this happening were having an abortion, lifting heavy objects (same as the husbands said), and also just before giving birth to the child These

reasons were cited in about the same number of villages as cities
It was asked explicitly if a woman could bleed before delivery and the majority of the participants said she could giving several reasons

Heavy Labor (Modet El Walada Tawila, Welada Mutiasarra)
bleeding would occur, especially if the cervix opened earlier before the expected time This belief was expressed in half of the focus groups but equally among the city and the village groups

Swelling of the Legs (reason also given by the husbands)
the women in the FGs that mentioned this as a problem during pregnancy were the same ones that mentioned bleeding as the major problem
No mention of swollen hands or face was presented in the summary of reasons
When asked why the legs could swell the four reasons given were each from a different focus group it happens early in the pregnancy because the baby is increasing his weight, because of drugs taken, and they did not know the reason

Albuminuria This complication was identified in majority of the women's groups and the cause was attributed to eating eggs or something salty There were equal amount of FG saying this both in the cities and the villages

There were several pregnancy complications that were asked directly to the women in the groups

Can a pregnant woman develop toxaemia?
More than half of the groups said YES to this question and the reasons were
the baby dies inside the uterus (less husbands identified this reason), and in one FG the toxaemia was attributed to the daya using unclean instruments, or because of cats

Can the pregnant woman develop blurring vision?
In the majority of the groups the majority of the women participatants agreed that the pregnant woman could have blurring of the vision
The reasons for this happening were
+ headache and dizziness caused by anemia
+ because of weakness caused by lack of good nutrition
+ for the woman having repeated pregnancies

Can the baby die inside the uterus ?
The majority of the women in the majority of the FG said YES, it could happen, for these reasons (with no difference between village or city opinions)
+ trauma most mentioned reason
+ weak uterus, fibrosis and narrow uterus
+ intrauterine bleeding,

Can a woman deliver before the date?
In almost half of the of the FG the answer was YES (no difference between village and city) and the reasons were
+ in the 8th month it is normal that it happens
+ her abdomen is hot and can not tolerate the baby
(No explanation as to what "hot abdomen meant)
+ lifting heavy weights

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There were also signs mentioned by a few women in a few of the FGs as indicators that a woman can deliver before her date

- Placenta preceding the child anger, having extra blood, (Kom Ombo Cit, and El Teweissa Village)
- Hypertension (Daght aali, Daght Zaid), urine problems
- Diabetes, varicose veins prolapse, hemorrhoids, baby dies and genital infections
- Dizziness, being more sleepy and early vomiting (gastro intestinal disturbances) were also included in the signs of problems in several of the focus groups, possibly because the term included the idea of simple discomforts

Mothers-in-law

The signs of complication during pregnancy most recognized by mothers in law were

Bleeding (Nazeef) they coincide in this sign with the women and husbands The causes attributed to this happening were lifting heavy objects (same as the husbands and women said), too much effort and if she fell These reasons were cited more in the cities

Miscarriage these were cited as reasons for miscarriage
+ carrying heavy weights
+ slipping and falling down
+ hitting herself , feeling of anger and bad dreams (that is if she dreams she has a miscarriage she will have one the next day)
+ weak uterus

Eclampsia the reasons for this happening were fever exhaustion, exposed to air depression and rage, not TT shots, inadequate nutrition, uncleanliness

Blurred Vision (Zaghlala)
The reasons for this happening were weakness, high blood pressure

Hubands

The signs of complication during pregnancy most identified by husbands were

Bleeding (Nazeef) The causes attributed in a few of the FG were lifting of heavy objects or by going downstairs

Swollen Legs the groups that mentioned this as a problem were basically the same one that mentioned bleeding with a cause No mention of swollen hands or face was codified

Hypertension (Daght Aali, Daght Zaid)
was mentioned by the majority of husbands in four groups (same as those that mentioned bleeding) When asked what were the causes of hypertension , four reasons were given in one F G being anemia the only relevant one

When asked if the fetus could die and the woman not know about it, the husbands of 4 F G said it could happen and the reason was lifting heavy weights or having fever and in one FG it was mentioned that she would have an **abortion if the man hits** the wife

3 Delivery

Women

The signs of complication most recognized by women during delivery were

Bleeding (Nazeef) as the husbands the women identified bleeding as the most recognized of all the complications of delivery No major difference between city and village women

Mal Presentation (baby in wrong position Nazel Mish Maadoul, right side up Nazel Magloub, transverse Nazel Bi Bambou, stuck Nazel Maznoug)
mal presentation was ranked in second place by majority of the FG although it was uneven the number of women referring to it The husbands found this complication less severe than difficult labor Probably because difficult labor is what they see most immediate, while women know much more the danger a mal presentation represents Mal presentation was slightly more perceived by women from the village FGs than of the city

Difficult Labor Most of the FGS pointed out this as a complication The distribution between city and village FG was very even

These were signs of complications of delivery mentioned by very few women

- Dead baby rupture uterus,uterine prolapse, hypertension, small uterus, placenta suffocates baby

4 Post Partum

Women

The signs of complication of postpartum most recognized by women were

Fever (Homet Nefas) this was agreed in all the FGs and in half of them by all the women participating

Colic from blood lost/ tablets from pharmacy/ hot food-drinks received right after postpartum gives women colic

These were signs of complication of postpartum pointed out by a few women in a few FGs

- Bleeding/dizziness/weakness
- Tetanus/ Lactation problems
- Episiotomy pain this apparently was the experience of one woman in one of the FG

Mothers in Law

-The postpartum complication most mentioned by mothers-in-law was **fever,** followed by **hemorrhage, abdominal pain, colic,** weakness

Reasons

- ever exposure to fan air cold weather or hot sun In lesser importance eating unhealthy food receiving infection at delivery not having TT shots infected vagina wounds hemorrhage placenta is not totally removed weak uterus/general weakness/
- abdominal pain/colic exposure to air (mostly in the village FG) mal nutrition

Most serious of these complications *hemorrhage fever*

Husbands

These were the signs of complication postpartum most mentioned by most husbands

Infection/fever after delivery (closest to puerperal sepsis) followed by
Bleeding

Less mentioned Tetanus was identified in only 3 groups and not by many men

6 Neonate

Women

As with the delivery and postpartum there were specific complications identified for the neonate

These were

Fever / cough these two complications were the ones most identified in the majority of the groups There were slightly more city FGs which pointed out this complication of the newborn

Jaundice/ colic due to bottle feeding
both of these complications were identified in most of the groups being jaundice the most feared of them since it was afterwards considered one to merit to go to the hospital/doctor

Diarrhea/Tetanus/umbilical cord problems
it appears to be that umbilical cord problems and tetanus are not related since they were expressed as separate complications and umbilical cord problems in half as many FGs as tetanus

It was clear that diarrhea/ umbilical cord problems were most mentioned in the villages

Lactation problems

These were several type of problems that were mentioned and we put them here as a category of its own The lactation problems most identified were

+ *cracked nipples* this was clearly expressed in almost all of the women's FGS as being the number one problem associated with breast feeding It was equally distributed among the city as the village women

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+ *Small Nipple/No Training in How to Massage and Give the Breast*
the recognition of the lack of education regarding this activity was very high
there was no noticeable difference between city or village women

+ *Mother Does Not Produce Enough Milk*
and the alternative is to give the baby artificial milk (mostly prescribed by the doctors) As expected it was more commonly mentioned in the city FGs The solution seems to be found in the type of foods to be eaten by the mother as stated in almost all the groups green vegetables, Halawa, Helba, milk eggs

+ *El- Meshahra* the belief that if a woman with menses walks into the place where there is a lactating woman, her presence will make the breast-feeding woman stop her milk production This can also happen if the woman that enters is wearing gold The solution is to go and be in the presence of another lactating woman to regain back her milk production or visit the place where the gold was sold

Mothers-in-law

Mothers in law mentioned these as the most common complications for the neonate

Fever this was the complication most identified with no major difference between city-village m-laws
Reasons hot weather/air mother has a fever, baby had a bath and was hot difference of temperature between uterus and outside baby caught a cold, baby was hot and slept in a fan, mother exposed baby to air

Jaundice reasons if mother has it, lack of calcium, mother is weak/has fever/eats too much salty food

- *Diarrhea/umbilical cord problems*
They were most mentioned in the cities
Reasons drinking from unclean cup, if mother had a fever, water dirtiness
Baby catches a cold/ severe coughing

Lactation problems

These were some of the problems most mentioned by m-law

+ *wounded nipples* it included swollen breasts nipples hurt breast heavy
+ *mother does not produce enough milk*

Husbands

Retarded growth inside the uterus, and fever of the newborn (mostly in villages)
Diarrhea/vomiting

Least mentioned by husbands in only a few FGs were
lactation problems
jaundice
congenital abnormalities (not i)
respiratory diseases

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Lactation problems were described in some degree of detail
These were - she did not breast-feed at all
- women do not eat sufficient foods that increases milk production
- she received the evil eye
- she had too short of a lactation period (no reason specified)
- scanty milk production

Summary of Recognition of Complications

The following are the most important signs of complications identified by mothers mothers-in-law and husbands as meriting to take woman or baby to facility/doctor because these signs mean a woman or a baby are seriously sick and need attention

Mothers	Mothers in Law	Hubands
Pregnancy - **Bleeding,** - **headache, backache, colic, - swollen legs,** - **toxaemia** - **Albuminuria** attributed to eating eggs or something salty	*Pregnancy* - **Bleeding (Nazeef)** they coincide in this sign with the women and husbands The causes attributed to this happening were lifting heavy objects (same as the husbands and women said) too much effort and if she fell These reasons were cited more in the cities **-miscarriage** reasons + carrying heavy weights + hitting herself feeling of anger and bad dreams **eclampsia**	*Pregnancy* **-bleeding,** **-oedema of lower limps** **- hypertension**
Delivery **- bleeding,** **-difficult labor/prolonged labor**	*Delivery* **- Bleeding (Nazeef)** Reasons remaining of placenta, too many deliveries weakness **- tetanus** no TT shots contaminated equipment , daya not good **- Mal presentation** for moving a lot while sleeping	*Delivery* **- bleeding,** **- difficult labor,** **- mal presentation of fetus,** **- puerperal fever**

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Mothers	Mothers in Law	Hubands
Postpartum -Fever - Colic from blood lost/ - hot food-drinks received right after postpartum gives them colic - Bleeding	*Postpartum* - hemorrhage, fever - abdominal pain, colic	*Postpartum* - fever/infection (probably puerperal sepsis)
Neonate - Fever / cough - Jaundice/ colic due to bottle feeding -Diarrhea/ -Tetanus/ umbilical cord problems - Lactation problems + cracked nipples + small nipple/no training in how to massage and give the breast	*Neonate* - fever - diarrhea - severe coughing - jaundice	*Neonate* - fever - retarded growth - diarrhea/vomiting - lactation problems poor/ insufficient production of breast milk due to lack of adequate food, - evil eye, - short lactation period -Jaundice, - respiratory problem s

III - DECISION MAKING PROCESS

III - 1 FOR PRENATAL CARE AND NORMAL DELIVERY

The decision to access the health facility/ husband is mostly in the hands of the woman, specially for the antenatal care Hers is the determination where to deliver the baby who is consulted mostly with the doctor or daya if she has that intention from the beginning to be assisted by either one

III - 2 DURING DELIVERY/POSTPARTUM/ NEONATE

1 Normal

- If there are no complications during the delivery postpartum or with the neonate there is no reason to think a woman should go to the health facility There was an equal amount of FG s saying they would rather deliver at a health facility (mostly women in the city FGs), as well as those who would prefer to deliver at home with a daya (mostly women from the village FGs) but there were many who added they would rather have a nurse/doctor at the home delivery

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- If there are no complications the husband is not expected to do much nor make decisions Although a few FGs the women said he can help decide where the delivery should take place there was no difference of opinion between city-village women

2 With Complications

- If there are complications such as **bleeding, mal presentation of baby, difficult labor for the woman, and fever, diarrhea** for the baby then the decision is to go to the hospital/doctor It was not clear who makes that decision to go, from the FGs although it was more evident from the IDIs that the woman is the one that mostly decides
- The husband is expected to be present and be alert if any complication appears and he is **responsible to deal with the money to be spent** in this situation

III - 3 BARRIERS/BENEFITS TO ACCESS HEALTH FACILITY/DOCTOR

1 Prenatal Care

Barriers

The following were the barriers identified by the women to access prenatal care

- **Cost (financial situation)** was mentioned by the majority of the groups which seemed to refer to the overall cost the service will be when treatment, drugs or other were finally charged One FG added **distance** to this cost
- **Gynecological exam/ harmful drugs for the baby** in equal number of FG the main reasons for not going were centered around not being comfortable with the gynecological exam (in one FG they preferred doctor to be a female) and fear the drugs prescribed would harm the baby
- **Hospital deficiencies** there is no follow up, no specialists , very crowded and treatment is wrong /bad they do not care for women there there is neglect at hospital
  Prenatal care is not for all but there were opinions in which many women of those groups said prenatal care <u>was not</u> for all women

The reasons expressed why prenatal care is not for all pregnant women, were basically around the fact that a woman needs to go if something seems wrong as for example feeling weak, if she feels sick if she has a problem if the baby is not in the proper position These women regard prenatal care as a solution to problems not as a preventive measure

Benefits

- Regular prenatal care is regarded as **good** by most women of all the FGS and *as* **something all women should go to**

Thus when asked what they preferred as attention, the majority said they would rather have a private doctor who has the supplies/facilities at hand and is specialized in maternal things This was confirmed by the reasons for not having gone to the hospital which were the same not well equipped no specialized doctors, no care given

When asked why they prefer the doctor the principal observation made was **privacy** In **all the FGS** this reason came out said by most of the women of each of the groups It is an encounter of her and the doctor alone which seems to be highly appreciated

2 Delivery

Barriers

The principal barriers were centered around not being able to have you friends (relatives) around when a woman is delivering and there is less care perceived given at the hospitals

Benefits

- There are nurses to help doctors with delivery
- If woman is tired and needs a cesarean intervention it can be done

IV - 4 PERCEIVED QUALITY OF CARE

WOMEN

1 Prenatal Care

- **Regular check-up** women have a clear notion and a positive attitude that a regular monthly check-up should be made while pregnant
- **Preferred location** the majority of the women of the majority of the groups said would rather go to a private clinic than to go to a health facility The other mentioned places were Family Planning Unit, private Doctor the Maternal Care
- **The benefits of prenatal care service perceived were**

Th e greatest benefit perceived of the prenatal care is to have a sonograph as a means to find out if she is pregnant as a sure way of getting this recognized and tangentially that the baby is OK Sonographs are equated with being able to tell the baby is OK or to find out if something is wrong

When asked if there was any thing harmful in going to the prenatal care almost all the groups said there was **no harm** Apparently there were two women in one FG (West Soheil Village) who said that the sonograph could cause abortion but there were no specific reasons given in the summary charts for this belief

Another clear set of benefits that were expressed was

+ she can get her blood pressure taken and a gynecological exam made
+ she gets to know her health is fine and so is the baby
+ she can get examined to see if she has any other problems
+ she can be told where to deliver the baby/ and get an analysis for diabetes made

2 Delivery

When asked where they had actually delivered there was an almost equal amount of groups and of women in the groups who had either delivered at a facility or at home with a daya

Hospital/other Health Facility/Private Doc

- Those women who said they preferred to go to a health facility/hospital/ private doctor had in common that they found the facility to be better equipped than the other place they used to go The doctors were more readily available than at the health center and the attention given to them at the hospital was more efficacious than the one received at the health center especially if she gets tired and needs a cesarean intervention
- In the private clinic there is the perception that there is more collaborative work between nurses and doctors
- The fact there is night personnel to attend makes it more appealing, especially if there is an emergency
- There are specialized doctors in the hospital more than there would be in a health center
- If they want you to come back, they treat you well

Delivery at home

- Those that preferred to deliver at home expressed that they had the company of relatives (mother mother-in-law, sisters) and found this to be more amiable The relatives can accompany here while at the hospital they are not allowed The presence of the daya makes the delivery still more desirable
  Delivery at home with a trained nurse, a normal delivery is better because is less costly than one at the hospital
- Normal delivery at home with a daya is preferred because there is no need for anybody else, the delivery is easy, and the daya is near by

MOTHERS-IN-LAW

1 Delivery

When m-laws were asked where was the best place women could have a delivery made the opinions were equally divided the majority of city mothers-in-laws said at hospital or private clinic but the majority of village m-laws said that it would be very at home

Hospital/other Health Facility/Private Doctor

- When posed with the general question of which is better, physician at Hospital or daya at home the hospital was said to be better by majority

The perceived Benefits of the Hospital were

- They are cleaner
- They are prepared and equipped for delivery/complication
- They can take care of the neonate
- They give examinations
- Physician knows what to do in case of complication

Home benefits

- Those that preferred at home were because of the **privacy**

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HUSBANDS

Of the Dava

- One FG mentioned that the sterilization of the daya s instruments was not good

Of the MOH Facilities

The opinions regarding their direct experience at the hospital were divided Those that had positive opinion said

- the hospital had good treatment of people
- they have specialized doctors
- capable of saving in an emergencies

But there were also those who had very bad impression

- Almost half of the FG perceived the health facilities as not having drugs (equally divided between village and city husbands)
- Bad treatment of people/ poor service/ some neglect
- There were no doctors at the health facility
- There was no service day and night

Of the Doctors

- **Doctor's reputation** Decision of woman to go is based very much on the doctor's reputation

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ANNEX (C)

COMPOSITION OF FOCUS GROUPS

COMPOSITION OF FOCUS GROUPS

I - WOMEN

I - INTRODUCTION

There were 12 F G made in six cities and 6 villages with a total of 109 participants from the Aswan and Luxor Governorates A total of 6 Districts- Kom Ombo Edfu Daraw, Aswan Nasr and Luxor with the following distribution

Place		Participants
* Cities	Kom Ombo	10
	Sebaeia	8
	Daraw	8
	El Seil El Rifi	12
	Nasr	7
	Luxor	11
* Villages	Gaefar El-Sadek	10
	Geziret El Malakeia	8
	El Teweeissa	8
	West Soheil	10
	El Ballana	8
	El Odaisat	9
	Total	109

II - RECOGNITION OF COMPLICATIONS

II - 1 PREGNANCY

The main signs of complications that could happen to a pregnant woman as identified by the women were

Bleeding (Nazeef) They coincide in this sign with the husbands as being the most cited in almost all the FG (11) by almost all of the participants in each group The causes attributed to this happening were having an abortion lifting heavy objects (same as the husbands said), and also just before giving birth to the child These reasons were cited in about the same number of villages as cities

It was asked explicitly if a woman could bleed before delivery and the majority of the participants said she could giving several reasons

Heavy Labour Bleeding would occur especially if the cervix opened earlier before the expected time This belief was expressed in half of the focus groups but equally among the city and the village groups

Placenta Preceding the Child, Anger, Having Extra Blood, and No Cause at All These reasons were also given as reasons for bleeding before the child was born These reasons were localized in the focus group of Kom Ombo City, and El Teweissa Village which mentioned only the previous placenta

Swelling of the Legs (Reason also given by the husbands) The 11 FG s that mentioned this as a problem during pregnancy were the same ones that mentioned bleeding as the major problem No mention of swollen hands or face was presented in the summary of reasons

When asked why the legs could swell the four reasons given were each from a different focus group it *happens early in the pregnancy because the baby is increasing his weight because of drugs taken and they did not know the reason*

Albuminuria This complication was identified in majority of the groups (8 FG) and the cause was attributed to eating eggs or something salty There were equal amount of FG saying this both in the cities and the villages

Hypertension (Daght aali, Daght Zaid) was mentioned by few women in three FG as well as **urine problems**

Diabetes, varicose veins, prolapse, hemorrhoids, baby dies and genital infections were also mentioned as complications during pregnancy by very few women in 9 different FG

Dizziness, being more sleepy and early vomiting (gastro intestinal disturbances) were included in the signs of problems in several of the focus groups, possibly because the term used did not made a difference between discomforts (ask ??????) and having serious problems

There were several pregnancy complications that were asked directly to the women in the groups

Can a pregnant woman develop toxaemia?

* More than half of the groups (6 FG) said YES to this question and the reasons were
* the baby dies inside the uterus - 3 FG (less husbands identified this reason), and
* in one FG the toxaemia was attributed to the daya using unclean instruments, or because of cats (no explanation was given for this reason) and
* the other two FG they said they did not know the reason

Can the pregnant woman develop blurring vision?

* In the majority of the groups (7 FG) the majority of the women participated agreed that the pregnant woman could have blurring of the vision
  The reasons for this happening were
  + headache and dizziness caused by anemia
  + because of weakness caused by lack of good nutrition
  + for the woman having repeated pregnancies

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Can the baby die inside the uterus ?

* The majority of the women in the majority of the FG said YES it could happen for these reasons (with no difference between village or city opinions)
  + trauma most mentioned reason (6 FG)
  + weak uterus Fibrosis and narrow uterus (5 FG)
  + intrauterine bleeding, congenital anomaly (4 FG)
  + no blood reaches the baby/sick mother (3 FG)
  + she did not take tetanus shot (2 FG)
  + alburrimia/no reason/ God's Will (1 FG)

Can the woman deliver before the date?

* In almost half of the of the FG the answer was YES (no difference between village and city) and the reasons were
  + in the 8th month it is normal that it happens (7 FG)
  + her abdomen is hot and can not tolerate the baby (5 FG)
    (No explanation as to what ' hot abdomen meant
  + lifting heavy weights (4 FG)
  + if cervix is open/ she has fever (2 FG)
  + if it happens in 8th month is not normal (2 FG)
  + in one FG (Luxor City) all these were given
    - yellow material at birth suffocates baby
    - hepatitis brings jaundice so doctors deliver early
    - cervix is open
    - she might have blood Rh incompatability
  + each one of these were mentioned in three different FG
    - baby cells are not mature so it goes out
    - because she has twins
    - she has anemia

SERIOUSNESS OF PROBLEMS

The following question helped to define which of the problems during pregnancy were considered to be serious enough to merit going to the doctor/hospital

What are the problems she can deal herself/ with which she has go to the doctor ?

The problems identified as needing to go to the doctor were

Bleeding, prolonged labor, nausea, dizziness, headache, backache, colics, vomiting, swollen legs, toxaemia In 8 FG the women said all of these were severe enough for a pregnant woman to go to the doctor or hospital

* the doctor/hospital is seen as the person/place where they can find the solution
* The doctor/ hospital are seen as the person/place where the woman is baby is saved (prevents from having an abortion) is given medication advise

Of all the above problems a few women said that a pregnant woman could only handle at home dizziness and cough

2 DELIVERY

The complications identified by the women during delivery were

Bleeding (Nazeef) as the husbands the women identified bleeding as the most recognized of all the complications of delivery This was pointed out in almost all of the FG by more than half of the ones present in each of the 11 FG where it was signaled No difference in numbers of FGs between city and village women

Mal presentation this complication was ranked in second place by majority of the FG (9 FG) although it was uneven the number of women referring to it The husbands found this complication less severe than difficult labor Probably because difficult labour is what they see most immediate, while women know how much more dangerous a mal presentation represents It was slightly more perceived by women from the village FGs than of the city

Difficult labour Most of the FGS (8) pointed out this as a complication The consensus of the women that said was more uniform being almost half of all participants in all the FGs The distribution between city and village FG was very even

The other complications cited were quite more far apart than the one above, mentioned in three or less of the FG These were

Dead baby (3 FG) ,
Rupture uterus/uterine prolapse/ hypertension (2 FG)
Vomiting, small uterus, placenta suffocates baby (1 FG)

Most severe when asked to identified which of the complications were the most severe that merit going to seek help **bleeding, difficult labour** were pointed out as being such

3 POSTPARTUM

The complications identified by the women during the postpartum period were

Fever this was agreed in all the FGs and in half of them by all the women participating, In the other FGs there were less but was mentioned in all There were no reasons for this in the summary tables The husbands coincided in pointing this complication as being the one most recognized by them

Colics from blood lost/ tablets from pharmacy/ hot food-drinks received right after postpartum gives them colic all of these reasons had an equal weight distribution among the 11 FGs where it was mentioned

Bleeding/dizziness/weakness these were mentioned in three FGs but in one of them (El Odaisat Village) all of the women coincided in identifying bleeding

Tetanus/ Lactation problems it was not clear if tetanus was refereed to the woman or to the newborn in the summary chart Lactational problems will be described in more detail with the neonate section These two were mentioned in three FGS

Episiotomy pain this apparently was the experience of one woman in one of the FG Since it was not mentioned in any other focus group

Most severe the complications of postpartum identified as being the most severe were **fever** (sepsis) and **bleeding** They are both best dealt with by seeking help going to the doctor or the hospital

4 NEONATE

As with the delivery and postpartum there were specific complications identified for the neonate These were

Fever / cough these two complications were the ones most identified in the majority of the groups (9 FG) There were slightly more city FGS which pointed out this complication of the new born

Jaundice/ colics due to bottle feeding both of these complications were identified in quite a large number of groups (8 FG), being jaundice the most feared of them since it was afterwards considered one to merit to go to the hospital/doctor

Diarrhea/Tetanus/umbilical cord problems these complications were next most mentioned in 6 FG It appears to be that umbilical cord problems and tetanus are not related since they were expressed as separate complications and umbilical cord problems in half as many FG as tetanus

It was clear that diarrhea/ umbilical cord problems were most mentioned in the villages

Diabetic/ tear canal obstructed/pharyngitis these two were mentioned in one different FG, both of them in the cit and all three were mentioned by just one woman in each FG

Lactation problems

These were several type of problems that were mentioned and we put them here as a category of its own The lactation problems most identified were

- **cracked nipples (10 FG)** this was clearly expressed in almost all of the FGS as being the number one problem associated with breast feeding It was equally distributed among the city as the village women Much of the problem seems to be more associated with the next identified complication since today it is known how we can handle cracked nipples
- **small nipple/no training in how to massage and give the breast (6 FG)** the recognition of the lack of education regarding this activity was very high, since half of the FGS mentioned them and there was no noticeable difference between city or village women
- **mother does not produces enough milk (4 FG)** and the alternative is to give him artificial milk (mostly prescribed by the doctors) As expected it was more commonly mentioned in the city FGs They are able to tell for the baby is always crying (11 FG), or the mother feels her breast is empty (8 FG) The solution seems to be found in the type of foods to be eaten by the mother as stated in almost all the groups (11 FG) green vegetables, Halawa, Helba milk eggs
- **problems produced by the artificial milk/baby refuses artificial milk/the milk supply of mother stops even when baby is breast-feeding (2 FG)** These reasons were given in two FG, both of them from the city and by very few mothers When this happens she is to try to give the child rice water, other milk (goat, buffalo), yoghurt (2 FG)

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* **El- Meshahra** the belief that if a woman with menses walks into the place where there is a lactating woman, her presence will make the breastfeeding woman stop her milk production This can also happen if the woman that enters is wearing gold The solution is to go and be in the presence of another lactating woman to regain back her milk production or visit the place where the gold was sold

Most serious of neonate complications are cough/fever/diarrhea/ jaundice which all merit going to the doctor/hospital for treatment

III - DECISION MAKING TO ACCESS THE HEALTH FACILITY

1 DURING PREGNANCY

For regular prenatal care

It is basically the responsibility of the woman to decide to go or not to the prenatal care

For complications

A woman will go to a health facility (hospital) or doctor if a complication appears, and **Bleeding** was signaled out as the number one complication indicating to seek it The other complications which merit accessing the health facility/doctor are **toxaemia, prolonged labor, nausea, dizziness, headache, backache, colics, vomiting, swollen legs**

2 DURING DELIVERY/POSTPARTUM/ NEONATE

Normal

If there are no complications during the delivery, postpartum or with the neonate, there is no reason to think a woman should go to the health facility There was an equal amount of FG s saying they would rather deliver at a health facility (mostly women in the city FGS), as well as those who would prefer to deliver at home with a daya (mostly women from the village FGs), but there were many who added they would rather have a nurse/doctor at the home delivery

If there are no complications, the husband is not expected to do much, nor make decisions Although in 4 FGs the women said he can help decide where the delivery should take place, there was no difference of opinion between city-village women

With complications

If there are complications such as **bleeding, mal presentation of baby, difficult labor for the woman, and fever, diarrhea** for the baby then the decision is to go to the hospital/doctor It was not register who makes the decision to go

The husband is expected to be present and alert if any complication appears and he is **responsible to deal with the money to be spent** in this situation (11 FGS)

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IV - BARRIERS/BENEFITS TO ACCESS HEALTH FACILITY

1 PRENATAL CARE

Barriers

Cost (financial situation) was mentioned by the majority of the groups (8 FG) which seemed to refer to the overall cost the service will be when treatment drugs or other were finally charged One FG added **distance** to this cost

Gynecological exam/ harmful drugs for the baby in equal number of FG the main reasons for not going were centered around not being comfortable with the gynecological exam (in one FG they preferred doctor to be a female) and fear the drugs prescribed would harm the baby

Hospital deficiencies there is no follow up, no specialists very crowded and treatment is wrong /bad they do not care for women there there is neglect at hospital

Thus when asked what they preferred as attention the majority (7 FG) said they would rather have a private doctor who has the supplies/facilities at hand and is specialized in maternal things This was confirmed by the reasons for not having gone to the hospital which were the same not well equipped no specialized doctors, no care given

When asked why they prefer the doctor there were several additional observations made which present as barriers to access the service These were

Privacy in **all the FGS** this reason came out said by most of the women of each of the groups It is an encounter of her and the doctor alone which seems to be highly appreciated

Benefits

Regular prenatal care is regarded as **good** by most women of all the FGS and **something all women should go to** (opinion in 9 FG)

But there were opinions in 5 FG in which many women of those groups said prenatal care <u>was not</u> for all women

The reasons expressed why prenatal care is not for all pregnant women, were basically around the fact that a woman needs to go if something seems wrong as for example feeling weak, if she feels sick, if she has a problem if the baby is not in the proper position These women regard prenatal care as a solution to problems not as a preventive measure

No reason in particular several women in 5 FGs affirmed there was no big reason not to go to the prenatal care

2 DELIVERY

Barriers

The principal barriers were centered around not being able to have you friends (relatives) around you when delivering there is less care given at the hospitals (5 FG)

Benefits

There are nurses to help doctors with delivery (7 FG)
If woman is tired and needs a cesarean intervention it can be done (7FG)

V - PERCEIVED QUALITY OF CARE

1 PRENATAL CARE

Regular check-up the notion of regular monthly check-up to be made while pregnant was present in most of the groups (8 FG)

Preferred location the majority of the women of the majority of the groups (10 FG) said would rather go to a private clinic than to go to ahealth facility The other mentioned places were Family Planning Unit private Doctor the Maternal Care

Prenatal care service Benefits perceived

* The baby gets examined she receives a sonograph (12 FG) This seems to be highly estimated for the sonograph as a means to find out if the baby is OK was mentioned several times in different moments of the focus groups Sonographs are equated with being able to tell the baby is OK or to find out if something is wrong
* when asked if there was any thing harmful in going to the prenatal care, almost all the groups said there was **no harm** (11 FG) Apparently there were two women in one FG (West Soheil Village) who said that the sonograph could cause abortion, but there were no specific reasons given in the summary charts for this belief
  - she can get her blood pressure taken and a gynecological exam made (10 FGs)
  - she gets to know her health is fine and so is the baby (7 FGs)
  - she can get examined to see if she has any other problems (6 FGs)
  - + she can be told where to deliver the baby/ and get an analysis for diabetes made (5 FGs)
  - she can go to get specific treatment if she needs it (3 FG)
  - she can get her weight taken/ she can find out whether it is a boy/girl (1 FG)
  - at the hospital it is cheaper than for a private doctor (1 FG)

2 DELIVERY

When asked where they had actually delivered there was an almost equal amount of groups and of women in the groups who had either delivered at a facility or at home with a daya

Hospital/other Health Facility/Private Doctor

Those women who said they preferred to go to a health facility/hospital/ private doctor had in common that they found the facility to be better equipped than the other place they used to go
The doctors were more readily available than at the health center and the attention given to them at the hospital was more efficacious than the one received at the health center, specially if she gets tired and needs a cesarean intervention

In the private clinic there is the perception that there is more collaborative work between nurses and doctors

The fact there is night personnel to attend makes it more appealing, especially if there is an emergency

There are especialized doctors in the hospital more than there would be in a health center

If they want you to come back they treat you well

Delivery at home

Those that preferred to deliver at home expressed that they had the company of relatives (mother, mother-in-law sisters) and found this to be more amaible The relatives can accompany here, while at the hospital they are not allowed The presence of the daya makes the delivery still more desirable

Delivery at home with a trained nurse a normal delivery is better because is less costly than one at the hospital

Normal delivery at home with a daya is preferred because there is no need for anybody else, the delivery is easy and the daya is near by

VI - CONSIDERATIONS AROUND PREGNANCY

1 CHANGES THAT TAKE PLACE

Husband's feelings in the majority of the groups the women said their husbands felt very happy, rejoice with their pregnacies (9 FG)

Activity all the focus groups agreed that the a pregnant woman shoudl do less amount of heavy work, should not lift heavy objects This idea was backed up by the comment made in all the focus groups that their husbands lets her rest more limits his orders and helps her with the lifting of heavy objects, and in the field less of the plowing duties But the normal houselhold work is still expected to be done by the pregnant woman because she lives a normal life (5 FG)

More attention the husband pays more attention to her accompanies her to the doctor or lets her go (10 FG) and takes on the responsability to prepare any money needs (9 FG)

Foods there were divided opinions since many women of 6 FG thought she could eat everything and yet when it came to specifics a lot of them said she should not eat salty, spicy foods (10 FG), but it was OK to eat light food such as yoghurt cheese and milk (9 FG), fruits and proteins (5 FG)

Stress/ help she should have less stress at home and rest much more (4 FG) Most women in all of the FG affirmed that the mother-in-law helps her while pregnant like her mother

Medication/drugs/vitamins most women agree in the focus groups where mentioned that a pregnant woman should not take drugs (especially during the firs three months), should not take medication unless prescribed and should take vitamins and iron (5 FG)

* The tetanus toxoid vaccine was said to be taken by majority of the women of 10 Fgs , but when asked whether they had taken it only some of the women of only 4 FG said they had received it

COMPOSITION OF FOCUS GROUPS

II - MOTHERS IN LAW

I - INTRODUCTION

There were 12 F G made in six cities and 6 villages with a total of 109 participants from the Aswan and Luxor Governorates A total of 6 Districts- Kom Ombo Edfu Daraw, Aswan, Nasr and Luxor with the following distribution

	Place	Participants
* City	Kom Ombo	8
	Sebaeia	8
	Daraw	8
	El Seil El Rifi	8
	Nasr	8
	Luxor	9
* Villages	Gaefar El-Sadek	9
	Geziret El Malakeia	9
	El Teweeissa	7
	West Soheil	8
	El Ballana	9
	El Odaisat	8
	Total	99

II - RECOGNITION OF COMPLICATIONS

1 PREGNANCY

The main signs of complications that could happen to a pregnant woman as identified by the mother-in-law (m-law) were

Bleeding (Nazeef) they coincide in this sign with the women and husbands as being the most cited 4 FG
The causes attributed to this happening were lifting heavy objects (same as the husbands, and women said) too much effort and if she fell

These reasons were cited more in the cities

Miscarriage 4
For miscarriage there were quite a number of reasons
* carrying heavy weights 9
* slipping and falling down 7

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* hitting herself feeling of anger and bad dreams (that is if she dreams she has a miscarriage she will have one the next day)
  - (all of these - 4
* weak uterus 3
* narrow uterus hypertension diabetes syphilis proteinuria 1

Eclampsia 4
The reasons for this happening were fever exhaustion, exposed to air depression and rage, not TT shots inadequate nutrition, uncleanliness 1

Blurred Vision (Zaghala) 3
The reasons for this happening were weakness high blood pressure

Can the baby die inside the uterus ?

* There were only a couple focus groups in which the majority of the m-law YES, it could happen for these reasons
  + diabetes syphilis proteinuria 2
  + too much water (amniotic fluid), tiring/hitting herself 1

SERIOUSNESS OF PROBLEMS

The follow up question to try to define which were the most serious complications gave a new set which differ from the above These were
Sudden tiredness pain in the abdomen feels the uterus opening suddenly 2

and they all merit going to the doctor/hospital in order to get
- appropriate medical attention 2
- get rid of remains of an abortion 2
- save the baby 2

2 DELIVERY

The complications during delivery identified by the m-laws were
Bleeding (Nazeef) as the husbands and women bleeding was signaled by m-law, but was only pointed out in 3
Reasons remaining of placenta too many deliveries weakness

Tetanus no TT shots contaminated equipment daya not good 2
Reasons no TT shots polluted unclean food

Mal presentation for moving a lot while sleeping 1

3 POSTPARTUM

-The postpartum complication most mentioned by m-law was **fever** 11
followed by **hemorrhage** 8

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	abdominal pain/colic	7
	weakness	4
	genital wound	1
Reasons		
fever exposure to fan air cold weather or hot sun		6
eating unhealthy food		3
receiving infection at delivery, not clean no having TT shots, baby is not breastfeeding infected vagina wounds		1
hemorrhage placenta is not totally removed		6
weak uterus/general weakness/		4
hypertension/diabetes/exposure to air/inflammations		1
abdominal pain/colic exposure to air (mostly in the village FG)		5
natural should occur		6
mal nutrition		4
weakness mal nutrition		2

Most serious of these complications *hemorrhage fever*

4 NEONATE

As with the delivery and postpartum there were specific complications identified for the neonate These were

Fever was by far the complication most identified in the majority of the groups 10
with no major difference between city-village m-laws

Reasons	hot weather/air mother has a fever baby had a bath and was hot	4
	difference of temperature between uterus and outside	4
	baby caught a cold baby was hot and slept in a fan	
	mother exposed baby to air	

Jaundice 7
Reasons if mother has it lack of calcium mother is weak/has fever/eats too much salty food

Diarrhea/umbilical cord problems They were most mentioned in the cities 6
Reasons drinking from unclean cup if mother had a fever water dirtiness

Baby catches a cold/ severe coughing 6

Paralysis, baby is blind/deformed/weak 3

Reasons God s Will pregnant women bakes, medication without consultation

Lactation problems
These were some of the problems most mentioned by m-law

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* **wounded nipples** it included swollen breasts nipples hurt breast heavy 6
* **mother does not produces enough milk** 3
* **mother is afraid of breast-feeding** 2

Reasons eating salty foods or rich in starch using contraceptives, /fever 1
The primipara naturally does not know anything about breast-feeding

Most serious of neonate complications are fever/diarrhea/severe coughing/ jaundice and they all need the baby to be taken to the doctor/hospital for treatment

III - DECISION MAKING TO ACCESS THE HEALTH FACILITY

1 During Pregnancy

For regular prenatal care

- It is basically the responsibility of the woman to decide to go or not to the prenatal care

For complications

- A woman should go to a health facility (hospital) or doctor if a complication appears but it was not clear from the information to say who decides

2 During Delivery/Postpartum/ Neonate

Normal

For the husband

* It is the custom that he be in the delivery at home/ does not attend delivery 10
* what seems clear a husband s main responsibility is to be prepared and with the money needed for the delivery/complication 9
* Additionally he should make her psychologically comfortable 5
* Prepares celebration of newborn/ buys baby s bed

For the mother-in-law

* Help woman in the delivery (not specified how what exactly) 7
* Take care of her/ encourage/comfort her/sharing responsibility w/husband 5
* Help her with the house work/ reassure her she will be ok/give her sugar or boil egg to help her in labor/pray she has an easy delivery 3
* Make sure she has appropriate clothes for delivery 2
* Take care of the neonate/ get her food after delivery 1

With complications

If there are complications such as **bleeding, tetanus, fever, mal presentation of baby, hemorrhage, abdominal pain/colic for the woman, and fever, diarrhea** for the baby, then the husband should be

responsible for taking her/baby to the hospital/doctor 10

- The husband is expected to be present and alert if any complication appears and he is **responsible to deal with the money to be spent** in this situation/ to take her immediately if a complication appears 9

- The mother in law is to advice husband to save money in case complication appears/ make sure husband finds transportation if needed 1

IV - BARRIERS TO ACCESS QUALITY OF CARE

There were no specific barriers identified my mothers-in-law The general attitude of the m-law of three FG was that there were no barriers to prevent a woman with complications from going Neither the lack of money lack of transportation or communication should deter her from going

Hospital deficiencies only a few of them in one FG observed that there were no ambulances or service at the Hospital at night 1

V - PERCEIVED QUALITY OF CARE

1 DELIVERY

When m-laws were asked where can women have a delivery made the opinions were equally divided the majority of city at hospital, private clinic 6
and the majority of village m-laws at home 4

Hospital/other Health Facility/Private Doctor

- When posed with the general question of which is better physician at Hospital or dava at home the hospital was said to be better by majority 11

Benefits of Hospital

- They are cleaner 10
- They are prepared and equipped for delivery/complication 8
- They can take care of the neonate 6
- They give examinations 5
- Physician knows what to do in case of complication 4
- They give care/quick service 3
- Woman gets medication is more comfortable/ the hospital has sterilization 2
- It is affordable price

Home benefits

- Those that preferred at home were because of the **privacy** 2

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COMPOSITION OF FOCUS GROUPS

III - HUSBANDS

I - COMPOSITION OF GROUPS

There were 12 F G made in six cities and 6 villages of with a total of 102 participants from the Aswan and Luxor Governorates A total of 6 Districts- Kom Ombo, Edfu Daraw, Aswan, Nasr and Luxor with the following distribution

Place	Participants
* City	
Kom Ombo	8
Sebaeia	8
Daraw	8
El Seil El Rifi	9
Nasr	7
Luxor	9
* Villages	
Gaefar El-Sadek	10
Geziret El Malakeia	8
El Teweeissa	8
West Soheil	10
El Ballana	8
El Odaisat	9
Total	102

II - RECOGNITION OF COMPLICATIONS

1 PREGNANCY

The main signs of complications occurring during pregnancy which were identified by husbands of 5 of the 12 F G were

Bleeding (Nazeef) in general with no specific description as to quantity of bleeding or moment of occurrence during the pregnancy The causes attributed to this happening were lifting of heavy objects or by going downstairs (how many times or in what fashion were not codified) These reasons were cited by three F G of the cities and were not mentioned by the other groups

Swollen legs the groups that mentioned this as a problem were basically the same one that mentioned bleeding with a cause No mention of swollen hands or face was codified

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Hypertension (Daght aali, Daght Zaid) was mentioned by the majority of husbands in four groups (same as those that mentioned bleeding) When asked what were the causes of hypertension four reasons were given in one F G , being anemia the only relevant one

When asked if the **fetus could die** and the woman not know about it the husbands of 4 F G said it could happen and the reason was lifting heavy weights or having fever (2 F G) and in one FG it was mentioned that she would have an **abortion if the man hits** the wife

Additionally some husbands (2 F G) agreed that a woman could **deliver at seven-eight months of the pregnancy**, but there was not mentioned of frequency of occurring or how dangerous this was

2 DELIVERY/POSTPARTUM

There was no clear differentiation of this period Husbands consider it as one episode

bleeding (no differentiation with hemorrhage) again as in pregnancy, husbands of the majority of the F G (9) concurred that this was the number one complication followed by

difficult of labor (prolonged labor included - Modet El Wada Tawila, Welada Muasinna) - this was identified in the majority of the groups (7 FG)

third place (6 F G) **mal presentation of fetus** (baby in wrong position, Nazel Mish Maadoul right side up, Nazel Magloub, transverse, Nazel Bi gambou, stuck, Nazel maznoug) were signaled out by the majority of men of 3 F G

fourth complication identified was **puerperal fever/ sepsis** (Homet Nefas) was identified in 5 F G

in a far away fith place **tetanus** was identified in only 3 groups and not by many men

the surprise was one F G (city) in which all men agreed there were no other problems at delivery than those noted above Either they had not experienced any other (because of facility delivery?) or were totally unaware of their existence

Postpartum the highest number of husbands (10 F G) mentioned **infection/fever after delivery, (Homet Nefas) - closest to puerperal sepsis)** as the most frequent complication of postpartum followed by **bleeding** (5 FG)

3 NEONATE

Retarded growth inside the uterus, and fever of the newborn these are the two most known complications of the newborn identified in 5 F G (mostly in villages) Fever was not identified by any set of symptoms and small size as a consequence of retarded growth as identified in one F G

Diarrhea/vomiting were the second most important complications mentioned (4 city F G)

it was followed by **lactation problems jaundice, or congenital abnormalities** (which were not identified) mentioned in 3 FG

in fourth place **respiratory diseases** were mentioned (only 2 FG) which being one of the most frequent causes of problems is quite missed by husbands as being one of the most important of the neonate complications Also mentioned each of these in a different FG infection of umbilical cord hypocalcemia and colics

Lactation problems were described in some degree of detail These were

* she did not breast-fed at all (10 FG)
* women do not eat sufficient foods that increases milk production (9 FG)
* she received the evil eye (8 FG)
* she had too short of a lactation period (no reason specified) - 7 FG
* scanty milk production (5 FG)
* and in equal number of FG (3) the husbands identified these other reasons milk dries goat milk is like mothers' milk (so it seems to suggest that it can substitute the mother's milk especially because the doctor recommended it - 2 FG -), or there was the belief goat milk died not have any fat (2 FG)

Conclusion of recognition of signs of complication

* The most common complications recognized by husbands during pregnancy are bleeding oedema of lower limps and hypertension in almost half of all groups (city)
* at delivery bleeding, difficult labor, mal presentation of fetus, puerperal fever in more than half of the groups and lastly tetanus in few groups
* at postpartum fever/infection (probably puerperal sepsis) by the majority of all groups and bleeding by almost half
* with neonate fever and retarded growth by almost half of the FG and in descending importance diarrhea/vomiting Yet lactation problems were the ones most mentioned with preciseness poor/insufficient production (for lack of adequate food) , evil eye, short lactation period Jaundice, and respiratory problems followed

There was no indication of the degree of severity attributed to these signs by husbands The F G guide did not include this point explicitly, which may have been the reason for its no appearance

III - DECISION MAKING TO ACCESS THE HEALTH FACILITY

1 DURING PREGNANCY

For regular antenatal care

Reasons to go

* When the men were asked their opinion of whether a woman should go for a regular examination while pregnant the majority of the men (7 FG) were favorable to the idea that the pregnant woman should go to regular check up As expressed by the men, it should be a rule for woman to go for it is good for her since she follows the baby and is able to know how she will deliver Three groups mentioned it was to a woman's benefit to go

* There was a clear opinion expressed in 3 FG of when they should go <u>early</u> and then <u>late</u> in th pregnancy Another group narrow it down to the week before delivery

Who decides
It is her decision this was agreed in most of the FG (8) although in 5 FG it was mentioned that it was a joint decision

Who accompanies her
In almost half of the groups the husbands think it is the mother of their wives who mostly accompanies them while in half of the groups (mostly city one) it was affirmed that the husband was the one that went with her

It seems it really there is no overriding person, since in 5 FG it was mentioned that anyone near her could accompany the woman

For complications

* The woman should go to the health facility if she is sick, but there were no qualifications as to what was meant by being sick This was mentioned in 5 FG
* Two men in two groups mentioned their wives had hypertension and thus had to go for antenatal regular check ups

2 During Delivery/Postpartum

Normal

* The husband is not asked to make any specific decision during normal delivery he is to be ready and available
* He is not expected to call the daya when delivery time comes, that is a woman's job (3 FG)

With complications

* He is expected to be present if an emergency arrives, and if it does he is expected to bring doctor/ambulance as was mentioned in 4 FG
* When the decision to access the facility has been made everybody pitches in to obtain the transportation even if it is at midnight, whatever the costs (6 FG)

3 During Management of Neonate

Normal/With complications

* No relevant data was presented that shed light on this point of the decision process when there is need to manage the neonate with any degree of urgency

IV - BARRIERS/BENEFITS TO ACCESS HEALTH FACILITY

1 During Pregnancy

* Impeding belief there were almost equal number of groups (6) in which it was mentioned that 'there was no need for the woman to go' for it had several effects, one of them was the baby ending up being weak

* It was costly for the woman to go (4 FG) and for another man it was very far
* One person was clearly against the antenatal care for his experience was his wife received a wrong injection and the baby died
* Only in one FG the gender issue was mentioned saying that some women prefer female doctors This apparently did not appear to be an issue to access In another 3 FG it was mentioned that he would rather prefer his wife went for check-up to a female doctor

2 DURING DELIVERY/ POSTPARTUM

* Money/transportation were the two most mentioned reasons by most men in almost half of the FGs

3 MANAGING THE NEONATE

* There was a mention in one FG the lack of incubators in the hospital
* One FG pointed out that there is a hospital that does not have newborn care service

V - PERCEIVED QUALITY OF CARE

1 OF THE DAYA

One FG mentioned that the sterilization of the daya's instruments was not good

2 OF THE MOH FACILITIES

The opinions regarding their direct experience at the hospital was divided There were those that said said these positive things

* the hospital had good treatment of people (3 FG)
* good quality of service (1 FG) ,
* treated people with respect (2 FG)
* they have specialized doctors (2 FG)
* clean environment (1 FG)
* capable of saving in an emergencies (2 FG)

But there were also who

3 Of the Doctors

Doctor's reputation Decision of woman to go is based very much on the doctor s reputation which was agreed in majority of FG (9)

VI - CONSIDERATIONS AROUND PREGNANCY

1 Changes That Take Place

Husband's feelings in some groups the men said they felt very happy, rejoice with their wife's pregnacy/thee will be children in the house (4 FG)

Activity in a good number of focus groups the men agreed that the a pregnant woman should do less amount of heavy work should not lift heavy objects should rest more they should help her with the lifting of heavy objects, and in the field do less of the plowing duties (7 FG)

More attention the husband pays more attention to her accompanies her to the doctor or lets her go (4 FG) and takes on the responsability to prepare any money needs (1 FG)

Foods she should not eat salty, spicy foods (2 FG), but it was OK to eat light food such as yoghurt, cheese and milk (5 FG), fruits and proteins (5 FG)

should not take drugs (1 FG)

ANNEX (D)

CASE STUDIES

by:
Dr. Nabil Younis

I - A M A L

Amal Ahmed Abdoh 20 years old was referred from her village (Fariss) Edfu on the 5th of August at 9 00AM to Edfu district hospital Patient referred from the health center with referral note stated that there is no progress of labor and FHS couldn't be detected

Admission data showed that Mrs Amal was primigravida, full term by date no LL edema and with frequent labor pains On examination, BP 110/70, pulse 90/min and she was generally exhausted and slightly dehydrated FHS was regular 135/min On PV examination +1, LOT, and projecting ischial spines

The case was diagnosed as a primigravida in labor with prolonged second stage Upon admission Specialist on duty (SOD) order infusion of 500 cc Ringer s solution and 500 cc Dextrose 5% solution to ameliorate the general condition At 10 00AM, the patient was transferred to the operating theater and given another 500 cc of Dextrose 5% with added 5 IU Syntinon on the drip

At 10 30 under general anesthesia SOD performed generous episiotomy and conduct delivery using a mid-cavity forceps after a failed trail by the ROD A baby boy was delivered of Apgar6 whom not seen by a pediatrician The SOD had to repair the episiotomy and a lateral vaginal lacerations A vaginal pack was inserted for 6 hours, and folly's catheter was fixed

After delivery other 500 cc Dextrose 5% + 10 IU Syntinon + 2 ample of Methergin was transfused Uterine message was done prior to sending the patient to the ward

Mrs Amal was discharged one day after delivery and postnatal treatment was prescribed to her

The SOD handled the case properly, but the using of forceps in delivery could be questioning It was better option to perform CS for better outcome for the mother and the baby Nevertheless having a woman who is primigravida with fully dilated cervix, station + 1 could be tempting to do forceps

Comments

Delay in transfer
Use of syntocinon in an exhausted mother with Mechanical obstruction (caput)
Use of Forceps in a potentially infected case
Asepsis
Early discharge of a potentially case with an episiotomy
Postnatal instructions to care for the episiotomy and to monitor the possibility of puerperal sepsis

Policy Implications

When to transfer (clear criteria)
Asepsis
Use of ecbolics
Use of forceps indications, Hazards
When to discharge (clear criteria)
Communication with patients and relevant about post partum care

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II - S A I D A

Saida Abdel Hariss 35yrs old, living at El-Mansoureya, came to Kom Ombo district hospital on 5th of August The lady was seen at the emergency room by the Ob/Gyn resident on duty Dr Lotfv Amin Saweress (Junior Resident) who admitted her on that date at 10 00AM

The admission data showed that Mrs Saida was a multigravida in early labor She is a G5 P2+2 with a history of normal vaginal deliveries of 2 living boys and history of 2 early pregnancy abortions When examined the findings recorded in the file showed that it is a full term pregnancy, Longitudinal lying fetus and presenting part was Cephalic The Fetal heart sounds were found audible regular in rhythm and the labor pains were infrequent The vital signs showed BP 110/70, pulse 90/min, temp normal The pelvic examination showed 60% effaced cervix, os 2-fingers membrane was intact, head station was 1 LOT position and the pelvis found adequate

