

Facility Survey of Public Health Institutions in Andhra Pradesh, 2008

REPORT

**P. Satya Sekhar
N.V. Rajeswari
Ch.V.S. Sitarama Rao
Anil Chandra Punetha, IAS.,**

**Indian Institute of Health and Family Welfare
Vengalrao Nagar, Hyderabad - 500 038**

ACKNOWLEDGEMENTS

The National Rural Health Mission (NRHM) seeks to establish functional health facilities in the public domain through revitalization of the existing infrastructure and fresh construction or renovation wherever required. The Mission also seeks to improve service delivery by putting in place enabling systems at all levels. This involves simultaneous corrections in manpower planning as well as infrastructure strengthening. For this purpose, facility survey has been considered as a key component in the whole planning process. Reports indicate that the appointment of Accredited Social Health Activist (ASHA) in all villages, a groundswell of demand for health services has been generated but emphasis needs to be lent on quality aspects as well.

We would like to thank Commissionerate of Family Welfare, Department of Medical, Health and Family Welfare, Government of Andhra Pradesh for funding the study.

We wish to express our thanks to Dr. M. Srinivasa Rao, Additional Director; Dr. G. Srinivas Rao, Project Officer, SPIU; Dr. G. Hymavathi, Joint Director (Family welfare); Dr. V. Nirmal Kumar, Joint Director (Training); and Sri B. Brahmanandam, Deputy Director, (Demography) of the Commissionerate of Family Welfare, Govt. of A.P for offering useful comments which helped to finalize the survey instruments as also their active participation in the dissemination workshops.

Special mention and thanks are due to Dr. K. Kesaiah (APVVP); Sri Y. Raghunandan (Asst. Commissioner, IEC); Sri Ajay Babu (EE, Civil); Sri T. Srinivas (EME) of the Commissionerate of Andhra Pradesh Vaidya Vidhana Parishad (APVVP) for their comments and suggestions on hospital information during dissemination meetings and workshop which enriched the quality of hospital information. We are thankful to Dr. K. Jeevan, DCHS, Area Hospital, Kondapur for his keen critical inputs and guidance in the finalization of the schedules. We thank Mr. K. Ravi Kiran Sarma, Asst. Professor, IIHFW for meticulously going through the draft and Mr. V. Kiran Kumar, Librarian for timely reference and development of the compact disk.

Our special thanks are due to all District Medical and Health Officers (DM & HOs) and DCHSs for providing timely information and assistance during the field work.

We gratefully acknowledge the immense help received from the computer staff of IIHFW apart from Mr. Santhosh and Mr. Vijay for carrying out the arduous task of data cleaning, data entry, data processing and preparation of tables. The hard work put in by the field investigators and supervisors in collecting the data is specially appreciated.

Finally, we would like to record a note of appreciation to all the Hospital Superintendents, Medical Officers and Staff of PHCs and ANMs of Sub Centers for extending their cooperation to complete the field work in record time.

Authors

CONTENTS

ACKNOWLEDGEMENT

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

EXECUTIVE SUMMARY

i - ix

CHAPTER 1:

1 - 7

- 1.1 Background 1
- 1.2 Objectives 2
- 1.3 Scope of the Survey 2
- 1.4 Survey Tools 3
- 1.5 Data Validation and Analysis 4
- 1.6 Challenges/constraints faced during the survey 5
- 1.7 Limitations of the Study 6

CHAPTER 2:

8 - 41

- 2.1 District Hospitals 8 - 20
 - 2.1.1 Services 8 - 10
 - 2.1.2 Manpower 11
 - 2.1.3 Physical infrastructure 11
 - 2.1.4 Equipment 12
 - 2.1.5 Quality control 12
- 2.2 Area Hospital 20 - 38
- 2.3 Specialized Hospitals 39 - 41

CHAPTER 3:

42 - 76

- 3.1 Community Health Centre (30 beds) 42 - 57
 - 3.1.1 Services 43 - 44
 - 3.1.2 Manpower 45 - 46
 - 3.1.3 Physical infrastructure 46 - 47
 - 3.1.4 Furniture and Equipment 47 - 48
 - 3.1.5 Quality Control 48
- 3.2 Community Health Centre (50 beds) 58 - 76
 - 3.2.1 Services 58 - 59
 - 3.2.2 Manpower 60 - 61
 - 3.2.3 Infrastructure 61 - 63
 - 3.2.4 Quality control 63

CHAPTER 4:

77 - 102

- 4.0 Primary Health Centres 77
- 4.1 Infrastructure 77 - 80
- 4.2 Staff 80 - 81
- 4.3 Physical Infrastructure 81 - 82
- 4.4 Service availability 83 - 89
- 4.5 Percentage of PHCs adequately equipped 89

CHAPTER 5:

103 - 131

- 5.0 Sub-Centres 103 - 104
- 5.1 Location and accessibility of the Sub-centers 104 - 106
- 5.2 Infrastructure 107 - 109
- 5.3 Services 109 - 111
- 5.4 Manpower 112 - 113
- 5.5 Equipment 113 - 114
- 5.6 Furniture availability 114
- 5.7 Drugs availability 114
- 5.8 Quality Care 114 - 115
- 5.9 Assessment of district wise Sub center activities 115
- References 132

LIST OF TABLES

CHAPTER 2:

Table 2.1.1	District-wise availability of specialist services in district hospitals
Table 2.1.2	District-wise availability of support services in district hospitals
Table 2.1.3	District-wise availability of para-clinical services in district hospitals
Table 2.1.4	District-wise availability of clinical manpower in district hospitals
Table 2.1.5	District-wise availability of para-medical manpower in district hospitals
Table 2.1.6	District-wise availability of essential infrastructure in district hospitals
Table 2.1.7	District-wise availability of medical equipments in district hospitals
Table 2.1.8	District-wise availability of quality control mechanisms in district hospitals
Table 2.2.1	District-wise availability of specialist services in area hospitals
Table 2.2.2	District-wise availability of support services in area hospitals
Table 2.2.3	District-wise availability of diagnostic & para-clinical services in area hospitals
Table 2.2.4	District-wise availability of doctors in area hospitals
Table 2.2.5	District-wise availability of para-medical manpower in area hospitals
Table 2.2.6	District-wise availability of infrastructural facilities in area hospitals
Table 2.2.7	District-wise availability of equipment, furniture & support services in area hospitals
Table 2.3.1	Availability of services, manpower & equipment in specialized hospitals

CHAPTER 3:

Table 3.1.1	District-wise availability of specialist services in CHCs (30 beds)
Table 3.1.2	District-wise availability of specific services in CHCs (30 beds)
Table 3.1.3	District-wise availability of para-clinical services in CHCs (30 beds)
Table 3.1.4	District-wise availability of doctors in CHCs (30 beds)
Table 3.1.5	District-wise availability of nursing & para-medical staff in CHCs (30 beds)
Table 3.1.6	District-wise availability of essential infrastructure in CHCs (30 beds)
Table 3.1.7	District-wise availability of basic amenities & ancillary facilities in CHCs (30 beds)
Table 3.1.8	District-wise availability of essential furniture in CHCs (30 beds)
Table 3.1.9	District-wise availability of medical equipment and kits in the CHC (30 beds) (as per APVVP)
Table 3.2.1	District-wise availability of specialist services in CHCs (50 beds)
Table 3.2.2	District-wise availability of doctors in CHCs (50 beds)
Table 3.2.3	District-wise availability of para-medical staff in CHCs (50 beds)
Table 3.2.4	District-wise availability of infrastructure & facilities in CHCs (50 beds)
Table 3.2.5	District-wise availability of operation theatre equipment in CHCs (50 beds)

Table 3.2.6	District-wise availability of surgical equipment sets in CHCs (50 beds)
Table 3.2.7	District-wise availability of furniture and hospital accessories in CHCs (50 beds)
Table 3.2.8	District-wise availability of equipment & support services in CHCs (50 beds)

CHAPTER 4:

Table 4.1	District-wise availability of infrastructure in PHCs
Table 4.2	District-wise availability of manpower in PHCs
Table 4.3	District-wise and location-specific availability of PHCs
Table 4.4	District-wise distance ranges from the farthest village to PHCs
Table 4.5	District-wise distance ranges from the PHCs to the respective CHC/DH
Table 4.6	District-wise availability of assured services in PHCs
Table 4.7	District-wise availability of MCH services in PHCs
Table 4.8	District-wise availability of specific services in PHCs
Table 4.9	Availability of other services in PHCs
Table 4.10	Frequency of monitoring and supervision in PHCs
Table 4.11	District-wise availability of essential laboratory services in PHCs
Table 4.12	Availability of equipment, furniture and kits in PHCs
Table 4.13	District-wise availability of operational labour room equipment in PHCs
Table 4.14	District-wise availability of critical inputs and facilities in PHCs

CHAPTER 5:

Table 5.1	District-wise distribution of distance ranges from farthest village to SCs
Table 5.2	District-wise distribution of distance ranges from SC to PHC
Table 5.3	District-wise population coverages of SCs
Table 5.4	District-wise distance ranges (kms) from SCs to CHCs/DHs
Table 5.5	District-wise distributions of time taken to travel from the farthest village to SCs
Table 5.6	District-wise availability of SCs building status
Table 5.7	District-wise availability of physical infrastructure facilities in SCs
Table 5.8	District-wise availability of amenities in the SCs
Table 5.9	District-wise availability of MCH care and family planning services in SCs
Table 5.10	District-wise availability of antenatal care services in SCs
Table 5.11	District-wise availability of SCs manpower
Table 5.12	District-wise availability of equipment in SCs
Table 5.13	District-wise availability of essential furniture & tools in SCs
Table 5.14	District-wise availability of drugs in SCs
Table 5.15	District-wise availability of citizen charter (quality control) in SCs
Table 5.16	District-wise availability of consolidated services in SCs

LIST OF FIGURES

CHAPTER 2:

- Fig. 2.1.1 Percentage-wise availability of assured specialties services in district hospitals
- Fig. 2.1.2 Percentage-wise availability of para-clinical services in district hospitals
- Fig. 2.1.3 Percentage-wise availability of medical manpower in district hospitals
- Fig. 2.1.4 Percentage-wise availability of medical equipment in district hospitals
- Fig. 2.2.1 Percentage-wise availability of specialist services in area hospitals
- Fig. 2.2.2 Percentage-wise availability of diagnostic and para-clinical services in area hospitals
- Fig. 2.2.3 Existing supply and demand-supply gap of clinical personnel in area hospitals
- Fig. 2.2.4 Existing supply and demand-supply gap of para-medical personnel in area hospitals
- Fig. 2.2.5 Percentage-wise availability of medical equipment and furniture in area hospitals

CHAPTER 3:

- Fig. 3.1.1 Number of CHCs existing during each five-year plan period
- Fig. 3.1.2 Percentage-wise availability of assured specialties services in 30-bedded CHCs
- Fig. 3.1.3 Percentage-wise availability of specific assured services in 30-bedded CHCs
- Fig. 3.1.4 Percentage-wise availability of para-clinical services in 30-bedded CHCs
- Fig. 3.1.5 Existing supply and demand-supply gap of medical personnel in 30-bedded CHCs
- Fig. 3.2.1 Percentage-wise availability of assured specialties services in 50-bedded CHCs
- Fig. 3.2.2 Percentage-wise availability of para-clinical services in 50-bedded CHCs
- Fig. 3.2.3 Percentage-wise availability of medical infrastructural units in 50-bedded CHCs
- Fig. 3.2.4 Percentage-wise availability of surgical and related equipments in 50-bedded CHCs

CHAPTER 4:

- Fig. 4.1 Percent of PHCs having own building and toilet facilities
- Fig. 4.2 Percent of PHCs having electricity and continuous water supply
- Fig. 4.3 Percent distribution of PHCs showing availability of medical officers
- Fig. 4.4 Percentage-wise availability of medical treatment- related infrastructure in PHCs

- Fig. 4.5 Percentage-wise availability of medical services in PHCs
- Fig. 4.6 Percentage-wise availability of specific medical services in PHCs
- Fig. 4.7 Percentage-wise availability of MCH, MTP & RTI services in PHCs
- Fig. 4.8 Percentage-wise availability of sterilization and gynaecological services in PHCs
- Fig. 4.9 Percent distribution of PHCs showing number-wise availability of essential lab tests
- Fig. 4.10 Percentage-wise availability of equipment & facilities in the operational labour room at PHCs
- Fig. 4.11 Percentage-wise availability of lab equipment for essential newborn care in PHCs

CHAPTER 5:

- Fig. 5.1 Percent distribution of sub-centres showing distance in kms from farthest village
- Fig. 5.2 Percent distribution of sub-centres showing distance in kms from parent PHCs
- Fig. 5.3 Percent distribution of sub-centres showing distance in kms from CHCs/DHs
- Fig. 5.4 Percent distribution of sub-centres showing time taken to reach them from the farthest village
- Fig. 5.5 Percent of sub-centres occupying own buildings
- Fig. 5.6 Percent distribution of sub-centres with population coverage
- Fig. 5.7 Percentage-wise availability of MCH & family planning services in sub-centres
- Fig. 5.8 Percentage-wise availability of sub-centre manpower
- Fig. 5.9 Availability of ANMs with different service status in sub-centres

