

NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM
for
MOTHER AND CHILD HEALTH CARE AND FAMILY PLANNING
AT THE FIRST LEVEL CARE FACILITIES
PAKISTAN CHILD SURVIVAL PROJECT

FINAL CONSULTANT SERVICE REPORT
to
THE HARVARD INSTITUTE FOR INTERNATIONAL DEVELOPMENT
from
THE AGA KHAN UNIVERSITY TEAM

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October 1992

Table of Content

	Pg #
I. Contract Issues	01
II. Plot MCH-MIS in the Government Health System, Thatta District, Sindh	03
III. Design Issues of The National MCH/FP HMIS	05
IV. Field Testing of Instruments	12
V. Development of HMIS Training Curriculum	13
VI. Future Adjustment of HMIS	14

Appendix

- I. Instruments and Instruction Manual
- II. Session Guides and Material for Training

I. CONTRACT ISSUES

This is a consultancy report of the MIS team of the Aga Khan University, Department of Community Health Sciences, to the Harvard Institute for International Development, the contracting agency, for the Pakistan-Child Survival Project carried out by the Federal Basic Health Services Cell, with USAID support.

Consultancy services were provided for the mother and child health and family planning part of the National Health Management Information System (HMIS) of the Pakistan Child Survival Project (P-CSP).

Summary description of tasks to be undertaken:

1. Design of Maternal and Child Health (MCH) data collection instruments for the H-MIS for First Level Care Facilities (FLCF).
2. Participation in field testing of these instruments.
3. Participation in the development of a 4 days training curriculum for HMIS/FLCF.

Specific description of tasks to be undertaken:

1. Design of MCH data collection instruments, including

To design following instruments (draft and final) including the development of related standard definitions

Patient/client management

- Mother and Child Health card and related follow-up system

Facility recording

- Child Health Register
- Mother Health Register
- Family Planning Register
- Birth Register
- Linkage with Vaccination Registers

District recording

- Supervisory Checklist related to MCH

Reporting : related to MCH activities

- Monthly report
- Yearly report

2. Participation in field testing

To assist the PCSP/HIS in the field testing specifically of MCH related data collection instruments. This involves:

- training of personnel of participating centers
- monitoring of data collection activities during the field testing phase

3. Development of HMIS/FLCF training curriculum

To assist the PCSP/HIS team in the development of a four day training curriculum, more specifically focusing on the following:

- introductory session on patient and facility management
- training in the use of MCH data collection instruments

Realizing the importance of the development of a new national Health Information System, and the capacity of the HMIS team to do so successfully, the Aga Khan University agreed that the HMIS can make full use of all designs and experiences that have emerged out of the MCH-MIS component of the Thatta Health Systems Research Project, funded by the International Development Research Center, Canada.

Completion of assignments

The contract period was from February 15 to June 30, 1992, for a total of 34 working days for Dr. Vincent de Wit and 53 working days for Ms. Khatidja Husein. Because of the workload and time constraint, the HMIS unit decided to use the services of two additional AKU staff. Dr. Noor-amin Noorani and Ms. Seema Sharif, on daily basis, in addition to these consultant services.

The AKU Team visited all provinces except for NWFP, as agreed with the HMIS Team, and followed up on the various MCH instruments.

The initial 87 days of work are inadequate to complete all assignments including the training component, because certain assignments were added during the development of the instruments, e.g. instructions for the various instruments. However, the consultants agreed to extend the term of employment to August 31, 1992 without changing the scope of work or the number of days in the contract considering the financial constraints of the Pakistan Child Survival Project.

The consultants have now completed all the tasks listed above.

II. PILOT MCH-MIS IN THE GOVERNMENT HEALTH SYSTEM, THATTA DISTRICT, SINDH

Pilot efforts in developing the MCH-MIS in Thatta District, Sindh are summarized below.

The Aga Khan University is a private university at Karachi, operating on no-profit basis. The Department of Community Health Sciences has been active in rural health systems development in Thatta District since 1985. In this district, the university has been collaborating with the Department of Health, Sindh, through the Thatta District Health Systems Research Project, funded by the International Development Research Center, Canada. Its overall purpose is to identify replicable ways of developing the Government health services towards PHC, with a focus on District Health Systems Development. This project includes a component for improving the management information system for mother and child care at Village, Services and District levels, with the following objectives:

- (i) Develop MIS instruments for MCH services, including MCH card, mother and child registers, MCH reporting formats.
- (ii) Develop a village based monitoring system for TBAs and Village Health Volunteers.
- (iii) Train MIS staff, medical officers in charge, female health staff and village health workers in the collection, aggregation and use of information.
- (iv) Improve the information-flow and feedback, including computerization of MIS at district level.

For (i), the AKU-MIS team developed and field tested a combined mother and child health card with child and maternal health registers, for use by Government graduate staff (WMO, LHV, and FHT).

For (ii), a pictorial card was developed and field tested to be used by illiterate TBAs. Under the Village Health Volunteer Program with BHSC Islamabad and WHO, a village based monitoring system was developed which is being field tested at present.

For (iii), several training modules were developed and implemented. The experiences showed that the MIS has to be kept simple, because of the problems that some health staff have with complex two-dimensional formats and mathematics such as ratios.

For (iv) reporting and aggregation of monthly reports could be substantially improved through supervision. Computerization is also not a major problem at District Health Office, given that competent

staff can be attracted against Government salary rates. The major challenges with improving MIS remain two-fold: how to improve the reporting and reliability of data, and how to improve the local use of information, including for patient management and planning health care for the catchment area.

III. DESIGN ISSUES OF THE NATIONAL MCH/FP HMIS

Objectives of the MCH/FP MIS

The HMIS and AKU teams agreed on the following objectives for the MCH/FP MIS:

- (1) to identify and monitor high risk pregnancies;
- (2) to aid the health worker in assessing the need for special care and referral;
- (3) to provide health education for the mother herself and help her monitor her own pregnancy; and
- (4) to establish better communication between the mother, TBA, health facility and the referral hospital.

Simplicity, Integration, Local use

The existing Government MCH-MIS system is very elaborate and consists of several registers and reports which are in formats that do not facilitate its use by the health providers. In addition, there is a considerable amount of duplication in recording of information in different formats.

In May 1991, a national workshop on the health information systems was conducted. During the workshop, federal and provincial health officials reviewed how to transform the existing routine reporting system for government managed First Level Care Facilities into a comprehensive and integrated Health Information System. The need for developing a comprehensive, integrated HMIS was taken as an additional condition to the AKU assignment.

From June 1991 to January 1992, a series of provincial and a national workshops were conducted to agree by consensus on the indicators, the data collection instruments and the flow of information. While the consensus building process was highly appreciated, participation of actual (female) service providers and professionals in management information systems was limited. The recommendations of these workshops were strictly followed because of overall concern for disruption of the consensus building process. There was limited flexibility to select the indicators according to certain expectations of feasibility.

One major problem that had been identified during the assessment of the existing MIS was that there were no records maintained that could help the service provider identify high risk clients, provide proper care and follow-up the high-risk. The focus of the system is on aggregation of information which meets only the needs of the

vertical programs. It was decided that in the new system the focus would be on patient care, management of first level care facilities and other information needs of the service providers and the clients themselves. The AKU Team has tried to support the importance of local use of HMIS within the present design, and hopes that this subject will be given substantial attention during the training for HMIS and other training.

Patient Flow

At present, in most centers, the focus is on curative care. There is a physical division between Preventive and curative care areas; preventive care being associated with maternal and child care, and under utilized. Child care closely associated with maternal preventive care thereby largely inaccessible to men. The other division of curative care is for all men, women and children. This reality prevails because of lack of interest in preventive care, poor patient flow, and only the male medical officer to provide curative care. In order to improve utilization of preventive services it is important to change the patient flow. AKU has proposed to use the HMIS to alter the patient flow and improve coverage of MCH services.

Central registration: an administrative requirement now sends all clients who come for curative care straight to the medical officer for curative care. It is recommended that to increase the utilization of MCH services, all patients who come for any service to the health center for any reason (except emergency care) must first be registered, and all those eligible clients (women and children) referred to preventive care before curative care, if it is not an emergency.

The 'preventive room' (at present used for ANC, ORS distribution, Growth Monitoring, Nutrition) could be converted into a Child Health room for all preventive services related to child care, including EPI, nutrition and ORT services and excluding ANC. This could contribute to an increase in utilization of growth monitoring and ORT services (every child could be weighed and given nutritional advice and ORT if necessary before immunization) and the room would be more accessible to men.

The EPI room could then be converted into a separate Antenatal/ Postnatal care and Family Planning room strictly for women. Privacy for women is a social condition if maternal care is to be increased. Family planning for females can be combined with ANC and the MO can continue to provide family planning counselling with curative care for males.

Indicators

The indicators recommended by the provincial and federal HMIS

workshop participants were reviewed to identify the source of the data. It was decided that most of the indicators could be generated. However, some had to be modified and a few were removed from the list.

Design of Instruments

The instruments that were designed are:

Patient/client management:

- o Mother and Child Health Card with family planning section
- o Family Planning Card

Facility recording:

- o Child Health Register
- o Mother Health Register
- o Family Planning Register
- o Birth Register

District recording:

- o Supervisory Checklists:
 - Ante-natal care
 - Labour and delivery
 - Post-natal care
 - Neo-natal care
 - Family planning

Reporting : data related to preventive MCH activities

- o Monthly Report : MCH and FP sections except for EPI

Instruction sheets :

These were also developed for each of the instruments to facilitate the use of the instruments by the service providers.

All the instruments and the instruction sheets have been attached to this report.

The designing of the instruments was done in a very short period of time (only three months) and thus it was not possible to involve some users in the process of designing.

The EPI recording instruments were not modified according to the wishes of the Federal/WHO EPI team. However, similar information was included in the new MCH Card, registers and reports, with the understanding that if these new instruments produce satisfactory EPI data, the old EPI system can be discontinued. So this implies

a temporary duplication of EPI monitoring work.

For the development of the family planning instruments, the design of the Population Welfare Department was followed, keeping in mind that simplicity was a strict requirement for the service which has not been introduced in many FLCFs.

Patient/client management instruments

Mother and Child Health Card:

At present no patient record exists except in some health facilities where the world food programme (WFP) is being implemented, a growth chart for <5 children is being used.

In the national workshop it had been decided that a family card would be developed but when designing the card it was felt that a family card would not be practical and thus it was replaced by a mother and child card with a family planning section for reasons of simplicity and cost-effectiveness. The MCH card will be given to women who get pregnant or have an <3 child. A separate family planning card was designed for those couples who do not have an <3 child.

The MCH card is conceptually innovative: it combines mother and child on one card, allowing for their combined monitoring from the onset of the pregnancy until the child is three years of age. It is focussed on at risk identification and action to be taken in terms of referral or follow-up. The card also looks attractive.

This card will be maintained by the health worker but kept by the mother at home. The information on the card is to help the health workers closely monitor the health of the pregnant woman and child, to identify high risk cases, and for recording family planning services. In addition the card is to be used by the mother to monitor the progress of her pregnancy and the child. An attempt has been made to make the card pictorial so that it can serve the purpose of establishing a communication between the mother, the TBA, the health facility and the referral hospital.

The design of the MCH card was problematic in that it had to combine both mother and child data on one card, to serve many purposes, and yet remain simple.

The initial MCH Card included pictures of most risk factors for women which could be ticked even by an illiterate TBA and used for educating the mothers, most of whom are illiterate. However, some of the pictures were considered too sensitive, in particular those of the fetus and of the woman bleeding, as this card would be retained at home. Alternative pictures were considered to be too abstract hence losing their educative value. It was agreed to

retain only the less sensitive pictures. This effects objectives (3) and (4) of the MCH-MIS.

Family Planning Card

The new health policy says that all health facilities should provide family planning (FP) services. The Family Welfare Programme has developed a family planning register and a card for use at health facilities to monitor utilization of FP services and follow-up family planning users. These instruments, however, are not being used in most health facilities. This card will be given to all FP clients except women who have had a child in the last three years (FP services given to the women who have had a child in the last three years will be recorded on the MCH card).

Facility Recording Instruments

Mother and Child Registers:

At present three registers are being maintained to record MCH information. The recording is done on the basis of visits rather than individual cases which does not facilitate follow-up of the patients and results in duplication of data. The new formats contain minimal information and try to address these weaknesses.

Two registers have been developed, one for women during pre and postnatal periods and the other for under 3 children. These registers are centre based counterparts of the Mother and Child Health Card and will also be maintained by the health worker.

The main purpose of these registers is to record information of women and children in a format that facilitates the use of information by the health worker during subsequent contacts with the child or the women to provide proper health care. The registers also help the health workers identify defaulters which can then be followed-up especially if they are high-risk.

For the mother health register, it was decided to register women according expected date of delivery, rather than date of registration. This allows the health worker to identify clusters of women at a particular stage of pregnancy, for easy follow up.

The child health register was based on a system introduced to the village health volunteers in Thatta District, allowing for follow up of children over a 3 year period.

Family Planning Register:

An FP register will be maintained at each of the health facilities that provide FP services to record the utilization of FP services. At present, there will be no follow-up of defaulters of family

planning users. Thus the register will only be used for aggregation purposes. The register format developed by the Family Welfare Programme will be used with a few minor modifications.

Birth Register:

The concept of catchment area does not exist in the health facilities except for EPI services. During the workshops, it was decided that all health facilities should have defined catchment areas and should monitor the health of the population in the catchment area. To do this, birth registration is very crucial. Thus a birth register was developed to monitor population growth in the catchment area and to identify newborns for preventive follow-up. Births could be reported by the mother, any other relative, the TBA or the village headman.

The birth register duplicates some of the information in the mother health register. The birth register is now seen as a more administrative instrument - though not legal - to monitor births in the catchment area, while the mother health register is more service oriented.

District recording:

Supervisory Checklist (specifically related to preventive MCH activities):

To improve the quality of services, it is important that proper supervision is given to the facility staff by the district supervisors. The purpose of the supervisory checklist is to assist the supervisors in assessing the quality of case management and resource management in first level care facilities. It can also serve as a tool for continuing education of the staff in FLCFs.

At present, the quality of MCH services in many facilities need to be improved and staff need training. The MCH part of the supervisory tool could be useful in improving the quality of MCH services. It is a first step towards development of an MCH protocol, which has been developed in draft but will require a sequence of consultations and revisions before it can be made available.

Reporting : data related to preventive MCH activities

Monthly Report:

At present each facility is required to send in separate reports for the various vertical programmes which leads to a considerable amount of duplication and is time consuming for the service providers. An integrated monthly report format has now been

developed with the most essential indicators. The last page of the report is for MCH.

The number of MCH indicators being reported have been decreased. Only the most useful indicators for the facility and district levels will be reported. The format of the report will facilitate the use of the information.

The information from this report will be entered into the computer at division/provincial level and feedback reports will be sent to the district and facility levels.

IV. Field Testing of Instruments

The instruments were field tested for a very short time (only one month). Thus some portions of the instruments have not been properly field tested.

Many of the health workers who provide MCH services lack appropriate knowledge and skills to provide quality services. Thus they may not be able to use the MCH instruments very well until they are trained.

Based on the field testing -- with its shortcomings of limited time and inadequately trained staff -- adjustments were made in the instruments before final presentation to the third National workshop on HMIS.

MCH Card

The response to the maternal part of the card was positive although staff found it initially time consuming particularly in recording the names and ages of all the children of the woman. The mothers and the staff appreciated the card. In those selective places where mothers made a second visit in the field testing period, most mothers returned with the MCH Card. The child part has only been field tested in a few places. Modifications were made based on the feedback from the field testing. Recording of names and ages of all the children has now been replaced by the number of the children the woman has.

Mother register

This register was considered to be time consuming and difficult to aggregate. Staff appreciated the registration by Expected date of delivery. Some minor changes were made based on the feedback from the field testing.

Child register

No major problems were encountered

Family planning card and register

No major problems were encountered

Birth register

No major problems were encountered.

Monthly report

The MCH section of the monthly report was considered difficult, and

some changes were made accordingly.

Recommendations for field testing were reviewed by the HMIS meeting and as much as possible accommodated in the instruments before presentation to the third National Workshop on HMIS, which endorsed all instruments with few minor changes.

V. DEVELOPMENT OF HMIS TRAINING CURRICULUM

In the National Workshop it was decided that 4 day training workshops would be conducted for users of the information system before implementation.

Although the AKU consultants have contributed to the development of the curriculum, AKU is of the opinion that Government staff cannot adequately be trained in 4 days, neither for making them good users of MIS, nor for making them good MIS clerks. There is also the major problem of reliability of data: Government staff are unable or reluctant to report the actual situation in their facilities because of certain interests and/or fear for repercussions. Thus, considerable time will be needed to motivate staff, train them in general management concepts and even basic mathematics.

This has to be solved by developing a permanent district training and follow-up capacity. It is our experience that trainers from outside the districts are less acceptable and able to bring about a change, than trainers from inside the districts. We appreciate the initiative of the HMIS team to train district teams for ongoing training of all concerned Government staff. It is recommended to train a group of senior medical officers strongly interested in MIS in each district level who become district trainers. This should preferably coincide with a supervisory system of one senior medical officers looking after several of the facilities near his own.

Three training modules were developed:

1. Management Principles
2. Use of Information
3. Introduction of the MCH and FP records and registers and their use in Patient Care.

Session guidelines, case studies, background material, filled-in models of the instruments and instruction on how to record and use the instruments were developed for the training. The session guides for these sessions are enclosed.

1. Management Principles

To develop an information system is not enough. To make sure the system is used, the information generated should be linked to management decisions. The module on 'Management Principles' was an attempt to get the users of the information system familiar with some management principles and see the role of information in management. Four hours for this module is not enough but considering the shortage of time it was felt that the participants should at least understand leadership styles, team work, communication patterns, and the planning cycle.

2. Use of Information:

The purpose of this module was to see how information can be used for planning and monitoring programmes. By means of a case study the participants are given an opportunity to practice using information from a monthly report for decision making.

3. Introduction of the MCH and FP Records and Registers and their use in Patient Care.

In this module, the purpose of the MCH and FP instruments, how information should be recorded on it, and its application for patient care is discussed. By means of a case study the participants are given an opportunity to practice recording on the instrument and using the information recorded to make decisions about patient care.

VI. FUTURE ADJUSTMENT OF HMIS

The time frame for maturation of the new national HMIS was very short by our understanding of the size and complexity of the assignment. We hope some opportunity for fine-tuning the system will be provided, say 6-9 month from now.

Chapter V

PREVENTIVE CONSULTATIONS FOR MOTHER AND CHILD HEALTH

During preventive consultations for maternal and child health the following instruments are used:

1. Mother and Child Health (MCH) Card
2. Immunization Card
3. Family Planning Card
4. IDD Card
5. Child Health Register
6. Mother Health Register
7. Family Planning Register
8. Daily EPI Register
9. Permanent EPI Register
10. IDD Register

For each of these instruments a detailed set of instructions is given in this chapter.

DEFINITIONS

- Well Maintained Growth Monitoring Card**
 - Weighed at least once in three months
 - Birth date recorded
 - Weight plotted
 - Feeding status recorded
 - Morbidity recorded
- Malnutrition**
 - Child: NCHS/WHO standards by 2nd and 3rd standard deviation
 - Women: Height for weight — refer nutrition training manual

- Birth Weight** Weight of the child taken within the one week after birth.
- Low Birth Weight** Birth weight of less than 2.5 kgs.
- Adequate Weight Gain During Pregnancy** Weight gain of greater than 1 kg but less than 2.25 kgs per month during 2nd and 3rd trimester of pregnancy.
- Assisted Deliveries** Deliveries conducted by manpower who have had some formal training and in the case of traditional birth attendants are being supervised regularly.
- Methods to Measure Hemoglobin**

- Sahli: most practical
- Calorimetric: more accurate but
- Electrophotometric: } difficult in first level
- Spectrophotometric: } care facilities

1. MOTHER AND CHILD HEALTH (MCH) CARD

Purpose To improve care and management of antenatal and postnatal mothers and children under 3 years of age.

Maternal

- To identify and monitor high risk pregnancies.
- To aid the health worker in assessing the need for special care and referral.
- To provide health education for the mother herself and help her monitor her own pregnancy.
- To establish better communication between the Dai, the mother, the health facility and the referral hospital.

Child

- To identify and monitor high risk children.
- To monitor the growth of the child and promote nutrition from birth up to three years of age.
- To aid the health worker in assessing the need for special care and referral.
- To prompt and help the mother monitor growth and development of her child.