The case was diagnosed as a multigravida in early labor She was admitted in the labor ward and followed their abdominally and vaginally every 4-5 hours and sometimes at her request (when feeling severe uterine colic) At 10 45PM the lady started to have frequent and prolonged labor pains that she couldn't bear, the ROD examined the lady and found an 80% effaced cervix, os 4-fingers membrane bulging and head station was Zero Patient was referred to the delivery room The nurse helped her to lie on her back and put her legs apart The senior Ob/Gyn Resident Dr Wahba Farahate was passing by that time and he attended the delivery The ROD used HLD (high level disinfected) disposable gloves for vaginal examination and for assisting the delivery The patient was asked to bear down till the head was delivered (but there was no perinatal support by the ROD), delivery of the rest of the body was followed Alive baby who cried upon delivery was handed to the assisting nurse then to the worker in the delivery room who dried the neonate, cut the umbilical cord with clean HLD scissors and tie the navel with clean threads Then the neonate wrapped in a dry towel till they get the cloths from the family Surprisingly perineum was intact the placenta expelled complete followed by an IM injection of Methergin Amp as ordered by the ROD to the assisting nurse Uterine massage by the ROD to assure uterine contraction done, then the ROD left the room and ordered to transfer the lady to the same bed in the ward for postpartum observation
The patient was discharge home in the next dav with no complications advised for breast feeding and postpartum treatment was prescribed

Comments

Age as risk factor 35+
2 previous abortions as a risk not recognized
left in labor for > 12 hrs partogram
Senior resident assessed because he was passing by!!
Who dealt with the baby (worker!!)
Postnatal care
Contraception – discussed

Policy Implications

Recognition of risk factors
Use of partograms
Asepsis

Senior OB specialist must be available
Handling and dealing with neonates
Postnatal instruction not communicated to patients or relevant
Arrangements for postnatal care
Arrangements for contraception

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III - G H A D A

Ghada Fahmy Ahmed, 25 yrs old, living at El-Hakarob area in Aswan, came to Aswan General hospital on 4th of August The lady was seen first in the emergency room by the resident on duty who referred her to the delivery room in the Ob/Gyn department Dr Mervat M Abdel Khalek (Junior Resident) examined the lady and admitted her on that date at 11 00AM

The admission data showed that Mrs Ghada was a G2 P0+1, with a history of 1 early pregnancy abortion When examined the findings recorded in the file showed that according to dates she completed 38 weeks fetus of average size, Longitudinal lie Cephalic presentation The Fetal heart sounds were not audible (Absent) and the labor pains were infrequent The vital signs showed BP 160/110, Pulse 90/min urine albumin ++++ The pelvic examination showed 70% effaced cervix os 2-fingers intact membrane vaginal bleeding (+) and the pelvis found adequate

The case was diagnosed as a Pre-eclampsia in early labor with a FT, IUFD Upon admission immediate treatment started to control the BP 4 amps Glucose 25% and 4 amps Mg-sulphate (1 gm) as loading dose Ultrasound was requested to confirm the diagnosis of the case The scan actually showed a low lying placenta and a dead fetus Patient transferred to the ward Eclamptic room (Dark room equipped with 2 beds only and even no nurse) treating regimen set which required 4 amps Mg-sulphate IM/6 hrs, Aldomet 500 mg oral/hrs, Epilat sblingual and observation of vital signs/1hr At 1 Pm ARM (Artificial rupture of membrane) associated with augmentation of labor through an IV line of Dextrose 5% and 5 IU Syntocinon added to the drip At 6 30 Pm patient was transferred to the delivery room with frequent labor pains os 4 fingers, BP 160/100 The nurse (Samira Abdel Rahman) helped her to lie on her back and put her legs apart The ROD used HLD (high level disinfected) disposable gloves for vaginal examination and for assisting the delivery The patient was asked to bear down helped by some fundal pressure from the other assisting nurse (Fatma Helmy) to deliver a dead macerated baby

Immediately postpartum Valium amp 10mg addition of extra 5 units of Syntocinon to the running IV drip and 1 amp methergin given IM following the delivery of the placenta Measurement of BP 160/100 albumin in urine still ++++ (taken by urinary catheterization) Uterine massage by the ROD to assure uterine contraction done then the ROD transferred the patient to the eclamptic room for close observation and postpartum treatment prescribed as follows 1 gm Ampicillin/12 hrs4 amps Glucose 25%/12 hrs 4 amps Mg-sulphate/6 hrs Urine for albumin/12hrs observation of vital signs/2-4 hrs

This lady was discharged home after 3 days with postpartum treatment and controlled BP 130/90 Advised for postnatal follow-up in 2 weeks time

Comments

Delay in transfer
Severe preeclampsia should have been recognized
Risks of dealing with intra uterine fetal death not recognized
Risk of low lying placenta recognized very late
No nursing care in the eclampsia room

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Policy Implications

Antenatal care
Recognition of risk factors (preeclampsia) (low lying placenta)
Dealing with Intrauterine fetal death
Asepsis
Nursing care in high risk cases
Senior Ob specialist must be available in high risk cases

IV - S A L M A

Salma Awad Aly 35 years old living in Ezbet El-kalk was referred from village health unit to Edfo district hospital on 6th of August for high blood presure The lady first examined in the emergency room by Ob/Gyn resident on duty who admitted her immedialetley at 11 30 a m

The admmission data showed that Mrs Salma was G4 P3+0 3 normal vaginal deliveries 2 boys and 1 girl FT (full term) LL (longitudinal lie) CP (cephalic presentation) The Fetal heart sounds were audible and regular in rhythm + , lower limp edema ++ The pelvic examination showed 70% effaced cervix os 3-fingers, intact membrance and the pelvis found adequate

The case was diagnosed as Multigravida with PET in early labour

Upon admission the ROD (Dr Saad Sheiba Hassan) junior resident immediately informed the Senior resident on duty Dr George Attallah The Senior resident ordered a sublingual Epilat and IV drip of 500 cc Dextrose 5% + % IU Syntocinon The patient was taken directly to the deliverv room The ROD checked the BP 140/90 cervical os was fully dilated Patient lying on her back legs apart was asked to bear down The ROD used Sterile gloves and under the instructions of the senior resident he disinfected the perineal area and perineal support was maintained during the delivery Baby girl delivered, cried upon delivery and handed to the assisting nurse Placenta expelled complete and vagina inspected for any lacerations not found Perineum intact Uterine massage but no Methergin given only addition of 15 units more of Syntocion in the running drip Postpartum BP recording of 140/80 was found satisfactory Patient was referred to the ward for postnatal follow-up of BP and urine analysis 1gm Ampicllin /12 hrs prescribed in the ward to be supplied by the relatives

This ladv was discharged home after 1 day with postpartum treatment and controlled BP 130/80 Advised for postnatal follow-up in 2 weeks time

Comments

Age > 35 as a risk not recognized
A case of severe pre-eclampsia should have been dealt with much earlier (A N Care)
Transferred much earlier (critieria of transfer)
Who delivered her – Junior resident
Early discharge

Policy implications

A N Care recognition of risks
Criteria of transfer
Level of obestetrician dealing with the case (senioi Ob specialist must be present in high risk cases
Criteria of discharge

V - E L H A M

Elham Mosafa Ahmed 30 years old living in Aswan area called El-Sale arrived to Aswan General Hospital on the 3rd of August for delivery as she was complaining of labour pains The lady received at the emergency room who examined the case and recorded the findings in the admission sheet

The admission data showed that Mrs Elham was G4 P3 + 0 3 normal vaginal deliveries By dates she was FT (full term) by abdominal examination LL (longitudinal lie) by pelvic examination presentation was Breech (BP) The Fetal heart sounds were audible and regular in rhythm and labour pains were frequent The vital signs showed BP 110/70 Pulse 90/min Temp normal The pelvic examination showed 60% effaced cervix os 2- fingers intact membrane and the pelvis found adequate

The case was diagnosed as Multigravida Breech presentation in labor Admitted to the ward for observation the lady was examined by the ROD whenever she complains of intolerable uterine colic At 10 45 p m that day the ROD Dr Hussam El-Din Abdel Rahman examined the lady and found an 80% effaced cervix 4 fingers dilated os intact membrance so he transfered the lady to the DR (delivery room) and called the Assistant Specialist on duty Dr Mohamed El-Mokadem Patient helped by the nurse lied on her back and legs apart started to push with uterine contractions ROD used HLD (High Level Disinfected) gloves disposable type of gloves under the instructions of the assistant specialist delivery of the body was smooth without interference then some mess started in the room as no available dry sterile towel prepared for coverage of the body which was hanging the assistant specialist asked for Forceps which were not available on the prepared tray shouting allover the place and running around by the ruses trying to supply the demands, Forceps application by the Assistant specialist was tried but failed due to more descent of the head ROD tried Jaw Flexion Shoulder Traction maneuver to deliver the head and succeeded this was easliy done Baby girl delivered average size cried upon delivery and handed to the assisting nurse Placenta expelled complete and vagina inspected for any lacerations not found Perineum intact Uterine massage done and Methergin amp given IM The baby was inspected by the Assistant duty, advised to be seen by the neonatologist in the nursery

Patient was referred to the ward for postnatal observation and postpartum treatment was resscribed The lady was disharged home the second day with no delivery complications

Comments

No recognition of malpresentation during AN period
Who deals with malpresentation (breceh/face/brow)
Use of forceps in malpresentations
Skills must be attained and indications clear
Asepsis
Post partum care
Contraceptive advice

Policy Implications

AN Care and recognition of malpresentations before onset of labour
Management of malpresentation skills
Asepsis
Instructions for post partum care
Contraceptive advice specially for the high risk

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VI - H A M I D A

Hamida Abdel Hamid Mohamed 30 years old living in Aswan area called El-Sale arrived to Aswan General Hospital on the 3rd of August for delivery as she was complaining of labour pains The lady received at the emergency room at 8 a m and seen by the Resident on duty who admitted her to the Ob/Gyn ward Upon arrival to the ward she had to pass by the Ob/Gyn ROD (Senior Resident on Duty) Dr Safaa Kamel Mahmoud in the Delivery room who examined the case and recorded the findings in the admisssion sheet

The admission data showed that Mrs Hamida was G6 P4+1 4 normal vaginal deliveries alive children and history of early pregnancy abortion By dates she was FT (full term) abdominal examination shows LL fetus (longitudinal lie), the Fetal heart sounds were audible and regular in rhythm and labour pains were frequent The vital signs showed BP 130/90, Pulse 90/min Temp normal The pelvic examination showed CP (cephalic preentation) 70 % effaced cervix os 3-fingers, intact membrane and the pelvis found adequate

The case was diagnosed as Multigravida in labour with PIH (pregnancy induced hypertention)

Admitted to the ward under observation till delivery approaches The lady was examined by the ROD at 10 45 a m with the following data Fully effaced cervix Fully dilated os, intact membrane so she was transfered to the DR (delivery Room) her back and legs apart ROD used HLD (high level Disinfected) disposable gloves and instructed the patient to bear down with each contraction 1 hour lapsed with no progress then the case was considered prolonged second stage and the SOD (Specialist on Duty) was called upon The SOD ordered an IV drip of Dextrose 5% containing 5 IU Syntocion and 1/2 gm Intraval diluted in 10cc Saline and added to 1 amp Atropine Low forceps was applied and generous episiotomy done Baby delivered Face to Pubis average size followed by the delivery of the placenta then episiotomy was repaired Baby cried upon delivery and handed to the assisting nurse Uterine massage done and Methergin lamp given IM The baby was inspected by the ROD who advised for neonatologist examination

Patient was transfered to the ward for postnatal observation and postpartum treatment was prescribed The lady was discharged home the second day with no delivery complications

Comments

Choice of place of delivery for a G6 – early transfer
Use of syntocinon in G6
Use of forceps
No recognition of malpositions occepito posterior

Policy Implications

AN Care and recognition of high parity risk G6 left at home
Use of syntocinon with G6
Use of forceps indications/risk
Post natal care assignments
Contraception

VII - N A D I A

Nadia Hussein Ahmed 35yrs old living in Aswan area called El-Sheikh Haroon arrived to Aswan General Hospital on the 2nd August for delivery as she was complaining of labor pains The lady received at the emergency room and seen by the Resident on duty who admitted her to the Ob/Gyn ward Upon arrival to the ward at 7 30 P m she was examined by the Ob/Gyn ROD [Junior Resident on Duty] Dr Mervat M Abdel-Khlek in the Delivery room who recorded the findings on the admission sheet

The admission data showed that Mrs Nadia was G8 P6+1 all her deliveries were normal vaginal deliveries 2 living children only 3 early neonatal deaths 1 IUFD at 28 weeks and 1 early pregnancy abortion history of early pregnancy abortion The lady gave a history of Diabetes since 22yrs of age Regarding this pregnancy, gestational age is 32 weeks abdominal examination shows LL fetus [longitudinal lie] the Fundal height +/- 34weeks Fetal heart sounds were audible and regular in rhythm and labor pains were frequent The lower limbs were showing edema and urine examination for Albumin gave ++++ The vital signs showed BP 130/80 Pulse 90/min , Temp normal The pelvic examination showed CP [cephalic presentation] 75% effaced cervix os 2-fingers intact membrane and the pelvis found adequate

The case was diagnosed as Diabetic Multigravida, with Preterm baby [32weeks] and albuminuria in labor

Admitted to the ward under observation till delivery approaches The lady was investigated for blood sugar which was controlled and glucose in urine found to be absent At midnight examined by the ROD who transferred the lady to the delivery room with the following data Fully effaced cervix Fully dilated os intact membrane The nurse assisting the delivery Donia Ibrahim Soliman ", helped the patient to lie on her back and legs apart ROD used HLD [High Level Disinfected] disposable gloves ordered for an IV drip of Dextrose 5% and instructed the patient to bear down with each contraction Baby girl delivered preterm small size, cried upon delivery umbilical cord cut then the baby was given to the DR cleaner who wrapped the baby in a dry towel and sent to the nursery The delivery of the placenta followed and perineum checked for lacerations Uterine massage done and 1amp Methergin given IM The cleaner came back carrying the baby in hand stating that Pediatrician found the baby in good condition The ROD sent the baby back with the nurse to clarify that the baby is a preterm and mother is Diabetic

Patient was transferred to the ward for postnatal observation and postpartum treatment was prescribed

Comments

Very High Risk patient because
Age risk 35
Parity risk G8 p6+1
2 living children out of 7 pregnancies
Intauterine F death and neonatal death
Diabetes
Kidney involvement
Left for the care of resident on duty!!
Dextroce given without insulin
Cleaner of the delivery room cares for a preterm baby of a diabetic mother

Policy Implications

Poor or no AN care
Recognition of risk factors
Specialist care Ob/Gyn should be available
Management of medical complications with pregnancy
Neonatal care lacking
Post natal care missing
Contraception not-suggested

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VIII - B A T A A

Bataa Mohamed Aly 36yrs old living at El-Hakaro in Aswan came to Aswan General Hospital at 5A m on the 8th August, complaining of frequent labor pains The lady received in the Emergency room where admission procedure was done then referred to the Ob/Gyn department for evaluation In the Delivery room patient was examined by the ROD Dr Amal M Bakry [Junior resident] who recorded her findings and transferred the lady to the ward to be under observation

The admission data showed that Mrs Bataa was a multigravida in early labor She is a G8 P7+0 with normal vaginal deliveries of 7 living children The Abdominal examination showed a full term pregnancy good size baby, Longitudinal lying fetus The Fetal heart sounds were found audible regular in rhythm and the labor pains were frequent The vital signs showed BP 120/80, Pulse 85/min Temp normal The pelvic examination showed 70% effaced cervix os 2-fingers, membrane was intact head station was –1 PP face and the pelvis found adequate

The case was diagnosed as a Grand multigravida in early labor
Face presentation

At 11 45 Am the lady started to have frequent and prolonged labor pains that she couldn't bear the ROD examined the lady and found a Fully effaced cervix os Fully dilated membrane bulging and head station was Zero Patient was referred to the delivery room The assisting nurse Samira Abdel Rahman helped her to lie on her back and put her legs apart The Specialist on Duty Dr Fahmy Abou-doh was passing by that time and he attended the delivery the ROD used HLD [high level disinfected] disposable gloves for vaginal examination and for assisting the delivery An IV drip was adviced by the SOD 500cc Dextrose 5% + 10 IU Syntocinon The patient was asked to bear till the head was delivered followed by the rest of the body Alive baby girl who cried upon delivery was handed to the assisting nurse then to the worker in the delivery room who dried the neonate cut the umbilical cord with clean HLD scissors and tie the navel with clean threads Then the neonate wrapped in a dry towel till they get the cloths from the family Surprisingly perineum was intact the placenta expelled complete followed by an IM injection of Methergin Amp as ordered by the ROD to the assisting nurse Uterine massage by the ROD to assure uterine contraction done then the ROD ordered to transfer the lady to the same bed in the ward for postpartum observation

The patient was discharged home later same day of delivery with no complications advised for breast feeding and postpartum treatment was prescribed

Comments

Age and Parity risks not recognized as risk factors (36y) (G8p7+0)
Left to the care of junior resident and assistant nurse
Syntocinon drop to G8 p7[11]
Neonatal care provided by the cleaner
Umb Stump secured with clean (not sterile) threads
Early discharge (same day)
No postnatal care arranged or discussed
No contraception arranged or discussed

Policy Implications

Recognition of very high risk factors
Senior obstetricians must be availble
Use of syntocinon in highly parous women should be restricted or avoided
Neonatal care and umbelical stump care should be provided by specialists
Time of discharge should be decided according to clear critieria
Postnatal care arranged and communicated
Contraception should be discussed and provided particularly with grand multiparas

IX - S A M I A

Samia Atteto ALY 22 yrs old lady living at EL-Shatb area in KOM-OMBO was feeling frequent abdominal pains on the 4th August at 1P m Seen in the Emergency Room and examined by the ROD { Resident on Duty } Dr Lotfy Amin Saweress

The admission data showed that Mrs Samia was a G2 P1+0 with 1 normal vaginal delivery of a living girl By dates she was Full term size of the baby was above average, the fetal lie was longitudinal the fetal heart sounds were audible and regular the labor pains were infrequent The vital signs showed BP 110/70 Pulse 85/min Temp normal The pelvic examination showed 40% effaced cervix 2 fingers dilated os Membrane was intact Pelvis was adequate

The case was diagnosed as Multigravida in early labor

Admitted in the ward to be kept under observation At 10 PM the lady was examined again by the ROD the cervix found fully effaced the os fully dilated the head was still high The SOD { Specialist on Duty } Dr Abdoh El- Sewessy confirmed the ROD findings and ordered for observation of the progress of labor yet in the delivery room The lady became exhausted and Failure of progress was the facing state Dr Nasr El-Din [Head of Ob/Gyn department] ordered for IV drip of Dextrose 5% + 5 IU Syntocinon and delivery was assisted by Mid-Cavity Forceps Delivery of a baby Boy, cried upon delivery The ROD assistthe neonate resuscitation then the nurse manage the umbilical care and wrapped the baby in his clothes Episiotomy repaired under local anesthesia after placental delivery Uterine massage and 1 Amp Methergin given IM to insure uterine contraction The lady was transferred to the ward with her baby to be kept under observation IV drip was continued in the ward The ROD passing by the mother found her in good condition but the suckling reflux of the baby was poor ordered the ward nurse to call for pediatric examination This baby was transferred to the incubator in the next morning for fetal hyperthermia and respiratory distress

The lady was Kept in the hospital for 2 days and the baby needed to be kept in the incubator for 2 days then discharged both home with prescribed postpartum treatment and advised for follow-up in 2 weeks time

Comments

No recognition of prolonged labour except late
Use of forceps in an exhausted mother
Partograms

Policy Implications

Use of partograms for recognition of poor progress

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X - S A M I A

Hospital KOM OMBO GENERAL HOSPITAL
Name of the Health Provider Dr Abdoh El-Sewassy [Ob/Gyn Specialist]
Name of Assisstant Dr Lotfy Amin

Name of Patient Samia Atteto Aly
Age 22 yrs
Address El-Shatb
Admitted Time 4 August, 1997 at 1pm

Admission Data G2 P1+0, FT LL, CP
Labor pains infrequent
FHS +ve
BP 110/70
Pulse 90/min
P/V exam cx 40% effaced os 2 fingers Memb Intact

At 10Pm Generally Exhausted Mother cx Fully dilated, Fetal distress
500cc Dextrose 5% + 5 IU Syntocinon
Forceps done by the Specialist on duty { Mid-cavity}
Delivery of a baby Boy
Urinary catheterisation
Expulsion of placenta
Perineum repaired {under local anesthesia}
Uterus well contracted

Postnatal treatment was prescribed and lady transferred to the ward
The baby had to be transferred to incubator later for poor suckling and fever

Comments

Late recognition of poor progress
Use of forceps – impact on neonate
Asepsis

Policy Implications

Use of partograms to recognize poor progress
The use of mid forceps indications
Asepsis stressed
Neonatal care provided by specialist attending operative deliveries

XI - A I C H A

Aicha Abdel Mageid Saad 22vrs old living in EDFO area called El-Hamam arrived to Edfo General Hospital on the 6th August for delivery as she was complaining of labor pains The ladv received at the emergencv room and seen by the Resident on duty who admitted her to the Ob/Gvn ward Upon arrival to the ward at 2 30 P m she was examined by the Ob/Gyn ROD [Junior Resident on Dutv] Dr Saad Sheiba Hassan recently graduated and second dav on the job, recorded the findings on the admission sheet

The admission data showed that Mrs Aicha was Primigravida her LMP 27/10/96 and the EDD 4/8/97 so according to dates she was 2 days post-date The abdominal examination showed a Full Term size baby, LL fetus [longitudinal lie] Fetal heart sounds were audible and regular in rhvthm and labor pains were frequent The vital signs showed BP 120/80 Pulse 80/min , Temp normal The pelvic examination showed CP [cephalic presentation] 85% effaced cervix os 4-fingers intact membrane and the pelvis found adequate

The case was diagnosed as Primigravida, in active labor

Admitted directly to the Delivery Room helped bv the nurse to lie on her back legs apart An IV infusion was set Dextrose 5% + 5 IU Syntocinon drip started in the presence of the Senior Resident on duty Dr George Attallah who was attending the delivery and instructing the Junior resident about the steps of the delivery procedure At 4 15 PM pelvic examination showed a Fully effaced cervix Fully dilated os intact membrane ROD used sterile gloves disinfection of the perineal area done using Betadine solution the patient instructed to bear down with each contraction Episiotomy under local anesthesia and perineal support till delivery of the head done Baby girl delivered cried upon delivery umbilical cord cut then the baby was given to the attending nurse who wrapped the baby in a dry towel and took care of the umbilical stump The delivery of the placenta followed and perineum was repaired Uterine massage done and 1amp Methergin given IM to insure uterine contraction

Patient was transferred to the ward for postnatal observation and encouraged for immediate breast-feeding Postpartum treatment was prescribed The ladv and her baby discharge second day home with no complications and advised for follow-up for contraception

Comments

Level of experience which should be attained before leaving residents to act on their own and make decisions

Policv Implications

Clearlv stated guidelines and protocols should be provided to describe who should do what and how

XII - A M A L

Amal Mohamed Aly, 26yrs old living in KOM OMBO area called El-Nagagra arrived to Kom Ombo General Hospital on the 4th August for delivery as she was complaining of labor pains The lady received at the emergency room at 1 AM that day and seen by the Ob/Gyn Resident on duty Dr Lotfy Amin Saweress recorded the findings on the admission sheet and admitted her to the Ob/Gyn ward o be kept under observation

The admission data showed that Mrs Amal was G3 P2+0 with 2 living children normally delivered According to dates she was Full Term The abdominal examination showed a Full Term size baby, LL fetus [longitudinal lie], Fetal heart sounds were audible and regular in rhythm and labor pains were infrequent The vital signs showed BP 120/80, Pulse 80/min Temp normal The pelvic examination showed CP [cephalic presentation] 65% effaced cervix os 2-fingers, intact membrane and the pelvis found adequate

The case was diagnosed as Multigravida, in early labor

The lady was kept in the ward under observation and examined by the ROD for progress of delivery whenever she complained which was approximately every 4hours At 7 PM the examination data showed progress of the delivery state as the cervix was 85% effaced the cervical os was 4 fingers dilated, the head station came down to 0-station the membrane still intact The lady transferred by that time to the delivery room and an IV infusion of Dextrose 5% added to it 5IU Syntocinon started, as ordered by the Senior Resident on duty, Dr Wahba Ahmed Farahatte The lady helped by the nurse to lie on her back legs apart the ROD used HLD gloves found the os fully dilated and membrane ruptured instructed the patient to bear down with each contraction At 8 30 PM Baby girl delivered , cried upon delivery umbilical cord cut then the baby was given to the attending nurse who wrapped the baby in a dry towel and the DR cleaner was responsible to do the umbilical stump care The delivery of the placenta followed and perineum was inspected for the presence of any lacerations [not present] Uterine massage done and 1amp Methergin given IM to insure uterine contraction

Patient was transferred to the ward for postnatal observation and postpartum treatment was prescribed The lady and her baby discharge second day home with no complications and advised for follow-up for contraception

Comments

Umbilical stump care and Neonatal care left to the cleaner

Policy Implications

Asepsis
Neonatal care and umbilical stump care stressed

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XIII - M R S K A S E D

Mrs Kased was admitted to Kharna rural hospital on the 22nd of September 1997 at 9 45 am She was attended bv two doctors and a nurse Admission data showed that she was fullterm bv date

The resident on duty (ROD) had all the basic equipment needed for delivery readv except for the partograph He welcomed the client reassured her and asked her to lie on her back His attitude was comforting and friendly He asked her personal data, but did not review any personal or prenatal records There is no protocol for intra-partum historv taking in this hospital but the history was carefullv taken and recorded by the ROD

The ROD noted that the client was fullterm determined when her labour pains began and how often thev occured and asked wheather she had been to an antenatal clinic He didn't ask wheather her membranes had ruptured or if there had been anv bloody show , or who had referred her He asked her when she had eaten last

The phvsical examination was appropriatelv done and correctly recorded by the ROD Prior to starting the phvsical examination the ROD helped the client get readv for the examination washed his hands and asked her to lie on her back but he did not ask her to empty her bladder or explain what he was going to do

The ROD correctly checked and recorded the height weight B P , respiration and H R He performed a correct abdominal examination including listening to and counting the F H S , but did not explain anvthing to the client or record anything on a partograph

During the vaginal examination sterile surgical gloves were not used Though the area had been disinfected and the ROD scrubbed his hands in an antiseptic solution Here again he did not explain anvthing to the client or record anvthing on a partograph although the vaginal examination was performed correctly

The ROD assessed cervical dilatation everv 4 hours and also he assessed the descent of the head abdominallv every hour and checked the fetal heart rate every 30 minutes

The client was given an injection of svntocinon to stimulate labour , but she was not given any analgesia or anv other medication No episiotomv was performed and the outcome was a FT/LL/CP The cord was cut using an unsterile scalpel and thread The baby was rubbed with a dry towel and its back was massaged and was kept warm No apgar score was done but the baby's condition was good

The ROD reassured the mother about her infant and advised her to breast feed immediately He left the delivarv room immediately after expulsion of the placenta

The ROD handeled the case properly but should have taken care to use sterile instruments and explain things to the patient

Comments

Incomplete history taking
No communication with patient or explanation
Asepsis

I M injection of syntocinon
No analgesia
Care of umblical stump Non sterile scalpel used
Assessment of neoatal condition

Policy Implications

Proper history taking should be stressed
Protocols should be available
Asepsis and infection control stressed
Use of analgesia should be provided and doctors should be trained to use it
Neonatal care and umbilied stump care should be provided by trained specialist

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XIV - L U X O R G E N E R A L H O S P I T A L

Luxor general hospital admitted eight women for deliverv on the 30th and 31st of August and the 1st of September 1997 Six of the eight cases were attended to by the resident on dutv (ROD) aided bv a nurse While two cases were managed bv the specialist on dutv (SOD) also assisted by a nurse

The clients were admitted to the hospital on those davs between 7 10 a m and 3 08 p m All the basic equipment necessary for a safe deliverv was available in all cases except for sterile surgical gloves and a partograph The health providers' attitude was a friendlv one throughout They all welcomed the patients reasured them and asked each client to lie on her back Five of them did not explain to the patients what was going to be done but thev all asked for and recorded the personal data carefully although non reviewed the personal and prenatal data or noted any risk factors

There is no protocol at luxor general hospital for intra partum history taking or for examination An appropriate history was taken and recorded by all health attendants The intra partum histoory showed that onlv one patient had ruptured membranes 24 hours prior to the onset of labour Only two of the RODs asked the clients wheather they had experienced ruptured membranes or not Five of them did not ask the clients when they had last passed stools or wheather they had bled per vaginum Four did not ask the patients if they had eaten and all of them did not ask the patients who had referred them All recorded intra partum historv

Prior to starting the physical examination all of the health providers did not explain anything to the clients or ask the client to pass urine Five of them did not wash their hands with soap and water An appropriate physical examination was done by all of them and findings were correctly recorded by all Weight was checked by four Seven checked the B P Generally they all performed an acceptable abdominal examination but nothing again was explained to the clients nor was a partograph used During vaginal examination the area to be examined was not disinfected in three cases Five health providers did not scrub their hands in antiseptic solution and sterile surgical gloves were abscent in all cases The vaginal examination was done appropriatelv in three cases There was no washing of the genital area In one case no rectal examination was performed The index finger of the gloved hand was not dipped in an antiseptic solution in one case

All health providers helped the women to get comfortable after the examination The mothers delivered lving on their backs No I V infusion was given in anv case The cervix was assessed every 4 hours for dilatation in five cases Descent of the head was assessed vaginally in four of the cases While its descent abdominallv every hour was assessed in seven of the eight cases Foetal heart rate was checked in all but three cases Maternal vital signs were checked in all cases No analgesia was given and three cases recieved an injection on syntocynon Two medio lateral episiotomies were performed The outcome in all cases was fullterm/LL/CP The instruments used to cut the cord were unsterilized in five cases out of eight

In all cases the neonate was dried its back massaged and was kept warm, patency of the airway was ensured in three cases only Apgar score was not done but the infants were all in good condition No weighing or anthropological measurments were taken After delivery three docors reasured the mothers while three reasured the mothers as to the condition of their infants advised them on the importance of breastfeeding and encouraged them to breast feed and two offered their help to the mothers All the doctors left the delivery room immediately after expulsion of the placenta

This data was collected by interview and observation the physicians and nurses need to be trained in infection prevention measures also in how to manage labour actively Care should be awarded the newborn with special reference to the Apgar scoring system and neonatal resuscitation Immediate post -partum care of the patients should be emphasised

Comments

History taking inadequate
Asepsis and infection control procedures Non sterile gloves!!
Poor communication with patient
Importance of recognition of risk factors!!
Protocols not available
PROM taken lightly!!
No use of partographs
Use of syntocinon
No analgesia
No neonatal care
Umbilical stamps
Non sterile instruments

Policy implication

Training
Protocols
Neonatal care

XV - T H O R A Y A

On the 25th of August 1997 two clients were admitted to Kom Ombo district hospital Thorava at 2 10 p m was coming from Salwa Bahar s village and Kawthar at 4 05 p m from Al Ahmadeva village On the 26th of August 1997 at 11 00 a m Rabea also was admitted to the same hospital for delivery Theywere all attended by doctors and each doctor had an assistant either the resident on duty (ROD) or a nurse

All the basic equipment was present except for the bowl thermometer and partograph in two cases and only the partograph was missing in one case The health providers all welcomed the clients in a friendly manner reassured them and asked them to lie on their back They asked for and recorded the personal data but no protocol for intra-partum history taking exists in this hospital

Appropriate history was taken in each case All were fullterm they were asked about when labour pains started and their frequency asked about the occurance of bloody show One of the health providers did not ask about wheather his client had been to an ante natal clinic and another did not ask about wheather the membranes were ruptured One asked if the client had bleeding per vagina, and they all did not ask the women wheather they had eaten, passed stools or who they were referred by There was no recording of intra partum history

All the doctors helped the clients get ready for examination and asked them to lie on their back but they did not wash their hands before the examination, did not ask the clients to pass urine nor did they explain what they were about to do

An appropriate physical examination was performed each time although one doctor examined the B P only An acceptable abdominal examination was also done each time and the F H S were checked but nothing was explained to the clients nor was any information recorded on a partogtaph

During vaginal examination only one attendant dipped the index finger of his gloved hand into the antiseptic solution The area to be examined was not disinfected sterile surgical gloves were not used nor did the attendants scrub their hands with antiseptic solution prior to examination Also nothing was explained to the mothers before or during vaginal examination and no rectal examination was performed through the vaginal walls

After examination one doctor did not help the client get comfortable and labour was not appropriately managed in his case only In one case the client care strategy correctly recorded in the client's record by SOD All patients delivered lying on their backs An intravenous infusion of syntocinon was given in all three cases Cervical dilatation was assessed every hour and also was assessed vaginally

In all three cases the outcome was FT/LL/CP Unsterilized scissors and thread were used in one case together with umbilical cord clamps while sterilized scissors and thread were used in the other two cases

Only one case had a Median episiotomy done All neonates were dried back massaged and one only was not kept warm No Apgar score was done for any of the infants but they were all in good condition Patency of the airway was ensured and suction was performed Two of the healthe providers left the delivery room immediately after expulsion of the placenta and only one waited half an hour after expulsion of the placenta to leave

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Table (4/15)

4/414 Average Distribution According to Visits to Other Facilities by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Visited Other Facilities During This Pregnancy	40	66 7	11	78 6	11	45 8	18	66 7	10	62 5	17	70 8
Didn t Visit Other Facilities During This Pregnancy	20	33 3	3	21 4	13	54 2	9	33 3	6	37 5	7	29 2
No Who Visited Other Facilities	**40**		**11**		**11**		**18**		**10**		**17**	
Place Visited												
Private Ob/Gyn	36	90 0	10	90 9	8	72 7	17	94 4	10	100 0	15	88 2
Private Physician	2	5 0	0	0 0	2	18 2	0	0 0	0	0 0	1	5 9
MOH Facility	1	2 5	0	0 0	1	9 1	0	0 0	0	0 0	1	5 9
HIO Facility	0	0 0	1	9 1	0	0 0	0	0 0	0	0 0	0	0 0
Other	1	2 5	0	0 0	0	0 0	1	5 6	0	0 0	0	0 0
Reason For Going To Another Facility												
Pregnancy Assurance	7	17 5	4	36 4	2	18 2	1	5 6	2	20 0	1	5 9
Health Assurance check up	17	42 5	1	9 1	0	0 0	5	27 8	3	30 0	2	11 8
Teatment of Ailment	12	30 0	4	36 4	8	72 7	8	44 4	2	20 0	10	58 8
Follow Up on Pregnancy	3	7 5	0	0 0	1	9 1	4	22 2	3	30 0	4	23 5
Other	1	2 5	2	18 2	0	0 0	0	0 0	0	0 0	0	0 0

Table (4/16)

4/415 417 Average Distribution According to No of Pregnancies Livebirths Children Pegnancies Waste and Child Loss By District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
First Pregnancy	17	28 3	4	28 6	7	29 2	7	25 9	6	37 5	5	20 8
More than One Pregnancy	43	71 7	10	71 4	17	70 8	20 0	74 1	10	62 5	19	79 2
No	**43**		**10**		**17**		**17**		**10**		**19**	
Average No of Previous Pregnancies	3 4		1 5		3 6		3 4		2 9		3 5	
Std Dev	2 2		0 8		2 3		1 7		2 2		2 6	
Average No of Live Births	3 0		1 4		2 9		3 0		2 9		2 9	
Std Dev	1 9		0 7		2 2		1 8		2 2		2 0	
Average No of Children Still Alive	2 6		1 2		2 5		2 7		1 8		2 6	
Std Dev	1 7		0 8		1 6		1 9		1 0		1 4	
No of Pregnancy Waste												
0	29	67 4	9	90 0	10	58 8	13 0	76 5	10	100 0	13	68 4
1	11	25 6	1	10 0	4	23 5	6 0	35 3	0	0 0	5	26 3
2	4	9 3	0	0 0	2	11 8	1 0	5 9	0	0 0	0	0 0
3	0	0 0	0	0 0	1	5 9	0 0	0 0	0	0 0	1	5 3
6	0	0 0	0	0 0	1	5 9	0 0	0 0	0	0 0	1	5 3
No of Child Loss												
1	1	2 3	0	0 0	0	0 0	0 0	0 0	0	0 0	0	0 0
0	28	65 1	8	80 0	12	70 6	15 0	88 2	6	60 0	16	84 2
1	10	23 3	2	20 0	4	23 5	4 0	23 5	2	20 0	1	5 3
2	4	9 3	0	0 0	0	0 0	1 0	5 9	0	0 0	1	5 3
4	0	0 0	0	0 0	1	5 9	0 0	0 0	1	10 0	1	5 3
6	0	0 0	0	0 0	0	0 0	0 0	0 0	1	10 0	0	0 0

Table (4/17)

4/418 420 Average Distribution According to Complications of Previous Pregnancy Delivery & Normality of Baby By District

No Had Previous Pregnancies	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	43		10		17		20		10		19	
	No	%	No	%	No	%	No	%	No	%	No	%
Last Pregnancy Was												
Normal	35	81 4	9	90 0	13	76 5	18	90 0	7	70 0	14	73 7
General Weakness/Anemia/Faintings	4	9 3	1	10 0	2	11 8	1	5 0	1	10 0	1	5 3
Headache/Swelling/Blurred Vision/High BP	2	4 7	0	0 0	2	11 8	0	0 0	2	20 0	0	0 0
Convulsion	3	7 0	0	0 0	1	5 9	0	0 0	0	0 0	1	5 3
Abortions	3	7 0	0	0 0	1	5 9	2	10 0	1	10 0	1	5 3
Other	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	2	10 5
Last Delivery Was												
Normal	36	83 7	10	100 0	12	70 6	15	75 0	8	80 0	13	68 4
Complicated	7	16 3	0	0 0	5	29 4	5	25 0	2	20 0	6	31 6
No	7		0		5		5		2		6	
CS	0	0 0	0	0 0	1	20 0	3	60 0	0	0 0	0	0 0
Antenatal Hemorrhage	2	28 6	0	0 0	0	0 0	0	0 0	1	50 0	0	0 0
Postpartum Hemorrhage	0	0 0	0	0 0	0	0 0	0	0 0	1	50 0	0	0 0
Prolonged Labor	5	71 4	0	0 0	2	40 0	1	20 0	0	0 0	2	33 3
No	43		10		17		20		10		19	
Baby Was												
Normal	36	83 7	9	90 0	12	70 6	17	85 0	8	80 0	15	78 9
Stillborn	3	7 0	1	10 0	0	0 0	0	0 0	1	10 0	0	0 0
Cogicated Abnormality	2	4 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Low Birth Rate/Premature Birth	3	7 0	0	0 0	3	17 6	1	5 0	1	10 0	0	0 0
Icterus	1	2 3	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Respiratory Distress	0	0 0	0	0 0	0	0 0	1	5 0	0	0 0	0	0 0

Table (4/18)

4/421 423 Average Distribution According to Place of Delivery Provider and Home Visits After Delivery by District

	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
No Who Had Previous Pregnancies	43		10		17		20		10		19	
	No	%	No	%	No	%	No	%	No	%	No	%
Place of Last Delivery												
Home	37	86 0	3	30 0	10	58 8	8	40 0	4	40 0	13	68 4
Facility/District Hospital	1	2 3	2	20 0	2	11 8	0	0 0	2	20 0	0	0 0
Urban Health Center	0	0 0	0	0 0	0	0 0	1	5 0	0	0 0	0	0 0
General Hospital	4	9 3	5	50 0	0	0 0	8	40 0	3	30 0	1	5 3
Clinic/Private Hospital	1	2 3	0	0 0	3	17 6	2	10 0	1	10 0	1	5 3
Provider Assisted Woman in Delivery												
Nurse/Mid wife	7	16 3	0	0 0	1	5 9	0	0 0	2	20 0	5	26 3
Health Center Physician	13	30 2	4	40 0	5	29 4	1	5 0	3	30 0	0	0 0
Hospital Specialist	5	11 6	4	40 0	1	5 9	9	45 0	3	30 0	1	5 3
Private Physician	3	7 0	0	0 0	2	11 8	2	10 0	2	20 0	1	5 3
No One	0	0 0	0	0 0	0	0 0	1	5 0	0	0 0	0	0 0
Daya	15	34 9	2	20 0	6	35 3	6	30 0	0	0 0	8	42 1
Provider Visited Woman After Delivery	20	46 5	2	20 0	4	23 5	3	15 0	6	60 0	7	36 8
Provider Did not Visit Woman After Delivery	23	53 5	8	80 0	11	64 7	16	80 0	4	40 0	8	42 1
Sent Someone Else to Visit Her	1	4 3	1	12 5	1	9 1	1	6 3	0	0 0	1	12 5
Sent Physician	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	1	100 0
Nurse	1	100 0	1	100 0	1	100 0	0	0 0	0	0 0	0	0 0
Daya	0	0 0	0	0 0	0	0 0	1	100 0	0	0 0	0	0 0
Mean No of Days After Which Client Was Visited	3 4		3 7		5 0		11 3		2 7		2 9	
Std Dev	1 9		2 9		2 7		12 8		2 2		1 8	

Table (4/19)

4/424 425 Average Distribution According to Cost of Delivery and Cost Details by District

	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
No Who Had Previous Pregnancies	43		10		17		20		10		19	
	No	%	No	%	No	%	No	%	No	%	No	%
Mean No of Days After Which Client Was Visited	41 0		87 0		93 8		149 4		118 5		33 1	
Std Dev	38 6		57 7		138 5		311 2		129 9		38 8	
Cost Was For												
Delivery Fees	39	90 7	6	60 0	13	76 5	10	50 0	7	70 0	13	68 4
Hospital Charges	0	0 0	2	20 0	2	11 8	7	35 0	3	30 0	0	0 0
Drugs and Supplies	20	46 5	9	90 0	6	35 3	10	50 0	11	110 0	3	15 8
Transportation	2	4 7	6	60 0	1	5 9	2	10 0	3	30 0	1	5 3

QUESTIONNAIRE # 5

MATERNAL AND NEO-NATAL HEALTH

Location	**Number and Percentage Distribution According to Location of Interview by District**
Table (5/1)	**Number and Percentage Distribution According to the Place of Delivery and Average Days Stayed at Facility by District**
Table (5/2)	**Percentage Distribution According to Baby Type and Average Days Since Delivery by District**
Table (5/3)	**Percentage Distribution According to Type of Provider Who Practiced the Delivery by District**
Table (5/4)	**Percentage Distribution According to Complications Experienced in Delivery by District**
Table (5/5)	**Percentage Distribution of Women According to Their Experience with Difficult Deliveries, Abortions and Stillbirths by District**
Table (5/6)	**Percentage Distribution of Women Who Received Home Visits After Delivery and Their Opinion of the Importance of Home Visits by District**
Table (5/7)	**Percentage Distribution of Women Who Were Advised to Visit Health Facility After Delivery by Type of Provider and Number of Days After Which They Were Advised to Go by District**
Table (5/8)	**Percentage Distribution of Women Who Were Advised to Visit Health Facility After Delivery and Intention for Revisit by District**
Table (5/9)	**Percentage Distribution of Women Who Had Home Visits by Number of Visits, Timing of First Visit After Delivery and Type of Provider by District**
Table (5/10)	**Percentage Distribution According to Out-Patient Services Received by District**
Table (5/11)	**Percentage Distribution According Reason for Staying at Hospital, Problems Faced and Last Check From Provider by District**
Table (5/12)	**Percentage Distribution of Women According to Questions Asked by Provider During Postpartum Service and**

Observation by Provider While Breastfeeding by District
Table (5/13) Percentage Distribution of Women According to Examinations Occurring During Postpartum Service by District
Table (5/14) Percentage Distribution of Women According to Examinations Occurring During Postpartum Service by District
Table (5/15) Percentage Distribution of Women According to Their Definition of Exclusive Breastfeeding by District
Table (5/16) Percentage Distribution of Women According Their Satisfaction with Chance Given to Them for Asking Questions by District
Table (5/17) Percentage Distribution According to Timing and Cost of Check-UP by District
Table (5/18) Percentage Distribution According to Satisfaction with Provider and Services Provided by District

Tables (5) - Location

5 **Number and Percentage Distribution of Sample According to Location of Interview by District**

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Location												
Home	27	90 0	9	75 0	9	81 8	6	50 0	2	50 0	13	86 7
Health Facility After Receiving Outpatient Service	0	0 0	1	8 3	0	0 0	1	8 3	0	0 0	0	0 0
Health Facility Staying Some Days After Delivery	3	10 0	2	16 7	2	18 2	5	41 7	2	50 0	2	13 3

Table (5/1)

5/101 **Number and Percentage Distribution According to the Place of Delivery and Average Days Stayed at Facility by District**

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Delivery Took Place at												
General/District Hospital	5	16 7	9	75 0	4	36 4	6	50 0	0	0 0	4	26 7
Other Governmental Health Facility	3	10 0	0	0 0	2	18 2	0	0 0	3	75 0	0	0 0
Private Hospital/Clinic	1	3 3	0	0 0	0	0 0	2	16 7	1	25 0	0	0 0
Home	21	70 0	3	25 0	5	45 5	4	33 3	0	0 0	11	73 3
Total Deliveries Taking Place at Facilities	9 0	30 0	9 0	75 0	6 0	54 5	8 0	66 7	4 0	100 0	4 0	26 7
Average Days Stayed at Facility	2 3		2 1		1 3		5 6		2 0		9 0	
Std Dev	2 1		3 4		1 5		3 5		0 8		14 0	

Table (5/2)

5/102 103 Percentage Distribution According to Baby Type and Average Days Since Delivery by District

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Gave Birth To												
Boy	12	40 0	8	66 7	3	27 3	3	25 0	1	25 0	10	66 7
Girl	13	43 3	4	33 3	7	63 6	8	66 7	3	75 0	5	33 3
Twins	4	13 3	0	0 0	1	9 1	0	0 0	0	0 0	0	0 0
Stillbirth	1	3 3	0	0 0	0	0 0	1	8 3	0	0 0	0	0 0
Average Days Since Delivery	11 5		16 5		10 2		16 8		10 3		15 1	
Std Dev	8 9		13 5		6 3		11 9		12 7		11 1	

Table (5/3)

5/104 Percentage Distribution According to Type of Provider Who Practised the Delivery by District

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Delivered By												
Obstetrician	6	20 0	7	58 3	4	36 4	8	66 7	4	100 0	3	20 0
General Practitioner	17	56 7	5	41 7	5	45 5	0	0 0	0	0 0	3	20 0
Nurse/Midwife	6	20 0	0	0 0	1	9 1	2	16 7	0	0 0	6	40 0
Dava (TBA)	1	3 3	0	0 0	1	9 1	2	16 7	0	0 0	3	20 0

Table (5/4)

5/105 106 Percentage Distribution According to Complications Experienced in Delivery by District

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Normal Deliveries	22	73 3	9	75 0	6	54 5	6	50 0	4	100 0	12	80 0
Complicated Deliveries	8	26 7	3	25 0	5	45 5	6	50 0	0	0 0	3	20 0
No	**8**		**3**		**5**		**6**		**0**		**3**	
Prolonged Labor	6	20 0	1	8 3	0	0 0	0	0 0	0	0 0	0	0 0
CS	2	6 7	1	8 3	1	9 1	6	50 0	0	0 0	2	13 3
Vaginal Incision	1	3 3	0	0 0	2	18.2	1	8 3	2	50 0	1	6 7
Postpartum Hemorrhage	2	6 7	2	16 7	1	9 1	1	8 3	0	0 0	1	6 7
No Difficulty	20	66 7	8	66 7	6	54 5	4	33 3	2	50 0	11	73 3
Other	0	0 0	0	0 0	1	9 1	0	0 0	0	0 0	0	0 0

* Interviewees gave more than one answer so percentage totals more than 100%

Table (5/5)

5/107 108 Percentage Distribution of Women According to Their Experience with Difficult Deliveries Abortions and Stillbirths by District

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Experienced Difficulties	6	20 0	2	16 7	3	27 3	1	8 3	0	0 0	5 0	33 3
Haven t Experienced Difficulties	15	50 0	6	50 0	5	45 5	4	33 3	0	0 0	8 0	53 3
Primipara	9	30 0	4	33 3	3	27 3	7	58 3	4	100 0	2 0	13 3
No Experienced Previous Abortions												
0	22	73 3	8	66 7	9	81 8	10	83 3	4	100 0	0 0	0 0
1	5	16 7	3	25 0	2	18 2	1	8 3	0	0 0	1 0	6 7
2	2	6 7	1	8 3	0	0 0	1	8 3	0	0 0	1 0	6 7
3+	1	3 3	0	0 0	0	0 0	0	0 0	0	0 0	13 0	86 7
No Experienced Stillbirths												
0	26	86 7	7	58 3	9	81 8	10	83 3	4	100 0	13 0	86 7
1	2	6 7	3	25 0	0	0 0	2	16 7	0	0 0	2 0	13 3
2	1	3 3	1	8 3	1	9 1	0	0 0	0	0 0	0 0	0 0
3+	1	3 3	1	8 3	1	9 1	0	0 0	0	0 0	0 0	0 0

Table (5/6)

5/201 202 **Percentage Distribution of Women Who Received Home Visits After Delivery and Their Opinion of the Importance of Home Visits by District**

No Interviewed at Home	District											
	Edfu 27		Daraw 9		Kom Ombo 9		Aswan 6		Nasr 2		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Recieved Home Visits	10	37 0	7	77 8	3	33 3	5	83 3	2	100 0	11	84 6
Did Not Recieve Home Visits	17	63 0	2	22 2	6	66 7	1	16 7	0	0 0	2	15 4
No	**17**		**2**		**6**		**1**		**0**		**2**	
Prefer to Have Received Home Visits	8	47 1	0	0 0	1	16 7	1	100 0			2	100 0
Do Not Prefer to Have Received Home Visits	9	52 9	2	100 0	5	83 3	0	0 0			0	0 0
Reasons Given for Preference of Home Visits(N	**8**		**0**		**1**		**1**				**2**	
Assurance of Mother s Health	6	75 0			0	0 0	1	100 0			1	50 0
Assurance of Baby s Health	5	62 5			1	100 0	1	100 0			1	50 0
Others	1	12 5			0	0 0	0	0 0			0	0 0
Reasons Given for Non Preference (N)	**9**		**2**		**5**		**0**				**0**	
Of No Value	2	22 2	0	0 0	0	0 0						
Unnecessarv	6	66 7	2	100 0	5	100 0						
Others	1	11 1	0	0 0	0	0 0						

Table (5/7)

5/203 **Percentage Distribution of Women Who Were Advised to Visit Health Facility After Delivery by Type of Provider and Number of Days After Which They Were Advised to Go by District**

No Did Not Recieve Home Visits	District											
	Edfu 17		Daraw 2		Kom Ombo 6		Aswan 1		Nasr 0		Luxor 2	
	No	%	No	%	No	%	No	%	No	%	No	%
Advised to Visit the Facility After Delivery	1	5 9	0	0 0	0	0 0	0	0 0			0	0 0
Not Advised to Visit the Facility After Delivery	16	94 1	2	100 0	6	100 0	1	100 0			2	100 0
Provider that Advised Her to Visit Facility												
Physician	1	100 0	0	0 0	0	0 0	0	0 0			0	0 0
Days After Which to Visit Facility												
7 days	1	100 0	0	0 0	0	0 0	0	0 0			0	0 0

Table (5/8)

5/204-205 Percentage Distribution of Women Who Were Advised to Visit Health Facility After Delivery and Intention for Revisit by District

No Did Not Recieve Home Visits	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	17		2		6		1		0		2	
	No	%	No	%	No	%	No	%	No	%	No	%
Visited Facility After Delivery	2	11 8	0	0 0	0	0 0	1	100 0			0	0 0
Did Not Visit Facility After Delivery	15	88 2	2	100 0	6	100 0	0	0 0			2	100 0
No Visited Facility	**2**		**0**		**0**		**1**				**0**	
Facility Visited												
MCH	0	0 0					1	100 0				
Rural Health Center	2	100 0					0	0 0				
No Did Not Visit Facility	**15**		**2**		**6**		**0**				**2**	
Intend to Visit Facility	5	33 3	1	50 0	0	0 0					1 0	50 0
Do Not Intend to Visit Facility	10	66 7	1	50 0	6	100 0					1 0	50 0

Table (5/9)

5/206 8 Percentage Distribution of Women Who Had Home Visits by Number of Visits, Timing of First Visit After Delivery and Type of Provider by District