List of important abbreviations

A&E	Accidents and Emergencies
AH	Area Hospitals
Anaes.	Anaesthetist
ANM	Auxiliary Nurse and Midwife
AP	Andhra Pradesh
APVVP	Andhra Vaidya Vidhana Parishat
ASHA	Accredited Social Health Activist
AWW	Anganwadi worker
AYUSH	Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homeopathy
CHC	Community Health Centre
DH	District Hospitals
DLHS -3	District Level Household and Facility Survey-3
DM &HO	District Medical and Health Officer
DPL	Double Puncture Laparoscopy
EAG	Empowered Action Group
ENT	Ear, Nose and Throat
FRU	First Referral Unit
GDMO	General Duty Medical Officers
GOI	Government of India
GoAP	Government of Andhra Pradesh
HDS	Hospital Development Society
IFA	Iron Folic Acid
IMR	Infant Mortality Rate
IPD	Inpatient Department
IPHS	Indian Public Health Standards
JSY	Janani Suraksha Yojana
LHV	Lady Health Visitor
MMR	Maternal Mortality Ratio
MO	Medical Officer
MPHW	Multi Purpose Health Worker
MoHFW	Ministry of Health and Family Welfare
MTP	Medical Termination of Pregnancy
NFHS-3	National Family Health Survey -3, 2005-06
NRHM	National Rural Health Mission
NSV	Non Scalpel Vasectomy
Obs&Gynae	Obstetrics and Gynaecology
OPD	Out Patient Department
ORS	Oral Re-hydration Solution
PHC	Primary Health Centre
RCH	Reproductive and Child Health
RKS	Rogi Kalyan Samithi
RTI/STI	Reproductive Tract Infection/ Sexually Transmitted infection
SC	Sub Centre
U.C	Utilization Certificate

Andhra Pradesh districts

SKL : Srikakulam	VZM : Vizianagaram	VSP : Visakhapatnam
EG : East Godavari	WG : West Godavari	KRI : Krishna
GNT : Guntur	NLR : Nellore	PSM : Prakasam
CHT : Chittoor	ATP : Anantapur	KDP : Kadapa
KRL : Kurnool	RR : Ranga Reddy	HYD : Hyderabad
NZB : Nizamabad	MDK : Medak	MHB : Mahabubnagar
WRL : Warangal	KHM : Khammam	KRM : Karimnagar
ADB : Adilabad	NLG : Nalgonda	

EXECUTIVE SUMMARY

Project Overview

The 'omnibus approach' of NRHM is to provide accessible, accountable, affordable, effective and reliable health care, especially to poor and vulnerable sections in the community. The NRHM has been envisaged as a focal point of all the earlier health intervention programs after wide deliberations of various field experts, adaptations of the successful best practices and learning from the failures in the past. Such an approach has made the NRHM a different program.

The NRHM seeks to establish functional health facilities in the public domain through revitalization of the existing infrastructure and fresh construction or renovation where ever required. The Mission also seeks to improve service delivery by putting in place enabling systems at all levels. This involves simultaneous corrections in manpower planning as well as infrastructure strengthening. For all these to happen, facility survey has been considered as a key component in the whole planning process.

The Indian Institute of Health and Family Welfare (IIHFW), based at Hyderabad conducted facility survey in all District Hospitals, Specialized Hospitals, Area Hospitals (100 beds), Community Health Centres (30 beds and 50 beds), Primary Health Centres and Sub-centres to understand the implementation of normative standard (Indian Public Health Standards defining personnel, equipment and management standards).

The main objectives of the facility survey are to assess: a) Percent of infrastructure facilities as per the IPHS norms; b) To identify the gaps of manpower as per IPHS norms; c) Percentage availability of equipments as per IPHS norms and d) Percentage availability of drugs as per IPHS norms.

Project planning and Study design

We believe the project planning and design is a crucial phase to lay the foundation of the survey, and ensure smooth execution subsequently. The major components of planning are given below:

- **Programme management:** The IIHFW divided the state in to 4 regions and each team covered about 7 to 8 districts. One team of investigators covered PHCs and sub-centres while the second team covered hospitals with different bed strengths. The modifications of IPHS formats turned out to be a major exercise and discussed in many rounds with program officers from the Department of Medical, Health and FW- GoAP.
- **Detailed work planning:** A detailed district by district work plan was developed by research associates while finalizing the list of PHCs and hospitals in each district and preparing the route map
- **List of centres:** A detailed list of PHCs and hospitals was obtained from the Directorate of Health and Andhra Pradesh Vaidya Vidhana Parishad (APVVP).
- **Survey instrument development:** Eight sets of survey instruments were developed: one each for Sub-centre, PHC and hospitals with different bed strengths
- **Pilot:** is one of the most important components of the project. The training investigators were exposed to Shamirpet PHC in Ranga Reddy district and for King Koti Hospital, Hyderabad for pilot study besides the class room and mock interview sessions.
- **Final survey instrument:** Based on the learning from the pilot study, we modified the survey instruments appropriately and received the final approval on the questionnaires from the CFW.

- **Comprehensive training programme:** Two separate batches of training were conducted for the two teams of investigators with a duration of 4-5 days each.
- **Field work:** Conducted from July-December 2008 in all districts
- **Data analysis:** Taken up in MS-Excel format for all hospital data as desired by the APVVP authorities while the Sub-Centre and PHC data in EPI-Info format was later analyzed using the SPSS package.
- **Compact disk:** This report is also accompanied by a compact disk (CD) containing detailed data of each health facility in a district arranged in such a manner that enables the mission to create a district-level action plan.

KEY FINDINGS FACILITY-WISE

District Hospital (DH)

There are three medical colleges providing the tertiary care services in Visakhapatnam, Anantapur and Warangal districts while Srikakulam and Kadapa are covered under RIMS, Andhra Pradesh.

Out of 18 districts, four districts- West Godavari (Eluru), Krishna (Machilipatnam), Karimnagar and Nizamabad districts have 350- bedded hospitals. Remaining 14 district hospitals have varying bed strength of 201-300 beds.

Services

More than ninety percent of district hospitals are providing services in the areas of general medicine, general surgery, Obs&Gynae, paediatrics besides neonatology, emergency services, critical care, anesthesia, ophthalmology, ENT, orthopedics and dental care.

With regard to IPHS norms, a small (less than 5) percent of specialist services are available in the Departments of cardiology, pulmonary medicine, urology, neurology, neurosurgery, and plastic surgery.

Round the clock services for normal and assisted deliveries, emergency obstetric care including surgical interventions like caesarian section and other medical interventions are available in 67 percent of Hospitals. Newborn care and emergency care of sick children are available in 89 percent of DHs.

All DHs are providing support services like medico-legal / postmortem services, ambulance services, dietary services, laundry services, security services, hospital waste management, electric supply (power generator and stabilization), water supply and air-conditioning, nursing services, sterilization and disinfection services.

However, the support services that are required for strengthening are counselling services for domestic violence, gender violence, adolescents, etc and lift and vertical support facilities in the hospital.

Services like X-ray, ECG, physiotherapy and proper drugs and pharmacy maintenance system available in all DHs.

Manpower

Majority of the district hospitals have a good number of specialists in the areas of medicine, surgery, Obs&Gynae, paediatrics, anesthesia, ENT, ophthalmology, orthopedics, dental sciences and AYUSH specialties.

A wide deficit in supply of staff nurses, statistical assistants, medical records officers / technicians, ECG operators, dieticians and PFT was observed in DHs.

Equipments

Seventy-eight percent of hospitals are fully equipped with an operation theatre and a delivery suite near OT and 83 percent hospitals have availability of blood bank facility.

About seventy-two percent of DHs are equipped with a phototherapy unit and 61 percent centres have radiant warmers for new born care centres in the DHs.

Citizen's charter

All district hospitals have functional citizen's charter in the hospitals. The Hospital Development Society initiated under NRHM is available in all hospitals.

Area Hospitals

Out of 61 Area hospitals, three hospitals in the towns of Vizianagaram, Nellore and Ongole are exclusively catering to the needs of mother and child care.

Services

Eighty-eight percent of Area Hospitals are providing specialist services in general medicine, surgery, Obs&Gynae, emergency / A&E and dental care. However, the specialist services in critical care, ENT, orthopedics, radiology and dermatology recorded 14 to 22 percent respectively.

Delivery services including caesarian sections are available round the clock in all the Area hospitals. In 91 percent of hospitals, newborn care and child immunization services are available.

The support services are adequately available in case of medico legal and post-mortem services, dietary and laundry services, housekeeping and sanitation and safe management of hospital waste. There is a need to strengthen support services for counselling domestic violence, gender violence, adolescents etc and lift and vertical support facilities in the hospital.

Laboratory, X-ray and ECG services are available in nine out of 10 Area hospitals. The ultrasound and blood transfusion and storage facilities are available in 65 percent of centres.

Manpower

Obs&Gynae specialists are available in all district Area hospitals with exception of Kurnool and Adilabad districts. Non-availability of pediatricians reported in Kurnool, Medak and Adilabad district area hospitals. As much as 241 GDMOs are required for running the round the clock services in all the Area hospitals. Wide variations in the availability of GDMOs were reported across the districts.

As per IPHS, out of required 2900 staff nurses, presently there are 1174 staff nurses who are working in area hospitals (40 percent availability) showing a shortfall of 1726 staff nurses.

The availability of statistical assistant and medical record officer for maintaining the data are not available in majority of the Area hospitals. A lower availability of technical staff ECG technicians, audiometric technicians, pharmacists is noted a matter indeed requiring special attention. There is lack of both clinical and para-clinical staff. A special emphasis required to overcome the manpower shortages under NRHM.

Equipments

Out of 22 equipment and furniture categories, equipment available in more than 50 percent of AHs at state level are X-ray room accessories (95 percent), dental equipments (80 percent), furniture & hospital accessories (67.2 percent), laboratory equipments (62.3 percent), anesthesia equipments (67.2 percent), labour ward and neo natal equipments (65.7 percent) respectively.

Citizen's charter

Eighty four percent of Area hospitals have Citizen's charter. The Hospital Development Society for development under NRHM is available in all hospitals. About 75.4 percent of HDS committees received funds under NRHM during the financial year 2007-08. About 66 percent HDS met more than three times in the financial year.

Community Health Centres

The CHCs were designed to provide referral health care for cases from the primary level and for those in need of specialist care.

There are 167 CHCs functioning while the requirement of CHCs as per 2001 Census norm was 481. There has been a deficit of 314 (65 percent) CHCs in the State.

Services

A maximum of 87.3 percent CHCs provide specialist services in medicine and 82 percent CHCs in Obstetrics & Gynaecology while 28 percent centres provide specialist services in paediatrics. CHCs located in the districts of Anantapur, Kadapa and Mahabubnagar provide lower specialist services.

The round-the-clock emergency services are available in 91 percent CHCs in the State. The other services like newborn care, family planning, abortion and RTI / STI are lacking in Srikakulam, Vizianagaram, Anantapur, Kurnool, Ranga Reddy, Karimnagar and Warangal districts respectively.

More than 50 percent of CHCs located in Vizianagaram, Visakhapatnam, West Godavari, Mahabubnagar, Ranga Reddy and Medak districts respectively are providing new born care.

About 60-70 percent of CHCs in Visakhapatnam, Krishna, Nellore, Chittoor, and Ranga Reddy districts are providing safe abortion services.

All CHCs in the state have good laboratory test facilities (99 percent). More than half (52.2 percent) laboratories in the CHCs have necessary reagents, glassware and facilities for collection and transportation of samples.

Manpower

The IPHS norms indicate a requirement of 106 general surgeons and physicians, 61 Obs&Gynae surgeons and 91 pediatrics specialists. The availability of specialist doctors is poor in East Godavari, Prakasam, Nellore, Kurnool, Medak, Adilabad, Karimnagar and Khammam district CHCs.

There are 208 ANMs posted in CHCs which is in excess of the required 118 (one ANM for each CHC). There is an excess of 90 ANMs available in the CHCs. The existing availability falls short of IPHS standard (7 staff nurses per CHC) showing a gap of 253 as per norms. A total of 120 Pharmacists are available in 118 CHCs in the state. The

existing availability falls short of IPHS standard (3 pharmacists per CHC) resulting in a gap of 234 as per norms.

Physical infrastructure

Emergency / casualty room which is an essential infrastructure requirement for CHCs are available in less than 59 percent of the centres. In West Godavari, Krishna, Chittoor, Adilabad and Nalgonda districts, more than 80 percent of CHCs have functioning Emergency / casualty room.

Operation theatre is available in all CHCs in the State. A lower percent of CHCs with operation theatres exist in Ranga Reddy (67 percent), East Godavari (83 percent), Chittoor (86 percent), and Mahabubnagar (83 percent).

Labour room is one of the essential infrastructure requirements for CHCs to strengthen maternal and child health care services available in all CHCs in the state.

The number of CHCs having blood storage facility is very low (33.9 percent). In Guntur and Kurnool districts, all CHCs have a blood storage facility. However, the CHCs in Krishna, Prakasam, Kadapa, Warangal and Nalgonda districts have no blood storage facility.

All CHCs are practising segregation and disposal of waste facilities either by burning the hospital waste in a deep pit or dispersing through the private autoclave centres.

Equipments

All CHCs in the state have more than 50 percent of equipment under the normal delivery kit, equipment for operation theatre and equipment for labour room in the state. However, a lower percentage of centres reported shortage of Standard surgical set- V, Standard surgical set- VI, Equipment for anesthesia, Equipment for neo-natal resuscitation, Material kit for blood transfusion.

Citizen's Charter

Citizen's charter was available in 98 percent of centres and equal number of CHCs received funds under Hospital Development Society (HDS) during 2007-08. The HDS meetings were conducted more than 3 times in a financial year in 86 percent of CHCs.

Primary Health Centre

There are 1458 Primary Health Centres (PHCs) in the state and each covers an average population of 42, 910. On an average there are 5-16 sub-centres under a PHC.