Features The MCH card is a pictorial client card combining maternal care, child care, immunizations, and family planning. It is used in follow up of the mother and her child from early pregnancy, through delivery until the child is three years of age.

The MCH card is designed for use at various levels of care - by the mother at home, the dai or volunteer to the LHV or WMO at the Health Facility. Being an integrated card and client retained it allows vital information of the family to be carried wherever the mother and/or child seek care.

The MCH Card should be filled on first contact with a pregnant woman and then the child section should be filled for the child that is the outcome of this pregnancy. However, if the woman does not come to the provider during pregnancy but brings her child then fill the identification information on section I of the maternal side (till the number of births), section IV to follow-up mother and the child side of the MCH card to follow-up the child.

Maintained by	Maternal Section:	Dai, FHT, LHV or WMO.
	Child Section:	Any literate Health Worker (Volunteer, vaccinator, HT FHT, LHV, WMO or MO).
Data Origin	Maternal:	Pregnant woman.
	Child:	Parent of child.
Location	Client retained.	
Initial recording	Maternal:	On first contact with pregnant woman.
	Child:	On first contact with child.
Updating	Maternal:	On subsequent follow-up contacts by health personnel, volunteer or vaccinator (as applicable) either at home or the health facility.
	Child:	High Risk Children: On subsequent monthly contacts. Normal Children: On 3 monthly contacts.

Definitions: No specific definitions.

**Instructions
For Filling In
(see model)**

The Maternal and Child Health Card is an action oriented, alert card. Alert means drawing attention to a problem. Each entry has a built in alert signal which is the shaded area. An entry in this area anywhere on the card makes the card holder a high risk case and calls for special attention and some action.

It consists of two sides:

- A) Maternal
- B) Child

A) MOTHER

The mother side has 4 sections of information

SECTION III (Labor & Delivery)	SECTION II (Present Pregnancy)	SECTION I (General Information)
SECTION IV (Postnatal/ Family Planning)		

These sections store information regarding health care given to the mother at different stages of her pregnancy as well as family planning offered to her in her inter-pregnancy period. The Child Health side is to monitor the health and development of the child from birth to three years of age.

➤ SECTION I - General information

Institution/
District

Stamp this area with the name of health institution and the District, e.g Dhabeji BHU, Thatta.

ID No.

Write the ID. Number, which is made up of 3 parts, Sr. No.-EMD-EMD Yr. All of which can be obtained from the Mother register as and when the woman is registered. The serial number (Sr. No) is the one from the mother register.

Name of Woman

Write the name of the mother.

Name of Husband

Write name of husband.

- Address/ Village** Write exact address or village and house number as appropriate.
- TBA/MW/LHV/MO** Write name of TBA, Midwife, FHT, LHV or MO providing antenatal and possible delivery care. In case these are different write both.
- Births** Tick the boxes which correspond with the number of births the woman has had e.g. If the woman has had 6 births then you would tick boxes 1 through 6. Cross the box if the birth was a still birth or the child died soon after birth. Start with the oldest child. This section is particularly designed for the care provider such as a TBA who would otherwise have difficulty with understanding the concept of gravidity and parity.
- Tick the box reading 0 if the woman is a primigravida (meaning this is her first pregnancy).
- Gravida** Write the gravida of the woman i.e. the number of times the woman became pregnant including this pregnancy. Pregnancies leading to one or more live births, still births and/or abortions should be included.
- Parity** Write the parity of the woman i.e. the number of times the woman delivered.
- Abortions** Write the number of pregnancies that terminated as abortions or immature deliveries before 28 weeks of gestation.
- Youngest Child less than 2 Yrs.** Write age of youngest child less than 2 years if there is one and tick the appropriate box.
- 3 or more Abortions** Tick appropriate box if the woman has had 3 or more abortions in the past.
- No. of Still Births** Write the number of still births in the past if any and tick the appropriate box. A still birth is child born after 28 weeks of gestation and does not breath spontaneously after five minutes of birth and/or there is no detectable heartbeat.

Age of Mother Write the woman's exact age at the time of the pregnancy and tick the appropriate column for risk identification. If her age is <16 years or more than 35 years, tick the red shaded area.

If the exact age is not known, make a rough assessment by asking as follows.

- (a) How long have you been married ?
- (b) How old were you when you got married ?
- (c) Add (a) and (b) to get to the age of mother.

Height Record the exact height of the woman in feet and inches and tick the appropriate column.

Weight less than 45 kgs. Ask the woman her weight before she got pregnant and tick appropriate box. If she does not know her weight before pregnancy, weight her at first contact, record date of weight and tick appropriate box.

Blood Group Write the blood group of the woman if known and tick the appropriate column.

T.T. Immunization Tick the appropriate box(es) when immunization was received and write the date(s) below it. If no immunization was received before this pregnancy tick the box marked zero.

Protocol for Tetanus Toxoid Vaccination: _____

The course consists of two basic shots TT1 and TT2 and three boosters BI, BII and BIII. TT2 is to be given one month after TT1, BI six months after TT2, BII 1 year after BI and BIII one year after BII.

If the woman has not followed the above schedule then the following schedule should be followed:

- If the woman has received none or only 1 dose of TT before becoming pregnant then she must receive at least 2 doses during her pregnancy and then follow the above mentioned schedule.
- If the woman has received two or more but less than five doses of TT before becoming pregnant then she must receive at least one dose during pregnancy and then follow the above mentioned schedule for the remaining doses.

The woman should also be informed that if she has completed the 5 doses over the prescribed time period then she has attained lifelong immunity and does not require any further Tetanus Toxoid doses in her life-time.

The TT doses taken during pregnancy must be taken at least two weeks before delivery for them to be effective.

EXISTING OR PAST MEDICAL HISTORY

Any chronic medical problems Tick the shaded area if the woman is known to have a history of chronic diseases such as diabetes, hypertension, cardiac, renal diseases etc. You may specify if you have the information. Fill in the unshaded area if the woman has no history of chronic illness. Leave the area blank if you cannot assess or elicit any such history or if you are not sure, and ask MO for assistance.

Use of any medication Tick the appropriate box and write the names of medicines if any are being used regularly by the woman at the time of interview.

I.D.D. To be filled in only in areas where Iodine Deficiency Diseases are prevalent. Indicate whether or not the woman has undertaken treatment by ticking the appropriate box.

PREVIOUS PREGNANCIES

Tick in the shaded area if there is any significant past obstetric history that renders the woman at risk for this pregnancy.

Caesarian section Tick in the shaded area if the woman has had a caesarian section in any of her past pregnancies and record the reason for the caesarian section. A caesarian section can be confirmed by a scar on the abdomen.

Prolonged labour Tick in the shaded area if the woman has had prolonged labour in any of her past pregnancies.

Other If the risk is other than the two above, specify risk (e.g. excessive bleeding after delivery, fits, etc.) and tick shaded area.

➤ **SECTION II - Present Pregnancy**

This section is pictorially represented so that it may be used :

- by the mother to monitor her pregnancy,
- by the dai as a checklist of conditions to be seen and in assessing the condition of the woman and referring if necessary,
- by the health facility provider in monitoring pregnancy, assessing risk and the need for referral.

LMP Write date (dd/mm/yy) when woman started her menstrual period. An important events calendar (see later) may be used to help the woman identify the LMP as accurately as possible.

EDD Calculate and write the Expected Date of Delivery. The method for calculating this is as follows: Add 40 weeks to the date of the last period. 40 weeks can be more easily calculated as 9 months and 7 days from the first day of the last menstrual period.

For example:

LMP = March, 4th, 1990.
March + 9 months = December.
4th + 7 days = 11.

Therefore EDD is 11th December 1990.

Gestation **Months:** This row of the table has numbers marked 1st Tri., 4,5,6,7,8,9,10 which correspond to the months of pregnancy (gestation). The 10th month is added because of possibility of miscalculations.

Weeks: The second row of the table has numbers marked 13,18,...44 which correspond to the gestation in weeks.

Date of Visit Record here the date of visit of the mother to the health facility. More than one visit can be recorded in the 7th, 8th and 9th month of pregnancy. One column is to be filled for one visit.

The other items in the panel should be filled for each antenatal visit.

- For each item if the woman is at risk tick in the red shaded area.
- If the risk factor is not checked leave the box blank.

Complaints Write here any complaints of the woman, and consider whether these pose high risk, e.g. headache, fever, abdominal pain. Ask MO if necessary.

Weight Record the weight of woman in kgs. in the white area.

Weight gain is less than 1 kg or more than 2.25 kgs per month

If weight gain is less than 1 kg or more than 2.25 kgs per month tick in corresponding shaded area.

B.P. Record here the blood pressure in exact numbers e.g 140/80 or 120/80.

More than 140/80 mmHg

If B.P. is more than 140/80 mmHg tick in the corresponding shaded area.

Anemia(Hb less than 10g/dl) Absent Record Hb value if available or put a dash in the white area if the woman is not anaemic by clinical assessment.

Present Tick in red shaded area if you have clinically assessed the woman as anaemic (pale conjunctivae) or if you have recorded a Hemoglobin value less than 10 g/dl in the white area.

Oedema Absent Put a dash in the white area if there is no oedema.

Present Tick the red shaded area if you assess the woman has swelling of lower feet. Then check for Pre-eclampsia (bp, urine).

Height of Fundus This can only be measured if the pregnancy is over 16 weeks. Assess gestation age (period of pregnancy) based on LMP. Measure height of fundus in weeks and record in white area.

Not corresponding
to gestational
age

Compare assessed gestational age with the measured. If there is a difference of more than 2 weeks, tick in the corresponding red shaded area. (use row 2 at the top for comparison)

For example:

- Date of visit 15 March;
- LMP August 15; Gestation 7 month, or $7 \times 4 \frac{1}{3} = 30$ wks.
- Height of fundus 24 weeks (at navel)
- Conclusion: the difference is 6 weeks.

Position

Assessment of this is possible only after the sixth month of pregnancy. Put a dash in the white area if the position is cephalic (head down).

Malposition/Twins

Tick in the red shaded area if the position of the foetus is not cephalic (head down), i.e it is transverse or breech or if twins are detected.

Fetal Heart

Sounds Present

This is relatively easy to do after the sixth month of pregnancy. Ask for decreased or absent fetal movements, then listen to the fetal heart sounds with a fetoscope. Put a dash in the white area if they are normal.

Absent

Tick in the red shaded area if fetal heart sounds cannot be heard after the sixth month or are absent.

Bleeding P/V

Absent

Put a dash in the white area if there is n.o history of bleeding.

Present

Tick the red shaded area if there is a history of bleeding. Some women have a little bleeding (spotting) in the initial months of pregnancy, which is normal.

Leaking Liquor

Absent

Put a dash in the white area in the absence of liquor.

Present

Tick red shaded area if the woman gives a history of leaking watery fluid and confirm by physical or speculum examination.

Urine Exam	
Normal	Put a dash in the white area every time you do a Urine Examination and the result is normal.
Protein/Glucose	In case of proteinuria or glycosuria tick the appropriate red shaded area.
Breast Exam	
Normal	Examin breasts during first contact. If normal, put a dash tick or record normal findings in the white area.
Abnormal	Record any significant abnormal findings in the red shaded area.
Vaginal Exam	
Normal	Record or tick here for normal findings of a Vaginal Examination you may have done. It is not advisable to do many vaginal examinations. Usually, a vaginal examination is done at the time of first contact for assessment of the pelvis. Another examination may be done under strict sterile conditions as possible, just before delivery to assess for labour and fetal presentation.
Abnormal	Record any abnormal findings in red shaded area.
ACTION	Based on your assessment and identified high risk factors, decide which action should be taken.
Advice & Treatment	Write the advice you give to the mother so that it helps her to remember and helps you to follow-up on a subsequent visit. Record also any treatment such as iron or folate, vitamin, iodine, panadol, tonic chloroquine etc. provided to the woman.
Follow-up/Referral TBA/MW/LHV/MO	This section asks you to decide who should be following the case of this mother. If you are a WMO and you see a mother with a normal, non-risk pregnancy, you may decide to ask the mother to do her subsequent follow-up visits with the TBA, MW (Midwife) or LHV. Alternatively, if you are a LHV, and you assess or suspect a woman to be high risk, you may decide to send her to a WMO for follow-up visits. Write here the initials of the care provider you refer to, e.g. WMO, LHV etc.
Date of Next Visit	Write here the date of a subsequent follow-up visit.

Advised Place of Delivery Assess from your examinations and history whether the client needs special care at the time of delivery and record the advised place of delivery.

➤ **SECTION III - Labor and Delivery**

This section has information on the Labor, Delivery and Puerperium (up to the 14 days after delivery) and some information about the outcome of pregnancy.

The column for the 10th month in Panel II may be used to check the mother if she arrives in labour.

Labor Pains more than 12 hours Tick the shaded area if Labor continues beyond 12 hours and seek expert help.

Presentation Tick the appropriate column after assessing the presenting part. Tick the white area if the presenting part is the occipito-anterior part of the head. (this is the normal back-top side position of the head of the baby while being delivered).

Date of delivery Record the date of delivery.

Type of Delivery Tick the appropriate box according to the type of delivery i.e. normal (spontaneous vaginal delivery), instrumental delivery (using forceps, vacuum extractor) or operative (caesarian section).

Place of Delivery Tick appropriate box for place where delivery was conducted i.e. home, first referral level facility (usually RHC or BHU) or hospital.

Delivered by Tick here if the delivery was conducted by a trained person (e.g. WMO, LHV, MW or trained TBA under supervision) or an untrained person (such as a local village dai or some relative).

Retained Placenta Tick yes if you suspect that the total or part of the placenta is left in the uterus. If not tick no.

Postpartum Hemorrhage Tick yes if postpartum bleeding continues more than usual after child birth. If not tick no.

Puerperal Sepsis Tick yes if you think the mother has puerperal sepsis. This can be suspected by fever and smelly vaginal discharge / lochia. If not tick no.

Other Complications Specify if complications other than the one listed occurs and tick yes.

Outcome Stillbirth Tick the appropriate column according to Live birth or still birth. In case of live birth fill the child side of the card. In case of twin births fill in another MCH card for the second twin.

► **SECTION IV - Postnatal/Family Planning Follow up**

This section is to follow up the pregnant woman in her postnatal period and for advising family planning and breast feeding counselling. Record the following on every visit.

Date of Visit Write date of visit (dd/mm/yy) of the woman to the health facility.

**Comments/
Examination/
/Contraceptive
Method Used/
Breast Feeding
Counselling** Write the contraceptive method presently being practiced by the woman. If the woman is not using any but the husband is then note it as such. Record advise given for FP, breast feeding etc and any other significant findings such as important complaints, significant findings on examination, dose of contraceptive etc.

Date of Next Visit Record date (dd/mm/yy) on which you want the woman to come to the health facility for her next visit.

B) CHILD

The Child side consists of seven sections.

SECTION I Child Information & Risk factors	SECTION II Immunization	SECTION IV Standard Growth Curves
SECTION VI Date of next visit	SECTION III Time scale in months	
SECTION V Nutrition	SECTION VII Remarks	

The Child Health Card serves to monitor the development of the child in the critical first three years of life. During these three years, children grow very fast, and any health problem of the child or social problem in the child's home will slow down the child's growth, even to the point where it starts wasting. This will show as a downward growth line and reduced weight according to his/ her age on the growth curve. If the child has repeated events of ill health, the child will not be able to catch up with the growth, and may continue being wasted and stunted for life. If it does improve later, it may go on growing well and follow the growth of a healthy child. The extent to which weight by age is inadequate is expressed in grades of malnutrition, namely Grades N (normal), M (moderate), and S (severe).

➤ **SECTION I - Child Information & Risk Factors**

Basic information pertaining to the child.

Child's Name Record name of child. Make entry in bold letters.

ID No. Record identification number of the child as given on the Child Register i.e. Serial No.- Yr. of Registration.

Sex	Tick appropriate box for sex of the child.
Date of Birth	Write date of birth of child by day, month and year (dd/mm/yy).
Risk Factors	These are risk factors which affect the nutrition and health of the child. A child with one or more of these risk factors is considered high risk. The ticks in the risk factors should be updated if the particular status changes after first contact with child and before child is three years of age.
Birth Weight	If weight of the child was taken within a week after birth then tick appropriate box and record the weight. In child is less than 2.5 kgs he/she is a low birth weight baby and thus a high risk.
Poor condition of the child at birth	Tick here if the child was in poor condition (apnoeic, respiratory distress, cyanosed, not crying or poor Apgar score) at birth.
More than 2 brothers/sisters under 5 years	Tick yes if mother has more than two under 5 children besides this one, otherwise tick no.
Previous Infant/Child Death	If there has been a previous under 5 year old child death in the family tick yes otherwise tick no.
Mother pregnant again	If mother is pregnant again tick yes otherwise tick no.
Mother Dead	If mother is dead tick yes otherwise tick no.
Father ill/Unemployed/Dead	If father has a chronic disease, is unemployed, or has died tick yes otherwise tick no.

➤ SECTION II - Immunization

Dates of Immunization	Record dates (dd/mm/yy) on which the child received the different doses of vaccination. Record dates below the pictorial representation. If the dates are not known but the child has received vaccine tick the appropriate space.
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► SECTION III - Time Scale

The X-axis of the graph (the bottom horizontal line) is the age of the child in months. The Y-axis (the vertical line) is the weight of the child in kgs.

Month Of Birth

Month and year in which the child was born. If the mother does not remember the exact month her baby was born try to estimate the month. It may be easier for the mother to remember when her child was born.

- before or after a particular festival
- before or after some major event in her community

It will be helpful for you to prepare your own calendar of local events. Here is an example of finding the age of children based on local events.

<u>LOCAL EVENTS CALENDAR</u>	
MONTHS	LOCAL EVENTS/FESTIVALS
MARCH	Pakistan Day
APRIL	Ramzan
MAY	Eid-ul-Fitar
JUNE	Eid-ul-Azha
AUGUST	Independence Day
	Zia-ul-Haq's death
	Muharram

Once you know or have estimated the birth month and year, write this month & year in the box on the extreme left of the card.

This can then be used to fill in the 3 year calendar of the child at the bottom of the card. The way to do this is by first putting the date of birth in the first box on the left. Second put his birth month in the thick box at the beginning of the other years. Change the year each time. Third fill in all the months between his birthdays. Each January, write the number for the New Year. The reason for completing the calendar on first contact is that it is easy to miss out a month of the child calendar since many will not come for regular monitoring. If birth months are already present, you can see a mistake at once.

➤ SECTION IV - Growth Curve

After weighing the child, record the weight by putting a large dot on the chart. The dot must be on the same level as the weight, directly above the month of the weighing and in the middle of the column for the month in which the weight is being taken. One of the methods of filling in weight dots is: Use the corner of a piece of paper, or card. Put one edge of the paper along the month column. Then fill in the dot next to the corner of the paper. Write the exact weight in brackets next to the dot.

When the child comes next time, weigh the child again enter the weight by putting another dot and the weight in the appropriate place on the card.

Join the new dot to the previous dot. The line thus formed by joining the two dots is the growth line of the child.

It is important to take the weight of a child for at least 2 consecutive months (one after the other) to decide whether the child is growing well or not. A single weight is not enough.

Explanations.
Reasons for Growth
Faltering and
Action Taken

If the child 's growth line goes down, it means the child is loosing weight. This is very dangerous, even if the child's growth line is within the two reference lines of the chart. This child could be ill. Find out from the mother, the reasons for the loss. Record the reason (eg. diarrhoea) above the dot and if you took any action (eg. gave ORS) record action taken below the dot (there is an example on the child card).

➤ SECTION V - Nutrition

A nutrition section is at the bottom of the card. It is important to know and make note whether a child is being breast or bottle fed or if weaning foods have been started. If weaning has started it is also important to determine from the mother if the composition of the weaning diet is appropriate or not. Once weight is recorded ask mother about feeding practices and record in appropriate box.

Breast Feeding

For the first four months it is advised to exclusively breastfeed the child i.e. without any other supplement intake like water, powder or animal milk. Mark 'E' if this is so. If the mother is breast feeding but also supplementing it with something else then just tick. After 4 months if the mother is breast feeding the child then tick. If she is not breast feeding then enter a cross.

Bottle Feeding	Tick if milk is being fed through a bottle and cross if not.
Weaning Food	For mothers who have started weaning their children ask for the composition of the weaning diet. Assess if these is appropriate (A) or inappropriate (I) . Accordingly, put A or I in the boxes. It is advised to begin weaning after the first 4 months.

