

**In House Subproject: Technical
Assistance to the West Bank & Gaza
Pilot Health Project**

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Frontiers in Reproductive Health In-house Technical Assistance to West Bank & Gaza Pilot Health Project. This study was funded by the **U.S. Agency for International Development (USAID)** under the terms of Cooperative Agreement number HRN-A-00-98-00012-00 and Subproject number 5802 13024 413. The opinions expressed herein are those of the author and do not necessarily reflect the view of USAID.

SUMMARY

In response to the need for improved maternal and child health services in the West Bank and Gaza, the United States Agency for International Development (USAID) West Bank and Gaza Mission, in collaboration with the Palestinian Ministry of Health (MOH), designed and funded a twenty- eight month pilot activity that is expected to have significant health impact on women and children. The goal of this Pilot Health Project (PHP) is to improve the health status of Palestinian women and their children by upgrading antenatal and postpartum services, including family planning in three areas of the West Bank and Gaza: Jenin, Hebron and Gaza.

Due to the need to begin activities for the PHP as early as possible, initial funds to support key start-up activities for the project were provided to FRONTIERS by USAID's Asia and Near East (ANE) Bureau. An in-house subproject was developed by FRONTIERS to facilitate the rapid initiation of several preparatory activities by the local partner agencies. The creation of the in-house subproject was used as a vehicle for the development of six subawards that were awarded to the Health, Development, Information and Policy Institute (HDIP) and the Center for Development in Primary Health Care (CDPHC), and a short term consultancy. These are the two principal agencies that will be implementing the Research, Training and Analysis activities of the PHP through subawards from FRONTIERS. Below is a list of the subawards that were awarded to the two implementing agencies:

CDPHC

- ‡ The Design of Health Education/Behavioral Change Messages for the PHP
Effective dates: August 30 - October 31, 1999
- ‡ Develop Training Manual and Curriculum: Produce Proposal for Training
Effective dates: September 1 - December 31, 1999
- ‡ Develop Behavioral Change Materials Prototypes
Effective dates: October 1 - December 31, 1999

HDIP

- ‡ Development of Baseline Survey Research Proposal
Effective dates: August 22 - October 16, 1999
- ‡ Assessment of Existing Management Information Systems among
PHP Partner Service Delivery Agencies
Effective dates: August 30 - October 24, 1999

- ‡ Production of MIS Proposal
Effective dates: September 12 - November 6, 1999

The assessment of standards of care provided at PHP clinics was awarded as a consultancy to a team of Egyptian physicians who provided technical support to CDPHC.

The key research and training activities and/or products completed through these subawards and consultancies include the following:

- ‡ An assessment of the standards of care provided by all categories of service providers working in PHP clinics, (including their technical knowledge) carried out in August 1999. Findings of the assessment were used to determine the training needs of providers and to develop appropriate training materials to achieve the targeted levels of care under the PHP.
- ‡ A comprehensive draft of a training manual for all in-service training programs designed under the PHP to be adapted/modified accordingly for all categories of health providers.
- ‡ A review of formative research on reproductive health and maternal child health and family planning (MCH/FP) conducted in late 1999. Findings and insights provided by the formative research were used to develop behavior change communication (BCC) messages for use at the PHP clinics and to help formulate clinical training materials.
- ‡ The design and development of six prototype BCC materials to support the PHP's objectives. The production and printing of the materials for wide dissemination and use at PHP clinic sites will be completed under CDPHC's training subagreement.
- ‡ The development of a comprehensive training program for conducting in-service training activities for all PHP health providers.
- ‡ A proposal for a baseline survey to measure key outcome indicators of the PHP, including the technical knowledge and reported clinical practices of health providers and the information and care given to clients related to antenatal and postpartum care, family planning and care of newborn.
- ‡ A review and assessment of existing management information systems of the three service delivery NGOs of the PHP. The assessment provided guidelines for the creation of a proposal for a unified MIS system for the three NGOs that builds upon existing systems and conforms to the MOH's strategies and policies in this area.

All activities in this in-house project were successfully completed and provided vital information and/or tools for the next phases of the PHP.

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ABBREVIATIONS

BCC	Behavior Change Communication
CC	Coordinating Council
CDPHC	Center for Development in Primary Health Care
FRONTIERS	Frontiers in Reproductive Health
HDIP	Health, Development, Information and Policy Institute
PFS	Patients Friends Society
PHP	Pilot Health Project
MCH/FP	Maternal Child Health and Family Planning
MIS	Management Information System
MOH	Ministry of Health
NGO	Non governmental organizations
UHCW	Union of Health Work Committees
UNFPA	United Nations Population Fund
UPMRC	Union of Palestinian Medical Relief Committees
USAID	United States Agency for International Development

ACKNOWLEDGMENTS

Frontiers in Reproductive Health would like to acknowledge several key representatives and organizations for their support and collaboration in the successful completion of the activities of this in-house subproject. In particular, we would like to acknowledge the staff of HDIP and CDPHC for their hard work on all research and training activities. Special thanks goes to the Coordinating Council (CC) members for their review, comments, and input on several of the products developed for the PHP. We acknowledge and thank all the management and clinic staff at the Patients Friends Society (PFS), the Union of Palestinian Medical Relief Committees (UPMRC), the Union of Health Work Committees (UHWC) PHP clinics for their participation and contribution to the standards of care and MIS assessments. We would also like to thank the clients who consented to be interviewed at the clinics and at home after their postpartum home visits.

Finally we acknowledge our USAID West Bank and Gaza colleagues, Mr. Jack Thomas and Dr. Taroub Faramand, and our colleagues at the Palestinian MOH for their support on all project activities.

INTRODUCTION AND BACKGROUND

High fertility accompanied with short-spaced and frequent births constitutes a major health problem for both mothers and children in West Bank and Gaza. Despite the reasonable access to health services (100% of the Gaza population, and 90% of the West Bank population are within 5 kilometers of a public or private clinic), there are serious problems in cost of services, equity of access to emergency services and quality of care.

Due to the limited coverage of the Palestinian Authority's general health insurance system (only 50% of households are covered), many households currently bear the full cost of health care. The situation is particularly difficult for the non-refugee poor who encounter substantial financial barriers to obtaining basic health care services. This has resulted in overcrowding at public sector facilities, including government hospitals, and has in turn led to the shortening of the length of stay of pregnant women in hospitals, causing early discharge after delivery, in some cases within just a few hours. However, much of the basic and preventive health services sought from government hospitals are provided at the primary health care level through non-governmental organizations (NGOs). There is a need to shift the demand for such services from tertiary care settings to primary care clinics.

In response to these needs and concerns, the USAID Mission for the West Bank and Gaza, in collaboration with the Palestinian MOH, designed and funded a twenty-eight month pilot activity that is expected to have significant health impact on women and children. The goal of PHP is to improve the health status of Palestinian women and their children by upgrading antenatal and postpartum services in three areas of the West Bank and Gaza. To achieve this goal the PHP will build upon NGOs efforts already in place through improving systems and backing them with appropriate and sustainable mechanisms.

The specific objectives of the overall PHP project are:

- 1. To improve the quality of antenatal and postpartum health care provided for the mother/baby dyad.

- ‡ To increase knowledge and promotion of self-breast examinations and Pap smear tests among health service providers and the practice of these tests among women.
- ‡ To test the efficacy of interventions designed to encourage the increased use of antenatal and postpartum services, including family planning, in three pilot areas.
- ‡ To determine, for the purpose of later project scale-up, the effectiveness of the experimental interventions, the quality improvements gained and other lessons learned.

The interventions of the PHP include a basic package of antenatal and postpartum care services as well as three experimental service delivery interventions aimed at improving the health-giving practices of providers and health-seeking behavior of families: (1) reaching low-parity women, (2) involving husbands and influential males, and (3) creating outreach linkages with hospitals. The PHP will provide services to an estimated 18,000 women and children, from a total population of (number of women of fertile age) of 35,000 in Jenin, 20,000 in Gaza and 20,500 in Hebron.

Collaborating Agencies

The PHP is jointly implemented by the Population Council and Care International in collaboration with five local partner agencies. These include three health care service delivery agencies -- Patients Friends Society (PFS), the Union of Palestinian Medical Relief Committees (UPMRC), the Union of Health Work Committees (UHC); and two agencies that will implement the Research, Training and Analysis activities -- HDIP and CDPHC.

FRONTIERS is responsible for the Research, Training and Analysis activities of the PHP and will work closely with the two local partners to carry out these activities. HDIP will conduct all operations research studies and manage the creation of a unified management information system for the PHP. CDPHC will design and implement the clinical training programs for the PHP. CARE International is responsible for refurbishing the physical structure and environment of PHP clinics and will support the provision of the upgraded services to women and their children in the catchment areas of Jenin, Hebron and Gaza throughout the life of the project. CARE will work closely with the three service delivery agencies (PFS, UPMRC and UHC) to accomplish this.

PROJECT RATIONAL AND OBJECTIVES

Due to the need to begin activities for the PHP as early as possible, initial funds to support key start-up activities for the project were provided to FRONTIERS by USAID's ANE Bureau. An in-house subproject was developed by FRONTIERS to facilitate the organization and rapid initiation of several preparatory activities by HDIP and CDPHC. To help streamline the financial management and implementation of these activities, six subawards were developed and awarded to FRONTIERS' principal local partners in the West Bank and Gaza who are responsible for implementing the research and training activities under the PHP. All of the activities in this in-house subproject are included in the original PHP Concept Paper and in the Population Council's first year workplan for the PHP. Below is a list of the subawards granted to the two implementing agencies:

CDPHC

- The Design of Health Education/Behavioral Change Messages for the PHP
Effective dates: August 30 - October 31, 1999
- Develop Training Manual and Curriculum: Produce Proposal for Training
Effective dates: September 1 - December 31, 1999
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Effective dates: September 12 - November 6, 1999

The assessment of standards of care provided at PHP clinics was awarded as a consultancy to a team of Egyptian physicians who provide technical support to CDPHC.

Some of the research and training activities completed led to the development of subagreements that will be implemented by CDPHC and HDIP throughout the life of the PHP. Other activities completed under this in-house TA subproject were discrete products that will benefit the overall objectives of the PHP.

PROJECT ACCOMPLISHMENTS

A number of research and training activities were completed during the life of this project (August 1999- March 2000). This section of the final report reviews the principal accomplishments of the subawards and activities.

1. Assessment of Standards of Care Provided at PHP Clinics

In order to assess the quality of antenatal and postpartum care services currently provided at PHP clinics and to determine the training needs relative to improvements in staff's knowledge and skills, an assessment of the existing standards of care was carried out among a sample of PHP clinics in August 1999. The assessment was conducted by a team of consultants from Cairo, Egypt in collaboration with PHP partners. It was designed to measure the existing standards of care provided by all categories of service providers working in PHP clinics, including managers, physicians, midwives/ nurses, and community health workers. A total of fifteen PHP clinics were included in the assessment, nine from Jenin, two from Hebron and four from Gaza.

The team of consultants used several instruments (e.g. structured questionnaires for client exit interviews, quizzes for providers, observation guides, postpartum home visit checklists, etc.) in order to determine the level of knowledge and current clinical practices of all categories of providers at the selected clinics. Fieldwork activities for the assessment included: interviews with nurses and managers, self-administered quizzes for nurses and physicians, client exit interviews, postpartum home visits (outreach activities) and observation of physicians and nurses practical skills. A total of ten physicians, thirteen nurses/health workers and six managers participated in the assessment. The findings of the assessment indicated several areas of knowledge, skills and practices of all levels of providers that needed improvements, particularly in the areas of antenatal and postpartum care, management of high risk pregnancy, counseling and infection control. The assessment also indicated shortcomings in managerial skills at the clinic level. Most managers are physicians who assumed this role by default with no prior experience or training in clinic supervision or management. The findings highlighted the need for more training in clinic supervision and management skills. The quality and implementation of

postpartum outreach services was also rudimentary. These services are not supervised closely or otherwise monitored.

However, despite the inadequacies found in the assessment, the results of the client exit interviews indicated that clients were generally satisfied with the services provided in the clinics. They reported the clinics to be clean, the providers to be friendly, and the costs of services to be reasonable.

