Situational Analysis of Public Health Nursing Personnel in India

Based on national review and consultations in six states

Conducted by

Academy for Nursing Studies, Hyderabad

2005

for

Training Division, Ministry of Health and Family Welfare, Government of India with support from UNFPA, India

Glossary

ADG	Additional Director General
ADNS	Additional Director Nursing Services
ADNS	Additional Director Nursing Services
AIIMS	All Indian Institute of Medical Sciences
AKDN	Aga Khan Development Network
AKF	Aga Khan Foundation
ANM	Auxiliary Nurse Midwife
ANRC	Assam Nursing Registration Council
ANS	Academy for Nursing Studies
AP	Andhra Pradesh
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
B.Sc	Bachelor of Science
BHW	Block Health Worker
BP	Blood Pressure
CHC	Community Health Centre
CHN	Community Health Nurse
CHO	Community Health Officer
CHW	Community Health Worker
CMAI	Christian Medical Association of India
CMC	Christian Medical College
CMO	Chief Medical Officer
CNA	Community Need Assessment
CON	College of Nursing
CSSM	Child Survival and Safe Motherhood
DADNS	Deputy Assistant Director Nursing Services
DDG	Deputy Director General
DG	Director General
DGHS	Director General of health Services
DHO	District Health Officer
DHQ	District Head Quarters
DHS	Director of Health Services
DM&HO	District Medical and Health Officer
DME	Director Medical Education
DMO	District Medical Officer
DNS	District Nursing Supervisor
DOTS	Directly Observed treatment Short term
DPHN	District Public Health Nurse
DPHNO	District Public Health Nursing Officer
DPHNS	District Public Health Nursing Supervisor
DWCRA	Development of Women and Children in Rural Areas
EoC	Emergency Obstetric Care
FHW	Female Health Worker
FP	Family Planning
GDP	Gross Domestic Product
GNM	General Nursing and Midwifery
GNRC	Gujarat Nursing Registration Council
GOI	Government of India
H&FW	Health and Family Welfare
HA	Health Assistant
Hb	Hemoglobin
Hosp	Hospital
HSC	Health Subcentre
ICDS	Integrated Child Development Programme
IE	Inservice Education
IFA	Iron and Folic Acid
IGNOU	Indira Gandhi National Open University
IMR	Infant Mortality Rate
ISHA	Indian Society for Health Administration
IUD	Intra Uterine Device
JD	Joint Director
Km	Kilometers
LDC	Lower Division Clerk
LHV	Lady Health Visitor
M.Phil	Master of Philosophy
M.Sc	Master of Science
MCH	Mother and Child Health
MGR	M.G. Ramachandran
MIB	Mid India Board
MMR	Maternal Mortality Ratio
MO	Medical Officer
MPHEO	Multi Purpose Health Education Officer
MPHS	Multi Purpose Health Supervisor
MPHW	Multi Purpose Health Worker
MTP	Medical Termination of Pregnancy
NCERT	National Council of Education, Research and Training
NFHS	National Family Health Survey
NGO	Non Governmental Organization
NIHFW	National Institute of Health and Family Welfare
NIPCCD	National Institute for Public Cooperation in Child Development
NPP	National Population Policy
NRHM	National Rural Health Mission
NTR	Nandamuri Taraka Rama Rao
OT	Operation Theatre
PH	Public Health
PHC	Primary Health Centre
PHN	Public Health Nurse
PNDT	Prenatal Sex Determination Test
FTA	Fixed Travel Allowance
RAK	Raj Kumari Amrit Kaur College of Nursing
RCH	Reproductive and Child Health
RM	Registered Midwife
RN	Registered Nurse
S/C	Subcentre
SBA	Skilled Birth Attendant
SC	Scheduled Caste
SHN	Sector Health Nurse
SIHFW	State Institute of Health and Family Welfare
SNRC	State Nursing Registration Council
SON	School of Nursing
SPH	State Public Health ***(To confirm)***
SRS	Sample Registration Survey
ST	Scheduled Tribe
TA	Travel Allowance
TBA	Trained Birth Attendant
TNAI	Trained Nurses Association of India
TNRC	Tamilnadu Nursing Registration Council
TV	Television
UDC	Upper Division Clerk
UGC	University Grants Commission
UGC	University Grants Commission
UNFPA	United Nations Population Fund
UTs	Union Territories
VHN	Village Health Nurse
WBNC	West Bengal Nursing Council

INC Indian Nursing Council

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The consultants and the staff of the Academy for Nursing Studies found the situational analysis a highly interesting and challenging task since it involved a huge amount of qualitative data from multiple sources in each state. Transcribing data from the qualitative reports, searching for latest quantitative information, preparing first drafts was extremely stimulating and educative. They supported the consultants, obtained relevant secondary information and made appointments and travel arrangements for primary data collection. I would like to specially thank Ms. Shanthi and Mr.Saleem who participated actively in planning, implementing and report preparation. Ms. Jaiwanti Dhaulta, the main Coordinator of this project spent several months on preparing and finalizing the qualitative data and draft reports. Her patience, persistence to detail and quality are highly commendable.

The Academy for Nursing Studies considered it an opportunity to work on the critical issues related to nursing education, administration, regulation and practice in the Country. Though the limited time and budget did not allow for a more indepth study in every state, attempt was made to cover all major issues. The confidence that the UNFPA and the Training Division of the Ministry of Health and Family Welfare reposed in the Academy for Nursing Studies in entrusting this important task is appreciated and it is hoped that justice has been done.

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Dr.M.Prakasamma
Principal Investigator

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Executive Summary

The analysis of the nursing situation in India was undertaken to assess the capacity and readiness of nursing personnel to implement the RCH II Programme at different levels in the field with the objective of initiating measures for upgrading knowledge and skill and for improving the quality of services. The study was undertaken by the Academy for Nursing Studies in six states with support from UNFPA and with inputs from the Training Division of the Ministry of Health and Family Welfare, Government of India. The terms of reference included the following:

1. Review of organization of nursing services within public health care delivery services in India.
2. Assessment of HR needs (no. of personnel) of all categories of nursing personnel, i.e. staff nurses, HVs and ANMs for the RCH programme at subcentre /PHC/ CHC/ FRUs (in light of the proposed interventions listed in the national PIP).
3. Identification of the gaps in the skills and competencies of nursing personnel in delivery of RCH (maternal health, newborn care, child health, family planning and pregnancy termination, HIV/AIDS etc.)
4. Review of existing pre service and in service training curriculum with special reference to package of services and job responsibilities of ANMs, LHVs and staff nurses and suggest rationalization needed in the duration of preservice training for ANMs.
5. An assessment of the current capacities (both in public and private sector) of the state to train the required number of nurses and ANMs in public systems.
6. Status of continuing nursing education (staff nurses, LHVs, and ANMs) activities. (Existing activities and scope for further improvement).
7. Review of existing infrastructure for nursing training i.e., physical infrastructure for training centers, audio visual aids, availability of trainers and their competency building, suggestions for an action plan for strengthening training of nurses/ANMs for RCH programme (pre service and in service).
8. Explore possibilities of innovative approaches to nursing education and training for RCH tasks such as satellite based training and training involving the private sector specially for in service training.

The study involved primary and secondary data collection. Secondary data included review of the development and trends of nursing in the community. The current syllabi for basic and post basic education and inservice training courses were also reviewed. Primary data were collected from six states – Assam, Bihar, Gujarat, Tamil Nadu, Uttranchal and West Bengal. In each state the research team visited a total of 97 sites. These included directorate offices, nursing councils, training centers, health facilities and offices of professional organizations. The study included interactions and interviews with state level and district level officers, nursing teachers and students, and a sample of all categories of nursing personnel. A total of 297 persons were included as respondents in the study.

Key Findings:

a. The study showed that ANMs are capable of conducting deliveries in the subcentres if they stay within the village and if proper facilities are provided and they are given support from the community and the health system. Therefore, it is cost effective to initiate delivery services in suitable subcentres. There were many cases of ANMs living and serving in the villages.

b. The ANMs working in the periphery and other nursing personnel at different levels were not given adequate support and recognition for their profession work. Staff nurses and ANMs were discouraged form conducing deliveries in several places due to fear of complications, non availability of doctors and other reasons.

c. There is a role confusion about the future of the ANM and her training - whether she will be trained to become a skilled birth attendant or whether she will follow in the current manner. Her role vis-à-vis the community change agent - ASHA - was also not clear.

d. There are very few nurse midwives (staff nurses) at the periphery to cater to all the maternal and child health needs of the community at PHCs, CHCs and FRUs. If hospital deliveries are to be promoted in the future, many more will be required.

e. The quality of nursing education was poor in most schools for training ANMs and GNMs. This included poor physical facilities, inadequate and poorly upgraded teachers, very little scope for clinical and field practice.

f. Nursing Councils were poorly structured and administered. They did not enjoy professional autonomy to undertake measures of quality of education and maintain standards. Most were headed by non nursing persons, they were housed in poorly equipped offices and many posts were vacant.

g. The nursing profession was found to be weak at the top administrative level at state and district level. Most of the key administrative positions were vacant or were occupied by lower cadres or were being officiated by non nursing persons. Top teaching posts were vacant. At the district level, the post of DPHNO was either vacant or did not enjoy professional status to undertake guidance, supervision and training of nursing personnel.

h. There is no systematic inservice education for nursing personnel at any level - teaching or service. There is no linkage between teaching and service as many teachers had not undergone refresher training about RCH and hence the current batches of students are not provided detailed information about the latest information.

Key Recommendations

a. This study recommends a critical review of the ANM\MPHW (F) cadre and recommends two levels of basic nursing education - a professional and an auxiliary course with a bridge plan for the auxiliary to gain entry into professional the course. The current MPHWs (F) may be shifted into two directions:

   b. The auxiliary nurse midwife path with opportunity to become a professional nurse - midwife with additional training

   c. A community health facilitator role without additional technical skills but with improvement in communication and coordination so that she can be the facilitator for health services and work with the AWW and ASH, TBA and others in villages.

d. The current ANMs must be given option to retain their clinical role and work as SBAs or work as facilitators. The first will be a stationery role and the second will be a mobile role.

e. Place adequate number of professional nurse-midwives (present staff nurses) with additional skills at al places of MCH services delivery - PHCs, CHCs, FRUs and district hospitals. The cadre of the staff nurse or the nurse midwife is critical for maternal and child health services in peripheral health centres. However, a course has to be designed to provide them with upgraded skills in using life saving measures.

f. Undertake a national study of the situation of nursing teachers in the Country with the main goal of upgrading their teaching and technical skills.

g. Centers for excellence in nursing education and teacher training must be started in each state with support so that high quality teachers are prepared.

h. Develop an inservice programme - a short term programme nursing innovative techniques to train nursing personnel in the entire country and a long terms programme that is mainstreamed into the health system It is essential to improve the knowledge and skills of ANMs using innovative methods such as group training and distance education programme. A longer time curriculum such as the IGNOU advanced programme would be appropriate.

i. The autonomy of the nursing profession should be enhanced and upheld to promote better quality preparation of nurses who will be able to deliver services in a confident manner. Strengthening the Nursing Councils at the Centre and States should be planned and taken up immediately

j. The top management in nursing needs to be strengthened since the weakness at this level is the cause of deteriorating nursing services. All state level and district level posts should be reviewed and additional over created according to requirement.

k. The nursing council needs to be given a professional status at the national and state level so that professional autonomy is practiced and professional standards of care are upheld.

l. Gender disparities in the health professionals need to be addressed since they contribute greatly to poor quality services at the periphery due to problems of stay, security, mobility and access. The nursing profession needs to be engendered and empowered to provide health services within an ethical and rights framework.

I. Background and Methodology of Study

1.1. Introduction

Meeting health challenges of the people requires the development of efficient human resources. This means that health planners should consider the composition and capacities of the work force required for achieving health goals of the Country and carry out carefully planned educational programmes. In addition, an effective in-service education system must be in place for placement, advancement and continuous training so that the staff are updated in knowledge and skills and their work morale is high. In other words the potential of the workforce should be fully used and strengthened. Both pre service and in service education are equally important and have to go hand in hand to always provide the latest technical information and skills to each category of health personnel. Education and training are key investment tools for achieving performance. Unlike infrastructure and furniture knowledge and skill do not deteriorate with use. On the other hand, skills gain perfection and knowledge becomes sharper with use and training. But old skills become obsolete with the advent of new technologies and old knowledge can become dogma if it does not move with current information. Therefore in-service training is needed to maintain skills.

Since Independence the Government of India introduced several national level programmes for controlling communicable diseases and promoting health. These centrally designed programmes are taken up for implementation at the state level since the state governments are the main health care providers in rural areas in India. In order to implement the programmes in the field, manpower has been trained and placed. Of the field level functionaries, the erstwhile ANMs, later converted into multipurpose health workers and their supervisors, constitute the largest group among health personnel. The subject of this study is to review and analyze the situation of nursing personnel in India.

1.2 Terms of Reference

9. Review of organization of nursing services within public health care delivery services in India.
10. Assessment of HR needs (no. of personnel) of all categories of nursing personnel, i.e. staff nurses, HVs and ANMs for the RCH programme at subcentre /PHC/ CHC/ FRUs (in light of the proposed interventions listed in the national PIP).
11. Identification of the gaps in the skills and competencies of nursing personnel in delivery of RCH (maternal health, newborn care, child health, family planning and pregnancy termination, HIV/AIDS etc.)
12. Review of existing pre service and in service training curriculum with special reference to package of services and job responsibilities of ANMs, LHVs and staff nurses and suggest rationalization needed in the duration of preservice training for ANMs.
13. An assessment of the current capacities (both in public and private sector) of the state to train the required number of nurses and ANMs in public systems.
14. Status of continuing nursing education (staff nurses, LHVs, and ANMs) activities. (Existing activities and scope for further improvement).
15. Review of existing infrastructure for nursing training i.e., physical infrastructure for training centers, audio visual aids, availability of trainers and their competency building, suggestions for an action plan for strengthening training of nurses/ANMs for RCH programme (pre service and in service).
16. Explore possibilities of innovative approaches to nursing education and training for RCH tasks such as satellite based training and training involving the private sector specially for in service training.

1.3. States, districts and institutions included in the study:

Six states were selected for primary data collection through field visits. The selection of states was determined by inclusion criteria related to developmental and geographic indicators. All round development of the state as well as specific progress related to nursing were considered. The states included were: Assam, Bihar, Gujarat, Tamilnadu, Uttaranchal, and West Bengal. In each state one or two districts were selected for visiting health facilities and studying nursing situation. In Assam, Shivsagar and Kampur were selected. In Bihar, Patna and neighbouring blocks were visited. In Gujarat, Ahmedabad and Rajkot were included. In Uttaranchal Dehradun and Doiwala CHC were selected. In Tamilnadu, Kancheepuram (Block) was included in the study. In West Bengal, Barasat, 24 Parganas were included.

The selection of institutions and facilities within each state was done after consultations with state resource persons and officials. Among the institutions, it was decided to visit selected health facilities in the selected districts to study services provided by public health nursing personnel, identify gaps and discuss the problems. One or two CHCs, PHCs and SCs were visited in each state. Review of nursing education was done through visiting training institutions offering ANM and GNM courses and a few offering post basic and promotional or inservice training.

Rationale for choice of states and districts: Each of the selected states had some specific feature for its selection. Assam was selected for inclusion of the northeast part. It is the only state in the northeast with a College of Nursing and the only one having the post of Joint Director of Nursing. Bihar was selected for highlighting the problems in overall nursing education and practice. Gujarat started the post-basic course long back but did not have a masters programme to this day. The MPHW(F) were called FHWs and the State Nursing Council did not recognize or register the FHWs. Tamilnadu gave additional training to the MPHW(F) and called them Village Health Nurses (VHNs). This state was taking several steps to strengthen staff nurse cadre at PHC level. Uttaranchal is a new state and its Nursing Council was not approved by the Indian Nursing Council. There were no training institutions functioning in the State. West Bengal was known as a progressive state in relation to nursing administration and public health nursing. It had several nursing positions at the state level.

Table 1.1. Sites included in the study in the six states

S.No	Category of institution, office or health facility visited	Assam	Bihar	Gujarat	Tamil Nadu	Uttaranchal	West Bengal	Total
1	State Directorate and administrative offices	3	2	2	3	3	5	18
2	State Nursing Registration Councils	1	1	1	1	1	1	6
3	Training Institutions for basic education and post-basic education	5	5	3	5	1	5	24
4	Inservice education centers at state and regional level	-	1	3	2	-	-	6
5	District hospitals	-	1	1	2	1	2	7
6	CHCs	1	-	2		2	1	6
7	PHCs	3	2	1	1	1	1	9
8	SCs	1	1	1	2	1	3	9
9	Offices or centers of Nursing Associations and Unions	-	-	1	1	-	-	2
	Total	**14**	**13**	**15**	**17**	**10**	**18**	**87**

1.4. Operational definitions

The terms used in this study for personnel, institutions and facilities were clarified and operationally defined through discussions among technical experts and administrative persons.

a. Public health nursing personnel: The following categories were studied

- MPHW (F)/ANM: A candidate who has passed the earlier two year ANM course or the MPHW(F) course or equivalent (earlier ANM course) and is working in a SC, PHC or CHC in the government sector under any designation given to her by the state government (ANM, FHW, VHN).
- Female Health Supervisors (Lady Health Visitors) working in PHCs and CHCs
- Staff nurses working in CHCs, or PHCs and in hospitals where students undergo clinical training.
- Public health nurses (sector health nurses or community health nurses) working at PHC or CHC or higher level.
- District public health nurses or other nursing personnel working as DPHNSs or DPHNOs

b. Teaching personnel:

- Principals, vice principals, incharge principals or equivalent persons heading nursing training centers for GNM or MPHW (F) training. Superintendents of LHV schools were also included.
- Tutors of all cadres - sister tutors, PHN tutors, midwifery tutors and clinical instructors
- Nursing personnel working in inservice training centers such as regional or state level health and family welfare training centers, district training teams whatever their designation.
- Others related to teaching and student welfare such as wardens and librarians
- Clinical teaching resource persons from the teaching institutions where students go for clinical experience: matrons, ward sisters, staff nurses, doctors and specialists.

c. Training institutions and facilities for clinical experiences:

- Basic training institutions: MPHW(F) centers, GNM schools of nursing and where available, B.Sc. Nursing Colleges
- Post-basic and higher educational institutions: Training centers for six months promotional course, PHN or other training centers, post-basic B.Sc. nursing colleges
- In-service training centres: Regional, state and district training facilities available in the selected district of the state.
- Clinical facilities: Only those hospital and health centres used by the selected training institutions. The labour room and the maternity ward were included for study.

d. Policy and administrative officer:

- Those making policies and influencing nursing in the state
- Directorate level officers of nursing and medical cadres.
- The State Nursing Councils and the persons incharge.
- Nursing leaders and representatives of associations.

1.5. Sources of information:

Both primary and secondary sources were used to get information. Various offices and departments were listed and approached for secondary data as well as to obtain permission for conducting interviews with staff. Two or more visits had to be made to some of the offices to obtain permission and collect information. Some of sources of information were:

- Directorate of health services - medical education, public health, family welfare, reproductive and child health.
- State Nursing Councils
- Office of the Directorate of Nursing or its equivalent in each state
- Selected training institutions and in-service training centers
- Hospitals used for clinical practice and block hospitals, CHCs, PHCs and subcentres
- Nursing personnel at different levels and belonging to different cadres.

- Associations of ANMs and GNMs and other cadres at state level.

Secondary data: National and state level documents on nursing and public health were reviewed. All major health committee reports since independence that had an impact on public health nursing were scrutinized. Special focus was laid on the following reports - Kartar Singh Committee, Shetty Committee and the High Power Committee on Nursing. Policy and programme documents such as the RCH and population policy documents and statistical reports such as the NFHS were referred. Besides the documents and reports in public health and nursing, the following materials were useful in completing the report: TNAI year books, different issues of the Indian Journal of Nursing and Midwifery, statistical reference books and Annual Reports of Government of India and states.

