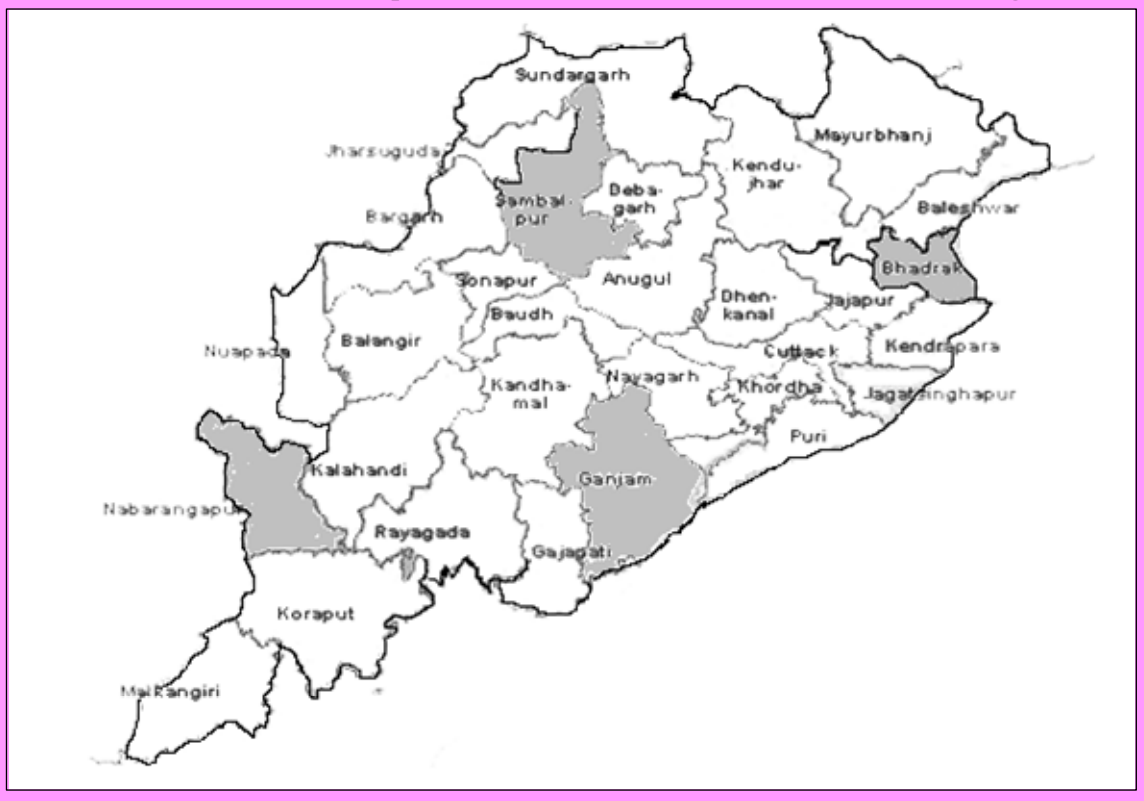
Human Resources Division
National Health Systems Resource Centre
National Rural Health Mission,
Ministry of Health and Family Welfare
Government of India

Study Report

Nursing Services in

Orissa

Current Situation, Requirements and Measures to Address Shortages



ANSWERS
Academy for Nursing Studies & Women's Empowerment Research Studies,
#215, Amruthaville Apartments,
Rajbhavan Road, Somajiguda, Hyderabad-500 082.

NHSRC
National Health Systems Resource Centre
Baba Gangnath Marg
Munirka
New Delhi – 110 067

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Acknowledgments

The Academy for Nursing Studies is grateful to National Health Systems Resource, Centre for providing an opportunity to conduct the Nursing Situation Analysis in Orissa. It gave the ANS Team an enriching experience and helped in better understanding of the nursing issues in the State. I am especially grateful to Dr. T. Sundararaman (Executive Director, NHSRC) Dr. Thamma Rao (Senior Advisor, NHSRC) and Mrs. Sushma Rath (Principal Administrative Officer, NHSRC) for their support, technical inputs and comments.

The task of data collection for the study would not have been possible without the cooperation received from the state health organization and its different departments. The Academy for Nursing Studies is especially grateful to Mr. Lohani (Mission Director NRHM), Prof. Prasano Das (DMET), Dr. Dushasan Muduli (DFW), Dr. Sukudeb Sethi (DHS), Mrs. Shakuntala Sahani (DDN), Mrs. Premlata Devi (ADDN), Mrs. Urmila Das (Secretary cum Registrar, Orissa Nursing Council), Mr. Bhupatra Panda, Training Consultant and Mr. Jehangir Baig, Statistician. I am deeply indebted to them for their understanding and the time they spared to interact with the Research Team.

The officers and staff at district level were especially supportive and provided the required information. I appreciate the support provided by Dr. P. K. Nayak, CDMO, and Dr. Alok Kumar, DPM of Sambhalpur district; Mr. P. K. Mishra, DHM, Bhadrak district; Dr. D. Das, CDMO, Dr. Biswaranjan Rath, DPM, Mr. Prakash Panigrahi, DHIO, Mr. D. K. Sarkar, BEE, and Ms. Jalirani Pradhan, BPO, all from Nabrangpur district; and Mrs. Saila Bala Patnayak, DPHN of Ganjam district for facilitating field study in the district. Most importantly, the ANS appreciates the time spared by all the respondents in answering questions patiently, even when approached repeatedly.

I am grateful to Mr. Raghu Nandan Nayak, Director, Dhanapalli College of Nursing, and his faculty for arranging accommodation for the Research Team in Sambhalpur. Mrs. Amrita Lenka provided support as well as technical inputs for completing the Report. She also facilitated the stay and field work of the Team in Ganjam district. The ANS is indebted to her for this support.

The Study Team Academy deserves to be lauded for their intense work. I appreciate and acknowledge the arduous task of field investigation, analysis and report preparation by the Faculty, Research Team, Investigators, Resource Persons, Consultants, Data Managers. They rigorously collected information, processed it and supported in report preparation. I deeply appreciate the tireless efforts of Mr. Khaja Saleemuddin, Ms. Chaitali Biswas, Ms. Sunita Chowdhury, Mrs. Saroj Nalini Pradhan and Ms. Meerah.

Dr. M. Prakasamma
Director

Hyderabad

Abbreviations

ACR	Annual Confidential Report
ADN	Assistant Director of Nursing
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ANMTC	Auxiliary Nurse Midwife Training Centre
ANS	Assistant Nursing Supervisor
ANSWERS	Academy for Nursing Studies and Women's Empowerment Research Studies
AV	Audio Visual
B.Sc. (N)	Bachelor of Science in Nursing
BP	Blood Pressure
CCU	Critical Care Unit
CDMO	Chief District Medical Officer
CHC	Community Health Centre
CMO	Chief Medical Officer
CNC	Continuing Nursing Education
CNO	Chief Nursing Office
CNS	Chief Nursing Superintendent
CON	College of Nursing
CSSD	Central Sterile Supplies Department
CT	Computerized Tomography
DA	Daily Allowance
DDN	Deputy Director of Nursing
DFW	Director of Family Welfare
DH	District Hospital
DHE	Diploma course in Health Education
DHH	District Headquarter Hospital
DHS	Director of Health Services
DMET	Director of Medical Education and Training
DN	Director of Nursing
DNEA	Diploma in Nursing Education and Administration
DNS	Deputy Nursing Supervisor
DPHN	District Public Health Nurse
DPHNO	District Public Health Nursing Officer
ENT	Ear, nose and throat
FHS	Female Health Supervisor
FW	Family Welfare
GNM	General Nursing and Midwifery
GoI	Government of India
GPF	General Provident Fund
H&FW	Health and Family Welfare
HDR	Human Development Report
HFWTC	Health and Family Welfare Training Centre
HIV / AIDS	Human Immuno-deficiency virus / Acquired Immuno Deficiency Syndrome
HPC	High Power Committee
HQ	Head Quarter
HRM	Human Resource Management
HV	Health Volunteer
ICU	Intensive Care Unit
IFA	Iron and Folic Acid
IGNOU	Indira Gandhi National Open University
ILR	Ice Line Refrigerator
IMNCI	Integrated Management of Newborn and Childhood Illness
IMR	Infant Mortality Rate
INC	Indian Nursing Council
IPHS	Indian Public Health Standards
ITU	Intensive Therpeutic Unit
IUD	Intra Uterine Devices
IV	Intra Venous
JD	Joint Director

LCD	Liquid Crystal Display
LHV	Lady Head Visitor
LHVTC	Lady Health Visitor Training Centre
LTC	Leave Travel Certificate
LUCS	Lower Uterine Cesarean Section
M. Phil	Master of Philosophy
M.Sc. (N)	Master of Science in Nursing
MBA	Master of Business Administration
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MoU	Memorandum of Understanding
MPHS	Multipurpose Health Supervisor
MPHW	Multipurpose Health Worker
MTP	Medical Termination of Pregnancy
NFHS	National Family Health Survey
NGO	Non Governmental Organization
NICU	Neonatal Intensive Care Unit
NRHM	National Rural Health Mission
NS	Nursing Superintendent
ODA	Overseas Development Agency of the British Government
OHP	Over Head Projector
ONC	Orissa Nursing Council
ONEA	Orissa Nurses Employee Association
OPD	Out Patient Department
ORV Act	Orissa Reservation Vacancy Act
OT	Operation Theatre
PB B.Sc	Post Basic Bachelor of Science
PCO	Public Telephone booth
PEP	Post Exposure Prophylaxis
PH	Public Health
Ph. D.	Doctor of Philosophy
PHC	Primary Health Centre
PHN	Public Health Nurse
PM	Preventive Medicine
PNC	Postnatal Care
PPF	Public Provident Fund
PSE	Public Service Examination
PV	Per vaginal
RHTC	Regional Health Training Centre
RTI	Regional Training Institute
SBA	Skilled Birth Attendant
SHC	Sub-health centre
SDH	Sub-divisional Hospital
SEBC	Socially Economically Backward Class
SIHFW	State Institute of Health and Family Welfare
SN	Staff Nurse
SOMI	Society of Midwives, India
SON	School of Nursing
SRS	Sample Registration System
ST	Schedule Tribe
TFR	Total Fertility Rate
TNAI	Trained Nurses Association of India
TT	Tetanus Toxoid
UGC	University Gran Commission
USG	Ultra Sonography
UTP	Universal Immunization Programme
VCTC	Voluntary Counselling and Testing Centre
VP	Vice Principal

Definitions

Job description:	Formal, written description of the work expected of an individual. A job description defines what is expected of a person in a particular position and consequently what that person can expect of other people in their positions.
Organizational structure:	The pattern or network of relationships between the various positions and the position holders within the organization.
Organization:	A deliberatively established social unit composed of people who co-ordinate their activities to achieve common objectives.
Post:	A job in a company or organization.
	A place where someone is on duty or where an activity is carried out.
Personnel:	The people who are employed in a company / organization.
Career:	An occupation that a person undertakes for a substantial period of their life.
	A job or series of jobs that a person does during their working life.
Cadre:	A small group of trained people who form the basis unit of an organization.
	A small group of people chosen and trained for a particular purpose.
Position:	A rank or level in a company or society.
Staff:	The group of people who work for an organization.
Employee:	Someone who is paid to work for some-one else.
Professional:	A person who has the type of job that needs a high level of education and training.
Role:	A position or purpose that someone has in a situation, organization or society.
Contract:	To have formally agreed to work for an organization or person on a stated job for a stated period of time.
Abolition:	The official ending of a system, law or custom.
Downgrade:	To reduce someone or something to a lower rank or position.
Responsibility:	To have a duty to make certain that particular things are done.

Executive Summary

A study of nursing workforce situation in Orissa was carried out by the Academy for Nursing Studies and Women's Empowerment Research Studies (ANSWERS) to identify gaps and draft recommendations for making quality nursing services available in all health facilities for achieving NRHM goals. The study was conducted on behalf of the National Health Systems Resource Centre (NHSRC) in 2008-09. Qualitative as well as quantitative methods were used. Primary data was collected from four district hospitals, eight CHCs, 10 PHCs and 27 sub-health centres. Three private hospitals were also included for study. Personnel interviewed included 103 staff nurses and 45 ANMs. Regular staff, contractual staff and private sector staff were interviewed. In order to assess the capacity of nursing training institutions, 19 centres were visited throughout the State – physical facilities were observed and interviews were conducted with 45 teachers and 167 students. State and district level officers were interviewed and FGDs were conducted with different cadres of nurses. The findings of the study are summarized below:

Key findings

1. Acute shortages

None of the health facilities met norms for nursing personnel. Acute shortages were noticed for all categories of nursing personnel. In some areas the shortfall was as high as 90%. Several supervisory and administrative posts were vacant.

Orissa needs 7799 ANMs; 297 LHVs; 231 PHNs; 50 DPHNOs; 10669 Staff Nurses; 417 Head Nurses; 96 Assistant Matrons and 107 Matrons.

Orissa is also facing a crisis in availability of nursing teachers – 34 teachers are required at GNM and ANM level and 23 at the Collegiate level.

To produce nursing personnel to meet standards many more teachers will have to be prepared.

2. Too few training institutions

- Only a small percentage of nursing educational institutions in the Country are in Orissa. The State has 22 out of 584 ANM schools, 27 out of 1902 GNM training institutions, 13 out of 1155 B.Sc (N) colleges, one out of 237 M.Sc (N) colleges and one out of 207 Post Basic B.Sc (N) college. The DPHN course was discontinued.
- The four major problems in nursing education are: inadequate space, outdated material in libraries, poorly equipped teaching labs, and incomplete learning experiences. Most nursing training centres in Orissa do not meet standards and are below expectation of students.

3. Workforce policies

- Career pathways and cadres are not clearly defined or structured. There are too few promotions and the waiting period is too long. ANMs and staff nurses usually get only one promotion in their career spanning almost four decades. Job dissatisfaction is high due to inadequate facilities and lack of opportunities for self development or promotion.
- Nursing management structure at the state level provides very little scope for participation in decision making and professional development. Though written job descriptions are available, very few nurses are aware of these. There is no formal induction training.
- The distribution of nursing personnel in three different directorates hampers professional cohesion and exchange and upliftment.
- Available qualified candidates are not used for teaching and supervisory posts inspite of huge vacancies.

4. Working environment

- Most of the ANMs could not carry-out their tasks as expected due to poor living conditions (irregular electricity and water), inadequate facilities, irregular supplies and a feeling of insecurity.
- ANMs at sub-health centre and staff nurses at PHCs have access to very little technical supervision and guidance. There are gaps in technical support due to heavy shortages in supervisory posts.
- The proportion of contract staff to regular staff is increasing. Upto March 2009, it was noted that 846 staff nurses were appointed on contract. There were wide differences between contractual and regular staff in remuneration, work load and benefits.
- Very few qualified nurses work in the private sector. Nursing tasks in the private sector are carried out by local girls and boys trained for a short period (one to three months) or by pharmacists.

Recommendations

A. Address shortages

- Urgent action is required to address shortages of ANMs, LHVs, PHNs, DPHNOs, staff nurses, head nurses, matrons, teachers and administrators. Conventional training as well as alternate models need to be used to meet shortages.
- Promotions to PHN, head nurse, LHV and other senior posts should be initiated immediately to improve supervision and to enhance staff morale.
- Listing and identification of qualified candidates within and outside the state for recruitment as teachers should be done immediately.

B. Define cadres, develop career progression programs: Four cadres of nurses - general nurse, public health nursing, clinical specialization and teaching are suggested.

C. Strengthen nursing management: Nurses can understand and empathize with nurses. Higher state level positions are essential for development of the profession.

D. Faculty Development: A long term plan is required for ensuring a steady supply of faculty for all levels of teaching.

E. The nursing council requires strengthening to ensure that quality training is given.

Action Plan for strengthening nursing workforce in Orissa

This action plan is a draft based on findings of the assessment of nursing situation in Orissa carried out by Academy for Nursing Studies on behalf of NHSRC, Government of India.

Strategy: A multi- pronged approach that uses immediate measures through a continuous consultative process needs to be implemented. A three year action plan is given below:

1. Meeting requirements and addressing shortages

1.1 Constitute state committee as a full time working group

1.2 Prepare final list of nursing personnel of all cadres required upto 2015

1.3 Conduct detailed analysis of all available nursing educational institutions for gaps and action required for filling up the gaps including budget and time plan

1.4 Decide on number of new institutions, alternate models for training and producing large number in a short time.

1.5 Prepare detailed proposals for the new institutions, etc including budget, work responsibility and detailed work plan (guidelines are available from INC).

1.6 Make a decision on fast tracking production – alternative models

2. Faculty procurement and development

2.1 Immediate promotions for all available candidates with DNEA, DPHN, B.Sc (N), or M.Sc (N), including those who completed B.Sc (N) course through IGNOU.

2.2 Deputation to other states to study

Diploma in nursing education and administration - 20

- Diploma in public health nursing - 20
- Post basic B.Sc. (N) – 60 candidates
- M.Sc (N) – atleast 10

2.3 Strengthen capacity within state

- Increase capacity in B.Sc and M.Sc. nursing courses specially post basic nursing.
- Discuss with IGNOU for enhancing seats in Orissa.

2.4 Initiate plans for long term development – enhance M.Sc. seats, start two more M.Sc Nursing institutions in the private sector (based on institutional eligibility) Launch two more B.Sc. Nursing colleges with basic and post basic courses, initiate DNEA course

2.5 Recruitment from open market

- Within State: All candidates with qualification
- Outside State: Nearly 100 on a temporary basis

2.6 Faculty Development and Retention

- Prepare a long term programme for faculty development with continuous inservice training, promotions and salaries, and opportunities for professional development with scope for attending conferences etc.
- Plan for a cadre of nursing teachers specializing in nursing, midwifery and public health nursing

2.7 Faculty induction course for fresh teachers for a period of three months with practical work

3. Steps for strengthening management and administrative capacity

3.1 Clarity in definitions of cadres, posts and responsibilities including a state nursing policy.

3.2 Examine the management structure of nursing and prepare a plan for phased capacity development

3.3 Design the organizational chart with different cadres for three different streams – clinical nursing, public health nursing, midwifery and specialization; and teaching.

3.4 Prepare a career progression plan.

3.5 Initiate nursing personnel information system

4. Steps for strengthening nursing education

4.1 Strengthen the state nursing council as an autonomous agency with budget and support personnel

4.2 Institute autonomous accreditation system for examination and assessment of quality of teaching.

4.3 Prepare procedures for clinical and field experience to ensure that students get adequate clinical experience

4.4 Prepare an accreditation plan for accrediting training institutions to ensure high quality education

5. Steps to increase number of ANMs and GNMs

5.1 Detailed assessment of all 17 ANM schools for identifying deficiencies, listing additional facilities required, estimating costs

5.2 Discuss with authorities of Bissam Cuttack Mission Hospital and private schools to increase intake

5.3 Initiate discussions with 51 private ANM training centres for uplifting facilities and filling up gaps so that the students are ready to take exam

5.4 Request Indian Nursing Council and Orissa Nursing Council to waive off some requirements for full time teachers for a period of one to two years.

5.5 Detailed assessment of each GNM school of nursing for current capacity, number that can be increased, and additional requirements for the schools to take additional students.