Services

- Essential services – Most of the districts in the state are capable of providing necessary services to its patients.
- More than 95 percent of the PHCs provide antenatal, delivery care, postnatal care and immunization services. The average daily attendance of out-patients in a PHC is about 463 (Male 219 and Female 244).
- Ninety-nine percent of the PHCs in the state are equipped to provide antenatal care while postnatal care is provided in 95.2 percent of the PHCs
- Child immunization drives are successfully conducted in more than 98 percent of the PHCs. Round the clock delivery services are available in 73.8 percent of PHCs while 12 percent of PHCs offer MTP services.

- In case of family planning services, dispensing contraceptives is evident in more than 76.5% of the PHCs. About 35 percent of PHCs have DPL and NSV family planning operation facilities.

Manpower

- The ratio of PHC as compared to the medical officer availability is 1: 1.5. One medical officers present in every PHC. One nurse/midwife is present in every PHC.
- There are 84 percent lab technicians, 80 percent pharmacists available in the PHCs.

Physical infrastructure

About 83 percent of PHCs in the state are operating from its own building and nearly 87 percent of them have an OPD room and 91 percent have a labour room.

- Labour table is available in 95 percent of PHCs
- Stretcher or trolley which is available in 54 percent of PHCs. Wheel chair is available in 70 percent of centres.
- Basic infrastructural facilities like water supply, power backup (generator) and telephone, working computers may be required in 35-40 percent of PHCs.

Equipments

- Most PHCs are reasonably equipped with all necessary equipments like refrigerator (91 percent), ILR and Deep Freezers (95 percent), computers with accessories (32.8 percent) and baby weighing scale (78.6 percent) respectively.
- Majority of the district in the state have adequate number of essential newborn care equipments like infant resuscitation bag, radiant warmer and photo-therapy unit.
- The availability of newborn care equipments in working condition was noted in Prakasam (44 percent), Nellore (41 percent), Medak (68.3 percent) and Nizamabad (59 percent) districts as compared to less than 10 percent of availability in majority of the districts.

Citizens Charter

Citizen's Charter is available in 74.5 percent of PHCs surveyed. The Hospital Management Committee is functional in 88 percent of PHCs.

Sub Centre

Based on the survey there are 11, 978 sub-centres in the state. A sub centre is the most peripheral and first contact point between the primary health care system and the communities. It is the lowest of a three-level setup with referral linkages to the Primary Health Centre. As per the population norm, one sub-centre is established for every 5000 population in plain areas and for 3000 population in tribal/ hilly areas. The average population covered by each sub center in the state is 4, 951 with the number going up to 24,462 in Hayat Nagar PHC in Ranga Reddy district.

Services

The assured services that are available at the sub-centres include routine preventive, promotional and referral services.

- Antenatal, natal and postnatal care is provided in more than 96% of sub centres. The services like child immunization, family planning and interventions of adolescent

health and School health programmes are available in 95 percent of sub centres across the state.

- Facilities under Janani Suraksha Yojana are available in 94 percent of centres.

Manpower

IPHS has proposed to increase the number of ANMs from existing one ANM per centre to two ANMs.

- A total of 93 percent sub centres in the state have at least one ANM. About 17.5 percent of sub centres are supported with 2nd ANM.
- MPHW – Male who play a critical role in the implementation of various National Health Programmes, are available in less than half (45%) of centres.

Physical infrastructure

- A majority of (99 percent) of sub centres are located within village / locality
- The average radial distance of sub centre from the farthest village is 4 Kms which is higher than the recommended maximum coverage of 5 Km.
- Only 17.7 percent of centres operate out of their buildings where as more than 70 percent operate from rented buildings. About 28-36 percent of centers in Chittoor, Anantapur, Mahabubnagar and Nizamabad are functioning from the Government buildings
- 75 percent of sub centres have no compound wall or fencing. About 21 percent of centres have no display boards in local language and 84 percent have no complaint / suggestion box facility.
- Cleanliness of the rooms was observed to be good in 73 percent centres where as only 4.4 percent have clean toilets.
- Examination room available in 38.2 percent of the centres
- Bore well / Hand pump / Tube well are the main sources of water in 22.8 percent of sub centres.

Equipments

Essential equipments for sub-centre include all the equipment necessary for conducting safe deliveries, immunization, contraceptive services like IUD insertions etc.

- Examination table is available in 38.2 percent of centres and labour table is available in 13.8 percent of centres
- Green cloth screen is available in 32.7 percent of centres for providing privacy during examination of pregnant women.
- Vaccine carriers for bringing vaccine from PHC and carrying to village / hamlets for child immunization are available in more than 90 percent of centres.
- Infant weighing machine is available in 11.3 percent centres, clinical thermometer in 41.3 percent centres, Foetoscope in 64.4 percent of centres.

Drugs

The availability of adequate stock of most of vaccines in the sub-centre on the immunization day was reported to be high. The Drug Kit-A (ORS packets, Tablet IFA (large and small), Vitamin A solution and Tab Cotrimoxazole) availability (any three of the items) was more than 90 percent in the state.

- The drug Kit B (any 5 out of 9 drugs) is available in 88.6 percent of sub-centres in the state.
- Anti-tuberculosis drugs supplied under RNTCP are available in 85.9 percent of centres in the state.
- The availability of rapid diagnostic kits for malaria, tab DEC in (Filarial endemic areas) required more supply.

Health Facility Availability in Andhra Pradesh

S.No	Districts	No. of Sub Centres	No. of PHCs	CHC (30-Beds)	CHC (50-Beds)	Area Hospital (100-Beds)	District Hospital (200-300-Beds)	District Hospital (300-400-Beds)
1	Srikakulam	468	69	8	3	3	-	
2	Vizianagaram	429	58	6	1	2	1	
3	Visakhapatnam	579	75	10	3	2	-	
4	East Godavari	711	72	16	4	3	1	
5	West Godavari	606	65	7	4	2	-	1
6	Krishna	593	67	8	3	2	-	1
7	Guntur	676	67	12	1	2	1	
8	Prakasam	536	78	8	3	3	1	
9	Nellore	477	58	11	1	3	2	
10	Chittoor	641	87	7	3	5	1	
11	Kadapa	422	68	4	3	2	-	
12	Anantapur	590	75	8	4	4	-	
13	Kurnool	530	73	10	3	1	1	
14	Mahbubnagar	668	84	7	2	4	1	
15	Ranga Reddy	389	36	10	3	1	1	
16	Hyderabad	-	-	-	2	4	1	
17	Medak	509	63	7	4	2	1	
18	Nizamabad	396	39	10	-	3	-	1
19	Adilabad	460	63	9	5	2	1	
20	Karimnagar	573	62	12	3	3	-	1
21	Warangal	598	65	9	2	2	-	
22	Khammam	569	64	6	3	2	1	
23	Nalgonda	558	70	6	3	4	1	
	Total	11978	1458	191	63	61	15	4

Note:

1. The number of CHC (30 Beds) as per APVVP and DH are 118. The difference 73 (191-118) indicate upgraded PHC status but not fully functional as a CHC.
2. The Palavanha PHC in Khammam district upgraded as a CHC (50 Beds).

Chapter -1

1.1 Background

The National Rural Health Mission (NRHM) seeks to provide effective healthcare in rural population throughout the country with special focus on 18 EAG states, which have weak public health indicators and/or weak infrastructure. The Mission is to be implemented over a period of seven years (2005-2012). According to the NRHM norms, Andhra Pradesh has been a non-focus and high performing state. The main goal of the NRHM is to improve the availability of and access to quality health care by people, especially for those residing in the rural areas, poor, women and children. The specific goals are:

- Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)
- Universal access to public health services such as Women's health, child health, water, sanitation & hygiene, immunization and nutrition
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases
- Access to integrated comprehensive primary health care
- Population stabilization, gender and demographic balance
- Revitalizing local health traditions and mainstream AYUSH
- Promotion of healthy life styles

One of the core strategies under NRHM is the strengthening of existing health facilities (PHCs and CHCs, and provision of 30-50 bedded CHC per lakh population for improved curative care to a fully functional health facility with referral linkages from hamlets to hospitals. Indian Public Health Standards (IPHS) act as a bench mark for facilitating health institutions to reach desirable levels of resource provision.

Among the ten components of the NRHM 'Plan of Action', component - b consists of strengthening sub-centres, component - c strengthening primary health centres and component - d strengthening CHCs for first referral care. In order to facilitate actions in accordance with the above mentioned components there is a need to carry out a "facility survey" to understand the current availability of services.

The data from such a survey would be critical in conducting an 'analysis' leading to the designing of the project implementation plan and further serve as a baseline for periodic external, household and facility surveys to track the effectiveness of the various activities under the NRHM for providing quality health services (NRHM Framework for Implementation; 2005-2012). Thus the facility survey has been envisaged as an important activity to assess the existing status of health institutions for planning and monitoring progress. NRHM has developed the IPHS standards which set minimum standards for infrastructure, manpower and services for all types of health facilities i.e., Sub-centre, PHC, CHC & District hospitals with different bed strengths. The facility survey collected information on services, manpower, training, physical infrastructure, equipment, drugs, furniture, and quality control (Citizen's charter) related issues of all public health institutions in the state.

1.2 Objectives

The primary objective of the facility survey was to assess the existing status of the health care facilities available in the government health care establishments in Andhra Pradesh as per the IPHS norms developed under the National Rural Health Mission.

The main objectives of the facility survey have been to assess different health institutions:

1. Available infrastructure facilities (physical, availability of labour room, operation theatre, laboratory etc as per the IPHS norms)
2. To identify the gaps of manpower (clinical and para-clinical) availability according to IPHS norms
3. To identify availability of surgical, other equipments, furniture based on bed strength as indicated in IPHS norms
4. Utilization of drugs by the health facility indented / supplied as per APHMIDC list

1.3 Scope of the Survey

The scope of the study was to conduct the facility survey of health institutions in all districts of Andhra Pradesh. The IPHS formats were procured from the NRHM Website and modified to render them data entry friendly. The survey was expected to cover approximately 1570 PHCs and 12,522 sub-centres

in the state. Among the hospitals catered by the Directorate of Health (DH) and Andhra Pradesh Vaidya Vidhana Parishad (APVVP), the survey covered about 167 CHCs (Bed strength of 30 and 50), 58 Area hospitals (of hundred bed strength) and Specialized and District hospitals of varying bed strengths in the state.

All District hospitals, specialized hospitals (Maternity, T.B and Paediatric care), Area hospitals, Community health centres, Primary health centres and Sub centres were included in the facility survey, covering the following critical inputs.

- **Infrastructure:** Ownership of the building, drinking water supply, availability of separate toilet for male / female, electricity in all parts of the building, working status of available generator, vehicle condition, telephone facility, availability of laboratory, number of available beds, labour room, bio-medical waste segregation and disposal and availability of blood bank /blood storage centre in the health facility.
- **Human Resources/Staff:** All types of clinical and para-clinical staff (permanent and contract services) as per IPHS norms.
- **Equipment:** IPHS specified equipments listed for use in different health facilities
- **Medicine:** The utilization of drugs 368 types supplied by APHIMDC, agency to every health facility in the state

1.4 Survey Tools

The NRHM – IPHS formats provided by the Ministry of Health and Family Welfare, Government of India were used to collect required information. The questions included in the questionnaire were modified to make them computer- friendly. In the present survey eight types of questionnaires were used as detailed below:

- Sub centre
- Primary Health Centre
- Community Health Centres (11 to 30 - bedded)
- Community Health Centres (31to 50 - bedded)
- Area Hospitals (51 to 100 - bedded)

- Special and Sub-District Hospitals (201 to 300 - bedded)
- Special and Sub-District Hospitals (301 to 500 - bedded)
- Essential Drug list (368 drugs) supplied by APHMIDC, GoAP

The log-frame of the survey work was carried out by two separate teams. The first team collected information on Sub-centres and PHCs and the latter collected hospital based information. Two types of investigators of (30 each) were selected to canvass for facility survey in hospitals and rural PHC and sub-centres. Majority of the selected investigators were with work experience in District Level Household Survey (DLHS-3) and National Family Health Survey (NFHS-3) conducted by the International Institute for Population Sciences, Mumbai. As part of the training-cum-fieldwork, the participants were taken to the Shamirpet, UPHC and Patancheru Rural Health Centre to acquaint themselves with various facilities available in the rural health care establishments. Field visits were organized to familiarize the field team with a practical first hand experience for three days in the District Hospital, King Koti, Hyderabad.

The field staff (investigators and supervisors) was provided orientation in the basic understanding of NRHM and objectives of the facility survey. They were trained in filling up of interview schedules correctly and efficiently. During training period, special lectures were arranged for hospital equipment and other aspects by APVVP, Directorate of Health, Commissionerate of Family Welfare programme officers along with experts from nodal agency. List of hospitals and PHCs was obtained from the APVVP and DH and later verified with the District Medical & Health Office. Medical institutions (of varying bed strength) in the district were short listed during the survey field work. A compilation of district-wise list of PHCs and Sub-centres was compiled and submitted to the Commissionerate of Family Welfare, GoAP. The survey started on 20th July 2008 was completed on 29th December 2008 covering the plain and tribal areas in all districts.

1.5 Data Validation and Analysis

The validation of data was conducted at three levels. The investigators validated the data collected by them, employing the smart observation technique for any inconsistencies. The supervisors closely monitored the investigators and helped them to maximize accuracy for quality data. At the nodal agency level,

data were verified by editors for any inconsistency and simple validation checks of data were applied.

For analysis, digitizing all the data captured during the facility survey was important. The information obtained from PHCs, and Sub-centres were entered in EPI-Info package and later analyzed, using SPSS 16.0 version. As per the requirement of the Vaidya Vidhana Parishat authorities, the hospital data were entered in MS-Excel format. District-wise hospital information based on bed strength of the medical institution was generated.