➤ **SECTION VI - Dates of Next Visit**

Dates of Next Visit	Record dates of next visit (dd/mm/yy) for the child. If the child is high risk then a date one month from the present contact should be given. If the child is normal then a date 3 months from the present contact needs to be given.
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➤ **SECTION VII - Remarks**

Remarks	Record here any significant finding which you feel you need to remember. e.g. Child allergic to penicillin etc..
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Interpretation of The Nutritional Status Lines _____

The direction of the growth curve is much more important than the position on the card at one time, but is not always known as it requires two visits of the child to the FLCF.

The grading of the nutrition (nutritional status lines - WHO/NCHS standards) is as follows:

N	=	Normal nutritional status (Median for boys and girls)
M	=	Moderate Malnutrition (2nd standard deviation)
S	=	Severe Malnutrition (3rd Standard deviation)

Climbing Line	Good!, the child is growing and gaining weight.
Steady Line	Danger! If the child's growth line is flat, this means the child is not gaining weight. This is a danger signal. You should find out from the mother if the child is: eating well, active or not, has any symptoms of illness e.g. cold, cough, fever etc.
Declining	A downward growth line indicates an acute illness, e.g. acute diarrhoea, respiratory infection, measles or a chronic disease e.g. tuberculosis. Or a social or nutritional problem. Tell the mother to give the child special care and feed the child well. You should also make it a point to give this child special attention.

3. FAMILY PLANNING CARD

Purpose To identify and follow-up Family Planning users by method.

Features

Maintained by MO/WMO, LHV, FHT or MT

Data Origin All adult men and child bearing age - non pregnant women.

Form Location Client retained.

Initial Recording On first acceptance of contraceptive method by client.

Updating On subsequent follow-up visits for, complaints/ examinations or refill of contraceptive supplies.

Definitions No specific definitions provided

Instructions For Filling In (see model)

The Family Planning card is a small two sided card.

On the front side record the name of the client and registration number from the Family Planning register on acceptance and supply of contraceptive.

The reverse side records the method presently using and follow-up visits. On follow-up visits make sure you screen the client for any adverse effects of the contraceptive method by means of relevant history and examinations.

Name of Client Write the name of the client.

FP Register No. Write the registration number as given from the Family Planning Register.

**Name of Spouse/
Father** Write name of spouse in case of a female client. Write name of father or spouse in case of a male client.

Date of Visit Write the date of visit (including the first contact).

Contraceptive Method Adopted Write the method currently using/ accepted. You may also use this place to write any special comments that would be useful for follow-up.

Date of Next Visit Write the date when you would like to call the client for a follow-up visit.

Signature Write your name/initials so that you may be identified in subsequent visits if the client is being followed up by some other care provider.

6. CHILD HEALTH REGISTER

Purpose

To monitor and follow-up at risk and normal children.

To maintain a concise history of the child at the health institution for supervision.

To facilitate aggregation and reporting.

Features

Maintained by	FHT, LHV, HT, WMO or MO.
Data Origin	Parent or guardian of child.
Location	Child Health Room.
Initial Recording	1st contact with child under 3 yrs.
Updating	Monthly for all High Risk children. Three monthly for all normal children.

Definitions

High Risk Child	This is a child under three years identified as at risk from the MCH card. A child may be at risk if he is malnourished or his immunization is inappropriate or he has any other social risk factors or his diet is inappropriate (see instructions of child side of MCH card).
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Instructions

For Filling

In (see model)

Start registration on a new page every year. You will see four sections (one for each year) of column 8. Write the current year (e.g. 1992) in the first section of column 8. Write the following 3 years (e.g. 1993, 1994 and 1995) in the remaining three sections of column 8.

On a new line register each child attending the preventive child health clinic for the first time.

For all children presenting for follow-up visits, locate by the ID number from the MCH card. If this is not available the child may be located by the name of the parent and address.

Column No.

- | | | |
|---------|---|---|
| 1 | Serial No. | Assign a serial registration number in chronological order. e.g 234 is the 234th child registered in the current year. After entering the child in the register, write this number together with the year of recording on the card e.g. 234/92 implying that this child may be located as the 234th child in the register of 1992. The ID number is given only once on registering a child for preventive care. |
| 2 | Registration Date | Date (dd/mm/yy) the child was registered at the health institution. |
| 3 | Name of Child with Father | Write name of child with name of father for identification purposes. |
| 4 | Address/Village | Write exact address or village and house number as appropriate. |
| 5 | Date of Birth | Write the exact date of birth (dd/mm/yy) if this can be recalled by parent. If not use the local events calendar to arrive at an approximate date of birth. |
| 6&
7 | Age At
Registration | Tick the appropriate age column (under one year or greater than or equal to one year at the time of registration) as determined from the date of birth. |
| 8 | Growth Monitoring/
Appointment Schedule
and High Risk
identification | Four calendar years are allocated for the growth monitoring/appointment schedule to cover the child upto three years of age. |

On the first visit calculate from the date of birth when the child will be three years of age. Locate the month and year on the appointment schedule when the child will complete his three years. This is the time upto which you want to growth monitor the child. Cancel (draw a line or cross out) the remaining months indicating that the child will no longer be followed up. E.g. if the child is born in Feb. 1992 he will be 3 years in Feb. 1995. Cancel months from March 1995 onwards till the end of the appointment schedule.

On every visit, write the nutritional status of the child as determined from the growth chart in the column of month of visit on the MCH card.

e.g. If today is 5th March 1992, and the child weighs 4.2 kgs and is moderately malnourished, then write 'M' in the column of March 92. Now since this child is at risk, you would like to call him back in a month's time i.e. April 92. So circle the month of April 92 for this child. This now tells you that this child is to come for a follow-up visit in April. If he does come at the scheduled date then write the nutritional status in the encircled area as above. This tells you that the child has been compliant. In case he does not show up, blank circles will indicate defaulters.

At the end of every month the empty boxes indicate defaulters of that month that need to be followed-up.

High Risk column (For every year)

Tick this column if the child has any risk factors for closer monitoring and follow-up. This you will find marked on the child part of the MCH card. High risk includes factors such as growth faltering, inappropriate immunization, social risks or inappropriate feeding etc.

If a child is identified as high risk he will remain high risk till the end of that year. A column for high-risk has thus been provided for each year.

9 - 14 Immunization

Write dates when the immunizations were received by the child. In case dates are not known but the child has received the dose then tick the appropriate column. A child with incomplete immunization for age is a high risk child.

15 Remarks

Write any information that you think is important for follow-up of this child or for the supervisor.

After each month is over draw a line across the page so as to divide it from the next month. In this way new registrations of the month can be seen at a glance.

7. MOTHER HEALTH REGISTER

Purpose	To have a concise history of the antenatal women available at the health institution.
	To follow-up and monitor high risk pregnancies regularly.
	To facilitate aggregation and reporting.

Features

Maintained by	FHT, LHV or WMO.
Location	Antenatal Care room.
Initial Recording	On first contact with pregnant woman.
Updating	Subsequent follow-up contacts (preferably at least once in first trimester). High risk to be monitored as per protocol.

Definitions

Abortion	A pregnancy terminating before 28 weeks of gestation.
Trained Person	Trained Person may include WMO, MO, LHV or FHT or a Dai. A dai is a (Traditional Birth Attendant) who has received some formal training and is supervised regularly by the health facility staff.
Untrained Person	Untrained Person could be some relative, mother-in-law, neighbor or Dai who has had no formal training and is not supervised regularly.

Instructions For Filling In (see model)

Each month of the year is allocated a page in the register starting from the current month. The information of each woman is recorded on the page of her expected month of delivery (EMD).

The expected month of delivery can be taken from the calculation made for the maternal and child health card i.e. all

women identified to deliver in June 92 will be recorded on the June 92 page and all expected to deliver in August 92 will be recorded on the August 92 page.

For the exact date of delivery calculation refer to instructions of Section II of the mother part of the MCH Card.

On follow-up visits the woman is located in the register by her EMD, the EMD year and then by her serial no. of the EMD page.

Column No.

1 Serial No. Assign a serial registration number in chronological order for each page of EMD e.g. Serial number 23 will be the 23rd woman registered for that EMD page. Record this number on the MCH card as follows:

Serial No. - EMD - EMD Yr.

2 Registration Date Write date (dd/mm/yy) the woman was registered at the health institution for antenatal care.

3 Name of Woman Write name of woman with the name of her husband. e.g. Zeenat w/o Allah Bux.

4 Address/Village Write exact address or village and house number as appropriate.

5 Age Write exact age of the woman as recorded on card.

Prenatal care

6 LMP Write date (dd/mm/yy) of the beginning of the last menstrual period.

7 EDD Calculate expected date of delivery from the date of the Last Menstrual period (please refer to Section II of the Mother part of the MCH card for calculation details) and record it in this column. If this is not known then attempt to find roughly the EMD - this will then give you an idea of the gestation and approximate month of delivery. Seek the help of the WMO for assessing the gestation and thus the approximate date of delivery by means of examination and investigations.

8 Total Pregnancies

Write the total number of pregnancies including the present one. Pregnancies include abortions and still births as well. You may also write this in terms of gravida and para if you are comfortable with this concept.

9 High risk

Specify or tick here if the woman is identified as High Risk from the MCH card.

10 & 11 Hemoglobin at 1st measurement

Write the first measurement of hemoglobin. Measure the hemoglobin level if equipment is available and record in appropriate column. If hemoglobin level is not known leave both these columns blank.

12 Contacts

There are eight columns further divided into 13 columns for dates of contact. Months corresponding to these are to be filled backwards i.e. if we are filling these for EMD March 1992, then write March '92 in column with subheading 9, April '92 in the column with subheading 8 and Feb. '92 in column with subheading 7 you come to the 1st column which is for the 1st trimester of the pregnancy. In the column with subheading 10 you would write April '92. The column 10 is provided incase the pregnancy continues beyond the 9th month.

See example below:

EMD March 92

Dates of Prenatal Visits							
1st Tri	4	5	6	7	8	9	10
Jul-Sep 91	Oct 91	Nov 91	Dec 91	Jan 91	Feb 91	March 91	Apr 91

Write the date (dd) of contact under the appropriate month of contact. There can be one or more contacts in a month. Space has been provided to record more than one visit in the 7th, 8th and 9th months of pregnancy. In other months if there is more than one contact then write dates separated with commas e.g. if the woman has two contacts one on the 2nd and the other on the 25th of Dec. 91, her 6th month of

pregnancy then enter 2, 25 in the column. In the 1st Tri. column write the day and the month (dd/mm).

The first date of contact is also representative of the date of registration of the mother with the health center for the current pregnancy.

**13 Tetanus Toxoid
Immunization**

Write the date when a particular dose of T.T. was given.

A woman who has inappropriate T.T. immunization for this pregnancy is considered high risk. (refer to protocol for TT immunization in the instructions of Section I of MCH card).

Delivery

14 Abortion date

Write date of abortion (dd/mm/yy) if the pregnancy terminated before 28 weeks of gestation. If the abortion is reported in a later month, write also the month of reporting and circle it.

15 Delivery Date

Write date (dd/mm/yy) of delivery. If the child was post-term then circle the date of delivery. If the delivery is reported in a later month, write also the month of reporting and circle it.

**16 Live birth
Write Birth
Wt. (Single, Twins)**

Write the birth weight in Kgs. of the child in the appropriate column. If twins are born then use the column of both single and twins to record their weights. Weights should be recorded only if they are taken within the first seven days after birth. If the weight is less than 2.5 kgs. (Low Birth Weight) then circle the weight. If birth weight is unknown then tick in the appropriate box if there is a live birth.

17 Stillbirth

Tick this column if the child is born after 28 weeks of gestation and does not breath spontaneously after five minutes of birth and/or there is no detectable heartbeat.

18 & 19 Delivered By

Tick the appropriate column for the kind of personnel conducting the delivery i.e trained or untrained (for definitions refer to first page of Maternal Register instructions).

**20 - 22 Place of
Delivery**

Tick the appropriate column for the place of delivery.

Postnatal

23 - 24 Contact Date Write dates (dd/mm/yy) of postnatal visits to the health institution after delivery.

General Information

25 Complications Write here any complications that occur during the pregnancy, labor or delivery and thereafter.

26 Date of Referral If referral was made for any reason during antenatal, postnatal or delivery period, write date (dd/mm/yy) of referral.

28 Date of Maternal Death Write date of death of the woman if she died during pregnancy or within 6 weeks after giving birth due to a pregnancy related cause. If the death is reported in a later month of reporting and circle it.

29 Remarks Record any special advice or instructions given to the woman. In case of maternal death record the cause of death.

After each month is over draw a line across the page so as to divide it from the next month. In this way newly registered women during the month can be seen at a glance.

7. FAMILY PLANNING REGISTER

Purpose

To monitor utilization of Family Planning Services

To monitor utilization of Family Planning supplies.

To facilitate aggregation and reporting.

Features

Maintained by MO / WMO, LHV, FHT or MT.

Location Health Center.

Initial Recording On contact with all clients/patients **accepting** any method of Family Planning or being referred for family planning.

Updating Only when feedback received from Population Welfare Centers for clients referred.

Definitions

New Case A new case is one who is not using any contraceptive method at the time of contact.

Old Case An old case is one who is using some contraceptive method (other than natural methods) at the time of contact and has come back for a follow-up visit for complaints / examination and refill.

The client is considered an old case even if he has been registered as a new case in some other health facility.

Acceptor For the purpose of using this register, an acceptor is a client who after counselling accepts a certain method of Family Planning and is dispensed the same from the Health Facility. Please note that a client who accepts a method but is not dispensed with the supplies from the Health Facility for whatever reason is not counted as an acceptor.

In brief, an acceptor is one to whom supplies of Family Planning are dispensed.

Instructions For Filling

In (see model)

Register clients/patients who come for Family Planning services in order of attendance by date. Every opportunity (at the curative care clinic, at the antenatal clinic, etc) should be availed to counsel the client/patient

for Family Planning. Those counselled but do not accept family planning or are not referred should not be registered.

Column No.

- 1 Serial No.** This is a serial registration number in chronological order. For example, 243/92 is the 243rd client of 1992.
- For follow-up/old cases leave this column blank.
- If a mother after delivery accepts a contraceptive method, record on register the ID number from the MCH card with the mother.
- In case of referral write this number on the client card and referral form so as to facilitate location of client when feedback is received.
- 2 Registration Date** Date (dd/mm/yy) the client was registered at the health institution for counselling.
- 3 Name of Client** Name of person attending with the name father/husband. e.g. Zeenat w/o Allah Bux.
- 4 & 5 Case New/Old** Tick the appropriate column according to definition above.
- 6 Age** Write down the exact age of the client.
- 7 & 8 Sex Male/
Female** Tick the appropriate column.
- 9 Number of children** Write down the number of living children the client has at the time of registration.
- 10 - 16 Contraceptive Method** Write the quantity or amount issued to the client. At the end of the month, by counting the quantity in each column you can aggregate the amount of supply issued by method. Alternatively, you may count the rows in each column and aggregate acceptance of contraceptive by method.
- 17 & 18 Referral** Fill this column if you refer a client for a procedure or if you do not have contraceptive supply in your facility. Write the referral slip no. in Column 17 and tick column 18 when you receive feedback form the Population Welfare Center.
- 19 Remarks** Write any information that you think is important for follow-up of this client or for the supervisor.

MODULE 2: DATA REPORTING

4. **Name/Father's Name:** Write the name of the patient and of the father of the patient
5. **Sex M/F:** Fill in M for male or F for female patients
6. **Age:** Write the age of the patient in years. For children under two, age should be written in months; for infants under 1 month, age should be written in days.
7. **Address:** Write the address of the patient as detailed as possible, so that home visit can be envisioned.
8. **Vaccination Status:** Give vaccination status for cases of suspected meningococcal meningitis, poliomyelitis and measles.
9. **Not Vacc.:** The case had no previous vaccination
10. **Part. Vacc.:** The case had received incomplete vaccination or vaccination status can be assessed only by history.
11. **Fully Vacc.:** The case was fully vaccinated as assessed through vaccination card.
12. **Action taken:** Write any action taken related to the case: e.g. stool specimen taken for a poliomyelitis case
13. **Referred to:** If the case was referred for hospitalization, write the name of the referral institution.

2. BIRTH REGISTER

Purpose

- To monitor population growth in catchment area.
- To monitor delivery outcome in catchment area.
- To monitor birth weight as a proxy indicator of maternal nutritional status, and a risk for childhood morbidity and mortality.
- To identify newborns in catchment area for preventive follow-up.

Features The Birth Register is an administrative register. It records all births (deliveries after 28 weeks of gestation) including still births.

Maintained by MO/WMO, LHV, FHT or MT.

Location MOs room.

Initial Recording On report of all births in catchment area.

Updating None. One time recording.

Definitions

Birth A delivery after 28 weeks of gestation including still births.

Low Birth Weight Birth weight less than 2.5 kgs. Birth weight of 2.5 kgs. and over is considered normal birth weight.

If weight at birth is not available, the weight within the first seven days of birth may be recorded.

Instructions For Filling In (see model)

Register all births reported within catchment area, by field staff or TBAs or other reliable sources such as village head etc. after verification.

Column No.

1 Serial No. This is serial number given in chronological order at the time of registration. e.g. 243/91 is the 243rd birth of 1991.

- 2 Date of Birth Self explanatory.
- 3 Name of Child For live births write the name of child if named. If not, leave column blank and identify by name of father and mother (Column 5). If it is a still birth write still birth.
- 4 Name of Father and Mother Write the name of the newborn child's father and mother for identification purposes.
- 5 Address/ Village Write down exact address or village and house number as appropriate.
- 6 Sex Write sex of child, M if male and F if female.
- 7 & 8 Outcome Tick in column 7 if the outcome is a live birth and in column 8 if the outcome is a still birth.
- 9 & 10 Birth Weight Record the weight in kgs. in column 9 if it has been taken within the first seven days of birth. If the weight is taken beyond seven days after birth, enter a dash in this column. Also enter a dash in this column if you are not sure of the weight. Put a line in this column if it is a still birth. Tick in column 10 if the weight recorded in column 9 is less than 2.5 kgs.
- 11 Remarks Write any information that you think is important for follow-up of this birth or delivery.
- 12 Registration Date Write down the date (dd/mm/yy) on which the birth was reported and registered in this register.
- 13 Registered By Write name of person giving information for registration of birth at the health institution.

55

[Province] Health Department
MONTHLY REPORT

(FF1)

For First Level Care Facilities

Month:

Year:

1. INSTITUTION IDENTIFICATION

A. Identification No:

B. Institution Name: _____

C. Province: _____

D. Division: _____

E. District: _____

F. Tehsil/Taluka: _____

G. Union Council: _____

H. Incharge Name: _____

I. Signature _____

2. POPULATION DATA
 (From Population Chart)

J. Catchment Area Population:

K. Expected Births this month (CA population / 300): (1)

(From Birth Register)

Number of Births Registered (2)		% of Expected Births (2) / (1)	%
Number of Newborns Weighed (3)		% of Births Registered (3) / (2)	%
Number of Low Birth Weight Babies (4)		% of Newborns Weighed (4) / (3)	%

3. MEETINGS / HEALTH EDUCATION SESSIONS / HOME VISITS (From Meeting Register)

A. Number of Staff Meetings held:

B. Meetings:

- 1. with TBAs
- 2. with CHWs
- 3. with Health Committee or Community Leaders

C. Health Education Sessions:

- 1. in Institution
- 2. in Schools
- 3. in Community

D. Home Visits by Facility Personnel:

4. ESSENTIAL DRUGS / VACCINES / SUPPLIES (From Stock Register)

Item	Unit	Recd	Issued		Closing Balance	Days out of Stock	Other Essential Drugs/Supplies	Unit	Days out of Stock
			For Care	Discarded					
A. BCG Vaccine	dose						M. ORS	packet	
B. DPT Vaccine	dose						N. Cotrimoxazole	tablet	
C. Polio Vaccine	dose						O. Cotrimoxaz. syrup	bottle	
D. TT Vaccine	dose						P. Chloroquine	tablet	
E. Measles Vaccine	dose						Q. Primaquine	tablet	
F. DT Vaccines	dose						R. Iron Tablets	tablet	
G. Syringes	piece						S. Folate Tablets	tablet	
H. Needles	piece						T. Streptomycin	vial	
I. Oral Contraceptive	cycle						U. Isoniazid (INH)	tablet	
J. Condoms	piece						V. INH+Tb1	tablet	
K. Inj. Contraceptive	dose						W. Ziehl-Nielsen	bottle	
L. IUDs	piece						X.		