5.6 Detailed plan for new schools in each district

5.7 Small technical group to be constituted to look into permission for new schools with PPP.

Section One
Background and Methodology

1.1. Demographic, socio-economic and health profile of Orissa:

Orissa is located on the eastern coast of India with Andhra Pradesh in the south and west, Chattisgarh on the west and north and Bihar and West Bengal in the north. The Bay of Bengal washes the eastern coast of Orissa. The State has a rich cultural and natural wealth with beautifully built temples, colorful handicrafts, intricately handwoven fabrics, and breathtaking tourist spots. The State has been home to political and religious events of historical importance and is closely linked with the cultural history of the Country. Geographically, the State is usually divided into three regions: Coastal plains, middle mountains and plateaus, and rolling uplands. Orissa covers an area of 155,707 sq. km and has a population of 36,706,920 (census, 2001) and ranks 7th in population and 9th in area in the Country. There are 30 districts and 51,349 villages in the State.

Data in table 1 show that the decadal growth rate of Orissa, according to 2001 census is far lower than the Country average. The lower crude birth rate and TFR also indicate that a demographic transition has started in the State ahead of the Country. However, the State lags behind the Country in terms of IMR and MMR. Besides, a much higher percentage of the population (47.15%) in Orissa is below the poverty line compared to the rest of the Country (26.10%). Female literacy rates are also lower than the national average.

Table 1. Demographic, social and health profile of Orissa compared to India

	Indicator	**Orissa**	**India**
1	Total population (Census 2001) (in millions)	36.71	1028.61
2	Population density (persons per sq. km)	236	32.4
3	Decadal Growth (Census 2001) (%)	16.25	21.54
4	Crude Birth Rate (SRS 2007)	21.9	23.5
5	Crude Death Rate (SRS 2007)	9.3	7.5
6	Total Fertility Rate (SRS 2006)	2.6	2.9
7	Couple Protection Rate (%)	39.5	42.5
8	Institutional deliveries (% -NFHS III)	39	38.7
9	Infant Mortality Rate (SRS 2007)	73	57
10	Maternal Mortality Ratio (SRS 2001 - 2003)	358	301
11	Sex Ratio (Census 2001)	972	933
12	Population Below Poverty line (%)	47.15	26.1
13	Human Development Index (HDR, 2001)	0.404	0.472
14	Schedule Caste population (%)	16.53	16.2
15	Schedule Tribe population (%)	22.13	8.2
16	Female Literacy Rate (Census 2001) (%)	50.5	53.7

Availability of health facilities and human resources is a critical factor for the functioning of any health system and forms the first step toward achieving health goals. Table 2 presents data on availability of health care infrastructure and human resources for health at three levels in rural areas: Sub-health centres (SHCs), primary health centres (PHCs) and community health centres (CHCs). Orissa currently has 5927 Sub-health centres, 1279 PHCs, and 231 CHCs. There is a shortfall of 1356 sub-health centres and 61 CHCs.

Presence of frontline workers is critical to achieving rural health goals and improving national health profile. The nurse-midwife is a critical service provider at the PHC and CHC level, especially for maternal and child health. Only 637 staff nurses are available against the required 2896 for working in public health facilities in Orissa. Lab technician is essential for preliminary diagnostic services in rural areas. There are only 311 lab technicians against 1510 that are required. The acute shortage of these personnel indicates the urgent need for increasing focus on training and deploying large number of frontline service providers.

Table 2. Health infrastructure and human resources in rural Orissa

Particulars	**Sanctioned**	**In position**	**Shortfall**
Sub-health entres	7283	6688	595
Primary Health Centres	1171	1279	-
Community Health Centres	292	231	61
MPWs (Female)/ANM at Sub-health centres & PHCs	7206	6768	438
Health Workers (Male) MPW(M) at Sub-health Centres	5927	3392	2535
Health Assistants (Female)/LHV at PHCs	1279	726	553
Health Assistants (Male) at PHCs	1279	168	1111
Doctors at PHCs	1279	1353	-
Obstetricians & Gynecologists at CHCs	231	NA	NA
Physicians at CHCs	231	NA	NA
Pediatricians at CHCs	231	NA	NA
Total specialists at CHCs	924	NA	NA
Radiographers	231	8	223
Pharmacists	1510	1984	-
Laboratory Technicians	1510	311	1199
Nurse/Midwives	2896	637	2259

(Source: RHS Bulletin, March 2007, M/O Health & F.W., GOI)

This study was undertaken by the research wing of the ANSWERS (Academy for Nursing Studies and Women's Empowerment Research Studies) on behalf of the National Health Systems Resource Centre of the NRHM, Government of India, with the overall objective of identifying gaps in nursing workforce and recommending alternative measures for addressing deficiencies.

1.2 Objectives of study

a. To review the organization of nursing and midwifery services in the state public health system.
b. To review the workforce management policies in place in the state public health system as relates to nursing and midwifery, including issues of career progression, their working conditions in government as compared to that in private sectors, their reasons for discontinuing the profession, where this is the case.
c. To compare workforce management policies between contractual staff and regular staff and see the differing experience and utilization between them.
d. To assess the workforce performance and assess how it relates to workforce conditions and to skills of the workforce.
e. To conduct situation analysis of nursing and midwifery services requirements of health centres and hospitals both in public and private sectors, their current availability in the state, within the system and in the open market.
f. To assess the current capacities (public and private sectors) of training institutions and feasibilities within the state to meet the short fall of nurses, ANMs and LHVs for the immediate

needs as well as midterm and long term requirements, to also assess the requirements in terms of faculty development programmes, and quality assurance measures to ensure quality in nursing education.

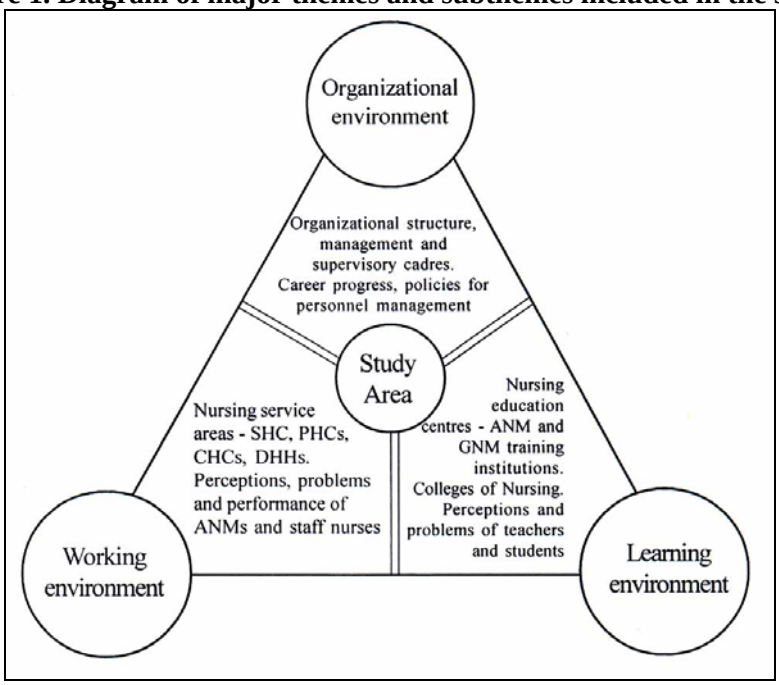
g. To evaluate the different options available for expanding nursing and ANM and LHV education and the necessary conditions that would be needed to ensure that a substantial part of those trained in these institutions become available to serve within the public system or outside it in rural areas. This includes the important issue of the availability of faculty for running these schools.

h. To draw up a detailed project report for starting up of ANM schools and nursing schools in some (about 20 such schools per state within one year) tribal blocks/districts such that educated women resident in the tribal blocks/districts are able to access ANM and nursing education.

1.3. Methodology of study

The working environment, learning environment and organizational environment of nursing personnel in Orissa formed the framework of research in this study. Figure 1 depicts the framework on which the methodology of the study was developed. Research design selected for the study included an integrated quantitative and qualitative approach. The entire nursing workforce of the state of Orissa became the focus of study. This included clinical nursing as well as public health areas, all levels of teaching institutions, teachers and students and primary care providers - ANMs and Staff Nurses.

Figure 1. Diagram of major themes and subthemes included in the study



1.3.1. Sites and sample included in the Study: The sample included four levels: Service providers (ANMs and staff nurses), health care facilities, training institutions and, state and district level officers. Table 3 gives the details of the sites and sample. Four districts were selected for assessment of health facilities and interviews with ANMs and staff nurses: Ganjam, Nabrangpur, Bhadrak and Sambalpur. The criteria for selection of districts was geographical location, size, and availability of health facilities and training institutions.

Within each district, CHCs, PHCs and sub-health centres were selected for study. In total four district hospitals, eight CHCs, 10 PHCs and 27 sub-health centres were assessed. The nursing personnel interviewed within the districts included 103 staff nurses and 45 ANMs. Observations were made in five colleges of nursing, six schools of nursing for GNMs, and eight ANM training centres in

order to assess the capacity of nursing educational institutions. Within the training institutions, 155 students and 45 teachers were interviewed. Interviews were also conducted with 10 state level officers and other key stakeholders.

A series of focus group discussions was conducted with different groups both from government and private institutions in order to understand performance-related issues, working conditions and career progression. The participants in the FGDs included 20 ANMs, 10 LHVs, 30 staff nurses, 10 teachers, and 10 postgraduate nurses.

Table 3. Sample of facilities and personnel included in the study

Category	Number included
Facilities	
District hospitals – one in each district	4
Community health centres – two in each district	8
Primary health centres	10
Sub-health centres	27
Colleges of nursing - throughout the state	5
GNM schools – throughout the state	6
ANM training centres – throughout the state	8
Personnel	
Staff nurses	103
ANMs	45
Nursing students	155
Nursing teachers	45
Officials and stakeholders – state level	10
Participants in focus group discussions – state level	80

1.3.2. Tools and techniques used in data collection: Semi structured interview schedules and observation checklists formed the two main methods for primary data collection. Guidelines were prepared for conducting focus group discussions with different categories and for interviews with key stakeholders and officers. Series of workshops was conducted with experts at MyTRI Institute (Training Centre of ANSWERS) for conceptualization, tool development, identifying gaps for primary data collection, revision of tools, etc. Table 4 gives the names of the tools used for data collection with different groups and from different facilities. Besides the above, secondary data were collected on organizational environment through review of policies, documents and official circulars and manuals.

Table 4. List of tools used for data collection

SNo.	Category	Tools used
1	State and district level	Semi structured interview schedule for data on personnel, number and type of institutions, different programmes and policies related to nursing.
2	Training institute level	Semi structured interview schedule and observation checklist for information on physical facilities, teaching facilities and living conditions.
3	Health care facility level	Observation checklist for quality of facilities and working conditions at four levels
4	Service providers	Interview schedules to assess working environment, conditions of work, performance and problems. Focus group discussion guideline for ANMs, LHVs, staff nurses, teachers and M.Sc. Nursing students.
5	Teachers and students	Interview schedules for obtaining information from students and teachers in different institutions.

1.3.3. Research Teams: Two categories of teams were involved in data collection. The first team or the 'Research Team' consisted of seven research assistants who conducted the quantitative study in the four districts and the training institutions. The second team consisted of two senior nursing consultants (M.Sc. nursing) who started data collection six weeks after the Research Team in order to build on preliminary findings from questionnaires and interview guides. This team was called the 'Consultant Team'. They conducted focus group discussions and interviews with state level officers, senior nurses, and key stakeholders and focused on the organizational environment. Besides the above, there was a Core Team consisting of coordinator, data manager and support person who analyzed the data and helped in report writing.

1.3.4. Brief description of data collection process: Pilot study of the research design and tools was carried out in the last week of September, 2008 in one district and two training institutions. This helped to clarify tools and plan data collection process in detail. Primary data collection was done over a period of eight weeks between October and December, 2008. Secondary data were reviewed throughout the study period.

The following officials and key stakeholders were interviewed at the state headquarters in Bhubaneswar: Registrar cum Secretary of Examination Board; Director, State Institute of Health and Family Welfare; Deputy Director of Nursing; Assistant Director of Nursing; and Training Consultant of NRHM. At the district level DPHNOs, district hospital nursing superintendents and Civil Surgeon were interviewed.

Data collection at training institutions: The total number of institutions of each category (ANM, GNM and Colleges of Nursing) in the state was listed and about 20 percent of the institutions was selected for study. Both government and private institutions were selected. Three types of tools were used in each institution: an observation checklist for information about the institution, an interview schedule for teachers, and an interview schedule for students. Only final year or last semester students were selected for interview in each institution. The institutional assessment checklist had questions for assessing adequacy of teachers (student-teacher ratio), intake of students in each course per year, facilities for conducting training programs, accommodation, selection criteria for students for each training program, syllabus related to midwifery teaching, availability of community field for practical experience, availability of student welfare programmes. Observations were focused on the building, midwifery and newborn skill lab, classrooms, hostel and student facilities. A common interview schedule was designed and used for all students – government or private. Students were questioned about their awareness of rotation plan, clinical posting, supervision and guidance, case book maintenance, adequacy of clinical teaching, and satisfaction with teaching. The interview schedule for teachers contained 33 questions and helped in assessing teachers' profile, in-service education, teaching style and quality, clinical teaching, evaluation methods used and satisfaction with teaching.

Data collection in health facilities: Data were collected from facilities as well as from personnel within each selected district. The facilities included one district hospital, eight CHCs, 10 PHCs and 27 sub-health centres. Personnel consisted of 103 staff nurses and 45 ANMs. The tool assessed details regarding the residence and mode of transport to work, working conditions and working environment for nurses and their patients. Some questions were framed to identify issues related to availability of drugs, articles and health teaching aids and availability of forms/charts and registers and their regular maintenance and supply. Questions were framed to identify the satisfaction about pay and allowances, facilities such as electricity and water supply and the functioning of the labour room and operation theatre. Special emphasis was laid on maintenance of universal precautions for infection prevention.

1.3.5. Data management, analysis and plan of report: A team of data managers took up the task of analysis after obtaining data from different parts of the state for all categories. One person from the field was included in data management team to help in data verification, compilation and editing. Statistical Package for Social Sciences (SPSS) was used for preparing structure for entry and analysis. A team of two persons entered data from the different schedules into computer. The qualitative information was analyzed on the basis of major themes and sub themes. A structure was prepared for reporting findings and this was discussed at different levels, revised and refined to provide a comprehensive picture of nursing, midwifery and public health nursing in Orissa.

Section Two
Nursing personnel: Availability, Requirements & Shortfall

Nursing personnel in India work in two broad fields – public health facilities and hospitals. Norms for nursing personnel that are accepted nationally and internationally need to be met in order to facilitate standard care. However, one set of norms do not fit all settings since needs, workloads and working conditions differ. This report therefore uses three sets of norms: Indian Public Health Standards, 2007; Indian Nursing Council Guidelines, 2002 based on Bajaj Committee recommendations; and, Government of India Guidelines, 2006. Tables 5 and 6 present the norms prescribed by IPHS and INC respectively.

Table 5. Norms for nursing personnel at different facilities (IPHS 2006, 2007)

S. No.	Type of Hospital	ANMs	LHVs	Staff Nurses	PHNs	Ward Incharges	Asst. Matrons	Matrons
1	SHC	2	-	-	-	-	-	-
2	PHC	1	1	3	-	-	-	-
3	CHC	1	-	7	1	-	-	-
4	SDH 31-50 Beds	-	-	21	-	-	1	-
5	SDH - 51-100 Beds	-	-	51	-	5	1	1
6	DHH - 101-200 Beds	-	-	88 to 113	-	-	2	1
7	DHH 201 - 300 Beds	4	-	115	-	-	-	7
8	DHH - 301-500 Beds	4	-	217 to 267	-	-	-	9

Table 6. Norms for nursing personnel in teaching hospitals (INC, 2002)

	Categories	**Requirements**
1	Nursing Superintendents	1: 200 beds
2	Dy. Nursing Superintendents	1: 300 beds (2:500 + 1 for every additional 50 beds)
3	Departmental Nursing Supervisors / Sisters	7: 1000 + 1 for every addl. 100 beds
4	Ward Nursing Supervisors / Sisters	8: 200 + 30% leave reserve
5	Staff Nurses for wards	1: 3 (or 1:9 each shift)+ 30% leave reserve
6	Staff nurses for OPD, Blood Bank, X-Ray, Diabetic Clinics, CSR etc	1: 100 outpatient + 30% leave reserve
7	Staff nurses for Intensive Care Unit (8 beds ICU/200 beds)	1:1 (or 1:3 for each shift) + 30% leave reserve
8	Staff nurses for specialized departments and clinics such as OT, Labour Room	8: 200 + 30% leave reserve

The following sections present data on availability of nursing personnel in different settings in Orissa and calculate the requirement and shortfall as per norms. Nursing personnel in all areas - public health nursing personnel, hospital based nurses and nursing teachers are covered. These calculations have not included the 30% leave reserve.

2.1 Auxiliary Nurse Midwives or Multipurpose Health Workers (F): According to the Indian Public Health Standards each sub-health centre must have two ANMs - one each at PHC and CHC and four at district hospital. Based on this norm, Orissa requires a total of 15014 ANMs – 13376 ANMs at sub-health centres, 1279 at PHCs, 231 at CHCs and 112 at district headquarters hospitals with 201-300 beds, and 16 at district hospitals with 301-500 beds. The existing number of ANMs in Orissa is 7215. The shortfall is 52%. Additional number of ANMs required for the State is 7799.

Table 7. ANMs available and additional ANMs required (IPHS 2006, 2007)

SNo	Health care institution	Sanctioned	Existing ANM	Required ANMs	Total ANMs required	Shortfall
1	Sub-health centres	6688	7215	6688 x 2 = 13376	15014	7799 (52%)
2	PHCs	1279		1279 x 1 = 1279		
3	CHCs	231		23 x 1 = 231		
4	DHHs (201-300)	28		28 x 4 = 112		
5	DHHs (301-500)	4		4 x 4 = 16		

2.2 Lady Health Visitors (Female Health Supervisors): The IPHS recommend one LHV or female health supervisor for every PHC. Currently there are 982 female health supervisors in Orissa against the 1279 required - a shortfall of 23% (297). LHVs are promoted from ANMs who have completed six months promotional course.

Table 8. Shortfall of Female Health Supervisors (IPHS 2006, 2007)

Health care institution	Required No.of LHVs	Existing LHVs	Shortfall
PHC	1279	982	297 (23%)

2.3. Public Health Nurses (PHNs): The IPHS recommend one PHN in every CHC and one in each regional training centre. Currently only three PHNs are actually in position in the entire state (all three are in regional training institutions). Orissa does not have posts of PHN in the field. The shortfall is therefore 231 PHNs or 99%.

Table 9. Shortfall of PHNs (IPHS Norms, 2006, 2007)

Health care institution	Existing centres	Required PHNs	Total required	Existing PHNs	Short fall
CHC	231	231 x 1 = 231	234	3	231 (99%)
RTI	3	3			

2.4. District Public Health Nursing Officers (DPHNOs): The IPHS do not mention the DPHNO - a key post that was created in every district in 1983. At that time there were 16 districts and so 16 posts of DPHNO were created. Though the number of districts in Orissa increased to 30 the number of DPHNO posts did not increase. The State now requires 64 DPHNOs. Currently 14 DPHNOs are available - 10 are working in the districts, three are working in HFWTCs and one is working in the Regional Training Centre. Fifty more are required - a shortfall of 78%.

Table 10. Requirement and shortfall of DPHNOs (High Power Committee, 1989)

	Number	Required	Total	Existing number of DPHNO	Shortfall
Districts	30	60	64	14	50 (78%)
HFWTC with MCH	3	3			
RTI at Cuttack	1	1			

The presence of the DPHNO in every district is essential to supervise, monitor and guide PHNs, LHVs and ANMs to render quality services for maternal and child health.