Detailed analysis was not included in the scope of the current assignment; however on the basis of the requirements of the NRHM, comparative tables were prepared and generalizations made on broad indicators. This tool helped to generate summary reports showing aggregates/ percentages where necessary by facility type and by districts.

The report is also accompanied by a compact disc (CD) with the detailed data on each health facility arranged in a manner enabling the mission to create a district level action plan with ease. The hospital information may be used as baseline information on all IPHS formats of different bed strength hospitals, and updated annually /half-yearly by the authorities to assess the improvements in the health facilities.

1.6 Challenges/constraints faced during the survey

During the course of data collection, several constraints and challenges were faced including:

1. Law and order situation in Visakhapatnam, West Godavari and East Godavari districts
2. Untimely rains disturbing the work plan
3. Non-availability of staff at the health facilities on immunization and out-reach days (Wednesday and Saturday)
4. Non-availability of key staff members during visits (even after telephone appointments) at PHC and SCs
5. Substantial variations in the list of PHC supplied at the state level and that provided by district authorities. The discrepancies included pertained to renaming of PHCs, re-allocation of sub-centre villages, up-gradation of PHCs to CHCs without any infrastructural facility

improvements, non-functioning PHCs due to lack of good building, poor manpower availability in remote areas.

6. Some of the PHCs with more than 10 beds were identified as Community Health Centres (CHCs) by the state authorities but lack of information on this at the district level or vice versa. For all practical purposes, the survey cross verified the list of health facilities (PHCs and CHCs) with DM&HO and DCHS in every district. The Sub-centre list of every PHC was verified with the concerned medical officer and other PHC senior staff for total coverage of sub-centres under the PHC jurisdiction.
7. Movement in tribal belt in many districts posed difficulty due to police combing and active movements of naxal groups. Many times the dates of survey were postponed due to various law and order situations prevailing in the East Godavari and Visakhapatnam districts.

1.7 Limitations of the Study

The study sought selection of data from all existing district/sub-district hospitals, CHCs in all 23 districts and PHCs and sub centres spread across 22 districts of Andhra Pradesh.

- Identifying suitable candidates and training them was a challenging task.
- The investigators conducted half-day meetings at the PHC headquarters and collected individual sub-centre information from ANMs / MPHA (F) working under the PHC jurisdiction.
- The information on performance indicators such as population covered was dependent on respondent's perception. Many a time respondents were unaware whether the centre had separate OPD, examination room, labour room, or was providing National health programmes etc.
- Information regarding the approximate size of the building, operation theatre, and residential quarters was dependent on investigator's skills to estimate the same on the basis of observation. During monitoring period, the coordinators felt that the figures were wrongly entered and the facility staff also not able to provide exact

information. Subsequently institution-wise information was not collected regarding the plinth area of the establishment.

- The proforma for collecting data was based on the IPHS guidelines provided in the NRHM website. However the proforma needed more customization to capture some of the information more accurately. The information indicates the position of availability / non-availability of the service/facility with reference to that provided by the representative / nominee of the Superintendent/RMO during the survey days. The information was not verified with the stock register of the health institution. The figures may be interpreted with a word of caution. However, information given by the IPHS regarding health establishment may be updated from time to time for a cross-sectional time comparisons. This is one of the major limitations of the facility survey.

Chapter 2

In the hierarchical health care system in a district, the district hospital is the apex body, which provides specialized health care services to people either on a free basis or at subsidized costs. Every district is expected to have a District Hospital (DH). But in some cases, the Medical College Hospitals or any other sub-divisional hospital is found to serve as a DH. There are three medical colleges providing the tertiary care services in Visakhapatnam, Anantapur and Warangal districts and two districts namely Srikakulam and Kadapa are under RIMS, Andhra Pradesh. In the remaining 18 districts, four districts have DH with 350 - bedded hospitals in West Godavari (Eluru), Krishna (Machilipatnam), Karimnagar and Nizamabad districts. The remaining 14 DHs have varying bed strength of 201-300 beds in each district.

Out of seven Mother and Child (MC) Hospitals in the state, Vizianagaram, Nellore and Ongole have 100 bed strength and the remaining MC hospitals in Kurnool, Hyderabad, Medak and Adilabad have 50 - bedded hospitals. There are two Chest hospitals located in Nellore (200 beds) and Anantapur (60 beds) and one Paediatric hospital in Nellore (100 beds). The information analyzed and presented in the present chapter relates to 18 DHs, 58 Area Hospitals and 10 specialized hospitals that were collected during July- December 2008. The scheme of presentation of the chapter will be as follows. The first section covers information relating to district hospitals followed by Area Hospitals and Specialized hospitals. The analysis covers issues pertaining to the availability of assured services, manpower, infrastructure, equipment and citizen's charter.

2.1 District Hospitals

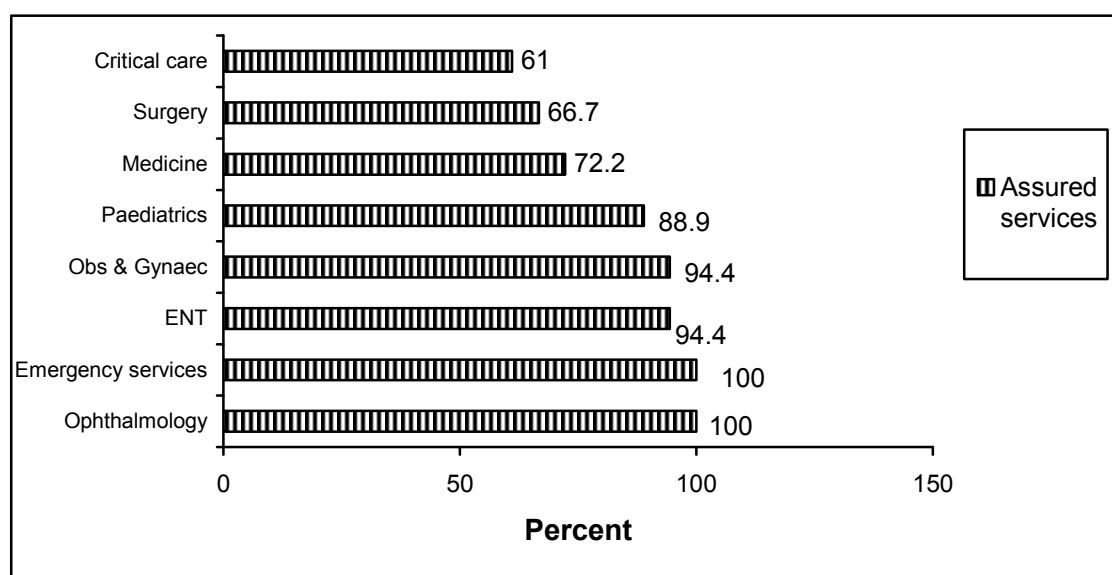
2.1.1 Services

(a) Specialist services

As per the IPHS guidelines, district hospitals are expected to function as a secondary level referral centre for public health institutions. The services to be provided depend on the availability of beds in the district hospital. Besides the OPD, indoor, emergency services, the services include consultation services with specialist such as general medicine, general surgery, obstetrics and gynecology (obs. & gynaec), paediatrics including neonatology, emergency (accident and other emergencies) critical care (ICU), anesthesia, ophthalmology, ENT, dermatology and venerology including RTI / STI, orthopedics, nephrology, cardiology, pulmonary medicine, urology, plastic surgery, radiology, dental care

and public health management. Table 2.1.1 gives the details of the available specialist consultation services in the DHs. As compared to IPHS norms, less than 5 percent specialist services are available in the DHs in the areas of cardiology, pulmonary medicine, urology, neurology, neurosurgery, and plastic surgery specializations. However more than ninety percent of district hospitals are providing the services in the areas of general medicine, general surgery, obs. & gynaec, paediatrics including neonatology, emergency, critical care, anesthesia, ophthalmology, ENT, orthopedics and dental care. The IPHS created a new category position of public health manager in the DH to look after the administration.

Figure 2.1.1 Percentage-wise availability of assured specialties in district hospitals



(b) MCH care

All DHs have 24 - hour delivery services for both normal and assisted deliveries while emergency obstetric care including surgical procedures like caesarian section and other medical interventions are available in 66.7 percent of DHs. Newborn care and emergency care of sick children are available in 88.9 percent hospitals.

(c) Support services

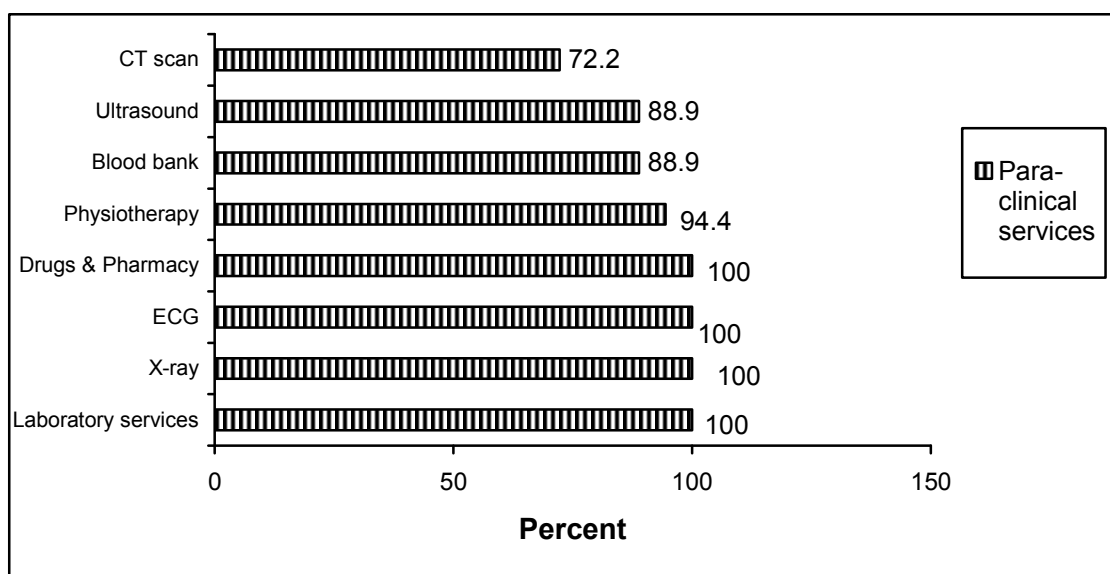
Availability of support services plays a crucial role in disinfection and cleanliness and maintaining the hospital premises, wards, waste disposal etc. Ninetyfour percent of DHs providing medico-legal / postmortem services,

ambulance services, dietary services, laundry services, security services, hospital waste management, electric supply (power generator and stabilization), water supply and air-conditioning, nursing services, sterilization and disinfection services (Table 2.1.2). The support services that need strengthening are counseling services for domestic violence, gender violence, adolescents etc and lift and vertical support facilities in the hospital.

(d) Para-clinical services

The para-clinical services such as laboratory, X-ray, ultrasound (sonography), ECG, blood transfusion and storage, pharmacy etc are some of the assured services to be provided at DHs. All the district hospitals are provided with adequate laboratory facilities, X-ray facility, ECG, physiotherapy and proper drugs and Pharmacy maintenance system. The districts namely East Godavari (Rajahmundry), Guntur (Tenali), Hyderabad (King Koti), Nizamabad and Chittoor DHs either lack CT scan facility or the equipment was not functioning at the time of survey (Table 2.1.3). The EEG and Echocardiogram services are not available in 16 out of 18 DHs. Both Ranga Reddy and Hyderabad district hospitals have no blood bank facilities. The drug balance information card system for drug maintenance was followed in all the district hospitals efficiently.

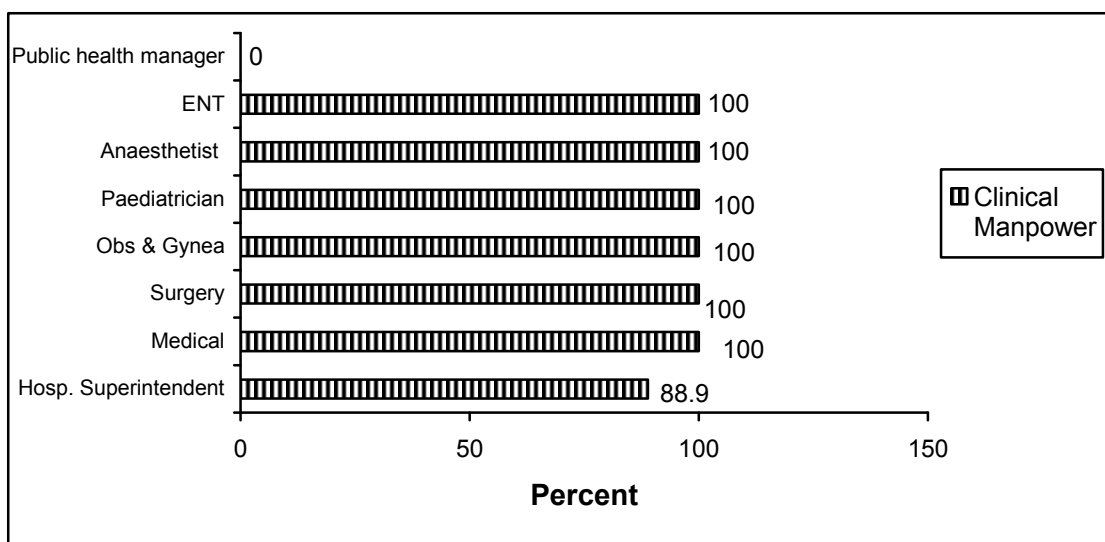
Figure 2.1.2 Percentage-wise availability of para-clinical services in district hospitals



2.1.2 Manpower

As indicated in the beginning, majority of the district hospitals have varying bed strength ranging from 201-350 beds. Table 2.1.4 provides information on clinical manpower available in all district hospitals. As per IPHS norms for 14 hospitals with bed strength of 201-300, required 61 doctors of different specialties were required and the remaining 4 hospitals with 350 beds required 77 doctors in different specialties. Majority of the hospitals have a good number of specialists in the areas of medicine, surgery, obs & gynaec, paediatrics, anaesthesia, ENT, ophthalmology, orthopedics, dental care and AYUSH available in district hospitals.

