
UNIT 3 REPORT WRITING AND IT SKILLS

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3.0 INTRODUCTION

In the previous practical unit about tools and techniques of giving health educations. Any activity carried out, at the end needs to be recorded and important findings to be reported. In this unit, we will discuss various aspects of records and reports.

Record keeping is one of the most important activity to be carried out, which reflect the work accomplishment. Let us learn in details about various records and reports.

3.1 OBJECTIVES

After completing this unit, you should be able to:

- ensure the availability of all the registers to be maintained at the health centre;
- appreciate the availability of all the equipment and drugs in working conditions;
- fill the records properly;
- prepare and send the report authority for the needful; and
- identify any endemic or outbreak of the disease and report immediately to the responsible authority.

3.2 FORMATS FOR REGISTERS, RECORDING AND REPORTING

Let us now learn how to prepare map of sub-centre and its area covered as given below:

3.2.1 Prepare the Map of Sub-Centre and its Area

- Identify villages to be covered by the sub-centre.
- Take help from AWWs, TBAs and MSS member etc from each village and prepare a map of entire sub-centre area.
- Identify community resources available in the sub-centre area (place for conducting group meetings (public/private), transport facility for referral, people who can help in organising various camps etc) Please refer to plotted map given in Block 3, Unit 3.

3.2.2 Village Register

The register is maintained to store the information regarding an overall picture of each village covered under the sub-centre area. The information needed to be recorded are:

- Number of households (a household is defined as consisting of those family members having a common kitchen).
- The population of each village.
- The population distribution according to age and sex.
- Number of Anganwadi centres with the name and address of AWWs.

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- Number of private practitioners (Allopathic, Ayurvedic, Homeopathic, RMP etc).
- Dais in each village (name and address).
- Schools – location.
- Panchayat Bhawan – Name and address of the Sarpanch.
- M.S.S/Mahila Mandal members.
- Voluntary organisations, if any.
- Number of deep hand-pumps involved.

3.2.3 Household Survey Register

The information regarding each and every household is collected during household survey. After the initial survey, it should be revised after three years. The details of information, need to be collected and entered in the survey register are:

- eligible couples (ECs).
- pregnant mothers.
- pregnant mothers registered.
- pregnant mothers registered given full doses of TT.
- births.
- births registered.
- home deliveries.
- home deliveries conducted by TBAs.
- home deliveries conducted by ANM/LHV.
- deliveries conducted at PHCs/CHCs/Govt. hospitals/nursing homes.
- deliveries conducted by private practitioners.
- pregnant mothers referred as high risk cases.
- pregnant mothers who develop any kind of complication.
- abnormal deliveries.
- abortions.
- low birth weight babies born.
- newborns who had difficulty in breathing immediately after birth (did not cry immediately).
- neonatal deaths occurred.
- Any stillborn baby delivered.
- children upto one year of age.
- children below 3 years of age.
- children who have had frequent episode of diarrhoea.
- Any children referred due to dehydration.
- Number of children who have had frequent attacks of ARI.
- children referred to PHC/hospital for treatment of pneumonia.
- children suffering from malnutrition.

- children going to AW centre.
- children completely or fully immunised. 1 year upto 3 years upto 5 years
- women using oral pills.
- women who have undergone MTP.
- women who got Cu “T” inserted.
- couples using condom.
- women who had accepted sterilisation (tubectomy).
- men who have undergone vasectomy.
- women who are having signs and symptoms of RTI/STI.
- women/couples taking any treatment for RTI/STI.
- adolescents - i) Girls (10-19 years)
ii) Boys (10-19 years)

3.2.4 Eligible Couple Register

Identify the number of couples where the wife’s age is between 15–45 years from household survey register and enter in this register with address. The family status with parity and age of the youngest child should also be mentioned. The couples if using any contraceptives also need to be recorded along with the details of contraceptives methods being used.

3.2.5 Cumulative Family Folder/Record

Family Folder

- 1) Name of Head of Family (HoF) _____
- 2) House No. _____
- 3) Family No. _____
- 4) Family Unique ID _____
- 5) Type of Family _____
- 6) Religion _____
- 7) Caste _____
- 8) B.P.L* (Y/N)** _____
- 9) Details of family members

Name of family	AGE	SEX	Rel.with HoF	Age at marr-iage	Edn	Occu-pation	Inco-me	Ht	Wt	No. ofmeals/ Day Large + small	Any health problem member

*BPL- Below Poverty Line

**Y/N - Yes/No

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10) Birth and Death data

- a) Any birth in last 12 months (Y/N) _____
- i) Number _____
- ii) Sex _____
- b) Any death in last 12 months (Y/N) _____
- i) Number _____
- ii) Sex _____