The findings of the assessment were presented to all PHP partners, including the MOH and the USAID West Bank & Gaza Mission. The final report of the assessment (see Appendix 1) was shared with PHP partners, the MOH, the USAID West Bank and Gaza Mission, the United Nations Population Fund (UNFPA) and other interested parties.

2. Review of Formative Research

A review of existing formative research on reproductive health and MCH /FP issues in Palestine to date was conducted by CDPHC. Conducted during the last quarter of 1999, this review provided guidelines for the specifications and content of health education and behavioral change messages, and clinical counseling topics for the PHP. Findings and insights provided by the formative research on the knowledge, attitudes, beliefs and practices of Palestinians with respect to maternal child health care, pregnancy and childbirth practices, postpartum care and birth spacing were drawn out and used to formulate the clinical training manual and curriculum. The review also provided valuable information and guidelines for the development of prototype BCC messages and materials for the PHP. See Appendix 2 for a copy of the Review of Formative Research Report.

3. Development of Training Manual and Curriculum

Based on the training needs identified through the assessment of the standards of care of the PHP clinics, and the review of formative research, a draft comprehensive training manual was produced by a committee of training experts commissioned by CDPHC. The draft manual will ultimately be used for all in-service training programs designed for the PHP and will be adapted/modified accordingly for all categories of health providers. The training manual will be finalized after it is pre-tested at the Training of Trainers workshop. It includes the following modules:

- Protocols for antenatal, postpartum and neonatal care

- Family planning
- New born care
- Nutrition and breastfeeding policies and practices
- Breast and cervical cancer detection and referral procedures
- Male involvement
- Reproductive health indicators
- Communication and counseling
- Infection Control
- Quality management and clinical supervision
- Training of trainers (TOT) methods and tools

4. Proposal for Design and Implementation of Training Programs

CDPHC with technical assistance from FRONTIERS developed a first complete draft of a comprehensive proposal for a series of in-service training activities for all PHP health providers. This training program was based on information gathered from service delivery partner agencies and from the assessment of standards of care activity. The 19-month long training proposal includes in addition to in-service training, a TOT workshop for approximately 16 participant-trainers, follow-up refresher training and a supervision system. Given the high turnover rates of service providers at the clinic level (estimated at 20 %), the TOT workshop will be an essential component of the overall training activities for the PHP. The TOT will produce a cadre of clinical trainers that will form a sustainable reproductive health training capacity among the three service delivery agencies. The draft proposal was the subject of revisions and fine-tuning before being formally approved as a subagreement subsequent to the completion of this in-house project.

5. Development of Behavior Change Communication (BCC) Materials

Proto-type BCC materials that support the PHP's objectives were designed and developed by CDPHC based on the outcome/findings of the formative research analysis and sample BBC materials from Jordan and Egypt. A total of six proto-type materials were developed: two posters (one for providers and one for clients) and a sticker on infection prevention; a factsheet for clients on the warning signs during pregnancy; a client leaflet on anemia and a client leaflet on postpartum care. All proto-types were pre-tested using focus groups and spot interviews in health care facilities. The content and presentation of all materials were also reviewed by all PHP partners. The materials were

revised accordingly and will be printed for wide dissemination and use at PHP clinic sites under CDPHC's training subagreement. All providers will receive training on the use of these BCC materials as part of the CDPHC training programs.

6. Production of Baseline Survey Proposal

A detailed proposal for the conduct of a standardized, quantitative survey of providers and clients was developed by HDIP in coordination with FRONTIERS as part of this in-house project. The proposal was approved as a formal subagreement with HDIP. The baseline survey will assess the preintervention levels of key outcomes variables of the PHP, including the technical knowledge and reported clinical practices of health providers and the knowledge and practices of clients related to antenatal care, postpartum visits, care of newborn and family planning.

The results of the baseline survey will be used to measure the impact of the basic service delivery model (the main intervention offered under the PHP). A post-intervention survey collecting similar data on key outcome variables will be conducted approximately 12 months after the basic service delivery model has been in place at the sites.

7. Assessment of Existing Management Information Systems; Design of MIS Proposal

One of the principal Research, Training and Analysis activities under the PHP is the creation of a unified management information system (MIS) for the service delivery partner agencies. The newly created MIS will function at the following levels: client records; daily and monthly logs; quarterly, semi- and annual reports; trends and comparative analyses. Feedback loops for enhanced clinic and program management will be generated by the system.

In order to determine the current and future needs of the service delivery partner agencies and to provide guidelines for the creation of the new MIS, a preliminary assessment of existing MIS forms and procedures was conducted by HDIP as part of this in-house project. All service delivery partner agencies' MIS systems, including the MIS currently under development at the Palestinian MOH, were systematically reviewed. Field visits and consultations were held with UNFPA, MOH and NGO staff to review existing data, forms and clinic procedures. A detailed report on the findings of the

assessment, including recommendations and guidelines for the creation of new system that builds upon existing MIS and conforms to the MOH system that is under development was produced. See Appendix 3 for a copy of this report.

As follow-on to this activity, HDIP convened a one-day expert group meeting to present the findings of the assessment to all PHP partners and to obtain consensus on the principal features of the MIS for the PHP. MIS experts from the three service delivery partner agencies participated in this process and provided feedback to HDIP on the feasibility of the new MIS.

The results of the assessment and feedback from the expert group meeting were used to develop a draft comprehensive proposal that outlines the design, objectives, and activities for the creation of a unified MIS. This proposal was revised and restructured subsequent to the completion of the in-house project, and submitted for formal approval as a subagreement.

CONCLUSION

The creation and implementation of this subproject helped jumpstart several of the key activities for the PHP and allowed FRONTIERS' local partners to implement many important and time-consuming activities early in the life of the project.

All activities and products undertaken through this subproject will be utilized by the PHP's Research, Training and Analysis activities and will be disseminated and shared with PHP partners. Copies of all reports, the manual and the BCC materials are also available to donors and other agencies interested in these topics and are available upon request at the West Bank and Gaza Population Council Office.

Appendix 1

Assessment of Standards of Care Provided at Pilot Health Project Clinics

WEST BANK/ GAZA
PILOT HEALTH PROJECT

ASSESSMENT OF STANDARDS OF
HEALTH CARE SERVICES

Consultants:

- Prof. Dr. Nabil Younis
- Dr. Nevine Hassanein
- Dr. Nagah Manasrah

September 1999

Executive Summary

BACKGROUND

The goal of the Pilot Health Project (PHP) is to improve the health status of Palestinian mothers and their children. To do so, the quality of antenatal and postpartum services for mothers and their children will be upgraded in the PHP sites.

The PHP builds upon partner NGO efforts already on ground, improving and strengthening these efforts and backing them with appropriate systems and mechanisms. This includes among other activities, training of staff that matches education and service needs and developing new curricula for training of health service providers.

The Center for Development in Primary Health Care (CDPHC) is one of the two major Population Council's partners that is responsible for providing the training needed for service providers. This center works in collaboration with Al-Quds University for upgrading quality of health services through provision of competency based training programs to health personnel.

Objectives of the Consultancy

- To assess the quality of antenatal/postpartum care provided by different categories of health providers [Physicians, Nurses, Health workers, Managers and Outreach Workers], in the PHP clinics.
- To identify the gap between existing and expected performance as well as decide upon the training needs of each category of health providers to achieve the targeted standards of care within the planned PHP activities.

This assessment has been done in close coordination with PHP partners (MOH, Care International, and partner NGO's). In addition, consultants also met with UNFPA advisors who are undertaking similar assessment for MOH clinics to ensure that the two procedures are consistent with each other and ensure coordination of efforts.

This consultancy was undertaken during the period July 10- August 31, 1999.

Team Composition

The team of consultants assigned for the assessment included:

From Egypt

- 1- Prof. Dr. Nabil Younis, Senior Ob/Gyn Specialist and Professor at Al Azhar University, Cairo, Egypt
- 2- Dr. Nevine Hassanein, Ob/Gyn Specialist and part time Consultant to John Snow Int. (JSI).

From West Bank(CDPHC)

- 3- Dr. Nagah Manasrah, Consultant

Workplan

A-Preparatory Phase (10 days)

During this phase, the first two members worked together in Cairo to develop an overall plan for the implementation of the consultancy. Tools and instruments used for the assessment process were developed and tested with regards to the international guidelines and standards (WHO), which included nine (9) forms:

- 1- Physician observation: Antenatal Care
- 2- Physician observation: Postpartum Care
- 3- Physician Quiz (30 Multiple Choice Questions)
 - 4- Nurses observation
 - 5- Nurses interview
 - 6- Nurses Quiz (18 questions)
 - 7- Manager interview
- 8- Client Antenatal/Postpartum Exit interview
- 9- Client Postpartum Home interview

The national consultant made necessary contacts with each partner NGO to organize the schedule of visiting clinics, keeping in mind the facility working hours and the geographical and organizational representation.

Contacts were also made with major partners; including MOH, Care International to coordinate planning meetings, review available data and protocols developed.

B- Information collection phase (two weeks)

During this phase only the second member in the team traveled to WB/ Gaza to do the assessment in the field. She worked closely with the national consultant and other collaborators cited above to:

- 1- Assess the service providers' knowledge and skill competency by category (through interviews/ others).
- 2- Identify current standards of care.
- 3- Explore the type of information given to women during clinic antenatal visits and postpartum home visits (through some exit interviews, observations and home interviews).
- 4- Assess availability of outreach services and role of outreach workers, information given, frequency and timing of visits to each woman and number of cases allocated to each worker as well as systems in place for supervision and evaluation.
- 5- Identify the training and field experience of providers by type.

During this phase the national consultant worked closely with the second member in the team as needed. She also assisted in organizing field activities including scheduling meetings and interviews with partner NGOs, as well as, other partners as needed.

C- Analytic phase (10 days).

During this phase, the first two members of the team worked together in Cairo to analyze data/ information collected to propose the gap in health providers' technical knowledge and clinical skills that need to be covered through training for each category.

Findings

The total number of clinics included in the PHP were 27:

- ❖ 22 in West Bank [2 in Hebron & 20 in Jenin]
- ❖ 5 in Gaza

From this total number 15 were visited.

- ❖ 11 in West Bank [2 in Hebron and 9 in Jenin]
the rest of the Jenin clinics were not providing the service during the implementation period of the assessment because they followed physician rotational schedule
- ❖ 4 in Gaza (the one left was at Rafah not providing the service)

PHYSICIANS

The total number of Physicians covered in the assessment were 10:

- ❖ 6 physicians in the West bank
(2 in Hebron rotating between the 2 Hebron clinics)
(4 in Jenin - 2 of them formed a mobile team that covers 14 clinics/week under the PFS medical coverage.
- 2 were assigned to rotate between 5 clinics/week under the UPMRC medical coverage.
- ❖ 4 physicians in Gaza (1 physician in each clinic)

From physician's Questionnaire, physician's knowledge were found to be inadequate (scoring <75%), in the following:

- Antenatal care
- Pre-eclampsia/eclampsia
- Diabetes in pregnancy
- Infection control

From observation of physician's performance while providing antenatal/postpartum care in the clinics, it was found that they lack the following skills:

- Communication skills
- Infection control practices
 - History taking skill
- Basic steps in physical examination
 - Health education skills
- Identifying high risk cases

Physicians didn't have standard protocols to use or to follow in antenatal and postpartum care.

NURSES/HEALTH WORKERS

The total number of Nurses/Health Workers seen was 13:

- ❖ 6 nurses (2 in Jenin and 4 in Gaza)
- ❖ 7 Health workers (2 in Hebron and 5 in Jenin)

[These are women who received 9 months of social education and health training to provide basic nursing related services to bridge the gap of assisting health needs in remote areas]

Using the knowledge assessment instrument, the following information were found to be inadequate:

- Infection control
- Nurses duties in provision of antenatal/postpartum care

After interviewing some of the nurses/health workers and observing some of them while providing client/physician assistance in the examination room, it was found they were lacking the following:

- Communication skills
- Counseling skills
- Infection control practice
- Basic nursing skills in preparing the examination and instrument table
 - Breast-feeding knowledge and educational skills
 - Technical and health educational training

MANAGERS

The total number of Managers interviewed were 6, as some of the clinics didn't have an assigned clinic manager:

- ❖ 4 in West bank (2 in Hebron was a General Practitioner)
(1 in Jenin was Ob/Gyn physician)
(1 in Jenin was Administrative Director)
- ❖ 2 in Gaza (1 was General Practitioner)
(1 was Administrative Director)

Physicians were providing medical and managerial services in the clinic. None of them received any managerial training. They didn't have a referral system to follow when referring cases to higher level facilities. Most of them had schedules to follow for educational activities as well as educational materials that were only lacking in flipcharts and videotapes.