Received Home Visits from Facility	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	10		7		3		5		2		11	
	No	%	No	%	No	%	No	%	No	%	No	%
Visited By Facility More Than Once	5	50 0	4	57 1	2	66 7	4	80 0	2	100 0	8	72 7
Visited Only Once	5	50 0	3	42 9	1	33 3	1	20 0	0	0 0	3	27 3
No of Visits Received												
1	1	10 0	0	0 0	0	0 0	0	0 0	0	0 0	2	18 2
2	4	40 0	1	14 3	1	33 3	1	20 0	0	0 0	2	18 2
3+	1	10 0	3	42 9	1	33 3	3	60 0	2	100 0	4	36 4
No of Days From Delivery Before First Visit												
1	1	10 0	3	42 9	0	0 0	0	0 0	1	50 0	2	18 2
2	4	40 0	3	42 9	1	33 3	4	80 0	1	50 0	6	54 5
3	1	10 0	0	0 0	1	33 3	0	0 0	0	0 0	2	18 2
4+	3	30 0	1	14 3	1	33 3	1	20 0	0	0 0	1	9 1
Visited By												
Nurse	5	50 0	5	71 4	2	66 7	5	100 0	1	50 0	10	90 9
Physician	2	20 0	2	28 6	1	33 3	0	0 0	1	50 0	1	9 1

Table (5/10)

5/3 All Percentage Distribution According to Out-Patient Services Received by District

No Interviewed After Receiving Service	District			
	Daraw 1		Aswan 1	
	No	%	No	%
First Visit After Delivey	1	100 0	1	100 0
Reason for Visit on Day of Interview				
Due to Illness	0	0 0	1	100 0
Family Planning	1	100 0	0	0 0
Type of Provider				
Physician	1	100 0	1	100 0
Did Not Receive Home Visits	1	100 0	1	100 0

Table (5/11)

5/4 All Percentage Distribution According to Reason for Satying at Hospital, Problems Faced and Last Check From Provider by District

No Stayed at Hospital After Delivery	District											
	Edfu 3		Daraw 2		Kom Ombo 2		Aswan 5		Nasr 2		Luxor 2	
	No	%	No	%	No	%	No	%	No	%	No	%
Average Davs Spent at Hospital	4 7		1 5		3 0		7 6		2 5		16 5	
Std Dev	3 1		0 7		0 0		2 7		0 7		19 1	
Reason for Coming to Hospital												
Delivery	3	100 0	2	100 0	2	100 0	5	100 0	2	100 0	2	100 0
Problem Faced After Delivery												
Postpartum hemorrhage	1	33 3	1	50 0	0	0 0	0	0 0	0	0 0	0	0 0
Surgery	0	0 0	0	0 0	2	100 0	5	100 0	2	100 0	2	100 0
Other	2	66 7	1	50 0	0	0 0	0	0 0	0	0 0	0	0 0
Last Time Checked By Provider in Days												
0	0	0 0	1	50 0	2	100 0	2	40 0	0	0 0	0	0 0
1	3	100 0	1	50 0	0	0 0	3	60 0	1	50 0	2	100 0
2	0	0 0	0	0 0	0	0 0	0	0 0	1	50 0	0	0 0

Table (5/12)

5/501 503 **Percentage Distribution of Women According to Questions Asked by Provider During Postpartum Service and Observation by Provider While Breastfeeding by District**

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
No Asked About the Occurence of												
Bleeding	7	46 7	9	90 0	2	40 0	7	58 3	3	75 0	9	69 2
Discharge	7	46 7	7	70 0	1	20 0	4	33 3	3	75 0	8	61 5
Constipation	9	60 0	6	60 0	2	40 0	6	50 0	3	75 0	10	76 9
No Asked About												
Whether She Is Breastfeeding	12	80 0	9	90 0	2	40 0	10	83 3	4	100 0	11	84 6
Frequency of Breastfeeding	8	53 3	3	30 0	0	0 0	7	58 3	3	75 0	6	46 2
Length of Breastfeeding	6	40 0	1	10 0	0	0 0	4	33 3	3	75 0	4	30 8
Whether She Gives Baby Milk or Other Liquids	9	60 0	4	40 0	2	40 0	7	58 3	3	75 0	9	69 2
Whether She Has Any Breastfeeding Problems	7	46 7	7	70 0	1	20 0	5	41 7	3	75 0	8	61 5
Observed While Breastfeeding	6	40 0	4	40 0	2	40 0	5	41 7	3	75 0	7	53 8

Table (5/13)

5/504 505 **Percentage Distribution of Women According to Examinations Occuring During Postpartum Service by District**

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Examined												
Temperature	11	73 3	8	80 0	3	60 0	10	83 3	3	75 0	8	61 5
Blood Pressure	8	53 3	4	40 0	1	20 0	7	58 3	3	75 0	5	38 5
Abdomen	9	60 0	7	70 0	1	20 0	3	25 0	4	100 0	7	53 8
Breast	8	53 3	6	60 0	1	20 0	2	16 7	4	100 0	6	46 2
Genitalia	8	53 3	3	30 0	0	0 0	2	16 7	3	75 0	4	30 8
Baby Examined	9	60 0	3	30 0	1	20 0	9	75 0	2	50 0	10	76 9

Table (5/14)

5/504 505 **Percentage Distribution of Women According to Advice Given By Provider During Examinations Occuring During Post Partum Services by District**

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Given Advice on												
Proper Nutrition	7	46 7	6	60 0	2	40 0	7	58 3	4	100 0	9	69 2
Exercise	2	13 3	3	30 0	0	0 0	1	8 3	2	50 0	1	7 7
Personal Hygiene	7	46 7	6	60 0	1	20 0	4	33 3	4	100 0	8	61 5
Care for Baby	8	53 3	6	60 0	1	20 0	3	25 0	4	100 0	6	46 2
Vaccination of Baby	5	33 3	4	40 0	1	20 0	5	41 7	4	100 0	9	69 2
Family Planning	5	62 5	6	200 0	1	20 0	1	16 7	4	100 0	5	166 7
Other	0	0 0	0	0 0	0	0 0	1	8 3	0	0 0	0	0 0
Advised on the Importance of												
Breastfeeding on Demand (Day & Night)	7	46 7	5	50 0	2	40 0	5	41 7	4	100 0	10	76 9
Exclusive Breastfeeding	5	33 3	5	50 0	3	60 0	5	41 7	4	100 0	7	53 8
Continuous Breastfeeding	5	33 3	4	40 0	1	20 0	6	50 0	4	100 0	5	38 5
Avoiding Bottle Feeding and Pacifiers	5	33 3	2	20 0	1	20 0	7	58 3	2	50 0	4	30 8
How & Where to Get Assistance for Problems	6	40 0	4	40 0	2	40 0	6	50 0	4	100 0	5	38 5

Table (5/15)

5/508 **Percentage Distribution of Women According to Definition of Exclusive Breastfeeding Given by District**

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Gave Right Answer	7	46 7	3	30 0	0	0 0	5	41 7	2	50 0	5	38 5
Gave Wrong Answer	0	0 0	1	10 0	1	20 0	1	8 3	1	25 0	1	7 7
Did not Know	8	53 3	6	60 0	4	80 0	6	50 0	1	25 0	7	53 8

Table (5/16)

5/509 10 Percentage Distribution of Women According Their Satisfaction with Chances Given to Them for Asking Questions by District

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Given Chance to Ask Questions	2	13 3	2	20 0	1	20 0	5	41 7	3	75 0	8	61 5
Not Given Chance to Ask Questions	2	13 3	2	20 0	1	20 0	2	16 7	1	25 0	2	15 4
Did Not Need to Ask Questions	11	73 3	6	60 0	3	60 0	5	41 7	0	0 0	3	23 1
No	2		2		1		5		3		8	
Given Responses Were												
Somewhat Helpful	1	50 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Very Helpful	1	50 0	2	100 0	1	100 0	5	100 0	3	100 0	8	100 0

Table (5/17)

5/511 12 Percentage Distribution According to Timing and Cost Details of Check-up by District

No of Cases	District											
	Edfu 15		Daraw 10		Kom Ombo 5		Aswan 12		Nasr 4		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Average Time Taken in Check Up (In Min)	27 0		25 0		17 0		19 6		35 0		24 2	
Std Dev	15 3		16 0		24 1		9 4		17 3		18 0	
Average Cost of Visit (In LE)	15 0		19 2		0 0		10 0		30 0		10 0	
Std Dev	10 0		21 1		0 0		14 1				0 0	
Cost Was For												
Transportation	0	0 0	4	40 0	0	0 0	0	0 0	0	0 0	0	0 0
Fees for Provider	4	26 7	4	40 0	1	20 0	2	16 7	0	0 0	1	7 7
Drugs and Supplies	4	26 7	1	10 0	0	0 0	0	0 0	1	25 0	0	0 0

Table (5/18)

5/6 All Percentage Distribution According to Satisfaction with Provider and Services Provided by District

No of Cases	District											
	Edfu 30		Daraw 12		Kom Ombo 11		Aswan 12		Nasr 4		Luxor 15	
	No	%	No	%	No	%	No	%	No	%	No	%
Felt Provider Polite and Friendly	15	50 0	7	58 3	5	45 5	12	100 0	4	100 0	13	86 7
Did Not Feel Provider Polite and Friendly	0	0 0	3	25 0	0	0 0	0	0 0	0	0 0	0	0 0
Satisfied With Services Received	15	50 0	7	58 3	5	45 5	12	100 0	4	100 0	13	86 7
Not Satisfied With Services Received	0	0 0	3	25 0	0	0 0	0	0 0	0	0 0	0	0 0
Reasons for Satisfaction (No)	15		7		5		12		4		13	
Positive Interaction	7	46 7	4	57 1	5	100 0	4	33 3	0	0 0	7	53 8
Assurance	8	53 3	1	14 3	2	40 0	6	50 0	3	75 0	7	53 8
Received Instructions	4	26 7	4	57 1	0	0 0	5	41 7	2	50 0	8	61 5
Received Treatment	5	33 3	3	42 9	1	20 0	1	8 3	3	75 0	2	15 4
Other	3	20 0	0	0 0	0	0 0	2	16 7	0	0 0	0	0 0
Reasons for Dissatisfaction (No)	0		3		0		0		0		0	
Not Friendly			3	100 0								
Not Receiving What She Came For			1	0 0								
Not Examined as Expected			1	25 0								

QUESTIONNAIRE # 6

PRENATAL CARE

A General
B Prenatal History
CPrenatal Physical Examination
D Prenatal Laboratory Tests
EPrenatal Management, Referral & Follow-up
FSummary

QUESTIONNAIRE # 7

INTRA PARTUM (LABOR AND DELIVERY) CARE

A General
B Intrapartum History
C Intrapartum Physical Examination
D Management of Labor
E Care of the Newborn
F Summary

QUESTIONNAIRE # 8

POST PARTUM CARE

Not Divided into Sections

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 6

(Prenatal Care)

[48 CASES]

Hospitals/Unit	General Hospital	6 3
	District Hospital	37 5
	MCH	56 3
Position of Main	Head of Dep /Ob /Spec	6 3
	Specialist	2 1
	Senior Resident	4 2
	Resident & Junior	41 7
	Pediatritions	8 3
	In Charge	37 5
Position of Assistant	Senior Resident	2 1
	Resident/Junior	4 2
	Nurses	70 8
	One Position Only	22 9

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Questions	Yes (%)	No (%)	NA (%)
A GENERAL			
A1 Did the Health Provider (HP)			
1 Welcome the client?	100		
2 Reassure her?	70 8	29 2	
3 Clearly explain what will be done?	16 7	83 3	
A2 Was the HP's attitude			
1 Friendly?	91 7	8 3	
2 Hostile?		100	
3 Indifferent?	8 3	91 7	
A3 Did the HP			
1 Ask for personal data?	100		
2 Correctly record personal data?	85 4	14 6	
3 Review existing personal data in record?	52 1	27 1	20 8

	Questions	Yes (%)	No (%)	NA (%)
B	***PRENATAL HISTORY***			
B1	Does a skill checklist protocol or procedure for prenatal history taking with symptoms for the problems listed in B7 exist?			
	If yes Was it correctly followed by HP?	18 8		81 3
	Was history correctly recorded by HP?	18 8		81 3
	If no Was an appropriate history taken by HP?	54 2	27 1	18 8
	Was history correctly recorded by HP?	60 4	20 8	18 8
B2	Upon completion of the prenatal history, did the HP note previous pregnancy history?	100		
	If yes did the HP note			
	1 Number of pregnancies?	100		
	2 Number of abortions?	95 8		4 2
	3 Number of live births?	95 8		4 2
	4 Number of stillbirths?	95 8		4 2
B3	Has the HP also noted in the prenatal history if this was the first visit?	93 8	6 3	
	If it was not the first visit (go to B5)			
	Has s/he determined which visit it was? visit no -------	45 8	54 2	
	Visit Number 1	31 3		
	2	10 4		
	3	2 1		
	4	2 1		
	Do Not K now	54 2		
B4	Did the HP determine the duration of present pregnancy?	100		
B5	Did the HP ask her about her previous breastfeeding history?	22 9	70 8	6 3
	If yes did s/he ask her about			
	(If she has other children)			
	1 Previous breastfeeding experience?	20 8		79 2
	(If this is her first pregnancy)			
	1 Breastfeeding experience of other family members?		8 3	91 7
	2 Previous breast surgery?		8 3	91 7
	3 Family/social support for breastfeeding?		8 3	91 7
	4 Anticipated separation such as return to work?		8 3	91 7

Questions	Yes (%)	No (%)	NA (%)
B6 Did the HP ask and note questions concerning risk factors			
1 Previous abortion(s)?	100		
2 Fetal death(s)?	100		
3 Bleeding?	52 1	47 9	
4 Diabetes?	58 3	41 7	
5 Hypertension?	77 1	22 9	
6 Smoking?	8 3	91 7	
7 Previous complications with delivery?	52 1	47 9	
8 TT immunization status?	100		
9 Note TT immunization status in record if not already recorded?	97 9	2 1	
B7 a If applicable were the symptoms for the following problems correctly identified by the HP?			
1 Antepartum hemorrhage, placenta abruption?		20 8	79 2
2 Antepartum hemorrhage, placenta previa?		20 8	79 2
3 Hypertension/renal problems?	16 7	8 3	75 0
4 Rheumatic heart disease?	4 2	20 8	75 0
5 Pre-eclampsia and eclampsia?	12 5	14 6	72 9
6 The three types of abortion?	10 4	12 5	77 1
7 Anemia?	77 1	2 1	20 8
8 Diabetes?	14 6	14 6	70 8
9 Ectopic pregnancy?		25 0	75 0
10 Premature rupture of membranes?	10 4	20 8	68 8
11 Schistosomiasis?	22 9	20 8	56 3
12 Urinary tract infection (UTI)?	22 9	20 8	56 3
B7 b Were the symptoms for any of the above problems correctly recorded by the HP in the client's record?	60 4	27 1	12 5

Questions	Yes (%)	No (%)	NA (%)
C PRENATAL PHYSICAL EXAMINATION			
C1 Prior to starting the physical examination did the HP			
1 Explain what s/he was going to do?	8 3	91 7	
2 Wash her/his hands with soap and water?	2 1	97 9	
3 If a vaginal examination was required were clean gloves used?	2 1	29 2	68 8
C2 Does a skill checklist, protocol or procedure for prenatal physical examination with signs for the problems listed in B7 exist?			
If yes Was it correctly followed by HP?	8 3	2 1	89 6
Were physical examination findings correctly recorded by HP?	8 3	2 1	89 6
If no Was an appropriate physical examination performed by HP?	66 7	22 9	10 4
Were physical examination findings correctly recorded by HP?	60 4	29 2	10 4

C3 At the beginning of the physical examination did HP

	Check/record information		Correctly measure		Fail to check record/measure		
	YES	NO	YES	NO	YES	NO	NA
1 Height?	87 5	12 5	87 5	12 5	12 5	87 5	___
2 Weight?	85 4	14 6	85 4	14 6	14 6	85 4	___
3 BP?	97 9	2 1	97 9	2 1	2 1	97 9	___

Questions	Yes (%)	No (%)	NA (%)
C4 Did s/he examine her breasts?		100	
C5 a During the prenatal examination did the HP note			
1 Auscultated the heart?	97 9	2 1	
2 Auscultated and purcussed the lungs?	62 5	37 5	
3 Fundal height or uterine size (<20 weeks)?	60 4	25 0	14 6
4 Fetal heart rate (<20 weeks)?	56 3	43 8	
5 Presence or absence of edema?	97 9	2 1	
6 Patellar reflex?	58 3	41 7	
7 Fetal presentation and lie (>28 weeks)?	43 8	27 1	29 2
C5 b Were findings concerning the above correctly recorded by the HP in the client's record as appropriate?	64 6	35 4	
C6 Were the signs of any of the above problems correctly recorded by the HP in the client's record?			

	Questions	Yes (%)	No (%)	NA (%)
D	***PRENATAL LABORATORY TESTS***			
D1	Does a skill checklist, protocol or procedure for prenatal laboratory tests exist?			
	If yes Was it correctly followed by HP?	39 6	16 7	43 8
	Were the laboratory findings correctly recorded by HP?	22 9	33 3	43 8
	If no Were appropriate laboratory tests ordered or performed by HP?	37 5	6 3	56 3
	Were laboratory test results correctly recorded by HP?	27 1	14 6	58 3
D2 a	Depending on the prenatal history and physical examination, were the following routine laboratory test(s) ordered as appropriate			
	First visit			
	1 Complete blood count?	43 8	41 7	14 6
	2 Urinalysis?	75 0	10 4	14 6
	3 Stool for ova and parasites?	33 3	52 1	14 6
	4 Blood type and Rh?	79 2	6 3	14 6
	5 VDRL?	18 8	43 8	37 5
	6 Pre-prandial blood glucose?	37 5	47 9	14 6
	24-28 weeks			
	7 1 hour post prandial blood glucose		31 3	68 8
	36 weeks			
	8 Hematocrit		33 3	66 7
	9 Urinalysis	25 0	8 3	66 7
	10 VDRL	4 2	29 2	66 7
D2 b	If available at the time of the observer's visit were the results of the above test(s)			
	1 Correctly recorded in the client's record?	70 8	12 5	16 7
	2 Correctly interpreted by the HP?	50 0	33 3	16 7

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Questions	Yes (%)	No (%)	NA (%)
E PRENATAL MANAGEMENT, REFERRAL & FOLLOW-UP			
E1 Does a skill checklist, protocol or procedure for prenatal care, referral and follow-up exist?			
If yes 1 Was it correctly followed by HP?	31 3	8 3	60 4
2 Were the history and physical examination findings and care strategy explained to the client?		39 6	60 4
3 Was the client care strategy correctly recorded in the client's record by HP?	16 7	22 9	60 4
If no 1 Were the history and physical examination findings and care strategy explained to the client?	16 7	43 8	39 6
2 Were appropriate care, referral and follow-up planned and carried out with client by HP?	33 3	27 1	39 6
3 Was the client care strategy correctly recorded in the client's record by HP?	18 8	41 7	39 6
E2 a A basic education plan was discussed with the patient			
1st trimester			
1 Prevent and manage anemia?	35 4		64 6
2 Adequate nutrition?	35 4		64 6
3 Signs of abortion?	8 3	27 1	64 6
4 Nausea and vomiting?	25 0	10 4	64 6
5 Urinary problems?	16 7	18 8	64 6
2nd trimester			
6 Adequate nutrition?	33 3		66 7
7 Vaginal bleeding or discharge?	27 1	6 3	66 7
8 Premature labor?	18 8	14 6	66 7
9 Premature rupture of the membranes?	2 1	31 3	66 7
10 Signs of pre-eclampsia?	16 7	16 7	66 7
11 Urinary symptoms?	33 3		66 7

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Questions	Yes (%)	No (%)	NA (%)
3rd trimester			
12 Adequate nutrition?	29 2	2 1	68 8
13 Normal labor and hospital routine?	10 4	20 8	68 8
14 Vaginal bleeding or discharge?	14 6	16 7	68 8
15 Premature labor?	8 3	22 9	68 8
16 Premature rupture of the membranes?	8 3	22 9	68 8
17 Signs of pre-eclampsia?	31 3		68 8
18 Urinary symptoms?	27 1	4 2	68 8
19 Abnormal birth (breech twin transverse c-section)?		31 3	68 8
E2 b The client education plan was correctly recorded in the client's record by HP?		100	
E3 Did s/he give her guidance on breastfeeding?	47 9	50 0	2 1
If yes did it include information on			
1 The benefits of breastfeesing?	47 9		52 1
2 The benefits of early initiation of breastfeeding and colostrum?	45 8	2 1	52 1
3 The importance of exclusive breastfeeding up to 6 months?	43 8	4 2	52 1
4 The importance of feeding on demand and its effect on milk supply?	45 8	2 1	52 1
E4 If applicable was care of the following problems correctly implemented by the HP			
1 Antepartum hemorrhage, placenta abruption?		2 1	97 9
2 Antepartum hemorrhage placenta previa?		2 1	97 9
3 Hypertension/renal problems?	10 4		89 6
4 Rheumatic heart disease?		2 1	97 9
5 Pre-eclampsia and eclampsia?	6 3		93 8
6 The three (3) types of abortion?	2 1		97 9
7 Anemia?	68 8	2 1	29 2
8 Diabetes?	8 3	2 1	89 6
9 Ectopic pregnancy?		2 1	97 9
10 Premature rupture of membranes?		2 1	97 9
12 Schistosomiasis?		2 1	97 9
13 Urinary tract infection(UTI)?	31 3	6 3	62 5

	Questions	Yes (%)	No (%)	NA (%)
F	***SUMMARY***			
F1	Was the data collected by one or more of the following means			
	1 Interview?	87 5	12 5	
	2 Observation?	100		
	3 Record audit?	37 5	62 5	
F2	Would you assess the HP as			
	1 Competent in providing prenatal care?	43 8	56 3	
	2 One needing support to strengthen skills?	70 8	29 2	

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 7

(Intra-partum (Labor & Delivery) Care)

[25 CASES]

Hospitals/Unit	General Hospital	48 0
	District Hospital	52 0
Position of Main	Head of Dep /Ob/Spec	28 0
	Specialist	4 0
	Assistant Specialist	12 0
	Senior Resident	4 0
	Resident &Junior	52 0
Position of Assistant	Senior Resident	20 0
	Resident/Junior	20 0
	Nurses	52 0
	Specialist	4 0
	One Position Only	4 0

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	Questions	Yes (%)	No (%)	NA (%)
A	*GENERAL*			
A1	Did the Health Provider (HP) collect all of the following basic equipment?			
	1 Fetal scope (fetal stethoscope)?	100		
	2 Thermometer?	44 0	56 0	
	3 Sterile gloves?	32 0	68 0	
	4 Bowl?	56 0	44 0	
	5 Cotton Balls?	92 0	8 0	
	6 Pulsometer or watch?	72 0	28 0	
	7 BP apparatus?	100		
	8 Labor record (partograph)			100
	9 Soap & water or antiseptic solution	88 0	12 0	
A2	Did the HP			
	1 Welcome the client?	92 0	8 0	
	2 Reassure her?	80 0	20 0	
	3 Clearly explain what will be done?	20 0	80 0	
	4 Ask the client to lie on her back?	100		
A3	Was the HP's attitude			
	1 Friendly?	96 0	4 0	
	2 Hostile?		100	
	3 Indifferent?	4 0	96 0	
A4	Did the HP			
	1 Ask for personal data?	100		
	2 Correctly record personal data?	96 0	4 0	
	3 Review existing personal data in record?	32 0	56 0	12 0
	4 Review existing prenatal record?	20 0	16 0	64 0
	5 Note any risk factors recorded in the prenatal record?	16 0	4 0	80 0

Questions	Yes (%)	No (%)	NA (%)
B INTRAPARTUM HISTORY			
B1 Does a skill checklist, protocol or procedure for intra-partum history taking exist?		100	
If yes			100
1 Was it correctly followed by HP?			
2 Was history correctly recorded by HP?			100
If no	96 0	4 0	
1 Was an appropriate history taken by HP?			
2 Was history correctly recorded by HP?	76 0	24 0	
B2 Upon completion of the intra-partum history did the HP note			
1 Duration of the current pregnancy?	100		
Complete months 32	4 0		
40	96 0		
2 When labor pains began and how often labor pains occur?	100		
3 Whether the client has been to antenatal clinic?	68 0	32 0	
4 Whether her membranes ruptured ?	68 0	32 0	
If yes Did premature rupture of membranes occur (before labor contractions)?	8 0	60 0	32 0
If yes			
1 How long did it take between occurrence of rupture and delivery?			
Duration 1 hours	4 0		
8 hours	4 0		
10 hours	4 0		
20 hours	4 0		
24 hours	4 0		
NA	80 0		
2 Was the mother given an antibiotic?	20 0	8 0	72 0
5 Did she have any bloody show?	84 0	16 0	
6 Determine if the client has bled from her vagina?	56 0	44 0	
7 When the client last ate?	28 0	72 0	
8 When did the client last passed stool?	12 0	88 0	
9 If referred to the HP, did s/he note who referred the client?	12 0	20 0	68 0
10 Correctly record the intra-partum history?	80 0	20 0	

Questions	Yes (%)	No (%)	NA (%)
C INTRAPARTUM PHYSICAL EXAMINATION			
C1 Prior to starting the physical examination, did the HP			
1 Help client get ready for the examination?	96 0	4 0	
2 Explain what s/he was going to do?	8 0	92 0	
3 Ask the client to pass urine to empty her bladder?	12 0	88 0	
4 Ask the client to lie on her back?	100		
5 Washed her/his hands with soap and water?	28 0	72 0	
C2 Does a skill checklist protocol or procedure for an intra-partum physical examination exist		100	
If yes 1 Was it correctly followed by HP?			100
2 Were physical examination findings correctly recorded by HP?			100
If no 1 Was an appropriate physical examination performed by HP?	80 0	20 0	
2 Were physical examination findings correctly recorded by HP?	76 0	24 0	

C3 At the beginning of the physical examination did HP

	Check/record information		Correctly measure		Fail to check record/measure			
	YES	NO	YES	NO	YES	NO	NA	
1 Height?	4 0	96 0	8 0	92 0		92 0	8 0	___
2 Weight?	40 0	60 0	40 0	60 0		60 0	40 0	___
3 BP?	84 0	16 0	96 0	4 0		4 0	96 0	___
4 Respiration	4 0	96 0	16 0	84 0		84 0	16 0	___
5 Heart Rate	64 0	36 0	84 0	16 0		24 0	76 0	___

Questions	Yes (%)	No (%)	NA (%)
C4 During the general intra-partum examination did the HP			
1 Note general appearance?	100		
2 Check breasts?		100	
3 Check arms?	16 0	84 0	
4 Check legs?	76 0	24 0	
5 Check back?		100	
C5 During the abdominal examination, did the HP			
1 Explain to the client that an abdominal examination was going to be done?	8 0	92 0	
2 Stand by the client's side look at the abdomen and determine the laying of the baby?	84 0	16 0	
3 Perform an acceptable abdominal examination?	100		
4 Listen to and count the fetal heart rate?	100		
5 Record abdominal examination on partograph?			100
6 Explain abdominal findings to client?	4 0	96 0	

Questions	Yes (%)	No (%)	NA (%)
C6 During the vaginal examination did the HP			
1 Make sure that the area had been disinfected?	60 0	40 0	
2 Use sterile surgical gloves?	20 0	80 0	
3 Scrub hands in antiseptic solution?	16 0	84 0	
4 Ask the client to lie on her back with her legs apart and her knees bent?	100		
5 Explain to the client each step of the vaginal examination?		100	
6 Look for discharge in the client's vaginal area?	96 0	4 0	
7 Wash the woman's genital area with soap and water?	48 0	52 0	
8 Dip the index finger of the gloved examining hand into antiseptic solution?	52 0	48 0	
9 Insert finger into client's vagina and checked vaginal wall?	100		
10 Check for any hard stool or scaring in rectum through vaginal wall?	60 0	40 0	
11 Check cervix for its thickness (effacement) and firmness?	100		
12 Determine dilation and effacement of cervix?	100		
13 Note if client's bag of waters has ruptured?	96 0	4 0	
14 Determine the presenting part of the baby and how far the presenting part had come into the pelvis (descent)?	100		
C7 Upon completion of the vaginal examination did the HP			
1 Help the woman get comfortable?	88 0	12 0	
2 Record all findings on the partograph?			100
3 Explain findings to client?	4 0	96 0	

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Questions	Yes (%)	No (%)	NA (%)
D MANAGEMENT OF LABOR			
D1 Does a skill checklist, protocol or procedure for labor management exist?		100	
If yes			
1 Was correctly followed by HP?			100
2 Was the management of labor strategy correctly recorded in the client's record by HP?			100
If no			
1 Was the management of labor strategy explained to client?	8 0	92 0	
2 Was appropriate labor management carried out with client by HP?	56 0	44 0	
3 Was the client care strategy correctly recorded in the client's record by HP?	40 0	60 0	
D2 In what of the following positions did the mother deliver			
1 Laying on her back?	100		
2 Sitting?			100
3 Half sitting?			100
4 Other? _____			
D3 If applicable did HP start correctly an IV infusion?	56 0	44 4	
D4 Did the HP assess cervical dilation every 4 hours or PRM?	84 0	8 0	8 0
D5 Did the HP assess descent of head			
1 Abdominally every hour?	68 0	20 0	12 0
2 Vaginally every 4 hours or PRM?	64 0	24 0	12 0
D6 Were uterine contractions			
1 Latent phase every hour?	12 0	76 0	12 0
2 Active phase every 30 minutes?	96 0	4 0	
D7 Was fetal heart rate checked every 30 minutes or more frequently if necessary?	68 0	32 0	
D8 Were the following maternal vital signs checked			
1 Pulse every 30 minutes?	32 0	68 0	
2 BP every 4 hours?	84 0	12 0	4 0
3 Temperature every 4 hours?	36 0	60 0	4 0
D9 Was urine taken every 2-4 hours or PRM?	8 0	88 0	4 0
D10 If instruments were used during delivery were they clean and sterilized?	40 0	56 0	4 0
D11 Were any of the following medications given			
1 An injection to stimulate labor?	40 0	60 0	
2 An analgesic?	12 0	88 0	

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Questions	Yes (%)	No (%)	NA (%)
If yes was the analgesic correctly administered by 1 IV injection?	12 0		88 0
2 IM injection?		12 0	88 0
3 Nitrous oxide gas?		12 0	88 0
D12 a Was any of the following anesthesia administered			
1 Ether?		12 0	88 0
2 Ketamine?		12 0	88 0
3 Intraval?	12 0		88 0
4 Halothane?		12 0	88 0
5 Other? _____			
D12 b Were complications of anesthesia prevented?	12 0		88 0
D13 Before delivery, did premature separation of the placenta occur?	4 0	96 0	
If yes Was it correctly managed?	4 0	96 0	
D14 If required was an episiotomy or laceration repair performed			
1 Mediolateral episiotomy?	24 0	4 0	72 0
2 Median episiotomy?	4 0	24 0	72 0
3 Cervical laceration repair?		28 0	72 0
D15 Was any of the following prevented, or diagnosed and managed			
1 Premature labor?	4 0		96 0
2 Ruptured uterus?	4 0		96 0
D16 Did the HP correctly manage the following types of labor with the safe delivery of the infant and recovery of the mother			
1 Normal cephalic presentation?	92 0		8 0
2 Breech presentation?	8 0		92 0
3 Transverse presentation?			100
4 Twins?			100
5 Introduce an augmentation of labor?	24 0		76 0
6 Obstructed labor?	8 0	4 0	88 0
7 Forceps delivery?	12 0	4 0	84 0
8 Vacuum extraction?		4 0	96 0
9 C-section?	4 0	4 0	92 0
D17 During delivery, did twisting or prolapse of umbilical cord occur?		100	
If yes was the twisted or prolapsed umbilical cord correctly managed?			100

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Questions	Yes (%)	No (%)	NA (%)
D18 a In case of a cesarean section or forceps delivery	20 0		80 0
1 How long between the mother's arrival and the decision to use forceps/cesarean delivery?			
Time 1 hours	8 0		
2 hours	4 0		
3 hours	4 0		
20 hours	4 0		80 0
NA			
2 Was this an appropriate duration of time?	8 0	8 0	84 0
D18 b For other type of delivery			
1 How much time did it take to complete delivery from the time of mother's arrival?			
Time 2 hours	8 0		
4 hours	4 0		
5 hours	4 0		
6 hours	4 0		
10 hours	8 0		
19 hours	4 0		
20 hours	4 0		
24 hours	4 0		
NA	60 0		
D19 If required did the HP correctly manage the following			100
1 Intrauterine fetal death?			100
2 Septic shock of the mother?			100
3 Retained placenta?			100

Questions	Yes (%)	No (%)	NA (%)
E CARE OF THE NEWBORN			
E1 Was any of the following used to cut the umbilical cord and tying the navel			
1 Clean and sterilized scissors/scalpel and thread?	36 00	64 0	
2 Unsterilized scissors/scapel and thread?	64 0	36 0	
3 Other _____			100
E2 Did the basic newborn care include			
1 Drying the neo-nate with a dry towel? (HP or assistant)	92 0	8 0	
2 Massaging the back during the drying?	76 0	24 0	
3 HP ensuring patency of the airway by placing the neo-nate's head at a level below that of the body, flexing the neck back-wards, and sucking mucus from the mouth?	52 0	48 0	
4 keeping the newborn warm by using dry towels, sheets or blanket? (HP or assistant)	92 0	8 0	
5 HP examining and assessing condition of the neo-nate on the Apgar Scale?		100	
E3 Was the condition of the neo-nate noted by the HP as			
1 Stillborn?		100	
If yes Was stillborn maserated?			100
2 Live born, not in good condition (less than 6 on the Apgar Score)?	8 0	92 0	
3 Live born in good condition (more than 6 on the Apgar Score)?	92 0	8 0	
E4 a Was the newborn weighed?		100	
E4 b Was the newborn's weight recorded? _____ gms			
E5 Did the HP make other anthropological measurements of the newborn including		100	
1 Head circumference?			100
2 Head to heel length?			100
3 Head to breech length?			100
E6 Did the HP			
1 Reassure mother as to the condition of her newborn?	48 0	52 0	
2 Advise the mother on the importance of initiating breast-feeding immediately?	44 0	56 0	
3 Put the newborn to the mother's breast within one hour of delivery? (HP or assistant)	20 0	80 0	
If yes Did the mother breastfeed her baby at this time?	20 0		80 0
E7 Did the HP encourage the mother to breastfeed and/or offer her help?	32 0	64 0	4 0

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Questions	Yes (%)	No (%)	NA (%)
E8 Did the HP leave the delivery room			
1 After the birth of the newborn but before expulsion of the placenta?		96 0	4 0
2 Immediately after expulsion of the placenta?	52 0	44 0	4 0
3 Half an hour or more after expulsion of the placenta?	44 4	52 0	4 0
F Summary			
F1 Was the data collected by one or more of the following means			
1 Interview?	92 0	8 0	
2 Observation?	100		
3 Record audit?	52 0	48 0	
F2 You would assess the HP as			
1 Competent in providing intra-partum care?	28 0	72 0	
2 One needing support to strengthen skills?	88 0	12 0u	

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DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 8

(Post-partum Care)

[25 CASES]

Hospitals/Unit	General Hospital	48 0
	District Hospital	52 0
Position of Main	Head of Dep /Ob/Spec	20 0
	Specialist	8 0
	Senior Resident	16 0
	Resident &Junior	56 0
Position of Assistant	Senior Resident	8 0
	Resident/Junior	24 0
	Nurses	56 0
	One Position Only	12 0

Questions	Yes (%)	No (%)	NA (%)
1 Did the Health Provider (HP) check for			
Pulse?	80 0	20 0	
Blood Pressure?	88 0	12 0	
Temperature?	16 0	84 0	
Amount of Bleeding Per Vagina ?	100		
Fundal Height?	100		
Uterine Atony?	92 0	8 0	
Lacerations?	64 0	32 0	4 0
2 Has s/he recorded his/her findings?	12 0	88 0	
3 How long was the client kept in the delivery room?			
10 Minutes	44 0		
15 Minutes	28 0		
30 Minutes	44 0		
40 Minutes	4 0		
45 Minutes	4 0		
60 Minutes	16 0		
4 Was the client counselled on what to do when she goes home?	52 0	44 0	4 0
5 Was she given clear indications about how/when to report to the hospital or clinic if there is			
Hemorrhage	76 0	24 0	
Pain	60 0	40 0	
Offensive discharge	44 0	56 0	
Fever	68 0	32 0	
6 Was she given an appointment to come and see a physician 4 weeks later?	32 0	64 0	4 0
7 Was she given any counselling on contraception?	28 0	68 0	4 0

APPENDIX II

QUANTITATIVE DATA COLLECTION TOOLS

QUESTIONNAIRE# 1

DISTRICT DIRECTORATE LEVEL

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire#1

(District Directorate Level)

Case No ☐☐

District _____ Hospitals/Unit _____
Name of Principal Interviewed _____ Position _____
Name of Interviewer _____ Date of Interview / /19
Name of Reviewer _____ Date of Review / /19

1 Demographic Data

101 Total population of the District in thousands *from District or CAPMAS Cairo 1996 Census*

Rural	_____	Male	_____	Female	_____
Urban	_____	Male	_____	Female	_____
Total	_____	Total	_____	Total	_____

102 Total number of women of reproductive age _____

103 Total number of births(Jan - Dec 1996) _____

		JAN - DEC 1996	APRIL - JUNE 1997
104	Total number of maternal deaths		
105	Early Neonatal (0-7 days) deaths		
106	Late Neonatal (8-28 days) deaths		
107	Still births		
108	Infant (post-neonatal) deaths		

2 Staff of Hospitals/Health Units and Centers

201 Sufficiency of the following personnel categories

CATEGORY OF PERSONNEL	1 SHORTAGE NO	2 OVERSTAFFED NO	3 ENOUGH NO
Ob/Gyn Specialists			
Ob/Gyn Residents			

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CATEGORY OF PERSONNEL	1 SHORTAGE NO	2 OVERSTAFFED NO	3 ENOUGH NO
Pediatricians			
Anesthesiologists			
General Practitioners			
Blood Transfusion Specialists			
Laboratory Specialists			
Laboratory Technicians			
Pharmacists			
Matron/Nursing Supervisors			
Public Health Nurses			
Midwifery Nurses			
Nurses			
Social Workers			

202 What are the main factors underlying these shortages (if any)

1 Quick turnover of staff ( )
2 Lack of incentives ( )
3 Specializations in short supply in governorate ( )
4 Ministry does not employ ( )
0 Other *(Specify)*

203 How many of the following personnel have received training in the following technical areas in the last 12 months

CATEGORIES OF PERSONNEL	PRENATAL CARE	DELIVERY	POSTPARTUM CARE	NEONATAL CARE	HEALTH SERVICES MNGMT	BREAST-FEEDING	SONAR
1 Ob/Gyn Specialists							
2 Ob/Gyn Residents							
3 Pediatricians	x	x	x				
4 Anesthesiologists	x					x	x
5 General Practitioners							
6 Pharmacists	x	x	x	x		x	x
7 Matron/Nursing Supervisors							x

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Categories of Personnel	Prenatal Care	Delivery	Postpartum Care	Neonatal Care	Health Services Mngmt	Breast-feeding	Sonar
8 Public Health Nurses							x
9 Midwifery Nurses							x
10 Nurses							x

204 What training facilities are available at the Health Department in the field of mother and neonatal care?

205 What trainer resources are available in the field of mother and neonatal care?

206 What are the main training problems that face the District/Health Department?

207 Is there a monitoring system to measure post-training performance of personnel? 1 Yes 2 No
If yes What is this system?

208 Are there functional job descriptions for the following positions Ask to see the records

	1 Yes/2 No	1 Seen/2 Not seen	Date of initiation
1 District Health Officers	_____	_____	_____
2 Health Education Officers	_____	_____	_____
3 District Nurse/Supervisor	_____	_____	_____
4 Hospital Physicians	_____	_____	_____
5 MCH/Urban Health Center Physicians	_____	_____	_____
6 Rural Health Center Physicians	_____	_____	_____
7 MCH/UHC Nurse	_____	_____	_____
8 Midwifery/Nurses in Hospital	_____	_____	_____
9 Rural Health Center Midwives/Nurses	_____	_____	_____

209 Does a plan for supervision exist at the District/Department?
1 Collective plan 2 No 3 Individual Plan
If there is a collective plan What is the period of the plan
1 Weekly 2 Monthly 3 Quarterly 4 Annual
Are plans implemented? 1 Yes 2 No
If no Why?

210 Who is the **technical** supervisor for the following health providers at the health units how many are they and what is the frequency of field supervision?

JOBS	WHO IS THE SUPERVISOR?	HOW MANY SUPERVISORS?	FREQ OF FIELD SUPERVISION (/YR)
1 Urban hospital Ob/Gyn Specialists			
2 Urban Health Center Ob/Gyn Specialists			
3 Rural hosp /Health Center Ob/Gyn Specialists			
4 Hospital Residents			
5 Urban Health Center GPs			
6 Rural Health Center GPs			
7 Hospital Midwives			
8 MCH/Urban Health Center Midwives			
9 Rural Health Facility Midwives			
10 Hospital Nurses			
11 Urban Health Center Nurses			
12 Rural Health Center Nurses			

211 What are the most important problems that face the District/Health Department for technical supervision?

---

3 Equipment, Drugs and Supplies Management

301 How does the District decide **when** to reorder drugs or supplies?

1 When sufficient requests are received from facilities ( )
2 Whenever a facility requests ( )
3 Whenever the district requests regularly ( )
4 At regular intervals ( )
5 Do not order, but receive ( )
0 Other *(Specify)*

302 How does the **district** decide the **amount** of drugs/supplies to procure?

1 Based on available budget ( )
2 Based on necessity of drug or supply ( )
3 Based on requested amounts from Units/Centers/Departments ( )

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4 According to a set quota ( )
5 Based on previous year estimate plus extra percent ( )
0 Other *(Specify)*

303 Does the District face shortage in drugs and supplies? 1 Yes 2 No
If yes when and why?
1 When distributors are late ( )
2 Insufficient funds ( )
3 When there are shortages at the distributor's level ( )
4 When ordering is delayed ( )
0 Other *(Specify)*

304 How are needs of **health facilities** for drugs and supplies estimated?
1 Based on quantities used in the previous period ( )
2 Pre-determined quantities ( )
3 Based on the amounts determined by District or Governorate ( )
0 Other *(Specify)*

305 How often are drugs and supplies distributed to facilities (in months)?
_____ months

306 Do facilities transport their quota of drugs and supplies or the district distributes them?
1 Facilities transport ( )
2 District transports ( )

307 What are the most important basic problems with procurement and/or distribution of drugs and supplies that faced the District during last year (96/97)?

---

4 Services

401 What are the recommended hours and days for the following services at different facilities?

SERVICES	HOSPITALS			URBAN H CENTERS			MCH			RURAL HC/UNITS		
	Hours		Days	Hours		Days	Hours		Days	Hours		Days
	From	To		From	To		From	To		From	To	
1 Antenatal Care												
2 Postpartum Care												
3 Infant Clinic												

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402 Are "client friendly practices" being implemented in the District? 1 Yes 2 No
If yes, what are they and where are they being implemented?
Practices

Where
1 Hospital ( )
2 Urban HC ( )
3 Rural HF ( )

403 What is the recommended procedure for communication with the facility to which a critical case is referred?

---

5 Information System and Monitoring

501 Did the District receive the new registration forms for registering maternal and neonatal services? 1 Yes 2 No*(goto 504*

502 Have these forms been distributed to all health facilities at the department? 1 Yes *(go to 504)* 2 No *(go to 503)*

503 To which facilities were the forms distributed?

		Number
1	District Hospital	_____
2	Urban HC	_____
3	MCH Center	_____
4	Rural Hospital	_____
5	Rural HC	_____
6	Rural Unit	_____

504 How many of the following facilities provided complete MCH/HIS forms/reports according to schedule for the month of June 1997?

		Number
1	General/District	'''''''
2	Rural Hospitals	'''''''
3	Urban Health Centers	'''''''
4	MCH Centers	'''''''
5	Rural Health Units/Centers	'''''''

505 Do you have a policy to check information at facilities? 1 Yes 2 No*(go to 508*

506 Do the facilities implement this policy? 1 Yes*(goto508)* 2 No

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507 What are the reasons for non-compliance to the suggested system?

1 Yes 2 No

508 Does the Department/District make use of this information?

---

6 Key Problems and Solutions

601 What are the two greatest problems that face the Governorate/District in providing appropriate and effective maternal and neonatal health care services today? And what are the solutions to these problems?

	Problem	Solution(s)
1		
2		

---

7 Health Education/IEC, Outreach and Community-based Activities

701 What is the number of the total registered dayas in district? _____ dayas

702 When did registered Daya training start? _____ years

703 How many have been trained to date? _____ dayas

704 How many received refresher training? _____ dayas

705 What is the estimated number of untrained and unregistered dayas in the district? _____ dayas

To be filled by Health Education Officer

706 What types of IEC materials on maternal and neonatal health and breastfeeding are available at the District? (Numbers)

	Poster	Brochure	Flip Chart	Booklet	Video Tapes
1 Risk Pregnancy					
2 Antenatal Care					
3 Importance of Breastfeeding					
4 Proper way of Breastfeeding					

	Poster	Brochure	Flip Chart	Booklet	Video Tapes
5 Importance of Tetanus vaccine					
6 Neonatal care					
7 Sterilization & delivery					

Figure 1 Posters 2 Brochures 3 Flip Chart
4 Booklet 5 Video Tapes

707 What type of health education and awareness activities organized by the Unit on maternal/neonatal health and breastfeeding in the last three months?

Activity	Place	Target Group	Topics
1 Meetings	_____	_____	_____
2 Microphone	_____	_____	_____
3 Contests	_____	_____	_____
0 Other *(Specify)*			

Place 1 Inside the facility 2 Outside the facility
Target 1 Mothers 2 Husbands
3 Community Leaders 4 People

708 Are there any NGOs active in maternal and neonatal health in the District? 1 Yes 2 No
If Yes Who are they?

_____
_____
_____

What are their services?
1 Provide service for clinics
2 Health education
3 Social support
0 Other *(Specify)*

---

8 Utilization of Materials *from registers*

801 Number of cases according to records

	JAN-DEC 1996	APR-JUNE 1997
Clients 1 New antenatal clients		
2 Revisits by antenatal clients		
3 Normal Deliveries		

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	JAN-DEC 1996	APR-JUNE 1997
4 Total Deliveries		
5 Postpartum women checkup (up to 42 days after delivery)		
6 Infant checkup (0-28 days)		
7 Total complicated delivery cases		
8 Anaemia		
9 Antepartum hemorrhage		
10 Pre-eclampsia		
11 Eclampsia		
12 Postpartum hemorrhage		
13 Abortion complications		
14 Retained placenta		
15 Breech presentation/delivery		
16 Sepsis		
17 Ectopic pregnancy		
18 Uterine Rupture		
Complicated deliveries 19 Deliveries by suction		
20 Forceps deliveries		
21 C-sections		
22 Blood transfusion during and after delivery		
Deaths 23 Stillbirths		
24 Maternal deaths during pregnancy		
25 Maternal deaths during labor (up to 6 hours)		
26 Postpartum deaths (up to 42 days after delivery)		
27 Maternal deaths due to abortions		

	JAN-DEC 1996	APR-JUNE 1997
28 Early neonatal deaths (0 - 7 days)		
29 Late neonatal deaths (8 - 28 days)		

802 How many complicated deliveries were referred from the following sources through July 96 - June 97?

	Number	No information
1 Public Hospitals	____	( )
2 District Hospitals	____	( )
3 MCH Centers	____	( )
4 Urban Health Facilities	____	( )
5 Rural Hospitals	____	( )
6 Rural Health Centers	____	( )
7 Private Physicians' Clinics	____	( )
8 Dayas	____	( )
6 Community Members	____	( )

---

9 **Facilities** *from registers*

901 Total number of the following health facilities in the District
(1-7 to be filled at the office)

	Number
1 General Hospitals	_____
2 District Hospitals	_____
3 MCH Centers	_____
4 Urban Health Centers	_____
5 Rural Hospitals	_____
6 Rural Health Groups	_____
7 Rural Health Units	_____
8 Other Public Sector Hospitals/Clinics	_____
9 Voluntary Organization Facilities	_____
10 Private Hospitals	_____
11 Private Dispensaries/clinics	_____
12 Private Ob/Gyn Clinics	_____

902 Total number of beds for each of the following health facilities
(1 - 6 to be filled at office)

	Total	**Maternity**	**Pediatric**
1 General Hospitals	_____	_____	_____
2 District Hospitals	_____	_____	_____
3 MCH Centers	_____	_____	_____
4 Urban Health Centers	_____	_____	_____
5 Rural Hospitals	_____	_____	_____
6 Rural Health Groups	_____	_____	_____

7	Other Public Sector Hospitals/Clinics	____	_____	_____
8	Voluntary Organization Facilities	____	_____	_____
9	Private Hospitals	____	_____	_____
10	Private Dispensaries/Clinics	____	_____	_____

QUESTIONNAIRE # 2

HEALTH FACILITY DATA SHEET

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire #2

(Health Facility Data Sheet)

Case No

Governorate _____

District _____ Village _____ Hospitals/Unit _____

Name of Interviewed 1 _____ Position _____

2 _____ Position _____

3 _____ Position _____

Name of Interviewer _____ Date of Interview _____

Total population of catchment area in thousands _____

1 Services of Hospital/Unit

101 The number of assigned posts and those present in the facility today

CATEGORY OF PERSONNEL	TOTAL OF POSTS	PRESENT TODAY
1 Ob/Gyn Specialists		
2 Ob/Gyn Residents		
3 Pediatricians		
4 Anaesthesiologists		
5 General Practitioners		
6 Blood Bank Specialists		
7 Laboratory Specialists		
8 Laboratory Technicians		
9 Pharmacists		
10 Matron/Nursing Supervisors		
11 Public Health Nurse		
12 Midwifery Nurse		
13 Nurses		
14 Social Workers		

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102 The number of the following personnel who have received training in the following technical areas in the last 12 months (from 01-07-96 to 30-06-97)

Category of Personnel	Prenatal Care	Labour& Delivery	Postpartum Care	Neonatal Care	Sonar	Health Services Mngmt	Breast-feeding
1 Ob/Gyn Specialists							
2 Ob/Gyn Residents							
3 Pediatricians	x	x	x		x		
4 Anaesthesiologists	x				x	x	x
5 General Practitioner							
6 Pharmacists	x	x	x	\	x		
7 Matron/Nursing Supervisors					x		
8 Public Health Nurse					x		
9 Midwifery Nurse					x		
10 Nurses					x		

103 Are there functional job descriptions at the facility for the following? *(in case they exist ask to see them and record)*

	1 Yes/2 No	1 Seen/2 Not seen
1 Head of the Facility	( )	( )
2 Hospital Physicians	( )	( )
3 Nursing Matrons/Supervisors	( )	( )
4 Midwives/Nurses in Hospitals	( )	( )
5 Urban Health Center Physicians	( )	( )
6 Urban Health Center Nurses	( )	( )
7 Rural Health Center Physicians	( )	( )
8 Rural Health Center Midwives/ Nurses	( )	( )

104 Who are the technical supervisors for the following health providers at your facility? When was their last field visit?

CATEGORIES OF PERSONNEL	WHO IS THE SUPERVISOR?	WEEKS SINCE LAST VISIT
1 Ob/Gyn Specialists		
2 Pediatricians		
3 General Practitioners		
4 Midwifery Nurses		
5 Nurses		

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105 What do supervisors do when they visit your facility?