2.5. Shortfall and requirements for staff nurses: According to IPHS norms the state needs 12688 staff nurses at PHC, CHC, sub-divisional and district hospitals combined together. Currently there are only 2979 staff nurses and the shortfall is 76%. In addition staff nurses are required for teaching hospitals though the IPHS do not mention this. According to INC norms the state requires 1504 staff nurses for the three teaching hospitals. At present there are 544 staff nurses in these hospitals and so the shortfall is 960 staff nurses (64%) for teaching hospitals. Nearly three quarters of the staff nurses required are not available. The overall shortfall for staff nurses is 10669.

Table 11. Shortfall of staff nurses working in PHCs, CHCs, SDHs and DHHs (IPHS 2006, 2007)

S.No	Category of hospital	Required staff nurses	Total required	Existing staff nurses	Shortfall
1	1279 PHCs	1279x3=3837	12688	2979	9709 (76%)
2	231 CHCs	231x7=1617			
3	58 SDHs (51-100 beds)	58x51 = 2958			
4	28 DHHs (201-300 beds)	28 x 115 = 3220			
5	4 DHHs (301-500 beds)	4 x 264 = 1056			
6	MKCG MCH Berhampur – 850 beds	457	1504	544	960 (64%)
7	VSS MCH Burla – 750 beds	403			
8	SCB MCH Cuttack – 1200 beds	644			
	Total		**14192**	**3523**	**10669 (75.2%)**

2.6 Shortfall of head nurses: The IPHS recommend five nursing sisters for a 51-100 bedded sub-district hospital. Orissa has 28 district hospitals of 201-300 bed strength and four district hospitals of 301-500 bed strength (Khurda, Bhubaneswar Capital Hospital, Sundargarh and Rourkela). IPHS norms do not mention post of head nurse or nursing sister for teaching hospitals. Hence the Indian Nursing Council Norms were used. Currently 182 head nurses are available in the state against 599 required. On the whole, the state has an overall shortfall of 417 (70%) nursing sisters.

Note : There is some ambiguity in the IPHS norms for number of head nurses and matrons. This needs to be cleared up to have rational availability of supervisors and administrators according to the bed strength of the hospital.

Table 12. Shortfall of head nurses at SDH and DHH as per IPHS and INC Norms

		Required head nurses IPHS norms	**Total required**	**Existing head nurses**	**Shortfall**
1	SDH (51-100 beds) – 58	5 x 58 = 290	454	100	354
2	DHH (201-300) – 28	5 x 28 = 140			
3	DHH (301-500) – 4	6 x 4 = 24			
4	VSS MCH, Burla – 750	39	145	82	63
5	MKCG MCH Berhampur – 850	44			
6	SCB MCH Cuttack - 1200	62			
	Total		**599**	**182**	**417 (70%)**

2.7. Shortfall of Assistant Matrons: Assistant matron posts are available in district hospitals and teaching hospitals. At present there are 30 assistant matrons in the entire state. As per IPHS norms, one post of assistant matron is proposed in each SDH and DHH with 201-300 beds and two posts in hospitals with 301-500 beds. Two assistant matrons are required in teaching hospitals with 500 beds and additional assistant matron is required for every additional 50 beds. Hence 36 assistant matrons are needed for teaching hospitals. Overall, 126 assistant matrons are needed for the state. Only 30 posts are currently available. The shortfall is 100 posts i.e. 76%.

Table 13 Shortfall of Assistant Matrons

Institution (Beds)	Number	Required as per IPHS	Total Required	Existing Assista%nt Matron	Shortfall
SDH (51-100)	58	58	94	30	96 (76%)
DHH (201-300)	28	28			
DHH (301-500)	4	2 x 4 = 8			
VSS Burla – 750 bed	1	7	32		
MKCG Berhampur - 850 beds	1	9			
SCB Cuttack - 1200 beds	1	16			
Total			126		

2.8. Shortfall of Matrons, Chief Matrons and Nursing Superintendents: The IPHS advocate one matron for hospitals with 51-200 beds and 7 & 9 matrons for hospitals with 201-300 beds & 301-500 beds respectively. For the teaching hospitals, the Indian Nursing Council recommend one Nursing Superintendent (for a minimum of 150 beds), one Deputy Nursing Superintendent and two Assistant Nursing superintendents with one additional Assistant Nursing Superintendent for every additional 50 beds. As per the above norms, the three medical college hospitals would require 17 and only 5 are presently available. The State requires 112 nursing managers in the hospitals and there is a shortage of 107 (96%).

Table 14 Shortfall of Matrons and Chief Matrons

Institution (Beds)	Numbers	Required	Existing	Shortfall
SDH (51-100)	58	58	0	58
DHH (201-300)	28	28		28
DHH (301-500)	4	4	0	4
Teaching Hospitals				
VSS Burla (750 beds)	1	6*	5	17
MKCG Berhampur (850 beds)	1	7*		
SCB Cuttack (1200 beds)	1	9*		
Total		**112**	**5**	**107 (96%)**

* The INC requires one Chief Matron (Chief Nursing Officer) in each teaching hospital. Orissa currently has one CNO where as it has three teaching hospitals.

2.9 Shortfall of nursing faculty : Faculty shortage has been a chronic problem in Orissa since the beginning of modern nursing education. Table 15 represents the overall shortage of teaching faculty in Orissa for ANM, GNM and LHV training institutions. This shortfall is based on the existing number of training schools. But to fill the huge gaps in the availability of ANMs, staff nurses, the state requires many new schools i.e., the requirement of teaching faculty will also increase.

Table 15. Shortfall of nursing teachers for ANM, LHV and GNM Centres

Sno	Category	Required number	Existing number	Shortfall
1	Principal	20	17+1*	2
2	Vice Principal	3	Nil	3
3	Nursing Tutor (2 + 2 PHN = 4; 16 x 4 = 64)	64+2+48(3 GNM schools x 16 Tutors)=114	64+3+21=88	26
4	Additional tutor	3	-	3
%)	**Total**	**140**	**106**	**34 (24%)**

** For LHVTC superintendent class II is working ** 32 for ANMTC, 2 for LHVTC, 54 for SON*

2.10 Shortfall of faculty for college of nursing: Orissa has only one college of nursing at Berhmapur where B.Sc, PB B.Sc, M.Sc (N) courses are going on. The College is also the centre for B.Sc (N) through distance education of IGNOU. Faculty shortages were the major problem for the College since its establishment in 1983. At the time of starting the College of Nursing at Berhampore, there were four candidates with M.Sc. Nursing. One was posted out and one retired in 1987 leaving only two faculty to teach three courses. In 1987, two more posts of clinical instructors and four posts of lecturers were filled. Recently, it was informed that five clinical instructors were posted (early 2009).

Table 16. Shortfall of faculty – College of Nursing as per INC norms

Sno	Category	INC norms*	Existing faculty	Shortfall
1	Principal	1	1	Nil
2	Vice Principal	1	-	1
3	Reader / Associate Professor	3	-	3
4	Lecturer	6	1	5
5	Clinical Instructor	20	6	14
	Total	31	8	23 (72%)

** Annual intake – B.Sc. (N) – 50 or less; Post Basic B.Sc. – 30 or less & M.Sc. (N) – 10 or less*

At present the College is conducting four courses with only two full time faculty, six clinical instructors and one principal. The existing faculty of the College is also extremely inadequate as per INC norms. The College has only eight out of the 31 faculty required. The College needs one vice principal, three readers / associate professor, five lecturers and 14 clinical instructors with the existing admission capacity of students in each course. Even if all the posts were filled, they would only help to meet the needs according to current intake in each of the four programmes. The previous pages showed the shortfall in service providers. This means that more ANM and GNM training centres have to be opened to produce nursing personnel. This in turns translates into heavier faculty shortages. One college of nursing is therefore highly inadequate for Orissa to prepare the massive number of nursing teachers within the next decade.

Summary:

The overall shortfall is enormous. Orissa needs 7799 ANMs, 297 LHVs, 231 PHNs, 50 DPHNOs to fill current shortages in the public health system. The state also needs 10699 staff nurses, 417 head nurses, 96 assistant matrons and 107 matrons. The current shortfall of teaching faculty is 34 at ANM and GNM level and 23 at collegiate level.

Section Three
Nursing workforce policies and working environment in Orissa: An analysis

This section deals with a range of issues related to workforce policies, cadre description, career progression and the working environment of nursing personnel that affect their performance. The data and analysis are based on primary and secondary source and review of documents at different levels. This section is organized into eight subsections.

3.1 Nursing cadres, posts and recruitment
3.2 Working environment: Facilities and performance
3.3 Work related problems of ANMs and staff nurses
3.4 Workforce policies: Perceptions of nurses
3.5 Nursing personnel on contract
3.6 Career progression
3.7 Management and administration of nursing services
3.8 Nursing in private sector

3.1 Nursing cadres, posts and recruitment

There are two cadres of nurses in Orissa in the government sector - State cadre and District cadre. The district cadre posts were formalized in 1998. There are huge vacancies in both cadres. Nursing posts belong to class I, II and III according to qualifications, salary and responsibility.

The number of senior and higher class posts (Class I and II) indicate the higher status of the profession. From table 17 it is clear that there are very few higher class posts for nurses in Orissa indicating the lower status of the profession. There are only five Class I officers for 12000 nursing workforce in the government sector. Majority of the nurses are Class III. Nursing is considered paramedical in Orissa in government sector.

The organization chart available with the department of health depicts eight separate categories of nurses: staff nurses, nursing sisters, assistant matrons, matrons, chief matrons in the hospitals; and ANMs, LHVs and DPHNOs in the public health system. Sister tutors and PHN tutors are present in teaching institutions as well as in clinical areas. PHN is missing in the lists of posts in Orissa. When the College of Nursing in Berhampore was started, the first course was in public health nursing. Before the course was discontinued in 1999, 121 nurses graduated from this course. Yet there is no post of PHN for providing services in the field. Not even half of the districts have the post of DPHN filled.

Note: The list of posts was last approved in the year 1993 (Ref: Govt. health &F.W Dept letter no: 23830/4, dated 24-6-93) and was not updated and revised thereafter.

Table 17. Status of nursing

Class	Name of the post	No. of posts	Remarks
I	Deputy Director Nursing -1 Principal College of Nursing -1 Chief Matron - 3	5	The only post actually filled in this class is Principal, College of Nursing
II	Chief Nursing Officer -5 Matron - 30 Assistant Matron - 30	102	Most of these posts are located withi hospital and do not participate in state level policies.

	Assistant Director Nursing - 1 Registrar - 1 Secretary examination board -1 DPHNOs - 14 Principal SON / ANMTC - 18 Lecturer and Reader - 2		
III	Head Nurses - 182 Staff Nurses – 3523 LHV - 982 PHN – 3 Clinical instructor – 6 Nursing tutors – 88 ANM - 7215	11,999	Most of nursing posts are class III with very little decision making. They participate mainly in providing services and supervision.

The state has written job descriptions for nursing personnel. Copies of these are available in the nursing department. These job descriptions were formulated by the Director of Health services and approved by the government. But when nurses were interviewed, most of them were not aware of written job descriptions. Nurses and officers stated that there are not usually circulated among staff. Respondents said that nursing personnel are usually not involved in formulation of the job descriptions.

There is no specific induction training given to staff in the government sector. On appointment, staff report to the officer mentioned in the appointment letter and are asked to take-up tasks immediately. They become aware of responsibilities as they work. Sometimes informal instructions are given by the officers or supervisors incharge.

Nursing in Orissa has not demonstrated any remarkable growth during the 60 years after independence. No nursing posts have been upgraded in the State. Some sister tutors were posted as DPHNOs. No new posts were created either at state level or district level since the last 20 years. As per information from the government, there is abolition of class II posts in different categories (clinical instructor, drivers, librarian, staff nurses) but as these are essential and necessary for education and clinical care of patients, they justified the need for the nursing posts and contractual posts were created to fill up the vacancies. About 83 vacant posts of staff nurses were abolished in the year 2007. Contractual employees were recruited on consolidated remuneration to fill the abolished posts.

Recruitment: Recruitment of nurses in Orissa is done on the same principles as other categories. General conditions for recruitment of para medical posts are:

1. An open advertisement is published in a well circulated daily paper through information and public relations department showing the vacancies meant for SHC/ST/SEEC/Women/PH as per 80 point roster and ORV act.
2. The selection committees for recruitment of para medical posts are chaired by the concerned CDMOs/CMO/Superintendent of medical colleges. The chairman of the selection committee selects other members of the committee in consultation with the district collector.
3. The candidates belonging to the same district are given priority in appointment and in case vacancies are not filled up, applicants belonging to the other districts are considered. Two separate lists are prepared containing the names of the same district and other district candidates.
4. For contract appointment, a date of appointment is given and appointments are made. Candidates appointed on contractual basis cannot claim for inter-district transfer. However, in exceptional cases government considers the case and acts accordingly.

Reservation: Reservation policy is followed both for student admission and staff appointments. The Orissa Reservation Vacancy Act is strictly implemented.

- Reservation in admission of students are: SHC (16%), ST (22%), physically handicapped (3%), Green Card holders (3%), Ex-service (3%), male (10% since 2008). Reservation policy is followed in recruitment of staff also.
- For ANMs, all the candidates passing out from government training schools are absorbed in the state government after registration.
- For staff nurses, qualification certificate and registration certificate are required for recruitment. The government advertises the vacant posts and eligibility criteria. Eligible candidates are expected to apply. Recruitment and posting are given according to merit.
- For inservice training, the same policy of reservation of seats is followed for each category but the percentages are different: GC – (40%); SHC (20%); ST (20%) and socially and economically backward class (20%).
- For candidates passing out with a B.Sc. Degree, the government of Orissa does not guarantee employment. One reason for this was that the government did not have adequate teaching posts at the time when the first batches passed out. The government was also not willing to give three additional increments that the graduates requested though this practice was followed in neighbouring states. Only graduates of the first two batches were given posts (1991-92). Most of these graduates later left government service and are now working either in private sector or outside Orissa because they were not satisfied with remuneration and working conditions. The same position continues to this day, though the B.Sc (N) graduates if invited to join service could reduce the acute shortage of nursing teachers to some extent.
- Recruitment to the posts of teachers is done according to the criteria for the post described in the Indian Nursing Council.

Special considerations for recruitment

- Staff nurses / ANMs belong to district cadre and so they are given options to work in own district if there is a vacancy.
- In case of personal issues (like husband, wife in same profession) and education of children, elderly parents, the nurse affected is to represent to the authorities for consideration of suitable placement.
- LHVs get one additional increment after higher education and after 15 years of experience in same designation.
- Recently two increments were sanctioned for post basic B.Sc (N) immediately after joining in the same service as no immediate promotion avenue is not present.
- Eligibility and marks for post of Clinical Instructor

3.2 Working environment: Facilities and performance

The research team visited four districts for in-depth understanding of the working environment of nursing personnel at the periphery as well as in clinical areas in different hospitals. They observed health facilities, interacted with nursing personnel and conducted discussions with related officers. The findings are organized into two parts: Outreach services through sub-health centres, and clinical services in PHCs, CHCs and district hospitals. Details of facilities, equipment and supplies are presented in annexure-2.

3.2a. Facilities and services through sub-health centres: Outreach health services are provided through 5297 sub-health centres that cover 51,349 villages, hamlets and remote tribal areas of the State. The research team visited 27 of these sub-health centres in four districts- seven in Bhadrak, nine in Ganjam, five in Nabrangpur and six in Sambhalpur.

An ANM is expected to reside in the sub-health centre and provide services to about 5000 population in her area. Physical facilities and amenities are critical for her security and performance. All the 27 sub-health centres visited had buildings, mostly located in the village. However only two-third had electricity and only a quarter had water supply round-the clock. Only four had toilet for clients. Telephone was available in only one sub-health centre . Not even half of the sub-health centres had safe or secure environment for ANMs to stay at night. Most of the buildings were old and crumbling. ANMs posted to these sub-health centres expressed anguish and frustration about their condition.

Figure 2 - A sub-health centre which is located far from village. It has three rooms. Resident ANM is using two rooms as residence and remaining one room as sub-health centre . No deliveries are conducted. No water, telephone facility is available. School and market are far from

Furniture was not adequate in the sub-health centres. Only seven had labour tables. Though most sub-health centres had thermometer, adult weighing machine, stethoscope, blood pressure apparatus, child weighing scale, and foetoscope, many did not have critical life saving equipment. For example, baby resuscitation kit was found in only four centres and mucus suckers were seen in only 13 centres. None of the centres had ambu bag, only five had 100 watt lamp for baby warming. Drugs for managing emergency maternity conditions (misoprostol, methergin, magnesium sulphate) were available only in 13 sub-health centres and I.V fluids were present only in six sub-health centres. Drugs for minor ailments, iron and folic acid tablets and TT injection were available in most of the sub-health centres. Lack of life saving drugs and equipment hindered emergency and first-aid services.

Storage and maintenance was a major problem. ANMs arranged the sub-health centre items in crowded racks or on the floor. Vaccine carriers, disposable syringes, immunization cards and registers and AD syringes were available in almost all sub-health centres reflecting that facilities for antenatal assessment and immunization services were nearly adequate. Color coded bins for biomedical waste management were available in only four out of the 27 sub-health centres. Sterilizer was available only in 10 sub-health centres. Gloves were observed in 12 sub-health centres. Disinfectant was available in adequate amount in 20 sub-health centres. Linen was not found even in a single sub-health centre . Makintosh was found only in two sub-health centres. These findings indicate that cleanliness, biomedical safety and universal precautions are not adequately followed in sub-health centres. Lack of these facilities is a hazard to the ANM as well the public. Communication and teaching material were found in only 19 out of the 27 sub-health centres.

Only 16 out of 27 sub-health centres had delivery sets. Reports showed that 13 out of 27 sub-health centre ANMs visited were assisting in normal deliveries, usually in homes though none of them was plotting on the partograph.

Overall, ANMs were providing basic maternal and child health services in the sub-health centres even though facilities, instruments and equipment were inadequate. However, observations indicated that ANMs were

providing services on an adhoc day-to-day basis rather than following a systematic plan. Nearly all were conducting antenatal clinics and immunization sessions and registering vital events. Twenty one of the ANMs reported providing IUD insertion service to women who needed it and almost all reported that they were referring high risk cases.

Lack of adequate facilities, irregular monitoring and absence of supportive supervision were the major factors contributing to poor performance in SHCs according to responses in FGDs and interviews.

3.2b. Facilities and services at primary health centres: Ten PHCs were visited in the four districts. All the 10 PHCs had buildings with electrical supply but it was not regular, and only two PHCs had generator facility. Round-the clock water supply was available in only two PHCs. Six out of the 10 PHCs had functioning toilet facility. Telephone was available in all PHCs. Separate labour room was available in seven PHCs and operation theatre was available in five PHCs. Laboratory was present in six out of 10 PHCs.

Figure 4 - Mismatch between room and equipment: A new labour table kept in labour room in one of the PHCs. It is dusty and gloves, cello tapes are attached. This new table was not used even once after it was procured. The labour room did not have adequate ventilation and lighting. The floor was broken and dirty and had a foul smell.