11) Communication facility available (Y/N) _____

- a) Newspaper
- b) Phone
- c) TV/Radio
- d) Other (specify)

12) Social Pathology

Yes	No	Unique ID
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- Addiction
- Debt
- Widow
- Delinquent behaviour
- Unemployed

13) Environment

- a) Type of House
 - i) Pukka _____
 - ii) Kuchha _____
 - iii) Semi Pukka _____
- b) Total living area/sq feet _____
- c) Type of
 - i) Attached _____
 - ii) Semi Attached _____
 - iii) Detached _____
- d) Electricity supply (Y/N) _____
 If Yes - Official / Non-Official Ventilation _____
- e)
 - i) Adequate _____
 - ii) Not Adequate _____

- f) Lighting
 - i) Adequate _____
 - ii) Not Adequate _____
- g) Source of water supply: Tap/Bore/other _____
- h) Water Storage : Safe/Unsafe _____
- i) Waste Water Drainage: Sewerage/
Drain/soak pit/open _____
- j) Refuse : Open field/ Municipal Van _____
- k) Sanitary latrine : Yes/No _____
- l) Pet Animal : Yes / No _____
If Yes, Pet is kept
 - i) Inside House _____
 - ii) Outside House _____
- 14) Family Planning

Contraceptive Method Used	Unique ID of EC	Duration of Use	Satisfied	Not Satisfied
Condom				
OCP				
Cu-T				
Vasectomy				
Tubectomy				

15) Maternal Health and Contraception register

a) Antenatal Records

- 1) Unique ID No of woman _____
- 2) Name of the antenatal mother _____
- 3) Husbands name _____
- 4) Residential address _____
- 5) Age (yrs) _____
- 6) L.M.P _____
- 7) E.D.D _____
- 8) MAMTA Card Present(Y/N) _____
- 9) Gestational age at registration _____
- 10) No. of ANC visits done _____
- 11) Lab Investigations
 - a) Hb _____
 - b) Urine Albumin _____

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- c) Urine sugar _____
- d) Blood grouping /typing _____
- 12) Tetanus Toxoid Vaccine
 - a) I Dose _____
 - b) II Dose _____
 - c) Booster _____
- 13. Any disease during Pregnancy
(Anaemia/H.T/Any other specify) _____
- 14. Treatment taken _____

b) Natal Records

- 1) Place of Delivery (Institutional/ Home) _____
- 2) Delivery conducted by
 - a) TBA/Untrained TBA _____
 - b) ANM _____
 - c) LHV _____
 - d) Community Health Nurse _____
 - e) Doctor _____
- 3) Any complications during delivery (Y/N) _____
If yes specify _____

c) Postnatal Records

- 1) No. of days in hospital _____
- 2) No. of visits for post natal check up _____
- 3) Any complication (Y/N) _____
- 4) Initiation of Breastfeeding _____

d) Contraception Register

- 1) Temporary method
 - a) Female - Oral Pills _____
 - IUD _____
 - b) Male - Nirodh/condom _____
- 2) Permanent Method
 - a) Vasectomy for male _____
 - b) Tubectomy for female _____

e) Child Health Register (Under Five Years)

- 1) Unique ID of child _____
- 2) Name of the child _____
- 3) Fathers name _____
- 4) Mothers name _____
- 5) Residential address _____

- 6) Age _____
- 7) Sex _____
- 8) Date of birth _____
- 9) Birth weight (kg) _____
- 10) Place of birth (Institutional/home) _____
- 11) Initiation of Breastfeeding _____
- 12) Exclusive breastfeeding till age (in months)_____
- 13) Age of weaning _____
- 14) Immunisation Card (Y/N) _____
- 15) BCG _____
- 16) HEP (birth dose) _____
- 17) OPV (Zero dose) _____
- 18) Penta 1/OPV 1 _____
- 19) Penta 2/OPV 2 _____
- 20) Penta 3/OPV 3 _____
- 21) Measles 1 _____
- 22) Vit A OPV/DPTB Mesales 2 _____
- 23) DPT 2nd _____

3.2.6 Sub-Centre/FRU Clinic Register

This register is maintained for keeping records of patients attending the sub-centre clinics. The attendance in antenatal, immunisation, family planning clinics should not be registered in this record. The columns essential for this register are:

S.No	Date	Name & Address	Complaints	Medicine given	Remarks

3.2.7 Death Register

All deaths occurring in the are covered by the sub-centre are entered in this register. The items of information to be recorded include:

- Date of death:
- Name and address:
- Age:
- Sex:
- Cause of death:

3.2.8 Stock Register

Records of particulars related to all items provided and utilised at sub-centre should be maintained.

a) Drugs:

Date	Previous Balance	Quantity Received	Quantity Used	Balance in Hand	Expiry Date	Remarks

b) Inventory of Vaccines and Drugs

S. No.	Item	Unit	Requirement Assessed Last Year	Actual Quantity Received Last year	Surplus of Shortage Last Year	Requirement for Current Year
1	ORS packet					
2	Metronidazole tablets					
3	Cotrimoxazole					
4	Paracetamol					
5	Chloroquine					
6	Antiseptic solution					
7	Uristix					
8	DD kits (Disposable Delivery Kits)					
9	Thermameter					
10	Gloves					
11	IFA large tablets					
12	IFA small tablets					
13	Vitamin A solution					
14	Condom					
15	Oral Pills					
16	IUDs					
17	Syringe and Needles					

c) Monthly Stock Position

S. Item No	Opening Balance	Received	Total	Consumption	Balance	Requirement
1 IFA large						
2 IFA small						
3 Vitamin A						
4 Cotrimoxazole						
5 ORS packets						
6 Methylergometrine						
7 Chloropheniramine						
8 Paracetamol						
9 Anti-spasmodic tablets						
10 Inj Methylergometrine						
11 Mebendazole						
12 Syringes and needles						
13 Vaccine day carrier						
14 Steriliser Autoclave						
15 Chloramphenicol						
16 Centrimide powder						
17 Povidine ointment 5%						
18 Cotton bandage						

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19 Contraceptives						
i) Nirodh						
ii) Oral pills						
iii) IUDs						
20 Disposable Delivery Kit						
21 Chloroquine Tablets						

Note: Antibiotic list to be included along with any other drugs as per Government approval **Vaccine Received from PHC**

S. No	Name of vaccine	Vaccine Received for Weekly Session 1 Date/ Dose	Vaccine Received for Weekly Session 2 Date/ Dose	Vaccine Received for Weekly Session 3 Date/ Dose	Vaccine Received for Weekly Session 4 Date/ Dose	Vaccine Received for Weekly	Total
1	DPT						
2	OPV						
3	DT						
4	TT						
5	BCG						
6	Measles						
7	Pentavalent						

3.2.9 Register for Recording Consultative Process

As an important member of the health team you have to conduct meetings with village working team constituted for each village and with other members of the group of that village. The details of the meetings are recorded of each meeting in the register. The following information needs to be entered:

Month/ Year	Date & Time of holding the Meeting	Venue/ Place	Members Attended	Items Discussed

Referral Register

The details of the referred cases should be entered in the register. This will also help to undertake follow-up of the referrals made.

Date	Name & Address	Age	Sex	Complaints	Reasons for Re-ferral	Referred to	Fol-low-up Actions Taken
1	2	3	4	5	6	7	8

3.2.11 Live Birth Report

Serial No _____

Registration Unit/Village/Taluq/Tehsil/Block/Thana/District _____

Town/Municipality _____

- 1) Date of Birth:
 - 2) Sex - Male/Female
 - 3) Name of Child
 - 4) Place of Birth
 - 5) Permanent residential address
 - 6) Father's
 - i) Name
 - ii) Literacy
 - iii) Occupation
 - iv) Religion
 - 7) Mother's
 - i) Name
 - ii) Literacy
 - iii) Occupation
 - iv) Religion
 - 8) Age of mother in completed years at confinement
 - 9) Order of birth
(Number of Live births including birth registered)
 - 10) Type of attention at delivery
 - 11) Informant's
 - i) Name
 - ii) Address
- Date _____ Signature or thumb mark of the informant

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3.2.12 Still Birth Report

Serial No _____

Registration Unit/Village/Taluq/Tehsil/Block/Thana/District _____

Town/Municipality _____

- 1) Date of Birth
 - 2) Sex - Male/Female
 - 3) Place of Birth*
 - 4) Permanent residential address
 - 5) Father's
 - i) Name
 - ii) Literacy
 - iii) Occupation
 - iv) Religion
 - 6) Mother's
 - i) Name
 - ii) Literacy
 - iii) Occupation
 - iv) Religion
 - 7) Age of mother in completed years at confinement
 - 8) Type of attention at delivery+
 - 9) Informant's
 - i) Name
 - ii) Address
- Date _____ Signature or thumb mark of the informant

Note:

- 1) In the case of illegitimate birth the word "illegitimate" should be entered in the remarks column and no person's name should be entered as that of the father, unless there is a joint request of the mother and the person acknowledging himself to be the father of the child.
- 2) In the case of multiple births make separate entry for each and a reference in the remarks.
- 3) If the person is a non-worker insert the word "Nil" in the column for occupation.

* If the delivery took place in the hospital or any other institution, write "hospital" or "institution" giving its name, otherwise give full address of the place of birth.