1 Monitoring activities ( )
2 In-service training ( )
3 Meeting needs ( )
0 Other *(specify)*

106 Does your facility have the following protocols and how many are trained on them?

PROTOCOL	1 YES 2 NO	NUMBER TRAINED			
		OB/GYN	PEDIATRICIAN	GPS	NURSES
1 Prenatal Care			x		
2 Delivery Care			x		
3 Postpartum Care			x		
4 Neonatal Care					
5 Infection Control					
6 Life Saving Skills					

107 Does your facility monitor deliveries with a partograph? 1 Yes 2 No
If Yes Do you use it with each case or not? 1 Yes 2 No

2 Services

201 What are the hours and days for the following services?

	Days (am/pm)	Hours from	to	NA
1 Antenatal Care	____	____	____	____
2 Postpartum Care	____	____	____	____
3 Infant Care	____	____	____	____
4 Sonar/Ultrasound	____	____	____	____
5 Lab services-Hemoglobin measurement	____	____	____	____
6 Lab services-Urine testing	____	____	____	____

202 Does your facility have delivery services on a 24 hour basis? 1 Yes 2 No

203 Is there an Ob/Gyn specialist on call at night and on holidays? 1 Yes 2 No

204 Is there emergency service for infants on a 24 hour basis? 1 Yes 2 No

205 Is there a Pediatric specialist on call at night and on holidays? 1 Yes 2 No

206 Which facility are your maternal or neonatal cases usually referred to? _____

207 How long is the distance between the unit and the facility to which the cases are referred in kilometers? _____ Km

208 How long is the travel time? _____ min

209 In cases of referrals does communication take place with the higher level to get prepared for receiveng the cases?
1 Yes 2 No 3 Sometimes

210 Who usually accompanies referred critical cases?
1 Physician ( )
2 Midwife ( )
3 Nurse ( )
4 Driver ( )
5 Nobody ( )
0 Other *(specify)*

211 Do you follow up on the results of the referral? 1 Yes 2 No*(go to 213)*

212 How does follow-up take place? *(go to 214)*
1 Contact by phone ( )
2 Regular feedback ( )
3 Informal contact ( )
0 Other *(specify)*

213 Why doesn't a follow up occur?
1 No records ( )
2 Not required ( )
3 Difficult to follow-up ( )
0 Other *(specify)* _

214 **For hospitals only** On average how long does it take from the time of arrival for referred women to receive care? _____ min

---

3 Facilities

301 What is the total number of in-patient department? _____ beds

What is the number of maternity beds? _____ beds

What is the number of pediatric beds? _____ beds

302 Number of ambulances for referral of critical cases in good working order _____ ambulances
If none what mode of transport is used ?

303 Does a working phone exist at the facility? 1 Yes 2 No

304 Is potable water available regularly? 1 Yes 2 No

305 Is electricity available regularly? 1 Yes 2 No

---

4 Information System and Monitoring

401 Are the following records available in the old or new forms?

	1 Old	2 New	NA
1 Antenatal new visits	___	___	___
2 Antenatal follow-up	___	___	___
3 Delivery	___	___	___
4 Postpartum	___	___	___
5 Child care	___	___	___
6 Incubator records	___	___	___

402 For what do you use the data you collect?

1 Follow-up of individual cases 1 Mentioned 2 Not Mentioned

2 Detection of community health problems 1 Mentioned 2 Not Mentioned

3 Assessment of quality of facility service 1 Mentioned 2 Not Mentioned

4 Improvements in quality of facility service 1 Mentioned 2 Not Mentioned

5 Assessment of accuracy of registered information 1 Mentioned 2 Not Mentioned

0 Other *(specify)*

403 Does your facility **notify** the Governorate/district regularly of the following occurring

1 Maternal deaths 1 Yes 2 No*(go to 405)*

2 Stillbirths 1 Yes 2 No*(go to 405)*

3 Neonatal deaths 1 Yes 2 No*(go to 405)*

4 Infant deaths 1 Yes 2 No*(go to 405)*

404 How does the notifying take place?

1 By phone/telegram ( )

2 By messenger ( )

3 Monthly Report ( )

0 Other *(Specify)*

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405 Were any personnel trained to analyze and use data? Who are they and how many of them? 1 Yes 2 No

	Number
1 General Practitioners	____
2 Nurses	____
3 Recording/Statistics Technician	____
4 Clerks	____

---

5 Equipment, Drugs and Supplies

501 How do you estimate your needs for drugs and supplies?

1 Based on quantities used in the previous period ( )

2 Pre-determined quantities ( )

3 District Health Department determines needs ( )

4 Governorate Health deaprtment determines needs ( )

0 Other (specify)

502 Does the facility receive

1 Essential drugs for preganncy and delivery regularly 1 Yes 2 No

2 Supplies 1 Yes 2 No

503 Do you receive them in items and quantities as ordered? 1 Yes 2 No

504 What are the most important items of mother and neonatal care do you experience shortages in most often?

_____

_____

_____

505 What method do you use to overcome shortages?

1 Procure locally ( )

2 Ask client to buy ( )

0 Other *(specify)*

506 Do you distribute drugs and supplies to other facilities? 1 Yes 2 No

507 Is there a blood bank at your facility? 1 Yes 2 No*(goto 509)*

508 Is there an adequate supply of blood? 1 Yes*(goto 510)*2 No

509 How do you meet blood needs? *(go to 601)*

1 Patient buys from bank ( )

2 Patients supplies from relations/friends ( )

3 Request amount from bank ( )

4 Refer the patient ( )

0 Other *(specify)*

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 3

(Health Provider Interview Physician/Midwife/Nurse)

Case No ☐☐☐

Governorate _____ ☐

District _____ Village _____ Hospitals/Unit _____ ☐☐☐

Name of Provider _____

Position _____ ☐

Gender 1 Male ( ) 2 Female ( ) ☐

Name of Interviewer _____ Date of Interview / /19 ☐

(xx) Questions to be asked to Pediatricians

We are researchers from SPAAC We are asked to collect data for a study on matrnal and neo-natal health Can we take half an hour from your time to ask you about the services that you provide to mothers and neo-nates at this hospital/unit?

1 Services Provided

101 Does the facility provide the following services?

		1 Yes	2 Assist Only	3 No	
	1 Antenatal care				☐
	2 Deliveries				☐
	3 Postpartum care				☐
xx	4 Neonatal care				☐
xx	5 Infant care				☐
xx	6 Ultrasound (sonar)				☐
	7 Laboratory				☐

(xx) 102 Do you provide emergency maternal and neonatal care during nights and on holidays? 1 Yes 2 No ☐

103 *For those who provide delivery services* 1 Yes 2 No ☐
Do you monitor deliveries with a partograph?
If Yes Do you always use it? 1 Yes 2 No ☐

299

104 Did you receive any of the following protocols?
If yes Did you find it useful?

	PROTOCOL	1 YES 2 NO	1 USEFUL 2 NOT USEFUL
	1 Prenatal Care		
	2 Delivery Care		
	3 Postpartum Care		
xx	4 Neonatal Care		
xx	5 Infection Control Procedures		
xx	6 Life Saving Skills		

105 Do you receive women when they reach the facility? 1 Yes 2 No*(go to 201)*

106 Do you ask them any questions? 1 Yes 2 No
If Yes What questions?
1 Basic personal information 1 Mentioned 2 Not Mentioned
2 Information on reason for visit 1 Mentioned 2 Not Mentioned
3 Medical history 1 Mentioned 2 Not Mentioned
0 Other *(specify)*

107 Do you take any measurements or carry out any investigations? 1 Yes 2 No*(go to 108)*
If Yes Which ones?
1 Temperature 1 Mentioned 2 Not Mentioned
2 Weight 1 Mentioned 2 Not Mentioned
3 Height 1 Mentioned 2 Not Mentioned
4 Pulse 1 Mentioned 2 Not Mentioned
5 Blood sample 1 Mentioned 2 Not Mentioned
6 Urine sample 1 Mentioned 2 Not Mentioned
7 Blood pressure 1 Mentioned 2 Not Mentioned
0 Other *(specify)*

108 Do you give her any instructions regarding her visit? 1 Yes 2 No*(go to 201)*
If Yes About what are these instructions?
1 Where to go 1 Mentioned 2 Not Mentioned
2 Explanations of what to expect 1 Mentioned 2 Not Mentioned

3 Answer questions or concerns 1 Mentioned 2 Not Mentioned

0 Other *(specify)*

---

2 Job Description /Training

(xx) 201 Do you have an updated job description? 1 Yes 2 No
If Yes When was it last updated?

(xx) 202 Which category of the following personnel do you work with regularly, sometimes or never

Personnel	1 Regularly	2 Sometimes	3 Never
1 Ob/Gyn Specialists			
2 Ob/Gyn Residents			
3 Pediatricians			
4 Laboratory Staff			
5 Blood Bank Specialists			
6 General Practitioners			
7 Nursing Staff			
8 Social Workers			

(xx) 203 Who is your technical supervisor?
(Position title) _____
If more than one (shifts) go to 204

(xx) 204 How often does your supervisor visit you?
_____ weeks _____ months

(xx) 205 What does your supervisor do when s/he visits?
1 Monitoring activities ( )
2 In-service training ( )
0 Other *(specify)*

(xx) 206 Does your supervisor give you any instructions/guidance on the proper breastfeeding and how to encourage it? 1 Yes 2 No

(xx) 207 What else would you like your supervisor to do when s/he visit you?
0 No one ( )
1 Monitoring activities ( )

301

2 Training ( )
3 Meeting Needs ( )
4 Other *(specify)*

(xx) 208 Do you technically supervise any personnel?

1 Yes 2 No*(go to 210)*

If Yes Who and how many?

	Number
1 Physicians	_____
2 Nurses	_____
3 Technicians	_____
Total	_____

(xx) 209 What do you do for supervision?

1 Monitoring activities
2 Provide guidance/instructions
3 Monitoring records
0 Other *(Specify)*

(xx) 210 What training have you received in the last 12 months from 1-7-96 - 30-6-97 and in what of the following fileds?

	Training	Duration (in Days)	Where	Topics Covered	Skills Learned
	1 Prenatal Care				
	2 Labor and Delivery				
	3 Postpartum Care				
xx	4 Neonatal Care				
xx	5 Health Education/ IEC/Counseling				
xx	6 Health Services Mngmt				
xx	7 Breast-feeding Mngmt				

Where 1 Unit 2 University/Educational Center
3 Other Training Centers
Skills 1 Prevential 2 Diagnostic
3 Curative

211 Have you received training as a trainee and/or trainer in

	1 Trainee	2 Trainer
1 Use of maternal and perinatal case management protocol	_____	_____
2 Life saving skills	_____	_____

3 For Those Who Conduct or Assist in Deliveries

301 When did you last conduct a delivery with complications?
_____ days
since _____ weeks _____ months
If he does not conduct complicated deliveries, or if he has spend more than a year, go to 311

302 Where did the delivery take place?
1 Home ( )
2 Hospital/Facility ( )
3 Private Clinic/Hospital ( )

303 What were the complications?
1 Protracted labor because of primipara ( )
2 Protracted labor for of other causes ( )
3 Abnormal presentation of the fetus ( )
4 Twin delivery ( )
5 Umbilical cord problems ( )
6 Ante-partum hemorrhage ( )
7 Hypertension/eclampsia ( )
8 Uterine atony/general weakness ( )
0 Other *(specify)*

304 What was the method of delivery?
1 Suction delivery ( )
2 Forceps delivery ( )
3 C-section ( )
4 Normal delivery ( )

305 What was the outcome of the delivery Did both the mother and the baby live?
1 Living mother and child ( )
2 Dead mother, living child ( )
3 Living mother, dead child ( )
4 Both dead ( )
5 Both children living ( )
6 Both children dying ( )
7 Only one child living ( )

306 Who assisted you/Whom did you assist in delivery?
1 Ob/Gyn ( )
2 Resident ( )
3 GP ( )
4 Nurse ( )

5 No body ( )
0 Other *(specify)*

307 *If the delivery took place at the hospital*
How many days after delivery was the mother discharged? _____ days
If she wasn't yet discharged go to 311

308 Did anyone visit her at home after discharge?
1 Yes 2 No (go to 310) 3 Don't know (go to 310)
If Yes Who?
1 Orderly ( )
2 Doctor ( )
3 Nurse ( )
0 Other *(specify)*

309 After how many days of discharge was she visited?
_____ days doesn't know ( )

310 Was the mother asked to visit the health facility? 1 Yes 2 No
If Yes Why?
1 Routine check-up ( )
2 Problems ( )
Did the mother return for the postpartum visit?
1 Yes ( )
2 No ( )
3 Don't know ( )
4 Don't remember ( )

311 If you have faced the next cases, did you treat or refer them?

	1 Treat	2 Help treat	3 Refer
1 Post-partum hemorrhage	( )	( )	( )
2 Ante-partum hemorrhage	( )	( )	( )
3 Pre-eclampsia/eclampsia	( )	( )	( )
4 Abnormal presentation	( )	( )	( )
5 Puerperal Sepsis	( )	( )	( )
6 Complications of incomplete abortion	( )	( )	( )
7 Newborn resuscitation	( )	( )	( )

312 *For those who provide antenatal care*
Do you refer pregnancy case to a higher level? 1 Yes 2 No
Which pregnancy cases do you refer to a higher level?

510 What equipment do you have in good order at the blood bank?

1 Refrigerator — 1 Yes 2 No

2 Centrifuge — 1 Yes 2 No

3 Microscope — 1 Yes 2 No

4 Laboratory kits for screening — 1 Yes 2 No

---

6 Education/IEC and Awarenss

601 Does the facility have any relation with dayas? 1 Yes 2 No

If yes What is this relation?

1 No of registered dayas _____ dayas

2 Starting date of daya training _____ date

3 No of trained dayas to date _____ dayas

4 No of dayas who received refresher training? _____ dayas

5 Estimated no of unregistered and untrained dayas in your area _____ dayas

602 What is the number of health education and IEC materials on maternal and neonatal health?

	NA	Poster	Brochure	Flip Chart	Booklet	Video Tapes
1 Risk Pregnancy						
2 Antenatal Care						
3 Importance of Breastfeeding						
4 Proper way of Breastfeeding						
5 Importance of Tetanus shots						
6 Neonatal care						
7 Sterilization & delivery						

Figure 1 Posters 2 Brochures 3 Flip Chart
4 Booklet 5 Video Tapes

603 What type of educational **activities** organized by the Unit on maternal/neonatal health and breastfeeding in the last **three months?**

Activity	**Place**	**Target Group**	**Topics**
1 Meetings	____	_____	_____
2 Microphone	____	_____	_____
3 Contests	____	_____	_____
0 Other *(Specify)*			

Place 1 Inside the facility 2 Outside the facility

Target 1 Mothers 2 Husbands 3 Community Leaders 4 People

604 Does your facility provide home visit services for mother and neonate? *If yes* 1 Yes 2 No

No of staff members who carry on visits _____

No of visits implemented from April till June 1997 _____

605 Are there NGOs or community projects that provide health programs in your catchment area? 1 Yes 2 No

If Yes Who are they? _____

What are they doing? _____

---

7 Key Problems and Solutions*[for Hospital Management only]*

701 In the opinion as **Hospital** management what are the two greatest problems that affect appropriate and effective maternal and neonatal health care services today? And what are the solutions to these problems?

	Problem	Solution(s)
1	_____	_____
	_____	_____
2	_____	_____
	_____	_____

---

8 Description of the Place through Observation

[Please I would like to look around the facility]

801 Waiting Place for Mothers

Space 1 Available 2 Not available

If available 1 Covered 2 Not covered

Sufficient & well maintained chairs 1 Available 2 Not available

Toilet near waiting room 1 Available 2 Not available

If available 1 Good con 2 Bad condition

802 Maternal Examination Room

Space 1 Available 2 Not available

If available 1 Allows privacy 2 No privacy

If not available Examination takes place at _____

Light 1 Sufficient 2 Insufficient

Stool 1 Available 2 Not available

Examination table 1 Available 2 Not available

803 Labour Room with Beds 1 Available 2 Not available

804 Delivery Room
Well prepared 1 Yes 2 No
Good lighting 1 Yes 2 No
Good condition 1 Yes 2 No

805 Building in General
In good condition 1 Yes 2 No

9 From Records

901 No of equipment and supplies available at the facility

ITEM	TOTAL NO	HOW MANY IN WORKING CONDITION?
Basic Equipment 1 Blood pressure apparatus (sphygmomanometer)		
2 Stethoscope		
3 Infant weighing scales		
4 Adult weighing scales		
5 Fetal stethoscope		
6 Sterilizer		
7 Autoclave		
8 Thermometer		
9 Manual vacuum aspirator (MVA)		
10 Speculum (various sizes)		
11 Vacuum extractor		
12 Obstetric forceps		
Equipment for Delivery 13 Scissors		
14 Suture needles and suture material		
15 Artery forceps		
16 Utility forceps		

ITEM	TOTAL NO	HOW MANY IN WORKING CONDITION?
Equipment for Care of Neonate 17 Infant laryngoscope		
18 Bag and mask for neonatal resuscitation		
19 Tongue depressor		
Supplies 20 Surgery clothing (shoes aprons)		
21 Towels to dry baby		
22 Blankets to wrap baby		
23 Partograph		

902 Number of drugs and supplies avaialable at the facility

ITEM	UNIT	QTY	CONDITION COMMENTS
1 Reusable gloves (different sizes)	box		
2 Disposal gloves (different sizes)	box		
3 Disposal syringes/needles	ampule		
4 IV kits	apparatus		
5 Cord ties	roll		
6 Blood transfusion kits	apparatus		
7 Proteinuria test supplies	box		
Anesthetics general 8 Nitrous oxide or other general anaesthetic agent	disk		
9 Diazepam/Valium injections	ampule		
10 Ketamine injections	ampule		
11 Lidocaine 2% or other local anaesthetic agent	ampule/ bottle		
12 Pethidine injections	ampule		
Antibiotics 13/1 Ampicillin injections	ampule		
13/2 Ampicillin capsules	package		

ITEM	UNIT	QTY	CONDITION COMMENTS
13/3 Ampicillin cvrup	bottle		
14 Penicillin injections	ampule		
15/1 Ciprofloxacin capsules	package		
15/2 Ceftriaxone injection	ampule		
16 Gentamicin injection	ampule		
17 Kanamycin injection	ampule		
Other drugs 18/1 Tetracycline ointment for eyes	tube		
18/2 Silver nitrate eye drops for neonates	bottle		
19 Anemia iron tablets	package		
20 Hypertensive tablets	package		
21 Hydralazine injections	ampule		
22 Magnesium Sulfate injection	ampule		
Immunologicals Vaccines 23 Tetanus Toxoid	bottle(10 cms ^{2})		
24 BCG	ampule		
25 Ergometrine injection or Oxytocin injection	ampule		
26 Detergents	liter		
Intravenenous solutions 27 Saline solution	bottle(500 cms)		
28 Glucose solution	bottle		
29 Other solution	bottle		
Contraceptives 30 Oral contraceptives	tablets tape		
31 Injectable contraceptives	ampule		
32 Condoms	piece		
33 IUCDs/IUDs	one		

309

903 **Complicated delivery** referrals to the facility from April to June 1997

		Number
1	Urban Health Centers	____
2	Rural Health Centers	____
3	Private Physicians Clinics	____
4	TBAs/Dayas	____
5	Community members initiate &come	____
6	Total Number	____

904 **Risky pregnancy** referrals to the facility from April to June 1997

		Number
1	Urban Health Centers	____
2	Rural Health Centers	____
3	Private Physicians' Clinics	____
4	TBAs/Dayas	____
5	Community members	____
6	Total Number	____

905 Referrals from the facility to hospital from April to June 1997

		Number
1	Risky pregnancies	____
2	Complicated deliveries	____
3	Postpartum complications	____
4	Neonatal problems	____

310

906 Services from Records/Reports

CLIENTS/SERVICES/OUTCOMES	JAN - DEC 1996	APR - JUNE 1997
Antenatal Clients		
1 New Antenatal Clients		
2 Checkup for Antenatal Clients		
3 Tetanus Toxoid - first injection		
4 Tetanus Toxoid - second injection		
5 Tetanus Toxoid - third/fourth injection		
6 Women with Anemia during pregnancy		
7 Women with Urinary Diabetes		
8 Women receiving Ultrasound examination		
9 Reproductive tract infections		
10 Ectopic pregnancy		
Deliveries		
11 Total deliveries		
12 Normal Deliveries		
13 Complicated deliveries		
14 Delivery by suction		
15 Forceps delivery		
16 C-sections		
17 Blood transfusion during or after delivery		
18 Antepartum Hemorrhage		
19 Pre-eclampsia		
20 Eclampsia		
21 Postpartum Hemorrhage		
22 Retained placenta		
23 Breech presentation/delivery		

CLIENTS/SERVICES/OUTCOMES	JAN - DEC 1996	APR - JUNE 1997
24 Ruptured uterus		
Post Natal Care 25 Postpartum women (up to 42 days after delivery)		
26 Neonatal Care		
27 Infant Care		
28 Sepsis		
Abortion 29 Abortion complications		
Family Planning 30 Family planning - new users		
31 Family planning - revisits		
Deaths 32 Stillbirths		
33 Deaths during pregnancy		
34 Deaths during or after labor (up to 6 hours)		
35 Postpartum deaths (up to 42 days after delivery)		
36 Deaths due to abortions		
37 Early neonatal deaths (0-7 days)		
38 Late neonatal deaths (8-28 days)		

312

QUESTIONNAIRE # 3

HEALTH PROVIDER INTERVIEW (PHYSICIAN/MIDWIFE/NURSE)

1	Mother less than 18 years old	1 Mentioned 2 Not Mentioned
2	Mother more than 35 years old	1 Mentioned 2 Not Mentioned
3	Mother less than 145 cms tall	1 Mentioned 2 Not Mentioned
4	Diabetes	1 Mentioned 2 Not Mentioned
5	Anemia	1 Mentioned 2 Not Mentioned
6	Heart failure	1 Mentioned 2 Not Mentioned
7	Hypertension/headache/blurred vision/legs swelled	1 Mentioned 2 Not Mentioned
8	No fetal movements	1 Mentioned 2 Not Mentioned
9	Abnormal presentation	1 Mentioned 2 Not Mentioned
10	Twin delivery	1 Mentioned 2 Not Mentioned
11	Previous C-section	1 Mentioned 2 Not Mentioned
12	Antenatal hemorrhage	1 Mentioned 2 Not Mentioned
0	Other *(Specify)*	

(xx) 313 How many of the following cases did you refer to a higher level in the last 3 months?

		Number
1	Complicated delivery cases	_____
2	Post-partum cases	_____
xx 3	Neonatal cases	_____
4	I don't refer *(go to 319)*	

(xx) 314 Do you communicate/ask someone to communicate with the hospital when a critical case is on its way? 1 Yes 2 No

(xx) 315 Do you usually accompany the referral case to the hospital?
1 Yes 2 Sometimes 3 No

(xx) 316 When you refer a case to a higher level, do you follow up on the results of the referral? 1 Yes *(go to 317)* 2 No *(go to 318)*

(xx) 317 How?

1	Contact by phone	( )
2	Regular feedback	( )
3	Informal contact	( )
0	Other *(specify)*	

(xx) 318 Why not?

1	No records	( )
2	Not required	( )
3	Difficult to follow-up	( )
0	Other *(specify)*	

319 *Addressed to all Interviewed* Through you work in the unit, how many cases per month or year do you see

		Average/ Month
	Clients 1 New Antenatal Clients	
	2 Revisits by Antenatal Clients	
	3 TT shots	
	4 Women with Diabetes during Pregnancy	
	5 Total no of Deliveries	
	6 Normal Deliveries Cases	
	7 Complicated Delivery Cases	
xx	8 Postpartum women (up to 42 days after delivery)	
	9 Women with reproductive tract infections	
xx	10 Neonatal Checkup	
xx	11 Infant Checkup	
		Average/ Year
	Complicated Cases 12 Anemia during Delivery	
	13 Antepartum Hemorrhage	
	14 Pre-eclampsia	
	15 Eclampsia	
	16 Postpartum Hemorrhage	
	17 Abortion Complications	
	18 Retained Placenta	
	19 Breech or Transverse Presentation	
	20 Sepsis	
	21 Ectopic Pregnancy	
	22 Uterine Rupture	
	Deaths 23 Stillbirths	
xx	24 Early neonatal deaths (0-7 days)	
xx	25 Late neonatal deaths (8-28 days)	
	26 Deaths of Mothers during Pregnancy	

	Average/ Month
27 Deaths during or up to 6 hrs after labor	
28 Postpartum deaths (up to 42 days after delivery)	
29 Deaths due to abortions	

4 Health Information System and Monitoring

(xx) 401 Do you yourself fill any registration forms? 1 Yes 2 No

If Yes Which ones?

		1 Yes/2 No	1 Old/2 New
	1 Antenatal new visits	( )	( )
	2 Antenatal follow-up	( )	( )
	3 Delivery	( )	( )
	4 Postpartum visit	( )	( )
xx	5 Child care	( )	( )
xx	6 Incubator record	( )	( )

(xx) 402 Have you been trained *as a trainer* to provide training on monitoring the quality of data collected? 1 Yes 2 No

(xx) 403 Have you been trained to maintain analyze and/or use data? 1 Yes 2 No

(xx) 404 Do you make use of collected service data of the facility? 1 Yes 2 No

If Yes For What?

1 Writing a report ( )
2 Monitoring performance ( )
3 Evaluating performance ( )
4 Collecting incentives ( )
0 Other *(specify)*

5 Equipment, Drugs and Supplies

(xx) 501 In your opinion, are essential drugs and supplies for maternal and neonatal care available? 1 Yes*(go to 504)*2 No

316

(xx) 502 What are the three most essential drugs or supplies that are in shortage?

_____

_____

_____

(xx) 503 What do you do to face this shortage?

1 Procure locally ( )
2 Client buys ( )
0 Other *(specify)*

(xx) 504 Are there adequate blood supplies? 1 Yes 2 No

If No How are needs met?

1 Ask patients to buy from bank ( )
2 Ask patients to supply from relations/friends ( )
3 Request amount from bank ( )
0 Patient reffered ( )

(xx) 505 Is there a shortage of essential equipment you need for maternal and neonatal care? 1 Yes 2 No

If Yes What are the two most important?

_____

_____

(xx) 506 In your opinion what is the condition of the equipment?

1 Good condition 2 Average condition
3 Bad condition

---

6 Health Education and Awareness

601 What activities are you involved in with Dayas in your area?

1 None ( )
2 Training ( )
3 Supervision ( )
4 Management of referred cases ( )
5 Provision of supplies ( )
6 Collecting information ( )
0 Other *(specify)*

(xx) 602 What types of IEC materials on maternal and neonatal health and breastfeeding do you use and in what formats?

SUBJECTS/TOPICS	FORMATS
_____	_____
_____	_____
_____	_____
_____	_____

Formats 1 Posters 2 Brochures 3 Flip Chart
4 Booklets 5 Video Tapes

(xx) 603 What type of health education activities have you done on **maternal and neonatal health and breastfeeding** in the last three months? Where and for which audience groups?

ACTIVITY	WHERE	FOR WHOM	TOPICS COVERED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Place 1 Inside the Facility 2 Outside the Facility

Target Groups

1 Mothers 2 Husbands

3 Society Leaders 4 People

604 In your position at the facility how many home visits did you make in the last 3 months? _____ visit

---

7 Personal Data

(xx) 701 How old are you now? _____ years

(xx) 702 What is your last educational degree and its date

	Degree		Date
1	Preparatory	( )	____
2	Secondary Nursing	( )	____
3	Delivery Diploma	( )	____
4	Nursing Diploma	( )	____
5	University degree (MD or Nursing)	( )	____
6	Diploma in specialization/MA	( )	____
7	PhD	( )	____
0	Other *(specify)*		

(xx) 703 How long have you been working in this facility?
_____ Years _____ Months

318

(xx) 704 How long do you plan to stay in this facility?
_____ Years _____ Months

(xx) 705 Where were you working before (last job)? For how long?

			Months
1	Hospital	( )	_____
2	Urban Health Center	( )	_____
3	MCH	( )	_____
4	Rural Facility	( )	_____
5	Rural Hospital	( )	_____
6	No last job	( )	_____
0	Other *(specify)*		

---

8 Private Practice

(xx) 801 Do you have a practice apart from your work in this unit/hospital? 1 Yes 2 No*(go to 901)*

(xx) 802 Where?

1	Private clinic	( )
2	Private hospital	( )
3	Voluntary organization dispensary	( )
4	Home visits	( )

803 In your private practice how often do you encounter the following?

		No /Month
1	Complications of pregnancy	__ _____
2	Complications of delivery	__ _____
3	Complications of abortion	__ _____

(xx) 804 In your private practice how often you encounter and what do you do?

		What do you do?
1	Premature birth	_____
2	Low birth weight	_____
3	Neonate with breathing difficulty	_____
4	Neonate with congenital defects	_____
5	Neonate with icterus neonatorum	_____

What to do?

1 Refer 2 Treat
3 Call in specialist/consult 0 Other *(Specify)*

(xx) 9 Breast feeding 1 Yes 2 No*(go to 903)*

We would like to ask you some questions on advice you give mother for proper breast-feeding

901 Do you usually teach mothers how to position and attach their babies for breastfeeding?

902 How do you teach a mother to correctly position and attach her baby for breasfeeding?
(Don't read what's written below and write a summary of what is being said)

_____
_____
_____
_____

1 Baby's body turned to mother, close, in alignment
1 Correct( ) 2 Incorrect( ) 3 Not mentioned( )
2 Mouth wide open lips flanged
1 Correct( ) 2 Incorrect( ) 3 Not mentioned( )
3 Chin touching breast
1 Correct( ) 2 Incorrect( ) 3 Not mentioned( )
4 More of areola below nipple in mouth
1 Correct( ) 2 Incorrect( ) 3 Not mentioned( )
5 Rhythmic burst-pause suckling and swallowing
1 Correct( ) 2 Incorrect( ) 3 Not mentioned( )

903 Do you sometimes teach mothers how to express their breast milk in case they are separated from their infants? 1 Yes 2 No*(goto 905)*

904 How do you teach mothers to express their breast milk?
(Don't read what's written below and write a summary of what is being said)

_____
_____
_____
_____

1 Thumb on areola (2-3 cms from the nipple) with the rest of fingers opposite to the thumb
1 Adequate( )2 Inadequate( )3 Not mentioned( )
2 Press with all fingers
1 Adequate( )2 Inadequate( )3 Not mentioned( )
3 Repeat press-release for several minutes
1 Adequate( )2 Inadequate( )3 Not mentioned( )
4 Rotate around nipple to compress all sinuses
1 Adequate( )2 Inadequate( )3 Not mentioned( )

905 Do you provide mothers with written information on how to express their breast milk? 1 Yes 2 No

906 Could you mention at least three policies or practices that can be done/is done in the facility to help encourage breastfeeding?

1 Early initiation	1 Mentioned	2 Not Mentioned
2 24-hour rooming-in	1 Mentioned	2 Not Mentioned
3 Feeding on-demand	1 Mentioned	2 Not Mentioned
4 No bottles	1 Mentioned	2 Not Mentioned
5 No pacifiers	1 Mentioned	2 Not Mentioned
6 No prelacteal feeds	1 Mentioned	2 Not Mentioned
7 Helping mothers to attach babies	1 Mentioned	2 Not Mentioned
8 Counseling	1 Mentioned	2 Not Mentioned
9 Building mothers' self confidence no promotion of breast milk substitutes	1 Mentioned	2 Not Mentioned
0 Other *(Specify)*		

907 From your experiences does prelacteal feeding interfere with breastfeeding? 1 Yes 2 No

If yes How?

1 Nipple confusion ( )

2 Decreased eagerness to breastfeed ( )

3 Allergic sensitization ( )

4 Mother's sense of inadequacy ( )

0 Other *(Specify)*

908 What is the major cause of painful or allergic nipples?

1 Poor attachment	1 Mentioned	2 Not Mentioned
2 Baby not taking enough of breast into mouth	1 Mentioned	2 Not Mentioned
0 Other *(Specify)*		

909 What is the most common cause of insufficient milk?

1 Infrequent breastfeeding	1 Mentioned	2 Not Mentioned
2 Ineffective breastfeeding	1 Mentioned	2 Not Mentioned
0 Other *(Specify)*		

910 What is the most common cause of engorgement?

1 infrequent breastfeeding	1 Mentioned	2 Not Mentioned
2 ineffective breastfeeding	1 Mentioned	2 Not Mentioned
0 Other *(Specify)*		

QUESTIONNAIRE # 4

ANTENATAL EXIT INTERVIEW

Training should be focused upon -
Infection prevention measures in the labour ward for physicians and nurses
Analgesia and local anaesthesia required in normal labour
Experiences with use of forceps High forceps is still widely used with many complications
Care of the new born and its resuscitation and Apgar scoring system
Immediate post-partum care of the patient

Comments

No protocols
No partograph
Missing equipments
Asepsis and infection control
Basic points in history taking – missing
Communication with patients absent
Regular use of syntocinon in all cases!!
Dealing with umb-cord- Asepsis
Assessment and recording of neonatal condition

Policy implications

Communication
Recording
Partograph
Basic equipment should be available
Use of ecbolics
Neonatal care
Assignment for post natal care
Contraception arranged

XVI - A M I N A

Amina was admitted to Daraw district hospital on the 26th of August 1997 at 9 10 am She was attended to by the specialist on duty (SOD) and resident on duty(ROD) Suna was admitted to the same hospital for delivery on the 25th of August 1997 at 9 10 am And she was attended to by the ROD but there was no assistant

In both cases all the basic equipment necessary for a safe delivery were available except for the thermometer bowl and partograph The clients were welcomed by the SOD in a friendly manner reassured and asked to lie on the back Both SODs did not explain to the clients what was to be done

Although no protocol for intrapartum history taking or examination was available, the clients were asked about their personal data but both SODs did not review existing personal data or prenatal records or inquire about the risk factors in a prenatal record In one case the history was taken appropriately while in the other case the history was not taken correctly

Both mothers were diagnosed as fullterm were asked when the labour pains had started and how frequently they occured wheather they had been to an antenatal clinic, they were also asked wheather the membranes had ruptured and wheather there had been any bloody show Both SODs did not ask the patients when they had last eaten or passed stools or who had referred them

The clients were helped to get comfortable and asked to lie on their backs One SOD asked his patient to empty her bladder while the other did not but both did not wash their hands in antiseptic solution or explain to the clients what was to be done Physical examination was appropriately done in both cases Weight and B P were checked and B P was checked regularly after that

An acceptable abdominal examination was done in both cases and the F H S were checked but nothing was explained to the clients nor recorded During vaginal examination the area to be examined was not disinfected in both cases nor did the SODs use sterile surgical gloves nor scrub their hands in an antiseptic solution

The vaginal examination was done carefully in both cases but the SODs did not use an antiseptic solution to dip in the gloved index finger nor did they check the rectum for the presence of hard stools through the vaginal walls They both helped the mothers get comfortable after the vaginal examination labour was appropriately managed and delivery was performed while they were lying on their backs In one case an intravenous infusion of syntocinon was started otherwise no other medication was given

The cervix was assessed regularly, the head was assessed abdominaly for descent every hour in one case the fetal heart rate was not checked frequently No episiotomy was done in both cases or analgesia given The outcomes were both FT/LL/CP Clean sterile scissors and thread were used to cut the cords in both cases The neonates were dried , their backs massaged and were kept warm and patency of airway was ensured No Apgar score was performed but the neonates were in good condition The neonates were not weighed and the anthropological measurements were not taken

Both SODs did not brief the mothers on breastfeeding and left the delivery room immediately after expulsion of the placenta This data has been recorded by interview and observation

Comments

Missing of basic equipment
No partograph
No protocols
Poor skills of interview – no proper history taken
Asepsis and infection control ++ even at the level of the specialist[11]
Communication
Recording of intra partum data
Analgesia
Performing and recording of foetal weight
When to leave the patient after delivery
Post natal and contraceptive care

Policy implications

Availability of basic equipment
Protocols
Partographs should be available
Asepsis and infection control stressed
Communication and recording skills stressed
Neonatal care – clear guidelines of
How
Who
Postnatal care and contraception arranged discussed

SUMMARY OF ISSUSES AND TASKS WHICH NEED IMPROVMENT

Based on the observation of 25 delivery cases of different hospitals in Aswan and Luxor Governorates Hospitals few observations have been noticed repeatedly Most of which related to the level of knowlegde and skills of the service providers (Doctors/Nurses) which reflected the need of intesive plan of training So competency-based training (CBT) courses are needed to be used to train health providers in the districts Other issuses identified were concerning the systems operated in the area All management systems shall be reviewed, updated to bridge those gaps

Observations include the following items

1) Health providers are unable to take adquate history

2) No practices for sound infection prevention procedures even at the level of the specialist

3) Poor communication with patients

4) Service protocols are not available

5) No use of Partograph in any hospital

6) Inappropiate use of syntocinon regular use of syntocinon in all cases

7) No recognition of risk factors during pregnancy and PROM taken lightly (choice of place of delivery for them)

8) Inadequate care given to women during labour

9) Poor neonatal care which includes poor assessment and recording of neonatal conditions(umbilical stump care)

10) No system for post-natal care (early disharge of a potentially infected cases with episitomy)

11) Delay in transfer the patient from health center to the hospital(obstructed labour, pre-eclampsia)

12) Improper use of forceps (use of forceps in- potentially infected Birth canal)

13) No clear job describtions or division of the work among the health providers' team (Resident Specialist), cleaner cares for a preterm baby of a diabetic mother

14) ANC, no recognition of malpresentation during pregnancy, who deals with malpresentation? eclampsia?

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APPENDIX I

TABULATIONS FOR QUESTIONNAIRES

QUESTIONNAIRE# 1

DISTRICT DIRECTORATE LEVEL

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Table (1/1)

1/101 Total Population of Districts of Aswan and Luxor Governorates by Sex and Rural/Urban Distribution by District

	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Total Number (N)	240,821	94 528	336,514	270,852	79,189	1 084 302	375 515
%Urban	79 50	35 87	32 65	27 58	9 47	43 90	43 08
% Rural	20 50	64 13	67 35	72 42	90 53	56 10	56 92
% Males	51 40	50 16	50 06	50 85	43 39	50 18	50 43
%Females	48 60	49 84	49 94	49 15	56 61	49 82	49 57
Total Urban (N)	191,461	33,906	109 885	74,712	7,499	476,039	161,762
% Males	51 69	50 10	50 60	51 50	513 10	51 30	51 36
%Females	48 31	49 90	49 40	48 50	483 20	48 70	48 64
Total Rural (N)	49,360	60,622	226,629	196,140	71,690	608,263	213,753
% Males	50 27	50 20	49 80	50 60	138 44	49 29	49 73
%Females	49 73	49 80	50 20	49 40	135 16	50 71	50 27
Total Males (N)	123,774	47,419	168,463	137,724	34 359	544,059	189,367
%Urban	79 95	35 82	33 01	27 94	111 99	44 89	43 87
% Rural	20 05	64 18	66 99	72 06	288 85	55 11	56 13
Total Females (N)	117,047	47 109	168,051	133,128	44,830	540,243	186,148
%Urban	79 03	35 91	32 30	27 22	80 83	42 91	42 27
% Rural	20 97	64 09	67 70	72 78	216 13	57 09	57 73

Table (1/2)

1/102 Estimated Number of Women in Reproductive Age and Total Number of Live Births, Jan-Dec 96 in Aswan and Luxor Governorates by District *

	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Number of WRA *	40 121	18,000	60,000	50,000	NA	212,860	70 353
Number of Annual Live Births	6,744	2,214	8,623	7,542	2,026	27,318	10,229

* Estimated on the basis of the size of female population and the proportion of rural-urban population

Table (1/3)

1/104-108 **Estimated Number of Maternal and Neonatal Deaths and Stillbirths from January 1996 - June 1997 in Aswan and Luxor Governorates by District**

	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Total Number of Maternal Deaths							
January December 96	NA	NA	NA	NA	NA	NA	23
April-June 97	NA	NA	NA	NA	NA	NA	5
Early Neonatal (0-7 days) Deaths							
January December 96	18	3	14	4	NA	94	78
April-June 97	4	1	6	0	NA	5	27
Late Neonatal (8-28 days) Deaths							
January December 96	26	5	8	8	NA	104	43
April-June 97	12	2	1	1	NA	11	5
Still Births							
January December 96	4	NA	40	112	0	174	123
April June 97	1	NA	21	20	6	12	33
Infant (post neonatal) Deaths							
January December 96	26	5	8	8	NA	104	43
April June 97	12	2	1	1	NA	27	5

Table (1/4)

1/201-202 **Sufficiency of Staff in Aswan and Luxor Governorates and the Main Factors Underlying Staff Shortages by District**

	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Type of Provider							
Ob/Gyn Specialists	-17	-1	-4	-8	1	24	15
Ob/Gyn Residents	15	-2	5	-8	0	-28	10
Pediatricians	9	0	1	-2	-0	11	20
Anethesiologists	3	-1	2	-1	-0	-5	5
General Practitioners	32	14	44	-25	-19	150	52
Blood Transfusion Specialits	-0	0	-0	-0	-0	-0	-0
Laboratory Specialists	3	0	-0	-0	-0	3	5
Laboratory Technicians	12	2	-3	-4	-0	-16	29
Pharmacists	6	0	-3	2	-0	-19	17
Matron/Nursing Supervisors	4	-3	-2	-4	-6	-15	-4
Public Health Nurses	-1	-0	-0	-0	-0	2	-0
Midwifery Nurses	-5	-0	1	-0	-2	-7	-0
Nurses	308	199	167	-205	-190	1,268	90
Social Workers	-4	-0	0	-3	-5	56	21
Main Factors for Staff Shortages							
Continuous Turnover of Employees						x	x
Lack of Incentives	x				x		
Specializations in Short Supply in Govern					x		x
Ministry Does Not Employ	x	x	x	x	x	x	
Living Conditions Away from Family	x						

( ) Numbers are not enough

(+) Numbers are over what is needed

Table (1/5)

1/208 Availability of Functional Job Descriptions for Different Positions in Aswan and Luxor Governorates by District

Variables	Edfu			Kom Ombo			Aswan Gov			Luxor		
	Avail / Unavail	Seen/ Unseen	Initiat Date	Avail / Unavail	Seen/ Unseen	Initiat Date	Avail / Unavail	Seen/ Unseen	Initiat Date	Avail / Unavail	Seen/ Unseen	Initiat Date
District Health Officers	Avail	Unseen		Avail	Unseen	11-1996	Avail	Unseen		Avail	Seen	1990
Health Education Officers	Unavail			Unavail			Avail	Unseen		Unavail		
District Nurse/Supervisors	Avail	Unseen		Avail	Unseen		Avail	Unseen		Avail	Seen	1990
Hospital Physicians	Avail	Unseen					Avail	Seen	12-1996	Avail	Seen	1990
MCH/Urban Health Center Physicians	Avail	Unseen					Avail	Unseen		Avail	Seen	1990
Rural Health Center Physicians	Avail	Unseen		Avail	Unseen		Avail	Unseen		Avail	Seen	1990
MCH/UHC Nurse	Avail	Unseen					Avail	Unseen		Avail	Seen	1990
Midwifery/Nurses in Hospital	Avail	Unseen					Avail	Unseen		Avail	Seen	1990
Rural Health Center Midwives/Nurses	Avail	Unseen		Avail	Unseen		Avail	Unseen		Avail	Seen	1990
Laboratory Physicians	Unavail			Unavail			Avail	Seen	4 1997	Unavail		

Table (1/6)

1/301-303 **Timing of Ordering and Basis of the Decisions to Procure Drugs and Supplies and Reasons for Facing Shortages in Aswan and Luxor Goovernorates by District**

Variables	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Timing of Ordering							
Whenever a facility requests	x						x
At regular intervals		x		x	x	x	x
Do no order but receive	x		x				
Basis for Decision							
Based on requested amounts from U/C/Dpts.			x				
According to set quota	x	x		x	x	x	
Based on last year s estimations plus a %							x
Reasons for Shortages							
Late distribution	x	No		* x		No	* x
Insufficiency of funds		shortage	* x		x	shortage	
Shortages at the distributors' level	x	faced				faced	* x
Delayed ordering	x						

* No shortage is faced in drugs Shortage is only in supplies

Table (1/7)

1/304 **Health Facilities Estimations of Requested Drugs and Supplies and Frequency and Transportation * in Aswan and Luxor Governorates by District**

Variables	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Estimations of Drugs and Supplies							
Based on quantities used previously		x					
Previous estimation of amounts						x	x
When facility finishes its supply			x				
Based on amounts determined by Dis /Gov	x			x	x		
Timing of Distribution of Drugs and Supplies	quarterly	quarterly	quarterly	bi-monthly	quarterly	quarterly	quarterly

* All district stated that drugs and supplies are transported by facilities

Table (1/8)

1/307 **Main Problems Facing Procurement and/or Distribution of Drugs and Supplies by Aswan and Luxor Governorates During the last year (96/97) by District**

Aswan	1 Seasonal Shortages in drugs (e g) diarrhea drugs in winter, respiratory system drugs in summer 2 Distribution shortage of essential supplies as cotton, gauze, and antiseptic solutions
Daraw	No Problems Faced
Edfu	1 Unavailability of transportation facilities for drugs and supplies 2 Shortages in Pharmacists
Kom Ombo	1 Frequent Transfer of warehouse from MCH in Kom Ombo to Fever Hospital then to Kofour Heath Center
Nasr	1 Shortages in Drugs and Supplies 2 Inadequate transportation facilities
Aswan Gov	No Problems Faced
Luxor	No Problems Faced

Table (1/9)

1/401 Recommended Hours and Days for Services at Different Facilities in the Districts of Aswan and Luxor Governorates by Dis

Districts	Services	Hospitals			Urban H Centers			MCH			Rural HC/Units		
		Hours		Days	Hours		Days	Hours		Days	Hours		Days
		From	To		From	To		From	To		From	To	
Aswan	1 Antenatal Care	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d
	2 Postpartum Care	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d
	3 Infant Clinc	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d
Daraw	1 Antenatal Care	9 00	1 30	6 d				9 00	1 30	6 d	9 00	1 30	6 d
	2 Postpartum Care	9 00	1 30	6 d				9 00	1 30	6 d	9 00	1 30	6 d
	3 Infant Clinc	9 00	1 30	6 d			--	9 00	1 30	6 d	9 00	1 30	6 d
Edfu	1 Antenatal Care	9 00	1 00	3 d	8 00	1 00	6 d	8 00	1 00	6 d	8 00	1 00	6 d
	2 Postpartum Care				8 00	1 00	6 d	9 00	11 00	6 d	9 00	11 00	6 d
	3 Infant Clinc	8 00	1 00	6 d	8 00	1 00	6 d	8 00	1 00	6 d	8 00	1 00	6 d
Kom Ombo	1 Antenatal Care	8 30	2 00	6 d				8 30	2 00	6 d	8 30	2 00	6 d
	2 Postpartum Care	8 30	2 00	6 d				8 30	2 00	6 d	8 30	2 00	6 d
	3 Infant Clinc	8 30	2 00	6 d				8 30	2 00	6 d	8 30	2 00	6 d
Nasr	1 Antenatal Care	8 30	2 00	2 d	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
	2 Postpartum Care	8 30	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
	3 Infant Clinc	8 30	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
Aswan Gov	1 Antenatal Care	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
	2 Postpartum Care				8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
	3 Infant Clinc	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d	8 00	2 00	6 d
Luxor	1 Antenatal Care	8 30	11 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d
	2 Postpartum Care				8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d
	3 Infant Clinc	8 30	11 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d	8 30	2 00	6 d

Table (1/10)

1/402 "Client friendly Practices" in Facilities of Aswan and Luxor Governorates and Place of Implementation by District

	Client Friendly Practices	Place of Implementation		
		Hospital	Urban MCH	Rural HF
Aswan District	- Welcoming Clients Making clients feel comfortable Home visits	x	x	x
Daraw	- Friendly treatment on the part of physicians and nurses Group meetings with snacks for clients	x		x
Edfu	Integrated care Good quality of service			x
Kom Ombo	Friendly welcome and treatment on the part of physicians and nurses			x
Nasr	Friendly welcome for clients	x	x	x
Aswan Gov	- Friendly welcome for clients - Provision of good counseling for clients	x	x	x
Luxor	- Readiness to receive clients daily - Provision of counseling for clients Friendly welcome		x	x

Table (1/11)

1/403 **Recommended Procedures for Communication with the Facility to Which a Critical Case is Referred in Aswan and Luxor Governorates by District**

Aswan	1 Case diagnosis to be included in the transfer letter 2 Communication is to take place with facility to which the case is referred and 3 Follow up is to be implemented to get full information of the final diagnosis of cases referred
Daraw	1 Physician is to ask for an ambullance and 2 Case is to be accompanied to the facility to which it is transferred
Edfu	1 Physicians is to transfer critical cases immediately to District Hospital
Kom Ombo	1 Physician is to transfer critical cases immediately 2 Phsvican is to accompany case if needed and 3 Physician is to ask for an ambulance
Nasr	1 Transfer of case should be through a transfer letter 2 Physician is to ask for an ambulance and 3 Physician is to accompany the case if needed
Aswan Gov	1 Referral facility is to attend immediately to referred cases and 2 If feasible facilities should be notified by phone before receiving referred cases
Luxor	1 Regulations for feedback communications should be initiated and 2 Shortage in communication facilities have to be met to avoid hindering communication with referreal facility

Table (1/12)

1/501 503 **Numbers of Facilities that received New Registration Forms for Districts who have not Distributed Distributed to all Facilities**

Variables	District	
	Aswan District	Kom Ombo
District Hospital	Unavail	1
Urban HC	1	0
MCH Center	2	1
Rural Hospital	3	1
Rural HC	0	3
Rural Unit	13	19

* All Ditricts have received the new registration forms for registering maternal and neonatal services

All Districts with the exception of Aswan and Kom Ombo Districts have stated that these new forms have been distributed to all health facilities of District

Table 504 Number of Facilities that Provided Complete MCH/HIS Forms/Reports on time for the Month of June 1997 by District

Variables	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
General/District Hospital	1	---	1	--	- -	*	1
Rural Hospital	1	2	1	1	2	*	1
Urban Health Center	1	1	---	--	0	*	3
MCH Center	2	---	1	1	1	*	1
Rural Health Unit/Center	11	7	10	19	14	*	15

* Health Departments contact Governorate not units/facilities All Departments have sent their activity reports with the exception of the Health department of Edfu District

505-507 Policy Infromation for Review

* All districts stated that they have a review of information policy at facilities
* Four of the five districts implement this policy Only Edfu District pointed out that not all facilities of Edfu comply to the suggested system due to lack of training
* All Districts have stated that the District makes use of the information collected and received

Table (1/14)

1/601 **The Two Main Problems Facing Districts of Aswan and Luxor Governorates in Providing Appropriate and Effective Maternal and Neonatal Health Care Services and Recommended Solutions by District**

District	Problems	Solutions
Aswan	1 Shortage in female nurses	1 Establishment of Nursing Schools in Aswan whose graduates are to be employed in Aswan only
	2 Lack of training for nurses on Maternal and Child Services	2 Implementation of Maternal and Child Health Specialized Training workshops for nurses
Darw	1 Shortage in means of transportation	1 Meeting transportation needs
	2 Lack of incentives for trainees	2 Establishing an incentive system for encouraging trainee
Edfu	1 Shortage in number of nurses and midwives	1 Establishment of Nursing Schools
	2 Shortage in supplies	2 Provision of adequate funds
Kom Ombo	1 Lack of transportation facilities at MCH Center	1 Provision of safe transportation means for serving mothers and children
	2 Lack of specialized physicians in MCH Center	2 Employment of specialized physicians
Nasr	1 Lack of incubators	1 Provision of sufficient incubators
	2 Shortage in no of Ob/Gyn and Pediatricians	2 Eployment of an adequate no Ob/Gyn and Pediatrician
Aswan Gov	1 Shortage of female physicians in rural areas	1 Distribution of female physicians to serve in Aswan Gov
	2 Unsuitable accomodations for physicians	2 Maintenance of physician accomodations
Luxor	1 Lack of training of physicians and nurses	1 Adequate funds for training
	2 Shortage and high turnover of staff	2 Staff employment for two years instead of one

Table (1/15)

1/701-705 **Estimated Number of Registered and Trained Dayas in Aswan Governorate by District**

Variables	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
Number of total registered dayas	150	42	120	159	45	498	50
Starting date of training for registered dayas	1993	1994	1994	1982	1994	1989	1990
Number of trained dayas	150	42	120	159	45	498	50
Number of dayas received refresher training	110	42	7	159	45	498	0
Estimated number of untrained and unregistered dayas	50	7	60	5	30	350	50

Table (1/16)

1/706 **Numbers and Types of IEC Materials on Maternal and Neonatal Health and Breastfeeding Available at the Districts of Aswan and Luxor Governorates**