Primary data: Primary data were collected from persons at different levels - state policy makers administrators staff working in the field, teachers and clinical instructors, nursing council registrars and professional leaders. Nearly 300 persons were interviewed or included in focused discussions to obtain information on the situation of public health nursing personnel in the Country. Table 1.2 lists the categories of persons interviewed or included in discussions at different levels. Primary data were collected from four categories of persons at different levels:

1. State level: Policy makers, administrators or others working against the posts at directorates, state institutes and nursing councils. Professional leaders were also included where available.
2. District level: District health administrators (medical and nursing) at administrative level
3. Field level: Functionaries including service providers and supervisors
4. Training centre level: Administrators, tutors and students

Table 1.2. List of persons included in study at different levels

Category of persons interviewed or included in focused discussions in the six states	Assam	Bihar	Gujarat	Tamil Nadu	Uttara-nchal	West Bengal	Total
1. State level officers - policy makers, administrators, managers and others working against the position							
Special Secretary, Medical Education / Commissioner Family Welfare	-	-	1	-	-	2	3
Director -in-chief Health Services\Directors of Health, Public Health or Medical Education\ Senior RCH consultants	4	2	2	4	6	3	21
State Nursing Health Supervisor / Director of Nursing / Asst. Director of Nursing	-	4	1	-	-	-	5
Principal/ Faculty, SIHFW	2	1	3	1	-	-	7
Registrar / Dy. Registrar of Nursing Councils	1	1	2	1	-	1	6
Principals\PHNs or other nurses working at state level	-	-	-	-	3	-	3
Union leaders	1	1	3	4	-	-	9
2. District Level officers and administrators							
Medical and Health Officer / District Chief Medical Officer / District Health Officer/ Dy. CHO	2	2	1	1	-	2	8
Medical Superintendent / Asst. Medical Superintendent / specialist / MO / RCH MO\Incharge superintendent	5	6	2	1	5	3	22
Nursing Superintendent / Dy. Nursing superintendents / Nursing Administrators	-	4	-	-	3	1	8
3. Nursing personnel at district, block, CHC, PHC and SC level							
DPHNs	1	-	2	5	-	1	9
PHN / CHN / SHN	1		3	18	3	1	26
Staff Nurse and sister nurse	8	2	1	4	4	5	24
ANM / FHW / VHNs	11	2	2	2	3		20
Health supervisor (F) / Assistant / LHV	5		1	5	1	19	31
Health Assistant (M) / Health Worker Male						4	4
4. Training centers - administrators, trainers and students							
Principals	5	3	4	4	1	3	20
Vice Principals	4	1	2	3	-	-	10
Tutors	18	15	13	16	4	39	105

Students							
Total	**62**	**38**	**34**	**63**	**24**	**80**	**297**

1.6. Methods and tools of data collection:

The study included the following methods to obtain a comprehensive picture of public health nursing in the country.

a. Desk reviews through study of documents on nursing and public health.
b. Field visit to selected states, training centers and health centres
c. Consultations and workshops.

Interviews and focus group discussions were the two forms used to collect primary data from individuals and groups on issues related to nursing education in the states. Information was obtained from principals of the training institutions through unstructured interviews. These were conversational in nature and were conducted in their respective offices and classrooms. Students and teachers who participated in focus group discussions were encouraged to talk freely about the issues affecting demand and supply for nursing, quality of nursing education and the problems. Students were also asked to give their individual opinion about nursing education and their recommendations for improvement from academic and administrative perspectives. Formats and checklists were prepared to obtain statistics related to nursing manpower and training in the states.

Table 1.3. Training institutions included in the study

States	GNM Schools	ANM Training Centre	Colleges of Nursing	Others (Inservice and promotional training)
Assam	GNM School of nursing: District Hospital Sivsagar (Government) Satribari School of Nursing (private) Down Town School of Nursing (private)	Red cross (RC) Nurses Training centre, Gauhati		
Bihar	General Nursing and Midwifery (GNM) school of Nursing (S.O. Nsg) Patna Medical College Hospital (PMCH), Patna (Government) Holy Family– Mission Kurji Hospital, Patna (Mission)	General Nursing and Midwifery (GNM) school of Nursing (S.O. Nsg) Patna Medical College Hospital (PMCH), Patna (Government) Auxillary Nurse Midwifery school, Hazipur District Hospital (Government) Tripolia Maternity Hospital and ANM school of Nursing (Government) Holy Family– Mission Kurji Hospital, Patna (Private) Female Health Workers (ANM) Training School (the school was under MIB)		State Institute of Health and Family Welfare
Gujarat	General Nursing and midwifery (GNM) school of Nursing (Government) Singhi Institute of Nursing, Ahmedabad GNM School of Nursing (Private)	Auxiliary Nurse Midwife (ANM) Regional School of Nursing Limbdi	College of Nursing, Ahmedabad	Rajkot District Training of Trainers centre (DTTC) Regional School of Nursing Rajkot (FHW Promotional course)
Tamil Nadu	GNM School of Nursing of Kanchepuram, March 24, 2005 (Government) Andhra Mahila Sabha (AMH) school of nursing, Chennai (GNM) (Private) CSI ANM School of Nursing Ekkadu - Thiruvallur (Private)	ANM school of Nursing Kancheepuram (Government) Stedford Hospital School of Nursing (mission) CSI ANM School of Nursing Ekkadu - Thiruvallur (Private)		IPH Poonamallee, Chennai Health and FW Training centre, Egmore
Uttranchal	GNM School of Nursing, HIHT, Jolly Grant, Dehradun (Private)			
West Bengal	GNM and ANM School of Nursing Kaliani, District Nadia GNM School of Nursing mission of Mercy, Calcutta	ANM (R) Training School, North 24 Pargana Barasat GNM and ANM School of Nursing Kaliani, District Nadia	College of Nursing Kolkata	

1.7. The Study Team:

A team of research staff at the Academy for Nursing Studies, Hyderabad coordinated the study. This coordination team put together the information from the different consultants working on specific issues. The team transcribed, compiled, coded and entered the data from the different sources.

The review and study were entrusted to a team of senior nursing personnel at national and state level. They served as coordinators, consultants and resource persons. There were two coordinators, four national level resource persons and six state level resource persons who helped in collecting information. Two coordinators undertook the task of coordinating the study, compiling data and preparing the reports. The national resource persons helped in preliminary review of data from different documents. The state resource persons helped in identifying training centers and health facilities to be visited, and made all the arrangements for the study at the state level. They also collected relevant statistical information at the state level.

Field visits were carried out by two, and sometimes three, coordinators who visited each of the six selected states. Within the state they visited training centers and health facilities below the district level. They interviewed state level policy, administrative and nursing personnel. They reviewed the data collected by the state level resource person. They visited the nursing council and interviewed the registrars and other staff. They interacted with the representatives of the nursing associations.

1.8. Limitations and constraints:

A major limitation of this study was the time constraint as large amount of data had to be collected within a short time from six states across the Country. Selected institutions were located far away in the city and took a lot of travel time due to the heavy traffic. Moreover, the issues and the questions in the unstructured method prolonged the interviews. The interviews acted like cathartics to the primary sources who felt like talking at length about the topic within the limited time available.

The timing of data collection in March created problems since this was the closing month of the financial year. Another disadvantage was that administrators of the private and government offices were not available for comments.

1.9. Analysis of data and organization of report

Quantitative information related to nursing manpower and education was compiled and tabulated for comparison and analysis. The review papers from the different national resource persons were condensed, edited and finalized for highlighting the development of nursing manpower and education and to bring out the major issues of concern. Where appropriate the information from the secondary data was also used in the four sections mentioned below. The individual state reports were used as references to cite example and report specific problems.

In the case of primary data, all visits, consultations, interviews and focus group discussions were noted down in summary form at the time of data collection. On completion of each visit, detailed notes were written on the same day. The information from the detailed notes were then transcribed according to the different areas of study. The following major themes were selected for writing the overall report and for comparing the situation in different parts of the Country. This framework was also used for preparing the draft report. Major issues and recommendations were taken out of the reviews and state reports and organized under specific heads. The major sections in this report are:

- Review of public health nursing and midwifery in India
- Nursing Manpower situation and requirement
- Current status of nursing education in India
- In-service education for public health nursing personnel: Trends, gaps and needs
- Major Concerns and Recommendations

II. Review of public health nursing and midwifery in India

2.1. Overview of the growth and development of nursing in India

Public health nursing is the out growth of personal services to mothers and children to prevent maternal and child morbidity and mortality, provide basic health services to the community and establish referral linkages to hospitals. Public health nursing in India grew in the 19th century out of lady health visitors, rural midwives, maternity assistants and later ANMs and nurse midwives. British military hospitals and Christian missionaries influenced the growth of nursing in India before Independence. The origin, development and changing trends in public health nursing personnel in India are briefly traced here.

Traditional birth attendants called dais provided child birth services to women from the beginning of civilization in India. These were hereditary service providers whose skills were learned from observing senior members in the family. Their occupation - childbirth attendance - was handed down from woman to woman. In fact this is the only formally woman oriented occupation from ancient India persisting to this day. The first attempt to train dais was made by Miss. Hewlett, a Christian Missionary in Amritsar in 1886 (Wilkinson, 1958). The efforts of Lady Curzon who established the Victoria Memorial Fund in 1900 further augmented these initial efforts. Observing the high maternal and newborn complications and deaths, two English nurses - Miss Griffin and Miss Graham - started training dais in safe childbirth practices at Nicholson Road in Delhi under Maternity and Child Welfare Scheme (1918).

The training of dais in rural areas was continued after independence to improve maternal services and to involve them in the promotion of small family norms. The training was launched systematically during the second five year plan as a centrally sponsored programme to train at least one dai in one village by 1983-84 with an ultimate aim of training all untrained practicing dais. The programme was intensified from 1977-78. The training was for 30 working days conducted by ANMs and LHVs under the supervision of Medical Officers. By 1988-89 about 5.64 lakhs dais were trained in the Country.

The growing need for supervising of dais at home to ensure maternal and child health services and provide health education prompted, Miss Griffin and Miss. Graham to initiate the training of Lady Health Visitors (LHVs) at the same premises in Nicholson Road in Delhi. In 1926, they shifted this training to a new building at Bara Hindu Rao and called it Lady Reading Health School. Thus the training of health visitors was a development that grew out of the training of dais. The training was initially for nine months and was later increased to 18 months. Similar health schools were opened in Lahore, Calcutta, Madras and Nagpur. Over time, it was observed that health visitors could not provide comprehensive health services to the community as they were not trained in nursing. There was a critical need for a professional public health nurse and midwife (Bhore Committee, 1946), but the training of LHVs was continued since enough PHNs were not available to replace them. The Mudaliar Committee suggested replacing them with public health nurses reiterating the recommendations of Bhore Committee.

There were many problems with the continuation of the LHV course. When midwifery was made an entry requirement, there were very few candidates. The absence of promotional avenues and the problems of living in villages and small towns with few amenities further made the LHV course unattractive (GOI, 2nd Five Year Plan). Hence by the '90s, two types of courses remained: a) Regular Course for 18 months, and b) Integrated Course of Midwifery Cum Health Visitor training for two and half years. Entrance qualification was matriculation. Today, there is no direct entry to LHV course.

The training of Health Visitors was discontinued from September 1977. The schools are used for promotional training course for ANMs (14). Six months promotional training is given to ANMs with at least five years experience. The curricula for six months promotional course is prescribed by INC.

2.2. Overview of training of Auxiliary Nurses and Midwives:

The first school to train midwives with an additional course in midwifery after nursing was started in 1854 in a lying-in hospital at Madras. Diploma in midwifery was granted to successful candidates and certificate of sick nursing alone was given to those who failed. The nursing superintendents of the respective hospitals planned and implemented these training programmes to suit hospital needs. By the beginning of the 20th century, a number of nursing schools were functioning in hospitals run by Provincial Governments in Bombay, Madras, Bangalore, Punjab, Delhi, United Provinces (now known as Uttar Pradesh) and Mysore. Most Mission Hospitals had their own training centres. From 1875 onwards the Dufferin Hospitals for women and children also started nursing schools. Initially, only Europeans and Anglo-Indians were trained in these schools. The J.J. Hospital training school in Bombay was the first Government training school to admit Indian girls into nursing. Bai Kashibai Ganpat was the first Indian nursing student.

Hospital based training of nurses continued to remain focused on preparing nurses to fill the needs of hospitals rather than for broader health responsibilities. This continued after Independence too, despite several efforts and revisions of the Indian Nursing Council to integrate public health nursing and midwifery into the General Nursing and Midwifery Programme (The latest revised GNM syllabus has succeeded in integrating these essential components).

Auxiliary nurses were trained during the Second World War in 1942 to overcome the extreme shortage of trained nurses in the Indian Defense Forces. Candidates were trained for six months in selected civil hospitals and worked as assistant nurses. This continued till Independence. After the establishment of the Indian Nursing Council, these courses were standardized and a uniform syllabus for two years leading to the Auxiliary Nursing and Midwifery Certificate was introduced. The INC designed the two-year curriculum to prepare ANMs to provide basic nursing care, preventive services, midwifery and child care services in rural areas. The first school came up in 1951 at St. Mary's Hospital, Taran-Taran, Punjab. From two schools in 1952 the number of ANM training schools increased to 263 by 1962. The entrance qualification was seventh standard pass. The ultimate aim was that the ANM would replace the rural midwives and dais in PHCs and elsewhere.

Comprehensive community health development was initiated in 1951 with the launching of the Five Year Plans. Maternal and child health services were provided through Primary Health Centres (PHCs) and Sub Centres (SCs) in rural areas with ANMs in SCs and one medical officer and two health visitors at PHCs. The ANM was responsible for health services through the SC and the LHV was responsible for supervising and training dais and midwives, conducting clinics in peripheral units and attending cases requiring hospitalization.

During the first two decades after independence there was a steady growth in the number of national programmes and an increase in the number of health centers, hospitals and training centers. However, no significant developments took place in enhancing the capacity and skills of ANMs and health visitors. On the other hand, there was a gradual decline in skills and capacity to function independently. In 1974 ANMs were designated as Multi Purpose Health Workers Female as recommended by Kartar Singh Committee to provide integrated package of MCH, Nutrition, FW, preventive and curative (minor ailments) services to rural communities. Their performance was supervised by Lady Health Visitors who were designated as Health Supervisor Female.

The intensive orientation training of ANMs and LHVs to prepare them for multi purpose functions was started in the 5th five year plan and continued into the 6th and 7th plans. But this training did not progress satisfactorily due to technical, administrative and operational problems. By 1987-88, 19646 Health Assistants (F) and 87068 HW(F) underwent the reorientation training.

In 1977 the INC reviewed, revised and restructured the then existing ANM syllabus to prepare MPHW (F). The curriculum was designed to have18 months of vocational training and 6 months of general education to fit into the 10 + 2 level of vocational education under 10 + 2 + 3

scheme of general education. The Bajaj Committee (1986), High Power Committee on Nursing (1989), and 7th FYP strongly recommended the 10 + 2 level of education to provide opportunity for further education. Today the role and therefore the training of ANMs and health supervisors is again at threshold of change to suit the changing policies.

2.3. Other programmes with impact on peripheral health: Several health planning and development committees played a major role in the changes that public health nursing underwent during last six decades. The Bhore Committee was the most progressive in terms of its broad perspective and long-term vision for public health in the Country. Most of the recommendations of the Bhore Committee are relevant even today. However, majority of the recommendations have not been taken up for implementation and even those that were initiated have been discontinued.

The Shetty Committee (1954) was set up on the recommendation of Central Committee of Health to review the then prevailing training and service conditions for nurses. The observations made by the Shetty committee were: Low pay scale for health visitors and midwives, shortage of health visitors (one for 40000-60000 population), lack of transport facility or transport allowance, accommodation not available in rural areas for ANMs and LHVs, INC admission standards not followed in the training centers leading to low quality education. The Shetty committee recommended that there must be a provision for minimum standards of nursing personnel in public health service with one midwife to 100 births in rural areas and one midwife to 150 births in towns and cities and one public health nurse or health visitor to 10000 population. The Committee also recommended that the trained dais should be continued for some years under supervision. They suggested one nurse-midwife for three patients in hospitals with training schools and one nurse-midwife for five patients in hospitals without training schools. They added that ANMs could be appointed to supplement nursing services in the hospitals and wards, which are not used for training nurses. The committee also recommended that hospital nursing service staff and public health nursing service staff should be combined into a single cadre. Another recommendation was appointment of superintendent of nursing services in each state.

The Mudaliar Committee (1961), recommended streamlining nursing personnel to three grades of nurses: basic nurse with four years of training (including six months midwifery and six months Public Health Nursing); Auxiliary Nurse Midwife training for two years; and the nurse with a degree. The Committee also suggested career development and higher training e.g. Public Health Nursing, Mental Health Nursing, Pediatric Nursing, OT Nursing, training in teaching and Nursing Administration.

Male health workers were introduced into public health initially to work in specific national health programmes in small pox, malaria, cholera and leprosy. The Chadha Committee (1963) recommended basic health workers (one for 10000) at PHCs to conduct vigilance operations for malaria, collect vital health statistics, and take up family planning, environmental sanitation and health education activities under supervision of F.P Health Assistants. But this was not accepted at the field level. Family planning services were de-linked from BHWs' responsibilities on the recommendations of Mukharji Committee in 1965. Later, it was recommended that BHWs would work along with ANMs for providing basic health services at the sub centres (Mukharji Committee, 1966). The Kartar Singh Committee (1972) had the greatest impact in terms of quality and long term changes. This Committee recommended the introduction of Multi Purpose Workers under Health and Family Planning Programme.

The Kartar Singh Committee was convinced that the concept of multi purpose workers and supervisors is both desirable and feasible. The committee found consensus with new designation for the multi purpose workers. The administrative problem of uniform grading and pay scale for both male and female workers (ANM) because of wide discrepancy between the duration of ANM training (2 years) and training of male workers such as malaria or small pox workers (1-3 months) was left to be sorted. The Shrivastav Committee (1975) further consolidated the recommendations of the Kartar Singh Committee. The infrastructure norms were revised as suggested by working group on

Health For All in 1981(one SC for 5000, one PHC for 30000, and one CHC for 100000 population). The training capacity of existing ANM schools was augmented and new schools were opened to meet the needs of female health workers in the new subcentres. ANMs with at least five years experience were deputed for six months promotional training course to prepare them to take on the post of Health Assistant (F). The training of health visitors under the old system was discontinued

Community Health Volunteers Scheme (1977) was initiated on the basis of recommendations made by Shrivastava Committee. The scheme was renamed Village Health Guide Scheme in 1981 with 100% central support under Family Welfare Programme. The health assistants (F) and health workers (F) participated in their training, facilitated and supported their functioning and involved them for community mobilization for MCH and family welfare services. However, administrative and policy problems soon arose leading to discontinuation of the Scheme. The Scheme, instead of strengthening public health system, diluted it and introduced a large number of unqualified medical practitioners independent of the ANM and not accountable to the health system.

In 1983, the National Health Policy was officially adopted by the Parliament. "Health for all" principles and strategies were incorporated for strengthening and expansion of three tier-primary health care infrastructure - the subcentre, PHC and CHC. However, there was no qualitative difference in the job of any of the public health nursing personnel. Emphasis was given on orientation training to nursing personnel for implementing the new strategies.

A High Power Committee on Nursing was appointed by the Government of India, Ministry of Health and Family Welfare in July 1987 to review the role, functions, status and preparation of nursing personnel; nursing services and other issues related to the development of the profession and to make suitable recommendations to the Government. The Committee observed that nurses are generally not involved in making policies that govern their status and practice. The Committee made several recommendations related to working conditions, nursing education, continuing education and staff development, and also recommended norms for nursing services and education. Some of these are listed below:

- There should be two levels of nursing personnel, viz. Professional Nurses (Degree level) and Auxiliary Nurses/Vocational Nurses since this is the internationally accepted pattern.
- All Schools of Nursing attached to medical college hospitals should be upgraded to Degree level in a phased manner. Post Certificate B. Sc. Nursing degree should be continued to give opportunities to existing Diploma Nurses to obtain higher education.
- All ANM Schools of Nursing attached to district hospitals should be affiliated to Senior Secondary Boards.
- Post graduate programmes in nursing should be increased and strengthened. Specialty courses at post-graduate level should be developed at certain special centres of excellence, e.g. AIIMS, PGI Chandigarh. All Indian Institute of Hygiene & Public Health. Doctoral programme in nursing should be started in selected Universities.
- Institutes like National Institute of Health & Family Welfare, RAK College of Nursing and several others may develop courses on Nursing Administration for senior nurses leading to Doctorate level. Staff College courses should be made available for nurses working in the Directorate. Provision of higher training abroad and exchange programmes should be made.
- Each School should have separate budget and the Principal of the School should be the Drawing and Disbursing Officer.
- INC requirements must be followed by all the Schools for staffing the schools and meeting the minimum requirement as these are statutory requirements. Nursing personnel should have a complete say in matters of selection of students. Selection should be based on merit. Aptitude tests should be introduced for selection of candidates.
- All Schools should have adequate budget for libraries and teaching equipments. All Schools

should have independent teaching block called School of Nursing with adequate class room facilities, library room, common, room etc., as per requirements of the Indian Nursing Council.