+ If the delivery was conducted in a hospital or maternity home, write the name of institution otherwise mention whether it was conducted by a qualified or unqualified midwife and give her name.

3.2.13 Death Report

Serial No _____

Registration Unit/Village/Taluq/Tehsil/Block/Thana/District _____

Town/Municipality _____

- 1) Date of death
- 2) Full name of the deceased
- 3) Place of death
- 4) Name of the father/husband
- 5) Age
- 6) Sex - Male/Female
- 7) Marital Status
- 8) Occupation
- 9) Religion
- 10) Nationality
- 11) Permanent residential address+
- 12) Cause of death*
- 13) Whether medically certified (Yes/No)
- 14) Kind of medical attention received, if any
- 15) Informant's
 - i) Name
 - ii) Address

Date _____

Signature /thumb mark of the informant _____

Note:

- 1) If the deceased was over 1 year of age, give age in completed years. If the deceased was under 1 year of age give age in completed months and if below 1 month give age in completed number of days and if below one day in hours.
- 20 If the person is a non-worker insert the word "Nil" in the column for occupation.

3.2.14 Daily Diary

The daily diary is maintained by the Health Team Members in which the daily activities are performed in the field as well as the clinic with regard to immunisation, antenatal checkup and follow-up, distribution of contraceptives, follow-up of IUD and OP cases, identification of PID, RTI/STI cases, birth and death reported, malaria cases etc. The meetings

+ The address of the parent, in the case of a child, husband/late husband in a case of married women/widow and deceased if independent, is to be given in this column.

* Whether the cause of death is medically certified the cause marked (-) in the medical certificate for No 8/8A is to be entered here.

conducted with the village working team and the group of village representatives should also be mentioned in the diary.

The daily diary will enable to update all the register to be maintained and will also be helpful in preparation of the monthly report. It is easy to carry one daily diary instead of all the registers when one goes on home visits/ meetings.

3.2.15 Monthly Report for Sub-Centre

General Information

- 1) State: _____
- 2) District: _____
- 3) PHC: _____
- 4) Sub-centre: _____
- 5) Population of PHC: _____
- 6) Population of sub-centre: _____
- 7) Reporting for the month of : _____
- 8) Eligible couples (as on 1st April of the year): _____

S. No	Services	Performance in Corresponding Month of Last Year	Performance in the Reporting Month	Cumulative Performance till Corresponding Month of Last Year	Cumulative Performance till Current Month	Planned Performance in Current Month
1	Antenatal Care					
1.1	Antenatal Cases registered a) Total b) < 12 weeks					

1.2	No. of pregnant women who had 3 check-ups					
1.3	Total no. of high risk pregnant women referred					
1.4	No of TT Doses i) TT 1 ii) TT 2 iii) Booster					

1.5	No. of pregnant women under treatment for anaemia					
1.6	No. of pregnant women given prophylaxis for anaemia					
2	Natal Care					
2.1	Total No. of deliveries					
2.2	Home Deliveries a) (i) by ANM(ii)by LHV b) by TBA c) Un-trained Birth Attendant					
2.3	Deliveries at sub-centre					
2.4	Complicated Deliveries referred to PHC/FRU					
3	Maternal Deaths					
3.1	During pregnancy					
3.2	During delivery					
3.3	Within 5 weeks of delivery					
4	Postnatal Care					
4.1	No of women given 3 post natal check-ups					

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4.2	Complications referred to PHC/FRU										
5	RTI/STI										
5.1	Cases a) Detected b) Treated c) Referred										
6	Preg-nancy Out-come	M	F	M	F	M	F	M	F	M	F
6.1	a) Live births b) Still births										
6.2	Order of Birth in 3(a) a) 1st b) 2nd c) 3rd										
6.3	Newborn status atbirth a) less than 2.5 kg b) 2.5 kg or more c) No. of high risk newborns referredto PHC/FRU										
7	Immunisation	M	F	M	F	M	F	M	F	M	F
7.1	Infant 0-1 year BCG DPT 1 DPT 2 DPT 3? OPV 0 OPV 1 OPV 2 OPV 3 Measles										
7.2	Children more than 18 months DPT Booster OPV Booster										

7.3	Children more than 5 years DT										
7.4	Children more than 10 years TT										
7.5	Children more than 16 years TT										
7.6	Adverse reaction reported after immunisation										
8	Vitamin A administration (9 months to 3 years)	M	F	M	F	M	F	M	F	M	F
	Dose 1 Dose 2 Dose 3-5										
9	Childhood Diseases	M	F	M	F	M	F	M	F	M	F
9.1	Vaccine preventable diseases a) Diphtheria i) Cases detected ii) Treated iii) Referred iv) Deaths b) Poliomyelitis (AFP) i) Cases detected ii) Treated iii) Referred iv) Deaths										
9.2	c) Neonatal Tetanus i) Cases detected ii) Treated iii) Referred iv) Deaths d) Measles i) Cases detected ii) Treated iii) Referred iv) Deaths										