District	Subject	IEC Materials				
		Poster	Brochure	Flip Chart	Booklet	Video Tape
Aswan	1 At Risk Pregnancies	--	---	---	--	-
	2 Antenatal Care	--	---	---	-	---
	3 Importance of Breastfeding	--	---	---	-	--
	4 Proper way of Breastfeeding	---	---	---	--	-
	5 Improtance of Tetanus Vaccine	--	---	---	--	--
	6 Neonatal Care	--	---	---	---	---
	7 Sterilization and Delivery	--	---	---	---	---
Daraw	1 At Risk Pregnancies	3	2	---	---	3
	2 Antenatal Care	2	---	---	--	---
	3 Importance of Breastfeding	1	---	---	--	-
	4 Proper way of Breastfeeding	-	---	---	--	--
	5 Improtance of Tetanus Vaccine	1	---	---	---	---
	6 Neonatal Care	--	---	---	--	--
	7 Sterilization and Delivery	-	---	---	--	--
Edfu	1 At Risk Pregnancies	--	---	---	---	---
	2 Antenatal Care	-	---	---		---
	3 Importance of Breastfeding	20	---	---	--	---
	4 Proper way of Breastfeeding	--	---	20	--	--
	5 Improtance of Tetanus Vaccine	---	---	---	---	--
	6 Neonatal Care	---	---	---	---	--
	7 Sterilization and Delivery	--	---	---	---	---
Kom Ombo	1 At Risk Pregnancies	-	---	---	--	--
	2 Antenatal Care	--	---	---	---	--
	3 Importance of Breastfeding	200	---	---	---	---
	4 Proper way of Breastfeeding	-	---	---	---	---
	5 Improtance of Tetanus Vaccine	16	---	4	---	---
	6 Neonatal Care	35	- -	2	--	1
	7 Sterilization and Delivery	--	--	---	---	---
Nasr	1 At Risk Pregnancies	---	---	2	1	1
	2 Antenatal Care	---	--	2	---	1
	3 Importance of Breastfeding	2	2	10	10	-
	4 Proper way of Breastfeeding	--	- -	10	10	---
	5 Improtance of Tetanus Vaccine	--	- -	---	---	--
	6 Neonatal Care	50	100	--	---	1
	7 Sterilization and Delivery	---	--	---	---	--
Aswan Gov	1 At Risk Pregnancies	---	-	---	50	---
	2 Antenatal Care	--	-	---	--	---
	3 Importance of Breastfeding	2	-	75	20	---
	4 Proper way of Breastfeeding	--	5	75	20	---
	5 Improtance of Tetanus Vaccine	--	---	---	---	---
	6 Neonatal Care	---	500	---	--	---
	7 Sterilization and Delivery	--	--	---	--	---
Luxor	1 At Risk Pregnancies	--	---	--	2	---
	2 Antenatal Care	- -	---	---	2	---
	3 Importance of Breastfeding	--	---	---	---	---
	4 Proper way of Breastfeeding	-	--	---	---	---
	5 Improtance of Tetanus Vaccine	--	10	---	---	---
	6 Neonatal Care	10	---	---	---	---
	7 Sterilization and Delivery	---	---	---	-	---

Table (1/17)

1/707 **Health Education Activities Implemented for Maternal/Neonatal Health and Breastfeeding in the last Three Months in the Districts of Aswan and Luxor Governorates**

District	Activity	Place	Traget Group	Topics
Aswan	Meetings			
	Microphone			
	Contests			
	Other	At Local Unit (Abu El Rish Village) (Outside Facility)	Raidat Liaison Officers	Diarrhea Dehydration and imp of treatment using ORS
Daraw	Meetings	Mecial center in Daraw (Outside Facility)	Mothers	Importance of Breastfeeding
	Microphone			
	Contests			
	Other			
Edfu	No IEC Activities have taken place in the last three months			
Kom Ombo	No IEC Activities have taken place in the last three months			
Nasr	Meetings	MCH Center	Mothers	Vaccination
	Microphone			
	Contests			
	Other			
Aswan Gov	No IEC Activities have taken place in the last three months			
Luxor	Meetings	Health Facilities City Council	Mothers Community Members	Breastfeeding Antenatal Care Vaccination ORS
	Microphone			
	Contests			
	Other			

1/708

* All Districts stated that there are no NGOs active in maternal and neontal health in their district

Table (1/18)

1/801 Numbers and Types of Cases as shown in records during January December 1996 and April June 1997 from Records in Aswan and Luxor Governorates by District

Variables	Aswan		Daraw		Edfu		Kom Ombo		Nasr		Aswan Gov		Luxor	
	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97	Jan Dec 96	Apr Jun 97
Clients														
New Antenal Clients	1248	654	844	249	1862	720	NA	505	789	291	5240	2182	3983	2385
Revisits by Antenatal Clients	941	230	640	140	1766	402	NA	730	1232	208	4978	1237	5009	2355
Normal Deliveries	114	36	989	222	1386	110	NA	403	732	239	3769	335	1841	820
Total Deliveries	115	39	757	262	1520	279	NA	403	732	233	4549	808	2081	852
Post partum Women Check up (up to 42 days after delivery)	200	NA	NA	NA	NA	NA	NA	115	2119	NA	NA	NA	NA	NA
Infant Check up (0 28 days)	NA	1172	NA	NA	NA	NA	NA	112	NA	NA	NA	NA	NA	NA
Total Complicated Delivery Cases	1+338	3+85	68	40	NA	NA	NA	NA	NA	6	NA	NA	240	32
Anemia	113	31+41	NA	NA	NA	NA	NA	NA	NA	28	NA	NA	0	0
Antepartum Hemorrhage	35	18	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	0	0
Pre Eclampsia	90	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	3
Eclampsia	2	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	2
Post partum Hemorrhage	16	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	3
Abortion Complications	27	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0
Retained Placenta	5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	0
Breech Presentation/Delivery	9	2	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	28	13
Sepsis	1	0	NA	NA	NA	NA	NA	NA	0	5	NA	NA	13	5
Ectopic Pregnancy	9	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	1
Uterine Rupture	3	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	1
Complicated Deliveries														
Deliveries by Suction	0	0	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0
Forceps Deliveries	9	5	NA	NA	NA	NA	NA	NA	NA	NA	614	172	0	0
C Sections	329	35	NA	NA	NA	NA	NA	NA	NA	NA	463	154	209	15
Blood Transfusion During and After Delivery	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	5
Deaths														
Stillbriths	4	1	NA	NA	40	21	112	20	0	6	174	28	123	33
Matrenal Deaths During Pregnancy	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maternal Deaths During Labor (up to 6 months)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Post partum Deaths (up to 42 after Delivery)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	5
Maternal Deaths due to Abortions	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Early neo natal Deaths (0 7 days)	18	4	3	1	14	6	4	0	NA	NA	94	7	78	27
Late neo natal Deaths (8 28 days)	26	12	5	2	8	1	8	1	NA	NA	104	27	43	5

Table (1/19)

1/901 **Total Number of Health Facilities in Aswan and Luxor Governorates by District**

Variables	District						
	Aswan District	Daraw	Edfu	Kom Ombo	Nasr	Aswan Govern	Luxor
General Hospitals	1	0	0	0	0	1	1
District Hospitals	0	1	1	1	1	4	2
MCH Centers	3	1	1	1	1	7	2
Urban Health Facilities	2	0	0	0	1	4	4
Rural Hospitals	3	2	5	1	2	13	1
Rural Health Centers	0	0	1	3	2	8	3
Rural Health Units	15 *	7	37	19	14	91	18
Other Public Sector Hospitals/Clinics	NA	9	0	0	0	NA	0
Voluntary Organization Facilities	NA	0	0	0	0	NA	15
Private Hospitals	NA	0	2	2	1	13	0
Private Dispensaries/Clinics	NA	0	20	25	5	212	57
Private Ob/Gyn Clinics	NA	3	10	8	1	24	20

One Unit is Closed

Table (1/20)

1/902 Total Number of of Beds in Health Facilities in Aswan and Luxor Governorates by District

	Aswan			Daraw			Edfu			Kom Ombo			Nasr			Aswan Gov			Luxor		
	Total	Mat	Ped	Total	Mat	Ped	Total	Mat	Ped	Total	Mat	Ped	Total	Mat	Ped	Total	Mat	Ped	Total	Mat	Ped
General Hospitals	314	16	10						-			-				201	23	14	528	53	20
District Hospitals		-		62	8	4	70	5	5	94	18	10	45	6	4	76	11	9	510	78	28
MCH Centers							1	1	0			-			-		- -				
Urban Health Centers				-					- -				-			-	-				
Rural Hospitals	32	0	0	28	0	0	12	2	2	15	0	0	40	10	6	30	3	5	246	0	0
Rural Health Centers							4	2	2	60	0	0	40	6	4		- -		100	0	0
Other Public Sector Hospitals/Clinics	- -			-				-	-	-		-		-		--	---				
Voluntary Organization Facilities			-						-	-		---		- -	-	-	---		-		
Private Hospitals							--	- -	--	23	0	0	15	0	0	20	3	3	243	0	0
Private Dispencaries/Clinics	-	-	-	3	0	0	--	- -	-	-	-	-		-		9	9	0	239	0	0

TRAINING

Aswan 7 GPs trained in antenatal care, delivery, post partum care and neonatal care and 6 GPs in Breastfeeding One Nurse supervisor was trained in prenatal Care There are no training facilities supervised by the district and no trainers but the Directorate may provide trainers Training problems mentioned bv the Head of the department include lack of involvement of the department in training training announcements are made for a short time which to allow reasonable nominations the Department does not receive any feed back about their trainees and training carried out locally encourages unsystematic attendance The H of D stated that there is a system for following up on trainees performance but the "system" was not well explained

Daraw 1 GP was trained in prenatal care, delivery and post natal care and 8 GPs trained in breastfeeding 42 nurses trained in prenatal care and 5 nurses in breastfeeding The medical center in the District is used for training and the trainers are the H of Dept and nurse supervisors The main training problem is lack of incentives for trainees and so lack of interest in training There is a system of following up on trainees performance by the trainers but not explained how it is done

Edfu Only one GP trained in prenatal care and in health service management There are no training facilities and the only available trainer in mother and neonatal care is the Department Deputy The in availability of training centers in the District and lack of training aids are the main problems of training The Department Deputy, as the trainers follows up on performance of trainees

Kom Ombo Had the highest number of trainees Seven GPs were trained in prenatal care, delivery, postpartum care and neonatal care, one GP in management and 3 Sonar One chief nurse was trained in prenatal care, post natal care, management and breastfeeding 33 nurses were trained in prenatal care, delivery, postnatal care management, and 120 were trained in neonatal care The Health Department and Kom Ombo MCH are used as training and trainers are from Cairo The most important training problem is the inadequate numbers of rural GPs so it becomes difficult to take training leaves Trainees are followed up by the DH and head of training in the Directorate

Nasr One GP trained in prenatal care, delivery and post natal care and 7 in neonatal care Two chief nurses had training in neonatal care and in breastfeeding, and one had training in management of health services Twenty nurses had training in neonatal care Nasr hospital is used for training There are 6 trainers from the Department and directorate in Mother and Neonatal care The most important problems in training is lack of teaching aids and training facilities The systems for follow up on trainers performance is done through periodic supervision and follow-up on assessment reports and service statistics

QUESTIONNAIRE # 2

HEALTH FACILITY DATA SHEET

Table (2/1)	**The Number of Assigned Posts and Those Present at the Day of Interview by Category of Posts and by Districts.**
Table (2/2)	**Mother Care Services Provided at Facilities by District.**
Table (2/3)	**Distribution of Facilities by Mother and Child Emergency Services by District**
Table (2/4)	**Distribution of Facilities by Certain Aspects of Referral System by District.**
Table (2/5)	**Facilities Available at Health Facilities by District**
Table (2/6)	**Distribution of Health Facilities by Type of Forms Used for Information System, Use of Data, Regular Notification and Number of Trained Personnel on Data Use by District.**
Table (2/7)	**Distribution of Health Facilities According to Drugs and Supplies by Needs Estimation, Reception, Shortages and Distribution by District**
Table (2/8)	**Distribution of Facilities by Main Shortages in Drugs and Supplies by District**
Table (2/9)	**Distribution of Facilities by Availability of Blood, Methods of Meeting Blood Needs and Condition of Equipment at Blood Bank by District**
Table (2/10)	**Average Numbers of Registered, Trained and Unregistered Dayas by District.**
Table (2/11)	**Average Numbers of IEC Materials by Topic and Type of Materials and by District**
Table (2/12)	**Distribution of Health Facilities by Educational Activities on Maternal and Neonatal Care in the Last 3 Months by Type of Activity and the Average Number of Home Visit Staff and Home Visits by District**
Table (2/13)	**Distribution of Health Facilities by Availability and Condition of Waiting Places for Mother Eaxamination, Labor, and Delivery Processes by District.**
Table (2/14)	**Number of Personnel Who Have Recieved Training from 8/1/96 to 7/31/97 by Category of Personnel, Topics and by District.**

Table (2/15) **Designated Supervisors for Each Category of Personnel and the Mean Number of Weeks Since Last Visit of Supervisor by District**

Table (2/16) **Activities of Supervisors During Visit at Facility by District.**

Table (2/17) **The Number of Facilities with Various Protocols and Numbers Trained on Protocol for Each Category of Personnel by District.**

Table (2/18) **Distribution of Hospitals by Basic Problems Affecting Appropriate and Effective Maternal and Neonatal Health Care Services and Recommended Solutions by District**

Table (2/19) **Distribution of Facilities According to Number of Equipment and Supplies in Working Condition Available at Facility by District**

Table (2/1)

2/101 The Number of Assigned Posts and Those Present at the Day of Interview by Category of Posts and by Districts

No of Facilities	Districts											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	A *	P *	A	P	A	P	A	P	A	P	A	P
1 Ob/Gyn Specialists	10	7	1	1	8	6	15	12	3	0	18	13
2 Ob/Gyn Residents	1	1	2	1	6	3	18	14	1	1	14	7
3 Pediatricians	6	4	0	0	3	2	10	5	0	0	17	7
4 Anaesthesiologists	1	1	1	0	1	1	3	3	0	0	5	3
5 General Practitioners	43	42	13	10	21	19	21	19	19	17	36	28
6 Blood Bank Specialists	0	0	0	0	0	0	0	0	0	0	0	0
7 Laboratory Specialits	3	3	0	0	0	0	3	1	0	0	1	1
8 Laboratory Technicians	51	42	11	10	47	40	27	24	15	14	35	27
9 Pharmacists	3	3	0	0	2	2	7	5	0	0	3	2
10 Matron/Nursing Spervisors	4	4	1	1	2	1	4	4	6	5	6	4
11 Public Health Nurses	0	0	0	0	0	0	1	1	0	0	0	0
12 Midwifery Nurses	3	3	0	0	2	2	5	3	3	3	1	1
13 Nurses	148	118	135	90	144	125	320	271	155	136	39	82
14 Social Workers	8	7	0	0	3	3	8	1	2	1	10	9
Total	281	235	164	113	239	204	442	363	204	177	185	184

A = Number of assigned posts

P = Number of Present staff on the day of interview

Table (2/2)

2/201 Mother Care Services Provided at Facilities by District

	Districts					
	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
Total Number of Facilities	36	9	19	19	16	24
Mean and Std Dev of No of Days						
Antenatal Services						
N Cases	35	9	19	19	16	24
Mean Days	5 00	5 22	5 10	5 79	5 12	2 70
Std Dev	1 90	1 56	1 79	0 92	1 89	2 20
Post-Partum Services						
N Cases	31	9	18	18	16	23
Mean Days	5 77	5 67	6 00	6 00	6 00	6 00
Std Dev	0 88	1 00	0 00	0 00	0 00	0 83
Infants						
N Cases	34	9	19	19	16	23
Mean Days	5 70	5 67	6 00	6 00	6 00	6 00
Std Dev	1 03	1 00	0 00	0 00	0 00	0 00
Sonar						
N Cases	2	1	3	1	1	0
Mean Days	4 50	6 00	4 33	6 00	6 00	---
Std Dev	2 12	0 00	2 89	0 00	0 00	---
Lab Hb						
N Cases	7	1	4	9	7	10
Mean Days	5 00	6 00	5 00	6 00	6 00	5 30
Std Dev	1 73	0 00	2 00	0 00	0 00	1 49
Lab Urine						
N Cases	35	9	18	18	16	21
Mean Days	5 68	6 00	5 78	5 44	6 00	5 33
Std Dev	1 05	0 00	0 94	1 29	0 00	1 32
Mean and Std Dev of No of Hours						
Antenatal Services						
Mean Hours	6 28	5 89	5 74	6 68	5 87	5 46
Std Dev	1 60	1 54	1 33	1 25	1 86	1 44
Post Partum Services						
Mean Hours	6 77	5 89	5 72	6 56	5 87	5 48
Std Dev	1 38	1 54	1 36	1 25	1 86	1 47
Infants						
Mean Hours	6 76	5 78	5 74	6 63	5 87	5 39
Std Dev	1 48	1 64	1 34	1 26	1 86	1 44
Sonar						
Mean Hours	6 00	4 00	3 67	6 00	4 00	--
Std Dev	0 00	0 00	2 08	0 00	0 00	---
Lab Hb						
Mean Hours	6 14	4 00	4 75	6 44	4 70	5 20
Std Dev	1 68	0 00	1 50	1 24	1 80	1 62
Lab Urine						
Mean Hours	6 23	6 78	5 83	6 11	5 87	5 38
Std Dev	1 59	1 72	1 46	1 41	1 85	1 50

Table (2/3)

2/202-5 Distribution of Facilities by Mother and Child Emergency Services by District

	Districts											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Number of Facilities with Delivery Services on 24 Hour Basis	34	94 4	8	88 9	18	94 7	16	84 2	15	93 8	17	70 8
Number of Facilities with Ob/Gyn Specialists on Call at Night and on Holidays	1	2 8	1	11 1	1	5 3	1	5 3	0	0 0	2	8 3
Number of Facilities with Infants Emergency Services for 24 Hours	32	88 9	8	88 9	19	100 0	16	84 2	14	87 5	18	75 0
Number of Facilities with Pediatric Specialists on call at Night and on Holidays	2	5 6	0	0 0	2	10 5	0	0 0	0	0 0	2	8 3

Table (2/4)

2/206-14 Distribution of Facilities by Certain Aspects of Referral System by District

	Districts											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
Total No of Facilities	36		9		19		19		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
Referral Facilities for Maternal and Neonatal Cases												
General Hospital in Gov							16	84 2				
District Hospital in District	32	88 9	8	88 9	17	89 5	1	5 3	5	31 3	21	87 5
District Hospital in another District	3	8 3	1	11 1	0	0 0	1	5 3	11	68 8	2	8 3
Rural Hospital	0	0 0	0	0 0	1	5 3	0	0 0	0	0 0	0	0 0
Do not Refer	1	2 8	0	0 0	1	5 3	1	5 3	0	0 0	1	4 2
Average Distance for Referral (Kms)	12 1		11 1		13 5		10 0		13 8		10 0	
Std Dev	7 7		10 1		14 2		11 5		11 0		9 0	
Average Time for Referral (Min)	27 0		31 4		31 7		21 1		22 5		18 7	
Std Dev	17 0		37 7		40 8		17 9		12 9		9 2	
No of Referral Facilities	**35**		**9**		**18**		**18**		**16**		**23**	
Facilities Communicate with Referral Facilities Prior to Sending the Patients												
Always	0	0 0	1	11 1	3	16 7	2	11 1	4	25 0	2	8 7
Sometimes	3	8 6	1	11 1	2	11 1	0	0 0	2	12 5	0	0 0
Critical Patients are Accompanied with												
Physician	9	25 7	0	0 0	7	38 9	4	22 2	5	31 3	2	8 7
Midwife	1	2 9	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Nurse	3	8 6	2	22 2	1	5 6	2	11 1	2	12 5	2	8 7
Driver	0	0 0	0	0 0	0	0 0	1	5 6	0	0 0	1	4 3
Nobody	24	68 6	7	77 8	11	61 1	11	61 1	9	56 3	18	78 3
Other	1	2 9	1	11 1	0	0 0	0	0 0	0	0 0	0	0 0
Facilities that Follow Up on Referral	13	37 1	8	88 9	11	61 1	8	44 4	5	31 3	16	69 6
Facilities that do not Follow Up on Referral	22	62 9	1	11 1	7	38 9	10	55 6	11	68 8	7	30 4
No of Facilities that Follow Up	**13**		**8**		**11**		**8**		**5**		**16**	
Follow Up Takes Place By												
Phone	0	0 0	0	0 0	1	9 1	0	0 0	1	20 0	1	6 3
Regular Feedback	1	7 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Informal Contact	13	100 0	8	100 0	7	63 6	8	100 0	3	60 0	12	75 0
Other	0	0 0	0	0 0	3	27 3	0	0 0	1	20 0	3	18 8
No of Facilities that Follow Up	**22**		**1**		**7**		**10**		**11**		**7**	
Facilities Do not Follow Up for the Following Reasons												
No records for follow Up	0	0 0	0	0 0	0	0 0	0	0 0	1	9 1	0	0 0
Follow Up Not Required	4	18 2	0	0 0	2	28 6	9	90 0	2	18 2	4	57 1
Difficult to follow up	12	54 5	1	100 0	5	71 4	1	10 0	9	81 8	3	42 9
Other	5	22 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
For Hospitals Only												
Average Time for Attending to Referrals	6 3		3 0		5 0		6 7		3 0		5 0	
Std dev	2 5		2 0		0 0		2 9		2 8		0 0	

Table (2/5)

2/301-5 Facilities Available at Health Facilities by District

Total No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Total Number of Beds	231		89		149		550		82		331	
Total Number of Maternity Beds	25		8		20		61		18		40	
Total Number of Pediatric Beds	25		4		14		32		11		26	
Total Number of Working Ambulences	1		0		0		2		1		7	
Facilities with Working Telephone	18	50 0	5	55 6	8	42 1	6	31 6	9	56 3	5	20 8
Facilities with Regular Potable Water	19	52 8	9	100 0	12	63 2	14	73 7	9	56 3	20	83 3
Facilities with Regular Electricity	28	77 8	9	100 0	12	63 2	19	100 0	14	87 5	19	79 2

Table (2/6)

2/401 5 Distribution of Health Facilities by Type of Forms Used for Information System Use of Data Regular Notification and Number of Trained Personnel on Data Use by District

Total No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Used Forms by Type of Service												
First Antenatal Visits Form												
Old forms	5	13 9	1	11 1	0	0 0	0	0 0	0	0 0	2	8 3
New forms	23	63 9	8	88 9	18	94 7	18	94 7	15	93 8	21	87 5
Not available	8	22 2	0	0 0	1	5 3	1	5 3	1	6 3	1	4 2
Antenatal Follow Up Visits Form												
Old forms	5	13 9	1	11 1	0	0 0	0	0 0	0	0 0	2	8 3
New forms	23	63 9	8	88 9	18	94 7	18	94 7	14	87 5	21	87 5
Not available	8	22 2	0	0 0	1	5 3	1	5 3	2	12 5	1	4 2
Delivery Form												
Old forms	4	11 1	1	11 1	1	5 3	0	0 0	1	6 3	2	8 3
New forms	19	52 8	8	88 9	17	89 5	18	94 7	15	93 8	21	87 5
Not available	13	36 1	0	0 0	1	5 3	1	5 3	0	0 0	1	4 2
Post Partum Form												
Old forms	5	13 9	0	0 0	1	5 3	2	10 5	0	0 0	0	0 0
New forms	11	30 6	8	88 9	12	63 2	5	26 3	12	75 0	9	37 5
Not available	20	55 6	1	11 1	6	31 6	12	63 2	4	25 0	16	66 7
Child Care Form												
Old forms	5	13 9	1	11 1	0	0 0	0	0 0	1	6 3	3	12 5
New forms	20	55 6	8	88 9	17	89 5	17	89 5	14	87 5	20	83 3
Not available	11	30 6	0	0 0	2	10 5	2	10 5	1	6 3	1	4 2
Incubator Form												
Old forms	1	2 8	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
New forms	0	0 0	0	0 0	1	5 3	0	0 0	0	0 0	1	4 2
Not available	34	94 4	9	100 0	18	94 7	18	94 7	16	100 0	23	95 8
Mentioned Use of Collective Data												
Follow Up of Cases	14	38 9	5	55 6	12	63 2	11	57 9	13	81 3	17	70 8
Detection of Community Health Problems	9	25 0	1	11 1	9	47 4	4	21 1	9	56 3	11	45 8
Assessment of Quality of Services	8	22 2	6	66 7	6	31 6	3	15 8	3	18 8	7	29 2
Improvements in Services	5	13 9	3	33 3	2	10 5	6	31 6	7	43 8	6	25 0
Assessment of Accuracy of Information	6	16 7	1	11 1	1	5 3	2	10 5	3	18 8	1	4 2
Other Uses	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	2	8 3
Regular Nofication of												
Maternal Deaths	25	69 4	8	88 9	17	89 5	10	52 6	15	93 8	17	70 8
Still Births	15	41 7	8	88 9	11	57 9	10	52 6	15	93 8	16	66 7
Neonatal Deaths	21	58 3	8	88 9	17	89 5	10	52 6	15	93 8	18	75 0
Infant Deaths	25	69 4	8	88 9	16	84 2	10	52 6	15	93 8	18	75 0
By												
Phone	4	11 1	2	22 2	6	31 6	2	10 5	3	18 8	1	4 2
Messenger	1	2 8	0	0 0	1	5 3	1	5 3	1	6 3	1	4 2
Monthly Report	8	22 2	3	33 3	3	15 8	4	21 1	5	31 3	8	33 3
Other	12	33 3	3	33 3	6	31 6	3	15 8	5	31 3	8	33 3
Facilities that Have Trained Personnel on Use of Data	6	16 7	6	66 7	2	10 5	10	52 6	1	6 3	12	50 0
No of Trained Personnel by Type												
GPs	2		5		0		5		1		8	
Nurses	10		6		5		17		0		6	
Statistics Technicians	1		0		0		0		0		3	
Clerks	1		3		1		0		0		5	

Table (2/7)

2/501 503 & 505 506 **Distribution of Health Facilities According to Drugs and Supplies by Needs Estimation Reception Shortages and Distribution by District**

Total No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Needs Estimation of Drugs and Supplies:												
Based on Quantities Used Previously	11	30 6	2	22 2	4	21 1	10	52 6	4	25 0	16	66 7
Pre determined Quantities	5	13 9	0	0 0	6	31 6	6	31 6	9	56 3	6	25 0
Determined by District Health Dept	17	47 2	4	44 4	7	36 8	0	0 0	1	6 3	0	0 0
Determined by Governorate Health Dept	3	8 3	3	33 3	2	10 5	2	10 5	2	12 5	1	4 2
Other	0	0 0	0	0 0	0	0 0	1	5 3	0	0 0	1	4 2
Facility Regularly Receives												
Essential Drugs for Pregnancy and Delivery	21	58 3	6	66 7	3	15 8	9	47 4	1	6 3	20	83 3
Supplies	15	41 7	5	55 6	4	21 1	12	63 2	2	12 5	20	83 3
Facility Receives Drugs and Supplies in Items and Quantities as Ordered	6	16 7	1	11 1	1	5 3	6	31 6	1	6 3	15	62 5
Facility Overcomes Shortages by												
Procurring Locally	2	5 6	2	22 2	1	5 3	0	0 0	1	6 3	1	4 2
Asking Client to Buy	28	77 8	6	66 7	17	89 5	14	73 7	14	87 5	9	37 5
Other	4	11 1	0	0 0	0	0 0	3	15 8	0	0 0	1	4 2
Facility Distributes Drugs and Supplies to Other Facilities	3	8 3	1	11 1	2	10 5	2	10 5	2	12 5	1	4 2

Table (2/8)

2/504 Distribution of Facilities by Main Shortages in Drugs and Supplies by District

	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
Total No of Facilities	36		9		19		19		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
No Shortages	5	13 9	1	11 1	1	5 3	2	10 5	1	6 2	14	58 3
Do not Know	3	8 3	0	0	0	0	0	0	0	0	0	0
Shortage in Supplies												
Surgical Thread	1	2 8	0	0 0	1	5 3	0	0	0	0 0	0	0 0
Towels to Dry Baby	1	2 3	0	0 0	0	0 0	0	0	2	12 5	0	0 0
Blankets to Wrap Baby	2	5 6	0	0	0	0	0	0	0	0	0	0
Gloves	1	2 8	0	0 0	0	0 0	0	0	0	0 0	0	0 0
Disposal Syringes	0	0 0	0	0 0	0	0 0	0	0	2	12 5	0	0 0
IV & Bl Trans Kits	1	2 8	0	0 0	0	0 0	0	0	0	0 0	0	0 0
Dressings	0	0	0	0	1	5 3	0	0	1	6 5	0	0
Proteinuria Test Supplies	1	2 8	0	0 0	0	0 0	0	0	0	0 0	0	0 0
Shortages in Anaesthetics												
Type not specified	1	2 8	0	0 0	0	0 0	0	0	0	0 0	0	0 0
Nitrous Oxide	0	0	0	0	0	0	0	0	0	0	1	4 2
Shortages in Antibiotics												
Type not specified	13	36 1	7	77 8	16	84 2	7	36 8	13	81 2	7	29 2
Penicillin Injections	0	0 0	0	0 0	0	0 0	0	0	1	6 2	0	0 0
Amoxcide	0	0	0	0	1	5 3	0	0	0	0	0	0
Shortages in Other Drugs												
Type not specified	0	0 0	0	0 0	0	0 0	1	5 3	0	0 0	1	4 2
Silver Nitrate Eye Drops	1	2 8	0	0 0	1	5 3	1	5 3	0	0 0	1	4 2
Iron Tablets	10	27 8	5	55 6	2	10 5	7	36 8	9	56 2	4	16 7
Hypertensive Tablets	3	8 3	0	0 0	2	10 5	3	15 8	0	0 0	1	4 2
Antipyretics & Analgesics	4	11 1	4	44 4	5	26 3	4	21 1	0	0 0	2	8 3
Calcium Injections	2	5 6	1	11 1	0	0	0	0	0	0	1	4 2
Neonatal drugs	3	8 3	0	0	0	0	2	10 5	0	0	0	0
Antidiarrheal Drugs	2	5 6	0	0	0	0	2	10 5	1	6 2	2	8 3
Drugs for Common Cold and GIT Infections	2	5 6	0	0 0	2	10 5	2	10 5	0	0 0	1	4 2
Aminophiline	0	0 0	0	0	2	10 5	0	0	0	0	0	0
Antisposmodics	0	0 0	0	0 0	1	5 3	1	5 3	0	0 0	0	0 0
Drugs for Respiratory Infections	0	0 0	0	0 0	0	0 0	1	5 3	0	0 0	0	0 0
Shortages in Immunologocals (vaccines)												
Type not specified	0	0 0	0	0 0	0	0 0	1	5 3	0	0 0	1	4 2
Tetanus Toxoid	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	1	4 2
BCG	0	0 0	0	0 0	1	5 3	0	0 0	0	0 0	0	0 0
Ecbolics	13	36 1	0	0	8	42 1	5	26 3	11	68 7	1	4 2
Antiseptics	0	0 0	0	0 0	1	5 3	1	5 3	0	0 0	0	0 0
Shortages in Intraveneous Solution												
Type not specified	1	11 1	0	0 0	1	5 3	0	0 0	0	0 0	0	0 0
Saline	0	0 0	0	0 0	0	0 0	0	0 0	1	6 2	0	0 0

Table (2/9)

2/507 510 Distribution of Facilities by Availability of Blood Methods of Meeting Blood Needs and Condition of Equipment at Blood Bank by District

Total No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Facilities with Blood Banks but No Sufficient blood	1	2.8	1	11.1	1	5.3	1	5.3	1	6.3	2	8.3
How Blood Needs Are Met												
Patients Buy from Bank	1	2.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Patients Supply from Relations/Friends	1	2.8	1	11.1	1	5.3	0	0.0	1	6.3	2	8.3
Refer Patient to Another Facility	31	86.1	8	88.9	17	89.5	17	89.5	12	75.0	32	133.3
Other	3	8.3	0	0.0	1	5.3	2	10.5	3	18.8	0	0.0
Equipment of Bank in Good Order												
Refrigerator	1	2.8	1	11.1	1	5.3	1	5.3	1	6.3	2	8.3
Centrifuge	1	2.8	1	11.1	1	5.3	1	5.3	1	6.3	2	8.3
Microscope	1	2.8	1	11.1	1	5.3	1	5.3	1	6.3	2	8.3
Laboratory Kits for Screening	1	2.8	1	11.1	1	5.3	1	5.3	0	0.0	2	8.3

Table (2/10)

2/601 Average Numbers of Registered, Trained and Unregistered Dayas by District

	District					
	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
	36	9	19	9	16	24
No of Facilities With No Relationship with Dayas	26	7	15	10	13	11
No of Facilities that Reported Numbers	9	2	3	8	3	13
Do not Know No of Registered Dayas	1	0	1	1	0	0
Average No of Registered Dayas Per Facility	28	285	20	82	10	35
Std Dev	20	191	17	109	10	16
Average No of Trained Dayas	123	285	52	87	10	30
Std Dev	302	191	66	125	10	21
Do not Know	0	0	0	3	0	0
Average No of Dayas Received Refresher Training	30	40	20	18	00	18
Std Dev	95	56	40	28	00	23
Average Estimated Number of Unregistered Dayas	47	20	27	02	17	41
Std Dev	49	28	15	04	29	53

Table (2/11)

2/602 Average Numbers of IEC Materials by Topic and Type of Materials and by District

Type of Subject	District																	
	Edfu 36			Daraw 9			Kom Ombo 19			Aswan 19			Nasr 16			Luxor 24		
	Cases	Mean	StDev	Cases	Mean	StDev	Cases	Mean	StDev	Cases	Mean	StDev	Cases	Mean	StDev	Cases	Mean	StDev
Risk Pregnancy																		
Poster	3	0 7	1 1										3	0 7	0 6	1		
Brochure	3	0 3	0 6													1	10	0
Flip Chart	3	0 7	0 4							5	0 2	0 4	3	0 3	0 6	1		
Booklet	3	0 3	0 6							5	14 8	20 5	3	8 3	10 4	1		
Antenatal Care																		
Poster	1			3	0 3	0 6	1	1	0	4	3 2	4 7	7	1 4	1	3	1 7	2 9
Brochure	1			3			1			4	12 5	25	7			3		
Flip Chart	1			3	1	0	1			4	0 2	0 5	7	0 4	0 5	3	1	0
Booklet	1	0 0	1	3			1			4	1	8	7	3	7 5	3		
Importance of Breastfeeding																		
Poster	15	1 1	0 7	7	1 3	1 2	11	4	5 9	15	4 9	9 9	15	1 6	1	16	1 4	1
Brochure	15	3 3	12 9	7			11			15	3 7	12 9	15			16	13 7	29 6
Flip Chart	15	0 1	0 3	7	0 3	0 5	11			15	0 3	0 4	15	0 3	0 5	16	0 2	0 4
Booklet	15			7	0 1	0 4	11	0 2	0 6	15	4	12 8	15	4 9	13 5	16	0 7	2 5
Proper way of Breastfeeding																		
Poster	9	1 2	0 8	5	1 2	1 6	4	3 2	1 5	4	8	14 7	13	1 1	0 9	7	1 3	1 4
Brochure	9			5			4			4	12 5	25	13			7	21 4	39 3
Flip Chart	9	0 1	0 3	5	0 6	0 5	4			4	0 2	0 5	13	0 4	0 5	7	0 4	0 5
Booklet	9			5	0 2	0 4	4			4	13 2	24 5	13	5 6	14 4	7	0 1	0 4
Importance of Tetanus Shots																		
Poster	6	1	1 1	0			2	1	1 4	2	1	1 4	10	0 9	0 6	8	1 6	1 4
Brochure	6	0 2	0 4	0			2	3	2 8	2	0 5	0 7	10	1	3 2	8	0 5	1 1
Flip Chart	6	0 5	1 2	0			2			2			10	0 2	0 4	8	0 2	0 5
Booklet	6			0			2			2			10	5 2	15 7	8	0 1	0 3
Video Tapes	6			0			2			2			10	0 1	0 3	8		
Neonatal Care																		
Poster	1			0			9	3 2	3	5	2 2	1 9	8	0 5	0 7	10	2	1 6
Brochure	1			0			9	--		5		--	8	28 1	69 7	10	6	15 8
Flip Chart	1			0			9	0 1	0 3	5	0 2	0 4	8	0 2	0 5	10	0 3	0 5
Booklet	1	1	0	0			9			5	0 4	0 9	8	0 4	0 7	10		
Sterilization & Delivery																		
Poster	1			0			0			0	--		1	1	0	0		--
Brochure	1	1	0	0			0			0			1			0		
Flip Chart	1			0			0			0			1	1	0	0		
Booklet	1			0			0			0			1			0		

Number of facilities that reported having IEC Materials of any type under the subject.

Table (2/12)

2/603 4 Distribution of Health Facilities by Educational Activities on Maternal and Neonatal Care in the Last 3 Months by Type of Activity and the Average Number of Home Visit Staff and Home Visits by District

Total No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 15		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Facilities with Educational Activities												
Group Meetings	13 0	36 1	7 0	77 8	7 0	36 8	7 0	36 8	11 0	73 3	14 0	58 3
Microphone	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 0	20 0	0 0	0 0
Educational Meetings	0 0	0 0	0 0	0 0	0 0	0 0	1 0	5 3	0 0	0 0	1 0	4 2
Facilities that Provide Home Visit Services	22	61 1	8	88 9	14	73 7	14	73 7	13	86 7	18	75 0
Average No of Staff/District that Provide Home Visits	1 5		11 9		1 5		2 3		1 9		2 0	
Std Dev	0 8		30 8		0 5		1 0		0 7		1 5	
Average No of Home Visits/District April June 1997	33 2		42 5		29 6		14 0		9 8		74 2	
Std Dev	45 8		40 1		40 3		13 6		5 0		206 5	

Table (2/13)

2/801-5 Distribution of Health Facilities by Availability and Condition of Waiting Places for Mother Eaxaminat Labor, and Delivery Processes by District

	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Waiting Place for Mothers												
Place Available	16	44 4	0	0 0	5	26 3	15	78 9	13	81 3	15	62 5
Covered	14	38 9	0	0 0	5	26 3	15	78 9	13	81 3	12	50 0
Sufficient/Well Maintained Chairs	9	25 0	0	0 0	5	26 3	7	36 8	9	56 3	9	37 5
Toilet Near by in Good Condition	5	13 9	0	0 0	2	10 5	5	26 3	8	50 0	9	37 5
Maternal Examination Room												
Place Available	19	52 8	2	22 2	2	10 5	11	57 9	14	87 5	14	58 3
Allows Privacy	17	47 2	1	11 1	2	10 5	11	57 9	13	81 3	14	58 3
With Sufficient Light	13	36 1	2	22 2	2	10 5	10	52 6	13	81 3	12	50 0
With Physician Stool	9	25 0	0	0 0	2	10 5	2	10 5	9	56 3	9	37 5
With Examination Table	19	52 8	2	22 2	2	10 5	11	57 9	13	81 3	14	58 3
Labor Room with Beds												
Place Available	1	2 8	1	11 1	2	10 5	2	10 5	4	25 0	3	12 5
Delivery Room												
Well Equipped Room	8	22 2	2	22 2	7	36 8	4	21 1	9	56 3	8	33 3
Sufficient Lighting	9	25 0	6	66 7	11	57 9	4	21 1	10	62 5	10	41 7
In Good Condition	10	27 8	5	55 6	10	52 6	3	15 8	10	62 5	8	33 3
Building												
Building in Good Condition	20	55 6	6	66 7	11	57 9	12	63 2	11	68 8	11	45 8

Table (2/14)

2/102 **Number of Personnel Who Have Recieved Training from 8/1/96 to 7/31/97 by Category of Personnel, Topics and by District**

Topics / Category of Personnel	Prenatal Care	Delivery	Postpartum Care	Neo-Natal Care	Sonar	Health Mngmnt	Breast-feeding
Edfu District							
1 Ob/Gyn (4)*	0	0	0	0	0	0	0
2 Resident Ob /Gyn (1)	0	0	0	0	0	0	0
3 Pediatricians (4)	NA	NA	NA	0	NA	0	0
4 Anesthesia Specialists (1)	NA	0	0	0	NA	NA	NA
5 General Practitioners (35)	4	3	1	4	0	5	3
6 Pharmacists (2)	NA	NA	NA	NA	NA	0	NA
7 Nurse Supervisors (4)	1	1	1	1		1	2
9 Nurse Midwives (2)	0	0	0	1		0	0
10 Nurses (34)	2	1	1	4		2	6
Daraw District							
1 Ob/Gyn (1)	0	0	0	0	0	1	0
2 Resident Ob /Gyn (1)	0	0	0	0	0	0	0
5 General Practitioners (9)	0	0	0	2	0	0	1
7 Nurse Supervisors (1)	0	0	0	1	0	0	0
10 Nurses (9)	1	1	1	3	NA	0	4
Kom Ombo District							
1 Ob/Gyn (1)	2	2	2	2	2	2	2
2 Resident Ob /Gyn (2)	0	0	0	0	1	0	1
3 Pediatricians (2)	NA	NA	NA	2	NA	0	2
5 General Practitioners (17)	8	8	7	11	1	6	8
6 Pharmacists (1)	NA	NA	NA	NA	NA	2	NA
7 Nurse Supervisors (1)	0	0	0	2	NA	0	0
10 Nurses (18)	2	2	2	10	NA	4	2
Aswan District							
1 Ob/Gyn (2)	0	0	0	0	7	0	7
2 Resident Ob /Gyn (2)	0	0	0	0	0	0	6
3 Pediatricians (3)	NA	NA	NA	1	3	1	5
5 General Practitioners (18)	5	4	4	5	3	3	4
10 Nurses (19)	0	0	0	1	NA	0	5
Nasr District							
5 General Practitioners (16)	4	1	2	1	0	1	4
7 Nurse Supervisors (5)	0	0	0	1	NA	0	2
9 Nurse Midwives (3)	0	0	0	1	NA	0	2
10 Nurses (15)	9	2	7	7	NA	0	13
Luxor District							
1 Ob/Gyn (4)	2	2	2	2	0	2	2
3 Pediatricians (7)	NA	NA	NA	4	NA	1	2
5 General Practitioners (12)	13	12	11	17	1	7	14
9 Nurse Midwives (1)	1	1	1	1	NA	0	1
10 Nurses (23)	3	2	4	6	NA	2	7

N B The number between brackets indicates the number of employed staff for each category of staff for each District

Table (2/15)

2/104 **Designated Supervisors for Each Category of Personnel and the Mean Number of Weeks Since Last Visit of Supervisor by District**

	District					
	Edfu	Daraw	Kom Ombo	Aswan	Nasr	Luxor
Ob /Gyn Supervisors						
No of Facilities	4	1	1	4	1	3
No Supervision	4	0	1	2	0	2
Dir of H Directorate	0	0	0	0	0	1
Head of H Deptartment	0	0	0	0	1	0
Specialist Ph at Directorate	0	1	0	0	0	0
Senior Ob /Gyn	0	0	0	2	0	0
Mean (Weeks since last visit)	---	4	---	1 5	4	1
Std Dev	---	0	--	2 12	0	0
Pediatricians Supervisors						
No of Facilities	4	0	2	3	0	7
No Supervision	3	---	1	1	---	5
Dir of H Directorate	0	---	0	1	---	2
Head of H Deptartment	1	--	0	1	--	0
Specialist Ph at Directorate	0	---	1	0	- -	0
Mean (Weeks since last visit)	24	---	6	1	--	1
Std Dev	0	---	0	0	--	1 41
General Practitioners Supervisors						
No of Facilities	35	9	17	18	16	22
No Supervision	17	1	10	3	2	3
Dir of H Directorate	0	0	0	1	0	8
Head of H Department	9	0	3	11	13	4
Deputy of H Department	1	0	0	0	0	0
Specialist Ph at Directorate	2	0	0	0	1	3
Specialist at Department	6	8	4	2	0	4
Senior Ob /Gyn	0	0	0	1	0	0
Mean (Weeks since last visit)	8 2	1 9	2 6	1 9	2 3	3 2
Std Dev	20 1	2 1	1 9	2 45	1 44	2 8
Midwives Supervisors						
No of Facilities	2	0	1	1	3	1
No Supervision	2	---	1	1	1	0
Chief Nurse at Dir	0	--	0	0	2	1
Mean (Weeks since last visit)						
Std Dev						
Nurses Supervisors						
No of Facilities	34	9	19	19	16	23
No Supervision	16	0	4	1	0	3
Chief Nurse at Directorate	13	9	15	15	15	12
Chief Nurse at Department	1	0	0	1	0	0
Head of H Department	3	0	0	0	0	0
Specialist at Department	1	0	0	2	1	8
Mean (Weeks since last visit)	3 4	2 1	1 5	1 7	1 8	2 5
Std Dev	3 03	1 9	1 25	1 23	1 28	2 33

Table (2/16)

2/105 Activities of Supervisors During Visit at Facility by District

	District											
	Edfu		Daraw		KomOmbo		Aswan		Nasr		Luxor	
	36		9		19		19		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
No of Facilities with No Supervisors	12	33 3	0	0 0	4	21 1	1	5 3	0	0 0	2	8 3
No of Facilities with Supervisors	24	66 7	9	100 0	15	78 9	18	94 7	16	100 0	22	91 7
No	**24**		**9**		**15**		**18**		**16**		**22**	
Activities of Supervisors *												
Follow Up of Activities	18	75 0	9	100 0	14	93 3	18	100 0	14	87 5	22	100 0
Guidance and Training	8	33 3	7	77 8	5	33 3	6	33 3	14	87 5	9	40 9
Meet Requirements	2	8 3	0	0 0	0	0 0	1	5 6	1	6 3	4	18 2
Do not know	2	8 3	0	0 0	0	0 0	0	0 0	1	6 3	0	0 0

* More than one answer so totals more than 100%

Table (2/17)

2/106 **The Number of Facilities with Various Protocols and Numbers Trained on Protocol for Each Category of Personnel by District**

Service Protocols / Category of Personnel Trained	Potocols				
	Pre-Natal Care	Natal Care	Postpartum Care	Neo-Natal Care	Infection Control
Edfu District					
No of Facilities with Protocols	3	3	3	2	1
No of General Practitioners Trained	2	2	2	1	
No of Nurses Trained	3	3	3	3	3
Kom Ombo District					
No of Facilities with Protocols	1	0	0	0	0
No of Nurses Trained	2	--	---	- -	---
Aswan District					
No of Facilities with Protocols	1	1	0	0	1
Non Trained	0	0	- -	--	0
Nasr District					
No of Facilities with Protocols	1	1	1	1	0
No of General Practitioners Trained	1	1	1	1	---
No of Nurses Trained	-	---	---	---	---
Luxor District					
No of Facilities with Protocols	1	1	0	0	0
No of General Practitioners Trained	1	0	---	---	---
No of Nurses Trained	1	1	---	---	--

Table (2/18)

2/701 **Distribution of Hospitals by Basic Problems Affecting Appropriate and Effective Maternal and Neonatal Health Care Services and Recommended Solutions by District**

Total No of Hospitals	District											
	Edfo 6		Daraw 3		Kom Ombo 2		Aswan 3		Nasr 3		Luxor 4	
	No	%	No	%	No	%	No	%	No	%	No	%
Problems												
Lack of Mothers Awarness	2	33 3	0	0 0	1	50 0	1	33 3	2	66 7	1	25 0
Physicians Knowledge Attitudes and Behaviour	1	16 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Midwives Knowledge Attitudes and Behaviour	1	16 7	0	0 0	0	0 0	1	33 3	0	0 0	0	0 0
Shortage in Medical Personnel	0	0 0	2	66 7	1	50 0	0	0 0	1	33 3	1	25 0
Shortage in Equipment Supplies and Medicines	3	50 0	2	66 7	1	50 0	2	66 7	2	66 7	2	50 0
Shortage in Blood Banks	1	16 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Shortage in Ambulances	1	16 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Others	2	33 3	0	0 0	0	0 0	2	66 7	0	0 0	0	0 0
Solution												
Education and Awarness(IEC)	2	33 3	0	0 0	0	0 0	1	33 3	2	66 7	1	25 0
Training the Personnel	1	16 7	0	0 0	1	50 0	1	33 3	0	0 0	0	0 0
Improving the Status of Personnel	1	16 7	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Employment	1	16 7	2	66 7	1	50 0	0	0 0	0	0 0	1	25 0
Meeting Technical Needs	5	83 3	2	66 7	0	0 0	3	100 0	3	100 0	2	50 0
Equipment Maintenance	0	0 0	0	0 0	0	0 0	1	33 3	0	0 0	0	0 0
Management Improvements	0	0 0	0	0 0	1	50 0	0	0 0	0	0 0	0	0 0
Others	1	16 7	0	0 0	1	50 0	1	33 3	0	0 0	0	0 0

Table (2/19)

2/901 Distribution of Facilities According to Number of Equipment and Supplies in Working Condition Available at Facility by District

No of Facilities	District											
	Edfu 36		Daraw 9		Kom Ombo 19		Aswan 19		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Facilities Having Sphygmomanometers	35	97 2	8	88 9	19	100 0	19	100 0	10	62 5	23	95 8
Average No	4 9		9 9		4 1		8 7		3 1		6 8	
Std Dev	10 7		13 5		3 9		17 9		3 0		8 0	
No of Sphygmomanometers	171		79		78		165		31		156	
No & % in Working Condition	116	67 8	56	70 9	35	44 9	134	81 2	26	83 9	83	53 2
Facilities with Stethoscopes	34	94 4	9	100 0	19	100 0	19	100 0	13	81 3	24	100 0
Average No	4 5		7 0		4 7		8 7		2 5		7 5	
Std Dev	9 9		4 3		2 7		21 0		2 7		8 1	
No of Stethoscopes	154		63		90		166		33		181	
No & % in Working Condition	129	83 8	43	68 3	44	48 9	150	90 4	30	90 9	95	52 5
Facilities with Scale for children	33	91 7	9	100 0	18	94 7	17	89 5	15	93 8	23	95 8
Average No	2 6		3 1		3 1		3 6		1 3		5 5	
Std Dev	1 7		1 8		2 1		3 0		0 6		7 0	
No of Scale for Children	87		28		55		62		20		126	
No & % in Working Condition	79	90 8	26	92 9	39	70 9	49	79 0	20	100 0	110	87 3
Facilities with Scale for adults	33	91 7	9	100 0	18	94 7	16	84 2	14	87 5	23	95 8
Average No	2 0		2 4		1 9		1 9		1 4		1 7	
Std Dev	1 6		1 2		2 3		1 1		0 5		0 8	
No of Scale for Adults	66		22		35		30		20		39	
No & % in Working Condition	58	87 9	20	90 9	32	91 4	19	63 3	20	100 0	31	79 5
Facilities with Fetal stethoscopes	23	63 9	8	88 9	18	94 7	13	68 4	13	81 3	24	100 0
Average No	2 2		3 0		2 5		3 0		1 5		3 0	
Std Dev	1 2		2 0		1 9		2 7		0 7		2 7	
No of Fetal Stethoscopes	51		24		45		39		20		72	
No & % in Working Condition	48	94 1	24	100 0	38	84 4	32	82 1	20	100 0	68	94 4
Facilities with Boilers	35	97 2	9	100 0	19	100 0	18	94 7	16	100 0	24	100 0
Average No	5 1		6 8		4 9		6 8		1 6		7 0	
Std Dev	10 2		6 9		4 1		8 8		0 7		7 6	
No of Boilers	177		61		93		122		25		169	
No & % in Working Condition	135	76 3	46	75 4	49	52 7	104	85 2	24	96 0	100	59 2
Facilities with Autoclaves	22	61 1	6	66 7	17	89 5	17	89 5	7	43 8	17	70 8
Average No	1 7		1 5		1 5		2 2		1 1		1 8	
Std Dev	2 4		0 8		0 7		2 7		0 4		1 1	
No of Autoclaves	38		9		25		37		8		31	
No & % in Working Condition	31	81 6	8	88 9	17	68 0	33	89 2	7	87 5	17	54 8
Facilities with Thermometers	27	75 0	9	100 0	19	100 0	17	89 5	14	87 5	24	100 0
Average No	17 1		18 4		12 3		25 9		4 3		32 7	
Std Dev	27 5		15 4		9 4		23 8		5 7		37 7	
No of Thermometers	462		166		234		441		60		785	
No & % in Working Condition	397	85 9	104	62 7	70	29 9	286	64 9	59	98 3	456	58 1
Facilities with Mucus Vaccums	16	44 4	4	44 4	15	78 9	9	47 4	8	50 0	16	66 7
Average No	2 4		4 0		5 7		3 4		1 5		2 3	
Std Dev	2 6		4 1		9 7		5 5		0 8		1 1	
No of Mucus Vacuums	39		15		86		31		12		36	
No & % in Working Condition	30	76 9	15	100 0	61	70 9	29	93 5	12	100 0	30	83 3
Facilities with Vaginal Speculums	31	86 1	8	88 9	19	100 0	18	94 7	16	100 0	23	95 8
Average No	6 9		5 9		8 5		9 4		5 4		12 3	
Std Dev	9 3		4 4		6 9		9 3		9 5		17 9	
No of Vaginal Speculums	215		47		162		169		87		285	
No & % in Working Condition	209	97 2	44	93 6	152	93 8	156	92 3	87	100 0	263	92 3
Facilities with Ventouses	3	8 3	4	44 4	2	10 5	1	5 3	4	25 0	4	16 7
Average No	1 3		2 0		2 5		1 0		1 0		2 0	
Std Dev	0 6		0 8		2 1		0 0		0 0		1 4	
No of Ventouses	4		8		5		1		4		8	
No & % in Working Condition	4	100 0	8	100 0	1	20 0	1	100 0	3	75 0	8	100 0