- Community nursing experience should be as per requirements of the INC. Necessary transport and accommodation should be available at Primary Health Centres for safety, security and meaningful learning of students.
- Definite policies of deputing 5 to 10% of staff for higher studies should be made by each state. Provision for training reserve should be made in each institution. Deputation for higher study should be made compulsory after five years. Necessary budgetary provision should be made for continuing education at national and state level. Nursing personnel must attend one or two refresher courses every year. A National Institute for Nursing Education Research & Training like NCERT should be established for development of educational technology, preparation of text books, media/manuals, etc. specific for Nursing.

2.4. Higher education in nursing:

There were three developments of significance for enhancing educational and professional status of nursing during the first two decades after independence. These were the introduction of the post-basic B.Sc. Nursing Course, the launching of the postgraduate course and the diploma in public health nursing. The University Education Commission headed by Dr. S. Radhakrishnan (1949) and the Education Commission headed by Dr. Kothari (1964) recommended raising the standard of nursing education by linking it with higher education of academic value at the university level*).*

In 1946, two colleges of nursing were started - one at Delhi, affiliated to Delhi University giving a degree in B Sc (Hons.) in nursing, and another at Vellore affiliated to the University of Madras, giving B Sc. degree in nursing. The Trained Nurses' Association of India, launched by a few nurses in 1905 was instrumental in the establishment of collegiate education. Following the successful experience of these two colleges and on the recommendations of University Education Commission (1949) and Education Commission (1964-66) and several conferences and workshops held by TNAI, WHO and UGC, some more colleges of nursing came up in different states. Public health nursing was integrated throughout the course to prepare graduates to work as public health nurses as well as clinical nurses.

Another development of relevance was the starting of the diploma course in Public Health Nursing in the RAK College of Nursing, New Delhi in 1951 on the recommendation of the Bhore Committee. This course was later transferred to All India Institute of Hygiene and Public Health, Calcutta in 1952. In 1954-55, a three months orientation course in public health nursing with emphasis on MCH was started for nurses in three orientation centres at Singur, Poonamallee and Najafgarh to meet the shortage of health visitors in some states. However, the nurses passing out of these centers were too few to provide manpower to all the PHCs of the Country. The Public health nursing course was started in Kerala, Indore, Nagpur and Ahmedabad.

In 1962, a two-year post basic B.Sc. nursing degree programme was started at Thiruvananthapuram at university level for nurses with GNM qualification. Within eight years, eight more colleges came up in different parts. Public health nursing was included in the curriculum. However, this development became stagnant with very few new colleges taking up this course.

In 1959, M Sc. Nursing was started at RAK College of Nursing, Delhi University and in 1969, it was started at College of Nursing in the CMC Vellore, Madras University. Other universities followed. However, the number of candidates passing out of these colleges was too few to make any lasting impact in clinical or public health nursing. Most were absorbed in teaching posts in the steadily growing number of GNM schools and colleges of nursing. Many sought attractive jobs in other Countries leading to a persisting shortage of qualified teachers and clinical specialists.

2.5. Key issues arising out of the review of origin and development of nursing in India

Nursing and midwifery have moved along with development a public health in the Country.

- The origin of the midwife and association with dais have not helped in the development of midwifery in India. Even to this day, the word midwife does not have prestige because in many Indian languages it is equivalent with the dai.
- Nurses did not have a role in decisions and policies that shaped the changes in the roles and functions.
- Public health nursing and midwifery did not grow as disciplines; ANMs instead of developing into PHNs or Midwives became diluted as multipurpose workers.

III. Nursing Manpower situation and requirements

3.1. Introduction

Quality and quantity of health care provided depends largely on the adequacy of health manpower, their efficiency and active involvement in health care delivery. The successive national health programme tried to provide need based services to under privileged communities. However, the success of the first two decades did not continue and public health services have started deteriorating in quality and coverage. Maternal, newborn and infant mortality have been stagnant over the last decade. Nearly six decades after Independence, disparities in health continue to exist due to socio economic inequities in access to health services specially at the periphery. Health indicators for SC, ST population are much lower than those for the rest of the population (NFHS 1998). This indicates the need for a strong and well supported peripheral health system that will focus on the critical health needs of the underserved populations. Five cadres of public health nursing personnel were analyzed in this study: ANM, LHV, staff nurse, PHN and DPHN.

Peripheral health services in India are provided through a network of health personnel who are mainly from nursing and auxiliary nursing fields comprising of ANMs (female multipurpose health workers). At the time of independence, the Country had a population of 300 million and very high maternal and infant mortality rates. There were about 25,000 nurses to provide care to the people. The country then embarked on a massive expansion of nursing training so that manpower matched expansion of the health system and the growing population. Yet the Country faces acute shortage of nursing personnel at every level. The nurse population ratio in India continues to be low.

3.2. Availability of public nursing personnel in India:

As per the 10th Five Year Plan, around 7.37 lakhs nurses have been registered in the various state nursing councils in the Country. It is estimated that only about 40% of these are in active service. Of the total nurses, only about 1.5 lakh nurses are employed in the government sector. Among the four 4 lakh ANMs that have been registered, only 1.5 lakh work in the government sector. The nursing manpower situation at the periphery is inadequate with large shortfalls at every level. There is a steep drop from the required to the sanctioned and from the sanctioned to those actually in position. If the number of persons who are on leave or absent from duty are added, the shortfall is even greater. There is no estimate of the drop from those in position to those actually functioning since these figures change day to day. The current percentage of shortfall ranges from 17.21 for the ANM to 44.91 for the nurse-midwife at the periphery.

Table 3.1. Health Manpower in rural areas of India

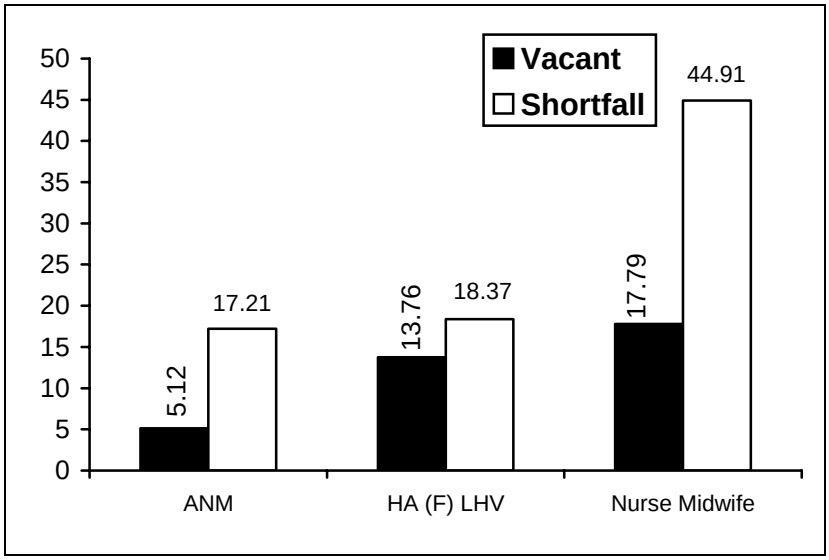
Sl. No.	Category	Required	Sanctioned	In position	Vacancy (S-P)		Shortfall *** (R-P)	
		R	S	P	No. @	%	No @	%
1	ANM	159809	140755	133567	7205	5.12	27501	17.21
2	LHV	22991	22361	19364	3077	13.76	4224	18.37
3	Nurse Midwife or staff nurses	41975	21490	17671	3822	17.79	18851	44.91

*As per norms for existing infrastructure as on 30-6-98 @Ignoring States with surplus number

** Totals do not tally as category wise break-up is not available fore some States/UTs.

*** Subsequently additional subcentres have been sanctioned in some states

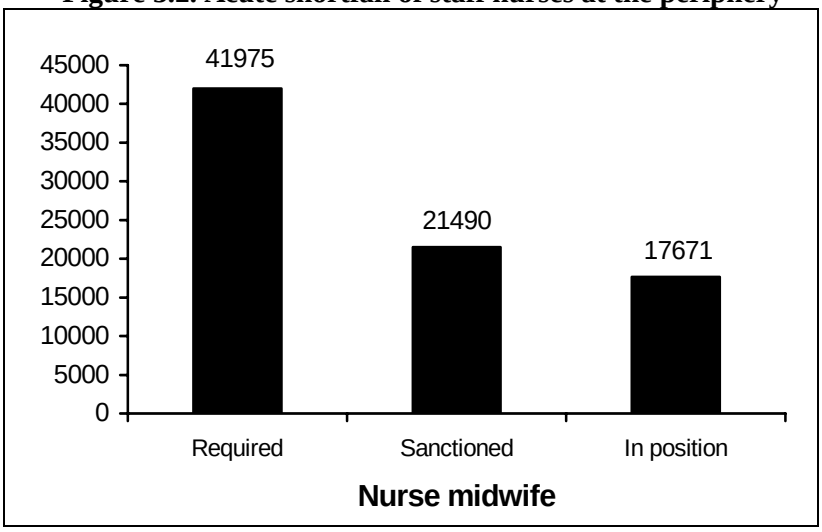
Figure 3.1. Vacancy and shortfall of nursing posts at the periphery



The percentage of shortfall is very high for nurse midwives at primary health centers and CHCs (44.9%). The staff nurse at the periphery usually takes on multiple functions in different parts of the PHC - outpatient, injection room, dispensary, labor room, operation theatre. Figure 302 further shows that though 41975 nurse midwives are required at the periphery, only 21496 are sanctioned and there are only 17671 actually in position. These figures indicate the critical situation of nursing and midwifery at the periphery. Considering that the government is stressing on the operationalization of all CHCs and upgradation of half of the PHCs for round the clock service, the presence of staff nurses is the highest priority. The policy for increasing institutional deliveries in the Country also makes it imperative to have adequate number of staff nurses in position at PHCs and CHCs. The presence of atleast three nurse-midwives in each PHC becomes absolutely necessary to ensure round the clock maternal and infant care services at PHCs.

Unfortunately the number of staff nurses has not increased at the same rate as other providers at the PHC. Even today most peripheral PHCs have only one staff nurse sanctioned. Manpower calculations have not addressed the issue of leave reserve. The need to consider leave reserve becomes very important considering that nursing personnel are predominantly female. At the time of entry into service and the first decade of their service ANMs and SNs are at the peak of several socio biological functions - marriage, childbearing and child rearing usually take place in the first ten years of service. Maternal leave and child care are the commonest reasons for absence and non availability of young female staff.

Figure 3.2. Acute shortfall of staff nurses at the periphery



3.3 Availability of nursing personnel in the study states.

An assessment of the availability of public health nursing personnel in the six states revealed wide differences for the five nursing categories who were included for analysis in the study (ANM, LHV, SN, PHN and DPHN).

Table 3.2. Current staffing position of nursing personnel in the study states

	ANM			LHV			S.N			PHN / Sr. PHN			DPHN / DPHNO / SPHNS		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Assam	6167	5835	332	493	370	123	1861	1665	196	146	121	25	18	16	2
Bihar	11597	9590	2007	1179	811	368	1948	1670	278	87	60	27	x	x	x
Gujarat	7294	6624	670	1185	862	323	5340	4977	363	8	7	1	31	22	9
Tamil Nadu	NA	NA	NA	115	64	51	2809	2681	128	NA	NA	NA	NA	NA	NA
Uttranchal	1933	1831	102	345	343	2	671	551	120	20	11	9	x	x	x
West Bengal	9584	8855	729	1512	1512	0	15000	14174	826	944	944	0	19	16	3

Key – ANM – Auxiliary Nurse Midwife; GNM – General Nurse Midwife; SN – Staff Nurse; PHN / Sr. PHN – Public Health Nurse / Senior Public Health Nurse; DPHN – District Public Health Nurse; DPHNO/S – District Public Health Nurse Officer / Supervisor

- In the case of ANMs, Assam, Uttranchal, West Bengal and Gujarat had vacancy below 10% while Bihar had 17.31% vacancy. (Tamil Nadu did not provide actual figures). The vacancy of ANMs means that the neighboring ANM is given additional charge of the subcentre leading to low coverage of the population.
- The vacancy position is higher in the case of LHVs or female supervisors. Except in West Bengal and Uttranchal, the vacancy is more than 20%. Bihar again has a high percentage of vacancy (31.21%). The weakness of the supervisory cadre has a great impact on performance.
- In the case of staff nurses at PHC / CHC – Gujarat, Tamil Nadu and West Bengal had low vacancy while Assam, Bihar and Uttaranchal had high vacancy. As mentioned earlier, the post of the staff nurse is critical to the day to day functioning of the PHC and CHC specially for maternal services. Uttaranchal which has low vacancy in the field posts (ANM & GNM) has the highest vacancy for staff nurses. Bihar also has a high vacancy for the post of staff nurses (14.27%).
- The post of PHNs at the PHC or block level is critical for training and supervision of ANMs and LHVs. The six states showed varying figures of posting and vacancy. West Bengal did not have any vacancies and Gujarat had 12.5%. Assam had 17.12%. But Bihar and Uttaranchal had high vacancies (31.03% and 45.0% respectively).
- The position of DPHNO was not available in Bihar and Uttaranchal. Assam had a vacancy of 11.11% and West Bengal had a vacancy of 15.79%. Gujarat had a high vacancy of 29.03%.

Table 3.3. Percentage of posts vacant for different public health nursing personnel

	ANM	LHV	SN	PHN / Sr. PHN	DPHN
Assam	5.38	24.95	10.53	17.12	11.11
Bihar	17.31	31.21	14.27	31.03	x
Gujarat	9.19	27.26	6.8	12.5	29.03
Tamil Nadu	NA	44.35	4.56	NA	NA
Uttaranchal	5.28	0.58	17.88	45.0	x
West Bengal	7.61	0	5.51	0	15.79

Key: x - position not available, NA-Data not available

3.4 Gaps in skills and performance of nursing personnel:

Public health nursing personnel at various levels were interviewed, individually as well as in groups. A total of 20 ANMs, 31 LHVs, 26 PHNs, 24 Staff Nurses and nine DPHNOs were interviewed in this study. Their places of work were observed and assessed using a checklist. The report and analysis is presented here separately for the different categories.

3.4.1 Analysis of situation of ANMs in the field

In the case of ANMs a case analysis method was adopted to study the ANMs representing different levels of performance in each state. Three examples are presented here from Uttaranchal, Bihar and Tamilnadu to demonstrate the use and under-use of services and skills of ANMs. Problems related to peripheral manpower management are also highlighted.

Case A: Subcentre Madhupur, PHC Manir with a population of 5500 in five villages, Bihar State

The subcentre was 5-6 km away from the PHC. Smt. SD was posted here since 1998. The ANM did not live in the subcentre village since there was no building and she could not get a room on rent. The centre was in one small room given by the Panchayat in its Bhavan after repeated requests. She struggled for a year - conducting clinics on the road side. On the day of visit she was conducting a clinic while the Panchayat was holding a meeting in the adjoining room. This room was the entry to the subcentre. The room had one small table and chair. There was no facility for boiling syringes. There was a sterilizer but no electricity. There was a stove but no kerosene. She took the syringes and needles home, boiled them and brought them back on the day of the clinic. Things were scattered on the floor. She had no storing facility like almirah etc. She had no attendant to help her. One voluntary worker some times came (according to reports). She conducted clinic daily from 8 am to 12 noon and there after went for home visits. It was observed from her records that 66 currently pregnant women were registered. Clinic attendance was 10 per day. When women saw her coming and opening the centre, many gathered and asked her for medicines for minor ailments. She tried to convince them with great difficulty that there were no drugs in the subcentre.

The picture of ANM 'A' presented here is common all over the Country. The ANM is not supported by the system in terms of place for subcentre, leave alone place for her stay. There are no basic facilities such as water and electricity. She does not have equipment, furniture, facilities, almirah, drugs. The fact that she had conducted clinics even when the Panchayat space was not available and the fact that she was writing records even though she did not have formats shows her interest in her work. Lack of facilities and space specifically for the clinic have hampered work. She is unable to keep her materials, equipment and registers neatly since there is a bare single room but no other facility for storage. She is not able to meet the needs of the people though they regularly come seeking her services. Women are coming to her even though they have to walk through the Panchayat office to enter the subcentre. She is incurring expenditure for basic activities such as boiling syringes. She is put to extra trouble for carrying the syringes home for boiling and carrying them back.

Inspite of all the problems she had registered 66 pregnant women according to her register on the day of visit. If not supported through infrastructure facilities and supervision there is the danger of this ANM gradually losing interest in work and settling down only to those activities that are of highest priority to the administrators. Her interest and commitment need to be nurtured and sustained.

Case B: Sub-center Jodhi, PHC Kalsi with a population of 2200 in five villages in a tribal area, Himachal Pradesh State

The ANM (assisted by one female attendant) has to travel average of 1-15 km to reach the different villages in her subcentre. Some hilly areas are too far and intractable. She has to walk for more than two hours to reach some villages. The subcentre has a government building and the ANM was staying here (confirmed through observations)). Water and electricity were available in the subcentre. There was a vaccine carrier, medicine and equipment kits (A and B). She had B.P apparatus, adult and infant weighing scales, labour table, sterilizers, stove, ORS packets, IFA tablets, facilities for HB and urine testing, and several records and registers. At the time of visit, she was making the monthly format with hand since printed formats were not supplied. It was observed that she was conducting deliveries in sub-center (confirmed from signs of use and reports). She was inserting IUDs and was able to conduct breach delivery. She was doing HB and urine testing regularly for all pregnant women. The ANM said that she was getting support the PHN and MO of her area. People were coming and availing services at sub-center regularly. The community was supportive.

ANM 'B' works in a government building with facilities. She has support from the community and the health system. She has basic midwifery skills and conducts deliveries. She has basic facilities such as water and electricity. She lives in the village and so is available and approachable. Having basic facilities and a helper have encouraged her to stay in the village She has regular supervision and support and this has kept her skills alive. However, she has many genuine problems and if these are not addressed through repeated training, guidance and support she is likely to perform at much lower levels.

Case C: Health Subcentre Keelambi, PHC Thiruppukuzhi, Tamilnadu State

The HSC (the subcentres in Tamil Nadu are referred to as health subcentres) is located in a government building and had regular water supply and electricity. It has two rooms - one as clinic and another as labour room. Some part of the HSC roof is leaking and needs repair. VHN is staying here with her family (The ANM in Tamil Nadu is called Village Health Nurse). At the time of visit, the centre was clean and materials were systematically organized. The labour room had a bed, labour table, wash basin with stand, baby weighing machine, sterilizer. The clinic room had baby spring balance, adult weighing machine, BP apparatus, stethoscope, table, chairs, cupboard, fan, vaccine carriers, basins. It was well maintained with up to date records and registers (bound books) that were supplied by Government. There were posters on the walls with statistical depiction of targets and achievements of the current year and month.

The ANM was working in the HSC since eight years. Her villages were within a radius of 4 kms. She visited them on foot. She said she had undergone RCH training two years back and said that it was very useful and gave her confidence. She was able to carryout CNA, plan realistic targets and prioritize her activities. She was able to identify high risk mothers and refer them to hospital. She could conduct delivery, give episiotomy and suture the perineum. She conducted 4-5 deliveries in a month. She indicated that during training she was taught the use of partograph but she was not using it as she was not confident and needed more training. But she wanted to use it. She also informed that she had 15 days training in IUD insertion and was inserting IUDs on her own. She felt that there should be regular in-service education for ANMs and she was keen to undergo training in the following areas to make her work more effective: Adolescent health, HIV/AIDS, gender issues, newborn resuscitation, handling maternal emergencies.

She also expressed desire for closer and frequent supervision and guidance. The SHN (the LHV is called sector health nurse in Tamil Nadu) visited once a week on clinic day but she could not get proper guidance due to the heavy work load. She was also interested in mobility training. She said, if she could use the two wheeler it would reduce the time and energy she spent on travel. She expressed that VHNs get no traveling allowance within the working area of 8 km but get TA for going to PHC etc for official work. This amount was fixed long time ago and was not enough to cover bus fare. She had to travel up and down atleast once every week for vaccination and also for monthly meetings. She indicated that the TBA was helping her in centre activity and was paid Rs.100 per month. The TBA felt that this amount was less. The TBA also conducted some home deliveries.