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9.3	ARI under 5 years (Pneumonia) a) Treated with Cotrimoxazole b) Referred to PHC/FRU c) Deaths										
9.4	Acute Diarrhoeal Diseases under 5 years a) Treated with ORS b) Referred to PHC/FRU c) Deaths										
10	Child Deaths	M	F	M	F	M	F	M	F	M	F
	a) Within 1 week b) 1 week - 1 month c) 1 month - 1 year d) 1 year - 5 years										
11.	Contraceptive Services										
11.1	Eligible couples contacted										
11.2	Male sterilisation a) Total no. of cases motivated b) No. of cases followed up										
11.3	Female sterilisation a) Total no. of cases motivated b) No. of cases followed up										
11.4	Total IUD insertion a) Cases followed up b) Complication c) Discontinued i) Removed ii) Expelled										
11.5	Total Oral Pill Users a) Old users										

	b) New users																		
	c) Complications																		
	d) Discontinued																		
11.6	Total Condom users																		
12	Abortions																		
	a) No. of women referred for MTP																		
	b) No. of MTP done																		
	c) Cases followed up																		
	d) Deaths																		

3.3 DATA SOURCE, COLLECTION AND ENTRY, ANALYSIS AND REPORTING

3.3.1 Concept of Data

Data consists of observation of attributes or events that carry little meaning when considered alone, data as collected are inadequate for planning. Data need to be transformed into information by reducing them, summarising them and adjusting them for variation so that comparisons over time and place are possible. Data not transformed into information is of little value to guide decision makers, policy makers, planners, administrators and health care personnel.

3.3.2 Components of Health Information System (HIS)

A comprehensive health information system requires information and indicators on the following subjects:

- a) demography and vital events
- b) environmental health statistics
- c) health status: mortality, morbidity, disability and quality of life.
- d) health resources: facilities, beds, manpower.
- e) utilisation and non-utilisation of health services: attendance, admission and waiting lists.
- f) indices of outcome of medical care.
- g) financial statistics (cost, expenditure) related to the particular objective,

3.3.3 Uses of Health Information

- to measure the health status of the people and to quantify their health problems and medical and health care needs.
- for local, national and international comparisons of health status.
- for planning, administration and effective management of health services and programmes.

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- for assessing whether health services are accomplishing their objectives in terms of their effectiveness and efficiency.
- for assessing the attitudes and degrees of satisfaction of the beneficiaries with the health system.
- for research into particular problems of health and disease.

3.3.4 Sources of Health Information Data

- Census
- Registration of vital events
- Sample Registration System
- Notification of diseases
- Hospital records
- Disease registers
- Record linkage
- Epidemiological surveillance
- Other health service records
- Environmental health data
- Health manpower statistics
- Population surveys
- Other routine surveys related to health
- Non-quantifiable information

3.3.5 Community Health Assessments

- Typically use both primary and secondary data to characterise the health of the community:
- **Primary data** are collected first-hand through surveys, listening sessions, interviews, and observations
- **Secondary data** are collected by another entity or for another purpose
- **Indicators** are secondary data that have been analysed and can be used to compare rates or trends of priority community health outcomes and determinants
- Community health assessment indicators should be
- Methodologically sound (valid, reliable, and collected over time)
- Feasible (available or collectable)
- Meaningful (relevant, actionable, and ideally, linked to evidence-based interventions)
- Important (linked to significant disease burden or disparity in the target community)

Please refer Course 3, Block 1, Unit 1 for more details on Community need assessment.

Data and indicator analyses provide descriptive information on demographic and socioeconomic characteristics; they can be used to monitor progress and

determine whether actions have the desired effect. They also characterise important parts of health status and health determinants, such as behaviour, social and physical environments, and healthcare use.

3.3.6 Analysis and Reporting

Data obtained is subsequently classified, analysed and tested for accuracy by statistical methods. Statistical data once collected, must be arranged purposively in order to bring out important points clearly and strikingly. The data can be presented in the form of tables, charts, diagrams, graphs, pictures and special curves.

- a) **Tables:** Tables are devices for presenting data simply from masses of statistical data.

Tabulation is the first step before the data is used for analysis or interpretation.

The general principles of tables are to be applied while preparing.