Nine out of 10 PHCs had labour table but the quality and the utilization was not uniform. Labour tables were either new and not used, or old and rusted. Only four PHCs had adequate number of delivery sets. Thermometer and stethoscopes were available in eight PHCs, blood pressure apparatus and fetal doppler machine were available in all the 10 PHCs. Adult weighing machine was available in nine PHCs, but child weighing machine was available in only six centres. Foetoscope was found in only five out of ten PHCs. Essential items such as 100 watt lamp, mucus sucker, suction apparatus, and oxygen cylinder with key were found only in four PHCs. Baby intubation set was found in only one centre. Ambu bag was available only in two centres. Boyle's apparatus was available only in one centre though five PHCs had operation theatres. The same was observed with regard to instruments for tubectomy. On the other hand, suturing materials were found in all 10 centres. IUD insertion instruments were available in eight out of 10 centres.

Drugs for minor ailments, I.V. fluids, iron and folic acid tablets, tetanus toxoid injections were available in almost all PHCs. Drugs like misoprostol, methergin and magnesium sulphate were available only in seven centres. One or other vaccine was in short supply. PEP (post exposure prophylaxis of HIV) drugs were available only in three PHCs. All primary health centres visited had adequate supply of immunization articles like vaccine carrier, disposable syringes, AD syringes and ice packs. ILR/ deep freezer/cold box was found in nine PHCs. Health teaching

Figure 5 - Labour room of one of the PHC visited. A baby weighing machine and autoclave which was not being used were kept in the floor in two corners of the labour room. The floor is dirty and there is no other equipment or labour table.

material in the form of posters, flash cards and flip books were found in eight out of 10 PHCs. Immunization cards and registers were available in nine centres. Temperature charts were present in only two PHCs. Referral cards were available in six out of ten centres.

Biomedical waste management is a major issue in PHCs. Color coded bins for biomedical waste management, mackintosh and adequate pairs of gloves were available in only four out of the ten PHCs. Only half of the centres visited had adequate linen. Sterilizer and adequate disinfectant were available in seven out of ten centres.

Only half of the 10 PHCs visited were providing round the clock services. Beds were available in only three PHCs. Doctors were available in only six PHCs. Eight out of ten PHCs were conducting antenatal, postnatal and immunization clinics. IUD insertion was being done in eight out of 10 PHCs. Pharmacists were assessing patients and dispensing drugs.

3.2c Services at Community Health Centres: The research team visited eight CHCs in four districts. Most of them had electricity and round the clock water supply. All CHCs had separate labour rooms. Operation theatre was also present in seven of the eight CHCs. A separate baby resuscitation room was present in only half of the CHCs visited. Most of the CHCs had residential quarters in the hospital complex. But safety and security were a problem in four CHCs. Toilet was available in the ward for clients, but no separate arrangements were made for hospital staff.

Generator and telephone facility were available in four out of eight CHCs. Centralized oxygen supply was available in only two CHCs and blood bank was available in only one CHC. Boyle's apparatus was available in only two CHCs though operation theatre was present in seven CHCs. Basic articles like BP apparatus, stethoscope, adult weighing machine and child weighing machines were available in all CHCs. Fetal doppler machine was available in four CHCs. Injection tetanus toxoid was available in six CHCs and PEP drugs were present in only three CHCs.

Seven had normal delivery sets and only six had instruments for tubectomy. Episiotomy suturing materials were found in all CHCs. Six out of eight CHCs had instruments for LUCS or forceps delivery. None of the CHCs had vacuum extractor. All CHCs had adequate supply of drugs for emergency and minor ailments. CHCs had equipments like ice packs, ILR / deep freezer, syringes for conducting immunization clinics. However, three did not have adequate vaccines for immunization.

All the eight CHCs provided 24 hours services. Obstetrician was available in seven out of eight CHCs, physicians were available in six CHCs and pediatricians were available in four CHCs. But anesthetist was not available in any of the CHCs. Adequate staff nurses for 24/7 services were available in only six out of eight CHCs. Lab technician was available only in three CHCs though round the clock laboratory was present was six CHCs. Temperature chart was available only in two CHCs. Six CHCs had health teaching material and AV aids. Three CHCs had television facility for displaying health related information.

Six out of eight CHCs had color coded bins for biomedical waste management, and sterilizer for autoclaving. Only half of CHCs had adequate disinfectant supply. Almost all CHCs that were visited had adequate supply of linen and gloves.

All the CHCs were conducting normal deliveries, antenatal and postnatal clinics and immunization clinics. Partograph plotting was observed in only one of the eight CHCs. Six out of eight CHCs were performing IUD insertion for eligible couples. But universal precautions were being maintained in only half of the CHCs visited.

Observation in one CHC are presented here to give a glimpse of the workload, working condition and performance of nursing personnel in rural hospitals.

Case study of Bhatakamarada CHC :

Bhatakamarada CHC in Purosattampur block is an old CHC with 16 beds. Budget was sanctioned for a new building but work had not yet started at the time of visit. The nursing workforce consists of one staff nurse and one ANM. They provide maternal and child health services and help in clinical care and hospital maintenance. Besides the nursing staff, there is one newly posted medical doctor and a pharmacist. The work load was heavy with about 150 outpatients per day and about 20 deliveries per month besides emergency patients with diarrhoea, dehydration, accidents and fevers. The pharmacist dispensal medicine and also helped in treatments such as IV fluids for diarrhoea patients.

The labour room had two tables - both old and badly maintained. The table, mackintosh and floor were dirty. The table was rusted, mackintosh was torn and there were blood stains on the table and floor. There were very few instruments. The staff nurse boiled instruments in a rusted enamel tray for delivery and episiotomy suturing. The staff nurse lived in the quarters and came to the CHC whenever there was a delivery case or other work. She also attended deliveries at home. She had a heavy caseload as people trusted her and she was the only technical service provider available on call.

Findings of the facility assessment and interaction with staff indicated gaps in staff posting and lack of support and guidance. Added to this were the poor facilities. This continued state of neglect resulted in loss of interest and in maintaining cleanliness and quality.

Figure 6 - Labour room with rusted labour tables and dirty floor.

3.2d. Facilities and services at district hospitals: The research team visited four district hospitals: Bhadrak, Ganjam, Nabrangpur and Sambalpur. All the four district hospitals had casualty and laboratory facilities for rendering emergency services round the clock. Three out of four hospitals had blood bank. Two of the four hospitals had separate emergency operation theatre. All four hospitals had separate post-operative ward, operation theatre and VCTC. All district hospitals had facility for providing drugs, equipment and supplies through central stores. Sterilization department and central oxygen were available in all the four district hospitals.

All the hospitals had separate maternity units with labour room, antenatal and postnatal ward and antenatal and postnatal OPD. Baby resuscitation sets were available in three hospitals and baby intubation sets were available in only two of the four district hospitals. Though labour tables were available in all four district hospitals, the number was not adequate and they were badly maintained. Facilities for new born care, especially for sick and premature babies were present only in two district hospitals. Baby resuscitation room was available in only one district hospital. Critical life saving equipment like baby ambu bag, open radiant warmer, oxygen cylinder with key were found in all four district hospitals. But some of these were not in working condition. General equipment like BP apparatus, stethoscope, weighing machine were available in all the four hospitals. Foetal doppler was not available in any hospital. Instruments related to MCH services and normal delivery were available in all four district hospitals but the number of sets were inadequate. Drugs related to MCH care were also available. But PEP (Post Exposure Prophylaxis to HIV infection) was available only in one district hospital.

Figure 7 - This is the labour room of a busy district hospital where the tables are not well maintained, hygiene is a problem.

Though all the hospitals were providing routine and emergency care for maternal and child health conditions and for general medical, surgical conditions, facilities for special investigations for acute and chronic cases were not available in any of the selected district hospitals. Out of four, three had USG facilities but none had CT scan. All district hospitals had ambulance for referring the patients to teaching institutions. One district hospital at Nabarangpur had no phone facility. Intercom was available in only one hospital. PCO for patients and their relatives was available in only one hospital. Records and registers were available and maintained in all four district hospitals. Audio visual aids related to health education were available in only two out of four district hospitals.

All the four district hospitals had CSS department and adequate supply of gloves. But, only two had supply of color coded bins for bio-medical waste management. Three district hospitals had adequate disinfectant and needle cutters.

Staff nurses were available round the clock in all four district hospitals. But the number of staff nurses were inadequate. Workload was heavy resulting in dealing with only previous national care need.

For example in Bhadrak district hospital 34 staff nurses were available for providing care round the clock in a hospital with 121 beds. According to IPHS norms there should be 88 staff nurses (75 for general, 9 for OT and 4 for blood bank / storage = 88] in this hospital. Only one ANM was working in Bhadrak district hospital whereas IPHS recommend six ANMs. Staff nurses were conducting normal deliveries, antenatal and postnatal clinics, immunization clinics, and maintaining records and registers in all the four district hospitals. Partograph was being plotted in only one district hospital.

Nursing Supervisors were available in two out of four hospitals. Lab technicians were available in all four district hospitals. Pharmacists were managing the store in the hospital. Personnel were not available for telephone exchange, air condition, workshop, etc.

Overall, the study showed that there are many gaps in facilities and equipment and their quality at peripheral centres. The bigger the facility, the more adequate and equipments and facilities but staff were extremely inadequate. In most places, emergency equipment drugs and personnel wee inadequate. For example, though seven CHCs had obstetricians and four had pediatricians, none had anesthetists. Nursing personnel were inadequate at all levels - PHCs, CHCs and district hospital.

3.3 Work related problems of ANMs and staff nurses

The research team interviewed 45 ANMs and 103 staff nurses in the four districts. The mean age of ANMs was 40 years and the mean age of staff nurses was 36.9 years. Majority of the ANMs and staff nurses were married. Majority not only fulfilled basic educational qualification but had higher education. Three ANMs and 22 staff nurses were graduates.

Table 18. Age, marital status, and educational status of sample ANMs and Staff Nurses

Sno	Category	Characteristics	ANM n=45	SN n=103
1	Age	Less than 30 years	4	29
		31-40 years	19	38
		More than 40 years	22	36
2	Marital Status	Married	39	80
		Unmarried	6	23
3	General education	Less than 10th class	3	1
		10th class	27	14
		Intermediate	12	66
		Graduate and above	3	22

The staff nurses and ANMs were requested to comment on their work and factors that influenced them. Nursing personnel did not have copies of their job description. Only 7 out of 45 ANMs and 2 out of 103 staff nurses said that they knew about written job description but none of them had received any written documents. Fourteen out of 45 ANMs and 24 out of 103 staff nurses were aware about the duty roster. Only 3 out of 45 ANMs and only 2 out of 103 staff nurses said that they had written protocols for managing emergency maternal and newborn conditions.

Only 4 out of 45 ANMs and 12 out of 12 staff nurses expressed their satisfaction with present pay and allowances. Most of the ANMs received in-service education through RCH II and NRHM. Compared to this only a third of the (38 out of 103) staff nurses were getting in-service education for their professional development.

Two third of the nursing personnel interviewed said that they were getting adequate equipments and articles but more than half said that these were not in working condition. Supply of essential drugs was also a problem for ANMs and staff nurses - 33 out of 45 ANMs said the supplies of essential drugs was adequate and 63 out of 103 staff nurses said they are not getting the essential drugs in adequate amount.

Most of the ANMs said that they faced problem for communication and said land phone is not available in the field. Many time they had to use their personal phone for official communication. Only 18 ANMs and 55 staff nurses expressed that working environment is safe for them to work comfortably and securely. Only 26 ANMs said that they are getting adequate recording materials for documentation of their services. Regarding help for carrying out their activities, 29 out of 45 ANMs and 69 out of 103 staff nurses said that though some supporting personnel are available but it is not sufficient in the wards.

3.4 Workforce policies: Perception of nurses

The research team conducted focus group discussions and held workshops with different categories of nursing personnel. A total of 80 nurses participated in five FGDs and workshops. In addition 10 state and district level officers were interviewed. A summary of the findings related to workforce policies, practices and problems is given below under the main themes that come out of the discussion. .

"Promotions are too far away..."

No regular posting has been done since 1994 onwards for nurses. Nurses said they were not aware of written promotion policy for any cadre. Staff nurses mentioned that there was no promotion even after 33 years of service for general candidates.

ANMs mentioned that they were not interested to do promotional courses like LHV course because they were not promoted even after training. As per the Orissa government policy those ANMs who have completed 10 years of service and have passed matriculation examination can undergo LHV training after 5 years of experience.

In schools and colleges tutors were frustrated that the vacancies are not filled up and they are facing lot of problems due to this.

"No self development..."

The staff nurses are not deputed regularly for continuation education like workshops and seminars to update their knowledge in nursing and provide specialized bedside nursing care. There are no programmes for self development. Staff nurses wanted to undergo computer training as they were not able to use the computers. In many places, staff nurses were working alone and there is no chance for professional interaction and exchange. There is no access to book and journals.

There is no opportunity for doing B.Sc (N), "If some help is given we can also do IGNOU B.Sc (N)" said many nurses.

"Supervision? So, so..."

Staff nurses mentioned that ward sisters supervised them only about ward activities but "they don't provide any extra information related to patient care etc...."

ANMs said that they don't get any guidance or counseling from superiors at the time of crises or emergency situation - either technical or personal.

"Safety, security, where?..."

Staff nurses and ANMs said that there was no security in working places.

In hospitals, security guard is present only in the main entrance but there is no one to help in the different wards full of patients and relatives. This is specially difficult in the evening and night shifts. There is safety and security in night duties only in private hospitals and teaching hospitals.

"There is no place or changing and keeping personal things for nurses in hospitals"

ANMs in the sub-health centresaid that there is no security for them, ".... there is only a quarter with or without electricity and water supply and government is not taking any action to repair this".

"Universal precautions, how?..."

No strict sterilization or universal precautions are followed due to lack of supplies and many other problems - "autoclave is out of condition and no one supports for repair".

Staff nurses expressed that they are not following safety measures in working area. Some examples: Staff nurses said that autoclave was not working for past few years and they send written request to authority but no action was taken to repair or change it. Other methods of sterilization like gas, oven, boiler, pressure cooker etc. are not supplied in this case.

Equipments and supplies were not sufficient. The supply was highly irregular. So staff nurses are facing problems and are unable to give adequate patient care.

"Position but not facilities..."

DPHNOs said that there was no separate office room for them, no phone facility, no separate clerk even though they are responsible for the district. They have to work in a very non-conducive and non supportive environment. Vehicle is not provided to DPHNOs and this makes it difficult to do regular supervision and guidance in the field. They felt that government can provide two-wheeler to LHV and ANM and a vehicle to DPHNOs.

Office room for nursing officers only has intercom phone, and few chairs and table and Almirah. No computer or internet facility is provided.

In teaching hospitals there is no separate classroom with facilities to teach the students during clinical experience. Teachers do not have place in clinical areas, for classes and case discussions.

Nurse-patient ratio is not maintained and they are overloaded with work, so they are unable to give need based care to patients. They have more written work than nursing care. This makes them reduce the amount of time with patients.

No pay is given to nurses undergoing M.Sc. nursing. It is a self finance course and approximately Rs.40,000/- (approx) is spent for each semester. This is expensive for nurses.

Grievances and conflict resolutions: Most of the staff nurses said they were not aware of all the rules and did not know how to express their problems. Grievance day has been declared when staff could meet the health secretary to state their grievances about cases of harassment. These are handled by a Committee, to solve problems but cases are not coming into limelight because nurses are hesitant to come forward.

Some areas in which nursing personnel had grievances were:

Staff nurses working in infectious disease wards were not getting washing allowance.

Quarters are not sufficient and not in the hospital campus and house rent is not enough for the rented houses.

No canteen for nurses in the hospital campus and no safe drinking water facility in the duty room.

There are no facilities like crèche, transport, canteen and resting room etc in the working areas.

Though they are government employees and health staff, even nurses have to pay the user fee within the hospital where they work for medical investigation for self and dependents.

3.5 Nursing personnel on contract

The government of Orissa started appointment of staff nurses and ANMs on contract from 9th June 2003 onwards under the RCH programme. A total of 846 staff nurses were appointed on contract upto March 2009. In 2005, the government reviewed the vacancy position in all paramedical posts and ordered to fill-up these posts on contractual basis.

Interviews with individual nursing personnel who were on contract in the sample (34 staff nurses and four ANMs) and focus group discussions with different categories of nurses revealed that contract employees were facing many problems. A general feeling of unhappiness was observed among nurses about this policy. One common comment of the contractual nurses was that though the state had huge deficits in all categories, nurses were being taken on contract rather than on regular appointment. They were not sure of the reason and wondered how it would help the state if staff were unhappy and finally felt service. All the contract nursing personnel interviewed in this study wanted the government to stop contractual appointments.

It was observed that contract nurses work in a highly insecure work environment since they felt threatened that they will be terminated if they do not listen to seniors and officers. They felt they would be terminated for the slightest problem in performance, non compliance or any irregularity. They were also worried that salaries may not be paid in time since there were examples of some salaries being delayed upto four months. Contract staff were not eligible for quarters, had much lower leave benefits, did not have the right to transfer as regular staff.

Observations and responses showed that they were perceived to provide direct nursing care, were more punctual and regular in their duties, were more willing to stay late and do night duties. Interaction with patients in some places also showed that patients were more likely to approach the contractual staff nurses than regular nurses because contractual staff, being young and new, were more likely to listen patiently and answer patients' questions and doubts.

Table 19 Differences between staff on regular employment and contractual hiring

Areas	Regular nursing personnel	Nursing personnel on contract
Duties, shifts and workload	Posted mainly in the morning shift and night shift. Take on writing and supervisory tasks	Mainly posted in the evening and night shift. In the evening they were posted alone in the ward. Usually assigned to carry out difficult tasks, but not responsible tasks.
Salary allowances and benefits	Basic salary Rs.5, 500 for a staff nurse. A beginning staff nurse in government service gets about Rs.10,000 per month Quarters and room rent were available. Eligible for all allowances according to government rules	Consolidated pay of staff nurses Rs.4500. Getting Rs.1500 for extra allowance for SN at district headquarters and Rs.2000 for those outside district head quarters. ANM gets 5,400 per month. TA, dress allowance and other risk allowances are not provided. Dress allowance of Rs.2500 per year. Accommodation facility/ room were not available

Promotion and opportunity for higher education	The last promotion was given in the 1994. All the staff expressed unhappiness at lack of promotion. Inservice education facility available. Avail study leave along with pay.	The contractual employee works with the hope that she will become regular. There is no specific time period for becoming a regular staff. - No higher education facility. - No educational leave or pay.
Grievances	1.Not getting promotion for many years 2.Pay scales lower than central government scales for nurses 3.Opportunities for in service education are inadequate 4.Heavy workload and no support 5.Inadequate equipment and supplies	1. Heavy workload 2. Being dominated by regular staff Job insecurity. No safety and security. 3. Not satisfied with consolidated salary 4. Inadequate equipment and supplies
Knowledge and skills	Knowledge about recent trends is very low as they are working in the same area for a very long time and do not have regular inservice education More skilled and confident as they were working in the same environment for very long period	Knowledge about recent trends is high as they are fresh graduates. Their overall subjects knowledge in also high. They have basic skills but are not confident. They are learning on the job and improving skills with help of regular staff.
Patient satisfaction	Handling more patients and do not have time for each patient. They shout at patients and so the patients were not satisfied. As the supplies were inadequate they were negligent about patient care. Usually very strict with visitors and patient relatives approach them with fear	As they were new, they are very polite and give maximum care to patient. So the patients like their support and care. Patients and relatives approach them as they are new and were willing to listen and explain things. They have to spend time on this.
Chain of communication and reporting	They ordered subordinates and get their work done. Involved in maintaining registers, reporting and attending rounds with the doctors.	Carry out orders of the regular staff nurses as they are seniors. Most of the time they are given hard work.
Leave	Eligible for all leaves as government employees Maternity leave - 3 months Casual leave - 15 days Earned leave - 33 days 5 days off in a month	Maternity leave - 3 months Casual leave - 12 days 5 days off in a month

One needs to weigh the benefits of performance against the disadvantage and inequities of low pay, heavy workload and threat of termination and the consequent human suffering. Contract staff have taken the job because they did not have any other option and faced many problems with family adjustment and child care. During interviews, it was revealed that some of them were afraid to reveal problems because they are on contract. It is necessary to ensure that no individual is threatened or exploited due to vulnerabilities related to economic hardship, unemployment and gender.