The VHN felt over worked and indicated that VHNs should be given only MCH work and this should be their primary job. There should be someone else for other national programmes.

ANM 'C' works in an enabled environment. She was trained and possessed basic and advanced skills. She is allowed to carry out procedures requiring greater skill and challenge – episiotomy, risk identification, IUD insertion. She not only conducted deliveries but also supported and guided the TBA to conduct safe home deliveries in her absence. Having adequate facilities allowed her to live in the centre along with her family ensuring access to people at anytime. Unlike the earlier two subcentres she has more facilities to work such as printed records, charts and posters and extra space. She has a separate labour room that is equipped for child birth.

3.5 Problems of living in villages:

Inadequate facilities to live in subcentres and deliver services was the major problem expressed across all states and by all ANMs. Almost all the ANMs said that sub-centers did not

have even basic facilities to provide even antenatal care. Only a handful of the subcentres visited had facilities for conducting deliveries. They also mentioned that there was no electricity and water supply in the sub centers and this hampered conducting deliveries in the subcentres even if they had the skill. The discussions and interviews with the ANMs from Assam showed that most of them were not living in the sub centres due to inadequate accommodation facilities. The government asked them to live in the subcentres but did not make the necessary arrangements. Majority traveled from outside. Even when government facilities were provided, they were improper and unsafe and did not have basic amenities. They were paid a house rent allowance as a percent of their basic salary but this was meager compared to the rent some of them paid. ANMs from West Bengal (subcentre Bora in Barackpore PHC in 24 Parganas) reported that it was difficult to get a room for a subcentre for Rs.75 per month that the government was paying them and so they had to supplement it from their own pockets. There were problems with payment of electricity bill also. They had to pay the bill but refund of this amount from the department was often delayed. ANMs from this state requested that the Government increase their monthly rent allowance to atleast Rs.150. They were not aware of the enhanced rent allowance. On enquiry at State headquarters it was found that the enhanced rate of house rest allowance was not implemented in these parts.

Crisis and confusions about the role of the ANM:

The roles and responsibilities of ANMs have undergone changes according to changing national priorities and programmes. During the 80s and 90s, the stress on family planning and immunization alienated the ANM from maternal and child health, deskilling her and converting her into a multipurpose worker. In addition, the National Population Policy strongly stressed institutional delivery and several states have sent directives to peripheral staff (directly or indirectly) that they should motivate women to go to hospital for delivery. This policies has further discouraged ANMs from conducting home deliveries.

There is a debate whether the health subcentre is to be considered an institution. The question is if the ANM is to promote institutional deliveries, should huge expenditure be incurred in training her in life saving skills related to child birth? If ANMs are to be encouraged to conduct deliveries even in subcentres, the national programmes (RCH I, NPP, RCH II, NRHM) do not stress on strengthening the subcentres. If the subcentre is not an institution but if the ANM is considered a skilled birth attendant (SBA, provided she has additional life saving skills) there is no clarity about where she would conduct deliveries. If she is permitted to conduct home deliveries, adequate emphasis is not laid on strengthening her skills for safe home delivery. There are no clear guidelines about the functioning and responsibilities of the ANM, the LHV or even about the PHN.

Under the National Rural health Mission, the ANM has been assigned an additional responsibility. She will have to support, guide and monitor the functioning of 4-5 village based women health workers called ASHAs. This is in addition to coordinating with the anganwadi worker, ensuring safe practices of TBAs and carrying out her own work. It appears that the workload of the peripheral health worker is going to increase several times. However, the role relations are not clear and the ASHA module does not clearly highlight the relationship between the ASHA and the ANM. At the same time TBAs training has been discontinued in most parts of the community with some states emphatically distancing the TBA from child birth. At the same time ASHA is not planned as a skilled birth attendant. It appears that the latest policies have left a large void in who will take responsibility for childbirths assistance.

Adequacy of ANMs for villages:

The high number of subcentres in the Country often hides the fact that though there are only 142,655 health subcentres across India. This means that there is only one centre to four villages indicating that only a quarter of the rural habitations have an ANM posted. The government of India has increased the number of subcentres in each state according to latest population to address the shortfalls yet more than two third of the habitations do not have a trained health worker.

Table 3.4. Number of health facilities at the periphery

Type of health	Number required	Existing	Shortfall	Percentage

centres	as per 2001 census			shortfall
Sub-centres	1,58,792	1,42,655	16,137	10.16
PHCs	26,022	23,109	2,913	11.19
CHCs	6,491	3,222	3,269	50.36

Source: Document GOI: Strengthening of public institutions for health delivery. Physical infrastructure.

Over the last five decades, India has launched innumerable national programmes to be implemented at the periphery. According to the changing focus of the national policies, there has been an increase in the number of activities and number of personnel. The increase in the number of ANMs has been according to population rather than according to workload. Though the total population to be covered by health subcentres has reduced over the years, the fact remains that the average ANM still has to four or five villages. Further, though the population has reduced, the number of functions have increased.

Table 3.5. Area, distance, population and villages covered by different health centres in India

	Subcentre	**PHC**	**CHC**
Average area in sq. km.	22.89	136.22	1154.82
Average radial distance in km.	2.70	6.58	19.17
Average population served	4595	27345	2.32 Lakhs
Average villages served	4.29	25.54	216.53

Considering the spread of population in four to five villages and poor mobility and transport, it is impossible for the ANM to be available to all the villages, specially for emergencies and childbirth assistance. As a result most ANMs have stopped staying at the subcentre and 'shifted' their homes to the nearest, safest and most accessible town and started traveling up and down. This has raised debates whether the stationery or mobile ANM is more effective and accessible.

Half of the posts of male health worker are vacant and so the burden of work on the ANM is increased to fulfill functions that the male worker would have performed. Overload and multiple functions have pushed the ANM to cross the threshold of efficiency and today one sees that she has given up the core of her functions - maternal and child health. Very few ANMs are available in villages. The absence of an ANM means that even basic services and statistics are not maintained at the periphery.

Transport problems: The problem of transport is related to the type of terrain, spread of villages and availability of transport facilities and mobility support to the ANMs. Availability of transport influences where the ANM lives and how she functions. ANMs of Assam mentioned that sub-center population ranged from 3000 to 5000 covering about six villages within a distance of 3 to 5 kms. All the ANMs mentioned that they traveled by bus or sometimes cycled to reach these villages. They said that in the rainy season they find it difficult to even walk because roads were bad. They said that they had to use private means of transport very often since they had to travel to remote areas where public transport is not available.

Infrastructure and facilities are important to service delivery and performance of health personnel. The earlier case studies have shown how the availability of a suitable government building with amenities facilitates performance. The ownership, location, size and quality of the buildings are important determinants of its utilization by health personnel and by the people. It has been observed that the quality of work suffers if the facilities in rural areas are located in rented buildings because very few buildings are available for rent in villages. Even if ANMs are able to rent a house, very often the space is too inadequate, and facilities for toilet and washing are not available. Rented buildings do not have enough space for the ANM to live as well as work.

In India, nearly 60,000 sub-centers are currently functioning in rented buildings, rent free panchayat or voluntary society buildings. Table 3.6 shows that while lack of buildings is a problem for all levels - subcentres, PHCs and CHCs - the gap is highest and most acute in the case of subcentres with 41% only having government buildings. The subcentre is the furthest from the formal

health structure and evidence shows that shortfalls at this level have already shaken the foundations of the public health system in the Country.

Table 3.6. Construction of Buildings

Type of health centre	Number functioning as on 30.6.98	Located in government building		Rented room	RentFree space	Under construction	To be constructed
		No	%				
Sub Centres	136818	56098	41.0	28327	19817	10319	70409
PHCs	22991	14288	62.1	1071	2213	1375	7414
CHCs	2712	1970	72.6	30	210	416	224

Field observations and interactions with ANMs revealed that even when government buildings are available many are not suitable for living either due to inappropriate location, poor structure, inadequate space or lack of basic amenities. This indicates that adequate priority is not given to strengthening infrastructure and facilities at the periphery where the need is highest.

Help at subcentre: ANMs from five States mentioned that they had the facility for an attendant but the attendants' payment was too low to retain her presence in the centre. In most states subcentre has one Voluntary Worker (usually a TBA) who is paid Rs.100 pm. The ANMs mentioned that she was irregular and did not take her work seriously since she was paid a very low remuneration.

Need for in-service training: ANMs mentioned that there should be continuous on the job training with emphasis on hands on skills specially in neonatal and obstetrical emergencies. ANMs were keen to undergo training in adolescent health, HIV/AIDS, gender sensitization, newborn resuscitation, handling EmOC and neonatal emergencies. ANMs in Assam said that they had undergone RCH training but are not able to deliver services as they are utilized for running indoor beds than visiting people in their homes. One ANM from Bihar mentioned that she had RCH training but was not able to recall the content she studied and had no idea of CNA. One VHN from Tamil Nadu mentioned that she had undergone RCH training two years back. Training was very useful and had given her confidence. She was able to carryout CNA, plan realistic targets and prioritize her activities. She learned many skills including identifying high risk mothers.

3.6 Role of LHVs and PHNs:

Supervisory structure is extremely weak in pubic health nursing. This needs strengthening at every level. The supervisory cadre at LHV, Public Health Nurse and DPHN / DPHNO is also very weak either because the posts are not sanctioned or because of high vacancies. Lack of a strong public health nursing supervisory cadre has resulted in doctors taking on the supervisory role leading to loss of clinical time of medical doctors, high cost of supervision, disproportionate stress on clinical areas and neglect of nursing, and communication aspects.

Except the monthly meeting held with MO the ANMs mentioned that they did not have any planned supervision schedule or training with LHV/ PHN / DPHNS. To a great extent they were under the direct supervisory control of MO rather than LHV / PHN / DPHNs. They expressed desire for closer and frequent supervision and guidance to enhance their performance.

On the other hand HVs and PHNs said that they were overloaded with work and were not able to complete any of their work in time. Looking after 5 - 6 sub centres was difficult and there was always extra work due to so many programmes. The distances they had to travel were vast and it was a tiring job. HVs mentioned that they should not have more than three to four sub centres each. Lack of vehicle or TA facilities made it more difficult to do the job. Administrative and report compiling work took a lot of time and they were not able to supervise all ANMs.

LHVs said that medical officer asked about the tasks done and targets achieved but did not stress on the processes and problems. LHVs said they required supervision and support from a qualified PHN but there were very few PHNs in the district and state level. For example in Assam, the LHVs said that only one or two PHNs were available for 13 districts in Assam. They were

undertaking supervision, guidance, report compiling and related administrative work. They were overloaded with work. They mentioned that there was no specific format for supervising ANMs in the field. They also mentioned that they did not have a definite plan for supervision and on the job training with ANMs. They did not feel confident about methods and techniques of supervision though some of them attended RCH training.

The findings of this study indicted the critical role of PHNs at the periphery. Information at state, district, CHC and PHC level revealed that PHNs were skilled health personnel who were doing an efficient job wherever they were present. However they required training and adequate and timely logistic support to function optimally. Adequate emphasis was not laid on strengthening the training of public health nurses. PHNs posted to PHCs and blocks were left to learn through trial and error methods.

The role of the PHN was not understood or appreciated at he higher level. In one state the authorities were not convinced of the role of the PHN at PHC or district. They expressed that health supervisor and MOs can provide support to ANMs and there was no need for PHN. Different states have initiated and developed their own pattern for PHNs at PHCs and higher levels in the districts. The PHN however plays a critical role at the PHC level for training, guidance and supervision. Since she is a qualified nurse, midwife and public health professional her skills and knowledge are higher and she could take on most of the technical responsibilities of peripheral supervision.

3.7. Staff nurses: Their performance and problems

Staff nurses working in PHCs and CHCs are qualified and registered midwives and nurses licensed to conduct normal deliveries. At the periphery, they were conventionally carrying out both nursing and midwifery functions. However, their potential is not fully utilized for midwifery services. In most of the hospitals and health centres visited, it was found that there were obstacles to staff nurses doing deliveries.

If institution deliveries are to be increased and concept of skilled birth attendant has to be successfully implemented then there is a need for rethinking about quality of nursing personnel available and quality of care provided by them.

Example from the field

Staff nurses are not conducting deliveries in Doiwala CHC of Dehradun district in Himachal Pradesh according to the statement of the nurses. The superintendent of the hospital also confirmed this fact. The reason given was that the previous superintendent who was an obstetrician did not allow nurses to conduct delivery saying only a doctor could conduct a delivery. This was despite the staff nurses being capable and experienced in conducting deliveries. This resulted in staff nurses withdrawing from conducting deliveries and playing only a supportive role to doctors. Gradually they lost interest in the task and at present staff nurses are not motivated to do delivery. The Orthosurgeon of the hospital is being given one month training on how to conduct delivery. The number of deliveries being conducted at CHC went down. CHC is conducting only 15-20 deliveries in a month at present.

Staff nurses in the FRUs are over loaded with routine work, due to shortage of staff. The same staff nurse has to look after labour room and maternity ward as well as carryout other tasks and assist doctors in patient care. In CHC staff nurses are posted on contract basis. They are confident of conducting deliveries but need skill training in handling emergencies. They are less interested and less motivated due to insecure future, no benefits.

Need for In-service training: The staff nurses interviewed in this study expressed need for regular on the job training for skill development and awareness about new technology / information etc. They also said that since they are direct care providers they should be given hands on training at the time of joining as well as regularly afterwards. Staff nurses expressed that they had some hesitation in dealing with emergencies and indicated lack of confidence. They said they had to depend on MOs and this was not possible in emergencies. They also expressed need for specialized training maternal and child areas to function more efficiently. Staff nurses were not clear about biomedical waste management. Some staff nurses said they carried out a lot of clerical work. Staff nurses also worked as relievers for absent pharmacists.

Staff nurses also mentioned that there should be separate staff for ward and hospital administration. Most of them mentioned need for strengthening supervision by nursing personnel. Even in FRUs where there are 6-8 staff nurses there were no nursing supervisors and therefore nursing care did not get the attention it required. Staff nurses felt strongly that they should have guidance and supervision from senior nurses.

They expressed that at night there was no peon and most of the times there was no security. Attending night call made them feel unsafe. People who were drunk troubled them at times. They said that they did not have appropriate accommodation to live in the PHC round the clock. Though the security of ANM was sometime given attention, authorities did not pay attention to the security of staff nurses at PHCs and CHCs.

The findings of this study clearly show the need for increasing the number of staff nurses in the periphery and also to enable them to provide services with adequate supervisory support and guidance.

3.8. Role and performance of DPHNOs

There is an extreme shortage of DPHNs in the Country. The few DPHNs that were interviewed in this study felt that that creation of more posts of DPHNOs is critical to effective and efficient peripheral health service delivery. They suggested that all districts should have DPHNO posts and DPHN Supervisor posts. The High Power Committee on Nursing had suggested a structure for public health nursing at the district level but this was not followed in any state. Though the number of posts for doctors and others have increased at the district level, the one post of DPHNO was also not filled in most of the districts.

The DPHNO was put in place to guide, supervise and monitor the performance of public health nursing personnel within the district. Having a single person at the district level for administrative and technical responsibility at the district has overloaded the DPHNO. Moreover, she has no support for travel, monitoring etc. There lacunae have been responsible for gradually deteriorating the post of DPHNO into a desk job at the district headquarters. For nearly three decades since the existence of this post, there has been no additional strengthening or capacity building, though the number of subcentres and activities have been steadily rising.

The role of DPHN/ DPHNO required widening and strengthening to enable the DPHNO to work effectively. The post needs to be given a gazetted status along with support staff, office and vehicle. The findings of this study showed that the DPHNO was collecting data reports and compiling these for submission to concerned authorities. Hence services of DPHN are under valued and her qualification and experience are under utilized. On observations, it was found that the DPHNO did not have an office and was sharing the table with other office staff. She had no vehicle. A DPHN in one state stated that there was no specific plan for supervising subcentres in the field except on pulse polio day. She also felt that district level supervisor should have atleast one planned meeting with each block PHC in a month to monitor, support and guide RCH and FW activities but it was not possible in absence of vehicle.

3.9. Nursing administrators at the state and central headquarters

The findings of this study provide evidence of the weak position of nursing at the top. None of the states had a Nursing Directorate. The highest administrative post for nurses was Joint Director (in Assam). The report of the High Power Committee on Nursing (1989) suggested a standard organizational structure for nursing at the central and state levels. Three streams of workforce were recommended for hospitals, teaching categories and public health work. At the centre the committee recommended a strong structure to represent all sections and departments in medical, health and family welfare. As against this, nursing in the Country is represented by only three national level positions. These are expected to take care of hospital nursing, training at different levels, midwifery and rural health. These posts are extremely inadequate and do not cover all nursing needs. The recommended organizational structures for nursing at state level is presented in figure 5.1. The

recommendations of the High Power Committee were sent to all the States and Union Territories of the Country for implementation. The present structures in the six states shows wide differences with some having reasonably strong organizational structure while others remain extremely weak.

Figure 3.3. Recommended organizational Set-up at State / Union Territory Level

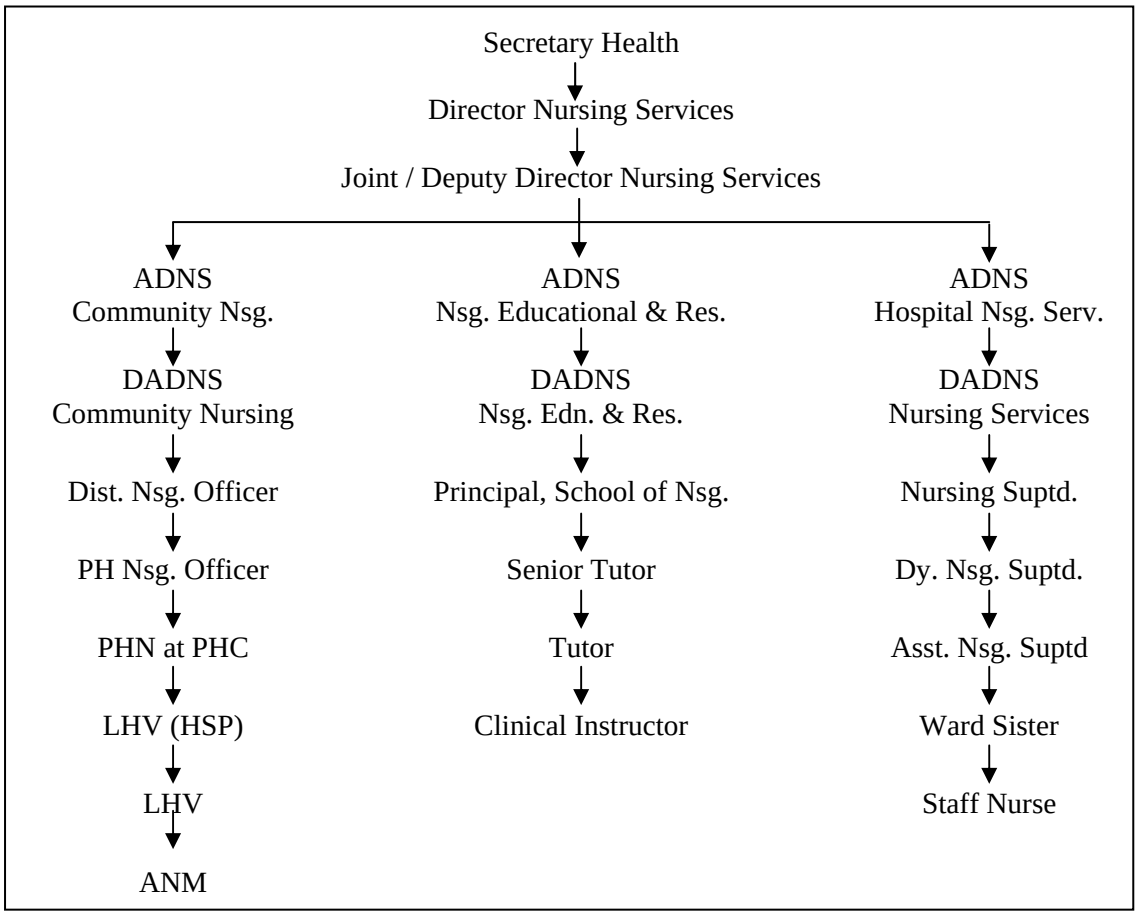
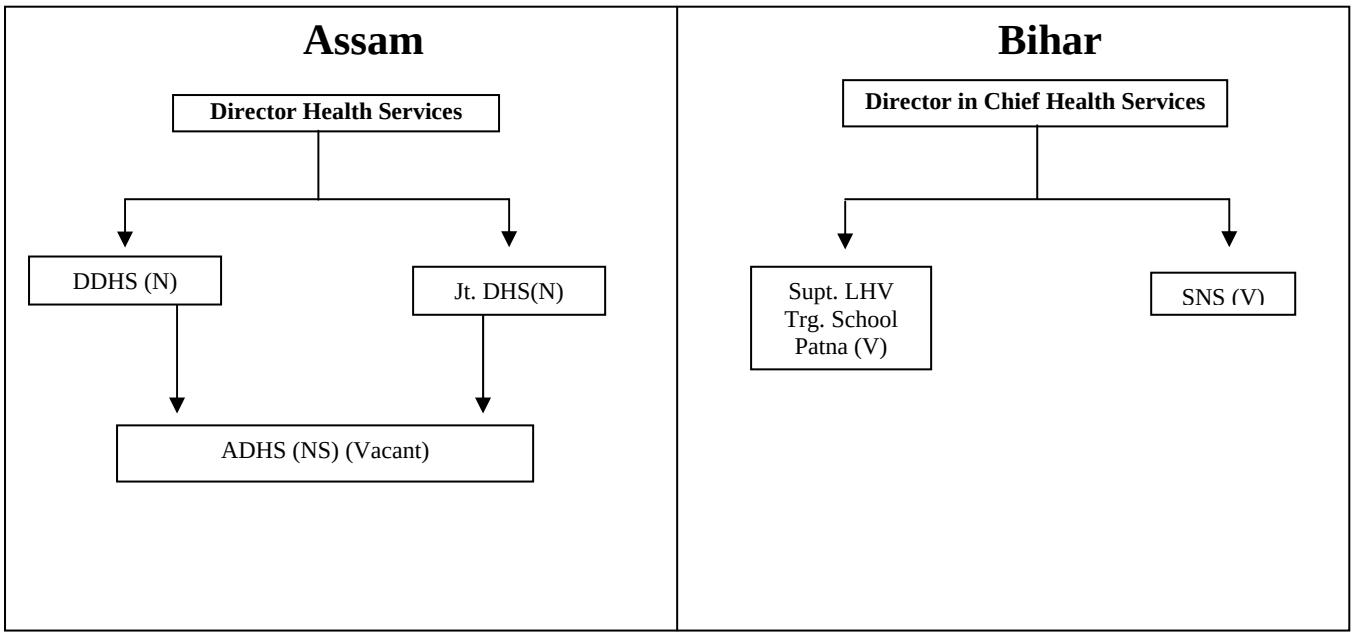