Table (2/19) - Contd

No of Facilities	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	36		9		19		19		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
Facilities with Delivery Forceps	23	63 9	7	77 8	16	84 2	11	57 9	9	56 3	19	79 2
Average No	1 7		4 0		2 1		2 6		1 4		2 2	
Std Dev	1 6		2 4		2 2		4 5		0 7		1 4	
No of Delivery Forceps	38		28		34		29		13		42	
No & % in Working Condition	37	97 4	26	92 9	31	91 2	29	100 0	13	100 0	40	95 2
Facilities with Scissiors	35	97 2	9	100 0	19	100 0	19	100 0	16	100 0	24	100 0
Average No	7 1		9 1		7 6		11 6		3 6		11 2	
Std Dev	11 2		8 1		5 2		21 5		3 1		10 8	
No of Scissiors	247		82		144		222		58		269	
No & % in Working Condition	202	81 8	76	92 7	128	88 9	212	95 5	58	100 0	245	91 1
Facilities with Needles/Needle holders	27	75 0	9	100 0	16	84 2	17	89 5	12	75 0	23	95 8
Average No	2 8		5 4		6 2		9 9		2 5		5 1	
Std Dev	4 6		5 9		12 4		16 6		1 5		5 2	
No of Needles/Needle holders	75		49		99		169		30		117	
No & % in Working Condition	58	77 3	45	91 8	98	99 0	168	99 4	30	100 0	102	87 2
Facilities with Toothed Artery Forceps	32	88 9	9	100 0	19	100 0	18	94 7	11	68 8	24	100 0
Average No	5 8		8 0		4 4		8 4		4 1		9 6	
Std Dev	12 7		6 2		3 6		20 5		3 1		16 2	
No of Toothed Artery Forceps	187		72		83		152		45		230	
No & % in Working Condition	152	81 3	63	87 5	76	91 6	143	94 1	45	100 0	201	87 4
Facilities with Forceps	31	86 1	9	100 0	18	94 7	18	94 7	10	62 5	24	100 0
Average No	3 8		6 0		4 5		6 5		2 5		9 6	
Std Dev	7 8		5 0		5 0		15 7		1 4		16 2	
No of Forceps	118		54		81		117		25		114	
No & % in Working Condition	105	89 0	44	81 5	77	95 1	106	90 6	25	100 0	107	93 9
Facilities with Laryngoscope for Neonates	3	8 3	3	33 3	2	10 5	1	5 3	1	6 3	3	12 5
Average No	1 7		1 3		1 0		1 0		1 0		5 3	
Std Dev	1 2		0 6		0 0		0 0		0 0		4 5	
No of Laryngoscope for Neonates	5		4		2		1		1		17	
No & % in Working Condition	5	100 0	4	100 0	2	100 0	1	100 0	1	100 0	16	94 1
Facilities with CPR Apparatus for Babies	0	0 0	0	0 0	1	5 3	1	5 3	0	0 0	1	4 2
Average No	0 0		0 0		4 0		1 0		0 0		1 0	
Std Dev	0 0		0 0		0 0		0 0		0 0		0 0	
No of CPR Apparatus for Babies	0		0		4		1		0		1	
No & % in Working Condition	0	0 0	0	0 0	4	100 0	1	100 0	0	0 0	1	100 0
Facilities with Tongue Depressors for Babies	13	36 1	5	55 6	3	15 8	15	78 9	12	75 0	15	62 5
Average No	9 2		4 4		37 3		4 4		6 6		9 1	
Std Dev	14 6		5 9		31 0		2 7		9 2		19 8	
No of Tongue Depressors for Babies	119		22		112		66		79		136	
No & % in Working Condition	119	100 0	22	100 0	112	100 0	64	97 0	79	100 0	136	100 0
Facilities with Dressing for Surgical Operations	5	13 9	1	11 1	7	36 8	0	0 0	0	0 0	6	25 0
Average No	27 2		8 0		3 6		0 0		0 0		12 3	
Std Dev	40 6		0 0		3 2		0 0		0 0		12 8	
No of Dresses for Surgical Operations	136		8		25		0		0		74	
No & % in Working Condition	108	79 4	8	100 0	24	96 0	0	0 0	0	0 0	74	100 0
Facilities with Baby s Towels	1	2 8	0	0 0	4	21 1	3	15 8	0	0 0	2	8 3
Average No	20 0		0 0		7 5		3 0		0 0		5 0	
Std Dev	0 0		0 0		8 7		2 6		0 0		4 2	
No of Baby s Towels	20		0		30		9		0		10	
No & % in Working Condition	20	100 0	0	0 0	28	93 3	9	100 0	0	0 0	10	100 0
Facilities with Blankets for the Baby	1	2 8	0	0 0	1	5 3	0	0 0	0	0 0	1	4 2
Average No	60 0		0 0		50 0		0 0		0 0		12 0	
Std Dev	0 0		0 0		0 0		0 0		0 0		0 0	
No of Blankets for the Baby	60		0		50		0		0		12	
No & % in Working Condition	60	100 0	0	0 0	50	100 0	0	0 0	0	0 0	12	100 0

* There were not any partographs in all facilities

QUESTIONNAIRE # 3

HEALTH PROVIDER INTERVIEW (PHYSICIAN/MIDWIFE/NURSE)

Table (3/1) **Distribution of the Samples Categories of Health Providers by Sex and by District.**

Table (3/2) **Percentage Distribution of Samples Health Providers by Services Provided by District**

Table (3/3) **Distribution of Category of Providers Who Use Protocols by Type of Service by District**

Table (3/4) **Percentage Distribution of Providers Receiving Mothers at Facilities by services Provided by District.**

Table (3/5) **Percentage Distribution of Different Categories of Health Providers by Availability of Updated Job Description and by Relationship with Categories of Health Providers Within Their Facility.**

Table (3/6) **Distribution of Different Categories of Health Providers by Position of Technical Supervisor by District.**

Table (3/7) **Distribution of Stated Position of Technical Supervisors by Frequency of Visits by District**

Table (3/8) **Distribution of Health Providers by Type of Activities Carried out by Their Supervisors and by Activities that Providers Like Supervisors to do by District**

Table (3/9) **Distribution of Health Providers by Number and Category of Personnel They Supervise and Activities Conducted in Supervision by District**

Table (3/10) **Distribution of Duration, Place, and Skills Acquired by Trained Providers by Training Topics.**

Table (3/11) **Distribution of Providers Who Have Received Training or Trainees by District.**

Table (3/12) **Mean and Standard Deviation of Days Since Providers Last Conducted Deliveries by Type of Provider**

Table (3/13) **Distribution of Health Providers by Information on Last Complicated Delivery Experienced by District**

Table (3/14) **Distribution of Health Providers by Information on Discharge of Delivery Cases and Home Visits by District.**

Table (3/15) **Distribution of Health Providers by Management of Complications by District**
Table (3/16) **Distribution of Health Providers by Referral Details of Prenatal Critical Cases by District.**
Table (3/17) **Distribution of Providers Who Have Health Information System and Monitoring by District**
Table (3/18) **Distribution of Equipment, Drugs and Supplies by Adequacy and Conditions by District.**
Table (3/19) **Percentage Distribution by Providers Reporting Shortages in Supplies and Drugs by District.**
Table (3/20) **Shortages in Equipment by District.**
Table (3/21) **Distribution of Activities that Providers are Involved in with Dayas by District**
Table (3/22) **Distribution of Provides Using IEC Materials in Facilities by Topics and Materials by District.**
Table (3/23) **Distribution of Educational Activities Implemented in the Last Three months by Activity, Place and Target Group and the Number of Home Visits by District.**
Table (3/24) **Distribution of Providers According to Age, Educational Degrees and Working Duration by District.**
Table (3/25) **Distribution of Duration in Previous Work Places of Providers by District.**
Table (3/26) **Distribution of Health Providers According to Their Private Practice by District**
Table (3/27) **Distribution of Health Providers Who Have Private Practices by Frequency of Encountering Problems and Actions Taken by District**

Table (3/1)

Distribution of the Sampled Categories of Health Providers by Sex and by District

Providers	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
OB/GYN Specialists	2	2.6	2	8.3	2	5.0	4	8.0	2	5.0	6	10.7
Male	2	100.0	2	100.0	1	50.0	4	100.0	2	100.0	3	50.0
Female	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	3	50.0
Pediatricians	3	3.9	0	0.0	2	5.0	4	8.0	0	0.0	4	7.1
Male	2	66.7	0	0.0	2	100.0	0	0.0	0	0.0	4	100.0
Female	1	33.3	0	0.0	0	0.0	4	100.0	0	0.0	0	0.0
General Practitioners	35	45.5	8	33.3	18	45.0	16	32.0	16	40.0	22	39.3
Male	34	97.1	8	100.0	17	94.4	10	62.5	16	100.0	10	45.5
Female	1	2.9	0	0.0	1	5.6	6	37.5	0	0.0	12	54.5
Nurses	37	48.1	14	58.3	18	45.0	26	52.0	22	55.0	24	42.9
Male	7	18.9	1	7.1	2	11.1	0	0.0	0	0.0	1	4.2
Female	30	81.1	13	92.9	16	88.9	26	100.0	22	100.0	23	95.8
Total Providers	77		24		40		50		40		56	
Total Males	45	58.4	11	45.8	22	55.0	14	28.0	18	45.0	18	32.1
Total Females	32	41.6	13	54.2	18	45.0	36	72.0	22	55.0	38	67.9

First Row in each Category of Personnel Shows the Total Number of Category Provider and Percentage from Total District Providers

While Second and Third Row Show Numbers and Percentages From Sub-Total of Categories

Table (3/2)

3/101 103 Percentage Distribution of Sampled Health Providers by Services Provided by District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Provide Antenatal Care	70	90 9	23	95 8	37	92 5	42	84 0	37	92 5	49	87 5
Practice	44	62 9	11	47 8	31	83 8	26	61 9	36	97 3	39	79 6
Assist	26	37 1	12	52 2	6	16 2	16	38 1	1	2 7	10	20 4
Provide Delivery Service	58	75 3	22	91 7	31	77 5	30	60 0	23	57 5	44	78 6
Practice	44	75 9	10	45 5	27	87 1	22	73 3	21	91 3	33	75 0
Assist	14	24 1	12	54 5	4	12 9	8	26 7	2	8 7	11	25 0
Provide Postpartum Care	51	66.2	23	95 8	26	65 0	29	58 0	30	75 0	46	82 1
Practice	43	84 3	10	43 5	23	88 5	22	75 9	29	96 7	37	80 4
Assist	8	15 7	13	56 5	3	11 5	7	24 1	1	3 3	9	19 6
Provide Neonatal Care	67	87 0	20	83 3	34	85 0	40	80 0	30	75 0	45	80 4
Practice	43	64 2	9	45 0	28	82 4	22	55 0	30	100 0	33	73 3
Assist	24	35 8	11	55 0	6	17 6	18	45 0	0	0 0	12	26 7
Provide Infant Care	69	89 6	20	83 3	32	80 0	40	80 0	31	77 5	42	75 0
Practice	44	63 8	9	45 0	26	81 3	22	55 0	31	100 0	31	73 8
Assist	25	36 2	11	55 0	6	18 8	18	45 0	0	0 0	11	26 2
Provide Ultrasound (Sonar)	6	7 8	1	4 2	2	5 0	4	8 0	2	5 0	3	5 4
Practice	2	33 3	0	0 0	1	50 0	3	75 0	2	100 0	0	0 0
Assist	4	66 7	1	100 0	1	50 0	1	25 0	0	0 0	3	100 0
Provide Laboratory Service	29	37 7	0	0 0	3	7 5	18	36 0	18	45 0	18	32 1
Practice	24	82 8	0	0 0	1	33 3	10	55 6	12	66 7	12	66 7
Assist	5	17 2	0	0 0	2	66 7	8	44 4	6	33 3	6	33 3
Provide Emergency Care Nights & Holidays	50	64 9	12	50 0	30	75 0	27	54 0	26	65 0	32	57 1
Participate in Deliveries	58	75 3	22	91 7	31	77 5	30	60 0	23	57 5	44	78 6
Utilize Partograph	0	0 0	0	0 0	0	0 0	1	3 3	2	8 7	0	0 0

Table (3/3)

3/104 Distribution of Category of Providers Who Use Protocols by Type of Service by District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providers by Type												
Ob/Gyn Specialists	2	2 6	2	8 3	2	5 0	4	8 0	2	5 0	6	10 7
General Practitioners	35	45 5	8	33 3	18	45 0	16	32 0	16	40 0	22	39 3
Nurses	37	48 1	14	58 3	18	45 0	26	52 0	22	55 0	24	42 9
Pediatricians	3	3 9	2	8 3	2	5 0	4	8 0	0	0 0	4	7 1
Protocols												
Prenatal Care Protocol												
Ob/Gyn Specialists Using Protocols	1	50 0	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0
General Practitioners Using Protocols	3	8 6	0	0 0	1	5 6	0	0 0	1	6 3	1	4 5
Nurses Using Protocols	3	8 1	1	7 1	0	0 0	0	0 0	0	0 0	1	4 2
Delivery Care												
Ob/Gyn Specialists Using Protocol	1	50 0	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0
General Practitioners Using Protocols	1	2 9	0	0 0	0	0 0	0	0 0	1	6 3	1	4 5
Nurses Using Protocols	0	0 0	1	7 1	0	0 0	0	0 0	0	0 0	0	0 0
Postpartum Care												
General Practitioners Using Protocols	0	0 0	0	0 0	0	0 0	0	0 0	1	6 3	1	4 5
Nurses Using Protocols	0	0 0	1	7 1	0	0 0	0	0 0	0	0 0	0	0 0
Neonatal Care												
Pediatritions Using Protocols	1	33 3	0	0 0	0	0 0	2	50 0	0	0 0	1	25 0
General Practitioners Using Protocols	1	2 9	0	0 0	0	0 0	0	0 0	1	6 3	1	4 5
Nurses Using Protocols	0	0 0	1	7 1	0	0 0	0	0 0	0	0 0	0	0 0
Infection Control Procedures												
Ob/Gyn Specialists Using Protocols	1	50 0	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0
General Practitioners Using Protocols	2	5 7	0	0 0	0	0 0	0	0 0	1	6 3	0	0 0
Nurses Using Protocols	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Life Saving Skills												
Ob/Gyn Specialists Using Protocol	1	50 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0

All respondents were asked if protocols were useful only one respondent did not find protocols useful (Ob/Gyn Specilist at Aswan District)

Table (3/4)

3/105 108 Percentage Distribution of Providers Receiving Mothers at Facilities by Services Provided by District

Providers	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providers that Receive Patients Upon Arrival	63	81 8	17	70 8	22	55 0	37	74 0	37	92 5	31	55 4
Ob/Gyn	2	3 2	1	5 9	0	0 0	2	5 4	2	5 4	0	0 0
General Practitioners	32	50 8	3	17 6	9	40 9	12	32 4	16	43 2	12	38 7
Nurses	29	46 0	13	76 5	13	59 1	23	62 2	19	51 4	19	61 3
No of Providers who Receive Patients	**63**		**17**		**22**		**37**		**37**		**31**	
Ask Patients Questions	62	98 4	16	94 1	22	100 0	37	100 0	37	100 0	31	100 0
Personal information	36	58 1	11	68 8	15	68 2	19	51 4	36	97 3	20	64 5
Reason for Visit	46	74 2	16	100 0	16	72 7	18	48 6	37	100 0	25	80 6
Medical History	43	69 4	15	93 8	17	77 3	24	64 9	32	86 5	25	80 6
Carry Out Measurments	58	92 1	17	100 0	18	81 8	33	89 2	35	94 6	31	100 0
Temperature	38	65 5	5	29 4	4	22.2	25	75 8	22	62 9	17	54 8
Weight	33	56 9	12	70 6	6	33 3	19	57 6	18	51 4	22	71 0
Hight	15	25 9	2	11 8	5	27 8	16	48 5	9	25 7	19	61 3
Pulse	28	48 3	1	5 9	3	16 7	19	57 6	19	54.3	12	38 7
Blood Sample	6	10 3	1	5 9	3	16 7	15	45 5	5	14 3	6	19 4
Urine Sample	29	50 0	3	17 6	10	55 6	12	36 4	17	48 6	11	35 5
Blood Pressure	39	67 2	14	82 4	13	72.2	20	60 6	25	71 4	22	71 0
Genital Examination	2	3 4	0	0 0	0	0 0	0	0 0	0	0 0	2	6 5
Chest Examination	1	1 7	0	0 0	0	0 0	2	6 1	1	2 9	2	6 5
Breast Examination	2	3 4	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Fetal Movement Examination	2	3 4	0	0 0	0	0 0	0	0 0	1	2 9	0	0 0
Give Patient Instructions	60	95 2	16	94 1	19	86 4	36	97 3	37	100 0	30	96 8
Where To Go	12	20 0	8	50 0	5	26 3	9	25 0	3	8 1	6	20 0
Explanations of What to Expect	48	80 0	15	93 8	13	68 4	31	86 1	33	89 2	29	96 7
Answer Questions or Concerns	17	28 3	1	6 3	2	10 5	7	19 4	33	89 2	13	43 3
Nutrition During Pregnancy	1	1 7	0	0 0	1	5 3	0	0 0	0	0 0	0	0 0
TT Shots	3	5 0	0	0 0	3	15 8	0	0 0	0	0 0	0	0 0
Other	6	10 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0

Table (3/5)

3/201 202 **Percentage Distribution of Different Categories of Health Providers by Availability of Updated Job Descriptions and by Relationships with Categories of Health Providers Within Their Facility**

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Health Providers with Updated Job Descriptions	5	6 5	1	4 2	1	2 5	1	2 0	5	12 5	1	1 8
Personnel Having Relationships with Other HPs	10	13 0	8	33 3	13	32 5	115	230 0	2	5 0	132	235 7
No	**10**		**8**		**13**		**115**		**2**		**132**	
Relation with Ob/Gyn Specialists	7	70 0	8	100 0	7	53 8	14	12 2	7	350 0	21	15 9
Regular	6	85 7	7	87 5	4	57 1	4	28 6	5	71 4	13	61 9
Intermittent	1	14 3	1	12 5	3	42 9	10	71 4	2	28 6	8	38 1
Relation with Ob/Gyn Residents	10	100 0	7	87 5	5	38 5	6	5 2	6	300 0	12	9 1
Regular	8	80 0	7	100 0	4	80 0	1	16 7	4	66 7	10	83 3
Intermittent	2	20 0	0	0 0	1	20 0	5	83.3	2	33 3	2	16 7
Relation with Pediatritians	7	70 0	8	100 0	10	76 9	13	11 3	6	300 0	17	12 9
Regular	3	42 9	4	50 0	9	90 0	7	53 8	0	0 0	12	70 6
Intermittent	4	57 1	4	50 0	1	10 0	6	46.2	6	100 0	5	29 4
Relation with Laboratory Staff	3	30 0	4	50 0	3	23 1	5	4 3	3	150 0	6	4 5
Regular	2	66 7	1	25 0	2	66 7	1	20 0	1	33 3	2	33.3
Intermittent	1	33 3	3	75 0	1	33 3	4	80 0	2	66 7	4	66 7
Relation with Blood Bank Spesialists	1	10 0	2	25 0	1	7 7	2	1 7	1	50 0	1	0 8
Regular	1	100 0	0	0 0	0	0 0	0	0 0	0	0 0	1	100 0
Intermittent	0	0 0	2	100 0	1	100 0	2	100 0	1	100 0	0	0 0
Relation with General Practitioners	7	70 0	3	37 5	7	53 8	39	33 9	4	200 0	123	93 2
Regular	3	42 9	2	66 7	6	85 7	37	94 9	3	75 0	118	95 9
Intermittent	4	57 1	1	33 3	1	14 3	2	5 1	1	25 0	5	4 1
Relation with Nursing Staff	10	100 0	8	100 0	13	100 0	108	93 9	9	450 0	115	87 1
Regular	10	100 0	8	100 0	13	100 0	108	100 0	9	100 0	113	98 3
Intermittent	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	2	1 7
Relation with Social Workers	3	30 0	1	12 5	6	46 2	14	12 2	5	250 0	14	10 6
Regular	1	33 3	0	0 0	6	100 0	10	71 4	2	40 0	10	71 4
Intermittent	2	66 7	1	100 0	0	0 0	4	28 6	3	60 0	4	28 6

Table (3/6)

3/203 Distribution of Different Categories of Health Providers by Position of Technical Supervisor by District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
No of Ob/Gyn Specialists Supervisions	2	2 6	2	8 3	2	5 0	4	8 0	2	5 0	6	10 7
Health Department Head	0	0 0	0	0 0	0	0 0	1	25 0	1	50 0	0	0 0
Specialist in the Directorate	0	0 0	1	50 0	0	0 0	0	0 0	0	0 0	0	0 0
No Supervision	2	100 0	1	50 0	2	100 0	3	75 0	1	50 0	6	100 0
No of Pediatricians Supervisions	3	3 9	1	4 2	2	5 0	4	8 0	0	0 0	4	7 1
Health Department Head	0	0 0	1	100 0	0	0 0	2	50 0	0	ERR	0	0 0
Specialist in the Directorate	1	33 3	0	0 0	1	50 0	0	0 0	0	ERR	0	0 0
Specialist in the Department	1	33 3	0	0 0	0	0 0	0	0 0	0	ERR	0	0 0
No Supervision	1	33 3	0	0 0	1	50 0	2	50 0	0	ERR	4	100 0
No of General Practitioners Supervisions	35	45 5	8	33 3	18	45 0	16	32 0	16	40 0	22	39 3
General Director of the Directorate	0	0 0	0	0 0	1	5 6	0	0 0	0	0 0	6	27 3
Health Department Head	7	20 0	1	12 5	3	16 7	12	75 0	12	75 0	7	31 8
Deputy Director of the Directorate	0	0 0	0	0 0	0	0 0	0	0 0	1	6 3	0	0 0
Deputy Head of the Department	1	2 9	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Specialist in the Directorate	4	11 4	1	12 5	0	0 0	2	12 5	1	6 3	2	9 1
Specialist in the Department	7	20 0	6	75 0	4	22.2	0	0 0	0	0 0	4	18.2
No Supervision	16	45 7	0	0 0	10	55 6	2	12 5	2	12 5	3	13 6
No of Nurses Supervisions	37	48 1	14	58 3	18	45 0	26	52 0	22	55 0	24	42 9
Health Department Head	1	2 7	0	0 0	0	0 0	1	3 8	0	0 0	0	0 0
Specialist in the Directorate	3	8 1	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Nursing Supervisor in the Directorate	2	5 4	1	7 1	2	11 1	1	3 8	1	4 5	10	41 7
Nursing Supervisor in the Department	21	56 8	13	92 9	12	66 7	22	84 6	21	95 5	10	41 7
No Supervision	10	27 0	0	0 0	4	22 2	2	7 7	0	0 0	4	16 7
Total Supervised & Percent from Total Providers	48	62 33	24	100	23	57 5	41	82	37	92 5	39	69 64
Total Unsupervised & Percent from Total Providers	29	37 66	1	4 166	17	42 5	9	18	3	7 5	17	30 35

Table (3/7)

3/204 Distribution of Stated Position of Technical Supervisors by Frequecy of Visits by District

Frequency of Supervisor Visits	Positions																	
	Director of Direct		Head of Dept		Deputy of Direct		Deputy of Dept		Specialist in Direct		Specialist in Dept		Nursing Supervisor in Direct		Nursing Supervisor in Dept		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Total Visits	7		48		1		1		16		22		17		99		211	
Weekly	1	14 3	13	27 1	0	0 0	1	100 0	2	12 5	2	9 1	4	23 5	17	17 2	40	19 0
Every 2 weeks	2	28 6	12	25 0	0	0 0	0	0 0	3	18 8	7	31 8	4	23 5	29	29 3	57	27 0
Every 3 4 weeks	4	57 1	18	37 5	0	0 0	0	0 0	7	43 8	9	40 9	8	47 1	49	49 5	95	45 0
Every 2 months	0	0 0	5	10 4	0	0 0	0	0 0	0	0 0	1	4 5	1	5 9	2	2 0	9	4 3
Every 3 6 months	0	0 0	0	0 0	1	100 0	0	0 0	2	12 5	0	0 0	0	0 0	2	2 0	5	2 4
Not Regular	0	0 0	0	0 0	0	0 0	0	0 0	2	12 5	3	13 6	0	0 0	0	0 0	5	2 4
No Supervision	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0

Table (3/8)

3/205 207 Distribution of Health Providers by Type of Activities Carried out by Their Supervisors and by Activities that Providers Like Supervisors to do by District

Total Providers Supervised	District											
	Edfu 48		Daraw 24		Kom Ombo 23		Aswan 41		Nasr 37		Luxor 39	
	No	%	No	%	No	%	No	%	No	%	No	%
Activities of Supervisors During Visit												
Monitoring activities	35	72 9	21	87 5	23	100 0	30	73 2	37	100 0	39	100 0
In service training	24	50 0	20	83 3	12	52.2	16	39 0	34	91 9	18	46 2
Other	3	6 3	0	0 0	1	4 3	0	0 0	1	2 7	0	0 0
Supervisors that Provide BF Guidance	19	39 6	7	29 2	8	34 8	16	39 0	27	73 0	23	59 0
Activities Supervisors Should Conduct												
Monitoring activities	12	25 0	8	33 3	4	17 4	0	0 0	3	8 1	2	5 1
Training	8	16 7	17	70 8	6	26 1	2	4 9	22	59 5	8	20 5
Meeting Needs	17	35 4	25	104 2	7	30 4	5	12 2	13	35 1	23	59 0
Other	25	52 1	4	16 7	0	0 0	1	2 4	2	5 4	1	2 6
Nothing More	4	8 3	8	33 3	8	34 8	16	39 0	7	18 9	11	28 2

Table (3/9)

3/208 209 Distribution of Health Providers by Number and Category of Personnel They Supervise and Activities Conducted in Supervision by District

	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
Total Providers Supervised	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providers Technically Supervise Other Personnel	41	53.2	11	45 8	22	55 0	27	54 0	22	55 0	29	51 8
Providers that do not Supervise Other Personnel	36	46 8	13	54 2	18	45 0	23	46 0	18	45 0	27	48 2
No	**41**		**11**		**22**		**27**		**22**		**29**	
Category of Personnel Supervised												
Supervise Physicians	4	9 8	2	18 2	5	22 7	5	18 5	2	9 1	8	27 6
Supervise Nurses	39	95 1	11	100 0	22	100 0	27	100 0	22	100 0	29	100 0
Supervise Technicians	25	61 0	8	72 7	17	77 3	14	51 9	16	72 7	15	51 7
Number of Personnel Supervised												
1 5	26	63 4	2	18 2	11	50 0	12	44 4	15	68 2	23	79 3
6 10	13	31 7	4	36 4	7	31 8	8	29 6	3	13 6	2	6 9
11 15	0	0 0	1	9 1	0	0 0	5	18 5	2	9 1	3	10 3
16 20	1	2 4	1	9 1	2	9 1	0	0 0	1	4 5	0	0 0
21 25	0	0 0	2	18 2	1	4 5	1	3 7	0	0 0	0	0 0
> 25	1	2 4	1	9 1	1	4 5	1	3 7	1	4 5	1	3 4
Supervision Activities												
Monitoring Activities	30	73 2	8	72 7	21	95 5	17	63 0	21	95 5	25	86 2
Provide Guidance/Instructions	29	70 7	11	100 0	9	40 9	15	55 6	21	95 5	17	58 6
Monitoring Records	16	39 0	6	54 5	6	27 3	6	22 2	15	68 2	15	51 7
Other	3	7 3	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0

Table (3/10)

3/210 **Distribution of Duration Place and Skills Acquired by Trained Providers by Training Topics**

Type of Provider		Training Topics: Health Education		H Services Mngmnt		Antenatal Care		Labor & Delivery		Postpartum Care		Neonatal Care		Breast Feeding	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
Ob/Gyn	(18)														
Trained				1	5 6	1	5 6					1	5 6		
Duration	Average Duration			3 0		30 0						2 0			
	Std Dev			0 0		0 0						0 0			
Place	Training Centers			1	5 6	1	5 6					1	5 6		
Skills															
Delivery follow up Proced Diagnostic						1	5 6								
Curing Neonatal Asphyxia												2	11 1		
Preventive Services Quality				1	5 6										
General Practitioners	(115)														
Trained		4	3 5	6	5 2	25	21 7	17	14 8	17	14 8	12	10 4	8	7 0
Duration	Average Duration	8 3		17 4		3 8		4 7		5 1		4 5		6 1	
	Std Dev	3 5		24 3		3 1		5 2		5 3		3 8		4 9	
Place	University/Edu Center	4	3 5	2	1 7	3	2 6	2	1 7	2	1 7	4	3 5	2	1 7
	Training Center			4	3 5	22	19 1	15	13 0	15	13 0	8	7 0	6	5 2
Skills															
Preventive Care Procedures						15	13 0								
Diagnostic Care Procedures						3	2 6								
Anemia During Pregnancy Preventive						9	7 8								
Ectopic Pregnancy Preventive						2	1 7								
Delivery Follow up Proced Preventive								8	7 0						
Delivery Follow up Proced Diagnostic								3	2 6						
Delivery Follow up Proced Curative								3	2 6						
Preventing Preterm Labor								1	0 9						
Preventive Management of Labor								2	1 7						
Diagnostic Management of Labor								1	0 9						
Preventive Postparum Care Proced										15	13 0				
Diagnostic Postparum Care Proced										2	1 7				
Diagnostic Postnatal Hemorrhage										1	0 9				
Preventive Neonatal Care Proced												3	2 6		
Preventing Antenatal Asphaxia												6	5 2		
Diagnostic Antenatal Asphaxia												1	0 9		
Diagnostic Hypsthermia												1	0 9		
Diagnostic Inflammations												1	0 9		
Preventive Vaccinations												1	0 9		
Preventing Preg & Del Risk Factors		1	0 9												
Preventive Personal Hygiene		2	1 7												
Preventive Healthy Behaviours		1	0 9												
Preventive Planning				2	1 7										
Preventive Supervision				2	1 7										
Preventive Evaluation				1	0 9										
Preventive Health System Research				1	0 9										
Preventive Breastfeeding Importance														7	6 1
Preventive Methods of Breastfeeding														1	0 9
Preventive Behaviours Inhibiting BF														1	0 9

Table (3/10) - Contd

Type of Provider		Training Topics													
		Health Education		H Services Mngmnt		Antenatal Care		Labor & Delivery		Postpartum Care		Neonatal Care		Breast Feeding	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
Peditaricians	**(13)**														
Trained		3	23 1	1	7 7							9	69 2	4	30 8
Duration	Average Duration	6 0		6 0								4 4		3 5	
	Std Dev	1 0		0 0								2 8		2 5	
Place	Training Centers	3	23 1	1	7 7							9	69 2	1	7 7
	University/Edu Center													3	23 1
Skills															
Preventive Neonatal Care Procedures												1	7 7		
Preventing Antenatal Asphaxia												4	30 8		
Curing Antenatal Asphaxia												2	15 4		
Curing Inflammations												1	7 7		
Diagnosing Prematurity												1	7 7		
Preventive Maternal/Infant Nutrition		1	7 7												
Preventive Infant Morbidity Signs		1	7 7												
Preventive Imunizations		1	7 7												
Preventive Planning				1	7 7										
Preventive Breastfeeding Importance														2	15 4
Preventive Methods of Breastfeeding														1	7 7
Preventive Behaviours Inhibiting BF														1	7 7
Nurses	**(141)**														
Trained				1	0 7	14	9 9	7	5 0	6	4 3	17	12 1	14	9 9
Duration	Average Duration			4 0		1 9		3 0		2 2		2 3		2 9	
	Std Dev			0 0		1 7		2 8		2 4		1 9		1 6	
Place	Unit					1	0 7	1	0 7	1	0 7	1	0 7	1	0 7
	Training Center			1	0 7	13	9 2	3	2 1	5	3 5	16	11 3	13	9 2
Skills															
Preventive Care Procedures						7	5 0								
Curative Care Procedures						2	1 4								
Anemia During Pregnancy Preventive						5	3 5								
Delivery Follow up Proced Preventive								4	2 8						
Delivery Follow up Proced Curative								1	0 7						
Curative Management of Labor								2	1 4						
Preventive Postparum Care Proced										5	3 5				
Curative Postparum Care Proced										1	0 7				
Preventive Neonatal Care Proced												11	7 8		
Curative Neonatal Care Proced												1	0 7		
Preventing Antenatal Asphaxia												1	0 7		
Diagnostic Antenatal Asphaxia												2	1 4		
Preventing Inflammations												1	0 7		
Preventive Vaccinations												1	0 7		
Preventive Evaluation				1	0 7										
Preventive Breastfeeding Importance														13	9 2
Preventive Methods of Breastfeeding														5	3 5

Table (3/11)

3/211 Distribution of Providers Who Have Received Training as Trainers or Trainees by District

Total Providers Supervised	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providers Receiving Training as Trainees in												
Use of Maternal & Perinatal Case Mngmnt Protocol	0	00	0	00	0	00	1	20	0	00	1	18
Life Saving Skills	2	26	0	00	0	00	0	00	0	00	0	00
Providers Receiving Training as Trainers in												
Use of Mat & Perin Case Mngmnt Protocol	0	00	0	00	0	00	0	00	1	25	0	00
Life Saving Skills	0	00	0	00	0	00	0	00	0	00	0	00

Table (3/12)

3/301 Mean and Standard Deviation of Days Since Providers Last Conducted Deliveries by Type of Provider

Type of Provider	No	Mean Days	Std Dev
Ob/Gyn	13	2 7	4 7
GP	52	9 8	12 3
Nurses	22	12 5	16 6

Table (3/13)

3/302 306 Distribution of Health Providers by Information on Last Complicated Delivery Experienced by District

Providers	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Conducted Deliveries During Last Year	24	31 2	8	33 3	16	40 0	10	20 0	11	27 5	15	26 8
No	**24**		**8**		**16**		**10**		**11**		**15**	
Place of Delivery												
Home	15	62 5	0	0 0	6	37 5	1	10 0	4	36 4	6	40 0
Hospital/Facility	7	29 2	8	100 0	10	62 5	6	60 0	7	63 6	9	60 0
Private Clinic/Hospital	2	8 3	0	0 0	0	0 0	3	30 0	0	0 0	0	0 0
Stated Complications												
Protracted Labor Because of Primpara	7	29 2	0	0 0	2	12 5	1	10 0	2	18 2	3	20 0
Protracted Labor for Other Causes	3	12 5	5	62 5	5	31 3	0	0 0	0	0 0	0	0 0
Abnormal Presentation of the Fetus	9	37 5	3	37 5	5	31 3	3	30 0	7	63 6	8	53 3
Twin Delivery	5	20 8	0	0 0	1	6 3	0	0 0	4	36 4	2	13 3
Umbilical Cord Problems	2	8 3	0	0 0	0	0 0	0	0 0	1	9 1	1	6 7
Ante Partum Hemorrhage	0	0 0	0	0 0	0	0 0	2	20 0	0	0 0	0	0 0
Uterine Atony/General Weakness	0	0 0	0	0 0	2	12 5	2	20 0	1	9 1	0	0 0
Other	3	12 5	3	37 5	5	31 3	5	50 0	1	9 1	2	13 3
Method of Delivery												
Suction Delivery	1	4 2	0	0 0	0	0 0	0	0 0	0	0 0	1	6 7
Forceps Delivery	2	8 3	1	12 5	3	18 8	3	30 0	2	18 2	0	0 0
C Section	0	0 0	3	37 5	1	6 3	1	10 0	0	0 0	3	20 0
Normal Delivery	21	87 5	4	50 0	11	68 8	6	60 0	10	90 9	10	66 7
Outcome of Delivery												
Living Mother Living Child	23	95 8	7	87 5	14	87 5	10	100 0	10	90 9	12	80 0
Dead Mother Living Child	0	0 0	0	0 0	1	6 3	0	0 0	0	0 0	0	0 0
Living Mother Dead Child	1	4 2	1	12 5	0	0 0	0	0 0	1	9 1	1	6 7
Dead Mother Dead Child	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	1	6 7
Twins Both Alive	0	0 0	0	0 0	1	6 3	0	0 0	0	0 0	0	0 0
Twins Only One Alive	0	0 0	0	0 0	0	0 0	0	0 0	1	9 1	0	0 0
Unspecified	1	4 2	0	0 0	0	0 0	0	0 0	2	18 2	0	0 0
Other Attendant/Assistant in Delivery												
Ob/Gyn	2	8 3	2	25 0	3	18 8	3	30 0	1	9 1	2	13 3
Resident	1	4 2	3	37 5	5	31 3	5	50 0	0	0 0	3	20 0
General Practitioner	3	12 5	1	12 5	2	12 5	3	30 0	1	9 1	1	6 7
Nurse	3	12 5	4	50 0	7	43 8	5	50 0	7	63 6	4	26 7
Nobody	15	62 5	2	25 0	4	25 0	2	20 0	3	27 3	4	26 7
Other	1	4 2	0	0 0	1	6 3	1	10 0	0	0 0	4	26 7

Table (3/14)

3/307 310 Distribution of Health Providers by Information on Discharge of Delivery Cases and Home Visits by District

Providers Assisted in Delivery	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	25		8		16		10		12		16	
	No	%	No	%	No	%	No	%	No	%	No	%
No of Deliveries Conducted at Hospital/Facility	9	36 0	8	100 0	11	68 8	9	90 0	8	66 7	8	50 0
No	9		8		11		9		8		8	
No of Days Before Discharge of Mother												
Immediately	4	44 4	1	12 5	1	9 1	1	11 1	3	37 5	0	0 0
One Day	2	22 2	4	50 0	6	54 5	4	44 4	1	12 5	4	50 0
Two Days	0	0 0	0	0 0	2	18 2	1	11 1	4	50 0	1	12 5
Three Days	0	0 0	1	12 5	1	9 1	1	11 1	0	0 0	3	37 5
Four Days	0	0 0	2	25 0	0	0 0	0	0 0	0	0 0	0	0 0
Still at Hospital	1	11 1	0	0 0	1	9 1	2	22 2	0	0 0	0	0 0
Do not Know	2	22.2	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Home Visits After Discharge	2	22 2	1	12 5	4	36 4	1	11 1	3	37 5	2	25 0
Visited By												
Orderly	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0	0	0 0
Physician	2	100 0	1	100 0	3	75 0	1	100 0	1	33 3	2	100 0
Nurse	0	0 0	0	0 0	0	0 0	0	0 0	2	66 7	0	0 0
Mean Days Mother Was Visited After Discharge	1 0		1 0		2 5		3 0		2 0		1 3	
Std Dev	0 0		0 0		1 3		0 0		1 0		0 6	
No	9		8		11		9		8		8	
Mother Asked to Visit Facility After Delivery	4	44 4	6	75 0	5	45 5	6	66 7	7	87 5	8	100 0
Reason												
Routine Check Up	4	100 0	4	66 7	4	80 0	4	66 7	6	85 7	8	100 0
Problems	0	0 0	2	33 3	1	20 0	2	33 3	1	14 3	0	0 0
Mother Returned for Visit	1	25 0	1	16 7	2	40 0	2	33 3	4	57 1	4	50 0
Mother Did Nor Return for Visit	3	75 0	5	83 3	3	60 0	4	66 7	2	28 6	4	50 0
Don t Remember	0	0 0	0	0 0	0	0 0	0	0 0	1	14 3	0	0 0

Table (3/15)

3/311 Distribution of Health Providers By Management of Complications By District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Postpartum Hemorrhage												
Treat	6	7 8	3	12 5	2	5 0	5	10 0	5	12 5	3	5 4
Assist	15	19 5	7	29 2	13	32 5	18	36 0	2	5 0	10	17 9
Refer	43	55 8	13	54 2	23	57 5	22	44 0	31	77 5	39	69 6
Antepartum Hemorrhage												
Treat	2	2 6	2	8 3	2	5 0	5	10 0	1	2 5	2	3 6
Assist	7	9 1	3	12 5	3	7 5	10	20 0	1	2 5	3	5 4
Refer	55	71 4	18	75 0	33	82 5	30	60 0	36	90 0	47	83 9
Pre eclampsia/Eclampsia												
Treat	3	3 9	3	12 5	3	7 5	4	8 0	2	5 0	4	7 1
Assist	3	3 9	1	4 2	2	5 0	10	20 0	4	10 0	6	10 7
Refer	58	75 3	19	79 2	33	82 5	31	62 0	32	80 0	42	75 0
Abnormal Presentation												
Treat	7	9 1	5	20 8	3	7 5	4	8 0	2	5 0	3	5 4
Assist	8	10 4	6	25 0	1	2 5	7	14 0	5	12 5	5	8 9
Refer	49	63 6	12	50 0	34	85 0	34	68 0	31	77 5	44	78 6
Puerperal Sepsis												
Treat	19	24 7	4	16 7	9	22 5	12	24 0	8	20 0	9	16 1
Assist	5	6 5	4	16 7	1	2 5	14	28 0	2	5 0	11	19 6
Refer	40	51 9	15	62 5	28	70 0	19	38 0	28	70 0	32	57 1
Complications of Incomplete Abortion												
Treat	6	7 8	6	25 0	8	20 0	8	16 0	3	7 5	9	16 1
Assist	4	5 2	3	12 5	1	2 5	14	28 0	4	10 0	6	10 7
Refer	54	70 1	14	58 3	29	72 5	23	46 0	31	77 5	37	66 1
Newborn Resuscitation												
Treat	24	31 2	7	29 2	16	40 0	13	26 0	21	52 5	27	48 2
Assist	5	6 5	2	8 3		0 0	7	14 0		0 0	1	1 8
Refer	35	45 5	14	58 3	22	55 0	25	50 0	17	42 5	24	42 9

Table (3/16)

3/312 318 Distribution of Health Providers By Referral Details of Prenatal Critical Cases by District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providing Antenatal Care	70	90 9	23	95 8	37	92 5	42	84 0	37	92 5	49	87 5
Refer Cases	57	81 4	23	100 0	33	89 2	41	97 6	29	78 4	42	85 7
No	**57**		**23**		**33**		**41**		**29**		**42**	
Referred Cases												
Mother aged less than 18 years	4	7 0	0	0 0	1	3 0	2	4 9	6	20 7	2	4 8
Mother aged more than 35 years	7	12 3	3	13 0	5	15 2	3	7 3	5	17 2	7	16 7
Mother less than 145 cm tall	4	7 0	0	0 0	1	3 0		0 0	5	17 2	1	2 4
Diabets	20	35 1	5	21 7	12	36 4	6	14 6	20	69 0	12	28 6
Anemia	12	21 1	3	13 0	4	12 1	6	14 6	10	34 5	8	19 0
Heart Failure	13	22 8	2	8 7	7	21 2	7	17 1	16	55 2	7	16 7
Preeclampsia	39	68 4	13	56 5	25	75 8	29	70 7	25	86 2	37	88 1
No Fetal Movement	9	15 8	5	21 7	6	18 2	2	4 9	10	34 5	4	9 5
Abnormal Presentation	21	36 8	3	13 0	13	39 4	6	14 6	22	75 9	13	31 0
Twin Pregnancy	5	8 8	0	0 0	2	6 1	1	2 4	9	31 0	1	2 4
Previous CS	20	35 1	2	8 7	11	33 3	7	17 1	14	48 3	8	19 0
Antenatal Hemorrhage	33	57 9	2	8 7	12	36 4	13	31 7	14	48 3	14	33 3
Repeated Abortion	2	3 5	0	0 0	1	3 0	3	7 3	0	0 0	1	2 4
Eclampsia	14	24 6	0	0 0	0	0 0	6	14 6	0	0 0	0	0 0
Breathing Problems	0	0 0	0	0 0	2	6 1	0	0 0	0	0 0	1	2 4
Kidney Illness	1	1 8	1	4 3	0	0 0	0	0 0	0	0 0	0	0 0
Liver Illness	1	1 8	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Other	2	16 7	0	0 0	3	75 0	2	33 3	0	0 0	7	87 5
Cases Referred Last 3 Months												
Complicated Delivery Cases												
Mean	2 2		0 3		1 1		0 9		1 6		1 2	
Std Dev	3 5		0 6		1 4		1 4		2 2		2 2	
Post Partum Cases												
Mean	0 1		0 0		0 2		0 0		0 3		0 2	
Std Dev	0 5		0 2		0 4		0 0		0 7		0 4	
Neonatal Cases												
Mean	0 8		0 5		0 7		0 4		0 6		1 1	
Std Dev	2 3		1 6		1 3		0 9		1 3		2 7	
Communicate with Facilities Referred To	7	12 3	4	17 4	4	12 1	3	7 3	4	13 8	2	4 8
Always Accompany Referred case	6	10 5	0	0 0	4	12 1	3	7 3	3	10 3	4	9 5
Sometimes Accompany Referred cases	13	22 8	10	43 5	9	27 3	2	4 9	7	24 1	6	14 3
Follow up on Referred Cases	25	43 9	18	78 3	21	63 6	12	29 3	7	24 1	28	66 7
By												
Telephone	0	0 0	1	5 6	1	4 8	0	0 0	0	0 0	1	3 6
Regular Feed Back	2	8 0	0	0 0	5	23 8	5	41 7	3	42 9	6	21 4
Informal Communication	21	84 0	17	94 4	13	61 9	7	58 3	4	57 1	20	71 4
Other	2	8 0	0	0 0	2	9 5	0	0 0	0	0 0	1	3 6
Do Not Follow up	20	35 1	6	26 1	13	39 4	4	9 8	17	58 6	11	26 2
Reasons	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
No Records	5	25 0	0	0 0	8	61 5	2	50 0	2	11 8	7	63 6
Not Required	8	40 0	6	100 0	6	46 2	1	25 0	15	88 2	4	36 4
Difficult to Follow up	7	35 0	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0
Other												

Table (3/17)

3/4 All Distribution of Providers Who Have Health Information System and Monitoring by District

Providers	District											
	Edfo		Daraw		Komombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Providers Who Fill Registration Froms	28	36 4	11	45 8	16	40 0	19	38 0	22	55 0	23	41 1
No	**28**		**11**		**16**		**19**		**22**		**23**	
Category												
Pediatricians	1	3 6	0	0 0	0	0 0	0	0 0	0	0 0	1	4 3
General Practitioners	3	10 7	0	0 0	4	25 0	2	10 5	1	4 5	3	13 0
Nurses	24	85 7	11	100 0	12	75 0	17	89 5	21	95 5	19	82 6
Registration Forms												
Antenatal New Visits	19	67 9	10	90 9	15	93 8	16	84 2	18	81 8	22	95 7
Antenatal Follow Up	20	71 4	10	90 9	14	87 5	17	89 5	17	77 3	20	87 0
Delivery	14	50 0	11	100 0	13	81 3	13	68 4	15	68 2	21	91 3
Postpartum Visit	9	32 1	11	100 0	6	37 5	2	10 5	9	40 9	10	43 5
Child Care	20	71 4	9	81 8	11	68 8	15	78 9	16	72 7	16	69 6
Incubator Record	3	10 7	0	0 0	0	0 0	0	0 0	0	0 0	1	4 3
No	**77**		**24**		**40**		**50**		**40**		**56**	
Providers Trained as Trainers to Providers Training on Monitoring Quality of Data	8	10 4	6	25 0	2	5 0	16	32 0	3	7 5	15	26 8
Providers Trained to Maintain/Analyze/Use Data	5	6 5	4	16 7	4	10 0	13	26 0	3	7 5	13	23 2
Providers that Use Collected Data	52	67 5	18	75 0	28	70 0	40	80 0	32	80 0	42	75 0
Purpose of Usage												
Writing a report	10	19 2	2	11 1	1	3 6	4	10 0	16	50 0	9	21 4
Monitoring performance	32	61 5	16	88 9	22	78 6	30	75 0	9	28 1	38	90 5
Evaluating performance	22	42 3	12	66 7	7	25 0	15	37 5	5	15 6	10	23 8
Collecting incentives	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	1	2 4
Other	10	19 2	0	0 0	3	10 7	0	0 0	8	25 0	2	4 8

Table (3/18)

3/501 503 506 **Distribution of Equipment Drugs and Supplies By Adequency and Condition By District**

Providers	District											
	Edfo		Daraw		Komombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Reported Availability of Essential Drugs and Supplies for Mothers and Neonates	21	27 3	8	33 3	10	25 0	18	36 0	5	12 5	32	57 1
Do Not Know	2	2 6	1	4 2	3	7 5	1	2 0	8	20 0	1	1 8
Reported Shortages	54	70 1	15	62 5	27	67 5	31	62 0	27	67 5	21	37 5
No	**54**		**15**		**27**		**31**		**27**		**21**	
Solutions												
Produce Locally	4	7 4	2	13 3	1	3 7	0	0 0	0	0 0	0	0 0
Client Buys	43	79 6	13	86 7	24	88 9	25	80 6	26	96 3	19	90 5
Other	7	13 0	0	0 0	2	7 4	6	19 4	1	3 7	2	9 5
No	**77**		**24**		**40**		**50**		**40**		**56**	
Reported Inadequancy of Blood Supply	76	98 7	24	100 0	38	95 0	49	98 0	39	97 5	56	100 0
Do Not Know	0	0 0	0	0 0	1	2 5	0	0 0	1	2 5	0	0 0
No	**76**		**24**		**38**		**49**		**39**		**56**	
Solutions for Inadequancy of Blood Supply												
Ask Patients to Supply from Relations/Friends	6	7 9	4	16 7	3	7 9	7	14 3	3	7 7	8	14 3
Refer Patient to Hospital	70	92 1	20	83 3	35	92 1	42	85 7	36	92 3	48	85 7
No	**77**		**24**		**40**		**50**		**40**		**56**	
Reported Shortage of Essential Equipment	50	64 9	13	54 2	16	40 0	3	6 0	23	57 5	28	50 0
Do not know	1	1 3	1	4 2	2	5 0	0	0 0	4	10 0	0	0 0
Conditions of Equipment												
Good condition	48	62 3	18	75 0	29	72 5	26	52 0	33	82 5	41	73 2
Average condition	20	26 0	4	16 7	7	17 5	15	30 0	6	15 0	12	21 4
Bad condition	9	11 7	1	4 2	3	7 5	9	18 0	0	0 0	3	5 4
Do not know	0	0 0	0	0 0	1	2 5	0	0 0	1	2 5	0	0 0

Table (3/19)

3/502 Percentage Distribution by Providers Reporting Shortages in Supplies and Drugs by District

	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	N	%	N	%	N	%	N	%	N	%	N	%
Shortage in Supplies												
Surgical Thread	1	1.8	0	0.0	2	7.5	0	0.0	0	0.0	0	0.0
Towels to Dry Baby	4	7.4	0	0.0	0	0.0	0	0.0	8	29.6	0	0.0
Disposal Syrings	0	0.0	1	6.6	0	0.0	1	3.2	2	7.4	2	8.6
I V & Bl Trans Kits	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.3
Cord Ties	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dressings	0	0.0	0	0.0	2	7.4	1	3.2	4	14.8	0	0.0
Protienuria Test Supplies	0	0.0	0	0.0	0	0.0	0	0.0	2	7.4	1	4.3
Ryle Tube	0	0.0	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0
Shortage in Drugs												
Anesthetics (general)												
NotSpecified	0	0.0	0	0.0	0	0.0	2	6.4	0	0.0	1	4.3
Antibiotics												
Type Not Specified	13	24.0	7	46.6	12	44.4	9	29.0	20	74.0	11	47.8
Ampicillin injection	0	0.0	0	0.0	0	0.0	1	3.2	1	3.7	0	0.0
Amoxide	0	0.0	0	0.0	2	7.4	0	0.0	0	0.0	0	0.0
Other drugs												
Type Not Specified	1	1.8	0	0.0	1	3.7	2	6.4	0	0.0	1	4.3
Tetracyclin Ointment for Eyes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	8.6
Silver Nitrate Eye Drops Neorates	2	3.7	0	0.0	2	7.4	1	3.2	0	0.0	0	0.0
Anaenia Iron Tablets	22	40.0	8	53.3	4	14.8	12	38.7	13	48.1	10	43.4
Hypertensive Tablets	2	3.7	1	6.6	1	3.7	1	3.2	0	0.0	2	8.6
Magnesium Sulfate Injections	1	1.8	0	0.0	0	0.0	2	6.4	2	7.4	0	0.0
Antipyretics & Analgesics	7	12.9	5	33.3	4	14.8	5	16.1	0	0.0	1	4.3
Laxatives	1	1.8		0.0	0	0.0	0	0.0	0	0.0	0	0.0
Calcium Injections	3	5.5	1	6.6	0	0.0	1	3.2	1	3.7	2	8.6
Neonatal Drugs	0	0.0	0	0.0	1	3.7	5	16.1	0	0.0	1	4.3
Antidiarrheal Drugs	6	11.1	2	13.3	0	0.0	2	6.4	1	3.7	3	13.0
Drugs for Genital Infections	1	1.8	1	6.6	0	0.0	0	0.0	0	0.0	0	0.0
Sodium bi Carbonate	0	0.0	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0
Drugs for Common Cold & GIT Infection	4	7.4	4	26.6	1	3.7	3	9.6	0	0.0	0	0.0
Aminophylline	0	0.0	0	0.0	3	11.1	1	3.2	0	0.0	0	0.0
Spasmolytics	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Drugs for Respiratory Infections	0	0.0	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0
Immunologials (Vaccines)												
Tetanus Toxoid	1	1.8	0	0.0	0	0.0	1	3.2	0	0.0	2	8.6
Ergometrine or Oxytocin Injection	17	31.4	2	13.3	10	37.0	5	16.1	10	37.0	3	13.0
Antiseptics	2	3.7	0	0.0	2	7.4	3	9.6	2	7.4	0	0.0
Intravenous solutions												
Not specified	0	0.0	0	0.0	2	7.4	0	0.0	0	0.0	1	4.3
Glucose solutian	4	7.4	0	0.0	0	0.0	1	3.2	0	0.0	1	4.3
Contraceptives												
Condoms	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Do not Know	9	16.6	1	16.6	6	22.2	0	0.0	1	3.7	1	4.3