Figure 2.1.3 Percentage-wise availability of medical manpower in district hospitals



Among the nursing and para-medical personnel, IPHS prescribes a minimum of 1 nurse for 8 beds with 25 percent reserve; there should be a total of 100 nurses for 200 - bedded hospitals. However, availability of staff nurses is much lower in the hospitals and on an average; a DH had 60 staff nurses (Table 2.1.5). The statistical assistant and medical records officer / technician are not available in all hospitals. The technical staff related to ECG, ECHO, dietician and PFT technician are not available in majority of the hospitals.

2.1.3 Physical infrastructure

All district hospitals have separate wards for male and female patients. Emergency and casualty room for critical care is present in all hospitals with the

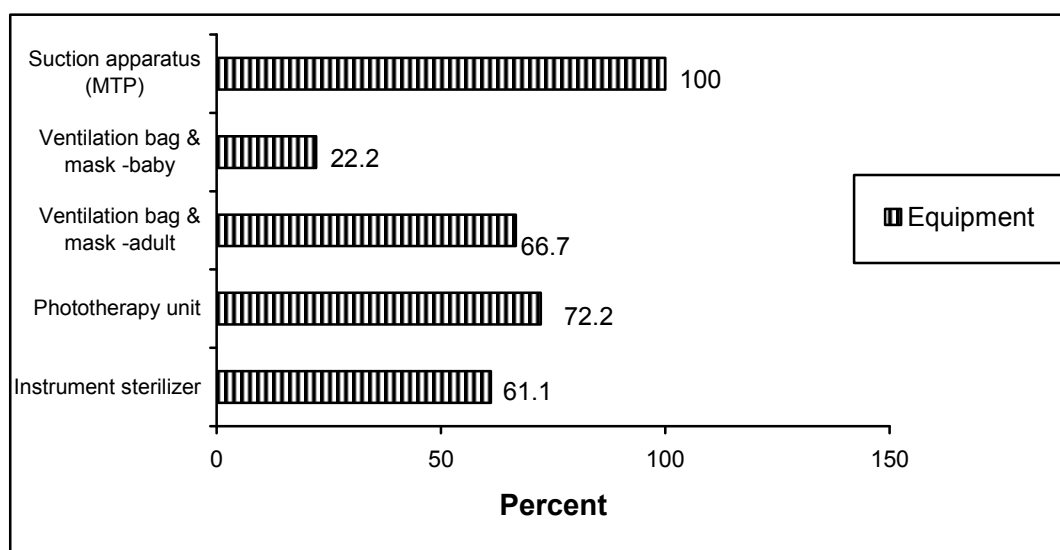
exception of Vizianagaram district hospital. Seventyeight percent of hospitals are fully equipped with an operation theatre with a delivery suite near OT and 83 percent of hospitals have availability of blood bank facility (Table 2.1.6).

2.1.4 Equipment

The common equipment and instruments available for labour room, newborn care, operation theatre, laboratory and other clinical areas are necessary for proper functioning of district hospitals. The percentage availability of some important clinical instruments is given in Table 2.1.7. Six out of ten (61 percent) of DHs are equipped with equipments for sterilizing surgical and necessary instruments.

About seventytwo percent of DHs are equipped with a phototherapy unit and 61 percent of the centers have radiant warmers for newborn care centres in the DHs. The available radiant warmer machines in Vizianagaram and Ranga Reddy districts were not in working condition at the time of survey.

Figure 2.1.4 Percentage-wise availability of medical equipment in district hospitals



2.1.5 Quality Control

Quality of medical service in a hospital should be maintained at different levels. Standard protocols for locally common diseases and those covered under all national health programmes should be made available at all Sub-District hospitals. During survey period, eightythree percent of centres had constituted Rogi Kalyan Samithi's (RKS) in the hospital.

Table 2.1.1 – District-wise availability of specialist services in district hospitals

S.No	Services	VZN	EG	GTR	PKM	NLR	CTR	KNL	MHB	RR	HYD	MDK	ADB	KHM	NLG	WG	KRI	NZB	KRM	ALL AP
1	Specialist services available																			
a.	General Medicine	100.0	100.0	-	100.0		100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	72.2
i	Nephrology	-	-	-		100.0	-	-	-	-	100.0	-	100.0	-	-	-	-	-	-	16.7
ii	Cardiology	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	5.6
iii	Pulmonary Medicine	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	5.6
b.	General Surgery	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	-	-	100.0	-	-	-	100.0	100.0	100.0	100.0	66.7
i	Urology	-	-	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-	-	-	-	11.1
ii	Plastic Surgery	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	5.6
c.	Obstetrics & Gynecology	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.4
d.	Pediatrics including Neonatology	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.9
e.	Emergency (Accident & other emergency) (Casualty)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
f.	Critical Care (ICU)	-	-	100.0	100.0	100.0	100.0	100.0	-	-	-	-	100.0	100.0	-	100.0	100.0	100.0	100.0	61.1
g.	Anesthesia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
h.	Ophthalmology	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
i.	ENT	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	94.4
j.	Dermatology and Venerology (Skin & VD) RTI / STI	100.0	100.0	100.0	100.0	100.0	-	100.0	-	--	100.0	-	-	100.0	-	100.0	-	-	100.0	55.6
k.	Orthopedics	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	94.4
l.	Radiology	-	100.0	100.0	100.0	-	100.0	100.0	-	-	100.0	-	100.0	100.0	-	0.0	100.0	100.0	-	55.6
m.	Dental Care	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n.	Public Health Management	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	5.6

Table 2.1.2 – District-wise availability of support services in district hospitals

S.No	Services	VZN	EG	GTR	PKM	NLR	CTR	KNL	MHB	RR	HYD	MDK	ADB	KHM	NLG	WG	KRI	NZB	KRM	ALL AP
1	Support services available																			
i.	Medico-legal/Postmortem	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.4
ii.	Ambulance Services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
iii.	Dietary Services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
iv.	Laundry Services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
v.	Security Services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
vi.	Counseling services for domestic violence, gender violence, adolescents etc.	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	-	-	-	-	100.0	-	22.2
vii.	Waste management	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
viii.	Ware housing/ central store	100.0	-	-	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	66.7
ix.	Maintenance and repair	100.0	100.0	100.0	-	100.0	-	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3
x.	Electric supply	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.4
xi.	Water supply (plumbing)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
xii.	Heating, Ventilation and air-conditioning	-	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3
xiii.	Transport	-	-	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	77.8
xiv.	Communication	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	83.3
xv.	Medical Social Work	-	100.0	-	-	-	100.0	-	100.0	100.0	100.0	-	100.0	-	-	100.0	-	-	-	38.9
xvi.	Nursing Services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
xvii.	Sterilization and Disinfection	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
xviii.	Horticulture (landscaping)	-	-	-	-	-	100.0	-	100.0	-	-	100.0	100.0	100.0	100.0	-	-	-	-	33.3
xix.	Lift and Vertical transport	-	100.0	-	-	100.0	-	-	-	-	-	100.0	100.0	-	-	-	-	-	-	22.2
xx.	Refrigeration	-	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	-	100.0	72.2

Table 2.1.3 – District-wise availability of para-clinical services in district hospitals

S.No	Services	VZN	EG	GTR	PKM	NLR	CTR	KNL	MHB	RR	HYD	MDK	ADB	KHM	NLG	WG	KRI	NZB	KRM	ALL AP
1	Para-clinical services																			
a.	Laboratory services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
b.	X- Ray facility	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
c.	CT Scan services	100.0	-	-	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	72.2
d.	Sonography (Ultrasound)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	-	100.0	88.9
e.	ECG	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
f.	EEG	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	5.6
g.	Echocardiogram	-	-	-	-	-	-	-	100.0	-	100.0	-	-	100.0	-	-	-	-	-	16.7
h.	Pathology	100.0	-	-	-	-	-	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	-	50.0
i.	Blood Bank	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.9
j.	Physiotherapy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.4
k.	Dental Technology	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	83.3
l.	Drugs and Pharmacy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2.1.4 – District-wise availability of clinical manpower in district hospitals

S.No	Personnel	VZN	EG	GTR	PKM	NLR	CTR	KNL	MHB	RR	HYD	MDK	ADB	KHM	NLG	WG	KRI	NZB	KRM
1	Hospital Superintendent	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
2	Medical Specialist	2	1	2	1	1	2	1	1	4	1	1	3	1	2	1	5	2	1
3	Surgery Specialist	3	1	-	2	3	1	-	2	2	1	2	5	1	3	1	2	3	3
4	O & G Specialist	4	1	1	-	4	1	3	4	-	1	2	4	1	5	2	2	2	2
5	Pediatrician	2	1	3	-	4	1	1	1	1	1	3	2	1	4	2	1	1	3
6	Anesthetist (Regular/trained)	2	2	2	1	4	1	1	2	1	3	2	3	2	2	3	5	3	4
7	ENT Surgeon	1	1	1	1	3	1	1	2	1	3	2	2	2	1	1	2	-	1
8	Ophthalmologist	1	-	1	1	1	1	2	2	1	3	2	4	1	4	2	3	1	3
9	Orthopedician	2	1	2	1	5	1	2	1	1	3	2	2	1	3	3	1	1	-
10	Casualty Doctors / General Duty Doctors	6	-	8	4	3	3	13	12	-	12	7	7	-	-	-	12	12	17
11	Dental Surgeon	2	-	1	2	3	1	2	1	1	1	2	3	1	1	1	1	1	2
12	Public Health Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	AYUSH Physician	2	1	-	-	-	2	3	2	-	1	1	2	-	3	3	2	-	-

Table 2.1.5 – District-wise availability of para-medical manpower in district hospitals

S.No	Personnel	VZN	EG	GTR	PKM	NLR	CTR	KNL	MHB	RR	HYD	MDK	ADB	KHM	NLG	WG	KRI	NZB	KRM
1	Staff Nurse	43	60	48	36	41	78	49	60	32	56	60	87	67	74	90	62	60	82
2	Hospital Worker (OP ward +OT + blood bank)	10	24	15	18	-	22	-	48	-	4	10	21	33	28	-	22	36	46
3	Sanitary Worker	20	14	5	16	-	23	25	35	40	25	40	27	15	37	25	25	28	33
4	Ophthalmic Assistant / Refractionist	3	1	1	2	3	1	3	2	-	-	3	1	1	3	2	2	1	1
5	Social Worker / Counsellor	-	-	1	-	1	1	-	2	2	1	2	-	-	-	1	-	-	1
6	Cytotechnician	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
7	ECG Technician	-	-	-	1	1	2	-	-	1	1	-	1	1	-	-	1	1	-
8	ECHO Technician	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-
9	Audiometrician	1	-	-	-	-	2	-	-	1	-	-	1	1	1	1	-	-	1
10	Laboratory Technician (Lab + Blood Bank)	4	4	3	7	-	5	3	4	2	4	5	4	4	6	2	5	5	6
11	Laboratory Attendant (Hospital Worker)	3	2	1	2	-	5	4	5	2	3	2	2	4	4	4	2	2	3
12	Dietician	-	-	1	-	-	2	1	-	1	1	1	1	1	1	1	-	1	-
13	PFT Technician	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-
14	Maternity assistant (ANM)	5	6	4	-	7	5	6	6	2	5	6	6	6	-	6	-	8	6
15	Radiographer	2	3	2	3	-	3	3	3	1	1	3	5	3	3	3	2	3	5
16	Dark Room Assistant	2	2	2	2	-	3	3	1	1	2	1	1	1	-	3	2	4	2
17	Pharmacist	7	8	4	9	-	9	5	9	4	5	8	8	9	7	15	-	8	6
18	Matron	-	-	1	-	1	2	-	2	-	1	1	-	-	-	1	1	-	1
19	Physiotherapist	2	1	1	1	2	1	2	1	-	1	1	1	1	2	2	2	-	1
20	Statistical Assistant	1	-	-	1	1	1	-	-	-	-	-	-	-	-	-	1	1	-
21	Medical Records officer	-	-	1	-	1	2	1	1	2	1	-	-	-	-	1	1	-	-
22	Electrician	1	1	1	1	1	1	1	1	1	1	3	3	1	2	1	1	1	1
23	Plumber	1	1	1	1	1	1	1	-	1	1	1	1	-	1	1	1	1	-

Table 2.1.6 District-wise availability of essential infrastructure in district hospitals

S. No	District	No. of Hospitals	Blood Bank	Separate ward for Male / Female	Critical Care Area	Fully Equipped OT	Delivery Suite Near OT
1	Vizianagaram	1	100.0	100.0	-	-	-
2	East Godavari	1	100.0	100.0	100.0	-	100.0
3	West Godavari	1	100.0	100.0	100.0	-	100.0
4	Krishna	1	100.0	100.0	100.0	100.0	100.0
5	Guntur	1	100.0	100.0	100.0	100.0	100.0
6	Prakasam	1	100.0	100.0	100.0	100.0	-
7	Nellore	1	100.0	100.0	100.0	100.0	100.0
8	Chittoor	1	100.0	100.0	100.0	100.0	100.0
9	Kurnool	1	100.0	100.0	100.0	-	-
10	Mahabubnagar	1	100.0	100.0	100.0	100.0	100.0
11	Ranga Reddy	1	-	100.0	100.0	100.0	100.0
12	Hyderabad	1	-	100.0	100.0	100.0	100.0
13	Medak	1	100.0	100.0	100.0	100.0	100.0
14	Nizamabad	1	100.0	100.0	100.0	100.0	100.0
15	Adilabad	1	-	100.0	100.0	100.0	100.0
16	Karimnagar	1	100.0	100.0	100.0	100.0	100.0
17	Khammam	1	100.0	100.0	100.0	100.0	100.0
18	Nalgonda	1	100.0	100.0	100.0	100.0	-
ALL AP		18	83.3	100.0	94.4	77.8	77.8