It is also important to review the policy of contract employment for another reason too. In the long run, it may be more economical to have satisfied and challenged staff who will strive for higher performance, job satisfaction and achievement rather than to have large number who perform better due to fear pressure and save themselves from termination.

3.6 Career progression

The two entry level posts in nursing are ANM / MPHW (F) in public health side and staff nurse in clinical side. The ANM enters service at the average age of 19 years and the staff nurse enters at about 21 years if they get appointed immediately after completion of studies. Though the general education required is 10 years for ANM and 12 years for staff nurses nearly half of the sample ANMs and quarter of the staff nurses interviewed had completed higher education.

The career ladder for nursing personnel in Orissa has too few steps and takes too long to climb to the next step. The ANM can usually climb only one step, the staff nurses one or two steps only the entire government service spanning more than 30 years. The ANMs' career ends as a Female Health Supervisor which she usually gets after 20 years of service as an ANM. The staff nurses' career usually ends as a head nurse, which she gets after 24-25 years as a staff nurse. A staff nurse however has opportunity to become a tutor if she completes post basic B.Sc. (N) or Diploma in PHN. These doors are closed to the ANM.

Existing Career Ladder for ANM: There are 7215 ANMs in Orissa and 982 posts of LHV. Therefore only 13.6% ANMs have the chance to become a LHV at any one time if they complete LHV course. There is only one LHV training centre. ANMs are given opportunity to undergo LHV training after 5 years of experience as ANMs. At present those who have passed the LHV course are not getting immediate promotion. The minimum age of ANM when she becomes HV is 39 years. There is no scope for the ANM for undergoing any bridge course that is likely to give her better opportunities as most ANMs enter service and retire as ANMs. The next post after LHV is PHN. But Orissa currently does not have posts of PHN in the PHCs, CHCs or blocks. So almost all LHVs retire as LHVs.

Figure 8. Existing career ladder for ANMs of Orissa

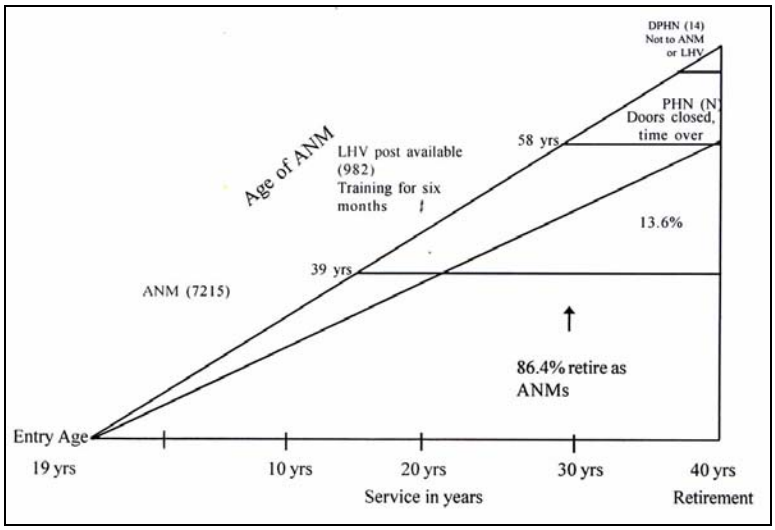
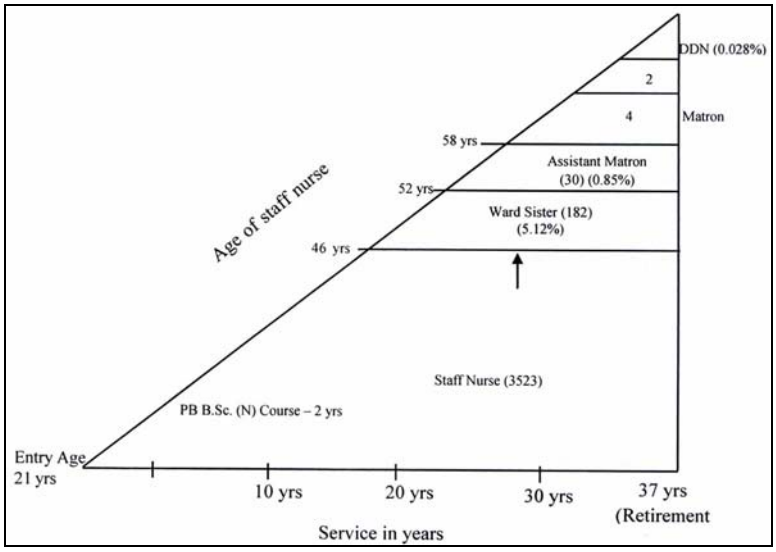


Figure 9. Existing career ladder for staff nurses of Orissa



The state had 14 posts of DPHNO. The qualification for DPHNO is B.Sc Nursing or Diploma in Public Health Nursing. The door to DPHNO post is closed to the ANM since it is almost impossible for her to undergo additional courses during her service. This stagnation for nearly 20 years in each post demotivates and frustrates ANMs in Orissa. Both PHN tutor and sister tutor are eligible for the post of DPHN if they complete B.Sc (N).

b. Existing career ladder for staff nurses: The staff nurse enters training after class 12 and undergoes a three year diploma course in general nursing and midwifery and a six months internship programme. The minimum age for entry into the training is 17 years. Considering that they are getting immediate government service after passing out from GNM training they are likely to enter service at 21 years. At present Orissa has 3523 staff nurses.

After five years of service staff nurses are allowed to undergo higher education in nursing. The opportunities for this are negligible because there are only two options - post basic B.Sc Nursing as regular candidates at government college of nursing or post basic B.Sc nursing through distance education from IGNOU. This is also coordinated by the only government college of nursing in Berhampore. The number of seats are 20 and 30 respectively for regular and distance learning. Two other options that nurses in other states have are closed to nurses in Orissa - DNEA to become tutor or ward sister and DPHN to become a public health nurse. The DNEA was never started in the state and the DPHN was closed down in 1999 after it had trained 121 public health nurses because there were no faculty.

It was observed that many staff nurses who completed post basic B.Sc Nursing are not getting promotion and are eligible for only two increments and so are not motivated to study. The next promotion post for staff nurses is headnurse or nursing sister or ward sister and the current sanctioned posts are 182 (5%). The average time to reach this post is about 25 to 28 years. Very few nurses will reach this post when they are nearly 50 years old.

The next step on the career ladder for staff nurses is assistant Matron –there are only 30 posts in the entire state. Less than one percent staff nurses will reach this. Another six years (approximately) is required to reach this post and by this time the age of the staff nurse will be approximately 52-55 years and she will be nearing retirement. In another four years, if there are vacancies she may be promoted as matron. By this time the staff nurse would have retired.

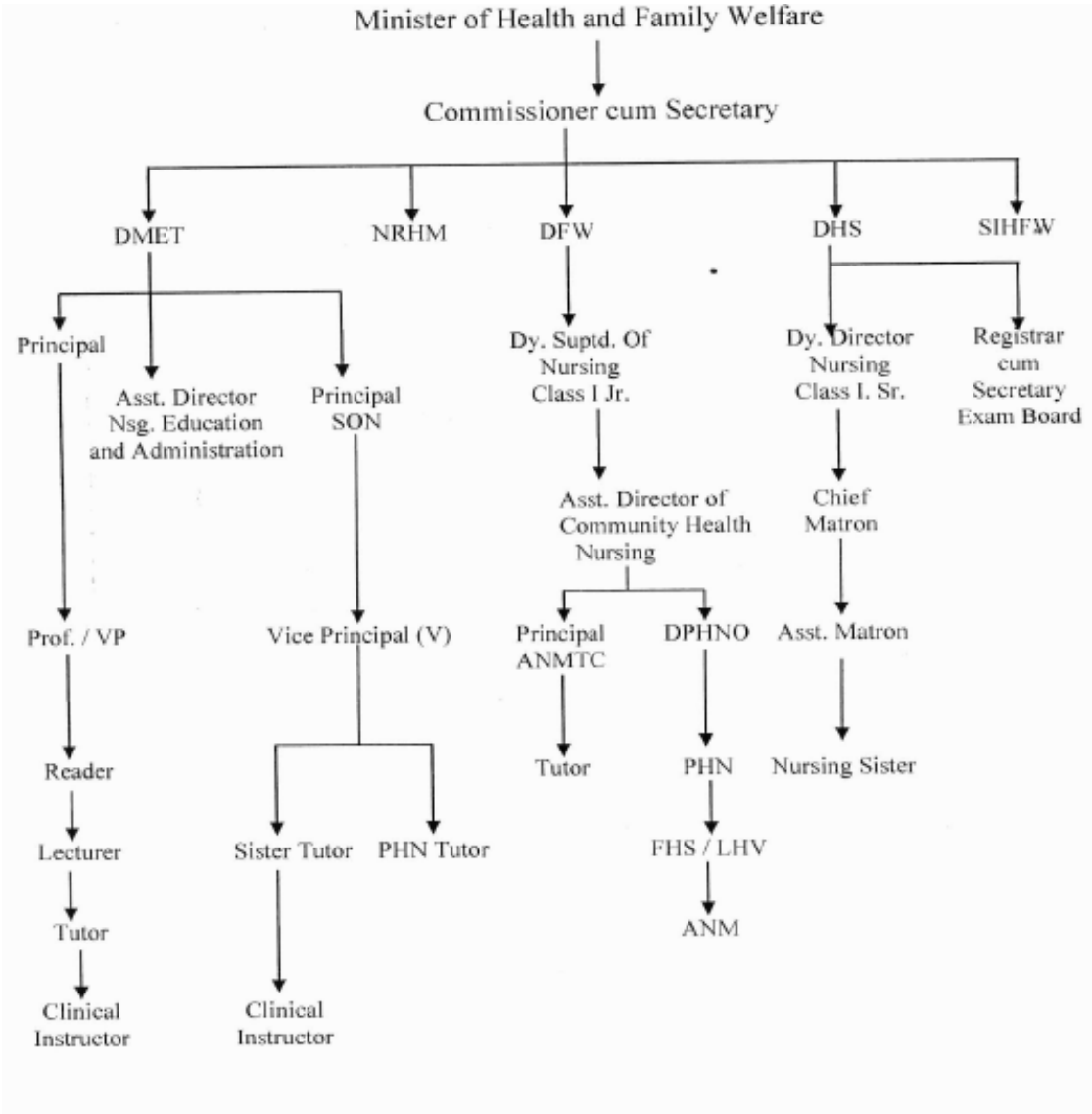
Overall the career pathway for nursing personnel in Orissa is grim with too few promotional avenues and too many hurdles. Even those who have completed the next qualification such as LHV training and post-basic B.Sc Nursing have not been promoted due to administrative delays and policy barriers.

3.7 Management and administration of nursing services

The existing organization chart of nursing in Orissa shown on page 37 indicates the low position of nursing in administration and policy matters. There are very few positions at Class One officer level for nurses, though the workforce they represent is massive. The highest positions at state level available to nurses are :

- Deputy Director of Nursing, Class I Senior, under DHS
- Principal College of Nursing, Class I Senior, under DMET
- Deputy Superintendent of Nursing (Class I Junior) under DFW
- Assistant Director Community Health Nursing, Class II, under DFW
- Assistant Director of Nursing Education, Class II, under DMET

Figure 10. Organizational Chart of Nursing in Orissa



Analysis of the management structure of nursing at state level reveals three main problems

Too few at the top: There are very few positions at state level for undertaking management functions efficiently and many top management positions are vacant. For the massive workforce of more than 12000 nursing personnel in the state in government sector, there is only one DD nursing post at Class I. This post is vacant and the deputy superintendent of nursing is acting incharge. Nursing administration is carried out by only three posts - deputy director of nursing, assistant director of community health nursing and assistant director of nursing education. The workload is heavy - administering educational programmes. It was observed that they work in crowded rooms and little assistance. They are overworked and frustrated. Burn out and apathy were evident.

Table 20 Administrative location and nursing personnel

Cadres of Nurses	DFW	DHS	DMET
ANMs	7215	-	-
LHVs	982	-	-
PHN (tutors)	3	-	-
DPHNs	14		
Staff Nurses	-	3523	-
Nursing sisters / Head Nurses	-	182	-
Assistant Matron	-	30	-
Matron	-	4	-
CNO / Chief Matron	-	1	
Nursing Institution			
Principal			18 +1*
Reader	-	-	1
Lecturer	-	-	1
Clinical Instructor	-	-	6
Nursing Tutor	-	-	88
State Level Officer	-	1	2
Grand Total	**8214**	**3740**	**117**

Most promotions at senior level are "acting or incharge" giving the occupants very little administrative decision-making power or representation in policy making. There is a low level of leadership and capacity at the top to provide technical guidance and take up governance and management tasks related to nursing personnel. There is very little opportunity for capacity development. There is no cohensive nursing workforce working together on professionals. Nursing personnel are controlled by atleast three medical directors.

Distributed and controlled by many departments: Nursing personnel are distributed in three different streams in the medical and health department - resulting in low level of professional sharing and interaction. All nursing personnel working in public health areas (ANMs, LHVs, PHNs, and DPHNs) numbering a total of 8214 are under the control of the Director of Family Welfare. The Deputy Superintendent of Nursing who is responsible for administration is posted as Incharge Deputy Director of Nursing. The administrative responsibility therefore falls on assistant director of community health nursing. Clinical nursing personnel from Staff Nurses to Chief Matron and the DDN – (3740) are under the control of the Director of Health services. The administrative post of Deputy Director, Nursing is vacant and because the Dy. Superintendent of nursing is acting as incharge, she is unable to intake or implement policies for strengthening nursing workforce in the state. All the teaching faculty of ANMTC, LHVTC, Schools of Nursing and College of Nursing – (117 senior nursing personnel) - are under the management of the Director of Medical Education and Training. The assistant director nursing education and administration has the responsibility to merge this stream. This is a lower post compared to the Principal of College of Nursing.

Low management capacity: The educational background of nurses does not prepare them to tackle administrative issues. For example, they had not had opportunity to attend leadership or management courses, have not been prepared to write reports, make plans, monitoring programmes, meet the media, advocate with policy makers. Since their entry into service they have worked as team member, not as team leader. Even when they reach positions of leadership they hesitate to lead.

Currently, only one Class One Senior post in nursing is filled by a Nurse (the post of Principal, College of Nursing). But this is located at Berhampur and has specific responsibilities as the head of an institution and with responsibilities for merging educational programmes. Administrative matters and decisions are not being attended by nurses as the highest post in the state capital is not filled. Within the teaching hospitals, there are three sanctioned posts of Chief Matron at Class One Junior level. But, they are not dealing with day to day administration at state as they work large.

In short, there are many management issues that need to be sorted out at the state administrative level before nursing can be strengthened.

3.8 Nursing in the Private Sector

Study of the private medical and nursing sector is a massive task and could not be undertaken fully in this rapid assessment. It was difficult to gain an understanding of the volume of nursing personnel employed in the private sector and the quality and other issues related to it. This study touched the private sector at two points: Nursing education and availability of nursing personnel and their perceptions. The first was done through visits to 11 private nursing educational institutions. The results are presented in Section Four.

The research team attempted to study private hospitals and nursing homes and interact with nurses. But this was possible in only three hospitals.

The research team visited eight private hospitals and interacted with the officials for permission to interview nursing personnel and observe facilities for nursing care including working conditions. Most of the hospital authorities refused to allow interaction with nurses. Permission was obtained from three hospitals for detailed observation and interaction with the nursing staff. Nine staff nurses (seven GNM and two B.Sc) and one ANM were available for interview. The findings below are based on these interventions.

- Nursing staff in private hospitals were hesitant to provide any information about themselves or their working condition. Observation revealed the following issues.
- Not even half of the ‘nurses’ working in private hospitals are qualified nurses. This means that standards in these hospitals are not met. Young girls and boys were trained for short period and used as nurses. One hospital owner said, “what is so special about nursing? Three years is not necessary for nursing. Young girls or boys can be taught in one month to give injections and do dressings. They can also be taught to assist in surgery and do delivery.”
- Pharmacists were carrying on the work of nurses because they could dispense drugs, give injections and paid lower than nurses.
- Recruitment was according to requirement. The candidates who approached the hospital were interviewed and appointed on contractual basis if they agreed to terms of work. They usually had a contract for one year. The hospitals did not advertise the posts because they needed only few persons.
- Nurses said they had job satisfaction because facilities were available of carrying out functions. Nurses had a nursing station and place to write, sit and work. Working conditions in the private hospitals were satisfactory because patients bought all the essential items for care.
- The salary of staff nurses was around Rs. 4000 much lower than the Rs.6,000 that contractual staff nurses in government received.
- Safety and security of girls was better assured in private hospitals according to the ten nurses interviewed.
- There was acute staff shortage in private hospitals leading to heavy workload. For example one 80 bedded hospital had a total of ten staff nurses who were rotated during the 24 hours.

Usually one staff nurse had to take care of about 30 patients. Some of the work was done by pharmacists and assistants.

- Nurses working in the private sector did not get opportunity for in service education. There is job insecurity because they could be terminated any time.
- Supervision of nurses is done by doctors during rounds as there were no senior nurse. There is no chance for promotion.
- The nurses said that they did not have opportunity for government job and so they joined in the private hospital.

An assessment of nursing personnel employed in private sector could not be done because there was no transparency whether persons working in private hospitals were qualified nurse. To gain a picture of the issue an assessment was made of private sector in one district - Bhadrak. Senior nursing homes were identified. All had inpatient beds and were managed by one full-time doctor who coordinated with several part time consultant for specific services, nursing service were provided by very few qualified nurses. Girls and boys from the local area were trained for a short time and worked as 'nurses'. Pharmacist dispensed drugs, gave injections and IV fluids. Nurses had a heavy workload.

Table 21 Case study of nursing personnel in private sector in Bhadrak district

Sno	Hospital / Nursing Home	No. of beds	Services provided	Full time qualified doctor	Qualified nurses	Others
1	Subham	10	Deliveries, cesarean section, eye surgery, abdominal surgery	1 eye specialist	Nil	5 -one pharmacist 4 girls
2	Salandi	20	Deliveries, General surgery, cesarean section	1	4	NA
3	Padi	10	Obst and gynae specailization	1	2	NA
4	Nayak	10	Obst and Gynaec	1	2	1
5	Nalini Kanto	10	OPD, ward and general	1	-	1
6	Akhi	10	OPD, Ward and general		1	1
7	Apex	10	OPD, Ward and general	-	-	2 Pharmacist

The findings of this study showed that many B.Sc. (N) graduates are working in the private hospital as they were not absorbed in the government sector.

Section Four

Nursing education in Orissa: Availability, capacity and quality

4.1 Availability of nursing education programmes

The Indian Nursing Council prescribes syllabi, sets standards, approves courses and regulates quality of nursing education in the Country. At present there are three entry level nursing courses in India and several layers of post certificate, post diploma and post graduate courses. The three entry levels courses are ANM training for 18 months leading to a certificate, GNM training for 3 1/2 years leading to diploma, B.Sc. Nursing for 4 years leading to degree in nursing. Orissa has all three basic education courses. However the number of institutions of nursing education in Orissa is low compared to many states, specially in the case of basic and postbasic colleges of nursing and M.Sc. programme.