Figure 3.4. Nursing Administrative structures at state level



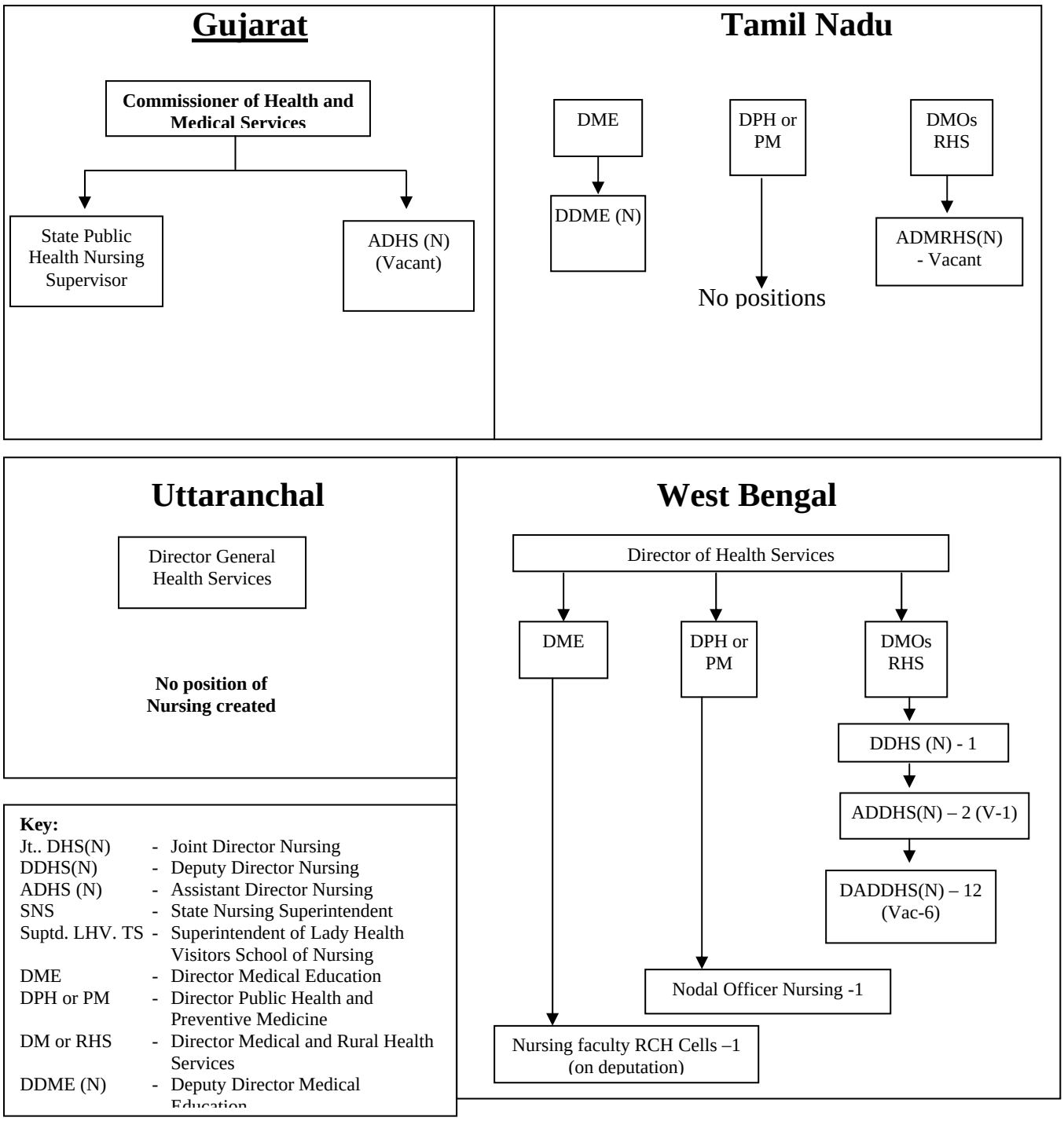


Figure 3.4. shows the weak structure of nursing at the state headquarters in the six states compared to what was recommended by the High Power Committee on Nursing. Except West Bengal which has a reasonably strong structure, state directorates have given very limited representation to nurses. Uttaranchal does not have even a single nursing person to head nursing services at the state level. Even when a few posts are available at the top, these are vacant most of the time.

Two states (Bihar and Uttaranchal) have no nurse at the state level (Table 3.7). Top nursing positions are vacant in Gujarat and Tamil Nadu. Assam had three positions at the state level but one of this was yet to be filled. Observations and interactions at the state directorates showed that nursing has a weak top.

State Level Nursing Administration in West Bengal - An Example

If the number of senior nursing posts at the state level is taken as an indicator of effectively functioning public health nursing system, West Bengal has the strongest nursing position in the Country. West Bengal not only has 17 Nursing Officers at the Directorate level but they are also highly qualified. The 17 posts include one post of Additional Director Health Services (Nursing) called ADDHS and six posts of Dy. ADDHS Nursing (However all the six are vacant). Deputy Director Health Services (DDMS Nursing) post is an open post through West Bengal Public Service Commission. The educational qualification for the post is B.Sc. Nursing with M.Sc as a desirable qualification. The post also requires 10 years of teaching or administrative experience. There are three posts of additional DDHS Nursing (two open and one promotional). The requirement is B.Sc. Nursing and M.Sc. is desirable. The experience required is five years teaching or administrative experience.

West Bengal had well established department of nursing with computer and modernized office facilities. However it could be seen from the table 3.7 that 50% positions of ADDHS (N) and DADHS(N) were vacant. Nursing faculty in RCH cell was on deputation. The cell required a regular post as it is an on going activity with emphasis on quality and frequency of services for expected outcome. The DDHS Nursing is involved in policy making and planning nursing service, education and training in the State. She is involved in all the matters pertaining to nursing. It was observed that she had good IPR with Commissioner of H&FW and Director Health Services. Addl Dy. Director Nursing services are available to help the DDHS (Nursing) in carrying out the affairs of nursing in the State. They are responsible for recruitment, selection, posting, transfer, continuing education, appointments and nursing training. In addition to the administrative positions one nurse with M.Sc is deputed as Faculty Member (Nursing) under RCH. She is involved in implementation of RCH program and training of MOs, SNs, LHV and ANMs. Her suggestions are taken into consideration in planning and training.

Table 3.7. Nursing positions at the State Levels in the study states

Nursing Positions	Assam			Bihar			Gujarat			Tamil Nadu			Uttaranchal			West Bengal		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Jt. DHS (N)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dy. DHS (N)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Asst. DHS (N)	1	-	1	-	-	-	1	-	1	-	-	-	-	-	-	2	1	1
SNS	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
SPH Supv. (N)	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Supt. LHV School	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Principal PHN T. Institute	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
DADHS (N)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	6	6
Nsg Faculty, RCH (Deput.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Nodal Officer AIDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Total	3	2	1	2	-	2	3	1	2	-	-	-	-	-	-	17	10	7

In Gujarat the regular post of the Assistant Director Nursing was vacant, but there was a nurse on deputation functioning on the post. Though Tamil Nadu had a promising medical infrastructure, nursing components were not adequately addressed at the higher level. A PHN was posted here on request of the Director and helped to carry on the work of the Nursing Director.

Assam is the only state that has the post of a Joint Director Nursing Services at the state level. The current Joint Director has a post basic B.Sc. Nursing degree. One post of Dy. Director Nursing services is also filled with a nurse with an M.Sc. degree. She is looking after the recruitment and selection of ANMs along with other administrative work. One post of Additional Dy. Director

Nursing services is also available and she (GNM with post basic B.Sc.) is assisting both the senior officers. One can see that there are only two filled posts at the state level and this is extremely inadequate to carry out all the administrative activities. Another problem in Assam is that the JD Nursing is also the Registrar of the Nursing Council. This has added greater burden to the post. Moreover, the dual responsibility means that the Council is not autonomous and free from the administrative priorities. The nursing officers interviewed felt a strong need for a separate Registrar for Assam Nursing Council. Directorate of Nursing, they said also requires to be strengthened by creating more nursing officers post.

Gujarat is an example of a state with a very weak nursing position at the state level. Here there are problems with positions as well as posting. Discussions with the nursing officers and the Commissioner, Family Welfare and Health revealed that the post of additional Director of Nursing is being created. At present, the post is filled by deputing a nurse with B.Sc. to fill the gap for one year. Another PHN is posted in the office of Addl. Director FW as state PHN supervisor. She is involved in RCH program and training of various categories of nursing personnel and supervision of FW activities. The findings make it clear that one person on deputation for the entire state is extremely inadequate to address issues related to 12,000 nursing personnel at the periphery.

Tamil Nadu is an example of a state that has a strong base in public health nursing at the field but does not have a supporting administration structure at the top. Village Health Nurses are well supported and trained. The state government has also implemental projects for posting additional staff nurses at the PHCs to provide round the clock delivery. But nursing administrative structure is weak with no full time posts.

Uttaranchal is a new state with no directorate of nursing or even a nurse at the directorate level. According to the responses of state health administrators, the state has a proposal to have separate nursing directorate in the state. Therefore no posts are being created. At present one senior PHN is deputed to work in DG office and she is helping the Joint Director (Admn.) for all the work related to nursing in the State.

In Bihar there is no post of nursing personnel at directorate level and no proposal to have a nursing directorate. A nurse has been temporarily posted help with administrative functions.

Gender issues in ANMs' work:

ANMs from all the states felt that they were overloaded compared to male workers though the salaries for the two were the same. One ANM from Gujarat mentioned that the FHW carries out three times more work than MHWs she is responsible for work related to malaria, TB, leprosy, HIV/AIDS, school health, immunization, maternal health, child health and many other activities etc. In one of the PHCs in Gujarat out of six sub centres only three had a male health worker. Interviews with male health workers revealed that they were mainly helping ANM in the clinic and the field e.g., carrying out FP activities, record maintenance, conducting CNA, carrying out national health programmes e.g., malaria eradication, supervising DOTS etc. Male health workers said they were actively involved in school health programme e.g., screened children, gave health education, distributed medicine, organized monthly clinics.

3.10. Recommendations

- Findings from this study indicate that the ANM is capable of basic health care delivery, specially maternal and child health in the rural areas provided she is given support and facilities. The ANM can live in the subcentres and conduct deliveries if she has the essential training and support. It appears that the potential of the ANM is not fully utilized. Adequate logistics, full time helper at subcentre, proper subcentre building with residential facilities, timely payment of salary are essential to facilitate her performance. The evidence from the field of ANM 'B' and 'C' should be used to develop model ANM subcentres in different parts in each state.
- The residential ANM model: The ANM living in the subcentre building with her family has shown to be successful in successful delivery of emergency health services. The study

recommends conducting case studies of atleast five such models from each state to analyze the benefit of the model in comparison with a mobile ANM. The discussion of the different models is presented in the recommendations.

- Strengthening of skill through and regular supervision and support are critical to keeping the ANM functioning at a high level. Rapport with the community is essential to work with the people. Many ANMs felt that they should not be transferred frequently since health work with people is built on trust and it takes a long time to build rapport. Frequent transfer erode trust between community and care providers. Examples quoted in the study show that ANMs who have established rapport, lived in the community and received community support were better performers.
- With regard to supportive supervision at periphery, a clear supervisory structure has to be planned with LHV, PHN and DPHNO. Continuous supervision and guidance alone will make the ANM more confident to deliver services at the periphery. Both levels - LHV and PHN are required because they service different functions. Supervisory checklist and formats must be designed.
- The role, facilities and problems of the DPHNO need to be analyzed systematically. The DPHNO should be strengthened with atleast two more persons experienced in public health nursing to plan and carry out guidance and supervision within the district. It is time to seriously consider the creation of a public health nursing cadre in the Country. Gender issues in public health nursing are not given serious consideration. Disparities in workload, remuneration and career should be addressed.
- Nursing structure needs to be strengthened both at the central and state level so that they are adequately represented in decision making and policy making. Strengthening the top-state and district level - will ensure better quality monitoring.

IV. Study of nursing education in India

4.1 Introduction:

A profession grows and develops through continuous study, enhancement in knowledge and skill, and improvement in practice. In order to achieve this, members of the profession must have opportunities for seeking knowledge through higher education and advancement. Unfortunately, opportunities for higher education are limited in nursing leading to stagnation, decline and decay. Nurses in general have not found higher education attractive enough because there are very few higher level posts for nurses who complete higher education. The career ladder is poorly constructed. There are no policies to ensure that higher education is recognized and compensated in clinical and public health areas.

Levels of basic Education in Nursing and Midwifery in India

There are three levels of basic education in nursing. The syllabi and regulations for all the three are formulated by the Indian Nursing Council and followed by the different educational institutions under the approval of the State Nursing Councils. The basic courses are:

- Eighteen months MPHW(F) training after class X. This does not make a person eligible for any other higher education. But if the person is willing to study as a fulltime candidate she can enter into GNM or B.Sc. Nursing courses.
- General Nursing and Midwifery Diploma (GNM): Three and half years diploma course in nursing and midwifery after class XII at a school of nursing. This makes candidates eligible for the two year post basic B.Sc (N) degree course in selected nursing colleges offering the condensed degree course. Candidates can also opt for three years B.Sc. Nursing through distance education in IGNOU. They are also eligible for Diploma in PHN or Diploma in nursing education and administration. But the number of seats is limited.
- B.Sc. Nursing: Four year degree course at University level leading to nursing, midwifery and public health nursing after completing class XII with science. This makes candidates eligible for 2 years M.Sc (N) with specialization in nursing. The further qualifies nurses to study M.Phil and Ph.D.

The chart above shows that post basic, post certificate and higher education courses are available to those who have completed GNM and B.Sc. (N). For the ANM, there is no scope for further education through inservice or distance mode resulting in stagnation. She can only be deputed for the six months promotional course that prepares her for promotion as a supervisor. Majority of ANMs become stagnant at this level. If they would like to study further, they have to do it as regular candidates which means a huge expenditure and time. Attempts at starting a bridge course for advanced knowledge and skill training to ANMs (IGNOU is an example) have not succeeded.

4.2. Regulation of nursing education

Various categories of nursing institutions are established to impart nursing education. Nursing training centres increased greatly in number during the last 30 years. By 2003, there were 635 GNM schools, 165 BSc (N) Colleges, 30 Post Basic B.Sc. (N) Colleges, 29 M.Sc. (N), Colleges, 435 ANM training centers and 45 promotional training centers in the Country approved by INC (Table 4.1) and 45 centres giving promotional training for ANMs. However only six centers offered the DNEA course in Nursing Education and administration.

Nursing education in India is regulated through statutory bodies at central and state levels. At the Centre, the Indian Nursing Council (INC) designs curricula and syllabi for the different basic training programmes, sets standards, formulates regulations and ensures that they are followed through inspection and recognition. The INC also approves and guides State Nursing Councils to maintain standards and formulates policies for equivalence and reciprocity of educational

qualifications across the states. Nursing councils are established and functioning in different states and Union Territories. They ensure the quality of nursing education and approval of practicing members through registration.

Table 4.1. Nursing Educational Institutions Recognized by INC as on 31st March, 2003

Sno	States and Union Territory	GNM	DNEA	B.Sc. (N)	PB B.Sc. (N)	M.Sc. Nsg.	ANM	LHV
1	Andhra Pradesh	90		27			88	3
2	Assam	15		2			33	2
3	Bihar / Jharkhand	10					33	2
4	Gujarat	20		2			22	2
5	Haryana	13					9	1
6	Himachal Pradesh	4					8	1
7	Karnataka	137		56	14	12	23	4
8	Kerala	70	1	5	1		31	3
9	Mahakoshal / Chattisgarh	10	2	8	1	1	37	2
10	Maharashtra	48	1	11	4	2	23	5
11	Mizoram	4		1			1	-
12	Orissa	7		1	1		19	1
13	Punjab and Delhi	57	1	10	4	3	22	1
14	Rajasthan	31		1			27	3
15	Tamil Nadu	46		37	4	8	5	3
16	Tripura	2					3	1
17	Uttar Pradesh / Uttaranchal	24					49	4
18	West Bengal *	23		2		2	2	7
19	Mid India Board	4	1					
20	South India Board	16		2	1	1		
21	AFMS	4						
	Total	635	6	165	30	29	435	45

For Registered Nursing Personnel, Bihar = 1998, Orissa = 2001, Mizoram = 2001, Haryana = 2001
* - Nurses registered upto December 2002

1 = Assam = Assam + Arunachal Pradesh + Manipur + Meghalaya + Nagaland
2 = Bihar = Bihar + Jharkhand
3 = Madhya Pradesh = Madhya Pradesh + Chattishgarh
4 = Maharashtra = Maharashtra + Goa
5 = Punjab = Punjab + Delhi + J&K
6 = Tamil Nadu = Tamil Nadu + Andaman & Nicobar Islands + Pondicherry
7 = West Bengal = West Bengal + Sikkim

This study visited, observed and analyzed nursing councils in six states and found Nursing Councils in India are largely headed and controlled directly or indirectly by administrators incharge of medical and health services. Even when the authority is 'given' to a nurse its utilization is made extremely difficult because of the subordinate administrative position of nursing in health structure whether in clinical or public health areas. The major causes of the low level of autonomy of the nursing profession are gender inequity among the health professions, lower social and educational status of nursing compared to other health professionals and neglect by the policy makers.