OUTREACH SERVICES

Antenatal outreach services were not provided in the area of the West Bank or in Gaza. Postpartum outreach services were found to be symbolic as this activity is provided by social health workers who cannot provide medical services. The total number of postpartum home interviews for clients was 6, all in the West Bank area, as postpartum outreach services were not yet established in Gaza. Some of the clinics had outreach schedule to follow, but supervision and evaluation of this activity were not carried out as supposed to be.

CLIENT INTERVIEWS

The total number of exit interview were 11, as no clients were available in some of the clinics that were visited during the implementation of the assessment:

- ❖ 7 in West Bank (in Hebron and 6 in Jenin)
- ❖ 4 in Gaza

Clients were satisfied from the service provided in the clinics despite the inadequacy met during the assessment. The friendly attitude of health providers, the cleanliness of the clinics and the reasonable cost of the service, were appreciated by all clients.

While privacy during examination, was lacking in most of the clinics.

Recommendations

Training programs should be planned in order to improve the quality of antenatal and postpartum care as well as to ensure the competency of different categories of health providers, through:

- Developing standard protocols
- Training workshops (On job training)
- Improving management and referral systems
 - Promoting outreach service activities
- Establishing an adequate system of supervision

Appendix 2

Review of Formative Research Report

REVIEW OF FORMATIVE RESEARCH IN THE AREA
OF REPRODUCTIVE HEALTH

Commissioned by:
Center for Development in Primary Health Care
Al-Quds University

Executed By: Ayesha Rifai

November 1999

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A special thank you for Dr. Laila Nawar, Miss Nancy Ali and Dr. Mahmoud Shaheen of the Population Council, for their insightful comments and remarks provided during the many meetings held to discuss the report.

I am also indebted to every colleague who responded and participated in the focus group work conducted in relevance to this piece of work. Their participation, particularly members of the National Committee for Health Education enriched the report greatly.

Special thanks to Miss Enas Al-Dhaher for her valuable comments and feedback on the drafts of the report submitted. Lastly, many thanks to the Center's staff for their assistance in facilitating the completion of this report.

ABBREVIATIONS

HE	Health Education
IUD	Intra Uterine Devices
KAPs	Knowledge, Attitudes, and Practices
MCH	Mother and Child Health
MOH	Ministry of Health
NGOs	Non Governmental Organizations
PA	Palestinian Authorities
PCBS	Palestine Central Bureau of Statistics
PFPPA	Palestinian Family Planning and Protection Association
PHC	Primary Health Care
RH	Reproductive Health
STDs	Sexually Transmitted Diseases
UNRWA	United Nations Relief Work Agency
UHCW	Union of Health Work Committees
UPMRC	Union of Palestinian Medical Relief Committees

INTRODUCTION

During the past few decades, a growing emphasis has been placed on utilizing health education tools and materials to raise health awareness among people in order to promote their health status. The notion that contributed to this trend is that information helps people learn, and/or teach others, to observe their own bodies, understand their normal changes, and know what is healthy and typical for them and what is not. On a larger scale it creates a sense of empowerment in people, allowing them to become more confident in articulating their health needs and utilizing available community health resources.

The case of Palestine is no exception to this. However, both documented literature and anecdotal observation indicate that Palestine lags behind many other Arab countries in the field of reproductive health and utilization of health education materials. This fact is related to a number of circumstances, the political disposition and the associated economic hardships being the most influential.

However, despite these obstacles, invaluable efforts and substantial recourses to rectify the gaps in this field are evident. The onset of these efforts date back to the period of occupation, namely the Intifada era. During this period Palestinian non-governmental organizations (NGOs) and international institutions adopted the primary health care (PHC) approach, of which reproductive health is considered a core element and/or a key strategy in service provision at the community and/or tertiary levels. After the arrival of Palestinian Authorities (PA), the work of the Palestine Ministry of Health (MOH) and its various directorates came to complement the NGOs' work by fostering this fundamental principle.

PURPOSE OF THE REPORT

This report aims at producing service-orientated health education and behavior change messages in the field of reproductive health, using a largely comprehensive and holistic approach. Aspired behavioral changes as we understand and define them are not only those of clients or care users, but also those of care providers as well. This view stems from the belief that they too need to modify certain behaviors that adversely affect the outcomes of the care giving process and consequently the health status of the public

in general. Hand washing and other practices of infection control are critical examples of this. The report focuses on behavior change messages for both health care providers and clients.

METHODOLOGY

In order to produce service-orientated health education and behavior change messages in the field of reproductive health within the Palestinian context, the following activities were carried out:

- A review of pertinent Palestinian literature on reproductive health and its clinical implications.
- Collection and review of available health education materials that are in use in both governmental and non-governmental health sectors.
- A critical analysis of available health education (HE) materials to define aspects of strengths and weaknesses so as to assess information gaps and potential areas for material development.
- Conduct of limited number of focus groups to validate the findings of this review and to develop final recommendations
- Outline priority areas in reproductive health for developing service-oriented HE messages for the use and benefit of service providers and clients at clinic sites.

LITERATURE REVIEW¹

Palestinian reproductive health literature is quite ample. Within the last few years it has markedly grown, particularly after the 1994 Cairo Conference on Population and Development. From a health education perspective, findings of different surveys and studies provide a large amount of data that represent valid indicators on the nature, focus, orientation and intensity of the health education messages that are needed in Palestine

In general, studies conducted to date in Palestine in the field of reproductive health can be categorized into four main areas: needs assessments, knowledge, attitudes & practices (KAPs) surveys, service provision, and socio-cultural oriented studies. An

¹ The Preliminary literature review completed by Dr.Green, the consultant of Care-International was consulted for our review.

extensive review of available literature executed by Rifai for the Palestine Ministry of Health² concluded that the main topics of 21 reviewed studies were related to: program management and priorities, gender and reproductive health, family planning services, the perinatal period, and service delivery availability, accessibility and utilization. Only a few studies have been conducted in Palestine that explore sensitive topics such as sexuality and the legal barriers to reproductive and sexual health (Rifai, 1998).

The 1997 Palestinian Central Bureau of Statistics (PCBS) health survey provides a wide range of data and statistics on maternal and child health (MCH) and reproductive health issues. It documents that most mothers use private clinics for prenatal care. This is particularly true for younger mothers. MCH health centres rank second, with the exclusion of mothers from refugee camps - they attend UNWRA clinics (PCBS 1997). Considering the comparatively high fees for services at private clinics and the economic difficulties experienced by most Palestinians this reasons behind this preference of service sector needs to be investigated.

Additional data and indicators on maternal health can be drawn from PCBS 's 1999 annual report on Palestinian children. It states that the five leading causes of infant mortality in the West Bank are sequentially: antenatal conditions, respiratory system diseases including infections, congenital anomalies, septicemia, and sudden infant death syndrome (SIDs). In Gaza the five leading causes are prematurity, respiratory system diseases including infections, congenital anomalies, SIDS, and septicemia (PCBS 1999).

Based on the above, the leading causes of infant mortality in the West Bank and Gaza - antenatal conditions and prematurity - are clearly related to the quality of health care pregnant women receive during their antenatal period. In addition, septicemia, another cause of infant mortality in the two regions indicates that the care women receive during their natal and postnatal period³, including the infection control measures and postnatal care provided for both mother and infant is also questionable.

² For the full details of this extensive review please see; Rifai, A., *Reproductive health research in Palestine: A Critical Strategy-Oriented Review*. Unpublished report. Directorate of Health Promotion and Education, Ministry of Health, 1999.

³ Predisposing host factors in neonatal septicemia include; maternal perinatal infections, low birth weight, prolonged rupture of membranes, and septic or traumatic delivery.

The 1997 PCBS health survey also indicated that only 33% of mothers received tetanus toxoid shots during recent pregnancies, with highest percentage receiving shots in camps, followed by villages then cities. (UNWRA's Expanded Maternal Health Project provides the most coverage for these shots through its MCH clinics.

Out of a total of 624 pregnant women who participated in the PCBS health survey, 38.8% reported having continuous headaches, 33.4% reported some kind of infection, 23.5% reported ankle swelling, and 19.6 hypertension⁴. Women also complained of bleeding and cramps but to a much lesser extent (PCBS 1997). These side effects could be indicative of serious complications. For example, a continuous headache might be a sign of anemia, while hypertension can be a sign of pre-eclampsia. These complications can have serious impact on the well being of both the mother and the fetus and signify the importance and investment health care providers need to make to build awareness about danger signs during pregnancy.

A survey conducted by PCBS in mid 1996 (a sample of 3350 women were drawn from both the West Bank and Gaza) indicated that only 9.1% of women reported receiving postnatal care from a medical doctor. This number is even lower - only 0.4% - for care received from a qualified midwife or nurse. 40.2% of these women reported not receiving any postnatal care (PCBS 1997).

The numbers above clearly reflect the inadequacies and/or poor quality of antenatal and postpartum care services in the country. Field observations and documented literature show that postpartum outreach services in particular are alarmingly deficient in the West Bank, and totally absent in Gaza.

Data on breast feeding patterns, apparently, back these findings. The 1997 PCBS health survey shows that in spite of the fact that almost 96% of the surveyed mothers breastfeed their babies, this percentage starts declining drastically once the infant reaches 3-5 months old. The percentage drops to 88.8% at 3-5 months, 73.9% at 6-8 months and 60.2% at 9-12 months. Interestingly, mothers with no education breastfeed longer than those with the lower level of formal education. Meanwhile, mothers in camps are more

For further details on Septicemia, please review American Academy of Pediatrics. *Report of the Committee on Infectious Diseases* (22ed.), 1991, Illinois, USA.

⁴ Please note that some women reported experiencing more than one sign.

likely to continue breastfeeding their babies than those mothers in cities or villages (PCBS 1997).

These findings validate the results of the assessment of standards of care that was carried out for the Pilot Health Project clinics which documented lack of breastfeeding knowledge and educational training amongst nurses and health workers (Younis & Hassanein, 1999).

An inquiry on maternal mortality initiated by UNRWA among the refugee population living in its five fields of operations revealed that eclamptic conditions were responsible for 8 out of 17 maternal deaths (Pappagallo 1993). Given that such deaths are clinically preventable, the high figure raises concerns about the thoroughness of the physical examinations, the identification of high risk cases, and the adequacy of the health education messages that women receive at the health facilities during antenatal visits.

The Younis & Hassanein 1999 assessment clearly showed that physicians lacked the appropriate skills to identify high-risk cases. More importantly, the assessment confirmed physicians' inadequate knowledge about managing pre-eclampsia and eclampsia conditions. Recommendations for improving screening of high-risk patients can be found in the Pappagallo study. They include: training staff on comprehensive antenatal care services, the development of action oriented screening cards and case management guidelines, and the development of referral and treatment guidelines. The study also stressed the importance of emergency preparedness in hospitals and clinics, health education and epidemiological research (Pappagallo 1993).

Another UNRWA study reported improved attendance at clinics - for antenatal, postpartum and family planning services - because of clinic staff's commitment and adherence to providing comprehensive counseling and health education sessions as major components of these services (Kaileh 1995).

The Women's Center for Legal and Social Counseling took this study a step further by declaring health education as the third priority area of work after clinical and preventive services, sequentially. The areas of health education highlighted as most important for inclusions in clinic services include mother and child health, reproductive health in general, sexual health, mental health, cancers, and chronic and infectious

diseases. Interestingly, counseling about nutrition as it applies to the various stages of a woman's life cycle was given lower priority. (Women Center for Legal and Social Counseling, undated).