Table 22 Availability of nursing education programmes in India and Orissa

	Course	India*	Orissa	%
1	ANM / MPHW (F) training for 18 months after 10th class.	487	40	8.2
2	General Nursing and Midwifery (GNM) training for three years after 12th class or intermediate.	1805	30	1.7
3	B.Sc. Nursing for four years after 12th class with sciences	1069	13	1.2
4	Post basic B.Sc. Nursing for two years for staff nurses with GNM diploma	129	1	0.8
5	M.Sc (N) for two years after completion of B.Sc. Nursing.	153	1	0.7
	Total	**3643**	**85**	**2.3**

*** INC 2008-09**

Except for the one post-basic nursing and M.Sc Nursing programme being conducted in the government college of nursing at Berhampore, Orissa does not have institutions offering higher education in nursing either in government or private sector. The M.Sc. college was recently opened and only one batch has passed from this course. The number produced is too inadequate to fill the vacant teaching posts. Infact the diploma course in public health nursing that was being conducted in the college of nursing had to be discontinued because the university refused to continue giving the diploma.

4.2 Development of nursing education in Orissa

Modern nursing became established in Orissa toward the end of 19th century. Christian Hospital in Berhampur (called the Zanana Hospital) was started in 1900 to care for mothers and children. This hospital started training of nurses in 1905 in an informal manner but from 1926 the hospital began training nurses for three years. The Orissa Nursing Council was enacted in 1938 and the above training programme came under its purview in 1941. This school became affiliated to the Mid India Board from 1998 onwards.

For nearly four decades after independence, nursing education was limited to only a few ANM and GNM schools attached to government and mission hospitals. In 1956 GNM and ANM schools were also started at Berhampur.

Table 23 Distribution of nursing educational institutions in Orissa

	Institutions	Govt.	NGO	Others	Total
1	ANM schools (MPWS – Female)	16	**1**	**23**	**40**
2	LHV training school	1	Nil	Nil	1
3	GNM school (3 government and two undertaken)	5	4	**21**	**30**
4	Colleges of Nursing (Post Basic B.Sc.)	1	Nil	Nil	1
5	College of Nursing (B.Sc.)	1	Nil	**12**	**13**
6	College of Nursing (M.Sc.)	1	Nil	Nil	1

At present, there are 17 ANM schools including 16 in the government sector and one managed by missionaries all started 40 years back recognized by the Indian Nursing Council. During the last decade, 23 ANM training institutions were started in the private sector. Though other schools for ANM training were started in the private sector, there were several problems of adherence to standards and so the students who studied here could not appear for exams.

The three GNM schools of nursing managed by the government sector are attached to the three medical colleges – Srirama Chandra Bhanja Medical College Hospital in Cuttack, Maharaja Krishna Chandra Gajapati Medical College in Berhampur, and Vira Surindra Sai Medical College Hospital at Burla. In addition, four Schools of Nursing in the State are run by Missionary Groups – Christian Hospital, Berhampur; Catholic Mission Hospital, Nuagaon; Bissam Cuttack Mission Hospital, Rayagada; Jyoti Hospital, Balasore. There is one school at Ispat General Hospital, Rourkela. Another school of nursing is under the Mahanadi Coalfied Limited at Talcher, Denkanal. Besides the above, there are 21 schools of nursing in the private sector that were opened recently.

Collegiate nursing education: Currently, there is only one college of nursing in Orissa in the government sector and 12 colleges in the private sector started within the last five to six years. The government college of nursing is located at Berhampore. This Institute was built with funds and technical inputs from the UK Overseas Development Agency (ODA) in 1983. The first course conducted in this college was a diploma in Public Health Nursing. Later the ODA provided teaching aids, facilities and faculty to start a four year degree course. Faculty were brought on contract and loan from the Government of West Bengal (during 1993-94). This college awarded Diploma in public health nursing to 121 nurses, produced 239 graduates with post basic B.Sc. Nursing Degree, and 86 nurses with Basic B.Sc upto December, 2008.

The college has been facing many hurdles in its existence over the last 25 years - discontinuation of courses, extreme shortage of teachers, lack of financial support for courses from government, lack of deputation for higher education, non-absorption of graduates into higher posts, etc. Recently, education in this government college of nursing has become partly private since students of even B.Sc. programme have to pay fee and living expenses. According to the latest information the college of nursing is to be strengthened into a centre of excellence in nursing.

Post-Basic B.Sc. Nursing: Within a year of starting the Institute in Berhampur, a two year post-basic B.Sc. Nursing course was started with an intake of ten students (1986). The strength was increased to 20 from 1996 onwards. Intake of students into post basic B.Sc course was stopped from 1997 to 2000 because the course was derecognized by INC due to inadequate nursing faculty.

B.Sc. Nursing through IGNOU: The College of Nursing at Berhampur is also a study centre for post basic distance education leading to a B.Sc Nursing degree by IGNOU since 2003. The annual intake of 30 students in each batch.

M.Sc. Nursing: Postgraduate course in nursing was started in 2006 at the College of Nursing in Berhampore. The government was not willing to provide financial support and so the course was started as a self-financing programme. Ten students were admitted each year and specialization was offered in four fields. The first batch of post graduates passed out in 2008-09.

Courses that were conducted earlier and later discontinued

Midwifery education: Midwifery used to be an additional course after nursing for many years – for about one year initially and later for six months. Midwifery course was considered an advanced and specialized course. Students who passed out from the nursing course could come back to the school for one year midwifery training. The course is now discontinued and the subject is merged into the nursing syllabus following guidelines from the Indian Nursing Council. There is no cadre of midwives today though all those passing from GNM institutions are registered midwives (RM). An auxiliary nursing and midwifery course used to be conducted for two years with focus on maternal and child health. Though the course was auxiliary to nursing, it in fact had strong midwifery component. The course was discontinued after 1997 when the Indian Nursing Council reduced the period of training from two years to 18 months.

Public health nursing education: Diploma in PHN was started in 1983 with 20 students as a one year course after GNM to prepare nurses to take on public health nursing functions in the periphery and districts. In fact this was the first post certificate training programme to be launched in Orissa. The Diploma was awarded by the Bhanja Vihar University. This course was continued upto 1998 and 121 students graduated from here. Most of them were appointed as DPHNOs on the guidelines of the GOI issued in 1983. In 1999, the University inspected the Institute and refused to continue to award the diploma. This was unfortunate since the number of districts have increased and there is acute shortage of DPHNOs in the state.

4.3 Facilities in nursing institutions in Orissa: Findings from study of institutions

The research team visited 19 institutions to observe facilities and to interact with teachers and students. The number visited included eight ANM training centres (four government and four private); six GNM schools of nursing (three government and three private) and five colleges of nursing (one government and four private).

Comparison of nursing education in government and private institutions

The findings reveal many gaps and inadequacies in facilities with overcrowded classrooms and living rooms in government centres. In private sector, many places are under construction and so students are living in rented rooms.

Category	Govt. Training Centres	Private Training Centres
Class rooms	• All had own buildings. Number of classrooms are adequate but not spacious. Students are sitting crowded together. The room is noisy due to its location near bus stand. Electricity is present but number of fans are inadequate. • Tables and chairs are not adequate	• Most of the ANMTCs had own building. Numbers of classrooms are adequate, spacious and free from outside noise. Rooms are well ventilated. Electricity and adequate number of fans are present. • Tables and chairs are adequate.
Library	• One small room is allotted for library • Racks with books occupy most of the space. There is no sitting arrangement for the students. Librarian is not available	• Library facilities are inadequate. In some Institutions Library was under construction. There is no librarian in many institutions
Skill lab	• There is no skill lab for midwifery practical classes. The same room is used for theory and practical demonstration. • Only a female dummy is available in most of the training centres. No other models are available for demonstration.	• No separate skill lab for midwifery practices. One room is kept separate for practical classes but not used during demonstration. • Female dummy and some organs and models are available.
Teaching facilities	• Only few charts are available. Electronic AV aids such as OHP, LCD projectors, computer are not available in most of the schools. In some OHP projector is there but it is under cover or closed.	• No electronic AV aids like OHP, LCD projectors in many institutions. • Classes are also taken by part time part time teachers due to faculty shortages.
Hostel	• Hostel accommodation is available in the campus of the training centre. Rooms are not sufficient. Each room is furnished with one bed and two tables but no cupboard. Toilets are inadequate and in poor condition. No safe drinking water facility.	• Hostel accommodation is available in the Training centre. Some centres are in rented building and students are staying in crowded rooms. Facilities like toilet, tables, chairs, cupboard and safe drinking water are adequately available.

4.4 Profiles, perceptions and practices of teachers:

Forty five nursing teachers were interviewed in 19 institutions. Effort was made to include teachers involved in midwifery teaching, community health and child health. Only 8 out of 45 teachers had M.Sc. Nursing qualification. Majority had a B.Sc Nursing degree - 14 had post-basic and 18 basic B.Sc. Nursing. Eight teachers had done diploma course after the GNM course. More than half had less than ten years' teaching experience. Only five out of 45 teachers had opportunity for inservice education related to midwifery though most of them were teaching this subject. Only eight out of 45 teachers participated in national conferences related to the subject they were teaching. It was observed that 33 out of 45 teachers conducted delivery regularly to demonstrate the procedure to students posted in the labour room. Thirty three out of 45 teachers said that they supervised their students in the labour room. Supervision in antenatal and postnatal units was not as regular as that in labour room according to teachers. Only 14 out of 45 teachers participated in clinical teaching regularly.

Figure 11. Rotation plan in private school of nursing (Kalinga SON) was prepared by the Principal with the help of the tutors. The programme is being maintained as per the plan of the students and strictly followed.

Most of the teachers demonstrated steps of antenatal and postnatal examination, care of the breast and perineal care in the clinical area. Childbirth assistance was first demonstrated in the lab and then in the labour room by most of the teachers. Only 18 out of 45 teachers said they demonstrated partograph plotting. Half of the 45 teachers interviewed said that they demonstrated baby resuscitation, kangaroo mother care, breast feeding and health education about home-based care.

Figure 12. Fundamental of nursing lab in a private school of nursing (Kalinga SON), neat adequate and is

Class test was the most frequently used method of evaluation of students. In addition to class test, 37 out of 45 teachers used return demonstration to evaluate the students' skill. Thirty five out of 45 used case presentation as a method for evaluation of students. Seminar and panel discussion method were also used by 28 out of 42 teachers. Very few teachers used case study method to assess students' understanding of the condition and the care provided to clients.

4.5 Perceptions and problems expressed by students:

The research team interviewed 155 students from various institutes - 61 students from ANM training centres, 67 students from GNM training institutes, and 27 students from college of nursing. The students were selected from final year or semester of the programme so that they were aware of midwifery subjects.

Most of the ANM students received clinical posting and completed experiences in labour room and postnatal ward. Fewer (about half) had experiences in antenatal ward and family unit. Most of the GNM students of third year fulfilled the requirement of clinical posting at antenatal clinic, newborn unit, antenatal ward and postnatal ward. Most of the B.Sc. (Nursing) students also said that they completed clinical posting in postnatal ward, newborn ICU and antenatal ward, labour room and antenatal clinic. Here too, less than half completed clinical posting at family planning unit.

Figure 13. Library in a private ANM training centre. The number of books were very less. No seating arrangement and no

The data show that students in different programmes were given experiences according to the syllabus.

Table 24. Students' performance in MCH care

Sno	Learning area	ANM students (n= 61)		GNM students (n=67)		B.Sc. students (n=27)	
		Under supervision	Indepen-dently	Under supervision	Indepen-dently	Under supervision	Indepen-dently
1	Conducting delivery	46	12	58	20	21	12
2	Antenatal examination	41	23	56	32	16	11
3	Postnatal care	34	24	51	39	18	16
4	Newborn resuscitation	52	18	52	23	22	9
5	Prevention of hypothermia	46	20	46	35	15	16
6	Immunization	43	25	57	30	18	15
7	IUD insertion	43	25	66	21	19	14

Though most of the students completed witnessing key components of maternal and child health there were gaps in actually practicing the skills. While half of the B.Sc nursing students completed the required number in terms of delivery, this figure was one third in case of GNM and one fourth in case of ANMs. Larger number of students witnessed deliveries compared to actually assisted (39 and 17 respectively). Very few (10) performed episiotomy suturing and neonatal resuscitation or IUD insertion (20).

Figure 14. Patient care articles in a private ANM training centre for Fundamentals of Nursing and Community Health Nursing

In short, students were getting experience in rural care in pregnancy, delivery and postnatal period. Postnatal care experiences showed more gaps compared to antenatal or intranatal. Students did not get enough opportunity to practice resuscitation of newborn and hypothermia prevention. Perhaps they need to make observations in abnormal or high risk cases and practice more on dummies and simulators. Reports of students also showed that most of them were able to complete experiences under supervision but they did not get opportunity to complete the required number of cases independently.

Supervision and guidance: Most of the students of all categories expressed satisfaction with classroom teaching. About half of the students of all three categories said that they were supervised and guided regularly in the clinical areas. Besides teachers, staff nurses, ward sisters and doctors guided students during clinical experiences.

Majority of ANM and GNM students expressed satisfaction with clinical supervision and evaluation and about one third said they were not satisfied and that the method of evaluation needs improvement. About half of the B.Sc. Nursing students said they were not satisfied with the quality of supervision in the clinical area and most of them said they were not satisfied with the clinical evaluation system.

In summary, nursing education in Orissa is faced with a range of problems - poor facilities, inadequate teachers, incomplete practical experiences. Above all, students did not get adequate experience in independent performance of skills. Library and skill labs are almost non-existent. Teaching aids and material are out dated. There is an urgent need to review the teaching methods and evaluation systems so that students have meaningful learning experiences.

Figure 15 - Models in a government ANM training centre. The models were very dusty indicating that they were not used. The library was also in the same room, but the cupboards containing the books were not accessible due to chairs arranged in front.

Section Five
Recommendations for strengthening nursing in Orissa

Nursing personnel are required in every sphere and level of the health care delivery system. Nursing personnel work in a wide range of situations from Sub-Health Centres to medical college hospitals. Nurses are essential for health promotion and disease prevention in the periphery as well as to carry out sophisticated medical interventions in tertiary hospitals. Nurses are crucial to patient treatment and recovery because they provide continuity of care in hospitals due to their unbroken presence round the clock. Moreover, they are links in the continuum of care from preventive to rehabilitative, from community to hospital and back to community.

The scope of work of nursing personnel is enormous. Orissa has 6688 health Sub-Health Centres, 1279 primary health centres, 231 community health centres, 22 sub district hospitals, 32 district headquarters hospitals, and three medical college hospitals. Besides the above, there are 16 ANM Training Centres, one LHV Training Centre, three Schools of Nursing, three Health and Family Welfare Training Centres, one Regional Training Centre and one College of Nursing. Nurses are required for the smooth functioning of each of these government health facilities and training institutions. In addition, there is a significant and ever growing private health sector which is increasingly absorbing trained nursing personnel. Sufficient numbers of nurses equipped with appropriate skills and knowledge are essential for achieving goals set by NRHM. In Orissa, there are acute shortages in almost all cadres of nursing personnel hampering the achievement of NRHM goals.

It is within this context that the assessment of nursing workforce in Orissa was undertaken by the Academy for Nursing Studies on behalf of the National Health Systems Resource Centre (NHSRC) in 2008-09 with the approval of the NRHM, Government of India and with the cooperation of the government of Orissa. The findings indicated acute shortages of nursing and midwifery personnel at all levels.

The Government of India recognized that the availability of human resources in rural areas "is one of the serious challenges faced by the National Rural Health Mission" (Official Communication, GOI, 2006) and stated, "… a possible solution to this problem, would be to encourage the selection, recruitment, training and placement of nurses in a big way by the states. In fact, it would be desirable to constitute a Nursing Cadre by all States, so that their selection, training, placement, career progression etc. could be taken up in a systematic way".

The findings of the situational analysis provide a framework for addressing shortages and preparing an action plan for strengthening nursing, midwifery and public health nursing in Orissa. Urgent action is required to address shortfalls and meet immediate needs and also prepare concrete action plans for preventing shortages, reducing discrepancies and inequities in the future.

Nursing and midwifery workforce in Orissa consists of personnel working in three distinctly different areas: public health, clinical services and teaching. Accordingly, the recommendations and action plan were designed to address shortages and strengthen nursing and midwifery in the State.

This section is organized into two broad sub sections. The first part gives the recommendations and the second part presents a draft action plan.

Key issues to be addressed:

- Acute shortages in all cadres of nursing
- Highly inadequate faculty at all levels
- Inadequate promotional policies
- Weak nursing management at state and district level
- Inadequate and poor quality nursing education
- Discontinued courses and cadres in public health nursing and midwifery
-

The recommendations are detailed below in four sections

5.1 Addressing shortages in nursing personnel

5.2 Addressing shortage of nursing teachers

5.3 Designing career progression

5.4 Strengthening nursing management

5.1 Proposals to address shortage of public health nursing personnel

The findings of the nursing situational assessment revealed huge shortfalls in frontline workers and supervisors - ANMs and LHVs - for delivery of public health services; and staff nurses and head nurses for hospital-based services. The findings also revealed the absence of PHNs. The number of DPHNOs is also too small to make any observable improvement in public health nursing in the State. In the teaching institutions there is a huge shortfall of tutors and clinical instructors. The present recommendations attempt at addressing these problems.

Table 25. Overall shortage of nursing and midwifery personnel

Nursing Personnel	Shortfall	Total shortfall
Public Health and Clinical		
ANMs	7799	19666
LHVs	297	
PHNs	231	
DPHNOs	50	
Staff Nurses	10669	
Head Nurses	417	
Assistant Matrons	96	
Matrons	107	
Faculty ANM, GNM and LHV schools		34
Principals	2	
Vice Principals	3	
Nursing Tutors	26	
Additional Tutors	3	
Total	34	
Faculty – Nursing College		23
Principal	Nil	
Vice Principal	1	
Readers / associate professor	3	
Lecturers	5	
Clinical Instructors	14	

5.1a. Proposals to increase the number of ANMs:

ANMs are vital frontline health workers - critical for programme implementation, technical service provision for mothers and children, giving first aid, treating minor ailments and gathering vital information. Most importantly they act as agents of change and promote health through education and information. Different options are presented here to increase the number of ANMs in Orissa.

- Increase capacity of current training centres
- Start new ANM schools in the public sector
- Strengthen private ANM training institutes

- All the 16 ANM Training Centres in the government sector and the training centre in Bissam Cuttack Mission Hospital can admit additional students with some renovations, additional facilities, and increased number of teachers. If the intake per year is doubled in each of these centres, 1320 ANMs can be trained within 18 months from the date of starting this scheme.
- As an alternate measure, the government of Orissa could start 14 new ANM Schools preferably in tribal areas like Balangir, Nawarangapur, Rayagada, Malkangir, Kandhamal where minimum 100- 150 bedded sub-divisional hospitals are present. This could be undertaken in collaboration with the tribal welfare department.
- The 23 private ANM schools would provide for 645 ANMs annually.
- The issue of candidates from private ANM schools could be resolved by inviting the representatives of these institutions for a discussion, identifying the gaps, implementing a bridge course to fill gaps, and allowing the students to appear for examination in consultation with the nursing council. This measure will help to get the additional candidates into the pool.