5. COMMENTS / RECOMMENDATIONS / ACHIEVEMENTS

6. TRANSMISSION

A. Received at District Health Office on: / / Name/Signature: _____

B. Received at Computer Center on: / / Name/Signature: _____

C. Data Entered on Computer on: / / Name/Signature: _____

56

8. MOTHER AND CHILD CARE PREVENTIVE ACTIVITIES

A. Pre-natal Care (From Mother Health Register)		Expected New Pregnancies this month (CA Population / 270) <input type="text"/> (1)				
Number Newly Registered (2)		Newly Registered During 1st Trimester (3)		Haemoglobin under 10 gm% at 1st measurement (4)		Total Visits (5)
% of Expected New Pregnancies (2) / (1)	%	% of Total Newly Registered (3) / (2)	%	% of Total Newly Registered (4) / (2)	%	No. of Re-visits (5) - (2)

B. Deliveries (From Mother Health Register)				Expected Deliveries this month (CA Population/300) <input type="text"/> (1)		C. Post-natal Care (From Mother Health Register)	
Total Number of Deliveries (2)		No. of Deliveries by Trained Persons (5)		% of Expected Deliveries (5) / (1)	%	Number of Deliveries in month previous to reporting month (7)	
Number of Stillbirths (3)		No. of Deliveries in your Facility (6)		% of Deliveries by Trained Persons (6) / (5)	%	Rec'd at least 1 Postnatal Visit (8)	
Number of Abortions (4)						% of Deliveries in previous month (8) / (7)	%

D. Maternal Deaths Number: (From Mother Health Register)

E. Family Planning (From Family Planning Register)											
Total Visits	Male	Female	New Cases	Old Cases	Visits by Contraceptive Method					Referred	
					Condom	Foam	Pills	Injection	IUCD		Surgery
Units Distributed >											

F. Growth Monitoring (From Child Health Register)		Expected Children under 1 year this month (CA Population / 320) <input type="text"/> (1)			
No. Newly Registered under 1-year (2)		Total Visits (3)			
% of Expected under 1 year (2) / (1)	%	No. Normal Nutrition Status (4)		% of Total Visits (4) / (3)	%

G. Vaccinations (From EPI Register)		Catchment Area Population (if different from page 1): <input type="text"/>			
Number Fixed Centres: <input type="text"/>		Number Outreach Teams: <input type="text"/>			
		No. Mobile Units: <input type="text"/>			
Vaccination Type	0-11 months	12-23 months	2 years and over	Total Children	
1. BCG					
2. DPT - 1					
3. DPT - 2					
4. DPT - 3					
5. DPT - Booster					
6. OPV - Zero					
7. OPV - 1					
8. OPV - 2					
9. OPV - 3					
10. OPV - Booster					
11. DT - 1					
12. DT - 2					
13. DT - Booster					
14. Measles					
15. Fully Immunized Children					
Target Group for TT Vaccines	TT - I	TT - II	TT - III	TT - IV	TT - V
16. Pregnant Women					
17. Child Bearing Age Women					
18. Total					

51

2. MONTHLY FLCF REPORT

The Monthly Report for First Level Care Facilities is a comprehensive four page document, addressing health problems seen, activities performed, and resources used during the previous month.

The report is divided in 8 sections. For each section, if applicable, first data source and instructions for aggregating are given. Then instructions follow on how the data from the source are transferred on the report form.

GENERAL INSTRUCTIONS

1. Fill in ALL items of the report. Never leave blank a possible entry. If the number of the item is zero, fill in 0.
2. For activities that are normally not performed in the health facility, the reporting section can be crossed out and overwritten by "Not Applicable"

For example

E. Family Planning											
Total Visits	Male	Female	New Cases	Old Cases	Visits by Contraceptive Method						Referred
					Condom	Foam	Pills	Injection	IUCD	Surgery	
Units Distributed >											

8. MOTHER AND CHILD CARE PREVENTIVE ACTIVITIES

Data Source: Maternal Health Register for Sections A, B, C and D.

The pages of this register are labeled according to the expected month of delivery.

Each month, registration of new mothers in the register will therefore be spread out over several pages according to their EMD. Most women will register well in advance of their expected month of delivery. These will be registered in the pages following the current EMD month. Few women may also register post-term, whose EMD has already passed and therefore will be registered in the page preceding the current EMD month.

On completion of each month draw a line below all the cases registered this month, on all the pages, so that they may be differentiated from the previous months. Let us call it the 'End of month line'.

A. Prenatal Care

Expected New Pregnancies (1)

This figure is a calculation and is not derived from the Maternal Health Register.

Divide your Catchment area population by 270 and write the result in the box provided.

No. Newly Registered (2)

Count in Column 2, all women registered this month. Count from current EMD page through the next 8 pages.

% of Expected New Pregnancies

This is a calculation. Calculate:

$$= \frac{\text{No. newly registered (2)}}{\text{Expected new pregnancies (1)}} \times 100$$

Newly Registered
During 1st
Trimester (3)

Count in Column 12 (1st Tri), the number of women registered for prenatal care this month who were in their first trimester. Count from current EMD page through the next 8 pages between the last two "End of the month lines:".

% of Total Newly
Registered

This is a calculation. Calculate:

$$= \frac{\text{Newly registered during 1st trimester (3)}}{\text{No. of newly registered (1)}} \times 100$$

Hemoglobin Under
10 gm% at 1st
Measurement (4)

Count in Column 10 the number of women registered this month with a Hemoglobin of under 10 gm% at 1st measurement. Count from current EMD page through the next 8 pages between the last two "End of the month lines:"

% of Total Newly
Registered

This is a calculation. Calculate:

$$= \frac{\text{Hemoglobin under 10 gm \% at 1st measurement (4)}}{\text{No. of Newly registered (1)}} \times 100$$

Total Visits (5)

Locate the current month in Column 12. Count the number of contacts in current month. Count from one page before current EMD page through the next 9 pages. This time you will count **over the whole page** rather than just within the two "end of month lines" of this month.

No. of Re-visits

This is a calculation. Calculate:

$$= \text{Total visits (5)} - \text{No. of Newly registered (2)}$$

B. Deliveries

You will have to count required columns matching them with deliveries in this month (since not all the women registered in the current month will deliver in the same month).

Expected Deliveries
this month (1)

This figure is a calculation and is not derived from the Maternal Health Register.

Divide your Catchment area population by 300 and write the result in the box provided.

Total Number of Deliveries (2)

Count the number of deliveries reported this month in column 15 by looking at the dates. The deliveries that are reported this month but not conducted this month will be circled and you must count them. Count from current EMD page, one preceding and two subsequent pages.

Number of Still Births (3)

Count in column 17 the number of still births reported this month by looking at the date of delivery. Count current EMD page, one preceding and two subsequent pages.

Number of Abortions (4)

Count in column 14 the number of abortions reported this month by looking at the dates. The abortions that are reported this month but did occur this month will be circled and you must count them. Count from 8 pages after current EMD page.

No. of Deliveries by Trained Persons (5)

Count in column 19 the number of deliveries reported this month to have been conducted by trained persons by looking at the date of delivery. Count current EMD page, one preceding and two subsequent pages.

No. of Deliveries in your Facility (6)

Count in column 21 the deliveries conducted in your facility this month. Count current EMD page, one preceding and two subsequent pages.

% of Expected Deliveries

This is a calculation. Calculate:

$$= \frac{\text{No. of deliveries by trained persons (5)}}{\text{Expected deliveries this month (1)}} \times 100$$

% of Deliveries by
Trained Persons

This is a calculation. Calculate:

$$= \frac{\text{No. of deliveries in your facility (6)}}{\text{No. of deliveries by trained persons (5)}} \times 100$$

Total Women with
EMD 1 month ago

C. Postnatal Care

Number of Deliveries
in month Previous
to Reporting
Month (7)

Enter here the number of women who delivered in the month previous to the reporting month. Count the number of deliveries by looking at the date of deliveries in column 15 of the month previous to reporting. Look at the date of delivery and not the date of reporting (which is circled).

Received at least
1 Postnatal visit

Of the women who delivered in the month previous to reporting, count those women who have at least 1 postnatal visit in column 23 or 24 this month. For this you will have to count in column 23 or 24 on the reporting month page and one before.

% of Deliveries in
Previous Month

This is a calculation. Calculate:

$$= \frac{\text{Received at least 1 postnatal visit (8)}}{\text{No. of deliveries in month previous to reporting}} \times 100$$

D. Maternal Deaths

Count the number of deaths reported this month (look at the dates) in column 28. You will have to look through the current EMD page, all the subsequent pages and one page before.

E. Family Planning

Data Source: Family planning register

After each month is over, draw a line across the page, so as to separate clients of this month from those of next month.

Total Visits Count the number of visits in column 1 between the last two 'End of month lines'.

Male Count the number of ticks in column 7 between the last two 'End of month lines'.

Female Count the number of ticks in column 8 between the last two 'End of month lines'.

New Cases Count the number of ticks in column 4 between the last two 'End of month lines'.

Old Cases Count the number of ticks in column 5 between the last two 'End of month lines'.

**Visits by
Contraceptive
Method**

Count the number of visits noted in columns 10, 11, 12, 13, 14, and 15.

Referred Count the ticks in column 17 between the last two 'End of month lines'.

Units distributed Aggregate the amount noted in columns 10, 11, 12, 13 and 14 between the last two 'End of month lines' and transfer totals here.

F. Growth Monitoring

Data Source Child health register

After each month is over, draw a line across the page, so as to separate clients of this month from those of next month.

**Expected Children
under 1 yr (1)**

This figure is a calculation and is not derived from the Child Health Register. Divide your catchment area population by 320 and write the result in the box provided.

No. of Newly Registered under 1 yr (2)

Count the ticks in column 6 between the last two "End of month lines".

% of Expected under 1 yr

This is a calculation. Calculate:

$$= \frac{\text{No. of newly registered under 1 yr. (2)}}{\text{Expected children under 1 yr. (1)}} \times 100$$

Total Visits (3)

Count the filled spaces in the column of the month and year of this report under column 8. (visits could have been recorded on several pages of the register).

No. of Normal Nutrition Status (4)

Locate in column 8 the current month and year and count the number of 'N's in the column.

% of Total Visits

This is a calculation. Calculate:

$$= \frac{\text{No. of normal nutrition status (4)}}{\text{Total visits (3)}} \times 100$$

DRAFT

**[Province] Health Department
Supervisory Checklist
For First Level Care Facilities**

Institution Name:	Name of Supervisor:
Division:	Year:
District:	Quarter: 1 2 3 4
Tehsil/Taluka	Date of Visit: <input type="text"/> / <input type="text"/> / <input type="text"/>
Incharge Name:	

Preparation for Supervisory Visit

Date of previous visit: / /

Action taken since previous visit:

Are there special problems from previous visit that need to be followed during the current visit?

List: _____

Any special needs/requirements? .

List: _____

Take the following documents with you or make photo copies of relevant parts.

1. *Personnel Management Register*
2. *Last Monthly Report of the Health Institution*
3. *Last Year Report of the Health Institution (once a year)*

Section 1: Individual Case Management

Make final assessment on case management of the following health care activities using the scores obtained through the worksheets. For health care activities not performed in the supervised health facility, tick the box 'NA' (Not Applicable).

		Quality of Case Management			
		NA	Poor (<50%)	Insufficient (50 - <80%)	Appropriate (≥80%)
1.	Sick Child Under Five				
1.1.	General Child Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2.	Diarrhoeal Disease Case	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.	Acute Respiratory Infection Case	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4.	Management of Nutritional Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.	Management of Immunization Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Growth Monitoring in Child Under Three	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Immunization Session	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Prenatal Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Delivery Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Postnatal Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Neonatal Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Family Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Tuberculosis (follow-up)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 2: Resource Management

Make final assessment on the management performance of the health staff for the following resources, using the scores obtained through the worksheets. For resources not available in the supervised health facility, tick the box 'NA' (Not Applicable).

1. Laboratory

1.1 Microscope in good working condition

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

1.2 Laboratory diagnosis of malaria is of acceptable quality.
(Malaria diagnosis correct for $\geq 80\%$ of slides)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

1.3 Laboratory diagnosis of tuberculosis of acceptable quality.
(Tuberculosis diagnosis correct for $\geq 80\%$ of slides)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

2. Community Development Activities

Management of community development activities is of acceptable quality.
(A 'Yes' answer was recorded for $\geq 80\%$ of management indicators)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

3. Personnel Management

Personel Management is of acceptable quality.
(A 'Yes' answer was recorded for $\geq 80\%$ of management indicators)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

4. Cold Chain Management

Cold Chain Management is of acceptable quality.
(A 'Yes' answer was recorded for $\geq 80\%$ of management indicators)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

5. Physical Resources Management

5.1 $\geq 80\%$ of essential equipment is in good working condition

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

5.2 Physical inventory check for equipment/furniture and linen is satisfactory

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

5.3 Physical inventory check for drugs/vaccines/supplies is satisfactory

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

5.4 Transport means of the health facility were appropriately used

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

6. Record Keeping System Management

The Management of the Record Keeping System is of acceptable quality.
(A 'Yes' answer was recorded for $\geq 80\%$ of management indicators)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	Y	N

Feedback On The Visit

1. Improvements noticed since previous visit:

2. Problems identified during previous visit that need still further improvement:

3. Problems identified during this visit:

4. Recommendations to Health Staff:

5. Actions to be taken by supervisor:

6. Problems to be followed at next visit:

7. Date of next visit: _____

DESIGN OF HEALTH MANAGEMENT INFORMATION SYSTEM
FIRST LEVEL CARE FACILITIES

DRAFT

Supervisory
Checklist

INSTRUCTIONS

June 1, 1992

GENERAL INSTRUCTIONS

The supervisory checklist is a district level data collection instrument intended to improve quality of patient and facility management in first level care facilities.

1. Purpose

- 1.1. To help supervisors at the district level to assess as objectively as possible quality of case management and of resource management in first level care facilities under their responsibility.
- 1.2. To serve as a tool for continuing education of the staff in first level care facilities.
- 1.3. To provide to divisional, provincial, and national public health managers the necessary data for monitoring quality of care in first level care facilities.

2. Users

The supervisory checklist can be used by all types of district and tehsil/taluka level supervisors, such as District Health Officers (DHOs), Assistant District Health Officers (ADHOs), Taluka Officers, Assistant Health Inspectresses (AHIs), Field Supervisory Medical Officers (FMSOs), etc.

It can be used simultaneously by several supervisors, e.g. ADHO for curative care, AHI for maternal care etc. At the end of each quarter, the checklist should be available to the District Health Officer so that he can draft the Quarterly District Report.

3. Presentation

The Supervisory Checklist for First Level Care Facilities provides summary statements on all activities performed in the first level care facility. It first gives a framework for the preparation of a supervisory visit. It then has a Section 1 on Case Management, and a Section 2 on Resource Management. Finally it gives a framework for the provision of feedback to the health facility staff.

Following are a series of worksheets permitting the supervisor(s) to assess in detail the performance of the health staff for each of the activities in case management and in resource management, so that the statements given in the Supervisory Checklist can be made more objective.

WORKSHEETS

Section 1: Individual Case Management

Following is a series of worksheets permitting to assess quality of care provided to patients/clients for priority health care activities:

1. Sick Child Under Five
 - 1.1 General Child Care
 - 1.2 Diarrhoeal Disease Case
 - 1.3 Acute Respiratory Infection Case
 - 1.4 Management of Nutritional Status
 - 1.5 Management of Immunization Status
2. Growth Monitoring in Child Under Three
3. Immunization Session
4. Prenatal Care
5. Delivery Care
6. Postnatal Care
7. Neonatal Care
8. Family Planning
9. Tuberculosis (follow-up)

Assessment by the supervisor is performed through observation of the health care provider in action (except for tuberculosis). During his supervisory visit, the supervisor selects a number of cases to be observed and uses the worksheets to make a detailed check on the case management. For most of the priority health care activities, standard case management guidelines are available and can be consulted in addition to the worksheets.

For each health care activity, observations on a maximum of five cases can be recorded. For each item, write in the appropriate box, one of the following scores:

- YES: Item was correctly performed by the staff
NO: Item was not or incorrectly performed by the staff
NA: Assessment of this item was not applicable for this particular case

At the end of the worksheet, 'Yes' and 'No' scores are totalled, and the percentage of 'Yes' scores out of the total 'Yes' and 'No' scores is calculated. These percentages can then be transferred to the supervisory checklist.

Section 1: Individual Case Management	Institution Name: _____
Worksheet 1: Sick Child Under 5	
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/> Y	<input type="checkbox"/> N	Name of Staff: -->				
1. Rapport							
1.1	Was mother greeted?						
1.2	Was mother asked to sit down?						
1.3	Was mother asked reason for coming to the facility?						
2. History							
2.1	Asks for age of child						
2.2	Asks change in eating/drinking pattern						
2.3	Asks change in bowel/urine output						
2.4	Asks for change in activity						
2.5	Asks for other symptoms						
2J	Asks for child's immunization status						
2N	Asks for nutrition intake assessment						
3. Examination							
3.1	Looks at general condition (colour, alertness)						
3.2	Looks at condition of eyes, ears						
3.3	Looks at condition of nose, mouth, ear						
3.4	Looks at chest indrawing						
3.5	Counts respiration						
3.6	Takes skin pinch						
3.7	Takes temperature (if indicated)						
3J	Checks Immunization Card						
3N	Takes weight (child under 3)						
4. Classification							
	Was child correctly classified?						
4.1	ARI case						
4.2	Diarrhoea case						
4.3	Case with other symptoms						
4.4	Case with no symptoms						
4J	According to need for vaccines						
4N	According to nutritional status						

TV

5a	Management						
5.1	Were child's needs correctly managed? According to WHO protocol for ARI case According to WHO protocol for Diarrhoea case According to acceptable standards for other cases						
5.2	Refers complicated case appropriately						
5.I	Manages correctly immunization needs of the child						
5.N	Manages correctly nutritional needs of child						
6	Advice						
6.1	Explains to parents findings of child's condition						
6.2	Explains need/no need for drugs						
6.3	Explains when to bring back the child						
6.I	Gives appropriate immunization advise						
6.N	Gives appropriate nutritional advise						
7	Follow-up						
7.1	Gives appointment for next visit						
7.2	Checks if mother has well understood treatment advice given and date of next appointment						
8.	Reporting						
8.1	Completes MCH card						
8.2	Completes OPD Register						
8.3	Uses Referral Forms						
For General Child Care <i>Write number of 'Yes' scores over total number of 'Yes' and 'No' scores</i>		/	/	/	/	/	/
For ARI Cases <i>Write number of 'Yes' scores over total number of 'Yes' and 'No' scores</i>		/	/	/	/	/	/
For Diarrhoea Cases <i>Write number of 'Yes' scores over total number of 'Yes' and 'No' scores</i>		/	/	/	/	/	/
For Immunization Management <i>Write number of 'Yes' scores over total number of 'I' scores</i>		/	/	/	/	/	/
For Nutritional Management <i>Write number of 'Yes' scores over total number of 'N' scores</i>		/	/	/	/	/	/
Final Assessment: Percentage of 'Yes' scores out of total 'Yes' and 'No' scores:							
General Child Care:							%
ARI Case:							%
Diarrhoea Case:							%
Immunization Management:							%
Nutritional Management:							%

Section 1: Individual Case Management Worksheet 2: Growth Monitoring in Child Under Three	Institution Name: <hr/>
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/> Y <input type="checkbox"/> N	Name of Staff: -->					
1.		Asks mother for MCH card and if first time, issues an MCH card					
2.		Tares scale to 0 at the beginning of the weighing session					
3.		Determines age of child as precisely as possible					
4.		Undresses the child before weighing					
5.		Reads weight correctly					
6.		Records age correctly on MCH card					
7.		Records weight correctly on MCH card					
8.		Explains result to mothers					
9.		Talks about need to maintain breast-feeding or good weaning practices					
10.		Explains mother if child needs special feeding or other attention					
11.		Asks mother if she had any questions about child's status					
12.		Gives appropriate appointment for next weighing					$\frac{\text{Total 'Yes'}}{\text{Total 'Yes'+ 'No'}}$
Write number of 'Yes' scores over total number of 'Yes' and 'No' scores.			/	/	/	/	/
Final Assessment: Percentage of 'Yes' scores over total 'Yes' and 'No' scores:							%