Several studies carried out in the West Bank camps and Gaza depict high prevalence rates for anemia among Palestinian women, particularly in the West Bank camps. An UNRWA study reported 8.0% of pregnant women having anemia upon registration. This prevalence was even higher - 11.5% - when women were measured again during their third trimesters (UNRWA 1993). This raise in prevalence questions what sort of guidance and health education messages these pregnant women received during their antenatal care visits at the study sites.

A European Commission initiative to evaluate the maternal and child preventive health resources and services of Palestinians in Gaza Strip highlighted the need for a better referral system, particularly for the natal period. The study identified an unmet need for family planning services in terms of reliability of contraceptives supply (European Commission Initiative, 1997). Health professionals were asked about their view of the health facility they were operating within. Their most commonly shared concerns were poor communication between health providers and clients, poor management of the clinics and over crowdedness.

Poor communication skills and lack of counseling were also highlighted by staff of the Bethlehem branch of the Palestinian Family Planning and Protection Association (Mhaisen and Abu-Arqoub 1997) and similarly by the standards of care assessment conducted in the PHP clinics by Younis & Hassanein earlier this year. The assessment documented the need for better communication skills, particularly in the area of client provider interaction (Younis & Hassanein, 1999).

An earlier assessment of the provision of reproductive health care services in the rural areas of the West Bank raised concerns about quality control, supervisory and managerial aspects of clinic operations, and limited availability of training programs (Rifai Abu-Hwajj 1996). These concerns coincide well with the findings and recommendations made by Younis & Hassanein for on-job training, adequate systems of supervision and improved management (Younis & Hassanein 1999).

Suggested areas of intervention recommended in the Rifai Abu-Hwajj assessment include: gearing all efforts to changing the attitudes and perception of reproductive health, both at the local and national level; launching well-studied health education and awareness campaigns, primarily in the area of family planning and screening for sexually transmitted diseases (STDs); focusing on educating school children, boys and girls; and reaching and educating men in the work place (Rifai Abu-Hwajj 1996).

Two other studies came to similar conclusions, also documenting men's limited understanding of the concept of reproductive and sexual health, perceiving it primarily as a women's issue (Afifi and Isma'el 1997, Mhaisen and Abu-Arqoub 1997).

Institutionalizing gender in reproductive health issues and concerns requires having men's involvement in these areas. But their involvement cannot be achieved without adequate knowledge and understanding about the topic of concern by health providers. Health professionals and educators working at the community levels in particular need to be properly trained in order to provide appropriate health education messages to men regarding reproductive health issues.

The 1997 PCBS health survey reported a high level of knowledge of family planning methods - 98% of women reported knowledge of one or more methods of contraceptives. However, only 45% reported utilizing contraceptives. The survey reported social attitudes and perceptions of family planning as the main barrier to utilization of the various methods (PCBS 1997). A number of studies reported that in spite of the men's full awareness and acknowledgement of the social barriers facing women, most males show limited willingness to support women in overcoming these barriers (Abdalla 1997, Afifi and Isma'el 1997).

KAP studies have shown that the preferred method of contraception is the IUD followed by the pill and condoms (Kaileh 1993, Abu-Mousa 1994, and Afifi & Isma'el 1997). More has to be done to educate both men and women on the condom and its many benefits, especially the protection it provides against STDs.

Finally, an exclusive study conducted on sexuality and sexual behaviour found that both Palestinian men and women are quite receptive to sexual issues and were aware of the importance of education on sexuality (Tamish 1996).

HEALTH EDUCATION AND PALESTINIAN CHOICES: MODELS AND STRATEGIES

Health education is based upon the assumption that the health status of individuals or communities may be influenced purposefully. Opinions vary about how such influence can or should occur. Therefore the nature of health education varies with the underlying health aspirations, the knowledge base and available recourses (Kiger 1995). Other circumstances that are beyond the scope of the health system and institutions also play a role. Most important of all are the socio-cultural sensitivities and economic circumstances. This, further, implies that how information will be exchanged and acted upon in a clinical setting will be largely affected by the broader public policy context within which clinics operate in addition to the broader circumstances of individuals' lives.

Based on the above, approaches and models adopted are quite tentative. In Palestine, the medical model is the most widely used, followed by the media model, however, there is a substantial gap in the philosophical concepts and utilization of the two models⁵.

The first model has the strategy of generating and promoting clear and simple messages. This model is currently predominantly used in Palestine. The second model - the media model - has a strategy for creating and providing positive health images, in addition to increasing awareness. The media model is widely used in both developed and developing countries but is still lacking in this country.

During the past two years, the number of advocates who view communication of information between client and provider (i.e. client provider interaction) as a key element/component of an overall "IEC strategy"⁶ have increasingly grown in Palestine.

⁵ The medical model assumes that the facts will persuade, and the advice of experts is highly valued. While, the assumption of the media model is that people have to be manipulated to value health and adopt a healthy lifestyle.

For more elaboration on models of health education please review; Kiger A.M., *Teaching for Health* (2nd ed.). Churchill Livingstone. London:1995.

⁶ IEC, an acronym for "information, education and communication", has been defined by UNFPA as "a comprehensive programming intervention- an integral part of a country development program, which is aimed at achieving or consolidating behavior or attitude changes in designated audiences". For more details on this please see; Cohen, S.I., *Developing Information, Education*

This approach is one of the most comprehensive approaches to health education. It encompasses everything from mass media advertising campaigns, to plays and theater work with fertility regulation messages, and training programs that teach health professionals how to deliver friendly and supportive counseling services to both sexes, particularly in the fields of family planning, STDs, and reproductive cancers.

HEALTH EDUCATION MATERIALS: REVIEW AND ANALYSIS

Identifying available health education materials in the field of reproductive health was largely facilitated by acquiring a copy of the first draft of a directory on the health education materials. The directory is being developed and produced by the National Committee for Health Education. Interestingly the directory reflects a distorted understanding of “reproductive health” as a concept. It adopts a more traditional understanding of the concept clearly differentiating between materials on family planning and reproductive health.

The directory categorized reproductive health materials into four categories: “family planning”, “reproductive health”, “infectious diseases” and “others. In terms of format and presentation, most materials were either brochures, posters and booklets. To a much lesser extent, calendars and flip charts were also identified. Surprisingly, audiovisuals such as videotapes was not documented in the directory at all. Field observations, however, indicate that videotapes are actually available and are in use⁷.

The tables below provide a presentation of all reproductive HE materials that have been produced to date in Palestine. They have been classified by topic area so that it will be easy to determine the strengths and weaknesses of the materials and to identify gaps within each topic area.

and Communication (IEC) Strategies for Population Programmes, Technical Paper No.1 (New York: UNFPA, 1994), 3.

Or: Coliver, S., Article 19: International Center Against Censorship. *The Right To Know: Human rights and access to reproductive health information*. Article 19 & University of Pennsylvania Press, 1995

⁷ A number of NGOs and international institutions, in particular, possess small video libraries with some very useful videotapes on reproductive health matters as well as many other issues. Of these; The Palestinian Family Planning and Protection Association (PFPPA), Union of Health Work Committees (UHC) and Union of Palestinian Medical Relief Committees (UPMRC) are few examples.

Table 1: Health Education Messages on Adolescents Reproductive Health

Topic Area	Type of Material	Target Group	Organization that Produced Material
-Early marriage	-Brochure -calendar component -Brochure - Poster	-Unspecified - Local community -Adolescent girls (15 and above) -Women generally -Women's health program staff	-UHWC -Women Center for Legal & Social Counseling. -UPMRC, UNICEF & MOH -UPMRC
-Age of adolescence	-Booklet - A poster, a brochure & a flip chart	-Women - Adolescent girls (10-18)	- UHWC - Women's Center for Legal and Social Counseling.
-Relationships at adolescence	Brochure	- Adolescent girls (10-18)	
-Menstruation		-Adolescent girls (15 and above)	
-Personal Hygiene at adolescence		-Adolescent girls (10-18)	
-Pre-marriage counseling		-Women -Youth	-Directorate of health promotion and education/MOH -PFPPA
-Urinary tract infections	Booklet	-Adolescent girls	-UPMRC
-Health of the youth	Booklet	Youth	- Center for Development in PHC.

Looking at Table 1 above, it is evident that the brochure is the most widely used form for presenting the relevant health messages, followed by booklets and posters. Flip

charts are very rarely used in Palestine. Among the HE messages produced for adolescent health, early marriage was the most highlighted message. The NGOs (UHWC and UPMRC) produced most of the materials on this topic while groups like the Women Center for Legal and Social Counseling, produced materials that focus on early marriage from a women's rights perspective. The national and international (donors) concern of fertility regulation was probably a third contributor to this topic being given priority.

In terms of quantity and quality, among the NGOs, the Women Center for Legal and Social Counseling ranked highest, followed by UHWC. The quality of the materials relates mainly to the contents of the messages in terms of their preciseness and data contemplation.

Except for STDs and purely physical changes, sexuality, a central topic for this age group was not included or emphasized in any of the HE materials on adolescent health. This is in spite of the fact that the literature documents a marked support for education on sexuality among this age group (Tamish 1996). No institution has frankly addressed the many concerns on sexuality for this age group.

On gender integration, it is obvious that, excluding the HE materials produced by CDPHC, the PFPPA, and the UHWC, most materials produced are purely women-centered. The reasons behind this could be many, intentional and/or unintentional. It is important that gender-based HE messages be produced to avoid falling into the trap of viewing and dealing with reproductive health as solely a woman's issue. Teaching men of all ages about reproductive health is a practical way of helping them learn about how to carry their share of the reproductive burden. Most advocates of male involvement see this as a vital step in altering the gender roles in societies.

HE materials and tools for the perinatal period are limited and insufficient. Materials on post-natal care in particular are markedly lacking. This highlights the controversy and unjust social values which health providers, and the society as a whole has about reproduction. Although great worth is granted to women for having many children and bigger families their well being is not given equal priority. Data on maternal mortality rates present a distinct validation to this⁸.

⁸ According to the PCBS data, maternal mortality rates range between 60-140/ 100,000 live infant. The highest of these occur for women between the ages 15-19 and 50-54 years.

Table 2 below provides the details.

Table 2: Health Education Messages for Perinatal Period

Topics Area	Type of material	Target group	Organization that Produced Material
-Antenatal care -Pre-eclampsia -Post-natal care -Psychological changes during pregnancy,	Brochure	Mothers	UNRWA
		Pregnant mothers and public	CDPHC
-Signs of high-risk pregnancies -Factors of high-risk pregnancies	Poster	Pregnant mothers	-UNRWA
-Nutrition during pregnancy	-A poster & a booklet -Flip chart		-UPMRC, UNICEF & MOH. -UNRWA
-Regular antenatal visits as a clinic protocol		Women	-UPMRC
-Consanguineous marriage and pregnancy	Flip chart	Pregnant mothers	UNRWA
-common complaints during pregnancy -Safe motherhood	Booklet	Pregnant mothers	UPMRC
		Mothers	Directorate of health promotion and education

The above table indicates that all messages on the perinatal period are women-centered and client-focused. There is need to develop HE messages for providers as well. This is important given that a considerable number of leading causes of deaths among women and infants are linked to lack of proper infection control practices, poor antenatal care and failure to identify high risk cases including gestational diabetes, eclampsia and

pre-eclampsia⁹. While some HE messages are available for eclampsia and pre-eclampsia, gestational diabetes has been totally neglected. Not a single piece of material dealing with this issue was identified.

Interestingly, CDPHC, was the only institution that went beyond the traditional boundaries in dealing with the issue of reproduction, by addressing its pregnancy-related messages to the public in addition to pregnant mothers. In addition, the focus of the message was mainly psychological rather than factual. This further enhanced the particular material.

Other interesting observations include the great similarity between the materials produced by UNRWA and UPMRC. Surprisingly the MOH has not produced many messages or materials on the perinatal period despite the fact that it is one of the largest sectors that provides MCH and family planning services.

BCC materials about family planning are ample, especially in comparison to other areas. However, the quality of most of the materials is poor. Most of the messages are minimal and do not include information on the disadvantages or side effects of the contraceptive methods covered. This does not allow clients to make informed choices about contraceptive method they should

Tables 3 below clearly shows that within this aspect of care, HE messages were for both providers and clients. UNRWA in particular has produced the best family planning HE materials, followed by the PFPPA, the Women Health and Development Directorate/MOH, and UHWC. The order above may denote the political stance each institution has regarding family planning matters.