Table 2.1.7 District-wise availability of medical equipment in district hospitals

S. No	Districts	No. of Hospitals	Instrument Sterilizer (Small)	Phototherapy Unit	Ventilators (Adult)	Ventilators (Pediatrics)	Oxygen Cylinder	Suction Apparatus (MTP)
1	Vizianagaram	1	100.0	-	100.0	-	100.0	100.0
2	East Godavari	1	100.0	100.0	-	-	100.0	100.0
3	West Godavari	1	100.0	100.0	100.0	-	100.0	100.0
4	Krishna	1	-	100.0	-	-	100.0	-
5	Guntur	1	100.0	-	-	-	100.0	-
6	Prakasam	1	-	-	100.0	-	100.0	-
7	Nellore	1	100.0	-	100.0	-	100.0	-
8	Chittoor	1	100.0	100.0	100.0	-	100.0	-
9	Kurnool	1	-	100.0	-	-	100.0	100.0
10	Mahabubnagar	1	-	100.0	-	-	100.0	100.0
11	Ranga Reddy	1	-	-	-	-	100.0	-
12	Hyderabad	1	100.0	100.0	100.0	100.0	100.0	100.0
13	Medak	1	-	100.0	100.0	-	100.0	100.0
14	Nizamabad	1	-	100.0	100.0	-	100.0	100.0
15	Adilabad	1	100.0	100.0	100.0	100.0	100.0	100.0
16	Karimnagar	1	100.0	100.0	100.0	100.0	100.0	100.0
17	Khammam	1	100.0	100.0	100.0	100.0	100.0	100.0
18	Nalgonda	1	100.0	100.0	100.0	-	100.0	100.0
ALL AP		18	61.1	72.2	66.7	22.2	100.0	66.7

Table 2.1.8 District-wise availability of quality control mechanisms in district hospitals

S. No	Districts	No. of Hospitals	Citizen's charter	Constitution of Rogi Kalyan Samiti	Internal monitoring by PRI/RKS	External monitoring (outsiders)	Monitoring of Laboratory	Record Maintenance
1	Vizianagaram	1	100.0	100.0	100.0	100.0	100.0	100.0
2	East Godavari	1	100.0	100.0	-	-	-	100.0
3	West Godavari	1	100.0	100.0	-	-	-	100.0
4	Krishna	1	100.0	100.0	100.0	100.0	100.0	100.0
5	Guntur	1	100.0	100.0	-	-	-	-
6	Prakasam	1	100.0	100.0	-	-	-	-
7	Nellore	1	100.0	100.0	100.0	100.0	100.0	-
8	Chittoor	1	100.0	-	-	-	-	-
9	Kurnool	1	100.0	100.0	-	-	-	-
10	Mahabubnagar	1	100.0	-	100.0	100.0	100.0	100.0
11	Ranga Reddy	1	100.0	-	100.0	100.0	100.0	100.0
12	Hyderabad	1	100.0	100.0	100.0	100.0	100.0	100.0
13	Medak	1	100.0	100.0	100.0	100.0	100.0	100.0
14	Nizamabad	1	100.0	100.0	100.0	100.0	100.0	100.0
15	Adilabad	1	100.0	100.0	100.0	100.0	100.0	100.0
16	Karimnagar	1	100.0	100.0	100.0	100.0	-	100.0
17	Khammam	1	100.0	100.0	100.0	100.0	100.0	100.0
18	Nalgonda	1	100.0	100.0	100.0	100.0	100.0	100.0
ALL AP		18	100.0	83.3	66.7	66.7	61.1	72.2

2.2 Area Hospital

The Sub-district / Sub-divisional hospitals act as the First Referral Units for provision of specialist services to the population from neighboring CHCs. The Area Hospitals (AH) with 100 beds have an important role to play in providing emergency obstetric care and neo-natal care and help in bringing down the maternal mortality and infant mortality. The AH caters to about 5-6 lakhs people within the region of a district. The AHs fill the gap between block level hospital and the district hospital especially in geographically larger districts.

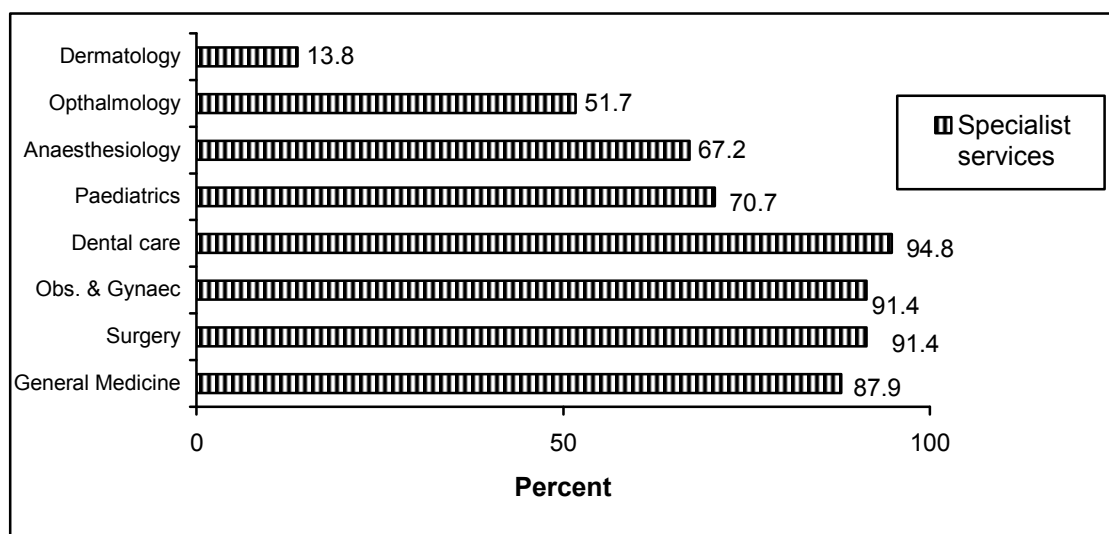
In the state, there are 61 Area hospitals out of which three in the towns of Vizianagaram, Nellore and Ongole are exclusively catering to the needs of mother and child care. In the following paragraphs, we deal with the services availability, clinical and para-medical manpower, equipments and citizen's charter available in the Area hospitals.

2.2.1 Services

(a) Specialist services

According to the IPHS guidelines, Area hospitals with 100 beds are expected to provide OPD, indoor, emergency services along with consultation services with specialists such as general medicine, general surgery, obs. & gynaec, pediatrics, orthopedics, ophthalmology, dermatology, dental care and AYUSH. Table 2.2.1 provides the information regarding specialist consultation services available in the Area hospitals. About 14 to 22 percent of Area hospitals are providing specialist services in critical care, ENT, orthopedics, radiology & ultrasonology and dermatology. In other words, about 38-45 Area hospitals in the state are not providing the specialized care. However a high percent (more than 88 percent) specialist services are provided in general medicine, surgery, obs. & gynaec, emergency / A&E and dental care are provided by Area hospitals.

Figure 2.2.1 Percentage-wise availability of specialist services in area hospitals



(b) MCH care

All the Area hospitals have 24-hour delivery services for both normal and assisted deliveries while emergency obstetric care including surgical

interventions like caesarian section and other medical interventions are available in 91.4 percent of Area hospitals. Newborn care and child immunization are available in eight out of ten Area hospitals.

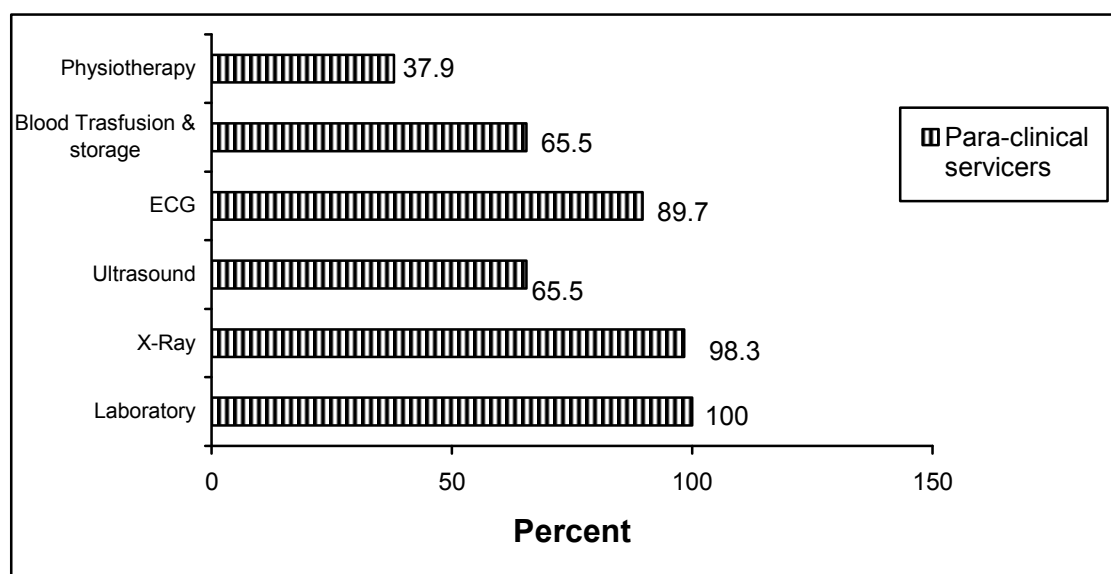
(c) Support Services

The availability of support services plays a crucial role in the maintenance of hospital premises, wards, operation theatre etc. More than 90 percent of the Area hospitals are providing support services in the areas of financial accounting and auditing; timely submission of SOEs / UCs, Medico legal and postmortem services, dietary and laundry services, housekeeping and sanitation and safe management of hospital waste (Table 2.2.2). The support services which need strengthening are counseling services for domestic violence, gender violence, adolescents etc and lift and vertical support facilities in the hospital.

(d) Para-clinical services

In order to provide all assured services, Area hospitals need to be well equipped with suitable diagnostic and investigative facilities. The Para-clinical services namely laboratory, X-ray and ECG services are available in nine out of ten Area hospitals. The ultrasound and blood transfusion and storage facilities are available in 65 percent of centres (Table 2.2.3).

Figure 2.2.2 Percentage-wise availability of diagnostic and para-clinical services in area hospitals



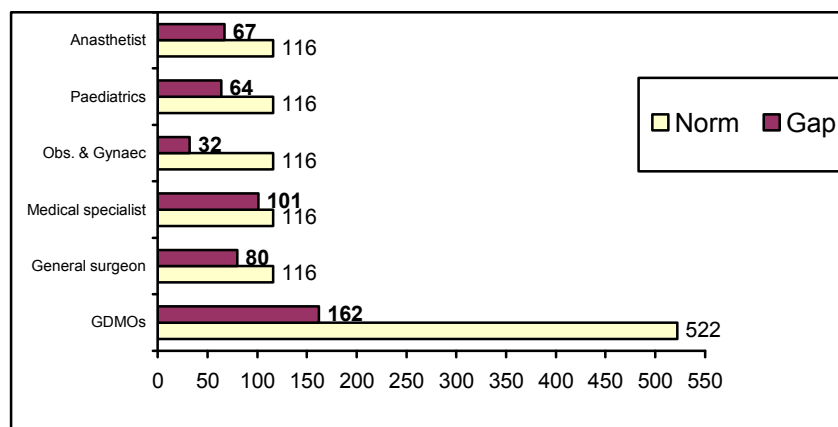
2.2.2 Manpower

(a) Medical staff

IPHS recommends a minimum requirement of a Hospital superintendent position with 21 specialists (medical specialists-2, surgery specialists-2, O&G specialists-2, dermatologist-1, paediatrician-2, anesthetist-2, ENT-1, ophthalmologist-1, orthopedician-1, radiologist-2, dental surgeon-1, public health manager-1, forensic expert-1, AYUSH-1, Pathologist-1 and 9 casualty doctors in Area Hospital). There are a total of 443 specialists and 281 general duty medical officers working in the 58 Area hospitals (Table 2.2.4). There exist very few specialists (less than 20 percent) in the Area hospitals in the specialties of medicine, dermatology / venerology, orthopedics, radiologist, forensic sciences, ENT, AYUSH respectively. On the other hand, more than 82 percent of Area hospitals have hospital superintendents, obs & gynaec specialists, pediatricians, anesthetist specialties. The available data for Area hospitals shows that Obs & Gynae specialists are available in Area hospitals of all districts except in three AHs of Kurnool and Adilabad districts. Pediatricians are not available in Kurnool, Medak and Adilabad district Area hospitals. Figure 2.2.3 provides the IPHS norm and the gap / requirement of additional specialists.

The state has a good number of General Duty Medical Officers (GDMO) in all the Area hospitals covering with an average of 4.8 per centre. In case of GDMOs, the IPHS recommends 9 per one Area hospital. Thus out of 522 GDMOs required, only 281 are presently available in the Area hospitals. Also 241 GDMOs are required for providing the round-the-clock services in all the Area hospitals. Wide variations in the availability of GDMOs are reported across the districts. The Area hospitals in Chittoor (3 hospitals) have 34 GDMOs, Nalgonda (4 hospitals) have 29 GDMOs.