Section 1: Individual Case Management Worksheet 3: Immunization Session	Institution Name: <hr/>
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/> Y	<input type="checkbox"/> N	Name of Staff: -->					
1.	Uses sterile needle and syringe for each injection							
2.	Uses correct syringe and needle							
3.	Gives injection at the correct place							
4.	Uses the correct route for injection							
5.	Records dates of immunization on appropriate cards and registers							
6.	Informs mother when the child needs to be brought back							
7.	Asks the mother to repeat the instructions to assure that she understood							
8.	Rinces and sterilizes reusable syringes and needles							
9.	Discards disposable syringes and needles							
10.	Discards opened vials of vaccines							
<i>Write number of 'Yes' scores over total number of 'Yes' and 'No' scores.</i>			/	/	/	/	/	/
Final Assessment: Percentage of 'Yes' scores over total 'Yes' and 'No' scores:								%

75

Section 1: Individual Case Management Worksheet 4: Pre-Natal Care	Institution Name: _____ <hr/>
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	Name of Staff: -->					
<input type="checkbox"/> Y	<input type="checkbox"/> N					
1. Rapport						
1.1 Friendly attitude						
1.2 Listens carefully						
2. History taking						
2.1 Checks medical/obstetric history on first visit						
2.2 Asks for last menses						
2.3 Probes into complaints						
3. Examination						
3.1 Checks pelvis on first visit						
3.2 Checks BP, weight, oedem, urine						
3.3 Checks fundus height						
3.4 Checks position baby >32 wks						
4. Classification						
4.1 Assesses gestation period						
4.2 Ident. correct risk level						
4.3 Ident. any need for referral						
5. Management						
5.1 Provides routine drugs (FFC)						
5.2 Completes TT vaccination						
5.3 Manages problems by protocol						
6. Advice						
6.1 Advices on feeding and rest						
6.2 Warns for smoking & drugs						
6.3 Advices place of delivery						
6.4 Explains signs of labour						
6.5 Explains conduct home deliv.						
6.6 Advices emergency action						
7. Follow-up						
7.1 Gives appointment for next check-up						
7.2 Confirms date of next visit						
8. Reporting						
8.1 Completes MCH card						
8.2 Completes Mother Health Register						
Write number of 'Yes' scores over total number of 'Yes' and 'No' scores.						/
Final Assessment: Percentage of 'Yes' scores out of total 'Yes' and 'No' scores:						%

Section 1: Individual Case Management Worksheet 5: Labour and Delivery	Institution Name: _____
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/> Y <input type="checkbox"/> N	Name of Staff: -->					
1.	Rapport						
1.1	Helps mother to relax						
1.2	Instructs clearly and calmly						
2.	History taking						
2.1	Uses MCH card to check risks						
2.2	Identifies gestation period						
2.3	Identifies hrs of labour						
3.	Examination						
3.1	Takes pulse, bp, temp.						
3.2	Checks pv bleeding, anemia						
3.3	Counts contractions						
3.4	Checks position foetus						
3.5	Counts foetal heart rate						
3.6	Examines pelvis, cervix by VE						
4.	Classification						
4.1	Checks if labour < 12 hrs						
4.2	Ident. foetal distress						
4.3	Ident. presenting part(s)						
4.4	Determ. need referral						
5a	Routine Management Labour						
5.1	Monitors pulse, bp 1/2 hrly						
5.2	Checks bladder/bowel						
5.3	Checks foetal heart 1/4 hrly						
5.4	Checks cervix/descend 2-hrly						
5.5	Gives sugary drinks						
5b	Management Normal Delivery						
5.6	Clean instrum/hands/perineum						
5.7	Controls slow delivery head						
5.8	Checks cord around neck						
5.9	Cleans mouth and nose of baby						
5.10	Checks if placenta complete						
5.11	Checks contraction uterus						
5c	Management complications						
5.12	Gives iv fluid if in shock						
5.13	Refers obstructed labour						
5.14	Resuscitates baby (protocol)						
6	Advice						
6.1	Explains risk of infection						
7	Follow-up						
7.1	Gives date for Postnatal Care visit						
8	Reporting						
8.1	Completes card and Mother Health Register						
Write number of 'Yes' scores over of total number of 'Yes' and 'No' scores		/	/	/	/	/	/
Final Assessment: Percentage of 'Yes' scores out of total 'Yes' and 'No' scores:							%

Section 1: Individual Case Management Worksheet 7: Neonatal Care	Institution Name: _____
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/> Y	<input type="checkbox"/> N	Name of Staff: -->					
1. Rapport								
1.1 Shows interest in baby								
1.2 Keeps it on mother lap								
2. History								
2.1 Checks birth weight on MCH card								
2.2 Asks feeding history								
2.3 Asks immunization history								
3. Examination								
3.1 Checks respiration, pulse, temp								
3.2 Checks jaundice								
3.3 Checks umbilical stump								
3.4 Weighs and notes weight change								
4. Classification								
4.1 Identifies neonate's risks								
4.2 Determines weight gain since birth								
4.3 Identifies major problems								
4.4 Identifies need for referral								
5. Management								
5.1 Provides routine care according to protocol								
5.2 Manages respiratory distress								
6. Advice								
6.1 Encourages breast feeding								
6.2 Advises on immunization								
7. Follow-up								
7.1 Explains any high risk								
7.2 Confirms date of next visit								
8. Reporting								
8.1 Completes MCH card and Child Health Register								
<i>Write number of 'Yes' scores over total number of 'Yes' and 'No' scores</i>								Total 'Yes' Total 'Yes'+ 'No'
								%
Final Assessment: Percentage of 'Yes' scores out of total 'Yes' and 'No' scores:								

Section 1: Individual Case Management Worksheet 8: Family Planning	Institution Name: _____ <hr/>
Name of Supervisor: _____ <i>(if different from front page)</i>	Date of Supervision: _____ <i>(if different from front page)</i>

Work Area Set:	<input type="checkbox"/>	<input type="checkbox"/>	Name of Staff: -->					
	Y	N						
1. Rapport								
1.1	Friendly attitude/approach							
1.2	Effective communication							
2. History								
2.1	For selection of couple							
2.2	For determination of method							
3. Examination								
3.1	Blood Pressure							
3.2	Weight / weight change							
3.3	Breasts							
3.4	Genital tract							
3.5	Circulatory system/venes							
4. Classification								
4.1	Asks for couples preference							
4.2	Agrees on appropriate method							
5. Management								
5.1	Prescribes correct dose(s)							
6. Advice								
6.1	Explains and verifies client's understanding of correct usage of selected method							
6.2	Possible side effects							
6.3	What to do if they occur							
7. Follow-up								
7.1	How often and when to return for follow-up							
7.2	Where to go for re-supplies							
7.3	Confirms date of next visit							
8. Reporting								
8.1	Completes Family Planning portion of MCH Card or Family Planning/EPI Card							
8.2	Completes Family Planning Register							
Write number of 'Yes' scores over total number of 'Yes' and 'No' scores				/	/	/	/	/
Final Assessment: Percentage of 'Yes' scores out of total 'Yes' and 'No' scores:								%

80

SESSION GUIDE

Session on:	Management Principles:	4 hours
	Leadership Styles Team work Planning cycle Information for management and planning	
Purpose:	To reflect on the different leadership styles and how they effect team work. To understand the process of planning, implementation and evaluation and the role of information in this process.	
Session Plan:	<ol style="list-style-type: none">1. Introduction of participants2. Role play on leadership styles3. Discussion of leadership styles in plenary.4. Presentation on the steps of the planning cycle.5. Introduction of case study.6. Group discussion of case study7. Group presentations8. Summary with emphasis on role of information in the planning process.	
Background Material:	<u>Training for Transformation: A Handbook for Community Workers.</u> Mambo Press, Gweru. 1985.	

SR #	OBJECTIVE	METHOD	TIME (min)
1.	To introduce the participants to each other	<p><u>Groups of 2 and then plenary</u></p> <p>Ask participants to pair-up (those who do not know each other should pair-up) and try to get to know one another. After 10 minutes ask them to come back to plenary and introduce their partner and present three strengths and weaknesses of the person.</p>	60
2.	To see advantages and disadvantages of different leadership styles and the importance of communication and team work.	<p><u>Role Play:</u></p> <p>Call 7 volunteers for doing the following role play.</p> <p>They are the staff of a chemical factory. The labourers of the company want the management to shorten the work timings from 8am-5pm to 9am-3pm. They would also like the management to improve the work environment. They feel that something should be done about the heat and the smell. The group has to make a decision on these issues.</p> <p>The 7 volunteers should be asked to play the following parts:</p> <ul style="list-style-type: none"> - President of the company - Manager of the company - Personnel manager - Two labour representatives - Two clients 	10
3.		<p><u>Discussion on leadership styles in plenary:</u></p> <p>Ask the participants to:</p> <ul style="list-style-type: none"> - Describe what happened - Analyze the situation - Identify the problem(s) in doing the task - Relate the problem to their own situation. 	30

SR #	OBJECTIVES	METHOD	TIME (Min)
4.	To understand the steps of the planning cycle.	<p>Summarize by giving a presentation on the leadership styles (see handout) and the situations in which it is appropriate to use these styles. Present the various communication patterns and emphasize the importance of a health team.</p> <p><u>Case study</u></p> <p>Break into groups of 6 or 7. Do the enclosed case study individually and then review the steps you planned together in the groups.</p>	45
5.		<p><u>Group presentations</u></p> <p>Present the steps of planning.</p>	30
6.	To understand the role of the planning cycle in management.	<p><u>Presentation on the Planning Cycle</u></p> <p>Present the steps of the planning cycle (see enclosed handout) and relate it to the steps presented by the groups.</p>	30
7.		<p><u>Present on the role of Information in the Planning Cycle</u></p> <p>Show how information plays a role in all the steps of the planning cycle.</p>	15

B. Roles

1. Leadership Styles

One of the key elements enabling people to come to realise their own potential and to have self-respect, is their relationship to the leader of their group.

If a group demands that a leader do the work for them, the group is not taking responsibility for its own destiny, nor is the group able to stand on its own. This is often a fault of our own concept of leadership.

In the following chart, there are three types of leadership described:

Authoritarian Leadership
Consultative Leadership
Enabling Leadership

You will notice in the chart that different situations call for different types of leadership. For example, if the house is on fire, it is a question of survival and thus an authoritarian leadership style is appropriate.

In a new group with a strong experienced leader, while a group feels very insecure about its own identity or role in society, a consultative leadership style may be appropriate. For example a youth group may have so many personal questions about themselves and their relation to society, that the style of leadership which can help them best (at certain moments) might be one where the youth know that they can trust the leader to make decisions for them and thus they feel secure.

If the aim of a program is to help people develop maturity and responsibility, participating in making their own decisions, then the enabling style of leadership is essential.



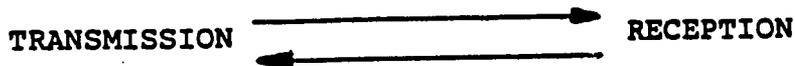
LEADERSHIP STYLES

AUTHORITARIAN LEADERSHIP survival			CONSULTATIVE LEADERSHIP security			ENABLING LEADERSHIP participation	
<p>Leader Makes Decision and Announces It</p>	<p>Leader Presents Decision but "Sells" It to Members</p>	<p>Leader Presents Decision & Invites Questions of Clarification</p>	<p>Leader Presents Tentative Decision Subject to Change</p>	<p>Leader Presents Situation, Gets Input, Makes Decision</p>	<p>Leader Calls on Members to Make Decision, but Holds Veto</p>	<p>Leader Defines Limits, Calls on Members to Make Decision</p>	<p>Leader Calls on Members to Identify Limits, Explore Situation, Make Decision</p>
<p>Leader announces his decision with no feeling of responsibility or accountability to share the reasons.</p>	<p>Leader announces his decision and shares the reasons behind it, which were prepared in advance. (Monologue)</p>	<p>Leader announces his decision, but responds on an impromptu basis with a rationale based on the questions of clarification from the members. (Dialogue with no expressed willingness to change decision.)</p>	<p>Leader announces his "tentative" decision and announces that he is open to questions of clarification and discussion. (Dialogue with willingness to change decision if necessary.)</p>	<p>Leader identifies situation or problem and moves into a facilitating role to surface assumptions and suggestions, then moves out of facilitating role and makes a decision.</p>	<p>Leader calls on group to identify situation and limitations, explore and make decision contingent on leader's veto power.</p>	<p>Leader shares any "givens" (e.g., funds available, time parameters, etc.) and facilitates a decision by members on basis of limitations.</p>	<p>Leader maintains a facilitating role allowing members to identify situation or problem, identify limits, explore, and make decision.</p>

COMMUNICATING EFFECTIVELY

Communication is sharing information, ideas, or opinions with others. It means mutual understanding between the sender and the receiver of the message.

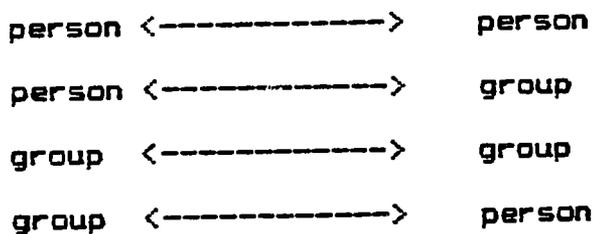
In communication a message is transmitted and received.



A message transmitted is the first half of communication

It must be received and the receiver must show that the message has been understood.

Within a community, communication may occur between:



Every communication has four elements:

1. THE SENDER : person who sends the message
2. THE MESSAGE : information, ideas, opinions
3. THE MEDIA : methods of communication
4. THE RECEIVER: person or audience who receives the message.

FACTORS INFLUENCING COMMUNICATION

1. THE SENDER - for good communication the sender should
 - have clear objectives.
 - know the receiver, their language and needs
 - know the subject matters based on scientific facts.

2. THE MESSAGE - an effective message should be :

A. CLEAR - before delivering a message we must think it out carefully. Then using simple words or phrases deliver the message in a way which the receiver easily understand.

B. CONCISE - messages should be brief so that they can remember and repeat back to you. Choose only the important words or phrases which convey message clearly.

C. COMPLETE - messages should be complete. All informations needed to carry out an action should be made available e.g.

- o what should be done;
- o how it should be done
- o who should do it
- o when it should be done
- o where it should be done

D. CONVINCING - messages should be convincing, give reasons why it should be done your way. People usually react better when they can see why something should be done, especially if they can see a benefit to themselves and others by doing it this way.

E. CAPABLE OF BEING CARRIED OUT - message must be practical, reasonable and must be capable of being carried out. Unreasonable and impractical messages will lead to frustration with negative results.

These are also known as the FIVE "Cs Formula".

3. THE MEDIA - for effective communication it is important to decide on the method of communication

A. Speech - This is an obvious method of communication and usually is the one we think of first.

B. Sight - This is probably the most effective of all the methods of communication because the mind thinks in pictures. The average person is able to remember a mental picture of upto 80 percent of what he has seen. On the other hand he usually remembers about 20 percent of what he has heard.

That's why visual aids (pictures, diagrams, charts) and practical demonstrations are valuable aids to learning.

C. Facial expression and other behavioral signals - Examples are a smile or nod to show understanding, a puzzled frown or head scratching to show lack of understanding. When communicating one should look for these signs.

D. Silence - We sometimes communicate through silence. This could show deep understanding of a speaker's words, or a strong disapproval of what he is saying. The facial expression of the receiver will show which is true.

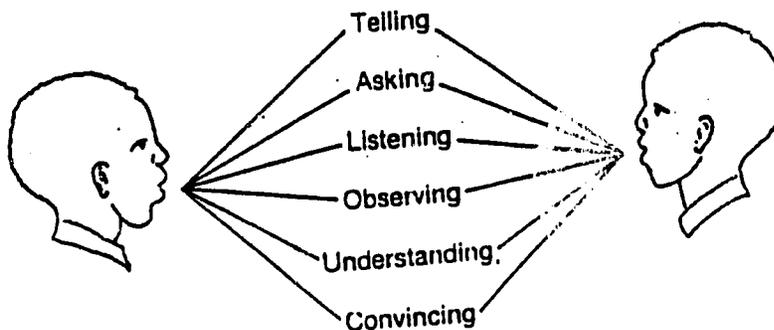
4. THE RECEIVER - In order to be able to communicate effectively it's important for us to know :

- (i) the level of knowledge and experience of the receiver
- (ii) and their feeling and attitudes in relation to the message.

THE SIX SKILLS OF COMMUNICATION

We all know that the ability to communicate effectively varies from person to person. We can, however, all benefit considerably from studying and practising the Six Skills of Communication.

These are:



The Six Skills of Communication

1. TELLING :

Telling is what we usually do, but we have already seen that telling by itself is hardly ever sufficient -- there must be feedback. We can make our telling more effective by applying the "Five Cs" formula and combine telling with showing wherever possible.

2. ASKING :

Asking is also a skill which we should practise. We ask in order to get feedback, information, guidelines, ideas, advice, action and reaction. We must develop the right attitude towards asking. It should not be seen as a sign of weakness or lack of intelligence on our part. Question should usually be on the basis of What? Where? Why? When/ Who? and How?

3. LISTENING :

Listening, is as already stated, a vitally important skill in communication. Basically, we should listen attentively, so as to:

- Get feedback, to see if our own communication has been received correctly.
- Get more information and ideas;

4. OBSERVING :

Observing is similar to listening, but here we are using our eyes rather than our ears to collect the information we want. By looking at our receiver we can see if he has received the message correctly. Observing the communicator will also show us whether he is able to express clearly what he wants to say.

5. UNDERSTANDING :

Understanding means the ability to interpret the words and messages into our own words and thoughts (pictures in the mind). If there is any doubt in our minds, we must not be afraid to ask.

6. CONVINCING :

Convincing is also vital if the receiver is to carry out the action we require. He must feel confident in us and the correctness of our message. Sometimes it is important for us to use the right emotions to convince him. Sometimes people react better towards emotional reasons rather than merely practical ones.

Lastly we must remember that the objective of communicating a message is to ensure that it is understood. It is vital that it is received under favorable conditions, where the receiver can concentrate on listening without too many outside distractions.

Whichever place is chosen for communication, the receiver will have to stop what he was doing in order to concentrate on the full message. It is useless to deliver a long message when the receiver has half his mind thinking about the job he is doing at the moment.

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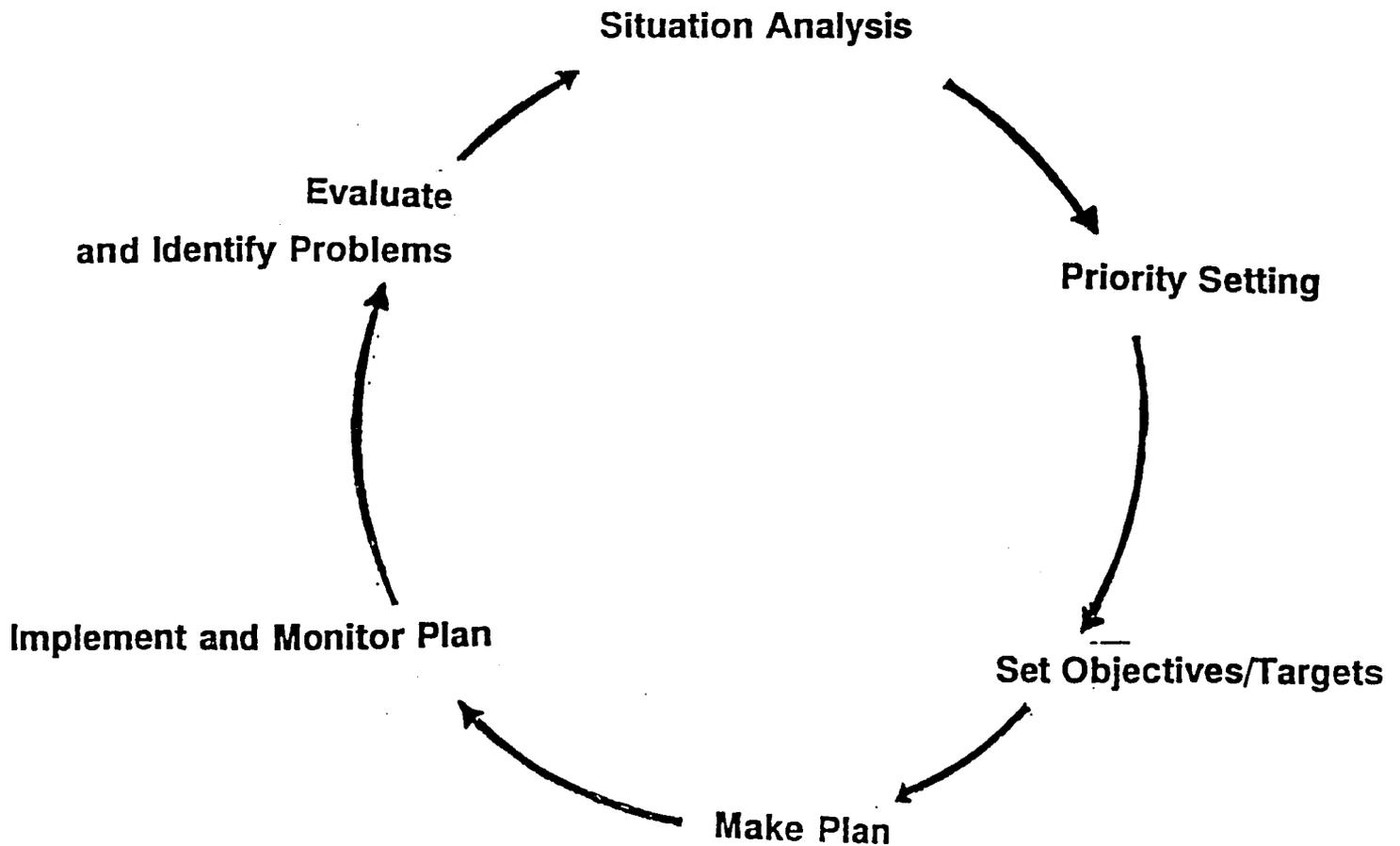
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OVERVIEW OF THE PLANNING CYCLE

A good manager will work towards achieving his/her objectives as fast as possible using the available resources as efficiently as possible. The ~~planning cycle~~ is a systematic process which enables people to effectively move towards achieving their goals and objectives.