Table (3/20)

3/505 Shortages in Equipment by District

Item	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	N	%	N	%	N	%	N	%	N	%	N	%
Shortage In Basic Equipment												
All Equipment	0	00	0	00	0	00	1	33	0	00	0	00
Sphygmomanometer	1	20	2	154	2	125	2	67	0	00	7	250
Adult & Infant Stethoscopes	7	143	1	77	3	188	1	33	6	261	6	214
Adult & Infant Weighing Scales	6	122	1	77	1	63	4	133	0	00	3	107
Oxygen	5	102	2	154	1	63	1	33	2	87	1	34
Sterilizer	2	41	0	00	0	00	0	00	0		0	00
Autoclove	0	00	1	77	1	63	0	00	0	00	0	00
Thermometer	0	00	1	77	1	63	3	100	1	43	1	43
Manual Vacuvm Aspirator	1	20	2	154	1	63	2	67	8	348	9	321
Laboratory Equipment	6	122	0	00	1	63	4	133	3	130	9	321
Basins	1	20	77	00	0	10	33	00	0	00	0	00
Height Measure	1	20	2	154	1	63	3	100	3	130	0	00
Shortages in Delivery Equipment												
All equipment	0	00	0	00	0	00	0	00	0	00	1	36
Speculums	1	20	0	00	0	00	0	00	0	00	2	71
Vacuum Extractar	17	347	4	308	2	125	4	133	1	43	2	71
Obstetric Forceps	7	143	1	77	1	63	2	67	1	430	1	36
Scissors	1	20	0	00	1	63	1	33	0	00	0	00
Sutureneedles & Suturematerics	5	102	1	77	0	00	1	33	0	00	0	00
Utility Forceps	0	00	0	00	1	63	0	00	0	00	0	00
Sonar	7	143	1	77	0	00	6	200	3	130	5	179
Incubator	9	184	1	77	2	125	1	33	2	87	3	107
Delivery Kits	1	20	1	77	0	00	0	00	0	00	0	00
Rehydration	0	00	0	00	1	63	0	00	0	00	0	00
Do Not Know	5	192	1	100	1	50	4	210	0	00	0	10

Table (3/21)

3/601 Distribution of Activities that Providers are Involved in with Dayas by District

Providers	District											
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	N	%	N	%	N	%	N	%	N	%	N	%
None	54	70 1	22	91 7	25	62 5	33	66 0	36	90 0	27	48 2
Training	14	18 2	2	8 3	1	2 5	1	2 0	1	2 5	7	12 5
Supervision	10	13 0	2	8 3	2	5 0	7	14 0	2	5 0	16	28 6
Management of Referred Cases	8	10 4	0	0 0	12	30 0	6	12 0	3	7 5	13	23 2
Provision of Supplies	3	3 9	1	4 2	1	2 5	4	8 0	0	0 0	3	5 4
Collecting Infromation	1	1 3	0	0 0	0	0 0	1	2 0	1	2 5	0	0 0
Other	2	2 6	0	0 0	0	0 0	1	2 0	0	0 0	0	0 0

Table (3/22)

3/602 Distribution of Providres Using IEC Materials in Facilities by Topics and Materials by District

Variables	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Nasr 40		Luxor 56	
	N	%	N	%	N	%	N	%	N	%	N	%
Topics												
Tetanus Toxoid	17	70 8	17	70 8	17	42 5	41	102 5	3	7 5	30	0 0
Risk of Anemia during Pregnancy	4	5 2	0	0 0	0	0 0	3	7 5	0	0 0	2	0 0
Maternal and Child Nutrition	0	0 0	1	4 2	2	5 0	5	12 5	4	10 0	5	0 0
FP & Frequency	7	9 1	2	8 3	1	2.5	5	12 5	22	55 0	8	0 0
Risk Factors during Pregnancy	11	0 0	0	0 0	0	0 0	28	70 0	0	0 0	10	0 0
Child Immunization	0	0 0	0	0 0	0	0 0	4	10 0	0	0 0	1	0 0
Importance of Breastfeeding	6	7 8	3	12 5	4	10 0	11	27 5	15	37 5	27	0 0
BF Positioning	28	36 4	15	62 5	18	45 0	34	85 0	35	87 5	31	0 0
Other	2	2 6	3	12 5	1	2 5	3	7 5	1	2 5	0	0 0
IEC Materials												
Posters	61	79 2	34	141 7	32	80 0	110	275 0	70	175 0	97	242 5
Brochures	6	7 8	1	4 2	0	0 0	13	32 5	6	15 0	22	55 0
Flip Charts	10	13 0	6	25 0	6	15 0	17	42 5	32	80 0	12	30 0
Booklets	6	7 8	7	29 2	10	25 0	14	35 0	11	27 5	5	12 5
Conferences	2	2 6	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Do Not Have	35	45 5	3	12 5	20	50 0	3	7 5	1	2 5	14	35 0

Table (3/23)

3/603-604 **Distribution of Educational Activities Implemented in the Last Three Months by Activity, Place and Target Group and the number of Home Visits by District**

Providers	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Activities												
Sessions/Meetings/Lectures	25	32 5	8	33 3	10	25 0	18	36 0	25	62 5	28	50 0
Place												
Inside the Facility	4	5 2	0	0 0	3	7 5	2	4 0	15	37 5	10	17 9
Traget Group												
Mothers	2	2 6	0	0 0	1	2 5	1	2 0	3	7 5	5	8 9
Home Visits Last 3 Months	68	88 3	20	83 3	35	87 5	46	92 0	40	100 0	50	89 3
Average Visits	18 6		18 6		17 8		6 15		4 45		8 76	
Std Dev	30 5		29 6		28 1		15 4		6 53		16 8	

Table (3/24)

3/701 704 Distribution of Providers According to Age Educational Degrees and Woking Duration by District

Providers	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	N	%	N	%	N	%	N	%	N	%	N	%
Age												
Mean Age of Providers	31 1		27 8		29 8		30 4		28 7		33 1	
Std Dev	9 5		7 6		10 0		9 6		7 2		8 0	
Educational Degree												
< Secondary	0	0 0	0	0 0	0	0 0	3	6 0	0	0 0	0	0 0
Secondary Nursing	2	2 6	14	58 3	10	25 0	4	8 0	6	15 0	10	17 9
Delivery Diploma	3	3 9	0	0 0	2	5 0	4	8 0	3	7 5	4	7 1
Nursing Diploma	31	40 3	0	0 0	7	17 5	15	30 0	14	35 0	9	16 1
University Degree (MD or Nursing)	37	48 1	9	37 5	18	45 0	18	36 0	16	40 0	26	46 4
Diploma of Specialization	4	5 2	1	4 2	3	7 5	6	12 0	1	2 5	7	12 5
Duration of Work in Current Facility												
Mean Months Staved at Facility	44 0		36 5		43 0		46 2		45 2		70 6	
Std Dev	78 5		40 0		75 9		74 6		66 8		77 8	
Duration Providers Intend To Stay												
For Ever	26	33 8	7	29 2	16	40 0	23	46 0	18	45 0	27	48 2
Not Decided	10	13 0	7	29 2	5	12 5	2	4 0	0	0 0	4	7 1
Want to Leave Immediately	6	7 8	1	4 2	4	10 0	3	6 0	0	0 0	4	7 1
Give a Duration of Time	35	45 5	9	37 5	15	37 5	22	44 0	22	55 0	21	37 5
Mean Months	23 1		8 8		6 0		12 6		10 6		8 2	
Std Dev	32 4		4 9		3 9		11 6		15 7		5 9	

Table (3/25)

3/705 Distribution of Duration in Previous Work Places of Providers by District

Providers	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	77		24		40		50		40		56	
	No	%	No	%	No	%	No	%	No	%	No	%
Duration in Years												
< 1	19	0 2	6	0 3	10	0 3	13	0 3	7	0 2	10	0 2
1 2	21	0 3	3	0 1	10	0 3	5	0 1	5	0 1	10	0 2
2 4	9	0 1	3	0 1	7	0 2	15	0 3	4	0 1	5	0 1
4 6	5	0 1	6	0 3	2	0 1	3	0 1	4	0 1	4	0 1
6 8	2	0 0	0	0 0	0	0 0	3	0 1	1	0 0	4	0 1
8 +	2	0 0	0	0 0	0	0 0	1	0 0	3	0 1	3	0 1
No Previous Positions	19	0 2	6	0 3	11	0 3	10	0 2	16	0 4	20	0 4

Table (3/26)

3/801 - 803 Distribution of Health Providers According to Their Private Practice by District

No of Providers	District									
	Edfu 77		Daraw 24		Kom Ombo 40		Aswan 50		Luxor 56	
	No	%	No	%	No	%	No	%	No	%
Providers Having Private Practices	14	18 2	3	12 5	5	12 5	9	18 0	8	14 3
No	**14**		**3**		**5**		**9**		**8**	
Place										
Private Clinic	6	42 9	2	66 7	3	60 0	3	33 3	7	87 5
Voluntary Organization Dispensary	2	14 3	0	0 0	0	0 0	0	0 0	0	0 0
Home Visits	6	42 9	1	33 3	2	40 0	6	66 7	1	12 5
Frequency of Encountering Cases										
Complications of Pregnancy	12	85 7	3	100 0	3	60 0	8	88 9	4	50 0
Mean	11 8		4 3		8 3		5 4		6	
Std Dev	28 4		5 1		14 4		7 6		6 2	
Complications of Delivery	12	85 7	3	100 0	3	60 0	8	88 9	4	50 0
Mean	2 3		7		8 3		2 1		3	
Std Dev	2 9		7		14 4		3 6		2 9	
Complications of Abortion	12	85 7	3	100 0	3	60 0	8	88 9	4	50 0
Mean	5 1		5 7		1		0 7		1 7	
Std Dev	11 6		8 1		1 7		1		2 4	
Providers Encounter										
Premature Birth	10	71 4	2	66 7	4	80 0	4	44 4	7	87 5
Low Birth Weight	12	85 7	3	100 0	5	100 0	6	66 7	6	75 0
Neonates with Breathing Difficulty	13	92 9	1	33 3	3	60 0	5	55 6	6	75 0
Neonate With Congenital Defects	7	50 0	2	66 7	3	60 0	6	66 7	6	75 0
Neonates With Icterus Neonatorum	8	57 1	1	33 3	3	60 0	7	77 8	6	75 0

Nasr District Providers did not report any Private Practice

Table (3/27)

3/805 Distribution of Health Providers Who Have Private Practices by Frequency of Encountering Problems and Actions Taken by District

No of Providers with Private Practice	District									
	Edfu 14		Daraw 3		Kom Ombo 5		Aswan 9		Luxor 8	
	No	%	No	%	No	%	No	%	No	%
Problems										
Premature Birth	10	71 4	2	66 7	4	80 0	4	44 4	7	87 5
Range in months										
0 2 Months	4	40 0	1	50 0	3	75 0	4	100 0	3	42 9
3 6 Months	6	60 0	1	50 0	1	25 0	0	0 0	3	42 9
7 12 Months	0	0 0	0	0 0	0	0 0	0	0 0	1	14 3
Actions Taken										
Refer	9	90 0	0	0 0	0	0 0	4	100 0	3	42 9
Treat	0	0 0	1	50 0	1	25 0	0	0 0	1	14 3
Call Specialist	1	10 0	1	50 0	1	25 0	0	0 0	3	42 9
Other	0	0 0	0	0 0	2	50 0	0	0 0	0	0 0
Low Birth Weight	12	85 7	3	100 0	5	100 0	6	66 7	6	75 0
Range in months										
0 2 Months	7	58 3	2	66 7	5	100 0	4	66 7	4	66 7
3 6 Months	5	41 7	1	33 3	0	0 0	2	33 3	1	16 7
7 12 Months	0	0 0	0	0 0	0	0 0	0	0 0	1	16 7
Actions Taken										
Refer	6	50 0	2	66 7	1	20 0	4	66 7	2	33 3
Treat	4	33 3	0	0 0	1	20 0	2	33 3	1	16 7
Call Specialist	2	16 7	1	33 3	0	0 0	0	0 0	3	50 0
Other	0	0 0	0	0 0	3	60 0	0	0 0	0	0 0
Neonates with Bearthing Difficulty	13	92 9	1	33 3	3	60 0	5	55 6	6	75 0
Range in months										
0 - 2 Months	9	69 2	1	100 0	2	66 7	4	80 0	4	66 7
3 - 6 Months	3	23 1	0	0 0	1	33 3	1	20 0	1	16 7
7 12 Months	1	7 7	0	0 0	0	0 0	0	0 0	1	16 7
Actions Taken										
Refer	7	53 8	0	0 0	0	0 0	4	80 0	1	16 7
Treat	3	23 1	0	0 0	1	33 3	1	20 0	2	33 3
Call Specialist	2	15 4	1	100 0	1	33 3	0	0 0	3	50 0
Other	1	7 7	0	0 0	1	33 3	0	0 0	0	0 0
Neonate With Congenital Defects	7	50 0	2	66 7	3	60 0	6	66 7	6	75 0
Range in months										
0 - 2 Months	4	57 1	1	50 0	1	33 3	5	83 3	2	33 3
3 - 6 Months	3	42 9	1	50 0	2	66 7	1	16 7	2	33 3
7 12 Months	0	0 0	0	0 0	0	0 0	0	0 0	2	33 3
Actions Taken										
Refer	5	71 4	1	50 0	1	33 3	5	83 3	3	50 0
Treat	0	0 0	0	0 0	1	33 3	0	0 0	0	0 0
Call Specialist	2	28 6	1	50 0	1	33 3	1	16 7	3	50 0
Other	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Neonates With Icterus Neonatorum	8	57 1	1	33 3	3	60 0	7	77 8	6	75 0
Range in months										
0 - 2 Months	4	50 0	1	100 0	2	66 7	5	71 4	4	66 7
3 - 6 Months	4	50 0	0	0 0	1	33 3	1	14 3	2	33 3
7 - 12 Months	0	0 0	0	0 0	0	0 0	1	14 3	0	0 0
Actions Taken										
Refer	4	50 0	0	0 0	0	0 0	4	57 1	1	16 7
Treat	3	37 5	0	0 0	2	66 7	2	28 6	2	33 3
Call Specialist	1	12 5	1	100 0	1	33 3	1	14 3	3	50 0
Other	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0

QUESTIONNAIRE # 4

ANTENATAL EXIT INTERVIEW

Location	**Percentage Distribution by Location of Interview**
Table (4/1)	**Average Distance and Time Needed to Go to Facility by District**
Table (4/2)	**Average Distribution According to Transportation Means, Average Cost to Go to Facility, Accompanying Person and Average Waiting Time by District**
Table (4/3)	**Average Distribution According to Women's Satisfaction With Reception by District**
Table (4/4)	**Average Distribution of Women Who Met With Nurses in Visit by District**
Table (4/5)	**Average Distribution According to Examinations Made For Them at Facility by District**
Table (4/6)	**Average Distribution According to Admission to Physician in Visit and Waiting Time by District**
Table (4/7)	**Average Distribution by Privacy of Examination, Questions Asked to Clients by Physician, Examinations and Explanations Given To Client by District**
Table (4/8)	**Average Distribution by Advice Given to Client, Medications and Discussion With Privacy by District**
Table (4/9)	**Average Distribution by Satisfaction With Services Provided by District**
Table (4/10)	**Average Distribution by Timing of Pregnancy and Accessibility Cards by District**
Table (4/11)	**Average Distribution by Reason of Visiting Facility by District**
Table (4/12)	**Average Distribution by Place of Next Delivery by District**
Table (4/13)	**Average Distribution According to Birth Attendant Preferred and Reasons for Preferring Physician by District**
Table (4/14)	**Average Distribution According to Number of Visits to Facility and Details of Previous Visits by District**
Table (4/15)	**Average Distribution According to Visits to Other Facilities by District**
Table (4/16)	**Average Distribution According to No. of Pregnancies, Livebirths, Children, Pregnancies Waste and Child Loss By District**

Table (4/17) **Average Distribution According to Complications of Previous Pregnancy, Delivery & Normality of Baby by District**
Table (4/18) **Average Distribution According Place of Delivery, Provider and Home Visits After Delivery by District**
Table (4/19) **Average Distribution According to Cost of Delivery and Cost Details by District**

Questionnaire (4) - Location

(4) Percentage Distribution by Location of Interview

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Home	51	85 0	5	35 7	18	75 0	18	66 7	8	50 0	16	66 7
Health Facility	9	15 0	9	64 3	6	25 0	9	33 3	8	50 0	8	33 3

Table (4/1)

4/101 102 Average Distance and Time Needed to Go to Facility by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Do Not Know Distance to Facility	12	20 0	1	7 1	9	37 5	12	44 4	2	12 5	9	37 5
Know Distance to Facility	48	80 0	13	92 9	15	62 5	15	55 6	14	87 5	15	62 5
Average Distance in Kms	3 6		2 5		1 1		2 1		1 5		0 9	
Std Dev	6 3		5 0		1 0		2 6		0 9		1 0	
Do not Know Time Needed to Go to Facility	59	98 3	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Know Time Needed to Reach Facility	1	1 7	14	100 0	24	100 0	27	100 0	16	100 0	24	100 0
Average Time in Minutes	18 1		15 4		15 1		27 0		12 4		15 6	
Std Dev	14 4		8 0		8 2		20 4		6 8		11 9	

Table (4/2)

4/103 106 **Average Distribution According to Transportation Means, Average Cost to Go to Facility Accompanying Person and Average Waiting Time by District**

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Transportation Used to Go to Facility												
On Foot	48	80 0	9	64 3	17	70 8	21	77 8	13	81 3	21	87 5
Boat	0	0 0	0	0 0	0	0 0	3	11 1	0	0 0	0	0 0
Taxi/Microbus	12	20 0	5	35 7	7	29 2	2	7 4	3	18 8	2	8 3
Private car	0	0 0	0	0 0	0	0 0	1	3 7	0	0 0	0	0 0
Other	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	1	4 2
Do Not Know Average Cost of Going to Facility	48	80 0	9	64 3	17	70 8	25	92 6	13	81 3	22	91 7
Know Cost	12	20 0	5	35 7	7	29 2	2	7 4	3	18 8	2	8 3
Average Cost of Going to Facility (in PT)	112 5		58 0		55 0		100 0		66 7		60 0	
Std Dev	120 8		23 9		13 2		50 0		28 9		17 3	
Person Accompanying Client to Facility												
Nobody	25	41 7	5	35 7	6	25 0	14	51 9	14	87 5	12	50 0
Someone	35	58 3	9	64 3	18	75 0	13	48 1	2	12 5	12	50 0
Husband	5	14 3	2	22 2	1	5 6	1	7 7	1	50 0	0	0 0
Mother/Mother in Law	3	8 6	2	22 2	3	16 7	2	15 4	1	50 0	3	25 0
Relatives/Neighbors	27	77 1	5	55 6	14	77 8	10	76 9	0	0 0	9	75 0
Average Waiting Time in Facility (in Min)	35 6		42 9		41 7		36 1		17 2		42 1	
Std Dev	37 7		26 2		49 6		28 2		13 5		42 2	

Table (4/3)

4/2 All **Average Distribution According to Women s Satisfation With Reception at Facility by District**

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
First Received at Facility by												
Orderly	9	15 0	1	7 1	7	29 2	3	11 1	1	6 3	1	4 2
Nurse	25	41 7	12	85 7	11	45 8	19	70 4	15	93 8	19	79 2
Clerk	20	33 3	0	0 0	4	16 7	4	14 8	0	0 0	2	8 3
Porter	5	8 3	0	0 0	0	0 0	0	0 0	0	0 0	2	8 3
Other	1	1 7	1	7 1	2	8 3	1	3 7	0	0 0	0	0 0
Felt Welcomed	58	96 7	14	100 0	24	100 0	27	100 0	16	100 0	24	100 0
Did Not Feel Welcomed	2	3 3	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Person Received Client Was Helpful	58	96 7	14	100 0	24	100 0	27	100 0	16	100 0	24	100 0
Person Received Client Was Not Helpful	2	3 3	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Waiting Place Was												
Very Comfortable	48	80 0	12	85 7	22	91 7	24	88 9	16	100 0	21	87 5
Somewhat Comfortable	5	8 3	2	14 3	1	4 2	2	7 4	0	0 0	2	8 3
Not Comfortable	7	11 7	0	0 0	1	4 2	1	3 7	0	0 0	1	4 2

Table (4/4)

4/301 303 Average Distribution of Women Who Met Nurses During Visit and Average Waiting Time Before Seeing the Nurse by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Have Seen A Nurse During Visit	40	66 7	13	92 9	19	79 2	26	96 3	16	100 0	24	100 0
Have Not Seen A Nurse During Visit	20	33 3	1	7 1	5	20 8	1	3 7	0	0 0	0	0 0
No	**40**		**13**		**19**		**26**		**16**		**24**	
Average Waiting Time Before Seeing Nurse (Min)	6 4		0 4		0 3		0 2		3 4		3 5	
Std Dev	14 8		1 4		1 1		1 0		6 0		10 9	
Waiting Time Was												
Long	3	7 5	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Reasonable	37	92 5	13	100 0	19	100 0	26	100 0	16	100 0	24	100 0

Table (4/5)

4/304 307 Average Distribution According to Examinations Made For Clients at Facility by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Weighed	12	20 0	8	57 1	6	25 0	16	59 3	8	50 0	15	62 5
Height Measured	5	8 3	6	42 9	3	12 5	15	55 6	9	56 3	10	41 7
Urine Sample Taken	4	6 7	4	28 6	5	20 8	14	51 9	13	81 3	9	37 5
Blood Sample Taken	3	5 0	1	7 1	3	12 5	12	44 4	4	25 0	6	25 0
Was Explained What Is Being Done and Why	5	8 3	6	42 9	5	20 8	16	59 3	9	56 3	6	25 0

Table (4/6)

4/308 310 **Average Distribution According to Admission to Physician in Visit and Waiting Time by District**

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Met With Physician During the Visit	25	41 7	14	100 0	10	41 7	20	74 1	11	68 8	13	54 2
Did Not Meet With Physician During the Visit	35	58 3	0	0 0	14	58 3	7	25 9	5	31 3	11	45 8
No	**25**		**14**		**10**		**20**		**11**		**13**	
Average Waiting Time (in Min)	21 4		12 9		35 3		22 5		8 8		33 5	
Std Dev	31 4		14 2		36 6		21 2		7 6		32 9	
Waiting Time Was												
Long	4	16 0	2	14 3	2	20 0	2	10 0	0	0 0	3	23 1
Reasonable	21	84 0	12	85 7	8	80 0	18	90 0	11	100 0	10	76 9

Table (4/7)

4/311 317 **Average Distribution by Privacy of Examination, Questions Asked to Clients by Physician Examinations and Explanations Given To Client by District**

No Admitted to Physician	District											
	Edfu 25		Daraw 14		Kom Ombo 10		Aswan 20		Nasr 11		Luxor 13	
	No	%	No	%	No	%	No	%	No	%	No	%
Physician Was Polite and Friendly	25	100 0	14	100 0	10	100 0	20	100 0	11	100 0	13	100 0
Was Asked About												
Duration of Current Pregnancy	22	88 0	12	85 7	10	100 0	20	100 0	11	100 0	11	84 6
Previous Experience with Pregnancies/Deliveries	19	76 0	12	85 7	10	100 0	19	95 0	9	81 8	11	84 6
Previous Experince with Breast Feeding	5	20 0	8	57 1	2	20 0	9	45 0	7	63 6	5	38 5
Client Was Examined												
Privately	20	80 0	13	92 9	9	90 0	20	100 0	11	100 0	8	61 5
Infront of Others	5	20 0	1	7 1	1	10 0	0	0 0	0	0 0	5	38 5
Was Bothered by This	1	20 0	0	0 0	1	100 0	0	0 0	0	0 0	3	60 0
Was Not Bothered by This	4	80	1	100 0	0	0 0	0	0 0	0	0 0	2	40 0
The Physician												
Examined Heart With Stethoscope	14	56 0	11	78 6	5	50 0	16	80 0	10	90 9	7	53 8
Measured Blood Pressure	14	56 0	12	85 7	6	60 0	19	95 0	11	100 0	10	76 9
Examined Abdomen	14	56 0	11	78 6	7	70 0	17	85 0	9	81 8	10	76 9
Examined Breast	12	48 0	8	57 1	4	40 0	14	70 0	9	81 8	8	61 5
Examined Client Gynecologically	5	20 0	4	28 6	4	40 0	1	5 0	0	0 0	2	15 4
Examined Client by Ultrasound	2	8 0	2	14 3	0	0 0	0	0 0	1	9 1	0	0 0
Explained What Was Happening and Why	7	28 0	6	42 9	4	40 0	14	70 0	9	81 8	7	53 8

Table (4/8)

4/318 323 **Average Distribution by Advices Given to Client Medications and Discussions With Provider by District**

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Was Advised on												
Risky Signs of Pregnancy or Delivery	6	10 0	9	64 3	0	0 0	10	37 0	10	62 5	4	16 7
How to Act if Risky Signs Accordingly	6	10 0	9	64 3	0	0 0	9	33 3	10	62 5	3	12 5
Proper Nutrition	9	15 0	8	57 1	3	12 5	10	37 0	13	81 3	6	25 0
Personal Hygiene	5	8 3	6	42 9	2	8 3	7	25 9	12	75 0	0	0 0
Exercise	6	10 0	6	42 9	0	0 0	8	29 6	8	50 0	1	4 2
Breast Hygiene	7	11 7	5	35 7	1	4 2	13	48 1	9	56 3	4	16 7
Was Given												
TT Injections	4	6 7	5	35 7	1	4 2	4	14 8	6	37 5	3	12 5
Iron Pills	6	10 0	9	64 3	4	16 7	4	14 8	2	12 5	4	16 7
Other Medications	5	8 3	9	64 3	3	12 5	6	22 2	7	43 8	5	20 8
Explained Usage of Medications	5	100 0	9	100 0	3	100 0	6	100 0	7	100 0	5	100 0
Provider Discussed With Clients Place of Delivery	5	8 3	6	42 9	7	29 2	4	14 8	7	43 8	1	4 2
Told When To Come Next	31	51 7	8	57 1	12	50 0	15	55 6	10	62 5	12	50 0

Table (4/9)

4/324 327 **Average Distribution by Satisfaction With Services Provided by District**

No of Cases	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	60		14		24		27		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
Satisfied With Services Provided	50	83 3	13	92 9	20	83 3	24	88 9	16	100 0	22	91 7
Not Satisfied With Services Provided	10	16 7	1	7 1	4	16 7	3	11 1	0	0 0	2	8 3
No	**50**		**13**		**20**		**24**		**16**		**22**	
Reasons For Satisfaction												
Friendly Reception	30	60 0	8	61 5	8	40 0	11	45 8	11	68 8	8	36 4
Assurance	6	12 0	0	0 0	9	45 0	7	29 2	5	31 3	12	54 5
Instructions	3	6 0	2	15 4	0	0 0	6	25 0	3	18 8	1	4 5
Receiving Curative Treatment	25	50 0	6	46 2	6	30 0	5	20 8	10	62 5	9	40 9
Short Waiting Time	7	14 0	0	0 0	3	15 0	2	8 3	3	18 8	3	13 6
Comfortable Place for Waiting	2	4 0	0	0 0	2	10 0	0	0 0	0	0 0	0	0 0
Other	2	4 0	0	0 0	1	5 0	0	0 0	0	0 0	0	0 0
No	**10**		**1**		**4**		**3**		**0**		**2**	
Reasons For Non Satisfaction												
Unfriendly Reception	1	10 0	0	0 0	0	0 0	1	33 3	0	0 0	0	0 0
Worried/Not Assured	1	10 0	0	0 0	0	0 0	2	66 7	0	0 0	0	0 0
Long Waiting Time	1	10 0	0	0 0	1	25 0	0	0 0	0	0 0	0	0 0
Did Not Receive What She Came For	0	0 0	0	0 0	1	25 0	0	0 0	0	0 0	0	0 0
Not Examined As Expected	8	80 0	1	100 0	3	75 0	0	0 0	0	0 0	2	100 0
Medications Not As Expected	2	20 0	0	0 0	0	0 0	0	0 0	0	0 0	1	50 0
Other	1	10 0	0	0 0	2	50 0	0	0 0	0	0 0	0	0 0
No	**60**		**14**		**24**		**27**		**16**		**24**	
Services That Should Have Been Provided												
Nothing	42	70 0	6	42 9	16	66 7	21	77 8	7	43 8	17	70 8
More Infromation	4	6 7	0	0 0	1	4 2	0	0 0	0	0 0	0	0 0
More Instructions	2	3 3	0	0 0	2	8 3	0	0 0	0	0 0	1	4 2
Better Examinations	12	20 0	2	14 3	6	25 0	2	7 4	1	6 3	3	12 5
More Tests	3	5 0	5	35 7	0	0 0	2	7 4	9	56 3	4	16 7
Provision of Medications	6	10 0	0	0 0	1	4 2	2	7 4	0	0 0	1	4 2
Prescription of Vitamins and Iron Pills	2	3 3	0	0 0	0	0 0	0	0 0	0	0 0	1	4 2
Sonar (Ultra Sound)	0	0 0	3	21 4	1	4 2	1	3 7	2	12 5	2	8 3
Other	0	0 0	0	0 0	0	0 0	0	0 0	2	12 5	0	0 0
Intend To Come Back To The Facility	45	75 0	12	85 7	22	91 7	25	92 6	15	93 8	21	87 5
Will Recommend Others To Come to Facility	50	83 3	14	100 0	23	95 8	26	96 3	15	93 8	22	91 7

Table (4/10)

4/401 402 Average Distribution by Timing of Pregnancy and Accessibility Cards by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Mean Duration of Pregnancy (in Weeks)	24 8		25 4		24 2		24 3		23 0		25 3	
Std Dev	6 7		8 5		6 1		7 9		9 5		6 9	
She Has the Accessibility Card	22	36 7	7	50 0	13	54 2	21	77 8	13	81 3	17	70 8
She Forget To Get it With Her This Time	1	1 7	1	7 1	1	4 2	0	0 0	0	0 0	1	4 2
She Wasn t Given One	37	61 7	6	42 9	10	41 7	6	22 2	3	18 8	6	25 0

Table (4/11)

4/403 Average Distribution by Reason of Visitng Facility by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Regular Check up	6	10 0	1	7 1	1	4 2	8	29 6	3	18 8	3	12 5
Felt Tired	4	6 7	9	64 3	8	33 3	6	22 2	1	6 3	4	16 7
Vomiting Occured	0	0 0	0	0 0	0	0 0	0	0 0	1	6 3	0	0 0
Felt Headache and Blurred Vision	1	1 7	0	0 0	0	0 0	2	7 4	1	6 3	0	0 0
For TT Shots	53	88 3	5	35 7	17	70 8	15	55 6	10	62 5	17	70 8
To Check on Pregnancy	3	5 0	1	7 1	1	4 2	0	0 0	4	25 0	1	4 2
Other	0	0 0	1	7 1	0	0 0	0	0 0	0	0 0	0	0 0

Table (4/12)

4/404 Average Distribution by Place Intended for Next Delivery by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Home	41	68 3	2	14 3	14	58 3	9	33 3	4	25 0	10	41 7
This Facility	7	11 7	2	14 3	0	0 0	2	7 4	3	18 8	1	4 2
Other MOH Facility	3	5 0	1	7 1	0	0 0	5	18 5	0	0 0	4	16 7
HIO Facility	2	3 3	6	42 9	0	0 0	1	3 7	0	0 0	0	0 0
Private Facility	3	5 0	0	0 0	7	29 2	4	14 8	5	31 3	4	16 7
Haven t Decided Yet	4	6 7	3	21 4	3	12 5	6	22 2	4	25 0	5	20 8

Table (4/13)

4/405 Average Distribution According to Birth Attendant Preferred and Reasons for Preferring Physician by District

No of Cases	District											
	Edfu 60		Daraw 14		Kom Ombo 24		Aswan 27		Nasr 16		Luxor 24	
	No	%	No	%	No	%	No	%	No	%	No	%
Prefers												
Dava	13	21 7	1	7 1	6	25 0	3	11 1	0	0 0	2	8 3
Nurse	7	11 7	0	0 0	1	4 2	1	3 7	2	12 5	8	33 3
General Practitioner	17	28 3	5	35 7	3	12 5	2	7 4	3	18 8	0	0 0
Female Physician	7	11 7	3	21 4	2	8 3	5	18 5	0	0 0	1	4 2
Ob/Gyn Specialist	12	20 0	4	28 6	9	37 5	7	25 9	11	68 8	10	41 7
Not Yet Decided	4	6 7	1	7 1	3	12 5	8	29 6	0	0 0	3	12 5
Other	0	0 0	0	0 0	0	0 0	1	20 0	0	0 0	0	0 0
Preferred Physicians	36	60 0	12	85 7	14	58 3	14	51 9	14	87 5	11	45 8
No	36		12		14		14		14		11	
Reasons For Preferring Physician												
Great Skill	2	5 6	0	0 0	4	28 6	0	0 0	3	21 4	0	0 0
Availablity	1	2 8	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0
Easy Access	4	11 1	0	0 0	0	0 0	1	7 1	2	14 3	0	0 0
Comfort	7	19 4	1	8 3	1	7 1	0	0 0	9	64 3	6	54 5
Other	0	0 0	0	0 0	0	0 0	2	14 3	2	14 3	2	18 2

Table (4/14)

4/406 413 Average Distribution According to Number of Visits to Facility and Details of Previous Visits by District

No of Cases	District											
	Edfu		Daraw		Kom Ombo		Aswan		Nasr		Luxor	
	60		14		24		27		16		24	
	No	%	No	%	No	%	No	%	No	%	No	%
First Time To Check Up on This Pregnancy	35	58 3	5	35 7	16	66 7	18	66 7	3	18 8	11	45 8
Checked on Pregnancy Before	25	41 7	9	64 3	8	33 3	9	33 3	13	81 3	13	54 2
No First Visit	**35**		**5**		**16**		**18**		**3**		**11**	
Advised To Come To Facility By												
No Body	24	68 6	1	20 0	7	43 8	10	55 6	1	33 3	8	72 7
Husband	0	0 0	2	40 0	2	12 5	0	0 0	1	33 3	0	0 0
Mother/Mother in Law	1	2 9	1	20 0	1	6 3	0	0 0	1	33 3	1	9 1
Relatives/Neighbors	7	20 0	1	20 0	5	31 3	5	27 8	0	0 0	2	18 2
Private Physician	2	5 7	0	0 0	0	0 0	2	11 1	0	0 0	0	0 0
Other	1	2 9	0	0 0	1	6 3	1	5 6	0	0 0	0	0 0
No Checked on Pregnancy Before	**25**		**9**		**8**		**9**		**13**		**13**	
Average No of Times Client Came for Check Up	2 2		3 1		2 8		2 8		3 6		2 4	
Std Dev	0 6		1 1		0 7		1 3		1 8		0 5	
Average Weeks Pregnant at First Visit	28 9		22 6		30 6		32 4		16 3		26 9	
Std Dev	13 7		13 8		14 1		11 9		12 9		13 1	
In Previous Visit the Health Provider												
Measured Height	2	8 0	3	33 3	1	12 5	3	33 3	9	69 2	3	23 1
Measured Weight	6	24 0	8	88 9	2	25 0	3	33 3	8	61 5	6	46 2
Analyzed a Urine Sample	4	16 0	4	44 4	2	25 0	3	33 3	11	84 6	7	53 8
Analyzed a Blood Sample	4	16 0	0	0 0	2	25 0	3	33 3	4	30 8	4	30 8
Examined Breast	5	20 0	4	44 4	2	25 0	5	55 6	12	92 3	6	46 2
Measured Blood Pressure	9	36 0	8	88 9	4	50 0	5	55 6	12	92 3	7	53 8
Examined Client Genitally	5	20 0	1	11 1	2	25 0	1	11 1	3	23 1	2	15 4
Explained Risk Factors and Actions Accordingly	1	4 0	7	77 8	0	0 0	2	22 2	10	76 9	3	23 1
Counselled on Nutrition and Personal Hygiene	2	8 0	7	77 8	0	0 0	5	55 6	12	92 3	5	38 5
Prescribed Iron Pills	2	8 0	5	55 6	2	25 0	2	22 2	6	46 2	4	30 8
Set Another Date for Check Up	7	28 0	8	88 9	2	25 0	5	55 6	5	38 5	4	30 8
Ultrasound	0	0 0	2	22 2	0	0 0	0	0 0	0	0 0	0	0 0
Given TT Injections	10	40 0	9	100 0	5	62 5	5	55 6	12	92 3	7	53 8
In Previous Visits HP Explained												
Benefits of Breastfeeding	5	20 0	5	55 6	1	12 5	6	66 7	9	69 2	3	23 1
Benefits of Early Initiation of Milk & Colostrum	4	16 0	5	55 6	1	12 5	4	44 4	9	69 2	3	23 1
Imp of Exclusive Breastfeeding (to 6 months)	2	8 0	4	44 4	0	0 0	3	33 3	8	61 5	3	23 1
Imp of Feeding on Demand	1	4 0	4	44 4	0	0 0	2	22 2	9	69 2	3	23 1
Had Chance to Ask Questions of Concern	2	8 0	6	66 7	2	25 0	3	33 3	8	61 5	3	23 1
Got Very Helpful Answers	2	100 0	6	100 0	2	100 0	3	100 0	8	100 0	3	100 0

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 4

(Antenatal Exit Interview)

Case No

Governorate _____

District _____ Village _____ Hospitals/Unit _____

Name of Interviewed _____

Place of Interview 1 Home 2 Unit

Age _____ Address _____

Name of Interviewer _____ Date of Interview / /19

We are researchers required by the Ministry of Health and Population to implement a research Can we take 15 minutes of your time to ask you some questions concerning your heath conditions and the services provided by this unit?

1 Access

101 How much is the distance form your house to the facility?
_____ kms Doesn't know ( )

102 How much time did you need to come from your home to this unit/hospital? _____ minutes

103 What transportation did you use?

1 Walking ( )
2 Riding animal ( )
3 Animal drawn Carriage ( )
4 Boat ( )
5 Taxi/Microbus ( )
6 Private car ( )
7 Motor-Cycle ( )
0 Other *(specify)*

104 How much does it cost you to come to this facility and go back home? PT _____

105 Who accompanied you today?

1 No one ( )
2 Husband ( )
3 Mother/Mother in law ( )
4 Relative Neighbor ( )
0 Other *(Specify)*

4/34

106 How long have you been in this facility? _____ minutes

2 Reception

201 Who received you when you reached the unit/hospital?
- 1 Orderly ( )
- 2 Nurse/Midwife ( )
- 3 Receptionsit ( )
- 4 Porter ( )
- 0 The Physician

202 When you reached the facility, were you made to feel welcome? 1 Yes 2 No

203 Was the person who received you helpful? 1 Yes 2 No

204 How comfortable was the place where you had to wait?
1 fully 2 partially 3 non

3 Services Received

Nursing Care

301 Did you see a nurse during this visit? 1 Yes 2 No*(go to 304)*

302 How long did you have to wait before you saw a nurse?
_____ minutes Right away ( ) *(go to 304)*

303 Do you consider this waiting time
1 Long? 2 Reasonable?

304 Did anyone weigh you today? (On the day of the last visit) 1 Yes 2 No

Did anyone measure your height? 1 Yes 2 No

305 Did anyone take a urine sample for analysis? 1 Yes 2 No

306 Did anyone take a blood sample from your finger? 1 Yes 2 No

307 Did anyone explain to you what is being done and why? 1 Yes 2 No

Physician Care

308 Did you see a physician during this visit? 1 Yes 2 No*(go to 317)*

309 How long did you have to wait before being admitted to the physician? _____ minutes

310 What would you consider this time?
1 Long 2 Reasonable

311 Was the physician polite and friendly? 1 Yes 2 No

312 Did the physician ask you about the duration of your current pregnancy? 1 Yes 2 No

313 Did he ask you about your previous pregnancies/deliveries? 1 Yes 2 No

314 Did he ask you about your previous experience with breast-feeding or experience of other family members? 1 Yes 2 No

315 Were you examined by the physician privately or there were other clients in the room?
1 Privately
2 Infront of others
If Infront of others Did that bother you? 1 Yes 2 No

316 Did the physician
1 Examine heart with the stethoscope 1 Yes 2 No
2 Measure blood pressure 1 Yes 2 No
3 Examine abdomen 1 Yes 2 No
4 Examine your breast 1 Yes 2 No
5 Examine you gynecologically 1 Yes 2 No
6 Examine you by ultrasound 1 Yes 2 No

317 Did anyone explain to you what they were doing and why? 1 Yes 2 No

318 Did either the physician or the nurse tell you of risky signs of emergency of pregnancy or delivery? 1 Yes 2 No*(go to 320)*

319 Did they tell you what you should do if any of these emergency signs occur? 1 Yes 2 No

320 Did they advise you on
1 Proper nutrition 1 Yes 2 No
2 Personal hygiene 1 Yes 2 No
3 Exercise 1 Yes 2 No
4 Breast hygiene 1 Yes 2 No

411

321 Were you given — 1 Yes 2 No ☐

1 TT injections — 1 Yes 2 No ☐

2 Iron pills — 1 Yes 2 No ☐

3 Any other medications

Did they explain to you how to take iron pills or any other medications? — 1 Yes 2 No ☐

322 Did the physician or the nurse discuss with you the place for your delivery? — 1 Yes 2 No ☐

323 Did any one tell you today about the next date for you to come? — 1 Yes 2 No ☐

Satisfaction of Services Provided

324 Were you satisfied with the services you received today? — 1 Yes 2 No ☐

If yes why?

1 Friendly reception ( )
2 Assurance ( )
3 Instructions ( ) ☐
4 Receiving of curative treatment ( ) ☐
5 Short waiting time ( )
6 Comfortable place for waiting ( )
0 Other *(specify)*

If no why?

1 Unfriendly reception ( ) ☐
2 Worried/nor assured ( ) ☐
3 Long waiting time ( )
4 Did not receive what you came for ( )
5 Not examined as expected ( )
6 Medications not as expected ( )
0 Other *(specify)*

325 What other services you feel should have been provided during your visit?

1 Nothing ( ) ☐
2 More information ( ) ☐
3 More instructions ( )
4 Better examinations ( )
5 More tests ( )
6 Provision of medications ( )
7 Prescription of vitamins and iron pills ( )
8 Sonar (ultra-sound) ( )
0 Other *(specify)*

326 Do you intend to come back to this facility? — 1 Yes 2 No ☐

327 Will you recommend anyone else to come to this facility? — 1 Yes 2 No ☐

4 Antenatal History

401 How long have you been pregnant? _____ weeks _____ months

402 Do you have today the card that they gave you this or the previous time?

1 Yes
2 No I forgot it
3 They gave me no card

403 Why did you come today?

1 Regular check-up ( )
2 Felt tired ( )
3 Vomiting ( )
4 Headache and blurred vision ( )
5 Fetus doesn't move ( )
6 Hemorrhage ( )
7 TT shots ( )
8 Check on pregnancy ( )
0 Time for delivery soon ( )

404 Where are you planning to have delivery?

1 Home ( )
2 This facility ( )
3 Other MOH facility ( )
4 HIO facility ( )
5 Private facility ( )
6 Haven't Decided yet ( )
0 Other *(Specify)*

405 Who would you like to deliver you?

1 Daya ( )
2 Relative/neighbor ( )
3 Nurse ( )
4 GP ( )
5 Female physician ( )
6 Ob/Gyn Specialist ( )
7 Not yet decided ( )
0 Other *(specify)*

If a physician Why?

1 More experience ( )
2 Great skill ( )
3 Availability ( )
4 Easy Access ( )
5 Cost ( )
6 Comfort ( )
0 Other *(specify)*

406 Is this the first time for you to check-up on this pregnancy here? 1 Yes 2 No*(go to 408)*

413

407 Who suggested to you to visit this facility?

1 No one *(go to 414)*
2 Husband *(go to 414)* ☐
3 Mother/mother in law *(go to 414)*
4 Relative neighbor *(go to 414)*
5 Private physician *(go to 414)*
0 Other *(specify)*

408 How many times did you come for checking on this pregnancy (including today)? _____ times ☐

409 How many weeks pregnant were you when you came here for the first time? _____ weeks _____ months ☐☐

410 In your previous visits, did the health provider

1	Measure your height	1 Mentioned	2 Not Mentioned ☐
2	Measure your weight	1 Mentioned	2 Not Mentioned ☐
3	Analyze a urine sample	1 Mentioned	2 Not Mentioned ☐
4	Analyze a blood sample	1 Mentioned	2 Not Mentioned ☐
5	Examine your breast	1 Mentioned	2 Not Mentioned ☐
6	Measure your blood pressure	1 Mentioned	2 Not Mentioned ☐
7	Examine you genitally	1 Mentioned	2 Not Mentioned ☐
8	Explain pregnancy risk factors and what to do	1 Mentioned	2 Not Mentioned ☐
9	Give you counseling/guidance on proper nutrition and personal hygiene	1 Mentioned	2 Not Mentioned ☐
10	Prescribe iron pills for you	1 Mentioned	2 Not Mentioned ☐
11	Set another date for check-up	1 Mentioned	2 Not Mentioned ☐
12	Examine you using ultrasound (sonar)	1 Mentioned	2 Not Mentioned ☐
13	Give you TT injections	1 Mentioned	2 Not Mentioned ☐

411 In all your previous visits, did they explain to you

1	Benefits of breastfeeding	1 Yes	2 No ☐
2	Benefits of early initiation of breast feeding and colostrum	1 Yes	2 No ☐
3	Importance of exclusive breastfeeding up to 6 months	1 Yes	2 No ☐
4	Importance of feeding on demand and its effects on milk supply	1 Yes	2 No ☐

412 Did you have a chance to ask questions of concern to you?

1 Yes 2 No 3 Have no questions ☐

If no or have no questions go to 414

413 How helpful were the responses in general?

1 Not verv helpful ( )
2 Somewhat helpful ( )
3 Very helpful ( )

414 Have you been to any other health facility/provider during this pregnancy? 1 Yes 2 No*(go to 415)*

If yes where?

1 Private Ob/Gyn ( )
2 Private physician ( )
3 MOH facility ( )
4 HIO facility ( )
5 Daya ( )
0 Other *(Specify)*

For what?

1 Pregnancy assurance ( )
2 Health assurance ( )
3 Treatment of ailment ( )
4 Pregnancy follow-up ( )
0 Other *(Specify)*

415 Is this your first pregnancy? 1 Yes 2 No

If yes thank and close interview

416 How many pregnancies did you have before? _____ times

How many live births did your have? _____ live births

417 How many of your children are still alive? _____ children

418 Was your last **pregnancy** normal or not?

1 Normal 1 Mentioned 2 Not Mentioned
2 General weakness/Anemia/Faintings 1 Mentioned 2 Not Mentioned
3 Headache/Swelling/Blurred vision/High blood pressure 1 Mentioned 2 Not Mentioned
4 Convulsions 1 Mentioned 2 Not Mentioned
5 Abortions 1 Mentioned 2 Not Mentioned
0 Other *(Specify)*

419 How was you last delivery?

1 Normal ( )
2 Complicated ( ) *If complicated* How?

1 CS ( )
2 Forceps delivery ( )
3 Vacuum extraction ( )
4 Antenatal hemorrhage ( )
5 Post-partum hemorrhage ( )
6 Belonged delivery ( )
0 Other *(Specify)*

415

420 Was the baby normal or not?

1 Normal ( )
2 Still birth ( )
3 Cogitated abnormality ( )
4 Low birth rate/premature ( )
5 Icterus ( )
6 Respiratory distress ( )
0 Other *(Specify)*

421 Where did the last delivery take place?

1 Home ( )
2 Facility/District hospital ( )
3 MCH Center ( )
4 Urban Health Center ( )
5 General Hospital ( )
6 Clinic/Private Hospital ( )
7 Voluntary Society Dispensaries ( )
0 Other *(Specify)*

422 Who assisted you at delivery?

1 Nurse/mid-wife ( )
2 Health Center physician ( )
3 Hospital specialist ( )
4 Private physician ( )
5 Relative/neighbor ( )
6 No one ( )
7 Daya ( )
0 Other *(Specify)*

423 Did the person who delivered you revisit you after delivery? 1 Yes 2 No

If no Did he send anybody else to visit you? 1 Yes 2 No

If yes who was he/she?

1 Physician ( )
2 Nurse ( )
3 Daya ( )
0 Other *(Specify)*

After how many days of delivery? _____ days

424 How much did the delivery cost you? LE _____

425 What did you have to pay for?

1 Provider fees ( )
2 Hospital charges ( )
3 Drugs and supplies ( )
4 Transportation ( )
0 Other *(Specify)*

QUESTIONNAIRE # 5

MATERNAL AND NEO-NATAL HEALTH

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 5

(Maternal and Neo-Natal Health)

Case No

Governorate _____

District _____ Village _____ Hospitals/Unit _____

Name of Interviewed _____

Place of Interview 1 Home 2 After Services 3 Staying at Hospital

Age _____ Address _____

Name of Interviewer _____ Date of Interview / /19

Congratulations for having a baby Can we ask you some questions on the circumstances of your delivery and the services provided to you by the facility/unit?

1 Delivery

101 Where did you deliver your baby?
- 1 General/District Hospital ( ) staved ____ days
- 2 Another MOH facility ( ) stayed ____ days
- 3 Private clinic/hospital ( ) stayed ____ days
- 4 Home ( )

102 What did you give birth to?
- 1 Boy ( )
- 2 Girl ( )
- 3 Twins ( )
- 4 More than twins ( )
- 5 Stillborn baby ( )

103 How many days is the baby today/ how many days ago did you deliver? _____ days

104 When you delivered, who assisted you at delivery?
- 1 Physician (Ob/Gyn) ( )
- 2 General Practitioner ( )
- 3 Nurse/Midwife ( )
- 4 Daya ( )
- 5 Relative/neighbor ( )
- 6 No body ( )
- 0 Other (specify)

105 Was your delivery easy or complicated?
- 1 Normal
- 2 Complicated

106 What happened in delivery?

1 Delivery was complicated/prolonged ( )
2 CS ( )
3 Forceps used ( )
4 Vacuum suction ( )
5 Vaginal incision ( )
6 Antenatal hemorrhage ( )
7 Postnatal hemorrhage ( )
8 Nothing happened ( )
0 Other *(Specify)*

107 Did you experience difficult deliveries before?

1 Yes 2 No 3 This is my first delivery

108 Did you ever experience abortions or stillborn babies before?

1 abortion ( ) number _____
2 stillborn ( ) number _____
3 no ( )

If the interview is after receiving the service go to 301
If the interview is with a woman staying at the hospital/unit go to 401

---

2 Post Natal *(Interview at home)*

201 Did anyone from the hospital/health facility visit you at (home) after delivery? 1 Yes*(go to 206)* 2 No

202 Would you have preferred that someone from the health facility visit you? 1 Yes 2 No

If yes Why?

1 Assurance for health of the mother ( )
2 Assurance for health of the baby ( )
3 Instructions ( )
0 Other *(specify)*

If no Why?

1 Useless ( )
2 Costly ( )
3 No need ( )
0 Other *(specify)*

203 Did anyone advise you to go to the health facility for check-up and examination of the neo-nate? 1 Yes 2 No

If yes Who?