Table 26. Year wise plan to produce adequate number of ANMs and LHVs

Institution		Annual Intake		Annual Output				Total 2013
	No	**Existing**	**Proposed**	2010	2011	2012	2013	
Existing government ANMTC	16	40	80	640	640	1280	1280	3840
Bissam, Cuttack	1	15	40	15	40	40	40	135
Private Sector	23	645	645	645	645	645	645	2580
Proposed ANMTC in government	14	-	700	-	-	700	700	1400
Total	**54**	**700**	**1465**	**1300**	**1325**	**2665**	**2665**	**7955**

5.1b. Proposals to meet the shortfall of LHVs, PHNs and DPHNOs:

There is one LHV Training Center at Berhampur with infrastructure and faculty as per INC norms with an intake of 30 per year. In fact this is the only Centre in the state that does not have shortfall of teachers. The admission capacity of this Centre could be increased to 45 candidates. Admission could be made more frequent - once in six months instead of once in a year. This could be implemented from 2009 onwards. With the increased admission capacity of 45 additional LHV candidates every six months 360 LHVs could be obtained by 2013 as shown in table 27.

Table 27. Expected number of LHVs to be trained by 2012

	Institution	**Yearly intake**	**LHV passing out**				Total by 2013
			2010	2011	2012	2013	
1	LHVTC, Berhampore	45 every six months = 90	90	90	90	90	360

Orissa does not have posts of PHNs in the field at present. The shortfall of PHNs is 231. The three Health and Family Welfare Training Centres can be used to prepare PHNs by starting the one year DPHN course. The admission capacity could be 30 in each HFWTC. From the four training centres 120 students will come out every year and will be ready to fill the post of PHNs that are vacant in the State. Within two to three years all posts of PHN will be filled up and better supervision will be provided (Earlier the PHN course was conducted at the College of Nursing, Berhampore. But this college now has four programmes and it may not be suitable to start the PHN course).

The State needs 50 DPHNOs. The qualification for DPHNOs is a Diploma in Public Health Nursing or B.Sc Nursing. The government could depute interested candidates for DPHN course to overcome the immediate shortfall. Another way of filling the posts of DPHNOs is to identify the 121 candidates who passed from the DPHN course that the college of nursing had been conducting upto 1999 and list those that are available. Interested candidates could be posted as DPHNOs with a short orientation training in public health nursing and management.

5.1c. Proposals for addressing shortage of staff nurses:

Orissa needs 10,669 staff nurses in addition to the ones available currently. At the current level of intake into GNM course, it will take more than 10 years to fill the gap. Immediate steps should be planned for increasing intake so that the current gaps are filled within a short period and future needs are met.

Different measures of increasing staff nurses

- Enhancement of admission capacity in existing government, mission and private institutions.
- Opening new schools of nursing in government sector

Increasing intake in existing government schools of nursing:

- Annual intake in the two government nursing schools at Burla and Berhampur could be increased from the existing capacity of 45 (25+20) to 100 by strengthening of the physical structure (renovations) including hostel so as to facilitate output of 435 nurses by end of 2015.
- Annual intake of Cuttack nursing school could be increased from 40 to 80 so as to facilitate output of 360 nurses by the year 2015.
- Annual intake of the public sector nursing school at Talcher can be doubled to 40 to ensure a total output of 420 nurses from the two public sector nursing schools.
- Annual intake at the four nursing schools managed by NGOs (Mission hospital in Cuttack, Berhampore, Nuagaon and Balasore) could be increased to 160 (40x4) so as to facilitate output of 930 by year 2015.
- Annual intake of 21 private nursing schools could be enhanced to 1200 to facilitate additional 6090 nurses by the year 2015.

Opening new GNM schools in the government sector:

At present only three schools are present in the government sector. There could be one school in each district. Government of Orissa could open 29 new schools of nursing with an intake of 50 per year in 29 districts where there is no school of nursing at present. At the end of 2015, it is expected that 4350 students will be available from the 29 new schools. Later the admission capacity could be reduced as required.

Overall, if all the above measures are followed 4440 GNM candidates will be available by 2015 as shown in table 28.

Table 28. Calculation of requirement to meet short fall of staff nurses at Orissa

	GNM Schools	Existing		Proposed intake	Annual output						Total by 2015	
		No	Annual intake		2010	2011	2012	2013	2014	2015		
1	Government - Burla	1	25	50	25	25	25	50	50	50	225	795
2	Government l - Berhampur	1	20	50	20	20	20	50	50	50	210	
3	Government - Cuttack	1	40	80	40	40	40	80	80	80	360	
4	Pulic Sector - IGH, Rourkela	1	40	40	40	40	40	40	40	40	240	240
5	- NTS, Talcher	1	20	40	20	20	20	40	40	40	180	180
6	NGO - Cuttack, Berhampur & Nuagaon	3	20 x 3	40 x 3	120	120	120	120	120	120	720	930
7	NGO - Balasore	1	30	40	30	30	30	40	40	40	210	
8	Private sector	21	830	1200	830	830	830	1200	1200	1200	6090	6090
9	New in Govt. (1/district)	29		50 x 29	-	-	-	1450	1450	1450	4350	4350
	Total	**59**	**1065**	**3070**	**1125**	**1125**	**1125**	**3070**	**3070**	**3070**	**12585**	

5.1d Proposal to fill posts of head nurses and matrons:

Orissa needs 297 head nurses, 96 assistant matrons and 107 matrons. All these are promotional posts. Interviews with staff nurses and FGDs with different groups of nurses indicated their frustration at not being promoted even after 30 years of service. Career plan should first be prepared so that adequate posts are created. Administrative steps have to be initiated to prepare eligibility or seniority lists and promote them. This will of course create further vacancies of staff nurses that need to be filled.

5.2. Addressing shortage of nursing teachers:

The most critical issue for increasing number of personnel is the very low availability of nursing teachers. Table 29 shows the overall shortfall of faculty for proposed (new and old) ANM training centres and GNM schools of nursing. There in a shortfall of 70 teachers for ANM schools. Similarly another 555 nursing faculty are needed to prepare 10669 staff nurses in the GNM schools. There is no shortfall of nursing teachers in LHV training centre.

An additional number of 625 nursing teachers are urgently required in Orissa to prepare nursing personnel to fill-up gaps (ANMs and GNMs)

Table 29. Faculty requirement for new ANM and Nursing Schools (Government

Institutions	Number	Required (INC)	Total required
ANM Schools	14	14 x 5 tutors per school = 70	70
Nursing schools	29	29 x 18 tutors per school = 522	522
Total	**43**		**592**

5.2a. Proposal for addressing shortfall of teachers at ANMs and GNM training Centres:

Immediate steps: Use available B.Sc Nursing graduates

- All candidates who passed out from government college of nursing in Berhampore may be deployed by deputation or promotion.
- Candidates who completed B.Sc. Nursing course from IGNOU can be absorbed into teaching posts.

- Qualified candidates with B.Sc. Nursing from private sector can be recruited.

Recruit from outside the state on contract for a duration of three to five years.

Start training programmes to prepare teachers and supervisors.

- DNEA and DPHN courses can be started immediately in the existing three HFWTC and in one RTI. This measure will give candidates after one year.
- At least two Colleges of Nursing can be started for post basic B.Sc. Nursing with 50 intake per year in the private sector. This will start giving teaches after two years.

Depute eligible and willing candidates for training outside the State

- Willing staff nurses can be deputed for DNEA and DPHN course to nearby states (for e.g. West Bengal) where the seats for this training are remaining vacant.
- Willing staff nurses can be deputed to private Colleges of Nursing for two years to complete post-basic B.Sc (N).
- Recruit from outside the state - B.Sc (N) graduates from states where there are many colleges may be recruited through open advertisement.

Option - 1: Two new colleges of nursing in the government sector

At present there is only one government College of Nursing in Orissa with an intake of 20 for the four year B.Sc. Nursing course and 20 for post-basic B.Sc. Nursing. In addition, 30 candidates are admitted to IGNOU post-basic B.Sc Nursing. The intake of the existing college of nursing could be increased to 50 in B.Sc. Nursing (basic) and 30 in B.Sc Nursing post basic. However, the college is acutely under-staffed (refer table 25). Moreover, increasing the colleges of nursing in turn means further shortfall in collegiate faculty. As shown in table 31 there will be a shortage of 87 faculty with the new proposals.

Orissa needs atleast two more Colleges of Nursing besides the one in Berhampore to prepare graduates to take up teaching posts. Detailed proposals have to be prepared for starting the new colleges. INC norms are to be followed to calculate the requirement for opening of two more colleges of nursing. The two new Colleges of Nursing could be started with the medical colleges at Cuttack and Burla. These medical college hospitals have GNM schools attached to them. A College of Nursing may be started additionally.

Table 30. Year wise plan for increasing number of nursing teachers

Course	Existing	Proposed	Intake 2009	Proposed intake / CON / year 2009	Candidates passing out					
					2009	2010	2011	2012	2013	Total
B.Sc. (Nursing)	1	2	20	2 x 30 = 60	20	20	20	80	80	220
PB B.Sc. (Nursing)	1	2	20	2 x 20 = 40	20	20	60	60	60	220
PB B.Sc. IGNOU	1	-	30	1 x 30	30	30	30	30	30	150
M.Sc. Nursing	1	-	10	1 x 20 = 20	10	10	20	20	20	80
	4	4	80		80	80	130	190	190	670

5.2b. Proposal for addressing shortfall of teachers for collegiate programmes:

Increase admission capacity in the M.Sc. N course in the College of Nursing at Berhampore from 10 to 20 candidates.

Depute willing candidates to other states for M.Sc. Nursing course with either fellowship or through government deputation with assured promotion after completion of course.

For immediate need, recruit from the neighboring states where M.Sc nursing candidates are available such as West Bengal, Madhya Pradesh and Maharahstra. M.Sc Nursing candidates

are available in large number in the four southern states. Recruitment from other states could be done as a twinning programme between the two governments or through an employments or professional agency.

- Recruit from the open market by advertising in national newspapers with attractive remuneration and benefits. Though there are hundreds of candidates with M.Sc (N) available in southern states the acute shortage of nursing teachers all over India has raised the salary of faculty.

Table 31. Shortfall of faculty for existing and proposed colleges of nursing

Category	INC norms	Required faculty for 3 CON	Existing faculty	Shortfall
Principal	1	1 x 3 = 3	1	2
Vice Principal	1	1 x 3 = 3	-	3
Reader	3	5 x 3 = 15	1	14
Lecturer	7	7 x 3 = 21	1	20
Clinical Instructor	18	18 x 3 = 54	6	48
Total	32	96	9	87

(INC– 1:10 – one teacher to ten students – with annual intake of 50 or less in B.Sc. (Nursing) and 30 or less in post basic B.Sc. Nursing and 10 or less M.Sc. Nursing).

5.2c. Faculty Development programme:

One of the essential components in any teaching institution is faculty development. Retention of skilled, committed and efficient teachers is crucial for maintaining standards in the training institutes. As teachers are role models for students, their preparation and continuous updating of knowledge and skills is important. Details of faculty develop programme need to be worked out for Orissa.

5.2d. Alternate models of training large number in short time:

Whatever measures are adopted, there is bound to be some amount of dilution in the standards stipulated for training if rigour is not maintained in the content and process of training. While maintaining the core principles, special concession may be obtained from INC in case of norms for eligibility of candidates, size of hospital, place of training including physical facilities and the number and qualification of teachers, for a period of three years.

Note: *Some alternatives to preparing the required personnel in a short time are presented in the chart on the next page. These are short term measures that need to be adopted only after measures for quality control are implemented and a programme for mainstreaming them into the cadres is carefully planned.*

Alternate Models of training large numbers in short time

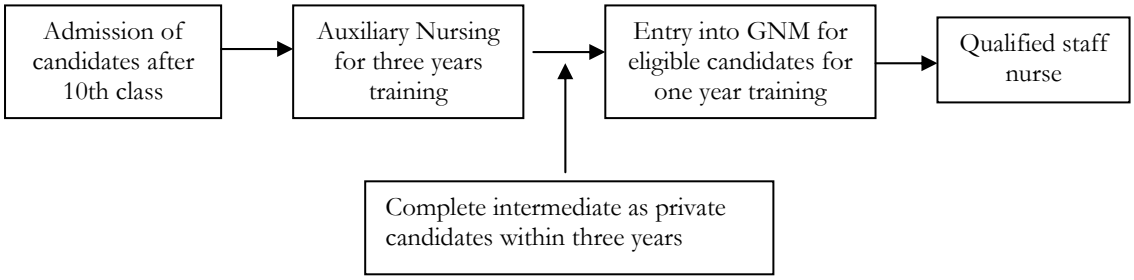
Three short term alternate measures are proposed below for fast tracking the production of ANMs, staff nurses and teachers.

1. **Field based training for ANMs through mobile teams and teaching guides**: One DPHNO and two tutors may be identified and posted in tribal districts as a special initiative to train local tribal girls and others from local communities as ANMs with a contract to serve in the same community. An initial crash course may be provided for three months to a large number (say 500) using a camp approach. The subsequent training may be given at CHCs and PHCs through identified clinical and field Teaching Guides who could be staff nurses, PHNs, LHVs and even ANMs. The criteria for being a Teaching Guide is that she work at CHCs and functioning 24 hour PHCs and pass the knowledge and skill test. About six candidates could be assigned to each Teaching Guide. They will use teaching protocols and video modules to help their students to complete all the clinical and field experiences under their supervision. The candidates may be examined and certified just as other ANM students. ANM certificate could be issued only on completion of entire syllabus and examination. This type of training may be adopted for one or two batches till there is an adequate number of ANMs or till the ANM schools are ready to take regular batches.

2. **Introduction of an auxiliary nursing cadre for nursing care in hospitals:** An auxiliary nursing cadre could be introduced for addressing shortfalls in hospitals. Auxiliary staff are used even in developed countries. In India the auxiliary nurse midwife (ANM) is posted mainly in public health at sub health centres and PHCs. Candidates who complete matriculation could be recruited as auxiliary nurses and trained on the job for a period of three years. This could be introduced in district hospitals where they will get adequate clinical experience and can be guided by experienced nurses. In the first year about 10 district hospitals could be involved in the production of auxiliary nurses.

Year	District hospital or training site	Training coordinators	Nursing guide - 6 in each hospital	Ten candidates per nursing guide
First	10	10	60	600
Second	10	10	60	600

The coordinators and nursing guides could receive an orientation training for a period of one month. A small technical team of tutors from the government GNM training institutes could monitor standards of training and examine the auxiliary nurses every six months. The auxiliary nurses could be posted at CHCs and district hospitals under supervision of professional nurses. Those who do not complete the educational requirements and cannot enter into GNM course within three years will remain auxiliary nurses. The training to become a GNM could be one year as a fulltime basis.



3. **Rapid step from GNM to B.Sc:** Currently the GNM is eligible to enter the 2 years post basic B.Sc (N) and obtain a degree since there is very little difference in the entry requirement and duration of course between ANM and B.Sc (N). recently, the eligibility criteria and duration of course for GNM has been enhanced by INC. The entrance qualification is Class XII. The duration of the course is 3 1/2 years. The difference in duration of course between GNM and B.Sc

(N) is only six months. It is proposed they undergo only one year course and be awarded a degree. Instead of doing all the course material, they could focus on the area that they have been working on and develop teaching and administrative skills in that area. Such an initiative, however, will require the approval of the INC.

5.3 Career progression

Nursing personnel shortages have reached almost unmanageable levels today because, nursing service has not been strategically conceived recruitment processes have not been standardized or streamlined, career development pathways have not been defined, and motivation and retention mechanisms have not been planned and implemented.

Recruitment must follow requirements and requirements must be based on norms and standards. Unfortunately, this principle was not followed in nursing in Orissa. Vacant posts have not been filled, new posts have not been created. On the other hand key posts have been left vacant for too long – so long that they have been forgotten, abolished or handed over to others. Training programmes for preparing nurses to take on teaching and supervisory responsibilities have not been strengthened. On the other hand, the DPHN course that was started in 1983 was discontinued.

Principles of career progression: Career progression is built on the principle of fulfilling human aspirations for a higher and better life and self actualization.

- Cadres and posts must be clearly defined and every employee must have equal opportunity to move upward in her or his cadre.
- Each individual must have opportunity for climbing at least five steps on the career ladder during the entire period of service (30-35 years).
- Equity principle should be followed - equal remuneration and opportunity for equal work and qualification across cadres and among equivalent posts.
- There must be provision for laternal mobility among cadres within a broad service or profession at one or two levels, usually frontline levels.
- Opportunity must be available for attaining higher skills and qualifications to meet eligibility for upward mobility.
- Those who do not attain the required higher skills or qualifications must also be helped to develop through time bond scales and performance related compensation

Career progression is crucial for satisfying the aspirations and needs of personnel. If this does not take place at regular intervals, staff turnover will be high and staff performance will be low. The two primary care providers in nursing - ANMs and Staff Nurses - get very little opportunity to progress in their career spanning almost four decades.

A detailed exercise is essential for formulating a career progression programme that clearly defines pathways for upward career mobility for each cadre. The first step in designing a career progression plan for nursing is to define cadres. The study revealed ambiguity in understanding cadres and posts in Orissa. Nursing is a service profession just as medicine or teaching or armed forces. Clarity is required as to what cadres are needed and how they should be structured and positioned, paid and rewarded. Based on extensive discussions and review of the situation in Orissa today, and keeping in view the long term need, four cadres are recommended: general nursing cadre, public health nursing cadre; clinical nursing specialization and midwifery; and teaching cadre. Each cadre will have several posts.