Planning Cycle: Many Uses

- to plan and to manage a development project
- to make plans for training
- to plan and manage groups and organizations
- to bake a cake, plan a marriage, plant a garden
- to solve a problem



The stages of Planning Cycle

STAGE ONE: Situation Analysis

Identify needs, collect data, and review the situation with the involvement of the people to get a comprehensive picture of the environment in which the project is to be implemented. A situation is analyzed in order to organize the facts; to identify specific problems; to decide if a project can or should be initiated and to select a suitable project.

STAGE TWO: Priority Setting

List needs/problems and rank according to a set criteria eg. urgency, doability, availability of resources, etc.

STAGE THREE: Set Objectives

Objectives are set in order to understand exactly what you plan to accomplish; who will accomplish it; when it will be accomplished; and where it will be accomplished.

STAGE FOUR: Make a plan

Plans are made in order to identify the necessary tasks; the resources needed; the person(s) responsible; and the time in which the tasks will be completed. The plan enables you to keep track of every aspect of the project.

Objective:						
Tasks	Resources needed	Est. cost	Funds recvd	Person resp.	Date due	Date comp

STAGE FIVE: Implement Plan

Involves the actual doing of the work necessary to complete the project - carrying out the tasks identified in stage four.

STAGE SIX: Monitor

Monitoring is necessary to see if activities are being carried out according to the plan. Certain problems may come up during implementation which can be identified through a monitoring system. Plans may have to be modified when unexpected problems/constraints come up.

STAGE SEVEN: Evaluate

Evaluation is conducted to determine if the stated goal and objectives were reached and if the action plan was adequate and correct. No project, large or small, is complete until it has been evaluated. Without evaluation errors cannot be identified and corrected and successes cannot be replicated.

After giving a brief overview, the trainer repeats the stages using an example or reinforce the explanation using an example. Here the example was chosen by the trainer of a situation familiar to the Medical officers.

Example: Developing a Community Health Programme

STAGE ONE: Situation Analysis

If you want to develop a community health programme for the nearby villages you must first gather certain facts:

- how far are these villages from your center?
- what is the geographical situation?
- what are interests, knowledge, attitude and practices of the people?
- what are the communities' wants, health needs, and priorities?
- what are the available services?
- what support can you get from your staff, your supervisors, other NGOs, and other development organizations working in the area?

The data then needs to be analysed to see what are the health problems of the community.

Problems of the community -- malnutrition, diarrhoea, low immunization coverage, and non-availability of water.

STAGE TWO: Priority Setting

The criteria for prioritizing the problems for community health programme could be first address the felt needs of the community that you can assist them in addressing the other major causes of mortality.

Priority of the community -- non-availability of water

STAGE THREE: Set Objectives

The objectives for the programme could be:

- to dig a well by August 1, 1991;
- work with the community leaders to identify and train village health volunteers by Nov. 1, 1991;
- to start a growth monitoring programme once the volunteers are trained; and
- to monitor the activities of the vaccinators and see that they go to the villages regularly.

(For the rest of the discussion on the planning cycle the focus will be only on the first objective -- however, a similar process should be followed for the other objectives)

STAGE FOUR: Make a plan

The plan for the programme could be:

Objective: Dig a well by August 1, 1991						
Tasks	Resources needed	Est. cost	Funds recvd	Person resp.	Date due	Date comp
Find skilled labour	person	1000		MO	1st April	
Procure materials	list of materials money	1000		MT	15th April	
Dig (1 ft/day)	person			Comm.	June	
Put in the pipes	pipes person			Comm.	July	
Complete the well	person			Comm.	1st Aug.	

STAGE FIVE AND SIX: Implement and Monitor Plan

This stage involves actually doing the above tasks, seeing if things are going as planned (monitoring), adapting plan if necessary and finally completing the well at the promised time. Some indicators (information) will need to be generated to monitor the process.

For example in this case one of the indicators that could be generated is -- number of feet of digging being done per day. There may be a strike for 3 days which may delay the process and you may need additional cash to pay for the salary of the skilled labour for three more days and the implementation plan will have to be modified.

STAGE SIX: Evaluate and Identify problems

After the implementation is completed you could evaluate the process:

- were all the tasks done on time?
- could the delay due to the strike have been avoided?
- is the community satisfied? If not, what went wrong?
- is the well functioning OK -- it could be that in the dry season the well dries up; it is not deep enough. Thus the planning was not done correctly.
- what did you learn from this experience and if you build a well in the future, how can you do a better job?

CASE STUDY
FOR THE PLANNING CYCLE

Imagine you are a medical officer incharge of a BHU located in a small industrial town called Dino Shah. Dino Shah has a population of 10,000. Recently there have been heavy rains and the river in your catchment area has flooded the area. The DHO has asked you to conduct special typhoid and cholera vaccination sessions in the area. The DHO has asked you to submit your plans in two days.

- Q1. How will you plan the vaccination sessions?
- Q2. Now make the plan.
- Q3. Imagine you have made the plan and DHO has approved it; now you are implementing your plan. How will you see that things are being done as planned.
- Q4. After implementation how will you see the results?

SESSION GUIDE

Session on: Use of Information 4 Hours

Purpose: To see how information can be used for planning and monitoring the programme.

Session plan:

1. Presentation on role of information in planning and monitoring of a programme.
2. Group discussion of case study (which will include a monthly report).
3. Group presentations.
4. Summary.

Background material: McMahon R., Barton E., Piot M. On Being Incharge, second edition. World Health Organization, Geneva. 1992.

SR #	OBJECTIVE	METHOD	TIME (Min)
1.	To understand the importance of information for planning and management by the health team.	<u>Presentation in plenary</u> Review the planning cycle and the role of information in the planning cycle. Discuss: - What is MIS - Who are the users of MIS - What purpose does it serve (see handout).	30
2.	To practice using information from the monthly report for management purposes.	<u>Case study</u> Break into groups of 6 or 7 and discuss the case study which includes the use of the monthly report.	120
3.		<u>Group presentation</u> Present and discuss the monthly report in the case study.	30
4.		<u>Summary</u> Summarize the discussion and present some graphs that show trends from the information in the report.	15

CASE STUDY

USE OF INFORMATION FOR PLANNING AND MONITORING

You are a health team. Your report for the month has just been prepared. Using the report do the following:

- Q1. Are there any inconsistencies in the report. If there are what are they?
- Q2. Identify two problem areas and achievements from your MCH section of your monthly report.
- Q3. Use the MCH section of the report to plan your activities/priorities for the next month.
- Q4. What information do you need to see if things are going as planned?
- Q5. What indicators will you use to evaluate your progress at the end of the next month.

(Attach one full monthly report and the MCH section of the previous month)

INFORMATION SYSTEM

An information system is an organized method whereby one can collect, aggregate and analysis information to MONITOR and EVALUATE a PHC program.

It provides decision makers at different levels of the program, accurate and timely information at regular periodicity to facilitate informed decision making.

DEVELOPMENT PROCESS:

Objectives --> Indicators --> Data --> Instruments

INSTRUMENTS

- Complexity of the instruments will depend on the management level using it.
- Types of Instruments:
 - o For Patient management vs facility management
 - o For:
 - * Recording
 - * Aggregating
 - * Reporting
- Examples of Instruments:

Records

- o Patient Records: Child Growth Card
- o Facility Records: Child Register

Reports

- o Tables
Eg. Monthly report of all activities
- o Graphs
Eg. Bar chart showing nutrition status of Children of one CHW
Line chart showing trends of immunization coverage in graphical area

DATA USES, PURPOSES, AND TYPES IN A TYPICAL PRIMARY HEALTH CARE PROGRAM

<u>WHO NEEDS DATA ?</u>	<u>FOR WHAT PURPOSE ?</u>	<u>ABOUT WHAT ?</u>
Individual patients and their families	To monitor and manage individual health conditions	Current and past health problems; future appointments for (a) continued therapy, (b) family planning and (c) immunizations; growth monitoring.
Communities	To monitor and manage community health problems	Community health problems and their causes; health services and activities.
Fieldworkers	To identify individuals needing attention and determine appropriate therapies	Individuals continuing drug therapy, missing appointments, or in need of special services (antenatal, family planning, immunizations); communities' endemic health problems, disease outbreaks and environmental hazards.
Clinic staff	To determine appropriate therapies; identify persons who miss appointments; to monitor and manage community health problems.	Individuals (as above)
Intermediate supervisions and managers	To supervise and provide technical support to staff	Communities (as above)
National statistical office (may include epidemiology unit, planning unit, or other data users)	To account for resources; to guide program managers and policy-makers; to evaluate projects or experimental activities and to report to donors	Demography: total population and specific target groups. Health status; endemic conditions, and disease outbreaks. Records for: personnel, facilities, drugs and other supplies, equipment, and money.
National program managers	To allocate resources effectively and efficiently within a given program budget; to plan and monitor achievement of objectives and key events; to evaluate results.	Availability and use of health care resources, including personnel, facilities, drugs and other supplies, equipment, and money; health status; health services and activities; accomplishment of policy and program objectives.
Health planners	To allocate national health resources efficiently and equitably; to plan policies and programs; to evaluate results against plans.	Same as for statistical office, except that data must be thoroughly digested, interpreted and used for program planning and implementation.
Staff of categorical programs	Similar to above users, but more specialized.	Same as for statistical office
Researchers	To plan and evaluate experimental activities	Same as for statistical office.
Donors and international agencies	To account for resources; to plan, implement and evaluate assistance activities	Greater detail than above, depending on research design. Personnel, facilities, drugs and other supplies, equipment, and money; health status, demography; availability and use of health resources; health services and activities; accomplishment of joint objectives.

PROBLEMS:

- * INADEQUATE information
- * too much TIME spent on data collection
- * RELEVANCE of collection of information not seen at the level of collection
- * NO FEEDBACK -- Data collection exercise done only to yield statistics
- * Data not processed TIMELY for decision making
- * USES of data usually not defined
- * Duplication

CHAPTER 3**Evaluating health activities****Learning objectives**

After studying this chapter and doing Exercises 70–73 on pages 379–386, the health worker should be able to evaluate:

- the achievements of a health team in services delivered and their impact in reducing the priority health problems of the community
- the progress of a health team's work
- the performance of the individual members of a health team
- the efficient use of the health team's resources
- the management of the health team.

Introduction: The evaluation function

As has been noted in Part I, evaluation is an essential part of management by objectives and learning from experience. Evaluation is also related to the principle of management by exception.

'To evaluate' is simply defined as *to judge the value of*. The term is often used incorrectly in the sense of 'to examine' or 'to measure' or 'to assess'. However, evaluation *depends* on examination or measurement or assessment, which must be carried out to obtain the information that will allow an evaluation to be made. Generally, the term 'evaluation' is used to include the whole process of examination or measurement and the ultimate judgement of value.

In this context, the term 'assessment', sometimes used as a synonym for evaluation, is normally used in relation to the observation of performance of students as they demonstrate clinical skills or competence in carrying

out a health care activity or of health workers as they undertake a health care task.

Assessment of performance of staff is an essential part of evaluation of a health programme and is a direct means of measuring quality of health care.

The term 'appraisal' is normally used instead of 'evaluation' in relation to a supervisor's annual review of performance of individual health care staff.

The purpose of management (improving achievement and performance) and the nature of management decisions were discussed in Part I. Management decisions concerned with evaluation are those that deal with the health team's:

- effectiveness, or achievement of results
- performance of activities
- efficiency, or economic use of resources.

As evaluation is concerned in the first instance with *effectiveness*, or the achievement of results, the following questions are asked first:

- Are the results as intended?
- Are the results of value?

When the answer to both questions is 'yes', the most likely decision will be to carry on as planned. If the answer to either question is 'no', the ensuing decision will usually be to revise the objectives or the activities or both.

With regard to *performance*, the evaluator asks the following questions:

- Are the results as good as they could be?
- If not, why not?

When the results are as good as they could be, the decision will usually be to make no change. When results are less good than expected, however, the likely decision will be to change the design of activities or the use of staff or of other resources.

Finally, with regard to *efficiency*, the evaluator asks the questions:

- Could the same results have been achieved more cheaply?
- If so, by substituting what resources for those that were used?

If the results could have been achieved more cheaply, the ensuing decision would be to use resources more economically. This kind of typical 'control' decision might be taken, for instance, in preparing yearly operating budgets.

Before going on to a review of management functions in evaluation, it is worth emphasizing that evaluation can be undertaken at different times and in various ways, but that it follows certain general principles.

The general approach in evaluation is as follows:

- *measurement* of observed achievement
- *comparison* with previously stated norms¹, standards² or intended results
- *judgement* of the extent to which certain values are satisfied
- *analysis* of causes of failure
- *decision* (feedback).

For instance:

According to its records, a health team has achieved an 80% coverage with postnatal visits in its health area. The target it had set itself was 75% coverage. Achievement therefore appears to be more than satisfactory. However, by looking at the distribution of the women who were visited, it appears that none belongs to any of three distant villages. This does not satisfy the community's demand for 'equal access to services'. A decision is therefore required.

This example illustrates an important difficulty in evaluating effectiveness. In the example, is effectiveness best measured as coverage, equal access to services, or both? Is the health team more successful if it exceeds its coverage target by concentrating its efforts on nearby villages than if it provides services equally to all the villages at the cost of lower coverage? Effectiveness is not a simple matter of success or failure.

In practice, a health team tries to meet the many and varied *needs* of the community and to satisfy its more pressing *demands*. It also has to pay attention to problems that have national priority, and therefore sets itself

¹ Norm: standard quantity to be produced or amount of work to be done.

² Standard: measure by which accuracy or quality is judged.

operational targets in a variety of programme areas (such as nutrition, water supply, communicable diseases, family health), as well as *time-frames* for their achievement. Effectiveness is about all of these aspects of the team's functions, and its evaluation should be concerned with all of them, provided that it is possible to obtain, from records or by measurement or assessment at reasonable cost and with reasonable effort, the necessary valid and relevant information.

The means of measuring effectiveness must therefore be carefully selected. Before the measurement of effectiveness for purposes of programme evaluation is begun, the following questions should be asked:

- What planning or implementation decisions will be affected by the findings?
- How will the findings be used in making those decisions?
- How, and to what extent, will implementation of the decisions improve effectiveness?

For instance:

After the evaluation of the effectiveness of the health team in the above example, the following implementation decisions must be made:

- Ought the team to provide services to the three distant villages? If so, when? What proportion of the staff and resources should be reallocated for the purpose?
- Where could services in other villages be reduced and how could resources thus saved be used for the villages not yet covered? Information on the postnatal coverage of women in each village will show this.
- Should, say, 10% of staff time and other resources be transferred to the three distant villages? This would probably not reduce coverage to less than 75% in any of the other villages, but would raise coverage from 0 to 50% in the three distant ones, which would be a significant improvement in effectiveness.

From this example it can be concluded that 'coverage' and 'distribution' are suitable aspects of effectiveness to measure since they point to necessary implementation decisions, contribute to making such decisions, and support the decisions. However, there are other difficulties with evaluation.

For instance:

A health team evaluates its effectiveness in providing clean water to the households in an area where the ratio of pumps to households was 1 to 45. The target was one pump to every 20 households. At the midpoint of the plan period the ratio is only one pump to every 40 households. It seems that the team is failing to achieve the target.

The pump:households ratio is a valid but insufficient measure of the team's effectiveness; it tells nothing about the possible cause of failure. To learn from experience (which is one of the principal purposes of evaluation) something more must be done. It is essential to analyse what factors are preventing successful implementation.

This implies looking at the entire chain of events that would normally have resulted in success, and discovering what are the obstacles and limitations that are preventing success, as well as the positive factors that would lead to success if the team were to take them into account. In the above example such analysis might include:

- estimating the community's demand for water
- examining community acceptance of the type of pump proposed
- finding out whether the community can pay for maintenance of the water supply system
- checking whether all the required parts are available in stock
- testing the drilling rig
- appraising the technical ability of those who prepared the detailed plans for the project
- finding out whether the rural water scheme is assured of adequate funds for reaching the target and maintaining the service.

This is a continuation of the evaluation, but in depth. Although evaluation may be concerned primarily with effectiveness, it will often reveal inefficiency, or uneconomical use of scarce resources, as a cause of failure to reach a target.

Sometimes the evaluation in depth can turn towards management itself, asking the question "How efficient is the management?". This self-evaluation of management is usually referred to as *management audit*.

Obviously management needs information to be able to discuss seriously such points as those raised in the example above. In Chapter 2, on implementation, reference was made to the monitoring function of management as the mechanism for getting the right kind of information, where

105

and when it is needed, for evaluation purposes as well as for more immediate control purposes. In this sense, monitoring is part of the evaluation function of management.

Finally, *feedback* is necessary for learning from experience. When a health team undertakes an evaluation, with all members contributing, the feedback is immediate, in as much as every staff member learns from the discussion. However, evaluation findings and their interpretation must also be communicated to decision-makers at other levels, especially if their participation in improving the situation is expected. Feedback may be made available to the community, to its representatives and leaders, and to higher levels of administration.

Evaluation, particularly when it requires an analysis of causes of under-achievement, is the best way to ensure that management focuses attention on what matters most: it helps in making *big decisions first*.

3.1 Evaluating achievement

To evaluate a programme for its effectiveness is to judge the value of results achieved by the health team. It necessitates measuring the extent to which people get the services that were planned to meet their needs, and assessing how much they benefited from the services. The information thus obtained is used to improve the quantity, quality, accessibility, efficiency, etc. of services.

Two broad questions must be asked:

- Are the results those that were intended?
- Are they of value?

The general approach to evaluation (in this case, for effectiveness) consists of the following five steps:

- deciding what aspects of the programme are to be evaluated and how effectiveness is to be measured
- collecting the information needed to provide the evidence
- comparing the results with the targets or objectives
- judging whether and to what extent the targets and objectives have been met
- deciding whether to continue the programme unchanged, to change it, or to stop it.

Evaluation is often described as a continuous function, but in this chapter the evaluation of a single programme within a limited time period (e.g. in preparation for an annual report) is described. The evaluation is performed by health staff, who will be expected to collect and analyse the information needed as a basis for evaluation.

Decide what is to be evaluated and how effectiveness is to be measured

In principle, a plan should specify how each programme or activity it contains is to be evaluated and what will be accepted as evidence of satisfactory achievement. For instance, if the plan contains the following targets:

“By the end of 1996, the incidence of neonatal tetanus in the 21 villages of Jaya District will be reduced to 1 per 1000 live births from the present (1992) incidence of 5 per 1000.”

and

“By 1996 all the people in the district will have adequate access to preventive services (according to predetermined criteria of accessibility).”

it should provide also for the achievement of the targets to be measured by (a) the yearly incidence (i.e. number of cases) of neonatal tetanus per 1000 live births; (b) the rate at which the incidence falls from one year to another; and (c) the distribution of new cases among the 21 villages. The variables (a), (b) and (c) are therefore direct measures of the effectiveness of the programme.