⁹ Please go to the material under literature review for the exact values and details.

Table 3: Health Education Messages on Family Planning

Topic Area	Type of Material	Target group	Organization that Produced Material
Health and family planning	Brochure	-Public and staff working in health education	-Palestinian Public health Association
-Family planning methods including; tablets, IUDs, pessaries and condoms. -Family planning for family health	Posters	-Women in reproductive age except for men as per condoms. -Palestinian Public	-Women health and development directorate/MOH (five different ones)
Family planning services	Brochure	-Pregnant women	-UNRWA
Family planning methods including; tablets, IUDs, and condoms.		-Nursing mothers except for men as per use of condoms. -women in reproductive age	-UNRWA -PFPPA
	Booklets	-Pregnant women	-UNRWA
Benefits of family planning	-Brochure -Posters and flip chart	-Mothers	-UNRWA - Women health and development directorate/MOH
	- Calendar component	-Local community	-UHWC
-Volunteer work at the family planning movement. -Training manual in Family planning	-Booklet	-Palestinian Public -Public & staff working in RH	-PFPPA -Center for development in PHC

Table 4: Health Education Messages on Breast Feeding

Area of concern	Form of presentation	Target group	Producing institution
Benefits of breast feeding	Brochure	-Mothers -Pregnant mothers	-Women health and development directorate/MOH -UNRWA -UPMRC
Successful breast feeding	Booklet	-Mothers	-Directorate of health promotion and education/MOH & UNICEF
-Correct positioning & counseling hints	Posters and a flip chart	-Mothers	-Women health and development directorate /MOH (4 different posters) -UNRWA
	Poster	-Adolescent women, fathers, pregnant and nursing mothers	

Breastfeeding is one of the major concerns of almost every institution that is active in the field of reproductive health (governmental, non-governmental or international). The Palestine MOH has invested a substantial effort in producing relevant HE materials on this topic. Materials have been produced by two of the ministry's directorates - the directorate of Health Promotion and Education and the Women Health and Development directorate. Although the quantity of materials produced by the MOH is satisfactory, the contents of the messages produced are not clear. Most of the materials contain long flowing messages with striking logos only.

Except for AIDS, STDs is another area of reproductive health that has received very little attention. Most of the materials identified were basically related to AIDS, (see Table 5 below). Although AIDS is the most dangerous STD, attention needs to be given to other STDs which are just as important since they can cause major diseases and can be fatal as well.

As documented in the literature, STDs are a major cause of Pelvic Inflammatory Diseases (PID) that can lead to infections of the reproductive organs, complications in pregnancy and birth, and infertility. Chlamydia is a STD that can cause major complications for women ¹⁰. Causative agents such as Chlamydia and E.coli can be transmitted to men during intercourse, which can lead to infection and suffering for both husband and wife.

Table 5: Health Education Messages on STDs including AIDS

Topic Area	Type of Material	Target group	Organization that Produced Material
-Protection against AIDS. -Investing in youth for the protection against AIDS - A message to all about AIDS - Control of the new infectious diseases including AIDS	Brochure	Public Local community -Public -Youth Local community	-Center for development in PHC -Directorate of health promotion and education. -MOH & WHO -PFPPA -UNRWA -Directorate of health promotion and education.
-The trainer's manual on STDs	Booklet	Health workers, trainers and youth	Center for Development in PHC
-Control of AIDS	Poster	-Local community -Mothers	-Center for Development in PHC -Directorate of health promotion and education.
AIDS and youth		Youth	PFPPA

¹⁰ For more details on this please see; About Pelvic Inflammatory Diseases (PID), Bureau of STD/AIDS, Virginia Department of Health, 1991.

Table 6: Health Education Messages on Women's Health
Beyond the Scope of Reproduction

Area of concern	Form of presentation	Target group	Producing institution
-Breast Cancer - Women's health beyond reproductive age(2 different ones)	Brochure	Public and staff working in health education, with one brochure targeting nurses.	The Public Health Association
-The concept of reproductive health	Poster	Local community	Women health and development directorate
-Early detection of breast and cervical cancer	Booklet	Women and school girls	UHWC
-The Pap. Smear	Poster	-Pregnant and nursing mothers	
-Breast and cervical cancer	-Calendar component	-Local community	
-Women's health	-Brochure	-Parents and girls	
The Pap. Smear	Brochure	-Public and staff working in health education	UPMRC
	Poster	-Women	
-Breast cancer -Uterine cancer -Ovarian cancer Age of menopause	Brochure	Women	The directorate of health promotion and education
	-A brochure, a poster & a flip chart	-women after 45 years of age	-Women Center for Legal and Social Counseling
	-Brochure	-Middle aged women & public	-Center for development in PHC
	-Calendar component(2)	-Local community	-UHWC
Breast cancer	Poster	-Women at reproductive age	PFPPA

HE material produced and presented in the table above fall into three major categories. These include, breast cancer, cervical cancer and age of menopause. The outlook various groups have about menopause can be determined through the groups they

targeted. Some confined their target group to women within a given age group while others see it as a community concern within a broader context. The growing numbers of cancer cases and the role of women activists and advocates calling for a life cycle approach to women's health has increased visibility about this topic.

The HE messages and materials developed for the above categories are the best in terms of quality. They are all very informative and comprehensive, particularly the ones related to breast and cervical cancer.

Table 7: Health Education Messages on Reproductive Rights

Topic Area	Type of Material	Target group	Organization that Produced Material
Health rights (Two different ones) Childhood rights Women's rights	Brochure	Women All society women	Women Center for Legal and Social Counseling

The Women Center for Legal and Social Counseling has produced unique health messages related to women rights. The messages are geared towards awareness raising and are not specific to reproductive health and rights. However, in spite of this, these materials are central to improving the rights and in turn the health of women.

REPRODUCTIVE HEALTH PRIORITIES FOR HEALTH EDUCATION MESSAGES.

To better serve the long-term goal of providing comprehensive HE materials for both providers and clients, efforts should be made to produce comprehensive packages or sets of materials for each priority area in reproductive health (instead of producing fragmented pieces of work). However, given that the PHP is a pilot project - it does not include a comprehensive IEC strategy or the funding to do this. During this interim phase, however, a limited number of messages will be selected for prompt production under the PHP. Based on the above discussions regarding existing HE materials, the following reproductive health areas should be prioritized for the production of HE materials for the PHP::

1. **INFECTION CONTROL**

Given that health care providers are the major target group for this topic, an infection control manual for training providers to provide quality health care services using proper aseptic techniques with minimum incidences of contamination and infections is essential. Other materials that will be helpful include: an illustrative flip chart for providers; a poster and brochure for clients (with special emphasis on their rights in this matter); and stickers of various sizes to remind providers about the basic hygienic measures they need to adhere to while providing services in the clinic. A banner that is in the front yard of a major hospital or clinic can further enhance relevant concerns regarding infection prevention. However, the messages for the banner have to be carefully designed and the location for the banner needs to be thoroughly assessed.

2. **PERINATAL PERIOD**

Priority areas fall under three broad categories:

Prenatal Care

Given that the number of the pertinent HE messages in this category are limited - the only available booklet deals with nutrition during pregnancy - a lot of materials are needed to cover the various aspects of this topic. Client brochures or booklets that cover early pregnancy and self-care (e.g. bodily changes, workload, rest, sleep, clothing, smoking, personal hygiene, sexual intercourse, and environmental hazards), minor discomforts during pregnancy (e.g. morning sickness, heartburn, constipation, swollen veins, hemorrhoids, vaginal discharge, and backache) and dental care during pregnancy are essential. Fact sheets or flipcharts with similar information for providers can be helpful in training sessions or for quick reference at workstations.

Except for the clinical protocols addressed to providers in the clinic sites, there are almost no messages for clients about the scheduling of antenatal visits, or about high-risk pregnancies. A factsheet for clients outlining the danger signs during pregnancy for clients can be useful. Clinical protocols with on-site training for providers and factsheets and brochures that provide specific schedules for antenatal visits can be a back up tool and quick reference for providers and a more detailed piece of information for users.

In order for women to know when to go to a health facility and for men to appreciate and support a women's needs during this period an informative series of brochures should be developed that outlines all the risk factors during the prenatal period. Each brochure should cover a different risk factor. Special emphasis must be placed on medical conditions such as: anemia, diabetes, high blood pressure and pre-eclampsia.

Natal Care

Despite its importance, HE messages regarding the stages of labor and delivery are non-existent. Preparation for delivery, stages of labor, proper care during delivery, false and true labor, positions for delivery, psychological needs during delivery, pain killers during delivery, complications arising during labor, and specific indications for obstetric procedures and operations, are all important information that need to be provided to both providers and clients. Significant HE messages about obstetric procedures and operations can be included in flipcharts and posters for providers and brochures or booklets for clients

Post Natal Care

Given that only 7-9% of women in Palestine receive postnatal care, HE messages focusing on the postnatal period targeting both men and women and the community is essential for the PHP. The whole society should be made aware of the seriousness of this stage and for women to return to the clinics for check-ups at day 40. Messages should counter the social norm which wrongly perceives the delivery of the baby as the end point of reproduction. To increase postpartum care services, the promotion of home visits as an effective follow-up and preventative measure is essential. Adequate HE materials such as brochures and pamphlets should be produced for use during home and clinic visits. Checklists for providers outlining the elements of care to be provided during home visits are also useful.

3. REPRODUCTIVE MORBIDITY

The silent suffering of women, the fragile knowledge base of STDs among providers, the culturally associated taboos and stigmas, and the serious consequences

of these diseases, indicate the need to prioritize the development of HE materials on STDs for both clients and providers. A flipchart including information on each STD including its clinic management will provide a good guide for providers. Given the high prevalence of PID, a booklet summarizing the causes, classifications, symptoms, risk factors, treatment, complications, and prevention of PID is essential for clients.

4. FAMILY PLANNING

Although there is an abundance of HE materials on family planning in the West Bank and Gaza, there is still a need to provide quality materials that include more comprehensive information about each family planning method, including side effects and potential complications. A series of method specific brochures that include all pertinent information will allow people to make informed choices about the methods they adopt/use.

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Appendix 3

Assessment of Existing Management Information Systems Report

**West Bank/Gaza
PILOT HEALTH PROJECT**

**Management Information System Assessment
FINAL REPORT**

The Health, Development, Information and Policy Institute



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BACKGROUND

High fertility with short birth intervals is one of the major health problems for both women and children in the West Bank and Gaza. While immunization rates are high and infant mortality is relatively low, the effects of early marriage, immediate and frequent childbearing and high total fertility adversely impact maternal and child health, a fact well documented in both the region and the world. The Palestinian Ministry of Health has also found recently that breast and cervical cancer are on the rise among Palestinian women.

The goal of the Pilot Health Project is to improve the health status of Palestinian women and children. To do so, this activity will upgrade the quality of antenatal and postpartum services for mothers and their children in selected areas. The pilot activity's design is based on an innovative strategy with synergistic approaches for reaching the mother and her newborn as a pair (the mother/baby dyad) during the antenatal and postpartum periods, when both are most vulnerable to unfavorable health outcomes.

As a PHP partner, HDIP is to be responsible for the development of a Management Information System for the collection, storage, processing and dissemination of information for health care service providers and the MOH. The development of such a system will allow for a more efficient and accurate assessment of data regarding the health of women, infants, and of other beneficiaries through its capacity to aggregate and desegregate data by target group. The increased awareness and utilization of such data by national, non-governmental and private health care researchers and providers will contribute substantially to the PHP's general goal of upgrading the quality of antenatal and postpartum services in the West Bank and Gaza.

As part of the fourth-month pre-implementation phase of the PHP, HDIP has conducted an assessment of the existing management information systems that the PHP Partner NGOs are currently using. HDIP has also investigated, through field visits and consultations, the development of the MIS within the MOH and the MIS system currently under use by UNRWA. Consultation has also taken place with executive staff of UNFPA in an effort toward cooperation and collaboration with their institution and with the country's leading health service providers and health research organizations.