- should be numbered
- title must be given (brief and self-explanatory)
- heading of columns/row should be clear and concise
- data to be presented as per size/importance, chronologically, alphabetically/geographically.
- to present % average place them as close as possible
- table should not be large.
- may be presented in vertical or horizontal arrangement.
- footnotes may be given.
- Tables can be simple table or frequency distribution table.

- b) **Charts and Diagrams:** They are useful method of presenting simple statistical data which have a powerful impact. Key points to be remembered are they have to be kept simple to avoid misinterpretation. Accuracy and details must be kept in mind. They can be presented as bar charts (simple bar chart, multiple bar chart & component bar chart), histogram, line diagram, pictogram (representing data in the form of pictures).

3.4 USE OF HMIS AND MCTS DATA FOR PUBLIC HEALTH ACTION

You have read in theory Course 1, Block 5 Unit 4 about Health Management Information System in details. Here we will discuss HMIS and The Mother and Child Tracking System (MCTS) for public health action.

3.4.1 Health Management Information System (HMIS)

A Health Management Information System (HMIS) is a process whereby health data (input) are recorded, stored, retrieved and processed for decision-making (output). Decision making broadly includes managerial aspects such as planning, organising and control of health care facilities at the national, state and institution levels. As per WHO guidelines evaluation of

HMIS is to be done in the areas of data generation and report compilation, data utilisation, details about computer hardware and software, training and monitoring.

HMIS is primarily concerned with health care delivery issues like - antenatal care, immunisation, disease control programmes and administrative issues like reporting, inventory management, financial management, and vehicle and personnel management issues.

A computerised management information system can

- help improve the health system;
- aid the workers in providing services, data collection, storage, analysis and dissemination of information. The HMIS has undergone three generation evolution over the years reflecting the advancement in information technology as well as changing perceptions of the users of HMIS.

Output of the HMIS: Output of HIMS are:

- Work plan generated each month after the data has been updated. The work plan lists the monthly activities by house and contains updated information about all the individuals including the under-five children, pregnant women, eligible couples, and geriatric age-group in the house.
- It also serves as a tool for monitoring of the workers by the medical officer and the supervisors.
- Other outputs include monthly reports, lists for immunisation and contraceptive services, and performance indicators of workers, sub-centers and PHCs.
- Annual performance review of each worker is done based on the indicators generated from the HMIS.

Purpose of HMIS

- to support health workers in delivering health care services to the population.
- to support programme managers in monitoring and supervision of the workers. The costs were classified into two broad categories:

1) Capital cost -

- Consists of those items which have a life of more than one year and represent an initial investment.
- Training cost and software development was treated as a capital cost with life of ten years.
- Data transfer was also considered as a one-time investment with a life of 20 years.
- Space is available at the health care centres.
- It is then converted to equivalent annual costs based on their useful life years and a discount rate of 5%.

2) Recurrent costs (consumables & salaries) -

- Include those items that have less than one year of life and largely consisted of human resource cost and cost of consumables like paper, cartridges, electricity etc.
- Minimum of two set of computers and printers required to house the database and facilitate easy working.
- The time required for training and database transfer needs to be kept in mind.
- The time spent by workers in planning their work, record keeping, report preparation at sub-center level, compilation at PHC level as well as review by medical officer should be considered.
- The costs of maintenance, stationery, electricity.
- The cost of time spent by all human resources was estimated based on their current salary structure under GOI.

3.4.2 Mother and Child Tracking System (MCTS)

The Mother and Child Tracking System is a beneficiary-specific database for MCH services delivered through the Indian public health system. It was launched in 2009 as part of a global trend towards harnessing e-health innovations in improving service delivery, and India's existing HMIS was not meeting the service delivery needs of FHWs. It has "objectives, scopes, and implementation timelines and milestones, as well as measurable outcomes and service levels". It is designed to capture and track all pregnant women (from conception up to 42 days post- partum) and all newborn children (up to 5 years of age).

Objectives:

Its objectives are to ensure that:

- all pregnant women receive their full Antenatal Care (ANC) and Postnatal Care (PNC) services at the due times;
- institutional deliveries for pregnant women, particularly for high risk mothers, are encouraged; and
- all children receive the full immunisation schedule at the due times.

Work plan

- Beneficiary and service delivery data are written by FHWs on registers and formats and then transferred to the nearest PHC for entry into the MCTS portal by DEOs.
- All health facilities, from the State to the most peripheral HSCs, are mapped in the portal, which also maps FHWs to specific HSCs.
- The data enables the MCTS to generate work plans for FHWs, detailing forthcoming service delivery needs, such as antenatal check-ups or immunisation sessions, on a per-beneficiary basis.
- Supervisory officials can also generate reports from the MCTS web portal that indicate MCTS performance (beneficiary registration rates) or service delivery performance (e.g. % of children fully immunised).