1 Physician ( )
2 Nurse ( )
3 Daya ( )
4 Relative/neighbor ( )
0 Other *(specify)*

After how many days of delivery did they tell you to go?_____days

4 9

204 Did you go to the facility for a check-up? 1 Yes 2 No
If yes where did she go?
Go to 501

205 Do you intend to go to the facility for a post partum check-up? 1 Yes 2 No
Close Interview

206 Did you visit the facility more than once? 1 Yes 2 No
If yes How many times? _____ times

207 After how many days of delivery was your first visit?_____ days

208 Who visited you?
1 Nurse ( )
2 Social Worker ( )
3 Orderly ( )
4 Physician ( )

Go to 501

---

3 For women at the unit/after receiving services from the out-patient clinics

301 Have you visited the hospital after delivery before this visit? 1 Yes 2 No*(goto 303)*
If yes How many times did you come to the unit (including this time)? _____ times

302 After how many days of delivery did you first come to the unit?
_____ days

303 Why did you come today?
1 As per instructions ( )
2 Regular checkup ( )
3 Due to illness ( )
4 Family Planning ( )
0 Other *(specify)*

304 Whom did you see today?
1 Physician ( )
2 Nurse/Midwife ( )
3 Both ( )
0 Other *(Specify)*

305 Did anyone from the health facility visit you after delivery? 1 Yes 2 No

306 After how many days of delivery were you visited?_____ days

420

307 Who visited you?

1 Nurse ( )
2 Social Worker ( ) ☐
3 Orderly ( )
4 Physician ( )

Go to 501

---

4 For Women Staying at the Hospital after Delivery

401 How many days did you spend at the hospital? _____ days ☐☐

402 Did you come to the hospital for delivery or after delivery?

1 For delivery ( ) ☐
2 After delivery ( )

403 What was your problem after delivery?

1 Postpartum hemorrhage ( ) ☐
2 Sepsis ( )
3 Surgery ( )
0 Other *(Specify)*

404 When was the last time that a phydician/nurse checked on you?

_____ days ☐

1 Physician 2 Nurse ☐

---

5 Postpartum Care

[We would like to know what happened during your post-partum checkup]

501 Did the Physician/Nurse ask you about the occurrence of

1 Bleeding 1 Yes 2 No ☐
2 Discharge 1 Yes 2 No ☐
3 Constipation 1 Yes 2 No ☐

502 Were you asked

1 Whether you were breastfeeding or not 1 Yes 2 No ☐
2 Frequency of breastfeeding 1 Yes 2 No ☐
3 Length of breastfeeding 1 Yes 2 No ☐
4 Whether you are giving any drink or other milk 1 Yes 2 No ☐
5 Whether you are having any breastfeeding problems 1 Yes 2 No ☐

503 Did he/she observe you breastfeeding your baby? 1 Yes 2 No

504 Were you examined for

1 Temperature	1 Yes	2 No	
2 Blood pressure	1 Yes	2 No	
3 Abdomen	1 Yes	2 No	
4 Breast	1 Yes	2 No	
5 Genitalia	1 Yes	2 No	

505 Was the baby examined? 1 Yes 2 No

506 Were you given any advice on

1 Proper nutrition	1 Yes	2 No	
2 Exercise	1 Yes	2 No	
3 Personal hygiene	1 Yes	2 No	
4 Care for your baby	1 Yes	2 No	
5 Vaccination of the baby	1 Yes	2 No	
6 Family planning	1 Yes	2 No	
0 Other *(specify)*			

507 Were you advised on the importance of

1 Breastfeeding on demand, day and night	1 Yes	2 No	
2 Breastfeeding exclusively (no other liquids or foods) for about 6 months	1 Yes	2 No	
3 Continuing to breastfeed even if your baby is ill	1 Yes	2 No	
4 Avoiding bottles, pacifiers or artificial nipples	1 Yes	2 No	
5 Getting assistance with breastfeeding problems if needed and where to go	1 Yes	2 No	

508 Can you tell me what is "Exclusive Breastfeeding"

_____

_____

_____

509 Did you have a chance to ask questions of concern to you?
1 Yes 2 No *(go to 511)* 3 I don't have a problem *(go to 511)*

510 How useful and helpful were the responses in general?
1 Not very helpful ( )

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2 Somewhat helpful ( )
3 Very helpful ( )

511 How much time did the check-up take? _____ minutes

512 How much did this visit cost you? LE _____
If there is no cost go to 601

513 What was this cost for?
1 Transportation ( )
2 Fees for provider ( )
3 Drugs and supplies ( )
4 Family Planning ( )
0 Other *(specify)*

---

6 Satisfaction of the Services Provided

601 Did you feel that the provider was polite and friendly? 1 Yes 2 No

602 Were you satisfied with the services received? 1 Yes 2 No
If yes why? 1 Positive interaction ( )
2 Assurance ( )
3 Received instructions ( )
4 Received curative treatment ( )
5 Short waiting time ( )
0 Other *(Specify)*
If no why? 1 Not friendly ( )
2 Long waiting time ( )
3 Worried/not assured ( )
4 Did not receive what I came for ( )
5 Not examined as expected ( )
0 Other *(Specify)*

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QUESTIONNAIRE # 6

PRENATAL CARE

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 6

(Prenatal Care)

Case No ☐☐

Hospitals/Unit _____ ☐ Village _____ ☐☐ District _____ ☐
Name of Health Provider _____ Position _____
Name of Assistant _____ Position _____
Name of Client _____ Address _____
Date and Time of Observation Day ___ Month ___ from Hour _____ Minute _____ to Hour _____ Minute _____

Note *This study will be conducted by means of interview observation and record audit of OB/GYNs and GPs The results of this study are confidential*

		1 Yes	2 No	9 NA	Code
A	**General**				
A1	Did the Health Provider (HP)				
	1 Welcome the client?				
	2 Reassure her?				
	3 Clearly explain what will be done?				
A2	Was the HP's attitude				
	1 Friendly?				
	2 Hostile?				
	3 Indifferent?				
A3	Did the HP				
	1 Ask for personal data?				
	2 Correctly record personal data?				
	3 Review existing personal data in record?				
B	**Prenatal History**				
B1	Does a skill checklist, protocol or procedure for prenatal history taking with symptoms for the problems listed in B7 exist?				
	If yes Was it correctly followed by HP?				
	Was history correctly recorded by HP?				
	If no Was an appropriate history taken by HP?				
	Was history correctly recorded by HP?				
B2	Upon completion of the prenatal history, did the HP note previous pregnancy history?				

	1 Yes	2 No	9 NA	Code
If yes did the HP note				
1 Number of pregnancies?				
2 Number of abortions?				
3 Number of live births?				
4 Number of stillbirths?				
B3 Has the HP also noted in the prenatal history if this was the first visit?				
If it was not the first visit (go to B5)				
Has s/he determined which visit it was? visit no -------				
B4 Did the HP determine the duration of present pregnancy?				
B5 Did the HP ask her about her previous breastfeeding history?				
If yes did s/he ask her about				
(If she has other children)				
1 Previous breastfeeding experience?				
(If this is her first pregnancy)				
1 Breastfeeding experience of other family members?				
2 Previous breast surgery?				
3 Family/social support for breastfeeding?				
4 Anticipated separation such as return to work?				
B6 Did the HP ask and note questions concerning risk factors				
1 Previous abortion(s)?				
2 Fetal death(s)?				
3 Bleeding?				
4 Diabetes?				
5 Hypertension?				
6 Smoking?				
7 Previous complications with delivery?				
8 TT immunization status?				
9 Note TT immunization status in record if not already recorded?				
B7 a If applicable, were the symptoms for the following problems correctly identified by the HP?				
Note *Tick NA for each problem which was not present*				
1 Antepartum hemorrhage placenta abruption?				
2 Antepartum hemorrhage placenta previa?				
3 Hypertension/renal problems?				
4 Rheumatic heart disease?				
5 Pre-eclampsia and eclampsia?				
6 The three types of abortion?				

	1 Yes	2 No	9 NA	Code
7 Anemia?				
8 Diabetes?				
9 Ectopic pregnancy?				
10 Premature rupture of membranes?				
11 Schistosomiasis?				
12 Urinary tract infection (UTI)?				
B7 b Were the symptoms for any of the above problems correctly recorded by the HP in the client's record?				
C Prenatal Physical Examination				
C1 Prior to starting the physical examination, did the HP				
1 Explain what s/he was going to do?				
2 Wash her/his hands with soap and water?				
3 If a vaginal examination was required were clean gloves used?				
C2 Does a skill checklist, protocol or procedure for prenatal physical examination with signs for the problems listed in B7 exist?				
If yes Was it correctly followed by HP?				
Were physical examination findings correctly recorded by HP?				
If no Was an appropriate physical examination performed by HP?				
Were physical examination findings correctly recorded by HP?				

C3 At the beginning of the physical examination did HP

	Check/record information		Correctly measure		Fail to check record/measure			CODE
	YES	NO	YES	NO	YES	NO	NA	
1 Height?	___	___	___	___	___	___	___	
2 Weight?	___	___	___	___	___	___	___	
3 BP?	___	___	___	___	___	___	___	

	1 Yes	2 No	9 NA	Code
C4 Did s/he examine her breasts?				
C5 a During the prenatal examination, did the HP note				
1 Auscultated the heart?				
2 Auscultated and purcussed the lungs?				
3 Fundal height or uterine size (<20 weeks)?				
4 Fetal heart rate (<20 weeks)?				
5 Presence or absence of edema?				

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		1 Yes	2 No	9 NA	Code
	6 Patellar reflex?				
	7 Fetal presentation and lie (>28 weeks)?				
C5 b	Were findings concerning the above correctly recorded by the HP in the client's record as appropriate?				
C6	Were the signs of any of the above problems correctly recorded by the HP in the client's record?				
D	**Prenatal Laboratory Tests**				
D1	Does a skill checklist, protocol or procedure for prenatal laboratory tests exist?				
	If yes, Was it correctly followed by HP?				
	Were the laboratory findings correctly recorded by HP?				
	If no Were appropriate laboratory tests ordered or performed by HP?				
	Were laboratory test results correctly recorded by HP?				
D2 a	Depending on the prenatal history and physical examination were the following routine laboratory test(s) ordered as appropriate				
	Note *Tick NA for any test which was not applicable*				
	First visit				
	1 Complete blood count?				
	2 Urinalysis?				
	3 Stool for ova and parasites?				
	4 Blood type and Rh?				
	5 VDRL?				
	6 Pre-prandial blood glucose?				
	24-28 weeks				
	7 1 hour post prandial blood glucose				
	36 weeks				
	8 Hematocrit				
	9 Urinalysis				
	10 VDRL				
D2 b	If available at the time of the observer's visit, were the results of the above test(s)				
	1 Correctly recorded in the client's record?				
	2 Correctly interpreted by the HP?				
E	**Prenatal Management, Referral & Follow-up**				
E1	Does a skill checklist, protocol or procedure for prenatal care, referral and follow-up exist?				
	If yes, 1 Was it correctly followed by HP?				

	1 Yes	2 No	9 NA	Code
2 Were the history and physical examination findings and care strategy explained to the client?				
3 Was the client care strategy correctly recorded in the client's record by HP?				
If no 1 Were the history and physical examination findings and care strategy explained to the client?				
2 Were appropriate care, referral and follow-up planned and carried out with client by HP?				
3 Was the client care strategy correctly recorded in the client's record by HP?				
E2 a A basic education plan was discussed with the patient				
Note *Check NA for those health messages which were not necessary due to the trimester of pregnancy*				
1st trimester				
1 Prevent and manage anemia?				
2 Adequate nutrition?				
3 Signs of abortion?				
4 Nausea and vomiting?				
5 Urinary problems?				
2nd trimester				
6 Adequate nutrition?				
7 Vaginal bleeding or discharge?				
8 Premature labor?				
9 Premature rupture of the membranes?				
10 Signs of pre-eclampsia?				
11 Urinary symptoms?				
3rd trimester				
12 Adequate nutrition?				
13 Normal labor and hospital routine?				
14 Vaginal bleeding or discharge?				
15 Premature labor?				
16 Premature rupture of the membranes?				
17 Signs of pre-eclampsia?				
18 Urinary symptoms?				
19 Abnormal birth (breech, twin, transverse, c-section)?				
E2 b The client education plan was correctly recorded in the client's record by HP?				

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	1 Yes	2 No	9 NA	Code
E3 Did s/he give her guidance on breastfeeding?				
If yes did it include information on				
1 The benefits of breastfeesing?				
2 The benefits of early initiation of breastfeeding and colostrum?				
3 The importance of exclusive breastfeeding up to 6 months?				
4 The importance of feeding on demand and its effect on milk supply?				
E4 If applicable was care of the following problems correctly implemented by the HP				
Note *Tick NA for each problem which was not present*				
1 Antepartum hemorrhage, placenta abruption?				
2 Antepartum hemorrhage, placenta previa?				
3 Hypertension/renal problems?				
4 Rheumatic heart disease?				
5 Pre-eclampsia and eclampsia?				
6 The three (3) types of abortion?				
7 Anemia?				
8 Diabetes?				
9 Ectopic pregnancy?				
10 Premature rupture of membranes?				
12 Schistosomiasis?				
13 Urinary tract infection(UTI)?				
F Summary				
F1 Was the data collected by one or more of the following means				
1 Interview?				
2 Observation?				
3 Record audit?				
F2 Would you assess the HP as				
1 Competent in providing prenatal care?				
2 One needing support to strengthen skills?				

Note *If there is a need to strengthen the skills of the HP note your suggestions under the following comments section*

COMMENTS

_____

_____

4-3

Note *The results of this 'diagnostic study' should be reviewed with the HP and her/his supervisor Suggestions of meeting identified training needs should be discussed Both the HP and her/his supervisor should be thanked for their participation and cooperation*

QUESTIONNAIRE # 7

INTRA PARTUM (LABOR AND DELIVERY) CARE

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 7

(Intra-partum (Labor & Delivery) Care)

Case No ☐☐

Hospitals/Unit _____ ☐ Village _____ ☐☐ District _____ ☐
Name of Health Provider _____ Position _____
Name of Assistant _____ Position _____
Name of Client _____ Address _____
Date and Time of Observation Day ___ Month ___ From Hour Minute _____ to Hour Minute _____

Note *This study will be conducted by means of interview observation and record audit of OB/GYNs GPs and midwives For those questions not appropriate to the skills to be performed by a midwife tick 'not applicable (NA) ' The results of this study are confidential*

	1 Yes	2 No	3 NA	Code
The following was done by the HP to monitor the labor process				
A General				
A1 Did the Health Provider (HP) collect all of the following basic equipment?				
1 Fetal scope (fetal stethoscope)?				
2 Thermometer?				
3 Sterile gloves?				
4 Bowl?				
5 Cotton Balls?				
6 Pulsometer or watch?				
7 BP apparatus?				
8 Labor record (partograph)				
9 Soap & water or antiseptic solution				
A2 Did the HP				
1 Welcome the client?				
2 Reassure her?				
3 Clearly explain what will be done?				
4 Ask the client to lie on her back?				
A3 Was the HP's attitude				
1 Friendly?				
2 Hostile?				
3 Indifferent?				

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	1 Yes	2 No	3 NA	Code
A4 Did the HP				
1 Ask for personal data?				
2 Correctly record personal data?				
3 Review existing personal data in record?				
4 Review existing prenatal record?				
5 Note any risk factors recorded in the prenatal record?				
B Intrapartum History				
B1 Does a skill checklist, protocol or procedure for intra-partum history taking exist?				
If yes				
1 Was it correctly followed by HP?				
2 Was history correctly recorded by HP?				
If no				
1 Was an appropriate history taken by HP?				
2 Was history correctly recorded by HP?				
B2 Upon completion of the intra-partum history, did the HP note				
1 Duration of the current pregnancy? Complete months _____				
2 When labor pains began and how often labor pains occur?				
3 Whether the client has been to antenatal clinic?				
4 Whether her membranes ruptured ?				
If yes, Did premature rupture of membranes occur (before labor contractions)?				
If yes				
1 How long did it take between occurrence of rupture and delivery? Time _____				
2 Was the mother given an antibiotic?				
5 Did she have any bloody show?				
6 Determine if the client has bled from her vagina?				
7 When the client last ate?				
8 When did the client last passed stool?				
9 If referred to the HP, did s/he note who referred the client?				
10 Correctly record the intra-partum history?				
C Intrapartum Physical Examination				
C1 Prior to starting the physical examination did the HP				
1 Help client get ready for the examination?				
2 Explain what s/he was going to do?				
3 Ask the client to pass urine to empty her bladder?				
4 Ask the client to lie on her back?				
5. Washed her/his hands with soap and water?				

	1 Yes	2 No	3 NA	Code
C2 Does a skill checklist, protocol or procedure for an intra-partum physical examination exist				
If yes				
1 Was it correctly followed by HP?				
2 Were physical examination findings correctly recorded by HP?				
If no				
1 Was an appropriate physical examination performed by HP?				
2 Were physical examination findings correctly recorded by HP?				

C3 At the beginning of the physical examination did HP

	Check/record information		Correctly measure		Fail to check record/measure			CODE
	YES	NO	YES	NO	YES	NO	NA	
1 Height?	___	___	___	___	___	___	___	
2 Weight?	___	___	___	___	___	___	___	
3 BP?	___	___	___	___	___	___	___	
4 Respiration	___	___	___	___	___	___	___	
5 Heart Rate	___	___	___	___	___	___	___	

	1 Yes	2 No	3 NA	Code
C4 During the general intra-partum examination did the HP				
1 Note general appearance?				
2 Check breasts?				
3 Check arms?				
4 Check legs?				
5 Check back?				
C5 During the abdominal examination did the HP				
1 Explain to the client that an abdominal examination was going to be done?				
2 Stand by the client's side look at the abdomen and determine the laying of the baby?				
3 Perform an acceptable abdominal examination?				
4 Listen to and count the fetal heart rate?				
5 Record abdominal examination on partograph?				
6 Explain abdominal findings to client?				
C6 During the vaginal examination did the HP				
1 Make sure that the area had been disinfected?				
2 Use sterile surgical gloves?				
3. Scrub hands in antiseptic solution?				

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	1 Yes	2 No	3 NA	Code
4 Ask the client to lie on her back with her legs apart and her knees bent?				
5 Explain to the client each step of the vaginal examination?				
6 Look for discharge in the client's vaginal area?				
7 Wash the woman's genital area with soap and water?				
8 Dip the index finger of the gloved examining hand into antiseptic solution?				
9 Insert finger into client's vagina and checked vaginal wall?				
10 Check for any hard stool or scaring in rectum through vaginal wall?				
11 Check cervix for its thickness (effacement) and firmness?				
12 Determine dilation and effacement of cervix?				
13 Note if client's bag of waters has ruptured?				
14 Determine the presenting part of the baby and how far the presenting part had come into the pelvis (descent)?				
C7 Upon completion of the vaginal examination, did the HP				
1 Help the woman get comfortable?				
2 Record all findings on the partograph?				
3 Explain findings to client?				
D Management of Labor				
D1 Does a skill checklist, protocol or procedure for labor management exist?				
If yes				
1 Was correctly followed by HP?				
2 Was the management of labor strategy correctly recorded in the client's record by HP?				
If no				
1 Was the management of labor strategy explained to the client?				
2 Was appropriate management of labor carried out with client by HP?				
3 Was the client care strategy correctly recorded in the client's record by HP?				
D2 In what of the following positions did the mother deliver				
1 Laying on her back?				
2 Sitting?				
3 Half sitting?				
4 Other? _____				
D3 If applicable did HP start correctly an IV infusion?				

	1 Yes	2 No	3 NA	Code
D4 Did the HP assess cervical dilation every 4 hours or PRM?				
D5 Did the HP assess descent of head				
1 Abdominally every hour?				
2 Vaginally every 4 hours or PRM?				
D6 Were uterine contractions				
1 Latent phase every hour?				
2 Active phase every 30 minutes?				
D7 Was fetal heart rate checked every 30 minutes or more frequently if necessary?				
D8 Were the following maternal vital signs checked				
1 Pulse every 30 minutes?				
2 BP every 4 hours?				
3 Temperature every 4 hours?				
D9 Was urine taken every 2-4 hours or PRM?				
D10 If instruments were used during delivery, were they clean and sterilized?				
D11 Were any of the following medications given				
1 An injection to stimulate labor?				
2 An analgesic?				
If yes was the analgesic correctly administered by				
1 IV injection?				
2 IM injection?				
3 Nitrous oxide gas?				
D12 a Was any of the following anesthesia administered				
1 Ether?				
2 Ketamine?				
3 Intraval?				
4 Halothane?				
5 Other? _____				
D12 b Were complications of anesthesia prevented?				
D13 Before delivery, did premature separation of the placenta occur?				
If yes Was it correctly managed?				
D14 If required, was an episiotomy or laceration repair performed **Note** *Tick NA if procedure was not required*				
1 Mediolateral episiotomy?				
2 Median episiotomy?				
3. Cervical laceration repair?				

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	1 Yes	2 No	3 NA	Code
D15 Was any of the following prevented or diagnosed and managed **Note** *Tick NA if procedure was not required*				
1 Premature labor?				
2 Ruptured uterus?				
D16 Did the HP correctly manage the following types of labor with the safe delivery of the infant and recovery of the mother **Note** *Tick NA if the type of delivery was not required*				
1 Normal cephalic presentation?				
2 Breech presentation?				
3 Transverse presentation?				
4 Twins?				
5 Introduce an augmentation of labor?				
6 Obstructed labor?				
7 Forceps delivery?				
8 Vacuum extraction?				
9 C-section?				
D17 During delivery, did twisting or prolapse of umbilical cord occur?				
If yes was the twisted or prolapsed umbilical cord correctly managed?				
D18 a In case of a cesarean section or forceps delivery				
1 How long between the mother's arrival and the decision to use forceps/cesarean delivery? Time _____				
2 Was this an appropriate duration of time?				
D18 b For other type of delivery 1 How much time did it take to complete delivery from the time of mother's arrival? Time _____				
D19 If required did the HP correctly manage the following **Note** *Tick NA if the type of procedure was not required*				
1 Intrauterine fetal death?				
2 Septic shock of the mother?				
3 Retained placenta?				
E Care of the Newborn				
E1 Was any of the following used to cut the umbilical cord and tying the navel				
1 Clean and sterilized scissors/scalpel and thread?				
2 Unsterilized scissors/scapel and thread?				
3 Other _____				
E2 Did the basic newborn care include				
1 Drying the neo-nate with a dry towel? (HP or assistant)				
2. Massaging the back during the drying?				

	1 Yes	2 No	3 NA	Code
3_ HP ensuring patency of the airway by placing the neo-nate's head at a level below that of the body, flexing the neck backwards and sucking mucus from the mouth?				
4 keeping the newborn warm by using dry towels, sheets or blanket? (HP or assistant)				
5 HP examining and assessing condition of the neo-nate on the Apgar Scale?				
E3 Was the condition of the neo-nate noted by the HP as				
1 Stillborn?				
If yes, Was stillborn maserated?				
2 Live born, not in good condition (less than 6 on the Apgar Score)?				
3 Live born in good condition (more than 6 on the Apgar Score)?				
E4 a Was the newborn weighed?				
E4 b Was the newborn's weight recorded? _____ gms				
E5 Did the HP make other anthropological measurements of the newborn including				
1 Head circumference?				
2 Head to heel length?				
3 Head to breech length?				
E6 Did the HP				
1 Reassure mother as to the condition of her newborn?				
2 Advise the mother on the importance of initiating breast-feeding immediately?				
3 Put the newborn to the mother's breast within one hour of delivery? (HP or assistant)				
If yes Did the mother breastfeed her baby at this time?				
E7 Did the HP encourage the mother to breastfeed and/or offer her help?				
E8 Did the HP leave the delivery room				
1 After the birth of the newborn but before expulsion of the placenta?				
2 Immediately after expulsion of the placenta?				
3 Half an hour or more after expulsion of the placenta?				
F Summary				
F1 Was the data collected by one or more of the following means				
1 Interview?				
2 Observation?				
3. Record audit?				

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	1 Yes	2 No	3 NA	Code
F2 You would assess the HP as				
1 Competent in providing intra-partum care?				
2 One needing support to strengthen skills?				

Note *If there is a need to strengthen the skills of the HP note your suggestions under the following 'comments' section*

COMMENTS

Note *The results of this 'diagnostic study' should be reviewed with the HP and her/his supervisor Suggestions of meeting identified training needs should be discussed Both the HP and her/his supervisor should be thanked for their participation and cooperation*

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QUESTIONNAIRE # 8

POST PARTUM CARE

MINISTRY OF HEALTH AND POPULATION
HEALTHY MOTHER HEALTHY CHILD PROJECT

DIAGNOSTIC STUDY FOR MATERNAL AND NEONATAL HEALTH

Questionnaire # 8

(Post-partum Care)

Case No ☐☐

Hospitals/Unit _____ ☐ Village _____ ☐☐ District _____ ☐
Name of Health Provider _____ Position _____
Name of Assistant _____ Position _____
Name of Client _____ Address _____
Date and Time of Observation Day ___ Month ___ from Hour Minute _____ to Hour Minute _____

Note *To be observed during 4 hours after normal vaginal delivery*

	1 Yes	2 No	9 NA	Code
1 Did the Health Provider (HP) check for				
1 Pulse?				
2 Blood Pressure?				
3 Temperature?				
4 Amount of bleeding per vagina?				
5 Fundal height?				
6 Uterine atony?				
7 Lacerations?				
2 Has s/he recorded his/her findings?				
3 How long was the client kept in the delivery room? _____ hours _____ minutes				
4 Was the client counselled on what to do when she goes home?				
5 Was she given clear indications about how/when to report to the hospital or clinic if there is				
1 Hemorrhage				
2 Pain				
3 Offensive discharge				
4 Fever				
6 Was she given an appointment to come and see a physician 4 weeks later?				
7 Was she given any counselling on contraception?				

COMMENTS

FOCUS GROUP PROTOCOL

I - CURRENTLY PREGNANT WOMEN

INTRODUCTION

We are a group doing a research project in Aswan and Luxor on the health of mothers and newborn children for the Ministry of Health We re meeting today in order to discuss together the period of pregnancy delivery and the **nefass** in order that we can look for ways to reduce the risk of pregnancy and delivery for the mother and child

I am , the leader of this discussion, and these are my colleagues and who will take notes and record the session so that we don't forget anything that is said Now we need to go around the room and each woman say her name, number of children (boys/girls), age of youngest child, name of the village (her origin)

We would like each of you to speak frankly and give her point of view--there is no right or wrong opinion here and the opinion of each of you is important to us Let us try to speak in turn and listen to each other

INITIATION OF THEMES DISCUSSION

When a woman discovers that she is pregnant who is the first person she tells, and why?

When her husband knows that she is pregnant what does he do?

What are the things that need to be done differently when a woman is pregnant? Why? When?

* work
* rest
* food
* clothing
* medications
* carrying heavy things
* iron and vitamins
* social phenomena
* what are the things that you are afraid of or shrink from that could affect you and your pregnant
* what are the positive traditional beliefs that you can do to protect your pregnancy

NOTE *Who told you to do these things Are you convinced? Are there things that people tell you do and you don t? Why?*

What are the things that a woman shouldn't do while she is pregnant, and why?

Do the people of the house and the habayeb help to make sure your pregnancy goes well? What do they do?

* husband
* mother
* mother-in-law
* others

What are the things that other people are supposed to do (husband, mother-in-law) Why? Do they do it?

I - FOCUS GROUP PROTOCOL FOR CURRENTLY PREGNANT WOMEN

II - FOCUS GROUP PROTOCOL FOR MOTHERS/MOTHERS IN LAW

APPENDIX III

QUALITATIVE DATA COLLECTION TOOLS

A - FOCUS GROUP PROTOCOLS

B - INDEPTH INTERVIEWS PROTOCOL

A - FOCUS GROUP PROTOCOLS

FOCUS GROUP PROTOCOL

II - MOTHERS-IN-LAW

INTRODUCTION

Thank you all for coming to meet with us today We would like to begin by introducing ourselves and telling you the purpose of this meeting We are a group working for the Ministry of Health The Ministry has asked us to carry out hold meetings with people in Aswan and Luxor so that we can understand how people here manage their lives during pregnancy delivery and the period of the **nefass** so that the Ministry can see what is needed to ensure the health of mothers and babies during these periods

We appreciate very much your coming to participate in this discussion Please support us by speaking frankly about your understanding and your ideas about pregnancy, delivery, and the early days after childbirth We are very interested in your views, and we hope that everyone will listen to each person's ideas and give everyone a chance to speak We're going to tape this session so that we don't forget any of the things that are said

Now I would like to introduce our group We are
Now why don't we go around the room and each man in turn tell us his name his age, his occupation the number of his children and the age of the youngest child

INTRODUCTION AND WARM-UP

Introduction We are a group doing a research in Aswan and Luxor on the health of the mother and the the neonate for the Ministry of Health The purpose is to discuss the role of the mother-in-law and their participation in the health of the mother and child in pregnancy, delivery and after delivery, so that we can know the means of reducing dangers of pregnancy and birth for the mother and child

My name is and I am the leader of this focus group These are my colleagues They will take notes and record the session so that we don't forget any of the things which are said We would like to know your names introduction of Participants - name number of children, number married number of girls with childen number of boys with children

PREGNANCY

When a woman knows that she is pregnant who should she tell first? Is this what has happened in your families? Why?

Should anything change in the life of a woman because of pregnancy?
What? Why?

* [diet - specifically the kinds of foods
* carrying heavy things
* the relationship between the husband and wife, before and after
* the role of the mother-in-law and mother during pregnancy
* the tusahel wil tusha-em
* beliefs that are connected with pregnancy
* take tetanus shots?
* work
* ziaret il awalah il salahiin
* iron pills?
* Others

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Do the mothers-in-law really do these things? Do the daughters-in-law actually follow their advice? Do the mothers really do these things? Do their daughters really follow their advice? Why?

What is your opinion of the women who go and do routine examinations on their pregnancies? Is that necessary? For all women who are pregnant? Why? For whom?

What is involved in routine antenatal examination? [include TT] What is the purpose? What are the good effects, the bad effects? What is the role of the mother-in-law/mother/husband/others--encourage or discourage? Does someone go with her? Who goes? What does it cost? Who pays?
Suppose your daughter or daughter-in-law wants to get a check-up just to be sure and there is a different opinion in the house what would happen? Who would rule and why? Did that happen at your house?

Where can a woman go for prenatal care? Anyplace else?

Which do you prefer for your daughter-in-law/daughter? Why?

What basic things would you look for in a prenatal care provider? Why?

What basic things would convince you not to use a prenatal care provider? Why?

Can the mother-in-law mother and husband decide where the woman will get care? Which which of them Who and why?

Who would go with her?

What kinds of problems can happen in pregnancy here? [names of problems, signs and symptoms, causes?] How can they be dealt with? Who should be consulted? Why?

bleeding	**zaghlala** (headache showing in eyes)	
swelling	high blood pressure	
low blood pressure	general weakness	vomiting

DELIVERY

Are there preparations for delivery which are made in advance Preparations for delivery? husband do anything? What does he do?

Are there doctor(s) or nurse(s) that deliver babies in houses here or all dayas?

Do you prefer the house or the hospital? Daya or doctor or nurse? why?
[moamala type of service cleanliness speed of treatment, privacy, specialization care of the newborn availability medication availability of laboratory tests, gender of doctors]

Where do the women here deliver?
who delivers them? why?
Is there a difference between first child and others?

If the woman gives birth at home should the husband be present in the house/room when the wife is giving birth? Why or why not?

Do the husband/mother/mother-in-law have roles in delivery? What is the importance? Who has done that? For those who didn t why not?

What problems can occur during delivery?

How do you recognize these problems? What are the problems? What action needs to be taken? What are the problems that need consultation with a doctor or a trip to the hospital? Why? What are the choices that are available to you?
How can you tell if it is urgent to consult a doctor quickly? Whose voice is important in this decision in such a case what do you do?

When a problem which urgently needs treatment by doctor happens what can delay the treatment?

* transportation
* process of decision-making
* insistence of mother
* responsibilities at home
* Other
* money
* resistance of daya
* insistence of mother-in-law
* availability of service at night

When something like that happens where do you go? Why do you prefer that?
Are there problems in accessing care, particularly at night? What?

What are observations on the central or general hospitals? Does anyone have other experience or opinion in terms of the moamalaha, speed of care, type of service privacy, cleanliness, care for the newborn

CARE OF THE NEONATE DURING THE FIRST 40 DAYS

During the first 40 days, are there any problems that come to the newborn that need intervention? [traditional or modern]
What are these problems? What causes each? Who can treat each of them? What is the treatment? Where can you go for treatment? And what is that treatment?

Where should a newborn baby sleep? Why? [beside mother between mother and father other]

CARE OF MOTHER DURING POSTPARTUM PERIOD

Are there any maternal health problems which can occur during the period of the **nefass**? What? How serious is each? What care is needed? How urgently? Who treats? What kind of treatment should be given?

Should a serious problem happen during pregnancy delivery or nefass who needs to take her and if that person is not there what would the woman do?

Does she find money to go? If there is not money in the house what happens?

For the first birth, does anyone help the mother initiate breastfeeding? If so, who, and what do they do to make sure she establishes adequacy and continuity of lactation [Plenty of details]

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III - FOCUS GROUP PROTOCL FOR HUSBANDS

FOCUS GROUP Protocol

III - HUSBANDS

INTRODUCTION

Thank you all for coming to meet with us today We would like to begin by introducing ourselves and telling you the purpose of this meeting We are a group working for the Ministry of Health The Ministry has asked us to carry out hold meetings with people in Aswan and Luxor, so that we can understand how people here manage their lives during pregnancy delivery and the period of the **nefass** so that the Ministry can see what is needed to ensure the health of mothers and babies during these periods

We appreciate very much your coming to participate in this discussion Please support us by speaking frankly about your understanding and your ideas about pregnancy, delivery, and the early days after childbirth We are very interested in your views, and we hope that everyone will listen to each person s ideas and give everyone a chance to speak We're going to tape this session so that we don't forget any of the things that are said

Now I would like to introduce our group We are
Now why don't we go around the room and each man in turn tell us his name, his age, his occupation the number of his children, and the age of the youngest child

PREGNANCY

Who is the first person a wife tells she was pregnant and why? If not husband, why?
What does the husband do when he knows this?

Is there anything special that should anything change in the life of a woman because of pregnancy? What? Why?

* diet
* clothes
* heavy things
* iron pills
* rest/work
* medication
* positive influences
* take tetanus shots
* ionships in the house
* beliefs (like kharaz) that have to do with pregnancy for the husband and wife
* relationship between husband and wife varies from other times, and how and why?
* does the relationship with the rest of the household change? does he play a role in making sure that these things do actually change?
* **tusha-em wi te-fa-el** (avoid and seek out)
* the beliefs that have to do with hegab magic etc]

What is your opinion of the women who go and do routine examinations on their pregnancies? Is that necessary? For all women who are pregnant? Why? For whom?

What is involved in routine antenatal examination? What is the purpose? What are the good effects the bad effects? What is the role of the husband--encourage or discourage, go with her [details, including payment]? What does it cost?
[transport fee, medications]

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Suppose the woman wants to get a check-up just to be sure and he doesn t want her to what happens?

Where can a woman go for prenatal care? What else?

Which do you prefer for your wife? Why?

What basic things do you look for in a prenatal care provider? Why?
[cost specialist gender reputation distance]

What basic things would convince you not to use a prenatal care provider? Why?
[cost specialist gender reputation, distance]

Can anyone decide where the woman will get care or does she do that for herself?

Who goes with her with her? Why that person?

What kinds of problems can happen in pregnancy here? Names of problems, signs and symptoms causes? How can they be dealt with? Who should be consulted?
[bleeding low blood pressure high blood pressure general weakness swelling, eyes not focused, poison miscarriage]

DELIVERY

Are there preparations needed for delivery? Does the husband have any role in this?

Where do the women here deliver mostly? Who delivers them? Is there a difference between first child and others?

Who generally helps the woman in delivery, and why? [in addition to the daya or doctor]

Are there doctor(s) or nurse(s) that deliver babies in houses here?

What do you think about that? Do you prefer the house or the hospital? Daya or doctor or nurse or what?

Should the husband be present in the house/room when the wife is giving birth?

Does the husband have a role in delivery? [for instance go get the daya/doctor/nurse]
Who has done that? for those who didn't why not?

What problems can occur during delivery?

What are the problems? How do you recognize these problems? What action needs to be taken?

What are the problems that need consultation with a doctor or a trip to the hospital? why?

How can you tell if it is urgent to consult a doctor quickly? Whose voice is important in this decision in such a case what do you do?

When a problem which urgently needs treatment by doctor happens, what can delay the treatment?

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* money
* process of decision-making
* responsibilities at home
* availability, particularly late at night
* resistance of dava or anyone else
* Others

What choices are available to them for treatment when they are in need of quick treatment?

What do you prefer and why?

* cost
* previous experience
* distance
* niceness of care

What are your observations on the rural health unit, and the central or general hospitals for dealing with problems?

* treatment
* kind of service
* cleanliness
* Others
* speed
* privacy
* care of the newborn

NEONATAL CARE

During the first 40 days, are there any problems that come to the newborn that need intervention? [traditional or modern]
What are these problems? What causes each? Who can treat each of them? What is the treatment? Go where for treatment?

Where should a newborn baby sleep? Why? [beside mother, between mother and father, other]

POSTPARTUM CARE

Are there any maternal health problems which can occur during the period of the **nefass**?
What? Causes? How serious? What care is needed? How urgently?

Should a serious problem happen during pregnancy delivery or nefass and the husband is not near home, what would the woman do? Does she find money to go if he is not there? If there is not money in the house what happens?

BREASTFEEDING

Do women here ever have problems in breastfeeding? What? How can they solve these problems?

Have any of you had experience with that? Did you personally do anything to support her? What was the result?

Thank you

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B - INDEPTH INTERVIEWS

I - WOMEN WHO HAVE EXPERIENCED A DELIVERY WITH COMPLICATIONS OVER THE PAST TWO YEARS

IN-DEPTH INTERVIEW PROTOCOL

I - WOMEN WHO HAVE EXPERIENCED A DELIVERY WITH COMPLICATIONS OVER THE PAST TWO YEARS

Respondents 54 women who have experienced a delivery with complications over the past two years

Purpose

1 To learn how people in this community manage pregnancy and delivery, and the logic of attitudes practices, perceptions and beliefs underlying this management

2 To learn about the management of complications in delivery in terms of the logic prevention, identification, management, definitions of causes, careseeking behavior, participants in decisionmaking, experience with the modern and traditional health sectors

Approach Open-ended interviews with women who have experienced complications to ascertain their experience with complications from their own perspectives

Method Elicitation of detailed history of the pregnancy in which complications were experienced, from outset of pregnancy through the end of the first week of the neonate's life

Sample Opportunistic sample of 54 women who have experienced complications in delivery over the past two years

Recording All interviews are to be taped and detailed notes taken

Structure of Interview

The items shown below are to be used as a guide for understanding the experience of each woman with complications in delivery This is not a questionnaire, and the sequence of the discussion of specific items will depend upon the flow of conversation with the woman herself The list of items shown in this guide is not intended to be exhaustive, the women being interviewed may well introduce other items as relevant/important to the complications which she has experienced The tables shown in the list may be used as an economical way of ensuring that specific information relevant to the discussion has been collected in full

DELIVERY HISTORY

Name	Birth order	Normal Delivery?	Prenatal Care		Feeding (40 days)		Feeding (40 days - 4 months)	
			Yes/No	Type Facility	Breast (yes/no)	Bottle (yes/no)	Breast	Bottle

DETAILED DESCRIPTION OF COMPLICATIONS FOR INDEX CHILD

DESCRIPTION OF COMPLICATIONS

* name
* timing during pregnancy/delivery
  attribution of causes
* detailed description
* sequence of symptoms
* assessment of seriousness

RECOGNITION OF COMPLICATIONS

* how symptoms were identified as a complication
* who was involved in this recognition (sequence and interaction)
* prior knowledge of this sort of complication that this woman and significant others had, source of this knowledge (prior experience, general knowledge in community, physician)

ANTENATAL CARE FOR THE PREGNANCY OF COMPLICATION

* had prenatal care during this pregnancy? before or after experiencing complication?
* source(s) of antenatal care (individual qualifications type of facility)
* content of antenatal care (includes *daya*)
* if before why did she seek antenatal care? [prior problems, regular practice, other]

DISCUSSIONS AND DECISION-MAKING ON HANDLING OF COMPLICATIONS

Community Members

* persons with whom complaint was discussed
* sequence of discussions with family members and others in community relative to one another and relative to any with health care professionals (special emphasis on who was consulted first), with timing relative to degree of pregnancy and one another, if husband was included, how much detail (symptoms)
* assessments of persons consulted
* substance of discussions recommendations evaluation of complications by community members assessment of severity, potential for mitigation, need for medical attention attribution of cause contrast among views legitimacy in eyes of woman

Daya and Other Traditional Practitioners

* involvement of daya/other specialists in discussions and/or action
* sequence relative to other community members
* for each reason for selection person(s) who selected
* accessibility of person location, cost of transport cost of consultation
* substance of discussions recommendations
* contrast with views of others
* actions taken on this basis by practitioner or the woman being interviewed
* relevant costs
* persons accompanying

CONSULTATIONS WITH MODERN MEDICAL PRACTITIONERS

* point of decision to consult modern practitioners
* process of decisionmaking in consulting modern sector
* description of consultations in sequence, by provider (for each reason for selection (pros and cons))
* location of provider, accessibility
* alternatives who could have been chosen, pros and cons
* location of provider, accessibility
* alternatives who could have been chosen, pros and cons
* persons who participated in selection and relationship
* sequence relative to degree of pregnancy
* accessibility of person location cost of transport, cost of consultation, medication
* substance of discussions, recommendations
* contrast with views of others
* actions taken on this basis, by practitioner or the woman herself, with logic and details of treatment
* recommendations for home care and follow-up care
* duration of consultation and treatment
* implementation of treatment by mother - complete or incomplete, with details
* person(s) accompanying and who cooperated at home
* costs of care (itemized separately for each consultation/hospitalization)
    - transportation for all who went
    - fee by type (facility, doctor)
    - other costs at facility (food, tips, special services, medications)
    - external costs pharmaceuticals from outside facility
    - other costs
    - manageability of costs
        + who actually paid
        + source of funds
* satisfaction with service
    - interaction with provider(s)
    - respect for patients
    - attention to case
    - provision of explanation of complication causes implications and treatment
    - availability of equipment and supplies (includes pharmaceuticals)
    - comfort of social environment
    - perceived understanding of situation degree of consistency with mother's understanding
    - timeliness of intervention
    - quality of physical environment of care
    - faith in efficacy
    - experience of efficacy
    - preparedness to recommend to others in similar situations with reasons

POSSIBLE ALTERATION OF PRACTICES IN SUBSEQUENT PREGNANCY AS A RESULT OF COMPLICATIONS

* antenatal care
* delivery by different practitioners in different location

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II - PREGNANT WOMEN

IN-DEPTH INTERVIEW PROTOCOL

II - PREGNANT WOMEN

Respondents 36 women who are currently pregnant

Purpose

1 to learn about how people in this community manage pregnancy and the logic of attitudes, practices, perceptions and beliefs underlying this management

2 to learn about the management of complications in pregnancy and delivery in terms of the logic prevention, identification, management, definition of causes, careseeking behavior, participants in decisionmaking, experience with the modern and traditional health sectors

Approach open-ended interviews

Method

1 interviewing of woman concerning her own pregnancy history, her knowledge of potential complications of pregnancy and delivery, the resources to which she has perceived ready access for coping with complications

2 current actions aimed at ensuring healthy pregnancy and delivery, her definition of the potential for occurrence of complications in delivery, and the significant others who would participate in decisionmaking and financing of interventions

Recording Interviews are to be taped and detailed notes taken

DELIVERY HISTORY

Here record complete pregnancy history for the woman including live births, still births, and abortions beginning with earliest birth experienced

Order	Outcome of Pregnancy			Antenatal Care?	Place/ Practitioner
	Live Birth	Still Birth	Abortion		

PREGNANCY

PREGNANCY HISTORY

As above For current pregnancy, how advanced? Who she told first she was pregnant

COMMUNITY PRACTICES

Actions taken to protect health of mother and child (such as inclusion/exclusion of items in diet alterations in work loads, avoidance of protection from situations/influences (includes magical), consultations with traditional/modern experts), rationales, alternative patterns and correlates, perceived efficacy, potential for practicing modern/traditional simultaneously, constraints on implementation

PERSONAL PRACTICES

Which if any, of the above practices this woman thinks are important/efficacious, which she is now doing, with rationale, with attention to shifts in her personal patterns from previous pregnancy, with reasons

POTENTIAL COMPLICATIONS OF PREGNANCY

The main complications of pregnancy, with causes, signs/symptoms, risks (gravity), potential for controlling, means of controlling, implications for health of mother and child

Past experience and actions taken complications which this woman has experienced in previous pregnancies, means of coping, outcomes

Current pregnancy presence of complications in current pregnancy, actions being taken to forestall and/or treat complications

ANTENATAL CARE

Definition of antenatal care purpose [problems as occur vs package of care, specific types of problems] rationale universality/particularity of need [i e , first birth, previous complications those who plan to deliver with doctors

Alternative local sources of care availability by type of provider, type of facility, location vis-a-vis community, conditions of access constraints on access [transport, cost, agreement of household], reputation, perceived efficacy Suitability of health unit and MCH centers for antenatal care

4.3

Current experience Antenatal care during current pregnancy, type of provider [traditional and modern] type of facility, beginning when in pregnancy, reason for accessing, constraints on accessing, package [number of visits, visit spacing, system of payment, costs] vs one-off, involvement of family members in decision to access, accompaniment of family members to consultations content [including/excluding tetanus toxoid]

Level of satisafaction/dissatisfaction with provider, with reasons perceived competence, quality of communication, quality of personal treatment [privacy, ease of communication, respect], quality of surroundings, availability of needed range of services, gender of provider, costs], level of communication [such as, who initiates information transfer, success in interaction]

Potential for accessing If not now receiving antenatal care, are there problems which could occur in pregnancy which would lead her to go? What kind of problems would those be?

DELIVERY

COMPLICATIONS OF DELIVERY

Exploration of the possible complications of delivery major types, their causes, seriousness for each, potential for minimization, predictability on the basis of the pregnancy, need for specialized care by practitioner, practices, type of facility, determination of seriousness/need for rapid action

INTENTIONS RE PRACTITIONER

Arrangements made? Rationale cost, coziness expertise, tradition, accessibility] If there is a difference between antenatal caregiver and deliverer reason

CHANGES IN PLAN IN CASE OF COMPLICATIONS

For those intending to deliver with daya or other local practitioners [local health unit doctor, local nurse etc] thought given to location of delivery in the event of complications [i e , back-up plan] Which complications? Her evaluation of the urgency of each

POSTNATAL/NEONATAL CARE

COMMUNITY PRACTICES RE CARE OF MOTHER ON DAY OF DELIVERY AND DURING THE *NEFASS* (FIRST 40 DAYS)

Presence and content of local systems of ensuring that mother is well and recovers her strength after delivery [personnel involved, activities undertaken and their purposes, scheduling, costs], prevalence of checkups from physicians [and under what circumstances, how long after birth, content], practices re rest, protection from negative influences [traditional and modern]

MISCARRIAGE/INDUCED ABORTION CARE

If a woman miscarries, does she need to see a doctor? If so, in all cases? Why, why not?

Do women of this community ever abort themselves? Under what circumstances? How, where, and who helps?

COMMUNITY PRACTICES RE CARE OF NEONATE ON FIRST DAY AND DURING THE *NEFASS*

Presence and content of local systems of ensuring health and welfare of neonate [traditional and modern], protection from negative influences, establishing of positive influences

Are there any health problems in the newborn which need examination by a doctor? What are these problems and how can we recognize them? If there is such a problem and the mother is not yet ready to leave the house who would take the hcild to the doctor?

What do people in this community do to make sure that breastfeeding is initiated successfully? When does the mother first hold the baby? When does she first put it to the breast? Does anyone help her make sure that the baby is feeding satisfactorily? What other liquids are given to a baby during the first week when, why and how? During the *nefass*?

III - TRADITIONAL BIRTH ATTENDANT: DAYA

IN-DEPTH INTERVIEW PROTOCOL

III - TRADITIONAL BIRTH ATTENDANT DAYA

Respondents 18 *dayas*

Purpose

1 to learn about how *dayas* in this community manage pregnancy and delivery, and the logic of attitudes, practices perceptions and beliefs underlying this management

2 to learn about the management of complications in delivery in terms of logic and behavior prevention, identification management definitions of causes referrals to doctors participants in decisionmaking, experience with the modern and traditional health sectors

Approach open-ended interviews

Method

1 interviewing of *dayas* concerning their roles in pregnancy and delivery, knowledge of potential complications of pregnancy and delivery and during the postpartum period the resources to which she has perceived ready access for coping with complications extent to which she is consulted on pregnancy per se (as opposed to delivery),indications that complications may occur, types of complications and their seriousness and need for (rapid) medical referral identification of medical resources in the area for referrals of complicated cases, the significant actors in decision-making and financing of interventions, observations concerning willingness of families to shift practitioners, and causes of delay in case of serious complications

Sample One *daya* per community

Recording All interviews to be taped and notes taken

Structure of Interview

The items shown below are to be used as a guide for understanding the experience and expertise of the *dayas* with handling of complications in delivery, and to tap her knowledge of the reactions of women and their families to the occurrence of complications This is not a questionnaire and the sequence of the discussion of specific items will depend upon the flow of the conversation with the *daya* herself The list of items shown in this guide is not expected to be exhaustive, the *dayas* being interviewed may well introduce other items as relevant/important to the identification and management of complications

It needs to be kept in mind during the interviewing that the *daya* is an expert not only in delivery but also in community patterns of accessing medical care in normal and complicated pregnancies and deliveries and may be able to provide considerable insights on the logic of these choices and behaviors apart from her own practices in delivery

PERSONAL CHARACTERISTICS

Age, education, martial status, number of children

PROFESSIONAL BACKGROUND

Years as practicing *daya*, original source of training in field, motive for becoming *dava* changes in profession since outset [including relationship with doctors], received training from UNICEF, Ministry of Health or other agencies or not, now training someone else or not

CURRENT SCALE OF ACTIVITIES

Catchment area of activities, average number of deliveries/week

GENERAL MODUS OPERANDI

Role in life of village women [full range of activities, including, as relevant circumcision, weddings, delivery and childbirth, care of newborn] Where she sees her strengths vis-a-vis physicians in deliveries where she sees strengths of physicians in deliveries Her interaction with physicians

ROLE IN PREGNANCY

Alternative providers for prenatal care used by members of the community other *dayas*, nurses, physicians etc Reasons for selection by community members Possible differences in client characteristics (could include age, education birth order of child, preference for specific services offered by type of provider, gender of provider past experience with complications, many others)

Mixing of providers within one pregnancy/delivery That is, does it happen that women have prenatal care with a doctor and then deliver with a *dava*?

Consultation of *daya* during pregnancy concerning protection of mother and child

Views of need for antenatal care from modern medical sector Does the *daya* consult doctors if she needs advice?

Does the *dava* have a role in preparing the woman for breastfeeding? If so, what exactly does she do?

ROLE IN DELIVERY

How and when does she know that a specific woman will ask her to deliver her?

Does she accept all women who seek her services? If not who would not be accepted, and why?

Possibility and means of predicting complications in delivery

Stages in labor and delivery including identifying signs and the associated terminology, and her handling of the delivery at each point The point at which her job is complete

Measures she may use to speed a delivery

Medications used in delivery and reasons for use

Charges for delivery

KNOWLEDGE AND MANAGEMENT OF COMPLICATIONS

Knowledge of complications of pregnancy and delivery, most serious of these complications terminology, attribution of causality, signs and symptoms appropriate actions within the capacity of the *daya* extent to which *daya* can manage such complications signs and symptoms which indicate need for referral to physician signs and symptoms which indicate need for immediate and rapid consultation of doctor/hospital

Persons typically included in decision-making process in the case of serious complications Types of resistance encountered role-related resistances if present Patterns of arriving at final decision in presence of different views Power of *daya* to overcome resistance to transfer to hospital when needed

Strategy for dealing with prolonged labor premature birth hemorrhage, and other complications

ROLE IN CARE OF NEONATE

What is her responsibility in terms of immediate care of neonate?

Does she give the child to his mother? When?

What is her role in care of the neonate over the first week of life and for the rest of the period of the *nefass*? Does anyone else check the health of the neonate during the first week? Who and when?

Role in first putting the child to the breast with timing logic understanding of colostrum

Other substances placed in child's mouth on first day and later in first week of life, with rationale manner of administration, and timing

Measures to be taken by a new mother and those around her to protect her health and that of her infant during the first days after delivery

Observations on establishment of lactation level and type of bottle feeding in community, presence and logic of early decision to bottle feed and of lactation failure To what extent is the bottle assisting breast as opposed to breast assisting bottle?

Understanding of reasons for lactation failure, knowledge of means of ensuring establishment of lactation

Identification of any circumstances under which a newborn should be checked by a doctor Rationale Community practice

Views of the use of family planning in general and after the birth of a child Role in influencing the views of community women

COMMUNICATION WITH MODERN MEDICAL PERSONNEL

Perception of the views of modern medical personnel who deliver babies in this community or in hospitals serving this community of the role and professional competence of the *daya*

Occurrence of mutual consultation concerning specific deliveries, occurrence of education from doctors to *daya* on managing complications