The following is a comprehensive report on the findings of the assessment, including a statement regarding each institution's MIS needs and potential capacity.

METHODOLOGY

In order to effectively manage and organize the information gathered through the field investigations implemented by HDIP's MIS team, the following procedures were implemented:

I. Overview of Forms

Prior to visiting MOH, UNRWA and partner NGO clinics, the HDIP MIS team obtained copies of all forms utilized by the clinics including client records, daily logs, monthly reports, and maternal and reproductive health charts and reports. The reporting system of each institution was then studied and recorded.

II. Field Visits

Field visits to clinics were scheduled with NGO staff, with the Ministry and with UNRWA prior to the MIS team's arrival so that clinic staff were prepared for our visit and free to consult with us. During the field visit, medical records, forms, reports and filing systems were examined. Extensive discussions were held with clinic staff regarding the utilization of forms and reporting procedures.

III. Review

Immediately following the field visit, each member of the MIS team completed a field visit form. The form was designed to remind investigators of the key indicators we plan to design into the MIS system, and has spaces provided for observations, notes and comments (see attachment A). The details on the forms were then combined into a field report.

IV. Report

After the investigation of each clinic, a comprehensive report was written with the specific details of the information system of that institution.

ASSESSMENT FINDINGS

PALESTINIAN NATIONAL AUTHORITY, MINISTRY OF HEALTH

MOH Women and Child Health Data Recording System Index¹

- A. Pregnancy Care Record
 - 1. Preliminary assessment of pregnancy factors
 - 2. Pregnancy risk assessment/referral form
 - 3. Present pregnancy follow-up
 - 4. Completion of pregnancy
 - 5. Postpartum assessment
- B. Hospital Delivery report
- C. Hospital medical evaluation forms
 - 1. Parity one or more
 - 2. No previous pregnancies
 - 3. Miscarriage/abortion
- D. Infant Health record/growth chart
- E. Family Planning Services record
- F. Home Visit record
- G. Daily Logs
 - 1. Maternal/infant visits (>1 yr. and < 1 yr., with serial logs)
 - 2. Family planning services (and serial log)
 - 3. Pregnancies
 - 4. High risk pregnancies
- H. Monthly Reports
 - 1. Center activities
 - 2. Family planning report
 - 3. Maternal/infant services
 - 4. Vaccination report
 - 5. Vaccination report for refugees/non-Palestinians
 - 6. Contraception inventory

CLIENT RECORDS

Pregnancy Care Record

- Demographic information
- Social information/accommodations
- Medical factors
- History of previous pregnancies

¹ All forms and records listed in data recording system indexes are those that relate to women, infant or reproductive health. The listed forms and records have been titled in indexes as each institution names them.

- Present pregnancy information
- Pregnancy risk assessment
 - social/personal factors
 - medical factors
 - history of previous pregnancies
 - present pregnancy
 - summary
- Family tree-health status
- Preliminary assessment of pregnancy factors (results from risk-assessment)
- Present pregnancy follow-up
 - nurses examination
 - medical examination
- Post delivery
 - mother/infant health status
- Postpartum assessment

Hospital Delivery Report

- Antenatal number/name address
- Previous medical history
- Previous obstetrical history
- Present medical history
- History of present pregnancy
- Prenatal health exam

Infant Health Record

- Personal identification
- Social/personal factors
- Pregnancy/birth data
- Child weight/growth charts
- Immunizations
- Lab tests
- Intercurrent illnesses
- Nutrition
- Development
- Medical examinations
- Follow-up notes

Family Planning Record

- Demographic information
- Reason for family planning
- Family planning period
- History of contraceptive use
- Reproductive history
- Medical history
- General examination

- Lab tests
- Follow-up visit

Hospital Medical Evaluation Forms

- *No Previous pregnancies*
 - demographic information
 - delivery information
 - blood tests
 - family planning questions
 - information on breast feeding
 - general information
- *Parity one or more*
 - Demographic information
 - Previous delivery information
 - Current delivery information
 - Post delivery lab tests
 - Infant feeding data
 - Family planning information
 - Disabled children
- *Miscarriage/abortion*
 - demographic information
 - blood test
 - status/reason for miscarriage or abortion
 - family planning information
 - history of disabilities in family

Comments On Client Records

Filing System

Pregnancy care records, family planning forms, and infant health records are all filed separately with separate indexes and serial numbers. This system leads to the duplication of recorded data.

Records

- One Pregnancy Care record is filled for each pregnancy. The record is kept for one year and then transferred to storage.
- The pregnancy risk assessment form is very well designed and easy to use.
- The infant health record is kept for children 0-3 years of age. There was some data duplication within this form and the Pregnancy care record.
- The same family planning record is used for the duration of the woman's reproductive life. We found data duplication especially in the area of demographics,

reproductive health history and previous deliveries within this record and the pregnancy care record. It was also noted that this record is not updated regularly.

- The MOH clinics keep their maternal and child health and family planning services and records separate. There is no correlation between family planning records and other health records.
- The hospital medical evaluation forms are filled at the hospital and sent to the MOH for data entry. The problem with all three of these forms is that they are not linked in any way to the prenatal care or health records of the women. There is no serial or ID number on the forms to link them with the woman's clinic file.
- We also noted that the MOH does not have a special form for gynecological examinations. Gynecological examinations are recorded on the patient's general clinic record.

Daily and Monthly Reporting System

Daily Logs

Maternal and Infant Daily Report

- No. of cases per day
 - 1st maternal (clinic)visit
 - 1st baby (clinic)visit (under 1 year) (with serial log)
 - vaccinations
 - follow-up visit
 - visits by babies over 1 year (with serial log)

Pregnancy Log

- serial no., name, age, date of registration, address, refugee status
- pregnancy month at first visit
- general health
- blood test (date and result)
- No. of previous pregnancies
- No. of previous abortions or miscarriages
- expected date of delivery
- notes

High Risk Pregnancy Logs (same as above with separate index and serial number)

Family Planning Services

- Serial no., name, age, family file no.
- visit type (first visit, follow-up)
- services: IUD insertion, IUD removal, Pills, condoms
- cytology test, suppository
- counseling, follow-up

- amount paid
- total payments per day

Contraceptive Daily Log

- Daily distribution of contraception
 - contraceptive type
 - quantity
 - unit price
 - total sold of each type
 - total for each day

Monthly Reports

Center Activities

- Last recorded family serial number
- No. of maternal follow-up visits
- No. of high-risk pregnancy referrals
- No. of Dr. visits
- No. of home visits
- No. of first clinic visits, follow-up visits, Dr. investigations
- Total no. of children under normal weight/height
- Prenatal care visits
- Postnatal care visits
- Pregnancy tests
- Immunizations

Maternal and Infant Monthly Report

(Detailed per day)

- No. of infant (under one year) visits (1st visit, follow-up visit)
- No. of child visits (over one year) (1st visit, follow-up)
- No. of maternal visits (not high-risk pregnancies)

Family Planning Services Monthly Report

- Service type and contraceptive distribution per ages <20, 20-30, >30
- No. of services, no. of cases, new cases, return cases per age group
- Total distribution

Monthly Vaccination Report

- Vaccine type
- Number of infants who received their first, second, third and fourth dosages and the percentage out of those infants scheduled for their dosages that came to clinic and received the vaccination.
- Total vaccinations

Comments on Daily and Monthly Reporting System

As is the case with the NGO clinics, MOH monthly reports are designed to count services rendered not patient cases. For this reason, it would be difficult to obtain the PHP indicators, although all the necessary data is gathered and recorded in a consistent and reliable manner. Further, because of the fact that there is no correlation between family planning services and other health services, it would be difficult to draw any analysis relating to family planning and other postnatal care services except by going through client records relating to both services and matching records through patient names.

Currently, the MOH gathers data on a monthly basis from their clinics. Most of this information is entered into a spreadsheet program for data analysis and some indicators are transferred to SPSS for analysis. Antenatal, postnatal and family planning data is gathered through the Hospital Medical Evaluation forms and entered into Microsoft Access software for storage. After aggregation, this data is sent to the Women's Health and Development Directorate (WHDD). Feedback to clinics takes place every six months and sometimes annually.

MOH personnel informed us that the system is also designed to aggregate data from NGO clinics, but few clinics are submitting their data in a timely fashion to the Ministry.

UNDER DEVELOPMENT

According to the Ministry of Health's National Strategic Health Plan (1999-2003), the present health MIS is "inadequate and still lacks standardized operations at both regional and national levels". The Ministry, in cooperation with the World Bank, has recently begun a feasibility study concerning communication links and will soon be piloting its implementation. The next step is to develop a health management information system to be connected to the National Information System linking all Palestinian Ministries. This system is intended to collect, tabulate and store information on demography and health status indicators.

Also under development at the Women's Health and Development Directorate (WHDD), is a national database for women's health. Currently, the only information that

is stored on a computerized database is that which is gathered through the Hospital medical evaluation forms.

UN RELIEF AND WORKS AGENCY (UNRWA)

Women and Child Health Data Recording System Index

- A. Maternal Health Record
 - B. Family Planning Record
 - C. Antenatal and Postnatal Records
 - D. Home visit Record for Pregnant women
 - E. Child Health Record (age 0-3 years)
 - F. Mother and Child Immunization card
 - G. Daily Logs
1. Maternal Health care
 2. Infant and Child Health Care

Client Records

Maternal health record:

- General information
 - Country and clinic name
 - Women's ration card number and record serial number
- Demographic information
 - Obstetric history (including any past pregnancy complications)
 - Subsequent obstetric history
 - General medical history (including ante-natal and family planning)
- Medical care received
 - Medical examination
 - Laboratory tests
 - Diagnosis
 - Management
 - Medications

Antenatal record:

- Pregnancy general information
- Medical examination
- Obstetric examination
- Risk assessment
 - Factors related to past history
 - Factors related to present pregnancy
- Medical officer's appraisal at first visit
- Follow up
- Referral

- Home-visits activities to the women

Post-natal record:

- Summary of pregnancy
- Outcome of pregnancy
- Place of delivery
- Mother's health status after delivery
- Infant's
 - Medical examination
 - Immunization received

Family Planning Record:

- Demographic information
- Previous use of family planning methods
 - Method used
 - When and duration
 - Source of method
 - Reason for discontinuation
- Method selected on first visit
 - Combined pills
 - Mini pills
 - IUD
 - Condoms
 - Pessaries
 - Others
- General medical appraisal
 - Cervical exam
 - PV exam
 - Breast exam
 - HB result
 - Breast feeding
 - Weight
 - BP
 - Date of last menstruation period
- Medical review
- Change or discontinuation of method
 - Method used
 - Duration of use
 - Reasons for change or discontinuation
 - New method selected
- Follow up

Home Visit Record for Pregnant Women

This record includes all the information about the pregnancy that should be presented to the health professional at time of delivery, so it kept with the mother to be presented at place of delivery.

Mother and child immunization card

- Immunization information
- Mother (DPT-TT)
- Child immunizations offered by UNRWA

Child health record (Boys and Girls): Follow up until 3 years of age

- Demographic information
- Information about the delivery
- Mother's pregnancies history
- Immunization information
- Growth chart
- First medical examination
 - Family diseases
 - Main complaint
 - Physical Examination
 - Laboratory investigation
 - Diagnosis
 - Management
- Follow up
- Nurses notes

Daily Logs

Maternal health Care

- Pre-natal care
- Deliveries
- Outcome of pregnancy and delivery
- Post-natal care
- Family planning services

Infant and child health Care

- Number of children
 - Age 0-<1 year
 - Age 1-<2 years
 - Age 2-<3 years
- Immunizations

Comments on Client Records

Filing System

When mothers come to the clinic for antenatal service for the first time, a maternal health record is created (given serial number) and then an antenatal record, which covers the present pregnancy, is attached to it. After delivery, postnatal and family planning records are attached and given a sub-number of the maternal health record serial

number.

A Child health record is opened once the child comes for a well baby clinic check-up or for immunization. Child records are kept separately from mother's records.

Women's health record (ante-natal, post-natal and family planning) are all kept in one file in order to make it easier for follow up, and in order to gauge any interruption in her utilization of services. Home visits are also conducted for these women. Advice is given to women at 8th month of pregnancy to return for post-natal service and for family planning services. These records are standardized and used in all UNRWA clinics within all refugee localities.