Use of these measures during the plan period will show the progress being made in reducing the incidence of neonatal tetanus (i.e. monitoring). At the end of the period it will show whether the target has been achieved or what still remains to be done.

If interim targets have not been set during planning, those responsible for monitoring and evaluation should decide at the start of the programme what information must be collected to monitor and evaluate the programme. Ideally, baseline information (e.g. the yearly incidence and the distribution of neonatal tetanus before the target is set) should be obtained. However, it may be necessary to obtain or confirm this information

at an early stage of the programme, and to change the target accordingly. Otherwise, it will be impossible to determine with certainty whether incidence is falling or whether any fall in incidence is a result of the programme.

Collect the necessary information

Evaluation requires that the information needed to monitor and evaluate progress is made continuously available throughout the plan period. Thus, for the purposes of this example, every case of neonatal tetanus must be reported to the monitoring and evaluation group, and reliable arrangements must be made to obtain the information at regular intervals (e.g. once a week, or on a fixed date each month).

There must be someone (e.g. a health volunteer) in each village who is responsible for recording and reporting the information, and a health-centre staff member (e.g. the public health nurse-midwife) who is responsible for collecting and processing the information at the end of every 3-month period.

Compare results with targets or objectives

At each monitoring point (e.g. every 3 months or at the end of each year), the information obtained must be compared with the targets set for that period or time and for each place. It is helpful if the information is laid out in a table that shows data by year (or other specified period) and place (e.g. each village in a district). The figures recorded in the table must be changed into rates (per cent or per thousand) to enable comparisons to be made, unless the targets themselves are expressed in figures rather than rates.

Continuing with the example of neonatal tetanus, three simple figures would enable the results achieved to be compared with the targets:

- the yearly total number of cases of neonatal tetanus occurring in the entire district compared with the target for that year
- the yearly number of cases of neonatal tetanus occurring in each village compared with the number that occurred in the previous year
- as calculated at the end of the plan period, the mean annual incidence of neonatal tetanus in each village (i.e. the total number of cases in each village during the 5-year plan period, divided by 5).

Comparing these figures on a year-to-year basis will show whether the district totals decrease in line with the targeted trend; whether any

village has more cases of neonatal tetanus than previously and should therefore receive greater attention; and, at the end of the period, whether any village has always had a higher incidence of neonatal tetanus than others, which would suggest unequal accessibility, distribution or quality of services.

The time to make this comparison might be in the last quarter of each financial year, to allow for budgetary changes to be made for the following year. The task would fall on, say, the district nurse-midwife in charge of neonatal tetanus; the findings should be made available to the district management, preferably in the form of tables and written conclusions.

Judge the degree to which the results achieved have been of value

Once the measurements and comparisons have been made, the evaluation group must judge the value to the community of what has been achieved. In the example used here, this is a simple matter of whether the annual and total incidence of neonatal tetanus has been reduced to the targeted figure, and whether the distribution norm (e.g. no more than one case in each village) has been met. There may therefore be little more to discuss if the principle of 'management by exception' (see Part I, Chapter 1) is applied. However, it is usually advisable to hold a meeting of those who planned and produced the services and of members of the concerned communities to discuss the results and how they were obtained, even when an objective or target has been achieved. For instance, it might have been possible to achieve the target sooner with no additional effort, or to achieve better results with the same effort. The experience gained in achieving a target or objective is likely to be valuable for other programmes.

When results fall below what was expected, the reasons must be explored and analysed. The analysis should take place before the annual report is made, so that remedial action may be proposed to the higher or supervising level. Discussions should involve a member of the health team, a health volunteer from the villages or areas where the shortfalls occurred, and a representative of the community concerned.

Decide what to do next

On the principle of 'management by exception', no new decisions are needed when targets and objectives have been satisfactorily achieved.

except to continue as before. Of course, the objectives and targets may have been set at too low a level, and this should be considered when they have proved easy to achieve. When achievement has not been satisfactory, however, one type of decision may be to investigate thoroughly the causes of the shortfall by means of assessment, appraisal of staff performance, management audit (see Section 3.5) or otherwise. A different kind of decision might be to reassign staff or resources to strengthen the effort where needed. These decisions are for the team leader to make; they should be made promptly and communicated to all concerned for immediate action.

3.2 Evaluating work progress

Work progress is evaluated in order to measure the efficiency of the health team, i.e. to find out whether the team completed the work that was assigned to it in order to reach its targets (quantity), whether the work was of the expected quality and was carried out on time, and whether the budget was overspent or not.

The basic questions to be asked are:

- Are the results those that were intended?
- If not, why not?

Evaluation for efficiency covers the same five steps as were discussed in Section 3.1:

- deciding what aspects of the programme to evaluate for efficiency, and how to measure or assess efficiency
- collecting the information needed to measure the achievements
- comparing the results with the norms and targets
- judging the value of the work achieved
- deciding what to do next.

Decide what to evaluate and select measures of operational efficiency

Normally, a plan of action outlines the work of the health team. It lists the necessary activities (services to be delivered, development work, and support tasks), indicates what they should achieve, who should perform

them and when each should take place, and shows how each activity would relate to the others.

If this has been done, it will not be difficult to monitor and evaluate the team's efficiency. The questions to be asked are:

- Were the planned activities completed?
- Did they achieve their targets?
- Did they do so on time and with the assigned staff and other resources?

If the plan of action did not specify the team's activities, and much of the work has been completed, the team leader must decide whether there is a valid reason for attempting to evaluate the team's performance for efficiency. If there is such a reason, those responsible for evaluation should list all the activities that should have been carried out and what they should have achieved. This is a useful exercise only if it enables the evaluators to determine which resources were critical for the success of the activities or, if the activities did not achieve their targets, which critical resources were lacking. Since it will be possible to examine only a few activities among many, they must be carefully chosen. The criterion for choosing the activities would be, for example, that they must be completed before many later activities can begin, or that they must use a large amount of critical resources.

For instance:

To control neonatal tetanus in Jaya District, the three critically important preceding activities are: TBAs to be retrained in sterile handling of the umbilical cord (a development activity); mothers to be immunized at antenatal clinics (a service activity); messages on prevention of neonatal tetanus to be spread to the people (a support activity). The first is selected because retraining is critical and trainers are a critical resource in short supply, and the second and third because mothers must be motivated before they demand immunization and choose to be delivered by retrained TBAs.

The activities to be evaluated should be selected from among those listed at least one year before a report is due. They should be selected by the staff member in charge of neonatal tetanus — probably the public health nurse-midwife. The selected activities should be reviewed with those who will later take part in collecting information about them and analysing it, to ensure that it will be possible to obtain the necessary information from the field.

It may be found that one of the activities being measured appears satisfactory in relation to the corresponding target, but that the other activities have lagged behind.

For instance:

In some villages of Jaya District, it is found that the training of TBAs and the spread of messages by village heads are up to expectation (targeted level), but that the immunization coverage is far below the district average.

Here it may be useful to study the relation between these three activities in other villages. Such a study may show that a group of villages, all close to each other, have the same kind of results.

For instance:

A number of villages in north-east Jaya present the same picture: good message-spread, satisfactory immunization coverage, but no training activities.

This suggests that something is interfering with or taking the place of retraining of TBAs. The situation should be investigated in discussion with the health workers concerned and with the people of the villages. It should then be possible to judge the results on the basis of a clear understanding of the local situation.

In judging work progress and operational output it is also helpful to take into account the results of the programme (i.e. its effectiveness), as discussed in Section 3.1 above. Operational outputs are not ends in themselves but rather means towards successful results, e.g. no cases of neonatal tetanus. Analysis and discussion should show whether good results are necessarily the outcome of good achievement and, conversely, whether good work progress automatically means good results. It might also show whether one activity (say, immunization) is more frequently associated with good results than others.

This kind of analysis is extremely important: adequate staff and time should be assigned to it. When the information provided in the tables is reliable and valid, the time spent on interpreting and understanding it is well spent. Participants in the analysis will learn from it (See Part II, Chapter 3, Section 3.6, "Training staff"), and the whole health team should study it. Conclusions should be communicated to the decision-makers who control the programme at higher level, and to participating

staff and village heads or health committees, in preparation for the next and final step.

Decide what to do next

Two types of decision are required at this stage — whether performance must be further assessed, and whether the programme needs to be improved.

For further in-depth assessment of performance, the team leader may assign one staff member to study the available material as a means of appraising staff performance (see Section 3.3 below). As regards improving the programme, the team leader may await the results of appraisal of staff performance, or may judge it right to introduce certain changes in the programme.

For instance:

In Jaya District, the team leader may:

- schedule work in such a way that the three component activities (training, information and immunization) are coordinated, i.e. ensure that, in villages where one component has been achieved (e.g. TBA training), the others are also carried out and vice versa.
- change some of the TBA's work instructions, and redesign the corresponding retraining curriculum, so that immunization of pregnant women receives the necessary attention, or offer some incentives to the TBAs to increase the demand for immunization.

3.3 Appraising staff performance

It will be recalled that the main purpose of evaluation is to learn from experience and thus to improve the programme. Staff performance is appraised in order that staff may learn from experience and therefore improve or maintain satisfactory levels of performance.

One specific purpose of appraisal of staff performance should be to enable decisions to be made about the learning needs of staff. The two basic questions to be asked are very similar to those involved in evaluating achievements and work progress, but are concerned here with staff performance:

- Are the results as good as they could be?
- If not, why not?

The appraisal process also involves the following five steps:

- deciding what aspects of performance to appraise
- collecting the information needed to measure performance
- comparing the results with relevant norms
- judging the degree to which norms are met
- deciding what to do next.

It should be emphasized, both to the appraiser and to the staff member whose performance is to be appraised, that performance appraisal is not intended to find fault with staff, even when results fall short of what was intended. Rather, appraisal should be understood and appreciated as *the* way to help each staff member perform efficiently and to feel gratified when he or she achieves the intended results.

As with other evaluation activities, there must be rules that state who is responsible for making the appraisal, the date when the appraisal is due, the period covered by the appraisal, the information needed to make the appraisal, and the information needed from the appraisal (e.g. a performance appraisal report).

Decide what to appraise and select indicators of performance

Three documents should normally specify all the functions, tasks or activities that should be the subject of performance appraisal. These are:

- the job description
- a work plan (or work assignment, work schedule, or work instructions)
- technical procedure manuals.

The job description, discussed in Part II, Chapter 3:

- lists the functions that a staff member is expected to perform (e.g. providing services, conducting research, undertaking surveys, training students, maintaining equipment, keeping accounts)
- states to whom (the supervisor) the staff member is accountable for the performance of these functions
- states for whom (subordinates) the staff member is responsible in the performance of their functions

- indicates with whom (peers, partners) the staff member is to coordinate in the performance of joint functions.

The work plan (described in Part III, Chapter 4):

- assigns the staff member's activities and tasks
- describes in detail the services a staff member has to deliver
- specifies the extent of the services to be provided (and often the people who should receive them)
- states where these services have to be delivered
- states when the services are to be delivered.

Technical procedure manuals usually describe in some detail how particular tasks with a high technical content are to be performed; examples of such tasks include immunizing, conducting workshops, writing health educational materials.

When job descriptions, work plans and technical procedure manuals have been properly prepared, are up to date and are followed correctly, performance appraisal is straightforward. When they have not been prepared in detail, however, performance appraisal begins with ascertaining the description of staff functions, activities and tasks from management, staff, subordinates or users of the services, as appropriate.

It will be rare to find complete understanding and agreement between those directly concerned, and this makes performance appraisal difficult and its conclusions indefinite.

In either case, the appraiser should select a limited number of tasks and activities (up to five, say) as a basis for the appraisal of staff performance. These should be tasks and activities that make the greatest contribution to the health team's efficiency and effectiveness, such as organizing, coordinating, monitoring and controlling.

For instance:

In the case of the nurse-midwife in charge of controlling neonatal tetanus in Jaya District, the functions, activities and tasks she performs in that programme are:

- organization
- coordination
- monitoring
- control.

Her performance should be appraised against:

- (a) the results achieved
- (b) the services delivered
- (c) the TBAs retrained
- (d) the messages reaching the community.

Thus, her performance would be appraised as follows:

For organization	against (c) and (d), the timely completion of planned courses for TBAs and the diffusion of messages.
For coordination	against (b), (c) and (d), the proportion of villages reaching the targets for services, retraining of TBAs, and diffusion of messages.
For monitoring	against (a) and (b), the availability of up-to-date statistics on incidence of neonatal tetanus and on immunizations, from all parts of the district.
For control	against management of resources and supplies, so that work is not impeded by shortages of funds or vaccine, for instance.

As is clear from this example, it is assumed that the management functions of the nurse-midwife are critical to programme success. In other situations and programmes, the technical or public-relations functions might be more suitable for performance appraisal.

On appointment of a staff member, and annually as part of the planning process, the team leader and other team members should together agree on norms and targets so that there is no doubt about the performance expected of both the team as a whole and its individual members.

Collect the necessary information

The information required to measure performance may be available from routine records or may need to be collected. Thus, in the above example, the necessary information would include dates of completion of planned courses and of diffusion of messages, the proportion of pregnant women immunized and the number of cases of neonatal tetanus occurring in the period under review, and the number of villages where targets for services, training and the diffusion of messages had and had not been reached.

For instance:

There would be routine records of dates of completion of TBA retraining courses, of villages reaching the target levels for services, and of how far the statistics lag behind, but a special enquiry might be needed to obtain details of diffusion of messages by village heads, on work stoppages, and on shortages of funds or vaccine, which may not be automatically recorded.

This kind of special task is best performed by the staff themselves, as part of the regular monitoring of service and other activities for which they are primarily responsible. In delegating this task to them, management enables staff to be the first to learn of their own successes and failures, and to adjust their performance when necessary.

Compare observations with norms and standards

In most instances, performance is appraised in relation to operational or time targets, and appraisal relies primarily on the routine monitoring of programme activities: comparison of intended and actual performance does not therefore cause special difficulties.

For instance:

Excerpt from the 1992 performance appraisal for the public health nurse in Jaya District:

“Organizational performance: All four courses for TBAs in her health area were completed as scheduled and with the target number of trainees.

Coordination performance: In 1992, three villages reached target levels of the three activities that she coordinates, against an expected six.

Monitoring performance: Operational statistics are up to date, but statistics on births and deaths are one month behind.

Control performance: No work stoppages occurred during the year in her health area.”

It is usually argued that, to avoid bias, this task should be performed by management and not by the staff member. However, when the management functions are shared by all staff, and when norms of performance and targets have been agreed upon by the staff concerned and the team leader, a staff member's performance appraisal may be entrusted to the staff

member (subject to review and approval by the responsible officer). The timing should satisfy the regulations of the national administration.

Judge the degree to which staff performance meets required standards

The comparison of performance with norms and targets needs interpretation for two reasons. First, not all aspects of staff performance are equally important and, second, success in one area must be balanced against failure in another. The evaluator needs to exercise careful judgement here and may need additional information and results of tests of knowledge and skill before reaching a conclusion.

For instance:

Subject: Performance of the public health nurse

Conclusions of team leader: The public health nurse has proved to be a good organizer: she has kept herself informed of work progress, thus exercising firm control over the programme. She would benefit from support in coordination tasks, based on her own assessment (on attached questionnaire) of her:

- oral communication ability
- problem-solving ability
- ability to conduct meetings
- ability to resolve conflict.

To make this judgement, the team leader must have considered some of the possible causes of the apparently poor coordination performance of the staff member, obtained some informal explanation for this shortcoming, and concluded that her coordinating ability could be improved by training. However, the team leader wants the staff member to identify her priority needs.

It is evident from this example that judgement is a team leader's responsibility. However, such judgement should be made in open discussion with the staff.

Decide what to do next

As seen above, one possible decision following an appraisal of staff performance concerns further training. This might require further analysis of events or of the range of ability of the staff member. Such a decision,

however, would often affect programme activities as well, for instance in re-assigning certain tasks to other staff with the requisite skills or abilities, strengthening some coordination or control mechanism, or simply communicating certain information to the concerned people. The important thing that any decision must show is that appraisal of staff performance is not intended to work *against* staff but rather to *promote* the team's efficiency, effectiveness and, ultimately, job satisfaction.

The responsibility for such decisions rests with the team leader, but the wise team leader will always make sure that the staff concerned take part in reaching the decisions.

3.4 Evaluating use of resources

Elsewhere in this guide the concept and methods of monitoring and control have been introduced as management tools for reaching day-to-day decisions about the allocation of resources. What, then, is the purpose of evaluating, as opposed to monitoring and controlling, the use of resources? In this context, evaluation differs from monitoring in being concerned with *how* the resources used relate to results achieved over a period of, say, one year, with the aim of answering the following questions:

- Could some resources achieve better results or outputs?
- Could some results be achieved with fewer resources?

The questions are actually two sides of the same coin: in management terms, the first deals with 'cost-effectiveness' and the second with 'cost-efficiency'.

Some practical aspects of these concepts are considered in this section, following the same five steps as were used in the preceding sections:

- deciding what aspects of resource use to evaluate
- collecting the necessary information
- comparing resource use with norms and standards
- judging the degree to which norms have been met
- deciding what to do next.

Decide what aspects of resource use to evaluate

One of the most useful measures of resource use is the 'amount of a specified resource used to deliver some unit of work or achieve some unit

of result'. This is less complicated than it sounds, and could be equated with saying "My motorcycle runs for 100 kilometres on 2 litres of petrol", which is an example of 'unit cost' in terms of petrol consumption.

To select 'unit costs' for evaluating the use of resources in relation to results and outputs, it is necessary to identify critical results or outputs and the resources consumed in achieving or producing them. This, again, is the application of the principle of 'management by exception': looking for the most important of the things that need doing and doing it first.

For instance:

In Jaya District, control of neonatal tetanus is measured by the number of cases prevented: the most immediately relevant operational output is immunization of pregnant women; money is the scarcest of the resources available to the health team. Thus, the cost of preventing one case of neonatal tetanus and the cost of one immunization would be suitable measures of cost-efficiency.

In principle, the plan should specify that the programme would be monitored and evaluated for cost-efficiency on this basis.

Collect the necessary information

Previous chapters have discussed the monitoring and reporting of results and operational outputs, and management of funds has been described in Part III. Certain difficulties may be encountered in putting these methods into practice, however. For instance, with reference to the example that has now been used many times, TBAs may be trained in some places but not in others; in some places fewer than five messages may be diffused and in others more; immunization coverage may be low in some places and high in others. For these reasons, the cost — and effectiveness — of the programme will vary from village to village, and it will therefore be of no value to estimate unit costs for the district as a whole. Measurement of resources used (expressed here in terms of cost) should take full account of these variations: it is to be hoped that the extra effort this will entail will yield extra information.

For instance:

In Jaya District, unit costs of immunization should be measured:

- by incorporating the costs of TBA training and the costs of message diffusion, where these activities occur
- by excluding these costs where they do not.

Collecting information about costs in this way will allow more valid comparisons to be made. Cost measurement, however, is an accountancy task, for which few, if any, health staff will be trained. Where it is intended from the outset to evaluate resource use, accountancy skills should be brought into the team on a more or less continuous basis throughout the implementation of the programme.

Compare resource use with norms and standards

Norms and standards for the use of resources cannot be laid down in advance; they will emerge as a result of the evaluation. In answering the question "Can more be done with these resources?", the highest observed output per unit of resource will become the norm; conversely, the question "Could we do as well with fewer resources?" will yield a norm equal to the lowest cost per unit of output.

For instance:

In Jaya District, the unit cost of immunization in villages where TBAs are trained and messages are diffused is \$2.50, and coverage is 75%. Where only immunization is provided, the unit cost varies from \$2.10 to \$2.30 according to the coverage achieved, but coverage never exceeds 60%.

Costs and coverages are compared, and careful judgement must be used by the evaluator. The task requires time, and skills and information that are not easily acquired; evaluation of this kind would normally require support from the health administration.

Judge the degree to which norms have been met

When the cheapest approach to achieving a particular result has been determined, a basis is created for examining other approaches. Similarly, when the highest output possible within stated resource limits has been determined, it is possible to discuss how lower outputs were achieved. Considerations of this sort are essential for improving programme strategy, but who undertakes them, where and when, will depend on an individual country's administrative structure.

Decide on future use of resources

Of the decisions that are likely to result from such considerations, one might be to drop a particular component of the programme if it proved to

be adding a lot to costs in relation to what it achieved. A second type of decision might be to set less ambitious coverage targets for the future if no extra resources could be provided. Yet a third type of decision would be to try to persuade authorities to increase the budget to enable the health team to meet its targets.