Community Health Nursing

- Success of the MCTS as a data system relies heavily on processes and practices at the village/ HSC level.
- The field-level data collection, consolidation and transfer activities ultimately determine MCTS data quality.
- Low data completeness rates leads to poor performance numbers.
- Reason for incomplete MCTS portal data is the incompleteness of the primary data source.
- There was an absence of standardisation in the data tools, and data processes
- The MCTS has developed an inbuilt mechanism for generating a due list of beneficiaries before each immunisation session. MCTS training among service delivery, supervisory and data entry staff was inconsistent.

Challenges:

- Irregular electricity supply, inconsistent internet connectivity and the slow speed of the MCTS web portal were some of the challenges faced by block- level facilities, which act as the primary MCTS data entry points.
- Hurdles to implementation include -
- clearly define Standardised data tools and processes.
- standardise registers and formats to meet the needs of the MCTS portal and the service delivery needs of FHWs.
- clearly defined standardised data processes and guidelines for staff at the most peripheral levels of the health system.
- guidelines should clearly lay out a plan for data collection, consolidation, and transfer to the data entry point, with stipulated timelines.

Mother and Child Tracking System-data Flow

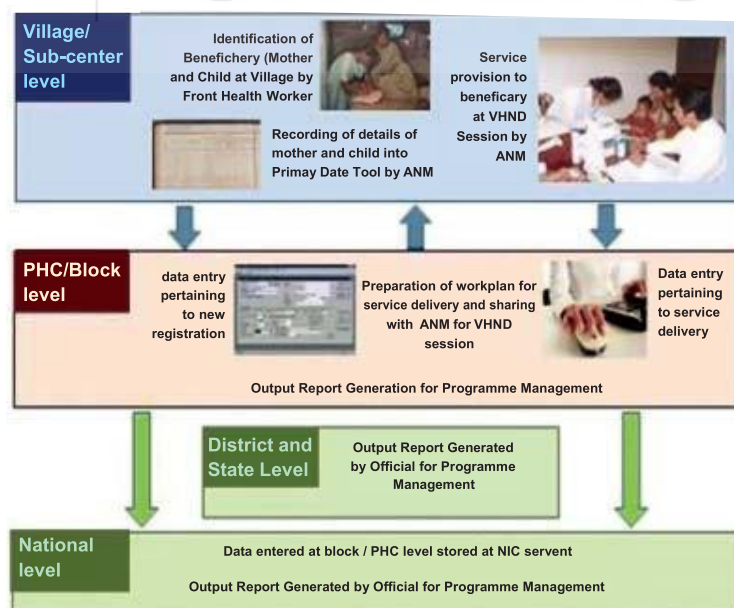


Fig. 3.1: Mother and child tracking system: data flow

3.4.3 Nursing Technology and Information System

Information system in nursing technology are the practical realities of how professions change and how to support innovation in practice. Issues for nursing information are ownership and accessibility.

Nursing in yesteryears:

- Traditionally the nursing professions was perceived to be data gatherers rather than data users.
- The traditional training of nurses did not prepare the profession well for data analysis and using quantitative methods to present the case for change.
- Decision making was characterised by professional judgement based on observation with the reporting systems based on the traditional nursing hierarchy.
- The lack of supporting quantifiable data and nursing view not supported led to frustration, as the nursing view often reflected the complex realities of health care.
- Nursing information includes data collected by nurses; data used by nurses; data about nursing activity; and data about the nursing resource.
- Patients, nurses, midwives and health visitors can benefit from it but there are challenges ahead.

Nursing now and in future:

- Computer technology is a reality of our modern world.
- It gives us a tool which can be used to help us cope with the complexity and efficiency which is often required in many areas of work.
- The use of the computer frees the person from the drudgery of repetitive labour to allow more time and effort to be available for the more personal skills to find expression.
- It has now been recognised the need for nurses to develop skills in handling information; deciding what information they need to collect to do their jobs; how to analyse it, present written reports well supported by both quantifiable and qualitative data.
- Recording assessment data using a computer keyboard allows just as much caring communication between nurse and clients as writing it down on a form.
- The critical factor is not the method of recording but the interpersonal skills and motivation of the nurse.
- The nursing profession is at last beginning to appreciate the role which the new technology can have in improving the service provided to patients.
- Implementation of computers to clinical practice will help nurses maintain control of their own professional contribution in health care settings.

- Knowledge based systems are set to become a major component in the nurse's ability to take on this role.