Data is recorded manually at the clinic level and integrated into a monthly report that reflects general services offered. This data is then entered into a computerized database at UNRWA headquarters in Jerusalem. District reports as well as regional reports are prepared for managerial purposes and also used for UNRWA's annual report on Palestinian refugees in all countries.

UNION OF PALESTINIAN MEDICAL RELIEF COMMITTEES (UPMRC)

UPMRC Women and Infant Health Data Recording System Index

- A. Family Information Sheet
- B. Maternal Health Card (includes antenatal record)
- C. Prenatal Record, newborn record
- D. Gynecological record
- E. Cytological request form – Pap Smear
- F. First medical check up
- G. Medical records
- H. Child medical record/growth chart
- I. Monthly Reporting System
 - 1. Morbidity Report
 - 2. Monthly Clinic report
 - a. Health services utilization
 - 1) General clinic
 - 2) Women Health
 - 3) Midwifery
 - 4) Child Health
 - 5) Specialized services
 - 6) Others
 - b. Referrals

- c. Catchment Area
- d. Home visits
- e. Community Activities
- f. Financial report
- 3. Disease Report (ICD-10 by age group)
- J. Monthly income/expense form
- K. Antenatal/Postpartum care home visit form
- L. Mobile health clinic form
- M. Diabetes/heart home visit form

Client Records

Child Medical Record (0-3 years, male and female)

- birth history
- first medical check up
- child's feeding
- vaccinations
- lab tests
- child development
- past medical history
- physical examination
- diagnosis and treatment
- growth chart

Gynecological Record

- demographic information
- obstetrical history
- menstrual history
- past medical history
- contraception and family history
- general examination
- physical examination
- pelvic examination
- lab and pap smear results
- list of diagnoses and treatments to date

Prenatal Record

- demographic information
- obstetric information
- history of contraceptive use
- past medical history
- family medical history
- immunizations
- pap smear results
- general examinations
- physical examinations

- pelvic examinations
- fetal information chart
- labor summary
- postnatal examination

Prenatal and Postnatal Care Home Visit Forms

Prenatal check-up

- time, place and duration of visit
- demographic information
- prenatal care counseling
- obstetric history
- condition of pregnancy
- health exam

Postnatal Care

- birth date, place, type of delivery, repercussions associated with delivery
- mother's health exam
- baby's health exam
- health education during visit (breast feeding, family planning, feeding, hygiene)
- other activities during visit
- visit evaluation

Maternal Health Card

- demographic information
- relevant family history (high B/P, twins, hereditary diseases, diabetes, consanguinity)
- health history
- postnatal examination
- complications of labor with relevant family history, maternal immunization history)
- comprehensive chart for pregnancy, labor, delivery and infant health status
- antenatal record (blood tests, physical examinations, high risk assessment, ultrasound findings, previous obstetric history, menstrual history, health exam chart)

Comments on Client Records

Filing System

Client records at UPMRC clinics are filed, coded with serial numbers and indexed by family. The first page of each family file contains a family information sheet, which documents demographic information about the family and their accommodations, and also lists the name of each family member. The medical records of each family member are sub-coded and kept within the family file. When a woman within the family becomes pregnant, her prenatal record is removed from the family file and filed separately by

expected month of delivery. After the delivery of the baby, the record is returned to the family file.

Upon investigation of clinic files, it was found that many client records were left incomplete. Also, as shown in the lists above, there is much duplication in the information recorded (the same information regarding any one client is recorded several times on more than one form). Other specific problems found include:

- The Family Information Sheet was not updated to add changes in family structure or in household accommodations;
- Home Visit forms are filed separately (not with any other maternal records) and are not classified as community education activity;
- Family planning counseling that takes place during home visits is not recorded as a community education activity;
- The Maternal Health card, which is kept by the client to take with her to the hospital during delivery, does not hold sufficient information regarding high-risk pregnancy assessments (as compared to the MOH assessment for example). Additional criteria may need to be added upon agreement and approval by the expert group.

Daily and Monthly Reports

Women and Infant Services Daily Report

- Name of patient, file no., place of residence, age
- Type of visit (gynecologic, antenatal, postpartum, family planning)
- First visit, new case or follow-up
- Diagnosis, treatment
- Lab tests
- IUD insertion/removal
- Pap smear, breast test, ultrasound
- Fees
- Other tests, notes

Monthly Reports

Women and Infant Services

- Service name: (women's health, gynecological, antenatal care, postnatal care, family planning, pap smears, midwifery (antenatal, postnatal, family planning, pap smear)
- Service Provision for Each Clinic
 - Clinic working days (1)
 - No. of first visits (2)
 - No. of new cases (3)
 - No. of follow-up visits (4)
 - Total no. of services (3+4)
 - Average of services per day (3+4/1)

▪ Total services for UPMRC Clinics:

- working days
- first visits
- new cases
- follow-up visits
- total all services
- average of daily services

▪ Home Visits

- No. of urgent visits
- No. of follow-up visits
- No. of health education visits
- Total of all visits
- Total of all beneficiaries

Comments on Daily and Monthly Reporting System

Note that while family planning services are counted daily and monthly, there is no special family planning form which can report information on individual clients with their history of contraceptive use, counseling they have received, contraception distribution, their reproductive health history etc.

While the daily report does record the patients' names and the antenatal and postpartum services provided to them, the monthly reports are service based, not client based. In fact, there is no one comprehensive record of the history of services provided to any individual client.

Indicators

UPMRC does record all of the data needed to obtain the indicators required for the PHP, however a system must be devised in order to facilitate this process. The computerization of the clinics would allow the easy retrieval of such information. As of now, the number of women who return to the clinic to receive postpartum care out of those who received antenatal care can only be determined by searching through individual client records. Clearly, without this initial indicator, the two additional indicators required by the PHP would be very difficult to attain.

In addition, we found it important to note that UPMRC cannot easily count the total number of women under their care who are pregnant within any determined period of time. They do record the number of pregnant women who make their initial visit to the clinic, and their expected delivery date but this cannot account for the nine-month

gestation period. According to interviews with UPMRC health workers, there is a discrepancy in the classification of postnatal care visits, family planning visits, and visits not related to pregnancy. This has led to inaccurate monthly reporting of services provided.

UPMRC collects a very large amount of data regarding their services, however only part of this data is entered into a computerized database at UPMRC headquarters. The information that is computerized is primarily used for managerial purposes. Health workers at UPMRC stated that a computerized system at the clinic level would greatly assist in the collection, aggregation and monitoring of data. Monthly reports are currently filled by hand by health workers and can take up to 2 working days time to complete (health workers report having to take the work home to complete it on time).

The MIS team met with Dr. Khadija Jarar, UPMRC women's health manager. She informed us that UPMRC would be utilizing a new morbidity sheet designed especially for maternal and post-reproductive age morbidity. They will also be using a new family planning form that has been designed in collaboration with the Ministry of Health. The form is currently being printed and as of yet, we have not had the opportunity to see it.

Data Flow and Feedback

Data at the clinic level is collected manually, aggregated within monthly reports and sent to UPMRC headquarters. Data is then entered into computerized databases and selected indicators are returned to clinic staff. This information is primarily used for managerial purposes. Every three months, every six months, and once annually, UPMRC compiles a management report and a performance "grade" for all its clinics.

PATIENT FRIEND'S SOCIETY (PFS)

PFS Women and Infant Health Data Recording System Index

- A. Present pregnancy card
- B. General clinic form (used for gynecological visits)
- C. Postnatal Records
 - 1. Infant health record
 - 2. Maternal & Child health record
 - 3. Obstetric history record
 - 4. Nine-Month Development chart

- D. Child health record (well-baby clinic)
- E. Family planning/Reproductive health chart
- F. Birth control cards
- G. Daily logs
 - 1. Patient care record of symptoms and treatment
 - 2. Family Planning Log
 - 3. Daily maternal, infant and reproductive health services
 - 4. Health Worker Activity report
- H. Monthly reports
 - 1. Maternity and Child Health Program
 - 2. Family Planning Report
 - a. Inventory
 - b. Cases (new cases, follow-up, return cases)
 - c. Family planning services (IUD insertion/removal, counseling)
 - 3. Disease report
 - 4. Health worker activities
 - 5. Transportation report

Client Records

Present pregnancy card

- Demographic information
- Physical examination information
- Vaccination information
- Present pregnancy information (each clinic visit per pregnancy)

General Clinic Form

- Name of patient, age, gender, social status, date, notes
- List of follow-up notes (date, previous visits, diagnoses, treatment, signature of attending physician/nurse)

Postnatal Records

- Infant health record
 - Name, gestation, type of delivery, birth weight, place, apgar.
 - Physical exam during home visit
 - Follow-up visits
 - Consultation/treatment card
- Maternal and Child Health record
 - Demographic information
 - Accommodation information
 - Maternal health exam (postpartum)
 - Follow-up
- Obstetric History

- Maternal blood type and immunization history
- Complication of pregnancy
- Birth history
- Nine- month development assessment
 - Child growth
 - Development (large motor skills, fine motor skills)
 - Vision
 - Hearing
 - Social
 - Physical exam
 - Questions for parent
 - Actions taken

Child Health Record (well-baby clinic)

- Child health and feeding
- Vaccination history
- Growth chart

Family Planning/Reproductive Health Chart

- Demographic information
- Reason for using contraceptives
- Reproductive health history
- Menstrual history
- Previous contraceptive Use
- Medical history
- General health examination
- Follow-up sheet

Birth Control Cards

- Pills
- Condoms
- IUDs
- Each with visit chart and instructions for use

Comments on Client Records

Filing System

When mothers come to the clinic with their children for postpartum care, a child-based file is created. The file contains all the postnatal care forms listed above. The files are coded with serial numbers and indexed. If the mother does not come to the clinic for postpartum care soon after she delivers, CHWs conduct a home visit, fill out the postnatal care forms and file them at the clinic. The Family Planning/Reproductive Health Chart is

filed separately from the postnatal care forms and the Present Pregnancy card is kept with the woman to take with her to the hospital upon delivery.

Records

- The General clinic form is used when women who are not pregnant come to the clinic for gynecological care, and/or when a child with no medical file at the clinic comes for medical care. This form is kept with the patient (it is not filed at the clinic). The data recorded on this form is lacking and provides no space for recording any type of medical history of the patient.
- There is no form specifically designed for gynecological care.
- We found the postnatal records to be very well designed and to hold comprehensive information regarding the health and development of both the mother and the infant.
- The Child Health record is used during well-baby clinic visits.
- We found the Family Planning/Reproductive health chart (which was designed in collaboration with various institutions) to be well designed and to hold comprehensive information regarding the client's reproductive health. The form is designed to cover health care for the entire span of the woman's reproductive age, although we found that they are not updated consistently.

Daily and Monthly Reporting System

Daily Logs

Patient Care Record of Symptoms and Treatment

(Used for general clinic and for maternal and infant health)

- Divided by day
- Serial no., name, age, address
- Previous medical history
- Diagnosis
- Treatment
- Signature of attending nurse/physician

Family Planning Daily Log

- Name, date
- Contraceptive type
- Family planning service (new case or follow-up)

Health Worker Activities

- CHW name
- Activity date, region, place, subject, time
- No. of beneficiaries

- Questions for CHW, (Problems in preparing for activity, Audio/Visual materials used)

Clinic Services Daily Log

- Prenatal care visits
- High risk pregnancy cases
- New born babies
- Lectures
- Accidents
- Referrals
- Health worker activities
- At-risk children
- First pediatric visits
- Well-baby clinic visits
- Family planning visits
- Home visits
- Blood pressure tested

Monthly Reports

Maternal and Child Health Program

Contains the total number of visits for:

- Pregnant women
- At-risk pregnancies
- New births
- Home visits
- Family Planning
- Well-baby clinic
- Pediatric cases
- At-risk children
- Lectures/attendance
- Monthly training
- No. of referrals
- No. of accidents
- Notes
- totals

Family Planning Service Report

- Quantity and type of birth control distributed per month (inventory including income, outcome, balance and clinic revenue)
- Family Planning beneficiaries report (contraceptive method, follow-up visits, new cases, and return cases)
- Family planning services (no. of services, no. of beneficiaries)

Monthly Disease Report

- Includes: Measles, diarrhea, malnutrition, respiratory illnesses, meningitis, ulcers, skin diseases, gynecological health, first aid, heart disease, dehydration.
- Divided by number of cases with age groups 0-5, 6-15 and 15 and up.