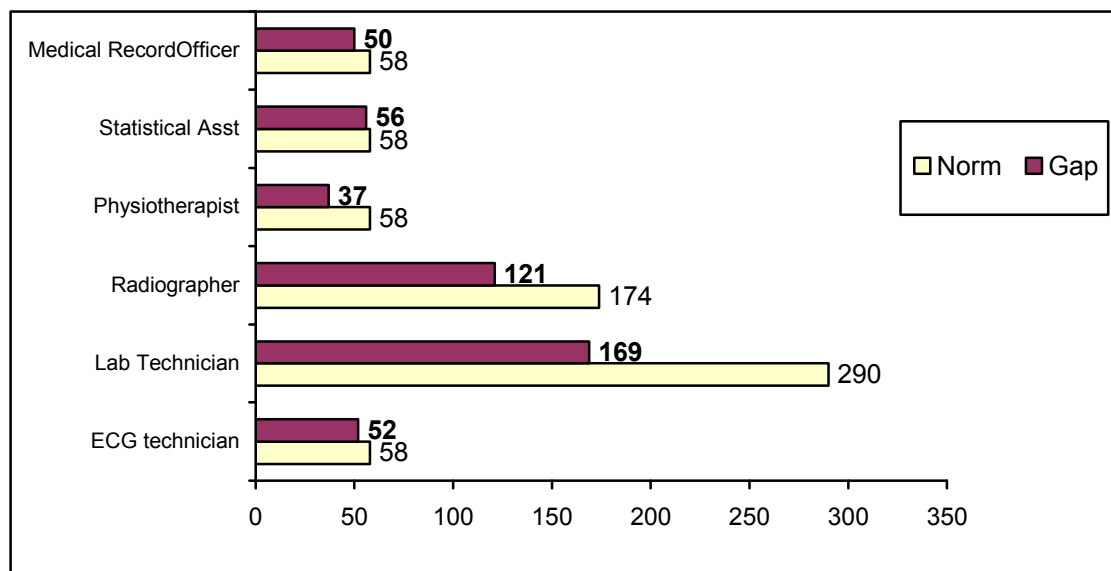
Figure 2.2.3 Existing supply and demand- supply gap of clinical personnel in area hospitals



(b) Nursing & Para-medical staff

The IPHS recommends 50 staff nurses in each 100 - bedded hospital. Out of the required 2900 staff nurses, presently 1174 staff nurses are in the Area hospitals indicating 40 percent of availability of the total requirement of 1726 staff nurses (Table 2.2.5). The availability of ECG technicians, ophthalmic assistants, laboratory attendants, matrons, statistical assistants, medical record officers are far below the requirement and require immediate steps for recruitment under NRHM. The gap between the norm and availability of para-medical personnel is very wide in the Area hospitals. Statistical assistant and medical record officer for maintaining the data are not available in majority of the Area hospitals. The lower availability of technical staff such as ECG technician, audiometric technician, pharmacists require special attention. At a glance, Area hospitals lack both clinical and para-clinical staff and special provision has to be made under NRHM.

Figure 2.2.4 Existing supply and demand- supply gap of para-medical personnel in area hospitals



2.2.3 Infrastructure

(a) Basic Amenities

Basic amenities and ancillary facilities are essential part of the hospital infrastructure. Table 2.2.6 provides details on availability of amenities and ancillary facilities like electricity in all parts of the building, electric generator for

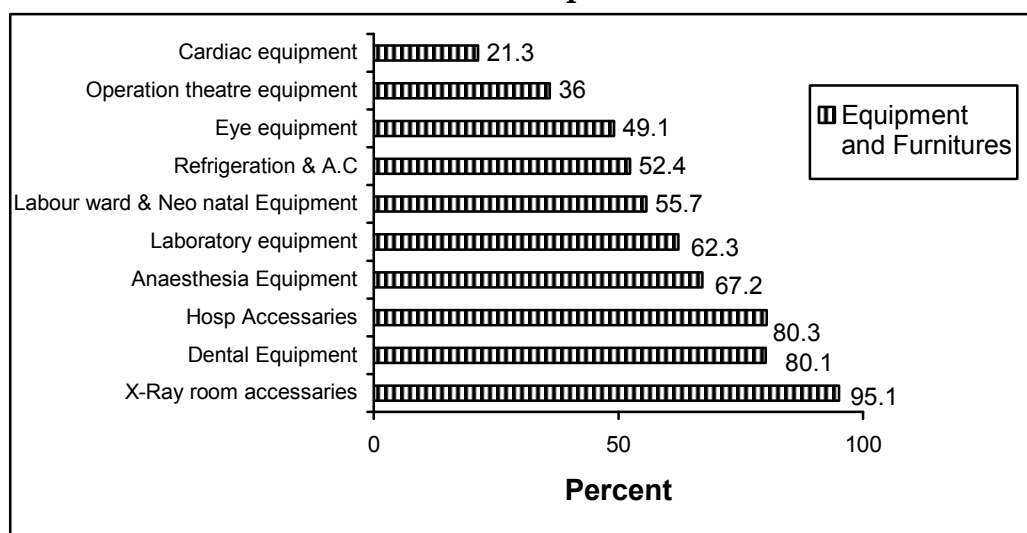
standby power supply in case of emergencies, availability of incinerator and telephone facility etc in the center.

The availability of electric supply in all parts of the building was reported in all Area hospitals except in two in Anantapur and Mahabubnagar districts. Availability of generator as a standby power supply was noted in all Area hospitals except in three hospitals in Chittoor, Kadapa and Anantapur districts. All Area hospitals reported availability of telephone, laboratory for diagnostic tests, availability of operation theatre and separate aseptic labour room in the state. Piped water was available in 58.6 percent of Area hospitals and the remaining depended on bore well facility. All the centres have overhead tanks and working pump facility for lifting and distribution purposes.

(b) Equipment and furniture

The IPHS suggested that every hospital with 100-bed strength should be supplied with 22 types of equipment. Each category of equipment comprises of a set of individual items (for example, the Imaging equipment has X-ray machine of 500 M.A, 300 M.A, 100 M.A and 60 M.A machines, C-arm with accessories, Dental X-ray machine, Ultra sonogram, C.T. Scan, Mammography unit and Echocardiogram). In order to have a comprehensive understanding of the availability of equipment, an attempt is made to aggregate all individual items of a particular equipment based on the criteria of 50 percent or more availability of items listed under each equipment. Thus we aggregated all the 22 equipment and furniture categories for all 58 Area hospitals (Table 2.2.7).

Figure 2.2.5 Percentage-wise availability of medical equipment and furniture in area hospitals



Out of 22 equipment and furniture categories, equipment is available by more than 50 percent at state aggregate level are X-ray room accessories (95 percent), dental equipment (80 percent), furniture & hospital accessories (67.2 percent), laboratory equipment (62.3 percent), anesthesia equipment (67.2 percent), labour ward and neo natal equipment (65.7 percent).

Further, an attempt was made to identify those Area hospitals which have maximum number of equipment categories (with more than 50 percent of listed items) in the state. The Area hospitals which reported a high score of equipment and furniture availability are Cherala (15), Proddutur (13), Bhongir (12), Malakpet (12), Tekkali (11), Tuni (11), Bapatla (11), Hindupur (11), Gadwal (11), Janagaon (11). On the other hand, the lowest availability of equipment reported in the Area hospitals recorded with a score of less than three (below 50 % of equipment in all 22 categories of equipment and furniture) are Tekkali, Nellore, Chandragiri, Anantapur and Adoni respectively. There is a need to strengthen the equipment in all Area hospitals in the state with a special focus on the centres which have lower availability of equipment (scoring below 5).

**Availability of Equipment and Furniture (with more than 50 percent of items)
in Area Hospitals**

Aggregate score	Location of the Area Hospital and district
Score >=11	Tekkali (SKL), Tuni (EG), Bapatla (GNT), Cherala (PSM), Kuppam (CHT), Palamuru (CHT), Proddutur (KDP), Hindupur (ATP), Gadwal (MHB), Malakpet (HYD), Jangaon (WRL), Bhongir (NLG)
Score <=5	Rajam (SKL), Parvathipuram (VZM), Narsipatnam (VSP), Guduwada (KRI), Kandukur (PSM), Nellore and Kavali (NLR), Madanapalli and Chandragiri (CHT), Anantapur (ATP), Adoni (KRL), Suryaper (NLG)

Note: Equipment categories (with >50 percent of individual items) were first identified for each hospital. Availability of each equipment category (with more than 50 percent of individual items) was given one score / mark. The scores vary from a minimum of zero to a maximum of 22).

Table 2.2.1: District-wise availability of specialist services in area hospitals

S. No.	Districts	No .of Hospitals	General Medicine	Surgery	OBG	Pediatrics	Anesthesiology	Ortho-pedics	Radiologist & Ultrasonologist	Ophthalmology	Community Health	Dermatology	Dental Care
1	Srikakulam	3	100.0	100.0	100.0	33.3	-	-	-	100.0	-	-	100.0
2	Vizianagaram	1	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0
3	Visakhapatnam	2	100.0	100.0	100.0	100.0	100.0	-	-	100.0	-	-	100.0
4	East Godavari	3	100.0	100.0	100.0	33.3	66.7	33.3	-	33.3	33.3	-	100.0
5	West Godavari	2	100.0	100.0	100.0	100.0	100.0	-	-	100.0	-	-	100.0
6	Krishna	2	100.0	100.0	100.0	50.0	50.0	-	-	50.0	-	-	100.0
7	Guntur	2	50.0	100.0	100.0	50.0	100.0	50.0	50.0	50.0	50.0	-	100.0
8	Prakasam	3	100.0	100.0	100.0	66.7	33.3	-	33.3	66.7	66.7	33.3	100.0
9	Nellore	2	100.0	100.0	100.0	100.0	100.0	-	50.0	100.0	-	50.0	100.0
10	Chittoor	5	40.0	80.0	100.0	40.0	40.0	40.0	20.0	20.0	-	-	100.0
11	Kadapa	2	50.0	50.0	50.0	50.0	50.0	-	50.0	100.0	50.0	-	100.0
12	Anantapur	3	100.0	66.7	33.3	66.7	33.3	33.3	-	66.7	-	-	66.7
13	Kurnool	1	100.0	100.0	-	-	-	-	-	-	-	-	100.0
14	Mahabubnagar	4	50.0	50.0	100.0	75.0	-	-	-	-	-	-	50.0
15	Ranga Reddy	1	100.0	100.0	100.0	100.0	100.0	-	-	100.0	-	-	100.0
16	Hyderabad	4	100.0	100.0	100.0	100.0	100.0	25.0	25.0	25.0	75.0	-	100.0
17	Medak	2	100.0	100.0	50.0	-	100.0	-	100.0	50.0	100.0	-	100.0
18	Nizamabad	3	100.0	100.0	100.0	100.0	100.0	33.3	33.3	66.7	100.0	33.3	100.0
19	Adilabad	2	100.0	100.0	100.0	100.0	50.0	50.0	-	50.0	50.0	-	100.0
20	Karimnagar	3	100.0	100.0	100.0	66.7	100.0	66.7	33.3	-	-	66.7	100.0
21	Warangal	2	100.0	100.0	100.0	100.0	100.0	50.0	50.0	100.0	-	50.0	100.0
22	Khammam	2	100.0	100.0	100.0	100.0	100.0	50.0	-	50.0	-	-	100.0
23	Nalgonda	4	100.0	100.0	100.0	100.0	100.0	25.0	-	25.0	-	25.0	100.0
All AP		58	87.9	91.4	91.4	70.7	67.2	22.4	20.7	51.7	24.1	13.8	94.8

Table 2.2.2: District- wise availability of support services in area hospitals

Sl. No.	Districts	No. of Hospitals	Finance	Medico legal/ postmortem	Ambulance Services	Dietary Services	Laundry Services	Security Services	Housekeeping and Sanitation	Inventory Management	Waste Managem ent	Office Managem ent	Counseling Services for Domestic Violence, Gender Violence
1	Srikakulam	3	100.0	100.0	66.7	100.0	100.0	100.0	100.0	-	100.0	66.7	-
2	Vizianagaram	1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	-	-
3	Visakhapatnam	2	100.0	100.0	100.0	100.0	50.0	100.0	100.0	50.0	100.0	50.0	-
4	East Godavari	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	66.7	33.3
5	West Godavari	2	100.0	100.0	100.0	100.0	50.0	100.0	100.0	50.0	100.0	100.0	50.0
6	Krishna	2	100.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0
7	Guntur	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	100.0	50.0	-
8	Prakasam	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	33.3	100.0	-	33.3
9	Nellore	2	100.0	100.0	50.0	100.0	100.0	100.0	100.0	50.0	100.0	100.0	-
10	Chittoor	5	100.0	80.0	80.0	80.0	100.0	80.0	100.0	80.0	100.0	60.0	60.0
11	Kadapa	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-
12	Anantapur	3	100.0	100.0	66.7	100.0	100.0	100.0	100.0	33.3	100.0	-	-
13	Kurnool	1	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	-	-
14	Mahabubnagar	4	100.0	100.0	75.0	75.0	75.0	100.0	100.0	25.0	100.0	25.0	25.0
15	Ranga Reddy	1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	-
16	Hyderabad	4	100.0	-	100.0	100.0	75.0	75.0	100.0	25.0	100.0	25.0	25.0
17	Medak	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-
18	Nizamabad	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	66.7	100.0	66.7	33.3
19	Adilabad	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	100.0	-	50.0
20	Karimnagar	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	33.3	33.3
21	Warangal	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0
22	Khammam	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	100.0	100.0	100.0
23	Nalgonda	4	100.0	100.0	100.0	100.0	75.0	100.0	100.0	75.0	100.0	50.0	-
ALL AP		58	100.0	89.7	89.7	96.6	91.4	96.6	100.0	53.4	100.0	46.6	27.6