Field visits and discussions in the six states showed Nursing Councils to be weak in autonomy, infrastructure, staffing and support. A proforma was prepared to assess the level of autonomy and status of the Nursing Councils both by legislation and actual functioning. The data collected for the six states on the strength of the Act, the office of President, the sanction and filling up of post, qualification of the Registrar, the presence of an office and supporting structures, level of involvement in health policy, planning, implementation and evaluation are given below in table 4.2

At the national level, the elected post of President of the Indian Nursing Council is held by the Nursing Advisor to the Government of India resulting in defeating the very purpose for which an autonomous body is constituted - to function in professional and community interest. There is only one senior level post of Secretary at the Indian Nursing Council leading to overwork and very little scope for initiating measures for strengthening the profession and improving the quality of education and practice.

The evidence from the present assessment of the nursing situation indicates that the level of self governance - autonomy to make decisions about professional matters is low in nursing whether at Central or state level. Though the Nursing Councils have been enacted by legislation, they do not enjoy professional autonomy and authority in actual practice. This has been a major hurdle in the growth of the profession and has been a loss to the Country and its people because the potential of the nursing personnel to provide safe, technical services at a lower cost is not fully utilized.

Table 4.2. State Council Infrastructure and Organization

State Nursing Registration Councils	Assam	Bihar	Gujarat	Tamil Nadu	Uttaranchal	West Bengal
Approved Council present	Yes	Yes	Yes	Yes	No	Yes
Person elected as President (as per Act)	DHS	DHS in Chief	Nurse	DME	DGHS	DHS
Nurse Registrar - Present	Additional charge	Yes	Yes	Yes	No	Yes
Qualification of present person	-	PC B.Sc (N)	M.Sc (N)	MSC (N)	-	M.Phil
Nurse registrar -full charge	No Add. Charge DHS (N)	No	Yes	No	Jt. Dir. Medical Faculty	Yes
Nurse as Dy. Registrar	No	No	Yes (B.Sc.N)	Yes (M.Sc.N)	No	Yes M.Sc. N.
Suptd. / Head clerk	No	1 Head clerk	-	Vacant (Suptd),	-	-
UDC and LDC	1	3 (Vacant)	2	6	-	5+4
Grade IV	No	1 (part time)	1	3	-	4
Accountant	No	1	-	1	-	-
Separate Office	No	No	Yes	Yes	No	Yes
Furnished office	No	No	Yes	Yes	No	Yes
Computerized record system	No	Yes	No	Yes	No	No
Own budget		Yes				
Registration fee in Rs.	ANM & GNM – 500 B.Sc. N -50	-	1000.00	NA	-	400
Renewal of registration	-	-	300	-	-	400
Continuing education as required for renewal of registration	No	No	No	No	No	No

The major findings from table 4.2 are

- Five of the six states studied has nursing councils. One of the States (Uttaranchal) did not have an approved nursing council.
- Only in one state (Gujarat) was the President of the Nursing Council a nurse. All others were headed by non-nurses either directors or health or medical eduation.
- Only two states (Gujarat and West Bengal) had full time nurse registrars in position. The others had persons holding additional charge.

- Only three of the six states (Gujarat, Tamil Nadu and West Bengal) had offices for the Council. Assam, Bihar and Uttranchal did not have offices for nursing councils to function.
- Four of the six state Councils had nurse registrars. Uttaranchal and Assam had not yet created Registrar and Dy. Registrar posts. Bihar had a nurse on deputation for three years.

The above findings clearly indicate the weak position of nursing councils and show that the need for strengthening is critical.

4.3. Content and quality of basic nursing education programmes in India

All nursing educational institution in India follow the INC prescribed syllabi for the different courses that they offer. Within the broad framework provided by the INC, individual institutions are permitted to make slight changes after meeting the minimum requirements. Nursing students study a number of subjects to cover basic pre clinical and clinical aspects as well as social and psychological areas. They also study fundamental and advanced nursing, maternal and child health and community healthy nursing. Community health and mental health are integrated into the syllabus of nurses. The number of subjects and the content differ among the different courses based on the duration and the level of education. An attempt has been made to assess the duration and number of hours for each critical component studied in the three basic nursing courses (Table 4.3).

Table 4.3. Subjects taught and duration in different nursing courses

Subjects	BSc (4Yrs.)		GNM (3Yrs)		ANM (18 Months)	
	Theory	**Practical**	**Theory**	**Practical**	**Theory**	**Practical**
Anatomy / physiology/ biochemistry	75	40	80		60	30
Physics and chemistry	90		20		180	
Fundamentals of nursing including nutrition	240	330	195	288	45	240
Introduction to community health and family welfare	210	600	230	610	240	255
Psychology	90		60		15	30
Microbiology and hygiene	30	30	70		45	45
Sociology	60		30		30	30
Medical surgical nursing	270	600	240	1005	150	60
Maternity and gynecological nursing midwifery	105	450	100	200	75	150
Child health nursing	75	240	50	362	30	30
Mental health nursing	75	240	30	144	15	20
Principles and methods of teaching Trends and issues in nursing and Introduction to principles of nursing administration and education	90	255	60			
Elective and language	135	30	20		270	
Total	**1545**	**2815**	**1185**	**2620**	**1155**	**890**

The table 4.3 shows that in both practical and theory hours, the B.Sc. (N) course is far ahead of the other two causes. In terms of theory hours, the GNM and ANM course do not have much difference (1185 and 1155 respectively). However in terms of practical hours, GNM has more than double the hours of the ANM (2620 and 890 respectively). When a comparison is made between the courses for maternal and child health it is clear that the ANM course is weak in theory and practical of maternal and child health. Overall the ANM course is disproportionate in the number of hours assigned to different areas compared to the job responsibilities. The course has 210 hours of Fundamentals of Nursing and only 240 hours of practical community health. In terms of maternal

health ANMs have only 75 hours of theory and 150 hours of practical which is extremely low to be able to function independently in the community and conduct deliveries on their own. In contrast they have 150 hours of theory in medical surgical nursing which they will not use in practice.

4.4. Analysis of course content in the light of tasks to be performed:

An analysis was done of the course content of the three basis programmes. The course content was compared to the job responsibilities of a nurse midwife or an auxiliary nurse midwife in the field. The chart below shows the gaps.

Table 4.4. Analysis of content of nursing courses for adequacy in RCH

	BSc (4 yrs)	GNM (3 yrs)	ANM (18 months)
Antenatal care	Course content includes all learning experiences, adequate clinical exposure	Includes all aspects but should increase practical components since the staff nurse is expected to conduct normal deliveries in the PHC on a routine basis.	Includes all aspects but should add medical disorders and preterm labor and its complications. The number of theory and practical hours need to be increased.
Intranatal care and postnatal care	Includes all aspects as per expected tasks	Includes all content areas as per expected tasks	Limited exposure as per expected jobs. The number of hours have to increase to take care of postnatal and newborn care.
Safe abortion and contraception	Course content has all areas covered	Course content covers all areas but limited exposure in clinical setting	Course content includes all areas. But it requires more practical experience for identification, decision making, referral and follow-up for post abortion care.
Child health and adolescent health	All areas covered for child health. Adolescent health problems not dealt in depth	All areas as per RCH program covered for child health but adolescent health and care of adolescent is not included	All areas of child health are in brief but dealing with adolescent health is not included
Prevention and management of reproductive tract infections	Content includes all areas as per expected tasks	Content includes almost all areas but requires assessment and screening of RTI and universal precautions for preventing HIV and AIDS	Content includes all the areas but limited opportunity for assessment and screening of RTI. Content about universal precautions of HIV and AIDS not included

As per review of the curriculum with special reference to package of services and job responsibilities of the ANMs, LHVs and staff nurses it was observed that almost all the syllabi prescribed and taught the required courses. However, medical disorders during pregnancy, preterm labour and its complications, universal precautions for HIV/AIDS, assessment and referral for treatment and concepts related to adolescent health are not included for ANM.

As per discussion with teachers of ANM, GNM and BSc nursing it is found these areas are covered even though not listed in the syllabus.

Key issues for RCH program implementation which are related to quality of care are not stressed adequately and so the amount of practice is low in the following areas:

- Community need assessment
- Standard and quality antenatal care
- Delivery by skill birth attendant
- Availability of skilled birth attendant
- Encourage institutional delivery
- Emergency obstetric care and neonatal emergencies
- Screening and diagnosis of RTI and STI
- Outreach services
- Exclusive breast feeding

- Principles of IMNC should be included
- Life saving skills
- Counseling skills
- Adolescent health counseling
- Care of adolescent pregnant women

From the review of the syllabus, it is clear that the GNM and ANM courses require strengthening in maternal and child health services through a rational allocation of time. In every state visited the staff of the training centre felt that the ANM course should have more midwifery. The GNM requires some more stress on community health.

4.5. Status of nursing education in the six states:

Number of Institution: There is a great variation in the number of training institutions available in the six states. While Tamil Nadu has the largest number of colleges and schools of nursing, Bihar, Wet Bengal and Assam lead in terms of ANM schools. Tamil Nadu also leads in terms of colleges offering post basic B.Sc. and M.Sc nursing. Four of the six states that were studied do not have post basic B.Sc. or M.Sc. Nursing courses in the entire state.

Table 4.5. Current position of Nursing Training Institutions in six states

	College of Nursing		School of Nursing		MPHW (F) or ANM Training Centres		ANM / MPHW (F) Promotional School		Post Basic nursing	M.Sc. nursing
	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.		
Uttranchal	x	x	2*	1	6**	X	2	x	x	x
Bihar	x	x	6		21		x	x	x	x
Gujarat	1	2	17	4	4 (ANM)	X	x	x	x	x
Tamil Nadu	2	47	10	105	-	13	1	-	7	24
West Bengal	1	1	26	10	19	1	4	0	1	2
Assam	1	0	8	7	19***		X	x	x	x

* Proposed to start, ** Not conducting courses, *** only three are admitting students.

Uttaranchal depicts a dismal picture with almost no training centers. All the government schools of nursing, ANM training schools and FHW promotional schools are closed in Uttaranchal. It is proposed to start two ANM schools shortly after getting the approval from INC. All Schools of Nursing are closed due to shortage of teaching faculty. Only one private SON (Himalayan Institute) is functioning which is recognized by UP Council. In Bihar six schools of nursing and 21 ANM schools are admitting students. The only college of nursing in Bihar is now in Jharkand

In Gujarat only four ANM schools with two year course are recognized by the Gujarat Nursing Council. No government MPHW training schools are recognized by the Council till date. But the state has three colleges of nursing and 21 schools of nursing. There is no college offering M.Sc. Nursing or other higher education in nursing. The State had only basic programmes and no post basic programme which indicates that it needs to strengthen basic programme to have more admission capacity for preparing primary level functionaries and build up capacity for post basic and post graduate education.

In Tamil Nadu all the government ANM training schools are closed but 13 schools are functioning in the private sector. The government was not operating any ANM schools because they felt that they had enough ANMs. It was felt they had trained enough candidates. In West Bengal twenty ANM schools and 36 GNMs schools are enrolling students. Beside these, there are two colleges offering B.Sc. and M.Sc nursing. There are four training centers for promotional training. In Assam out of nineteen ANM schools said to be existing only three are admitting students currently.

Private Vs Government Institutions: The number of nursing educational institutions in the private sector far outnumbered those in the government sector. For example in Tamil Nadu, there are 105 GNM schools in private sector compared to only 10 in government sector. There are 47 College of Nursing in the private sector compared only two in the government sector. There are 14 M.Sc. (N) Colleges of Nursing in the private sector compared to only one in the government sector. There are no ANM schools in the government while 13 schools offer ANM courses in the private .

Nursing Faculty: Nursing faculty are not adequate and show many vacancies. Among the 64 posts of Principal Nursing Officers sanctioned in the five states combined, 14 are vacant. Among the 32 posts of senior tutor sanctioned only 23 are in position. In Bihar 20 out of 79 tutor posts are vacant.

Table. 4.6. Current position of teaching faculty in six states

	Principal Nursing Officer			Vice Principal / Senior tutor			Public Health Nursing Tutor			Tutors			Clinical Instructor		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Uttaranchal	2	1	1	2	1	1	20	6	14	x	x	x	x	x	x
Bihar	-			30	22	8	4	3	1	79	59	20	-	-	-
Gujarat	26	17	9				-	-	-	121	111	10	-	-	-
Tamil Nadu															
West Bengal	16	14	2	-	-	-	-	-	-	-	-	-	-	-	-
Assam	20	18	2	x	x	x	61	52	9	59	57	2	x	x	X
	64	50	14	32	23	9									

Note: Data was not available for Tamil Nadu.

4.7. Situational analysis of GNM schools in six states

A case study is presented here to demonstrate the situation of government schools of nursing in the Country.

Case study of school of nursing, Patna: *The School of Nursing has 168 students. INC has permitted only 30 students in current year due to shortage of facilities in the school. Senior Tutor is the officiating in-charge of SON. She is a nurse who completed GNM diploma and then post basic B.Sc. Thirteen tutors are posted in SON. The School of Nursing building is on 2nd floor of staff nurses hostel (where nurses are living along with their families). Building is very old and damaged and needs renovation. Teaching facilities are not good and where facilities are available, they are inadequate. The building and teaching facilities do not meet INC norms.*

No in-service training is planned for nursing staff. Very rarely nurses are sent to attend training outside the state. Many times teaching faculty along with students are invited to attend the training when it is organized for the doctors. None of the teaching faculty has attended RCH training and they are not including RCH program in their curriculum (In Khurji and Tripolia training schools, tutors had no RCH training and they are not integrating the RCH program in theory).

Supervision of students by teaching faculty is not adequate. Tutors are not going to clinical area regularly. Students are left to learn by helping staff nurses in their work and they are not treated as students. They are substitutes for staff nurses. Though they are helping the staff nurse to carryout her daily activities in ward the staff nurse has no time to teach students. Most of the time students are spending in wards doing duties in rotation. They have very less time for theory and no time for

library. They prefer doctors to take classes for them rather than their own tutors since doctors are able to give more content and clinical facts.

For community health experience students are going to hospital community health department, to urban area and slums. Rural health experience is very rare and they are not going to PHC or subcentres. No home deliveries are being conducted as faculty feels there is no security in rural areas. In Khurji hospital, the teaching faculty emphasized on reducing community health course for 1st year. They also said that syllabus should have less community health as GNM and ANM students are working in hospitals after completing training due to insecurity in villages in Bihar.

The INC has laid down clear norms for schools of nursing. Very few schools visited in this study had everything according to the standards laid down. The teachers of government schools from Assam felt that teaching logistics as per INC norms required strengthening. Teachers from West Bengal expressed difficulty in managing classroom teaching, clinical, field experience for three programmes because of vacant positions. Tutors in government schools mentioned that their salary payment was usually delayed by 18-21 days but they were not aware of the reason. In one of the private schools the principal mentioned that their salary in comparison to government was very low. They said that the clinical instructor was paid even lower than the ANM.

All the three schools in Assam implemented the revised GNM syllabus and found it better than the previous one. However one of the private schools mentioned that if the INC is stopping admission to GNM after 2005 there is no need for syllabus revision. Teachers Tamil Nadu felt that 1986 INC syllabus was good and had no idea about revised GNM syllabus. Principal heard about it from some of her colleagues, but so far they did not get any intimation from DME or SNRC / INC. They said they required more tutors and other staff for implementation of revised syllabus.

Physical facilities and teaching materials: Physical facilities were inadequate in most of the schools. Hostel rooms, class rooms and demonstration rooms were not adequate. Among the inadequacies, the major point of concern is the poorly equipped libraries and demonstration rooms. The books were outdated and there were very few journals. Students did not have access to library out of hours. Librarian was not available.

In-service education of teachers: Teachers in all the places visited said that they had very few opportunities for in-service education. In Assam the Principal of one private institutions mentioned that there is no planned inservice programme. Occasionally teachers were sent to attend management courses organized by ISHA and others. Teachers required training for implementation of the new syllabus. Regular and planned on the job training should be organized for teachers and the staff working in maternity wards. The registrar of one private college mentioned that the council organized a workshop prior to implementation of the syllabus and vice principal in turn was expected to do so for other teaches of the school. She also felt that health economics and computers were new subjects and teachers required training in these areas. Teachers from West Bengal mentioned that they attended in-service education whenever opportunity was there eg. HIV/AIDS, RCH, educational technology etc. However there was no regular in service education. They also felt that in-service education should lay more stress on hand on skills such as baby resuscitation, EOC, IUD insertion etc. Teachers from Gujarat felt need for regular in-service education specially to strengthen hands on skill and to improve teaching skills. Teachers in Gujarat also said that there was no planned inservice education for teachers except that they were involved in RCH and some other workshops occasionally. The suggestions were that there should be regular continuing education for teachers about understanding newer concepts and updating their skill.

Nursing teachers and RCH training: Teachers in West Bengal mentioned that college received no formal intimation from state government / WB NRC / INC / Central government about RCH component and its training. However the teachers' personal collection of RCH material was utilized for integrating RCH in the training. None of them had RCH training. They opined that faculty also should have regular inservice education to keep them abreast with newer trends. Some tutors

mentioned that they had undergone RCH training in 2002. Five teachers were trained as trainers who in turn trained ANMs and SNs. The RCH training had hands on components but required strengthening of the supervision.

In Assam tutors including Principal from government schools had RCH training and strongly opined that teachers from government schools should be utilized as trainers. One of the teachers from the private schools did not even know the abbreviation of RCH. The findings showed that in private schools the teachers were not aware about RCH concepts. However one of the private schools mentioned that school got material on RCH from Delhi and incorporated them in teaching. One of the nurses who works in the maternity hospital had no training in RCH. She said that nurses working in maternity wards should have orientation to RCH.

It was also felt that there should be a state nursing institution under the direction of a nurse coordinator at the state training institute to ensure that newer health components were integrated in nursing curriculum and teachers, clinical nursing personnel were regularly provided on the job training.

Teachers from Gujarat mentioned that they had RCH training in 1998 i.e., TOT for six days and one day management training for the PNO, Principal. Occasionally they got chance to attend the training. Usually no regular inservice education was conducted. They felt a strong need for regular ongoing skill based inservice education with inclusion of newer concepts, so that they could incorporate these in their teaching. Teachers from Bihar mentioned that there was no regular planned schedule for in-service education for tutors. Teachers from TamilNadu mentioned that there should be continuous flow of information for upgrading both basic and in-service education so that these became more need based than abstract. Teaching faculty and PHNs should have regular in-service education. Teachers from Chennai said that ANM and GNM schools should be trained and involved in RCH training. There should be regular ongoing inservice education for PH nursing personnel to keep them abreast with new knowledge and skills. They also felt that PHN instructor should be from PH than from medical services

Clinical and Community exposure to students: Teachers in government school indicated that students were given exposure in conducting deliveries. However they mentioned that students did not have exposure to special care of new born as no neonatal unit existed in the hospital. One of the teachers in the private schools who was interviewed mentioned that Staff nurses conducted delivery, give episiotomy and suture the perineum. She added that students in senior year are only permitted to conduct delivery. The staff nurse gives episiotomy and doctor sutures. The hospital as training institution should have policy to allow students to conduct normal deliveries and assist in abnormal labor as per INC norms.

Teachers from both the private schools expressed that student posting in ward should be as per their learning needs. One of the teachers in one private school mentioned that posting of new student nurses and 1stand 2nd year students in maternity unit was not proper. It can be unsafe for patient and also damaging for students. Clinical instructor should be with student to guide them in clinical teaching. There should be one trained nurse each in labour room, neonatal nursery and the ward along with 3rd year GNM students and other ward helpers.

Teachers stated that wards had inadequate facilities and students could not practice what was taught. Therefore the clinical area should have adequate facilities for student learning and also for safe practice. As per INC norms clinical instructors should be with students in clinical area. Currently concerned teachers supervised in the morning hours, there after supervision was left to the staff nurse on duty. Tutors mentioned that students are not getting any opportunity to conduct domiciliary deliveries, as antenatal mothers are motivated for institutional delivery.

School Budget: The principal of one school in West Bengal indicated that there was budget for ANM programme but GNM programme budget was with Medical superintendent. It was felt that it should be with principal for better and timely utilization of the budget. Teachers from Tamil Nadu said

Nursing school had no separate budget and principal had no drawing and disbursing power. The accounts officer dealt with finance. Not having budget the school was deficit in teaching facilities. They felt that there should be separate budget for the school under Principal.

Overload: Teachers in Gujarat expressed they were over burdened with workload as there was no housekeeper in hospital and teachers were looking after the hostel. Teachers felt over worked because they were limited in number and had to share teaching, hostel, library and other duties. The RCH training also placed a heavy burden on some schools as the schools were conducting promotional programme, RCH training, regular training and also serving as examination centres for other schools. They needed more faculty.