Decisions of this kind are usually made at levels higher than that of the health team, but health teams should be aware of the usefulness of the evaluation to the decision-making process and should be encouraged to ask relevant questions.

3.5 The management audit

A management audit is a method of reviewing management activities; it is a checklist of questions relating to management. Management audit can be used as a tool by health workers with management functions to examine their own successes and failures, or it can be used by supervisors to assess the management efficiency of an organization. The process can be highly complex, covering every aspect of management organization, or very simple, asking only a few carefully constructed questions to reveal the general standard of organization and efficiency.

A management audit is a summary of all operational control processes. When the management audit is repeated, the results of action taken after the previous audit are noted.

An example of a simple management audit for a rural health unit can be found below. This covers some of the management functions described in Parts I, II, III and IV.

Example: Management audit for a rural health unit

Under the date of audit, write Y (yes) or N (no) opposite each statement.

	Date	Action	Date	Action
1) Planning and organization				
The health centre has one or more defined objectives	2.1.93 Y	Immunize 400 children	3.1.94 Y	Completed
These objectives are known to the health team				
Regular staff meetings are held				
A year-plan has been written and displayed				
There is a weekly timetable				
Staff duties are listed on a roster				
District activities are scheduled in advance				
Changes in rosters, schedules or other events are clearly communicated to the health team				
2) Personnel				
Each member of the team has a written job description				
Each staff member knows to whom to report and from whom to receive instructions				
The team leader delegates work whenever possible				
On-the-job training is aided in different ways — by supervision, discussion, books or demonstrations				
The team leader acknowledges good work				
The work provides opportunities for initiative and responsibility				
Supervision takes the form of educating and helping rather than criticizing				
Workers are using the skills for which they were trained				
Team members show concern for the welfare of patients				
3) Resources				
The account ledgers are in order and up to date				
The petty-cash balance sheet is correct				
There is sufficient equipment				
The stock ledger is balanced and corresponds to the store shelves and inventories				
Drug issues are recorded and reviewed				
The 'A/B' shelf system is used for vital drugs				
There are minimum queues and 'bottlenecks' in the outpatient clinic				
There are adequate and clearly marked maps of the district				
The transport system is well maintained				

	<i>Date</i>	<i>Action</i>	<i>Date</i>	<i>Action</i>
<p>4) District and public</p> <p>There is a health-centre committee of people within the area</p> <p>Efforts are made to educate the public in health</p> <p>The health needs of the public are identified and discussed</p> <p>Health goals and activities relate to public health needs</p> <p>The following health activities are expanding:</p> <ul style="list-style-type: none"> — maternal and child clinics — immunization — nutrition programme — sanitation programme 				
<p>5) Control system</p> <p>There are monthly statistical reports</p> <p>There is an annual report</p> <p>The patient registers are clear and up to date</p> <p>Patient records can be found when necessary</p> <p>Copies of letters are made and filed</p> <p>There is an index of files and registers</p> <p>There is a well-kept log in the transport vehicle</p> <p>There is a method for discovering discrepancies in drug usage</p>				

Exercises

1157

SESSION GUIDE

7 Hours

Session on: Introduction of the MCH and FP records and registers and their use in patient care.

MCH card
Mother Health Register
Child Health Register
Family Planning Card
Family Planning Register
IDD Register

Purpose: To give an overall perspective of the use and application of the MCH instruments. To train the participants in the use of each instrument for patient care.

Session plan:

1. Introduce role and importance of preventive care.
2. Take participants through each instrument in detail.
3. Practice filling of instruments through a case study.
4. Discuss the use of each instruments in patient care.

Background material:

- Three case studies.
- Filled in models of all MCH and FP instruments.
- Instruction manual.

SR #	OBJECTIVE	METHOD	TIME (Min)
1.	Introduce role of and importance of preventive care.	<u>Presentation and discussion in plenary</u> <ul style="list-style-type: none"> - What is Preventive care? - Why is preventive care important? - What is included in preventive care. - Who can give preventive care. - The concept of follow-up and coverage. 	20
2.	Discuss in detail each instrument and how to use it for patient management.	<u>Presentation and discussion in plenary</u> <ul style="list-style-type: none"> - Purpose of instrument. - How to record information. - Use of instruction manual. - How to use instrument for patient management. 	180
3.	To practice how to fill in and use each instrument.	<u>Case study</u> Break into groups of 4-5 and solve 2 case studies individually. (Zanaib's story and Zahid's story).	180
4.	Discuss problems and clarify	<u>Discuss in plenary</u> Discuss problems in filling out instruments and make clarifications. Reemphasize use of each instrument for patient care.	40

CASE STUDY I
FOR MCH CARD, AND MATERNAL AND CHILD REGISTER

ZAINAB

Enter Zainab's visits on the MCH card and Maternal Register simultaneously and her child's visits on the MCH Card and Child Register simultaneously. Zainab's ID will be given only once she is registered on the register.

25th April 1992

Zainab, wife of Ghani, a 26 year old from Hirjina Goth, Dhabeji, District Thatta came to PHC Dhabeji with complaints of decreased fetal movement and weakness since last one day.

This is her 5th pregnancy. She has only one living male child of 1½ years and has had 3 abortions. This only child was born after a long labour, which she claims was probably due to a small pelvis. She received one shot of TT in her last pregnancy at 8 months.

She otherwise has no history of illness or other pregnancy complications in the past.

Her last menstrual period was on September 7, 1992.

Her weight is 45 kgs and measures 4 ft. 6 inches. Her BP is 100/60 mm/Hg.

Her conjunctive are very pale. She has no oedema. On further examination, the height of fundus was 24 weeks, the lie was cephalic.

The fetal heart sounds were faintly audible with a fetoscope, the rate being 110/min.

The remaining general examination was unremarkable.

The LHV gave her a TT shot and advised her:

- > strict bed rest
- > iron and folate supplements.

She also advised her to get her hemoglobin and urine checked and to come back after two weeks. She was strictly advised to deliver at the health facility, since her baby was very small and weak.

15th May, 1992

Zainab presents again to the health facility on May 15, 1992.

She can feel her baby moving, but she has some diarrhoea and some burning in her urine.

Her weight is 45.2 kg. today and her hemoglobin result shows an Hb of 7.5 gm/dl. Her urine examination showed no protein or glucose, but a few pus cells. Her BP is 110/60 and she has no oedema.

The height of her fundus is 26 weeks and she has good fetal heart sounds.

She is advised to continue bed rest and drink plenty of water. She is explained that the diarrhoea is because of the iron and folate supplements but these are very important for her and for the growth of her baby. She was reminded once again to eat good food, lots of leafy green vegetables, meat and fish and was asked to return in another 2 weeks for a check-up and her second IT dose.

30th June, 1992

Zainab returns on June 30, 1992, very weak and complains of a watery discharge with slight green colouration. Zainab was very pale and her weight was found to be 46 kgs. The lie is still cephalic and the height of her fundus is 30 weeks. The fetal heart sounds were audible with a rate of 80/min. The LHV witnessed a uterine contraction of moderate intensity lasting for 30 seconds. She conducted a vaginal examination which confirmed absent membranes, meconium stained liquor and an adequate pelvis. The cervical OS was allowed two fingers and was fully effaced. The presentation of the baby was occipito anterior.

The LHV advised her to get admitted immediately. She arranged an ambulance to be standby for possible referral of the child and arrange for some blood for transfusing the mother.

Zainab continued to have strong contractions and delivered vaginally in the next four hours. The LHV applied outlet forceps electively to prevent head compression of this postterm IUGR baby.

The baby was very small, all blue and did not cry for 1 minute after which he slowly turned pink and cried well in the next 10 minutes. The baby weighed only 2 kgs. The LHV gave the baby to the mother to breast feed immediately. The placenta delivered a female baby in the next 10 minutes. The mother was transfused two units of blood, because she was already very anaemic and lost some blood during delivery. Zainab stayed in the health center for the next 2 days. During this time she did not have any excessive bleeding, fever or any other complication.

The child was given BCG and polio immunization before it was discharged the second day.

Zainab was explained to breast feed the child and take a lot of care since the child was very weak. She was also asked to visit the health center a week later for a postnatal check-up. A week later, Zainab returned with complaints that the child is not feeding well and is lethargic. Zainab herself has no problems,

although she is still weak. Her uterus is well contracted and the lochia is yellow in colour without foul odour.

The child weighs 2.1 kgs. and has no significant findings on examination. The anterior fontanelle is open and not bulging. The child has no signs of dehydration, signs of meningeal irritation are negative. The LHV advised the mother to have the child seen by the MO Incharge for a second opinion before she leaves. She advised Zainab to continue breast feeding the child and bring the child back immediately if he continues to be lethargic and refused to feed.

Zainab presents after 1 month for a follow-up with the MO. The child had developed sepsis and had to be treated with intravenous antibiotics for the next 10 days. The child is now feeding well and is active. The weight today is 2.6 kgs.

Zainab is also doing well and feeling better and much stronger. She is having her period which started 1 day ago. The bleeding is normal. Her breasts are tender and engorged.

The LHV asks her to express extra milk after every feed. She immunized the child with DPT and polio and asked her to return with the child after 4 weeks for the second dose of DPT and polio.

She explained to the mother, the option of delaying the birth of the next child -- that this was important, as she was very weak and had a very weak child as well. If she got pregnant now, it would be risky for her health and the child to be born would be very weak.

She gave her a choice of methods to use for contraception and suggested an IUCD as the best choice. She asked her to come soon after her period is over for the insertion of the IUCD if she is willing to consider it.

Zainab never returned for the insertion of the IUCD but came a month later for the child's immunization. The child has been growing well and now weighs 3.5 kgs.

The LHV gave the second dose of DPT and OPV and congratulated the mother for looking after the child so well. She explained to continue the same since the child is still weak and needs extra attention. She asked her to bring the child again after a month for immunization. She reminded Zainab for considering some method of family planning. Zainab said that her husband insists on having another child. Zainab has not had any period since the last visit. The last period was scanty and just lasted 2 days.

29th November, 1992

Zainab's child has been named AKhtar. AKhtar is brought back to the RHC on 29th Nov 1992, he is having diarrhoea since the last 5 days. The child is found to be mildly dehydrated on examination and weighs 5.4 kgs. The LHV congratulates the mother that child has been growing very well. The mother was giving appropriate weaning food before the episode of diarrhoea, but had stopped it thereafter.

The LHV explains the mother that the child has lost fluids which need to be replaced with ORS and demonstrates the mother how to prepare and administer it. She tell the mother to continue weaning the child and asks to bring him back in a month or sooner if the diarrhoea does not cease. The child is given his 3rd dose of DPT & Polio vaccines.

30th December, 1992

The child is brought back a month later with complaints that the diarrhoea still persists off and on. The mother has been giving ORS as explained. On inquiring about the diet it is found that the mother continues to breast feed the child but the weaning food composition is inappropriate. The child weighs 5.4 kgs and does not have any clinical signs of dehydration.

The LHV explains to the mother an appropriate weaning diet and the importance of the child to continue gaining weight. She asked the mother to take special care of this child and bring him for weighing again next month.

2nd May, 1993

The child returns to the health facility on 2nd May 1993, for his measles immunization. He has no complaints and has even began to walk without support. He weighs 8.3 kgs and has no findings on examination.

The LHV congratulated the mother once again on the good growth and health of the child and reinforced her to consider family planning. The LHV asked the mother to return after 3 months.

CASE STUDY II
FOR MCH CARD, AND MATERNAL AND CHILD REGISTER

HANIFA

Enter Hanifa's visits on the MCH card and Maternal Register simultaneously and her child's visits on the MCH Card and Child Register simultaneously. Hanifa's ID will be given only once she is registered on the register.

20th Nov 1991

Hanifa w/o Shaukat a new resident of Qureshi Goth was advised by her neighbors to get herself immunized at the health center. She came to BHU Hirjina also complaining of slight nausea.

Hanifa is a healthy 24 year old and this is her 6th pregnancy. Her youngest child is 11 months and she has had 2 abortions but no still births. She has not received any TT immunization in her previous pregnancies. Her past obstetrical history revealed no complications. She suffers from mild asthma and uses ventolin tablets when required.

Hanifa had her last menstrual period on 24th April 1991.

Hanifa is 5'-1" in height and weighs 50 kgs. Her B.P. is 120/85 mmHg. and on clinical examination she is found to be mildly anaemic and has slight Oedema. Her height of fundus is 30 weeks. The position of the baby is cephalic the fetal heart sounds are 120 beats/min. There were no signs of any bleeding or leaking liquor. Her vaginal and breast examinations were normal.

The LHV told Hanifa that she was doing well and could deliver at home provided a trained attendant was available. She advised Hanifa to increase the intake of leafy green vegetables in her diet and take iron and folate supplements since she was anaemic. She gave Hanifa her 1st dose of TT and advised her to get a urine examination done. The LHV asked Hanifa to return after 4 weeks for her second dose of TT. The LHV also asked Hanifa to bring her 11 month old child next time for growth monitoring and immunization.

18th Dec 1992

Hanifa returns with Asma her one year old girl to the BHU for her second dose of TT. She has gained 1 kg her B.P. is 120/85 mmHg. She is still mildly anaemic and has slight Oedema. Her height of fundus is 34 weeks. The lie is still cephalic and the babies movements are normal. The rest of her examination is unremarkable. The result of Hanifa's urine examination is normal.

The LHV gave Hanifa her second dose of T.I, advised her to continue with the iron and folate supplements and return after 2 weeks.

The LHV then weighed Asma and filled out a growth monitoring card for her. The LHV also explained the purpose of the growth card to Hanifa and emphasized the importance of regular monitoring and the direction of the curve. (Assume here that Asma's card was filled and her growth was monitored for the rest of the period).

4th March 1992

Hanifa returns to the health center with her 5 week old son Ahmed. She had a normal spontaneous vaginal delivery at home, conducted by her mother-in-law on 28th January, 1992. The duration of labor was 5 hours. On examination, the LHV found her uterus was contracted and she was discharging a yellowish lochia. Hanifa was recovering well.

Ahmed was born healthy and was being given only breast milk, but since the last 2 days he was feverish & lethargic and refused to feed.

His weight was 3.5 kgs. He looked pale but his anterior fontanel was flat and the umbilical stump was clean.

The LHV asked the mother to show the baby to the doctor. The doctor diagnosed sepsia and advised Hanifa to admit Ahmed to the BHU and put him on intravenous antibiotics.

14th. March 1992

After 10 days on 14th March Ahmed was discharged, he had recovered well. He was given BCG, DPT-I and Polio I vaccines.

Hanifa was examined by the LHV and had recovered completely.

The LHV advised the mother to continue breast feeding and bring Ahmed after 4 weeks for his second dose of DPT & Polio. The LHV also explained the purpose of the growth card to Hanifa and emphasized the importance of regular monitoring and the direction of the curve.

The LHV advised Hanifa to consider family planning and explained the different methods available to her.

20th April 1992

Hanifa returns with Ahmed who now weighs 3.8 kgs. He is still being exclusively breast fed. He has gained weight but is still moderately malnourished. He is given his 2nd dose of DPT & Polio.

The LHV praised Hanifa for taking good care of Ahmed and told her to continue breast feeding. The LHV asked Hanifa to bring Ahmed after 4 weeks for his 3rd dose of DPT and Polio.

She reminded Hanifa about family planning and emphasized its importance and asked her to discuss it with her husband.

25th May 1992

Ahmed is brought to the BHU by his father he now weighs 4.5 kgs. He is still being breast fed. Ahmed is given his third dose of DPT & Polio.

The LHV congratulates the father on the good growth of the child and advises him to supplement breast feeding with a semi-liquid diet like Sooji dalia, Sagoo dana etc. and mashed soft fruits like banana and apple. She told the father that Ahmed would get his next immunization in October 92.

She asked the father to bring him after 4 weeks since he is still moderately malnourished. The LHV took this opportunity to explain the card to the father as well.

14th Oct 1992

Ahmed is brought to the BHU by Hanifa for his measles shot. Hanifa told the LHV that they had gone away to the village. Ahmed weighs 6.7 kgs. He is being given breast milk along with weaning foods like egg, fruits and cereals.

The LHV gave Ahmed his measles dose and told Hanifa that his next vaccine of DPT/Polio booster would be given after 9 months. The LHV praised Hanifa on the growth of Ahmed but told her that although he is growing well his weight is still below normal and can be improved. The LHV called her again after a month.

Hanifa told the LHV that her husband did not agree on family planning.

5th Nov. 1992

Hanifa brought Ahmed to the BHU, he had loose and watery diarrhoea since yesterday. He did not have fever. His weight had dropped to 6.2 kgs. He looked pale and was dehydrated.

The LHV explained to Hanifa that the fever could be due to the measles vaccine which is quite a common occurrence and she need not worry. She advised Hanifa to give him ORS and told her to continue breast feeding and weaning and bring him back after 2 weeks unless his condition deteriorates further.

**CASE STUDY III
FOR MCH CARD, AND CHILD REGISTER**

ZAHID

Enter Zahid's and his mother's MCH Card and the Child Register simultaneously.

21st March, 1992

Zahid s/o Wasim Aiyaz is 1½ years old, and is brought to MCH center Samnabad, Lahore by his mother Shahida with complaints of itching all over the body. Shahida has come to the MCH centre for the first time.

Zahid is a healthy looking boy, he was a full term baby delivered normally at home. He has not received any immunization since birth and his previous medical history is unremarkable. On further questioning Shahida the LHV found that Shahida has had 4 children in all of which only 3 are alive. The second child died 2 months after birth due to high fever. The eldest girl is 7 and the other 3 years old. Zahid is the fourth and youngest child of Shahida. Zahid weighs 9.1 kg. He is on breast milk and eats whatever else is cooked at home. On examination the LHV found scratch marks on exposed parts of his body and burrow formation on finger webs. There is no impetigo. The LHV diagnosed it to be scabies.

The LHV explained to the mother that scabies is caused by unhygienic conditions and though it is contagious it is controllable and not dangerous. She said that it will require treatment of the whole family. The LHV prescribed Benzyl Benzoate and explained to Shahida the method of application. In addition to this she asked her to give Zahid ½ a tablet of Piriton at night for the itching. The LHV advised Shahida to keep the child and its surroundings clean so that scabies may be prevented in future.

The LHV also gave Zahid his BCG, DPT-I, Polio-I and Measles vaccines and asked the mother to bring Zahid after 4 weeks for his 2nd dose DPT and Polio vaccines.

The LHV advised Shahida to consider family planning, she explained to her the different methods available and asked her to discuss it with her husband.

23rd December, 1992

Zahid was brought to the MCH center with complaints of loose stools for the last 7 days. Before this episode of diarrhoea Shahida was feeding him normally, but after two days of loose stools, she started him on a soft diet of Khichri and Curd. Zahid's weight was 9.7 kg and on examination he appeared to be mildly dehydrated.

The LHV explained to Shahida that it was a mild attack and would soon go away, but Zahid had lost some body fluids which needed to be replaced by ORS. The LHV then demonstrated how to prepare and administer the ORS. She advised the mother to restart Zahid on normal food, and bring him back after a month or earlier if required. Zahid was given his DT-I and Polio-II vaccines since he is now more than two years of age. The LHV also explained the growth curve and the importance of its direction to Shahida. She told Shahida to work on increasing Zahid's weight. The LHV also emphasized on the importance of regular visits, monitoring and the completion of immunization. She asked Shahida to bring Zahid for his 2nd dose of DT and polio vaccine after a month.

The LHV reminded Shahida about considering family planning.

10th February, 1993

Shahida returns with Zahid after 2 months. Zahid has had a low grade fever, and cough for the last two days but was otherwise active and eating normally. His weight was 10.2 kgs.

The LHV prescribed Calpol syrup, and told Shahida not to worry it was a mild viral infection and would go away soon. She gave Zahid his 2nd dose of DT and polio and told her that the next booster would be given after 6 months. The LHV congratulated Shahida on the improved weight of Zahid and reemphasized the importance of regular visits and asked her to return after one month for growth monitoring, since he was still moderately malnourished.

20th August, 1993

Shahida returns after 6 months for Zahid's booster dose. She told the LHV that Zahid had been keeping well and eating normally. His weight was now 12.5 kgs.

The LHV praised Shahida for taking such good care of Zahid and gave him his booster dose. She told the mother that he was almost 3 years old and did not require to be monitored any longer but if he had any problem, she could bring him to the MCH center any time.