3.5 GENERAL REPORT WRITING SKILLS FOR FACILITY RELATED FORMATS INCLUDING COMMON LIST OF HOUSEHOLDS, REPORTS, FORMATS TO HIGHER FACILITIES, REGISTERS

It is very important that a good report be written and presented with the data collected, tabulated and analysed. The steps of writing a good report are:

- Plan - write down purpose, headings, introduction and need. It saves time.
- Write first draft
- Write a summary
- Edit - editing several times, the report gets better. Prune sentences to 15–10 words on average, link them with sentence connectors, punctuate properly, use everyday vocabulary, avoiding or explaining any social care jargon

Check for errors, seek second opinion from colleague and ask if the report makes any sense for the purpose it is prepared.

- Avoid irrelevant, inappropriate information, meaningless phrases and illogical conclusions.
- Training is the key to producing good reports.
- Poor language skills can affect the quality of reports.
- Need to be able to write reports that can be taken seriously in court.
- Take care of spelling, as they can be atrocious when spelt wrongly.
- Learn the art of critical analysis.
- Take time to write good quality reports.
- More critical judgement is needed.
- Maximise professional opinions and observations.
- Place the report in an appropriate environment for logical use.

3.6 LET US SUM UP

It is very important that the Community Health Nurse and her team understands the importance of record writing and reporting. A well maintained record and report written as per the guidelines and principles will help one and all in proper decision making for the clients under their care.

3.7 KEY WORDS

- ANC : Antenatal Care
ANM : Auxillary Nurse Midwife

ARI	: Acute Respiratory Infection
AW	: Anganwadi
AWW	: Anganwadi Worker
BCG	: Bacilli, Calmette and Guerin
B P L	: Below Poverty Line
CHC	: Community Health Centre
DEO	: Data Entry operator
DD Kits	: Disposable Delivery Kits
DT	: Diphtheria, Tetanus
DPT	: Diphtheria, Pertussis and Tetanus
DPTB	: Diphtheria, Pertussis
EC	: Eligible Couple
EDD	: Expected Date of Delivery
FHW	: Female Health Worker
FRU	: First Referral Unit
GOI	: Government of India
HIS	: Health Information System
HMIS	: Health Management Information System
HoF	: Head of Family
HSC	: Health Sub-centre
HT	: Hypertension
IFA	: Iron and Folic Acid
LHV	: Lady Health Visitor
LMP	: Last Menstrual Period
MCTS	: Mother and Child Tracking System
MSS	: Mahila Swasthya Sangh
MTP	: Medical Termination of Pregnancy
RTI	: Reproductive Tract Infection
STI	: Sexually transmitted Infection
IUD	: Intra Uterine Device
OP	: Oral Pills
OPV	: Oral Polio Vaccine
PHC	: Primary Health Centre
PID	: Pelvic Inflammatory Disease
PNC	: Postnatal Care
RMP	: Registered Medical Practitioner
TBA	: Trained Birth Attendant

TT : Tetanus Toxoid

WHO : World Health Organization

3.8 ACTIVITY

On the Visit to Health Centre

- 1) Prepare a village map of the health centre you have visited.
- 2) Fill a sample stock register of the centre for the month you have visited.
- 3) Go for home visiting and prepare full family folder of that family.
- 4) Identify the health needs of the family priority wise.
- 5) Prepare a monthly report of the health centre and send it to the next authority.
- 6) Prepare the weekly report of your health centre.
- 7) Prepare a weekly work plan of the health centre.

3.9 REFERENCES

- 1) www.ncbi.nlm.nih.gov > NCBI > Literature > PubMed Central (PMC)
<https://books.google.co.in/books?isbn=8190867512>
- 2) www.communitycare.co.uk/2010/07/28/how-to-write-a-good-report/
Anita Pati. How to write a good report
- 3) Krishnan Anand , Nongkynrih B, Yadav K, Singh S, and Gupta V. Evaluation of computerized health management information system for primary health care in rural India. BMC Health Serv Res. 2010; 10: 310. Published online 2010. 16. doi: 10.1186/1472-6963-10-310
- 4) Gera Rajeev, Muthuswamy N, Bahulekar A, Sharma A, Prem Singh, Sekhar A, Singh V. An in-depth assessment of India's Mother and Child Tracking System (MCTS) in Rajasthan and Uttar Pradesh. BMC Health Serv Res. 2015; 15: 315. Published online 2015 Aug 11. doi: 10.1186/s12913-015-0920-2.
- 5) Module for Staff Nurses (PHC/CHC): Integrated Skill Development Training. National Institute of Health and Family Welfare, New Delhi; 2001, Pp 65- 86.
- 6) Module for Health Worker Female (ANM): Integrated Skill Development Training. National Institute of Health and Family Welfare, New Delhi; 2000, Pp 46-79
- 7) A Community Health Nursing Manual; TNAI: New Delhi; 2001 Pp 167-178.