Teachers from TamilNadu mentioned that they were sharing warden, house keeper and librarian job which affected their teaching. Teachers in Uttaranchal mentioned that due to shortage of teachers regular teachers were not available for teaching midwifery and PH Nursing. Consultants were teaching these subjects. Most of the teachers from Tamil Nadu were posted from hospital to school and therefore needed orientation to function as teachers. Most of them were B.Sc. (N) graduates and one of them was M.Sc. (N) but since they had not taught before they felt the need for orientation training.

Perceptions of students: GNM students in all the states expressed that it was necessary for them to have greater emphasis on hands on skill so that on completion of training they were confident to function as nurses and midwives. Students felt that teachers should provide proper guidelines for presentation of case studies. Every student must get copy of the INC syllabus and INC should prescribe one text book for each subject. This will greatly help the students to be focused, do independent study and improve their performance. They expressed material and facilities were inadequate for practicing procedures in the ward and so they could not practice as was taught. They also expressed that they should get more clinical. There should be clinical teaching (bed side clinics) to learn about diseases and how these affected the patients and family and the care to be provided to them. They expressed dis-satisfaction about evaluation and said that there should be some external examiner.

Skill Training: Most students expressed satisfaction with their teachers. However, they were clear that teachers should have regular inservice education. Students expressed confidence in teachers' teaching. In many private schools, students said they were able to conduct delivery, give episiotomy and suture, independently after doing initially under staff / teacher supervision. But they had not conducted or observed any delivery at home. Students from Uttaranchal strongly felt that teachers should have in-service education so that they were able to teach about new and emerging concepts in the field. They also expressed that they should be posted in specialized units in the hospital in order to gain special skills.

Exposure and awareness about public health system: They expressed they did not feel confident in performing nursing procedures at the village home setting due to lack of exposure. Some of them expressed the need to have experience at village level as they liked to go back to their village and serve. Students had no knowledge of CSSM, RCH programme and their components. Only two or three students knew full form of RCH but were not aware of its content, initiation and how it is different from earlier programmes. The students suggested that there should be an increase in the course hours of midwifery and community health nursing.

They had no idea of community health structure of CHC, PHC, SC as they had never seen these. This was particularly observed among students of private schools. Students were taught about RCH in PHC and knew some RCH components. Even during field experience many did not get opportunity to do delivery as the mothers preferred to be delivered by ANM with whom they were familiar and on whom they had confidence. During community experience they wrote family case study and gave need based health talks, participated in ANC, immunization and conducted school health programme etc. They also felt that they should be allowed to attend educational sessions such as conferences and workshops whenever they were held in hospital to enhance their learning.

In general, most of the schools visited felt that the ANM course should be increased to two years. Teachers from Gujarat felt that existing syllabus was alright in view of the content and distribution of hours. Teachers from Bihar mentioned that INC syllabus was as per routine and it was complemented with certain guidelines from Mid India Board (MIB) and from the State Government. They expressed that ANM syllabus became difficult to complete in two years and suggested the reduction of hours in anatomy physiology and other subjects. Teachers from West Bengal mentioned that duration of the ANM course should be increased to two years as many newer concepts required integration. They wanted community health and family health hours to be increased. Similarly they wanted more theory and practical hours for midwifery.

Teachers from Tamil Nadu mentioned that the older LHV programme of 2 ½ years duration was much better than the present promotional six months course for strengthening supervision. Many teachers mentioned that home deliveries were not possible as people were motivated to go to hospitals / PHCs etc. Students were also not getting enough cases for practice in the hospitals because there were other students and doctors were not giving them chance. Teachers from Bihar mentioned that due to security risk students were not taken to villages for domiciliary midwifery. In some schools, students conducted deliveries under the supervision of MO and S/N and not independently.

Recommendations

- Nursing Councils must be strengthened in each state so that they are empowered to maintain standards and quality. The school visited in the study had many gaps.
- Preparation of nursing teachers is a high priority as both students and teachers expressed the need to be regularly updated in knowledge and skills. It is suggested to open some centres of excellence to train nursing teachers on a regular basis. No such institute is available at present in the Country.
- Teachers must have regular inservice training. A study of nursing teaches needs to be taken.
- From the Bhore Committee to the High Power Committee on Nursing, there have been suggestions for two cadres in nursing - a two year auxiliary nursing and midwifery cadre and a four year professional cadre. The ANM course has to be adjusted to fit into the nursing courses and a way must be created for ANMs to become nurses and midwives.

V. In-service education for public health nursing personnel: Trends, gaps and need

5.1. Trends in inservice training

Over the years, the government of India initiated several programmes for continuously updating peripheral health personnel with knowledge and skills. The inservice training activities were related to the launching of new programmes and projects in such areas like family planning, immunization and communicable diseases control. Changes in job functions from the uni purpose to the multipurpose also were followed up with massive training programmes. As part of this, peripheral nursing personnel – earlier ANMs and LHVs - were given orientation training and intensive training to equip them with knowledge and skills to function as multipurpose functionaries.

To achieve updating and skill development, the government established a chain of health and family welfare training centres across the Country – central, regional and state. These in-service training centres were strengthened from time to time with inputs from specific projects. The CSSM programme initiated nationwide training programmes in maternal and newborn health using specially designed modules. The series of India Population Projects helped to strengthen infrastructure and facilities in the existing inservice training centres. District level training facilities and training teams were also established under the IPP projects.

By the 1990s India had a well established network of training facilities for inservice training across the Country. The National Institute of Health and Family Welfare served as the apex inservice training centre for the Country. In addition to the district training centres, the state and district health and family welfare centres, basic ANM training centres across the Country were also used for the purpose of inservice training when required.

The International Conference on Population and Development held at Cairo in September 1994 brought about a shift in focus from method specific target oriented family planning to a reproductive health approach. The Reproductive and Child Health Programme was launched in October, 1997 and introduced the life cycle approach, gender sensitivity, priority to quality of services, comprehensive reproductive health including services for reproductive infections and problems. Peripheral service providers including nursing personnel had to be re-oriented to these concepts and skills.

5.2. Inservice training under RCH-I

A massive exercise for concept and skill building of public health nursing personnel was taken up as part of the RCH I Programme. Skill based training including hospital posting for enhancing clinical skills was a unique feature of RCH I Programme. NIHFW was identified as the Nodal agency to coordinate and monitor all the prevailing activities under RCH I Programme and 18 collaborative training institutions were identified in various parts of the country to coordinate the training in allotted states / UTs. Nearly 1190 peripheral training institutions all over the Country provided the actual integrated skill training. There were two major types of training in the RCH training programme.

Awareness Generation Training (AGT): This training was conducted for 1 day for increasing awareness of community including PRI health functionaries, local leaders, teachers and anganwadi workers etc regarding services available under the programme.

Skill up-gradation training: The main focus was on improving and upgrading skills of health providers to enable them to provide services under the RCH I Programme. An elaborate plan was prepared for training at different levels. Detailed session wise plan, instructions for conducting training, and the modules and methods to be used were developed at the national level and supplied to states. Trainers were prepared at all levels. A system of proficiency certification was designed describing in detail the skills required to be developed for different providers.

RCH I inservice training focused on two types of skills for ANMs, LHVs and SNs – integrated skill training and specialized skill training. The Integrated Skill Training (IST) mainly

focused on upgrading clinical, managerial and communication skills in an integrated manner in order to improve quality of services. It included maternal health, child health, adolescent health, management and communication. The Specialized skill training (SST) focused on upgrading specific skills on IUCD insertion and was imparted to ANM and LHV.

Table. 5.1. Guidelines for IST training of ANMs / LHVs / SNs in RCH Phase – I

Particulars	**For ANMs**	**For LHVs**	**For SNs**
Duration of Training	12 working days	18 working days	12 working days
Number of trainees per batch	15	10	10
Venue	ANMTC / District Hospital	ANMTC / District Hospital	a. HFWTC / Nursing School b. District Hospital / Medical College Hospital
Trainers	Tutors in training Schools and District Hospital Specialists who have undergone TOT training.	Tutors in training Schools and District Hospital Specialists who have undergone to TOT training.	a. Faculty of HFWTC / Nursing School. b. Specialists at District / other hospitals.
Number of Trainers	Maximum 4 trainers per day including 1 guest faculty if required.	Maximum 4 trainers / day including 1 guest faculty if required.	Maximum 4 trainers / day including 1 guests faculty if required.

A review of the training chart showed that IST was planned in great detail. The duration of training was 12 days for ANMs and staff nurses and 18 days for LHVs. Guidelines were provided for the number of days, batch size, venue, type and number of trainers. Further guidelines were provided for the subject to be dealt in each session, time allocation, the method of teaching and the proficiency levels expected. All guidelines were prepared and distributed by the national apex institute. One clear finding that comes out of the study of RCH I training is that it was a centrally designed and controlled programme using a top down approach. Every detail was preplanned for implementation in the states. This resulted in several problems of coordination and clarity.

The total number of hours allocated for both theory and clinical hands on skill was 69 hours for ANM, 108 hours for LHV and 72 hours for staff nurse. The content areas covered were almost the same for all the three categories. In addition to the common content areas, LHVs had extra topics on communication for behaviour change, building partnerships, removing rumors and misconceptions, preparation of checklist and supervision. This was done through six additional days of training. Staff nurses had one additional session on preparation of FRU action plan. The norms for the number of skills in maternal and child health to be gained for issuing a certificate of proficiency were also clearly spelled out. These were also similar for all the three categories.

The training was competency based with focus on upgrading necessary skills for counseling of acceptors, selection of cases, technique of insertion and removal of IUD and post insertion advice to clients. During the training period each participant had to observe atleast 10 IUD insertions, perform atleast 5 IUD insertions under supervision and perform atleast 5 IUD insertions independently. Each trainee was expected to maintain a diary with details of IUD insertion cases. The trainees were evaluated by the trainer with the use of checklist and by inspecting the diary. Certificate was awarded after assessing whether trainees acquired the requisite skill. If the trainee failed, she was detained to undergo the training again with no DA for the second training.

Table. 5.2. Hours of training in the ISD Training for ANM / LHV / SN in RCH I

S.No.	Content Areas Covered	ANM			LHV			SN		
		Lec. & Dis. (Hrs.)	Demon. & Exes (Hrs.)	Total (Hrs.)	Lec. & Dis. (Hrs.)	Demon. & Exes (Hrs.)	Total (Hrs.)	Lec. & Dis. (Hrs.)	Demon. & Exes (Hrs.)	Total (Hrs.)
1	Introduction to RCH programme. Demography & vital statistics.	1 ½		1 ½	3		3	1 ½		1 ½
2	Communication for behaviour change				¾	¾	1 ½			
3	Building partnership				½	1	1 ½			
4	IPC & Counseling skills	¾	2 ¼	3	1	3 ½	4 ½	3	3	6
5	C N A	½	1	1 ½	1	2	3	½	1	1 ½
6	Preparation of FRU action plan								3	3
7	Team work		1 ½	1 ½		3	3			
8	Rumors and misconceptions				1 ½		1 ½			
9	Management of materials	¾	3/4	1 ½	1	2	3	¾	3/4	1 ½
10	Maintenance of records and registers					1 ½	1 ½		1 ½	1 ½
11	Supervision and OJT				1	2	3			
12	Referral				1 ½		1 ½			
13	Introduction to skill based training				3		3			
14	ANC	2	4	6	1	5	6	2	4	6
15	Intranatal care	1	11	12	1	11	12	1	11	12
16	Postnatal care	½	1 ½	2	½	1	1 ½		1 ½	1 ½
17	Contraception	3	3	6	3	3	6	1 ½	4 ½	6
18	Safe abortion	1 ½		1 ½	1		1	1 ½		1 ½
19	Nutrition	½	2 ½	3	1	2	3	½	2 ½	3
20	Introductory lecture of child health	1		1						
21	Newborn care	½	6 ½	7	1	8	9	1 ½	7 ½	9
22	Immunization	1	2	3	1	2	3	2	4	6
23	Diarrhoea	1	2	3	1	3 ½	4 ½	1	2	3
24	ARI	1	2	3	1	3 ½	4 ½	1	2	3
25	Identification of sick child				1	2	3			
26	Fever							½	1	1 ½
27	Adolescent health	1	2	3	1	3 ½	4 ½	½	1	1 ½
28	RTI / STI	½	1	1 ½	½	1	1 ½	½	1	1 ½
29	Infection prevention							1 ½		1 ½
30	HIV / AIDS	1 ½		1 ½	½	1	1 ½			
31	Preparation of checklist					4 ½	4 ½			
32	Field work					12	12			
	Total	21 ½	47 ½	69	29 ¼	78 ¾	108	19 ¼	52 ¾	72

5.2.1.Gaps in the RCH I training programme:

A Rapid Assessment of impact of training was carried out by NIHFW and Collaborative Training Institutions in January 2004 in 10 states (UP, Orissa, Maharastra, Gujarat, Punjab, Haryana, Bihar, WB, MP and Tamil Nadu) with 104 staff Nurses, 143 LHVs, 922 ANMs.

Strengths of RCH I training as assessed through the rapid assessment:

- More than half of the ANMs, LHVs and SNs scored high on questions related to clinical case management in maternal health, child health and contraception.
- About 80% of peripheral health functionaries provided satisfactory quality of RCH services.
- With regard to self assessment of competencies gained after IST, staff nurses gained competencies in the area of newborn care handling of high risk cases, advice on breast feeding,

LBW management, counseling, proper referral, conducting delivery, providing ANC, prevention of hypothermia, management of diarrhea, immunization administration and management of anemia,

- The LHV acquired competencies in high risk identification, referral, communication and training, counseling, newborn care, complicated delivery conduction timely referral of PPH, Tubal pregnancy detection, management of hypothermia, LBW locating, missing IUD, IPC training, HIV, measles case management and motivation for family planning.
- ANMs acquired skills in management of high risk ANC and referral, conduction of safe delivery and referral, newborn care (breast feeding), treatment of pneumonia cases, IPC and counseling immunization services, management of diarrhea, adolescent health, RTI / STI and referral.

Table 5.4 Experiences and perceptions of ANMs about RCH I training

State	Strengths	Weaknesses	Requirements
Assam	ANMs can insert copper T, learned to conduct deliveries. Some gave episiotomy and did suturing	Not enough opportunity for practicing suturing and episiotomy. Hesitation in conducting delivery and resuscitation of newborn. Did not learn how to conduct HB testing. Did not learn use of partograph fully	Training on biomedical waste management
Bihar	Helped to set target from base level. Can insert copper T	Not able to recall the content and had no idea of CNA	Skill training in basic education and in-service
Gujarat	Able to conduct episiotomy and suturing, Inserting IUD Able to conduct normal delivery	Not confident to give episiotomy	Sessions on reporting, records as per norms in RCH. Training in IUD insertion. RCH training for longer duration and use of urine sticks and Hb strips
Tamil Nadu	Gained skills in CNA and were able to plan achievable targets. Skilled in conducting deliveries and referring cases	Gained skill but unable to conduct deliveries due to lack of confidence	Duration of training need to be increased and conducted on regular basis
Uttaranchal	Able to do CNA and to set the achievable target	ANMs were only assisting in deliveries and could not conduct deliveries independently	-
West Bengal	ANMs are able to use CNA to set realistic targets as they became more knowledgeable and skillful	During training could not give an episiotomy	-

Table 5.5. Experiences and perceptions and of LHVs about RCH I training

State	Strengths	Weaknesses	Requirements
Assam	Some of them had RCH training and found it useful in day to day work	Did not get RCH training and so could not guide the ANM	Training on techniques of supervision.
Bihar	NA	NA	Supervisor to be trained in supervision regularly by in-service education.
Uttaranchal	Observed delivery process but did not conduct delivery. Learned supervision but needed to be updated from time to time.	Independently conducted 1-2 deliveries and inserted IUD	Needed more training on supervision skills

Table 5.6 Experiences and perceptions of staff nurses about RCH I training

State	Strengths	Weaknesses	Requirements
Assam	-	Hesitant in dealing with emergencies and indicated lack of confidence and dependency on MO	SNs should be trained in IUD insertion Training on disposal of biomedical waste is essential. Due to lack of confidence nurses refuse to conduct but assist the MO in deliveries. Require skill building training to instill confidence. On going on the job training with emphasis on hands on skills specially in management of neonatal and obstetrical emergencies
Gujarat	-	Staff nurses were not inserting IUD and conducting delivery independently due to lack of guidance and training	Staff Nurses required skill training in conducting deliveries and introducing IUDs.
Tamil Nadu	Conducting deliveries and giving episiotomy and suturing.	Staff nurse had no RCH training. She was not competent to give episiotomy and to suture.	Needed upgradation of skills in CNA, conducting normal deliveries, giving episiotomy and suturing and also dealing with neonate, and maternal emergencies. Training on biomedical waste management
Uttaranchal	Conducted deliveries, gave episiotomy and did suturing		Skill based training in RCH - Both basic and in-service training should focus on hands on skill building more

Change in Performance: The specific areas where maximum change in performance of the health functionaries who received RCH training were attending newborns, maintenance of body temperature, maintenance of cold chain, counting of respiratory rate in children, identification of pneumonia among children with ARI, identification of low birth weight babies, identification of severity of anemia, identification of abnormality, conduction of normal delivery, packing of vaccine carrier, administration of vaccines, identification of dehydration among children, C N A and action plan preparation, management of vaccines drugs and equipments, maintenance of records and reports.

Gaps in RCH I training in relation to skills training: The following issues came to light during the rapid assessment: Adequate emphasis was not given to hands on training in many states. The guidelines for clinical postings were not met in many of the EAG states. Night postings in labour rooms were also not done in many poor performing states. Health functionaries had practical / hospital training for less duration and insufficient cases for practice. Trainers from training centers did not accompany trainees to hospital for hands on training in some places. In the case of IUD insertion, caseload was inadequate in most of the places to fulfill the norms for proficiency certification within 6 days. The methodology of clinical skills training followed by some of the training centers was lecture and demonstration (eg) Diarrhea and ARI. Adequate opportunity was not provided to the trainees for hands on skill upgradation for' universal screening and problem, identification and appropriate action for pregnant women and children.

Gaps in RCH I training related to quality of training and standardized format: The NIHFW had issued guidelines for every aspect of the training. However, many of the guidelines were not adhered to at the state level. CNA cassette was not available to all training centers. Persons who had undergone TOT were not available in the four specialties. In some training centres, two or more batches were clubbed together resulting in inadequate participation and skill development. Training courses sometimes got cancelled due to inadequate deputation of trainees. Training calendar was not adhered to in many states.

Gaps related to proficiency assessment and certification: Though an elaborate system of gaining skill and assessing proficiency was established, these requirements were not adhered to in many

states. The proficiency certificate was issued to all the trainees in lieu of attendance certificate. It was not ensured that trainees actually got the opportunity to perform the skills as per the norms of RCH guidelines. In some cases, proficiency certificate was not given at all. Many training centers were not able to fulfill the proficiency norms setup in curriculum due to inadequate caseload, transport facilities, boarding / lodging facilities etc.

Problems with modules and other logistics: In few places, as the modules were not available, only copies of relevant portions were given. The copy of facilitator guide or the guidelines of IST and SST was not available in some training centers. The location of training center was quite distant from district hospitals at few places, there by hampering the quality of training. Infrastructure at many CHC / PHC / SCs were inadequate for general examination and internal examination and for conduction of deliveries. There was an inadequate coordination with training centers.

Problems related to the training curriculum: Supervision skills were very limited in LHV training module. The newer aspects such as quality of care, gender perspective, client focus were missing in most training which need to be added. In some areas the training curriculum was found to be inconsistent with the implied job responsibility of ANMs and LHVs. Staff nurses did not have any field training.

VI. Major Concerns and Recommendations

Reducing maternal mortality to less than 100 per 100,000 live births is a commitment enshrined in the National Population Policy 2000. This entails putting in place strategies and interventions that would accelerate the rate of decline of maternal mortality. Promoting skilled attendance at birth is an important strategy that has been adopted as a part of RCH – Phase II. Implementing this strategy would mean empowering the ANM, LHV and staff nurse not only for handling normal deliveries but also for actively managing the third stage of labor and providing the required emergency care before referring. Government of India have taken the decision to allow above categories of nursing personnel to use certain drugs and permitted to perform simple procedures. The decision to empower the health workers has to be followed up by effective training (GOI, Guidelines 2005).