Monthly Health Worker Activity Report

- Month and year
- CHW name
- List of activities (date, site name, visit aim, no. of beneficiaries, notes)

Comments on Daily and Monthly Reporting System

The Patient Care Record of Treatment and Symptoms is used to register information from all clients including pregnant women and those seeking postnatal care (except family planning, which has a separate log). During antenatal care visits, the pregnancy month, blood pressure, blood test results, height of the fundus, weight and fetal status are all registered in the diagnosis section of the Patient Care record.

Due to the lack of unification of client records, we found some data duplication. Demographic information for example, was recorded in several different forms.

Indicators

PFS clinics do record information regarding prenatal and postpartum care, including family planning, however, daily and monthly reports are service based, not patient based. It is therefore very difficult to track the services provided to anyone client, as is the problem with the UPMRC information system. The data necessary for the indicators required by the PHP is gathered by PFS clinics as evidenced by the above description of their recording system. The process of obtaining these indicators, however, would be very time consuming and would require the manual retrieval of client information from several sources.

Data Flow and Feedback

Every month, PFS clinics fill out and send the above listed Maternity and Child Health monthly report. PFS headquarters then tabulate the data gathered from all their clinics and record them all on one Maternity and Child Health report, showing the results of each clinic. The results are sent back to all clinics once monthly. PFS staff informed us, however, that this is not done as regularly as it should, and that the clinic staff is not given any type of analysis of the data, just the figures for all PFS clinics.

Consultation with
UNITED NATIONS FUND FOR POPULATION ACTIVITIES (UNFPA)

HDIP staff met with Dr. Mohammed Abdel Ahad and Ms. Leila Bakr of UNFPA on October 5th to brief them about the PHP project and to consult with them specifically about the MIS segment of the project.

We informed them of the assessment we were conducting and told them that we will be working on the development of a new standardized health information system with which we would need their input and cooperation. HDIP intends to invite UNFPA to take part in the expert group meeting, which is to be held prior to the final design of the new system.

We were also briefed on the projects UNFPA is currently implementing. They informed us that they are developing, in cooperation with the MOH, a database, which would store information about all the major reproductive health projects being conducted in the country.

UNFPA has also recently begun to discuss the development of a MIS with the World Bank, and are also establishing a Forum of health care providers and health research organizations, in an effort to promote linkages and reduce overlap between NGO and governmental service provision. In mid October, UNFPA will have completed the publication of Protocols and Guidelines for Women's Health, which they developed with the MOH and UPMRC.

Clearly, HDIP and PHP partners should remain in close contact with UNFPA if indeed they are to develop a MIS. Further, CDPHC may benefit from investigating the Protocols and Guidelines to make sure that they do not duplicate efforts in the Standards of Care training manual that they are to develop as part of the PHP.

SUMMARY of FINDINGS

PHP partners are collecting large amounts of data through the information systems currently in place, especially in the areas of maternal, child and reproductive health. However, much could be done to improve the accuracy and efficiency of data collection and reporting through the development of a well structured and well managed computerized health information system.

Areas of Weakness

The following summary reflects the major areas within PHP partner's health information systems that could be improved with the development of a new MIS system.

1) Data Aggregation and Analysis

Due to the lack of computerized databases at the clinic level, the aggregation of data for monthly reports is extremely time consuming and leaves great possibilities for error, (health workers report spending two to three days working- time on monthly reports). In addition, the manual retrieval of information from client records only allows for the aggregation of a limited amount of variables. Due to the inefficiencies of a manual information system, much of the valuable information gathered at the clinic level is not aggregated for analysis.

2) Indicators and Trend Analysis

The information systems currently in use allow for the retrieval of only a very limited number of indicators. Indicators of outcome variables are usually analyzed for managerial purposes or for particular time-limited studies. Due to this lack of indicators, the potential for trend analyses is limited.

3) Data Flow

The PHP clinics are in need of improvement in data flow procedures. A system must be implemented that structures and standardizes the flow of data beginning from the client's visit to the clinic and ending ultimately with trend analysis.

4) Reporting and Monitoring

PHP partner institutions collect large amounts of pertinent and potentially useful data, however monthly and annual reports reflect only a small portion of that data. The analysis or monitoring of any one segment of the population is not easily conducted due to the way the data is organized within the presently used reporting systems.

5) Data Duplication

One of the major problems found within the clinic client records is the fact that the same information regarding any individual client is recorded more than one time in sometimes, several different records. This is especially true in the recording of demographic information.

6) Missing Data

Although not frequently found, some spaces on client records were left empty, especially in the areas of socio-economics or demographics. This may be due to the fact that the same information had been recorded on another record and CHWs did not wish to repeat the information.

7) Classification, Case Definitions and Training

It has become clear through the conduct of the pre-assessment that there is a discrepancy in the classification of postnatal care services. In specific cases, monthly reports do not accurately reflect the number of postnatal care services rendered because 1) home visits during which women receive postnatal care are classified separately from the total of postnatal services and 2) family planning services are not classified as a postnatal service and 3) the case definition of postnatal care is not clear among health workers (i.e. the time period after delivery during which the visit should be classified as postnatal). Further, not all institutions have or utilize a manual for the use of their information systems, and health workers in some clinics have reported that they do not receive training beside the initial instructions given for the use of forms.

8) Feedback

The information systems currently in place are not very well structured and most institutions are not monitored well. Feedback from the institutional centers back to service providers is minimal and used mostly for managerial purposes rather than for the tracking of indicators relating to the health status of women and infants.

9) Standardization

The NGO and MOH information systems gather much of the same information at the clinic level, however client records and forms as well as aggregation and analysis procedures differ greatly among the various service providers.

10) Filing Systems

There is no standard filing system among PHP partners and not all of the clinics assessed keep all the records pertaining to women's health together in one file. The volume of records and files kept by clinics is substantial and is in need of reorganization so that information is readily retrievable for purposes of research, planning and monitoring.

11) Updating

There were several forms found within all the partner clinics with information that had not been updated, especially in the area of demographics. For example, once a family based file is created, the information regarding the head of household that was collected during the initial visit is not updated to add possible changes in occupation. Also, because the age of the client is not recorded as a date in some clinics, it is difficult to keep track of the age of the client without constant updating of the recorded age.

12) Community Data

All of the clinics that were assessed lacked recorded socio-economic and demographic information about the communities that they serve.

13) Lack of a Holistic MIS view

The overarching issue confronting PHP partner institutions is the lack of a holistic view of the structure, design and potential use of a health information system. The data

collected at the clinic level cannot be utilized to its full potential if there is no structured system with protocols and procedures for data flow, aggregation, analysis and feedback. For efficient, accurate and beneficial use of such a system all involved personnel must be trained in the overall structure of the MIS and be aware of its potential uses.

GENERAL GUIDELINES for the PROPOSED MIS UPGRADE

The most efficient way to solve the inefficiencies and inaccuracies of the existing information systems is through the development of a unified, standardized MIS. The scope of the proposed MIS will cover data gathered at the clinic level pertaining to antenatal, postnatal, gynecological and reproductive health, including family planning. To gain immediate and significant change in the efficiency of existing systems and in order to accurately monitor the indicators relating to the PHP, a computerized system must be developed and data should be filled at the clinic level. The data will then be electronically or physically (via diskettes) sent to each NGO center, and to HDIP, which will serve as the main database center. HDIP will monitor the data, retrieve and analyze specified indicators, and provide trend analysis and feedback.²

Strengths and Potential Capacities

It was found as a result of the MIS assessment that PHP partner clinics do have the potential to effectively manage a computerized MIS. The following reflects some of the major points of strength found as a result of the assessment.

? ***Maternal and Child Health as a Priority***

PHP partner NGOs and the Ministry of Health have clearly placed the issue of maternal and child health as a priority both within their service provision and in the retrieval of data relating to antenatal, postnatal and reproductive health.

? ***Comprehensive Data Collection***

The health records within the PHP partner clinics all include information that can lead to the retrieval of the indicators required for the PHP project, as well as other important health indicators.

² The proposed system is to be designed by HDIP in collaboration with PHP partners and with the assistance of consultants specialized in the design, programming and installation of health information systems.

- ? ***Presence of Required Infrastructure***
The infrastructure of most PHP partner clinics will allow for the installation of a computerized information system (i.e. they are equipped with telephone and electricity services). The few clinics that lack these services can be easily upgraded.

- ? ***Personnel***
The personnel with whom the MIS team met were extremely cooperative and informative and clearly have the potential and capacity to efficiently run an upgraded information system.

- ? ***Experience in Development of Forms***
PHP partners do have experience in working on the development of forms through previous projects conducted in cooperation with their centers and various funding agencies.

- ? ***Enthusiasm toward Improvement and Development of Existing Systems***
The administrations of PHP partner institutions as well as service provision staff have expressed their enthusiasm and need for an improved MIS among their clinics, and especially towards a unified computerized MIS.

Objectives of the Proposed MIS

The following are the objectives of the proposed health information system:

- 1) To provide a sustainable upgrade to existing information systems.
- 2) To serve as a model which can be adopted and developed to serve as a national information system in the future.
- 3) To unify and standardize client records and forms among PHP partner clinics.
- 4) To assure the proper recording and storage of data at the clinic level.
- 5) To provide easy accessibility to data.
- 6) To improve validity of data for planning, research and human resource development.
- 7) To measure those indicators necessary for the PHP as well as other service indicators, which would assist in the monitoring of the health status of women and infants in the communities served.
- 8) For management purposes at
 - a) the clinic level (for self- monitoring of service provision and health status of the communities served);

- b) the NGO administrative level; (to monitor service provision and health status of communities served)
- c) the MIS database center (for overall management of the system, for trend analysis and feedback).

Expected Outcomes

The newly developed MIS will result in the following improvements in the existing information systems among PHP partners:

1) Sustainability

The proposed MIS will allow for a sustainable upgrade in the existing information systems. Rather than burdening clinic health workers with more forms to be filled, the new system will standardize, unify and computerize records and forms. Furthermore, the system will be designed such that scale-up will be easily implemented.

2) Increase in Trend Analysis and Monitoring

The computerized MIS will increase the accuracy of data collection as well as the amounts of data stored. The functions of the computerized system will allow for the retrieval of this data by target population and by other indicators, which will increase analysis and monitoring of service provision and the health status of women and infants. Trend analysis of designated indicators will be continuously conducted by HDIP, as it will function as the main database center.

3) Increase in Accuracy

A computerized system will improve the overall accuracy of data collection. Manuals are to be developed for Fields entry and procedures. Health workers and NGO administrative staff are to be given manuals and are to receive training as well as on-going supervision. These measures will significantly reduce the inaccuracies found within the present systems by clarifying case definitions and classifications and by unifying and solidifying procedures.

4) Retrieval of Specified Indicators

The system will be based on client records rather than service provision and will therefore lead to the easy retrieval of those indicators required for the PHP as well as other important health status indicators to be agreed upon by the Expert Group. Computerizing the system will allow for the automatic retrieval of these indicators.

5) Reduction of Costs

The printing of paper forms and records is extremely costly. The proposed MIS will greatly reduce the amount of forms and records to be printed as client records will be unified and computerized.

6) Elimination of Filing Problems

The computerized system will reduce the amount of space needed for filing of records and forms and will assure that all information regarding any one patient is stored in one place.

7) Elimination of Data Duplication

The computerized records will be designed such that data will not be entered into more than one field. This will also lead to a decrease in the amount of missing data.

8) Decrease in Time and Effort

The manual procedures for retrieval and transfer of data from client records to daily and monthly reports will be eliminated, greatly reducing the amount of time and effort required by health workers on reporting.

9) Recording of Community Data

The system will be designed to store demographic data, socio-economic indicators, and health status indicators of the surrounding communities which will allow the clinics to target particular health issues and enhance overall service provision.