> ***Cadre:*** *A small group of trained people who form the basis unit of an organization.*
> ***Post:*** *A job in a company or organization. A place where someone is on duty or where an activity is carried out.*

Profession / Service	Cadres	Posts
Nursing including Midwifery and Public Health Nursing	1. General Nursing cadre 2. Public Health Nursing cadre 3. Clinical specialization and midwifery 4. Teaching cadre	Several posts in each cadre as required in the State. Posts may be added according the current needs

Recommendations for career mobility: It is proposed that both entry level posts - staff nurses and ANMs - have three options

1. Clinical Specialization and midwifery.
2. Supervision and management
3. Teaching

Figure 16. Recommended cadres and career pathways for nursing personnel

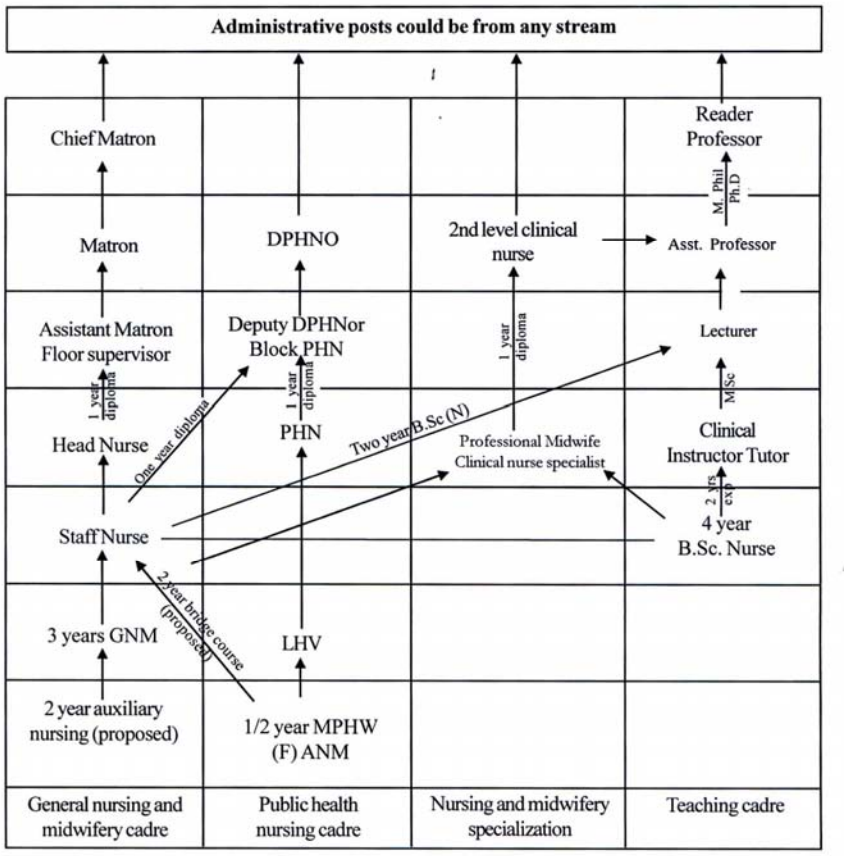


Figure 16 presents the movement of the two entry levels post - ANM and GNM - along the four career paths. Movement across the paths or streams should be permitted only at first level and second level so that exchange occurs early in the career before specialization or stagnation set in. The ANM usually enters into service at the age of 19 years. Her next promotion as LHV is usually the only promotion in her career (around the age of 40 years). There is only one LHV training school with an intake of 30 candidates. The PHN post is missing. There is no post of Block PHN. All this makes it very difficult for the ANM to grow professionally or to aspire to anything higher than LHV. The staff nurse enters service at the age of around 21 years. She should have an opportunity to become a head nurse within 10 years. Most staff nurses reach only the second step, that of head nurse before they retire. Several staff nurses who completed two year degree course did not get promotion and expressed frustration when they were interviewed.

Motivation to move up the career ladder: An example

Mrs. Lakshmi Rana entered service as a staff nurse after obtaining a diploma in GNM. Later she completed 2 years post basic B.Sc. Nursing course from PGI, Chandigarh. Being a highly motivated person, she joined the M.Sc Nursing course and obtained a PG Degree in nursing. Even though she was not satisfied with the career prospects in Orissa, she joined Ph.D. programme in Karnataka and obtained a doctorate degree. She could not fulfill her career aspirations in Orissa. She left the state nursing services and is now working in Tamil Nadu as Principal of a prestigious College of Nursing.

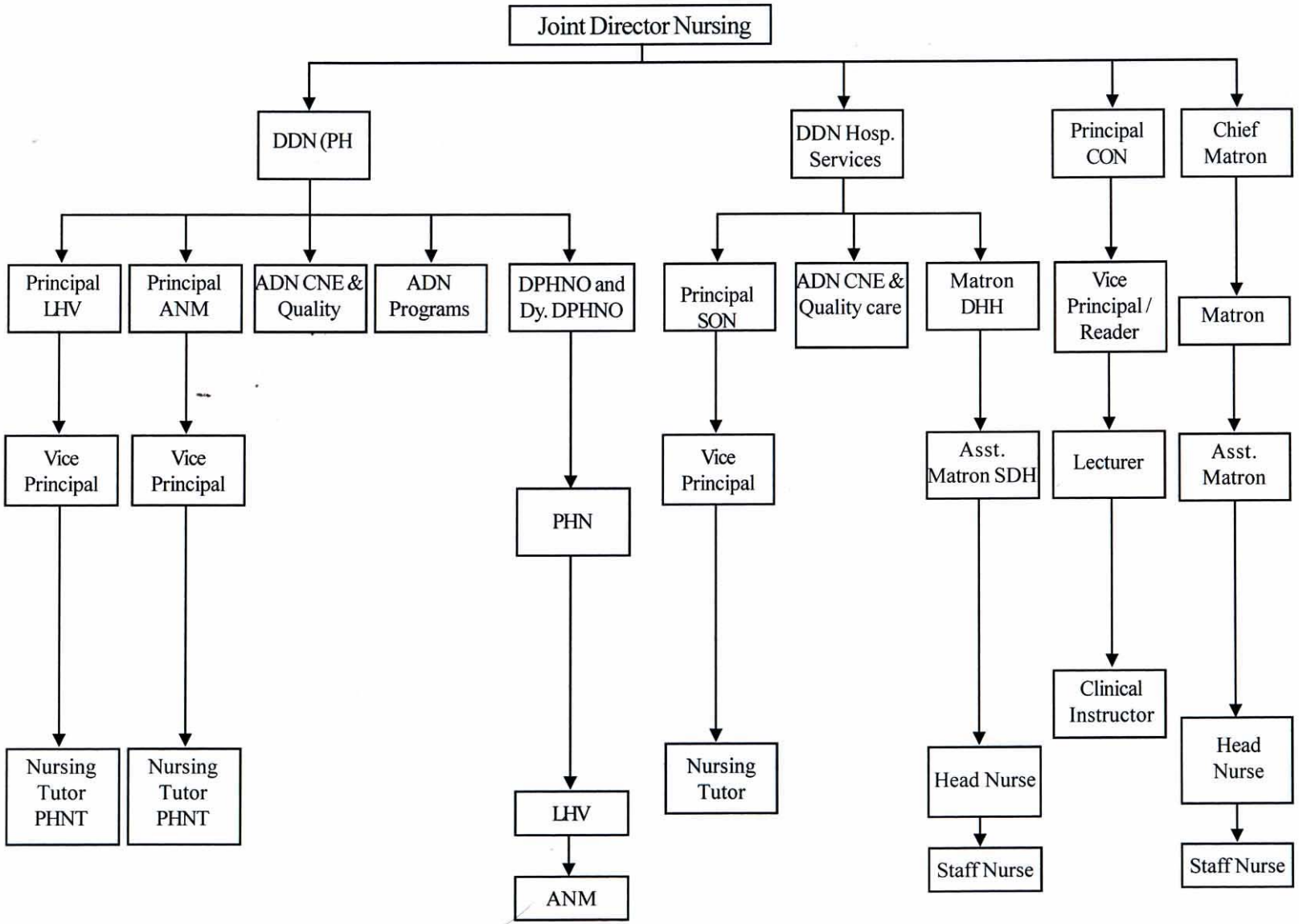
5.4 Strengthening nursing management

The senior most nursing position at state level is that of Deputy Director Nursing. Although there are more than 12,000 nursing personnel in the State, there is no directorate of nursing in Orissa. It is essential that senior posts are available and that they are located at the state headquarter for critical reasons. They provide a sense of identity and access to leadership to the lower cadres. These posts also help in assuring that nursing professions not only provide inputs into decisions related to patient care but also take part in policies and plans involving nursing personnel. Above all senior posts help individual nursing personnel to aspire for higher professional achievement as these positions help in role modeling. As part of this study an attempt was made to organize nursing services into five different levels according to qualifications, service seniority and posts.

First level of administration	Joint Director Nursing
Second level of administration	Deputy Directors - DDN (PH), DDN (HN), Principal CON, Chief Matrons in Teaching Hospitals (TH)
Third level - Management level	AD Nursing CNE and quality, AD (programmes), Principal - ANM, Principal LHV, DPHNOs, ADN - GNM training; ADN - Nursing care quality and CNA; Principal - SON; Matron of DHH, Vice Principal - CON; Matrons and THs
Fourth level - supervisory level	Nursing Tutors clinical instructors, Community Health Officers or Block PHN, Head nurses
Fifth level - Service providers and field supervisors	Staff nurses, LHVs, PHNs, ANMs

An organizational chart is presented her in Figure 17 as a foundation for promoting an independent directorate of nursing in Orissa within three years. The suggested organizational chart illustrates that at the state level, one Joint Director Nursing (JDN) will be the head of all nursing personnel and will be supported by two Deputy Directors of Nursing (DDNs). One DDN will look after MCH services in public health and another DDN will look after nursing service and education. All the Chief Matrons or CNOs of the teaching hospitals and the principal of the College of Nursing will report directly to the JDN. Most of the recommendations suggested here do not require additional posts to be created – some level of upgradation is required to lift up the nursing services in the State for achieving better quality performance.

Figure 17 Suggested Organizational Chart of Nursing in Orissa



Action Plan for strengthening nursing workforce in Orissa

This action plan is a draft based on findings of the assessment of nursing situation in Orissa carried out by Academy for Nursing Studies on behalf of NHSRC, Government of India.

Strategy: A multipronged approach that uses immediate measures integrated into continuous consultative process grounded in reality and based on equity principles is suggested here.

	Year – 1		**Year – 2**		**Year - 3**	
1. Meeting requirements and addressing shortages						
1.1 Constitute state committee as a full time working group	x					
1.2 Prepare final list of nursing personnel of all cadres required upto 2015	x					
1.3 Conduct detailed analysis of all available nursing educational institutions for gaps and action required for filling up the gaps including budget and time plan	x					
1.4 Decide on number of new institutions, alternate models for training and producing large number in a short time.	x					
1.5 Prepare detailed proposals for the new institutions, etc including budget, work responsibility and detailed work plan (guidelines are available from INC).	x	x				
1.6 Make a decision on fast tracking production – alternative models	x	x				
2. Faculty procurement and development						
2.1 Immediate promotions for all available candidates with DNEA, DPHN, B.Sc (N), or M.Sc (N), including those who completed B.Sc (N) course through IGNOU.	x					
2.2 Deputation to other states to study Diploma in nursing education and administration - 20 - Diploma in public health nursing - 20 - Post basic B.Sc. (N) – 60 candidates - M.Sc (N) – atleast 10	x	x	x	x	x	x
2.3 Strengthen capacity within state - Increase capacity in B.Sc and M.Sc. nursing courses specially post basic nursing. - Discuss with IGNOU for enhancing seats in Orissa.	x	x				
2.4 Initiate plans for long term development – enhance M.Sc. seats, start two more M.Sc Nursing institutions in the private sector (based on institutional eligibility) Launch two more B.Sc. Nursing colleges with basic and post basic courses, initiate DNEA course		x	x	x	x	x
2.5 Recruitment from open market - Within State: All candidates with qualification - Outside State: Nearly 100 on a temporary basis	x	x				
2.6 Faculty Development and Retention - Prepare a long term programme for faculty development with continuous inservice training, promotions and salaries, and opportunities for professional development with scope for attending conferences etc.	x	x	x			

- Plan for a cadre of nursing teachers specializing in nursing, midwifery and public health nursing						
2.7 Faculty induction course for fresh teachers for a period of three months with practical work	x					
3. Steps for strengthening management and administrative capacity						
3.1 Clarity in definitions of cadres, posts and responsibilities including a state nursing policy .	x					
3.2 Examine the management structure of nursing and prepare a plan for phased capacity development	x					
3.3 Design the organizational chart with different cadres for three different streams – clinical nursing, public health nursing, midwifery and specialization; and teaching.	x					
3.4 Prepare a career progression plan.	x					
3.5 Initiate nursing personnel information system	x					
4. Steps for strengthening nursing education						
4.1 Strengthen the state nursing council as an autonomous agency with budget and support personnel	x	x				
4.2 Institute autonomous accreditation system for examination and assessment of quality of teaching.		x				
4.3 Prepare procedures for clinical and field experience to ensure that students get adequate clinical experience		x				
4.4 Prepare an accreditation plan for accrediting training institutions to ensure high quality education	x	x				
5. Steps to increase number of ANMs and GNMs: 5.1 Detailed assessment of all 17 ANM schools for identifying deficiencies, listing additional facilities required, estimating costs	x					
5.2 Discuss with authorities of Bissam Cuttack Mission Hospital and private schools to increase intake	x					
5.3 Initiate discussions with 51 private ANM training centres for uplifting facilities and filling up gaps so that the students are ready to take exam	x					
5.4 Request Indian Nursing Council and Orissa Nursing Council to waive off some requirements for full time teachers for a period of one to two years.		x				
5.5 Detailed assessment of each GNM school of nursing for current capacity, number that can be increased, and additional requirements for the schools to take additional students.	x					
5.6 Detailed plan for new schools in each district	x	x				
5.7 Small technical group to be constituted to look into permission for new schools with PPP.						

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Strengthening of Nursing Services in Orissa
Study by N H S R C & ANS

Dissemination Workshop and Follow Up Decisions - 26th August 2009

The National Health Systems Resources (NHSRC), the Technical Assistance Group constituted by the National Rural Health Mission, facilitated a study on nursing human resources in Orissa at the behest of the Government of Orissa,. The Academy of Nursing Studies conducted the study and submitted the draft report including the action plan for consideration by the State Government and NHSRC. A workshop for dissemination of the final report and follow up action planning was held from 11AM to 1 PM on 26th August 2009 at the Secretariat, Government of Orissa. The meeting was chaired by the Principal Secretary (Health) and the following participated in the proceedings.

1.	Dr. P K Das	Director of Medical Education & Training, Orissa
2.	Mr.	Special Secretary, Orissa
3.	Dr. T. Sundarraman	Executive Director, National Health Systems Resources Centre
4.	Dr. D. Thamma Rao	Advisor-Public Health (Human Resources Division), NHSRC
5.	Dr. M. Prakassama	Director, Academy of Nursing Studies
6.	Dr. Geetha Rana	Consultant, NHSRC
7.	Ms. Urmila Das	Registrar, State Nursing Council, Orissa
8.	Mr. Sushant Naik	State Facilitator, NHSRC, Orissa
9.	Mr. Bhuputra Panda	STC, Orissa
10.	Ms. Alison Demborath	TMST, Orissa

Presentation of Report :

The draft report of the study including the draft action Plan for the development of nursing services in Orissa State had been circulated earlier. Dr. Praksamma, Director, Academy of Nursing Studies presented the draft report of the study and briefly explained the objectives, present situation and the proposed action plan -

The NRHM envisages accessible health care by provision of nurses for 24x7 services at CHCs and PHCs and ANMs up to SHC levels. The nursing and midwifery study sample covered 68 facilities in the four selected districts of Bhadrak, Ganjam, Nabrangpur and Sambalpur. As part of the study, 438 persons were interviewed including 103 Staff Nurses, 45 ANMs,45 faculty and 155 students. The requirements are assessed as per the Indian Public Health Standards / Indian Nursing Council Norms / Government of India recommendations. The 30 % leave reserve requirements as per INC was however not included in the additional requirements. These requirements as calculated can be met with in next few years through remedial actions. The thrust areas of the proposed Action Plan are -

- Recruit immediately and at regular intervals to minimize the vacancies
- Posts to be sanctioned for all health facilities and training institutions as per the standards as over 1000 newly qualified nurse are registered annually in the Orissa State
- Define nursing and midwifery cadres
- Develop career paths and ensure career progression
- Strengthen nursing management and State nursing council

Dr. Praksamma emphasized the need to filling up vacancies, sanctioning of additional posts required, quality in trainings and ensuring career paths providing adequate promotional avenues for the ANMs and staff nurses. She suggested for enhancing the intake of students at various institutions including LHV trainings, starting a bridge course for ANMs to enable them to become nurses and restarting of DPHN course. She further informed that the LHVs can be given brief training on appointment as PHNs.

Decisions

The Commissioner-cum-Secretary initiating the discussions, appreciated the key findings and recommendations of the study and solicited suggestions and responses from the participants. After a discussion the following decisions were taken :

1. The vacant posts of ANMs, LHVs, Staff nurses, Head Nurses etc should be filled on priority basis.

2. Sanction of posts as per requirements articulated under IPHS and even as was in existence earlier is the key constraint. Availability of candidates to fill many of these posts is relatively better than in other EAG states. Many of the posts, especially of the mid level nursing managers and supervisors have lapsed and they may have to be re-created. Others including most posts of staff nurses in PHCs and CHCs would be proposed for the first time. The posts required have been identified by this report and based on the information of what are existing posts the proposal could be made for the new posts to be created.

3. The NRHM provision of 2nd ANM at SHCs should be availed in concurrence with the Finance department for long-term sustenance. This represents a substantial opportunity to make use of available funds to reach nearer to the desired norms of human resource density that the system needs. In parallel all male health worker posts have to be filled and only as many 2nd ANMs would be sanctioned as there are male workers. Currently since there are 4100 male health workers the state could have that many 2nd ANMs in place. Defining the work distribution and relationships between the two ANMs would need some planned inputs. The suggestion is that the work programme for each be made such that on every day one ANM at least is available at the sub-center for mid-wifery services while the other is attending to the Village Health Nutrition Days and Immunisation activities to be conducted at Anganwadi Centres in coordination with ASHAs.

4. A career progression plan of ANMs to LHV, PHN and DPHNO should be implemented and the immediate step in this is to allow promotion of LHVs into PHNs after creating PHN posts as per IPHS norms and the filling up of all required LHV posts. A longer term approach to address shortages in remote rural areas is to allow for career development paths of ASHAs to the level of ANMs- without any reduction of training or standards needed.

5. The doubling of the seats in Nursing and ANM Schools is a feasible option with adequate support to provide the teachers and moderate development of physical infrastructure in the existing schools. Many schools have already done this, but the state needs to increase faculty to get the additional seats recognized.

6. M.Sc. qualified nurses and suitable candidates with B.Sc. should be posted at the training facilities and schools to fulfill the Indian Nursing Council Norms so as to ensure good quality

trainings by the Government training facilities. The students completing M.Sc. (Nursing) from Nursing College should be appointed immediately.

7. The districts, especially more difficult districts should consider the way to build on the existing district cadre concept by more flexible recruitment and compensation for more difficult districts. An HR agency to fill in vacancies through campus placement interviews or similar innovative methods should be explored.

8. The proposal of establishing the College of Excellence (COE), new nursing colleges, new ANM and GNM schools should be followed up and started up in a timeframe such that these facilities would take students from academic year 2010-2011 as the Government of India has approved in principle the Rs. 180 crore proposal for this purpose.

9. The DPHN course that has been discontinued could be recognized by the State Board as the University affiliation is not mandatory.

10. The CDMOs should visit the existing institutes in the NGO and private sectors and submit reports to the State in order to purse the institutions for fulfilling the minimum requirements of faculty and physical infrastructure and there by enhance the quality in training.

Subsequently, follow-up discussions were held with the State officials at the directorates medical education& training, health services and family welfare by the Advisor (NHSRC) and Director (ANS). The Director of Medical Education and Training detailed the positive steps taken by the State and assured that the necessary actions initiated for strengthening the nursing management structures at State level. Posts of three Assistant Directors and one post of Deputy Director will be made available for senior level nurses at the Directorate of Family Welfare, Directorate of Health Services and Directorate of Medical Education & Training with supportive staff. The director of family welfare will be cadre control officer for ANMs, LHVs and PHNs. The director of health services will be looking after all the nursing cadres working at PHCs, CHCs, Sub-district hospitals & district hospitals. The director of medical education & training will be cadre control authority for all nursing & midwifery staff at medical colleges and training institutions.

The State officials further assured actions for additional support for State nursing councils and State Board for improving quality in nursing & midwifery services. The Board could be strengthened by a team of HR professionals specialising in nursing management- who could directly report to the board or who could be lined to the SHSRC as a nursing management support unit. This team would

a. Help ensure quality in the ANM schools and nursing schools in both public and private sector.
b. Help in faculty development programmes
c. Help to plan the career development paths in consultation with key stakeholders and once consensus is reached facilitate their conversion into appropriate orders and their subsequent implementation.
d. Help to plan innovative recruitment and retention policies for nurses in difficult districts and remote areas of all districts.