6.1 Recommendations for nursing education

Streamline basic nursing education: The two levels of basic nursing education should first be merged into one (B.SC. and GNM) and there should be scope for the third category (ANM) to join the stream. Bridge courses should be used to support ANMs to gain entry into higher course. This will result in one professional nursing and midwifery course in the Country.

Findings from observations and FGDs held with students and faculty revealed many shocking details. Facilities are poor at every level of education. Many institutions do not have buildings, labs for practice and classrooms for teaching. Students live in over crowded hostels. Some private schools and ANM center are run in rented flats with students crowded in two or three rooms. Libraries are non-existent or poorly stacked. Teaching aids are markedly inadequate. There are very few professional journals. Even colleges do not have access to latest information. Administrative control of Nursing is not with nurses but other professionals different courses.

Improve facilities and quality of nursing education: Facilities for learning should be strengthened in the training centres and field and clinical teaching should be improved. This study found that there are many gaps in the facilities in the training centres. Most students expressed the need for more clinical guidance and supervision.

Strengthen teaching faculty in nursing:

The crucial problem is lack of teaching staff both in number and quality. Most teachers in MPHW schools are not qualified to teach. The lack of qualified trainers prompted school administrators to hire retired non-teaching staff from the health sector. Retired staff nurses, PHN, LHVs, MPHEOs and who ever was available was hired to teach. A few graduates were also shown on the register whether they actually taught or not. There is a severe shortage of qualified teachers at the general nursing, graduate and postgraduate levels also. This has resulted in over burdening of staff and poor quality of teaching. There is dissatisfaction both among students and teachers. It is unfortunate that most schools, specially those run by private organizations do not meet the minimum requirements of the nursing councils. The shortage of the teaching faculty added burden to the existing inadequate faculty. The result is that the teachers were unable to complete the teaching and many times students were left to learn for themselves.

Teachers of nursing students should be strengthened in teaching and clinical skills. A Country wide study is needed to identify the gaps in nursing faculty and to plan for strengthening this critical cadre. Faculty development programmes are very poor and infrequent. Very often it is those ANMs and GNMs who are in service who come to know about the latest developments and trends in nursing and medicine rather than the teachers in the training facilities. The faculty members who were interviewed as part of this study felt that their knowledge needed to be updated by attending conferences and seminars.

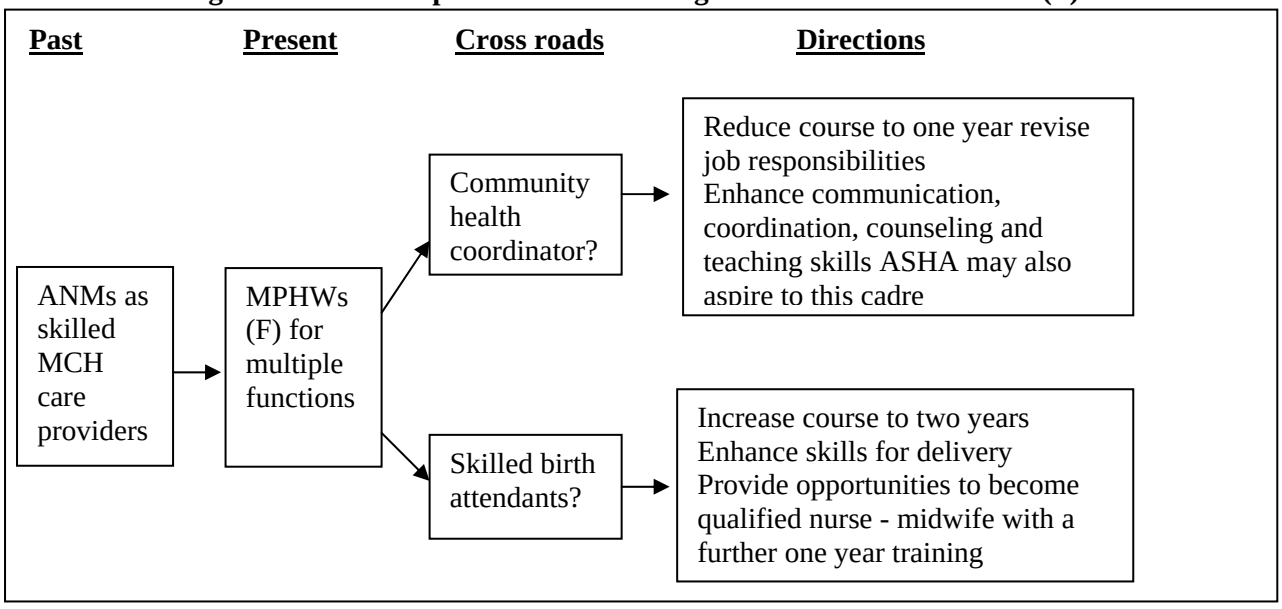
6.2 Training of ANMs at the cross roads:

The role of the ANM needs to be reviewed in the light of today's policies and programmes. Suitable changes must be initiated to cover the gaps and take the health system forward. The ANM cadre is at a crossroad and decision about direction needs to be taken now.

The INC has recently revised the ANM syllabus with a more realistic design of courses and a rational distribution of hours. However, this was not yet available for analysis. There is an urgent need for role clarity of ANMs before any meaningful suggestions can be put forward. The trends in the growth of the ANM, the several changes in job functions and the changes in name according to programme modifications indicates two alternatives for the future of ANMs. The stress on the subject will depend on the direction in which ANMs are steered. Over the last five decades ANMs have gradually moved away from skilled MCH providers to multipurpose workers.

At present the ANM is again at a cross road. The two directions available are the technical service providers and the facilitator roles. However there are contradictory and conflicting messages from different angles in the policy making and administrative circles about the role of the ANM and one wonders which direction will be taken. On one side, there is the promotion of institutional deliveries and the subcentre is not seen as an institution for conducting deliveries. This moves the ANM away from the technical skilled provider role. At the same time, there is great emphasis on community based health change agents whose relationship with the ANM is not fully understood yet. On the other side, there are strong messages for enhancing the skills of ANMs to ensure they are skilled birth attendants.

Figure 6.1. Future options for the training and role of ANM/MPHW (F)



The ANM as a facilitator of services: If the ANM is to work as a multipurpose worker with stress on communication, coordination with ASHA and AWW, counseling and health education - she would not need high technical skills. In this case, the training period may be even reduced to one year and emphasis laid on communication and coordination rather than on technical skills. This role would not require the ANM to live in the village but to make regular visits for monitoring and guidance. The community level change agent (ASHA) also may aspire to this post if she meets the educational criteria.

The ANM as a skilled service provider: The second alternative is the enhanced role of the skilled birth attendant for reducing maternal and newborn mortality. The skills of the present ANM need upgrading to serve as a SBA. Since the message is for institutional deliveries the conversion of the ANM into SBA will make many more SBAs available at PHC and CHC level to manage the

additional load that will be placed on these facilities if demand generation for hospital deliveries goes up as expected. In this case, the present category of ANMs or MPHWs, must receive the additional knowledge and skills to become upgraded into an nurse midwives with at least one year.

Whichever option is taken, it is imperative that some decision is taken about the future of this cadre. The rational revision of the syllabus based on realistic and long term goals will ensure that the potential of the ANM is utilized well. What this study foresees is the natural decay of the MPHW (F) cadre as a technical service provider. The current MPHW (F) can be given the option to take one of the two paths - the facilitator route or the SBA route. Those who select the facilitator role will not be given any further technical skill inputs. Those who opt for the SBA role will be required to undergo further training and work in PHCs / CHCs.

6.3. Mainstream In-service training:

Two massive in-service training programmes were taken up in the Country after independence for peripheral health care providers. Firstly the orientation and intensive training for conversion of uni purpose workers to multipurpose workers in the 80's. Secondly, RCH-I training reoriented peripheral providers to the comprehensive reproductive health approach. Both these programmes did not build in adequate follow up activities. Both programmes were centrally planned and locally executed with cental control. They revealed that such programmes do not often get implemented in the manner planned because of over dependence on technical and material support from the top. Several problems were identified in the rapid assessment and in the present study. The following recommendations are therefore put forth:

A well planned in-service training programme needs to be integrated into the basic programames of the respective providers right in the planning phase in order to institutionalize the new knowledge and skills. Mechanisms have to be established to make sure that the training centers providing the basic education are aware of the changes and are involved in the designing and planning of the course. This will facilitate incorporation of these changes into the everyday teaching of pre service candidates. In the present study it was found that faculty of schools and colleges of nursing including some nursing council registrars were not involved in the in-service training of RCH I..

Follow up training needs to be planned so that the one time in-service training is strengthened later. However the follow up plan has to be integrated into the supervisory mechanism of the respective service providers and institutionalized into the regular monitoring and evaluation systems. The present situational analysis revealed that some ANMs and LHVs who were trained in the first year of the RCH -I training did not undergo any further training for the next seven years.

Decentralized training will take care of local needs and local problems with flexibility for making changes in venues, trainers and content and stress on subject according to local progrmame priorities. This will also build capacity at different levels and will continue into on the job guidance and supervision. It is suggested that training under RCH -II be initiated planned and implemented at State and lower level through active participation of the actual service providers. For eg; In RCH -I specific mention was made of the types of providers, the duration of training and the session time allocation. Decentralizing will also take care of issues related to the magnitude of the training load.

6.4 Innovative in-service training programmes

Any reorientation of the Indian Public Health Nursing Work Force will require methods that can train thousands at a time so that gap between policies and field implementation is reduced. At the same time, one has to ensure quality and provide skill training, besides knowledge enhancement. Training has to be done within a short time, over a large geographic area and without uprooting the staff from their work places. A variety of innovative training methods have been used to impart training to the in-service learners. IGNOU adopts an integrated multimedia approach which includes self instructional material supplemented by face to face counseling, practical contact sessions, hands on training, audio-video programmes, teleconferencing, telecast, broadcast and interactive radio

counseling for training of in-service doctors and nurses. BRAOU State Open University, Hyderabad uses self-instructional material, face to face counseling, audio-visual/radio lessons, summer and winter schools, hands on Lab based practicals, teleconferencing and broad cast. A large number of innovative methods can be adopted to train ANMs in RCH without removing them from workplace. Some of these are described below:

The Satellite Training Model can serve as interactive educational tool and facilitate ideal educational transactions. It can serve as an effective tool of training ANMs because of multiple advantages. The satellite model is a fast communication medium through which the expertise of the faculty or the specialist can be made available to a large group of learners across the country or even world. It can facilitate the information of inputs from various sources. The reach of radio and television can be increased and their round the clock quality ensured.

The Integrated Multiple Media Distance Learning Model (IGNOU) includes innovative self-learning modules teleconferencing, greater reliance on hands on experience, tutorials, phone in facility and academic as well as personal counseling, T. V. broadcast and greater use of audio video cassettes will help to upgrade the knowledge and competencies without leaving their work place. Providing in-service training to ANMs through the distance mode can be a strong supplement to interactive face-to-face component. In this system training centres are established in existing training institutions for providing classroom and field training. However additional training facilities and resources are provided for carrying out extra load of training.

Interactive Multimedia CD Rom Cum Field Training Model includes training content, simulations from actual field training, video clippings, audio clippings, recorded actual demonstrations and presentations by expert trainers. This method can take the major load of training. In addition, hands on training can be provided for a minimum required period either with the help of mobile training teams or providing training in selected centres during the meeting days at district headquarters.

6.5. Recommendations about Manpower

Strengthen top management in nursing

- There are very few posts of nursing officers at the state directorate level i.e., in Directorate of Health Services, Directorate of Family Welfare, Directorate of Public health, Directorate of RCH. A rational number of posts must be created at the state level. The posts must be vested with professional autonomy in terms of scale, class and capacity. Public health nursing personnel constitute the largest number of health personnel at the periphery and it is essential to have administrators from the similar cadres at the top. There is no state level nursing program officer for National Health Programs including RCH program. It is important to have a state level officer for new programmes that ANMs and other nursing personnel will be implementing.
- Working conditions and infrastructure are inadequate for state level officers. Many nursing officers are given halls without furniture or are housed in corners or corridors. It reduces the morale of the staff to see the symbol of their profession treated lower than other state level officers. Unlike in medicine and other professions, instead of creating new posts, existing posts have been abolished or not filled. This has weakened the structure and status. A detailed assessment must be done of all the senior nursing positions in the Country and they should be supported and strengthened.
- Nurses with higher qualification in state should be involved as team or committee members in major health policies and programmes. This study showed that nursing council staff and senior nursing officers have not been involved in RCH plans or trainings leading to poor incorporation of changes in education.

Increase posts of nurse-midwives at PHCs and CHCs:

This is the urgent public health need today. The nurse midwife at the PHC can be useful in many ways. There is an acute shortage of nurse midwives at the periphery. There is a tendency among administrators to treat posts of nurses and doctors equally in terms of numbers. Where there is a doctor they feel one nurse would be enough forgetting that nursing services are for 24 hours and that there should be three nurses to one doctor and that nurses are required according to the number of patients and units. In Assam in one block PHC with 24 hrs services only one staff nurse is posted and three posts are vacant. Posting enough staff nurses at the periphery is the most urgent requirement for successful implementation of RCH and for maternal and child care at the health facilities.

The staff nurse who has passed the GNM course and is registered as a midwife is eligible to conduct normal delivery and carry out all the functions of the midwife. However, there is an alarming practice in the field with doctors preventing nurse midwives from conducting deliveries. This is a waste of resources. This has to be stopped immediately not only in professional interest but also in the interest of increasing wider coverage of services to the public. The capacity of the staff nurse should be increased for conducting normal delivery confidently and for recognizing complications and doing early referral. The staff nurse is the most critical person for round the clock institutional deliveries.

Build and strengthen a public health nursing supervisory cadre:

Management and Supervisory Cadre at district level does not exist and even when there is a person posted, there is no facility or authority. Though only one post of DPHNO is sanctioned, very few are filled. When filled, they do not enjoy the same position and power as other district level officers even though they are responsible for nursing services. DPHNO is not a gazetted rank officer. DPHNOs are not involved as members of district RCH committee, except in one state in formal structure (West Bengal). She has no promotional opportunities or time bound promotional / scale and no career development opportunities. She has not had opportunity to improve her management and supervisory skills.

District public health nursing service structure should be given highest priority with atleast three posts to deal with training, service matters and supervision of all categories of public health nursing personnel. At present the District Public Health Nursing Officer is overloaded with administrative work and is treated as an adhoc person to be used for odd jobs. She is unable to supervise and guide nursing staff. Her working conditions are not good and no conveyance allowance is given to DPHNO. No reimbursement of telephone bill / no phone facilities are given, no separate room to work with basic office facilities.

Strengthen PHC Level supervision: Supervision of Staff Nurses, LHV and ANM is carried out by medical officers as there is no nursing cadre in many states. This is irrational as well as unprofessional. In the first instance, this will add to the non-clinical workload of the doctor and will keep him away from the work he has been trained to do. In the second instance, the doctor could supervise and guide the nursing personnel in only medical matters and not in nursing or midwifery since he is not from this field.

There are very few posts of LHV in the Country. The LHVs in PHCs are overburdened and are not able to carry out supervisory functions. Moreover, their supervisory skills are also limited. In-service and continuing education is not regular only programmatic nursing management and supervision training is not given to them. The area is large and they spend a lot of time in traveling in local conveyance to the remote villages.

6.6. Recommendations related to the ANM and her services:

Improve infrastructure and facilities at subcentres: Infrastructure is not good, inadequate supply of equipments, supplies, medicine, and logistics. Many sub-centers are in isolated areas with no safety or without accommodation. Rented buildings are small and do not have sufficient space to work. In some centres the roofs are leaking and there is no electricity and water facility. ANMs are expected

to pay rent, electricity bill and get kerosene in many states. Transport is a major problem and carrying equipment to villages without help is also a problem. A large percentage of ANMs are not staying at the subcentres due to accommodation, safety and personnel problems. TBA is providing services in her absence

Reduce burden of ANMs and rationalize functions: ANM is overburdened with all the national health programmes and surveillance work along with RCH program. In very few subcentres ANM is helped by a female assistant or TBA. Coverage of population is more than the norms. On every immunization day ANM has to bring vaccine from PHC and return to PHC after the session. Frequent transfers, meetings, campaigns such as pulse polio campaigns are a hurdle in providing continuity of services to a community or family.

Enhance knowledge and skill of ANMs: Though it was observed that the ANM was well informed about programmes, her clinical knowledge and skills were limited and not updated. She lacked confidence, lacked critical skills and was losing many procedures due to disuse. As the end service provider, she needs continuous skill and knowledge upgrading. Supervision by LHV and DPHNO is not regular due to shortage, overburden of work and no nursing cadre between LHV and DPHNO

Encourage delivery services by ANMs: Most of the ANMs are not conducting deliveries at sub-center or PHC because deliveries are expected to be in institutions according to the new policy. Even if ANMs are available at PHCs, doctors do not allow them to conduct delivery saying that something may go wrong and thee are no facilities. Many times, they do not conduct because they are not confident. In-service and continuing education is not a regular activity it is programmatic

6.7. Address gender inequities among health professionals:

There is a strong gender inequity in the health professions. Gender discrimination in the health professional has many serious implications for the long-term strength of the health care system and especially for the delivery of health care services to poor and disadvantaged population. The concerns in nursing are the under-representation of nurses (women) among those who manage and direct services. Without proper representation at the managerial and leadership levels, nurses' need as employees within the health system will be neglected. It is important to consider this issue while making work force policy and planning for it. In India, nursing personnel are not given opportunity in administrative decisions, not formally included in structure, not allowed to participate in planning and not given managerial and leadership positions. To make RCH-II a success it is important to utilize existing qualified nursing personnel more effectively and to strengthen their capacities and structures.

Build and support a career and promotion plan for public health nursing personnel: There are no promotional avenues or promotional scales for some staff in the periphery. In some states ANM without promotional course are being given promotion as LHV leading to poor supervisory skills. In others, LHVs with 2 ½ year course are not getting any promotion because they have not gone through the promotional course. All these problems are due to non-nursing administrators not understanding the issues and concerns of nurses.

VII. References

- Consolidated report on monitoring visits by consultants, NIHFW (Feb, 2004)
- Dutta, P.R. (1962): Rural Health Services in India, Government of India Press, Nasik.
- Evaluation Report, Impact of IST and SST under RCH programme in the Country, Department of Education & Training and TAU RCH, NIHGW (March, 2004).
- Government of India (1946)
- Govt of India (1943-75): Compendium of Recommendations of various committees on Health development, CHEB, DGHS, Ministry of Health and Family Welfare, New Delhi.
- Govt. of India (1951-56): Draft 1st Five year Plan, XXXII, Planning Commission, New Delhi.
- Govt. of India (1956-61): Draft 7th Five Year Plan, Chapter. XXV, Planning Commission, New Delhi.
- Govt. of India (1961-66 and 1969-74), 3rd edition Annual and 4TH FYP, planning Commission, New Delhi.
- Govt. of India (1973): Kartar Singh Committee, Ministry of Health and Family Welfare
- Govt. of India (1974-79, 1985-90) 5th, 6th, 7th, Five Year Plans, Planning Commission, New Delhi.
- Govt. of India (1982): India 1982 Chapter 8, Health, page 105.
- Govt. of India (1983-84), Annual Report, Ministry of Health and Family Welfare, New Delhi.
- Govt. of India (1988), Bulletin Rural Health Statistics, June 1988, Ministry of Health and Family Welfare.
- Govt. of India (1991), Health Services in India 1987-88 and 1988-89, CHEB, DGHS. Ministry if Health and Family Welfare, New Delhi.
- Govt. of India (1992-97, 2002-2007): 8th, 9th, 10th FY Plans, Planning Commission, New Delhi.
- Guidelines for Specialized and Integrated skill training and curricula for Integrated skill training of MO(PHC), LHV, ANM, HW(M) and Staff Nurses (PHC / CHC).
- Guidelines for training programme under RCH programme, Training Division, Department of Family Welfare, MOHFW, GOI.
- RCH Programme schemes for implementation, Department of Family welfare, NIHFW GOI (October, 1997)
- Report of the Midterm Review of the training component of RCH programme of GOI, by Dr.Dileep Mavalanker (2001)
- The TNAI (2001): history and Trends in Nursing in India, TNAI, New Delhi.
- Wilkinson. A (1958): A brief History of Nursing in India and Pakistan, The Trained Nurses Association of India.