Table 2.2.3: District-wise availability of diagnostic and para-clinical services in area hospitals

S.No	Districts	No. of Hospitals	Laboratory	X-Ray	Ultrasound	ECG	Blood Transfusion and Storage	Physiotherapy
1	Srikakulam	3	100.0	100.0	33.3	66.7	33.3	33.3
2	Vizianagaram	1	100.0	100.0	100.0	100.0	100.0	100.0
3	Visakhapatnam	2	100.0	100.0	100.0	100.0	100.0	50.0
4	East Godavari	3	100.0	100.0	66.7	100.0	66.7	33.3
5	West Godavari	2	100.0	100.0	100.0	100.0	50.0	50.0
6	Krishna	2	100.0	100.0	50.0	100.0	100.0	50.0
7	Guntur	2	100.0	100.0	100.0	100.0	50.0	50.0
8	Prakasam	3	100.0	100.0	33.3	100.0	33.3	-
9	Nellore	2	100.0	100.0	50.0	100.0	50.0	100.0
10	Chittoor	5	100.0	80.0	80.0	80.0	60.0	40.0
11	Kadapa	2	100.0	100.0	100.0	100.0	100.0	50.0
12	Anantapur	3	100.0	100.0	66.7	100.0	33.3	33.3
13	Kurnool	1	100.0	100.0	100.0	100.0	-	-
14	Mahabubnagar	4	100.0	100.0	75.0	100.0	100.0	-
15	Ranga Reddy	1	100.0	100.0	100.0	-	-	-
16	Hyderabad	4	100.0	100.0	75.0	100.0	-	75.0
17	Medak	2	100.0	100.0	-	100.0	100.0	-
18	Nizamabad	3	100.0	100.0	66.7	100.0	66.7	-
19	Adilabad	2	100.0	100.0	100.0	-	100.0	-
20	Karimnagar	3	100.0	100.0	66.7	100.0	100.0	33.3
21	Warangal	2	100.0	100.0	50.0	100.0	100.0	100.0
22	Khammam	2	100.0	100.0	50.0	100.0	100.0	50.0
23	Nalgonda	4	100.0	100.0	25.0	75.0	75.0	50.0
All AP		58	100.0	98.3	65.5	89.7	65.5	37.9

Table 2.2.4: District-wise availability of doctors in area hospitals

S. No.	Districts	No. of Hospitals	Hospital Superintendent ¹	Medical Specialist	Surgery Specialists	O & G specialist	Pediatrician	Anesthetist	Ophthalmologist	Orthopedician	Casualty Doctors/ General Duty Doctors	Dental Surgeon	ENT Surgeon	AYUSH Physician
1	Srikakulam	3	2	-	1	2	2	-	1	-	7	3	-	-
2	Vizianagaram	1	1	1	1	1	1	1	1	2	-	1	1	1
3	Visakhapatnam	2	2	1	-	7	2	3	3	-	-	2	1	1
4	East Godavari	3	3	3	2	5	2	3	2	1	9	3	2	1
5	West Godavari	2	2	-	1	3	2	4	2	-	6	2	1	-
6	Krishna	2	2	-	1	2	1	1	1	-	3	2	-	-
7	Guntur	2	2	1	-	2	1	2	1	1	5	2	-	-
8	Prakasam	3	3	-	3	6	2	2	5	-	8	3	1	4
9	Nellore	2	2	-	4	5	2	2	4	-	8	2	1	-
10	Chittoor	5	5	3	4	6	2	5	2	3	34	6	4	3
11	Kadapa	2	2	-	1	2	1	2	2	-	8	2	1	1
12	Anantapur	3	2	2	2	2	4	1	3	1	16	3	2	-
13	Kurnool	1	1	1	1	-	-	-	-	-	10	1	-	-
14	Mahabubnagar	4	3	-	1	2	3	-	-	-	18	4	-	2
15	Ranga Reddy	1	1	-	2	5	2	1	1	-	18	1	-	-
16	Hyderabad	4	2	1	4	16	7	7	2	1	19	4	-	1
17	Medak	2	1	-	-	1	-	1	1	-	9	2	-	1
18	Nizamabad	3	2	-	1	4	2	-	2	1	14	3	-	-
19	Adilabad	2	1	-	-	-	-	2	1	1	10	2	-	-
20	Karimnagar	3	3	-	2	6	5	4	-	1	23	3	1	1
21	Warangal	2	2	1	1	3	5	2	3	1	12	4	1	1
22	Khammam	2	1	-	1	1	3	1	-	-	15	2	-	-
23	Nalgonda	4	3	1	3	3	3	5	1	2	29	4	-	1
All AP		58	48	15	36	84	52	49	38	15	281	61	16	18

Table 2.2.5: District-wise availability of para-medical manpower in area hospital

S. No.	Districts	No. of Hospitals	Staff Nurse	Attendant	Ophthalmic Assistant/ Refractionist	ECG Technician	Audiometry Technician	Laboratory Technician* (Lab + Blood Storage Unit)	Laboratory Attendant (Hospital Worker)	Radio-grapher	Pharmacist	Matron	Physio-therapist	Statistical Assistant	Medical Records Officer/ Technician	Electrician	Plumber
1	Srikakulam	3	46	-	-	-	-	4	3	1	7	3	1	-	-	1	-
2	Vizianagaram	1	23	-	1	-	-	7	1	1	3	-	1	-	-	1	1
3	Visakhapatnam	2	41	-	2	-	-	5	-	2	6	-	1	-	-	2	1
4	East Godavari	3	46	5	1	-	-	9	3	3	10	-	1	-	-	2	1
5	West Godavari	2	48	-	-	-	-	4	1	1	6	-	1	-	-	2	2
6	Krishna	2	43	1	-	-	-	3	7	2	4	3	1	-	1	2	1
7	Guntur	2	48	3	2	1	-	4	1	2	7	-	1	-	-	2	2
8	Prakasam	3	47	15	3	1	-	4	1	3	8	3	-	-	-	3	1
9	Nellore	2	30	4	2	-	-	2	3	2	8	-	2	1	1	1	-
10	Chittoor	5	95	7	1	1	-	13	4	3	13	-	2	-	-	3	-
11	Kadapa	2	48	3	-	-	-	4	2	2	8	-	1	-	2	1	-
12	Anantapur	3	56	7	1	-	-	6	3	2	12	1	-	-	1	1	-
13	Kurnool	1	22	-	-	-	-	1	-	-	4	-	-	-	-	-	-
14	Mahabubnagar	4	71	7	-	-	-	9	4	4	13	-	-	-	-	-	-
15	Ranga Reddy	1	22	2	-	-	-	2	1	-	3	-	-	-	-	-	-
16	Hyderabad	4	105	12	-	1	-	10	6	4	15	1	3	-	-	2	1
17	Medak	2	31	13	-	-	-	3	-	2	4	-	-	1	1	1	-
18	Nizamabad	3	83	4	1	-	-	4	1	3	9	-	-	-	-	1	3
19	Adilabad	2	49	15	1	-	-	3	-	3	5	-	-	-	-	1	2
20	Karimnagar	3	47	4	2	1	-	12	3	3	10	5	1	-	1	3	2
21	Warangal	2	28	2	2	-	-	2	-	2	5	1	2	-	1	2	1
22	Khammam	2	49	1	-	-	-	3	-	2	3	-	1	-	-	1	1
23	Nalgonda	4	96	7	1	1	-	7	5	6	11	1	2	-	-	4	1
All AP		58	1174	112	20	6	-	121	49	53	174	18	21	2	8	36	20

Table 2.2.6: District-wise availability of infrastructural facilities in area hospitals

S. No.	Districts	No. of Hospitals	Water Facility		Overhead Tank & pump exist	Electricity in all parts	Generator	Telephone	Laboratory	Operation Theatre ¹	Separate Asepticlabour room
			Piped	Bore Well							
1	Srikakulam	3	66.7	33.3	100.0	100.0	100.0	100.0	100.0	64.1	100.0
2	Vizianagaram	1	100.0		100.0	100.0	100.0	100.0	100.0	61.5	100.0
3	Visakhapatnam	2	100.0		100.0	100.0	100.0	100.0	100.0	80.8	100.0
4	East Godavari	3	66.7	33.3	100.0	100.0	100.0	100.0	100.0	71.8	100.0
5	West Godavari	2	50.0	50.0	100.0	100.0	100.0	100.0	100.0	80.8	100.0
6	Krishna	2	100.0		100.0	100.0	100.0	100.0	100.0	50.0	100.0
7	Guntur	2	50.0	50.0	100.0	100.0	100.0	100.0	100.0	46.2	100.0
8	Prakasam	3	33.3	33.3	100.0	100.0	100.0	100.0	100.0	76.9	100.0
9	Nellore	2	50.0	50.0	100.0	100.0	100.0	100.0	100.0	80.8	100.0
10	Chittoor	5	40.0	60.0	100.0	100.0	80.0	100.0	100.0	53.8	60.0
11	Kadapa	2	50.0	50.0	100.0	100.0	50.0	100.0	100.0	46.2	100.0
12	Anantapur	3	75.0	25.0	100.0	66.7	66.7	100.0	100.0	53.8	66.7
13	Kurnool	1	100.0		100.0	100.0	100.0	100.0	100.0	69.2	-
14	Mahabubnagar	4	50.0	50.0	100.0	75.0	100.0	50.0	100.0	59.6	100.0
15	Ranga Reddy	1			100.0	100.0	100.0	100.0	100.0	53.8	100.0
16	Hyderabad	4	100.0		100.0	100.0	100.0	100.0	100.0	71.2	100.0
17	Medak	2		100.0	100.0	100.0	100.0	100.0	100.0	88.5	50.0
18	Nizamabad	3	33.3	66.7	100.0	100.0	100.0	100.0	100.0	74.4	100.0
19	Adilabad	2	50.0	50.0	100.0	100.0	100.0	50.0	100.0	57.7	100.0
20	Karimnagar	3	100.0		100.0	100.0	100.0	66.7	100.0	84.6	100.0
21	Warangal	2	100.0		100.0	100.0	100.0	100.0	100.0	92.3	100.0
22	Khammam	2		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
23	Nalgonda	4	50.0	50.0	100.0	100.0	100.0	100.0	100.0	61.5	100.0
All AP		58	58.6	37.9	100.0	96.6	94.8	93.1	100.0	82.8	91.4

¹**Operation Theatre:** Fully equipped operation Theatre, location of OT in close relation to ICU, Radiology, Pathology, Blood Bank, Piped suction and medical gases, Uninterrupted Electric Supply, Heating, Air Conditioning, Ventilation, Efficient Life Services, Preparation Room, Pre-operative Room, Post-operative Room, Scrub-up Room for washing and scrubbing, Sub-sterilizing Unit

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipment & Furniture	SRIKAKULAM			VIZIANAGARAM	VISHAKAPATNAM		EAST GODAVARI		
		Palakonda	Tekkali	Rajam	Parvathipuram	Narsipatnam	Anakapali	Amalapuram	Ramachandrapuram	Tuni
1	Imaging Equipment	30.0	40.0	20.0	30.0	40.0	40.0	30.0	40.0	40.0
2	X-Ray Room Accessories	71.4	85.7	57.1	85.7	71.4	85.7	85.7	85.7	100.0
3	Cardiac Equipment	7.7	53.8	23.1	7.7	30.8	7.7	46.2	46.2	53.8
4	Labour ward & Neonatal Equipment	50.0	61.1	33.3	33.3	44.4	50.0	61.1	38.9	77.8
5	Ear Nose Throat Equipment	0.0	0.0	0.0	11.8	0.0	29.4	23.5	5.9	58.8
6	Eye Equipment	57.1	71.4	0.0	57.1	71.4	85.7	42.9	57.1	0.0
7	Dental Equipment	80.0	80.0	80.0	20.0	80.0	60.0	20.0	80.0	100.0
8	Operation Theatre Equipment	52.0	36.0	40.0	44.0	40.0	52.0	36.0	48.0	60.0
9	Laboratory Equipment	43.3	50.0	36.7	56.7	60.0	56.7	40.0	66.7	50.0
10	Surgical Equipment Sets	38.3	40.4	36.2	59.6	36.2	42.6	42.6	40.4	40.4
11	Physiotherapy Equipment	0.0	100.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Anaesthesia Equipment	66.7	60.0	46.7	80.0	86.7	66.7	53.3	60.0	60.0
14	Furniture & Hospital Accessories	35.4	70.9	38.0	48.1	58.2	63.3	62.0	62.0	60.8
15	PM Equipment	11.1	55.6	88.9	33.3	44.4	55.6	44.4	66.7	44.4
16	Linen	29.2	66.7	29.2	41.7	37.5	29.2	50.0	41.7	62.5
17	Teaching Equipment	55.6	0.0	11.1	0.0	0.0	0.0	55.6	22.2	0.0
18	Administration	10.0	10.0	10.0	0.0	20.0	20.0	40.0	20.0	10.0
19	Refrigeration & AC	57.1	28.6	28.6	42.9	42.9	42.9	42.9	42.9	28.6
20	Hospital Plants	25.0	12.5	25.0	25.0	12.5	12.5	37.5	37.5	25.0
21	Hospital Fittings & Necessities	15.0	20.0	35.0	35.0	10.0	30.0	50.0	40.0	50.0
22	Transport	10.0	10.0	0.0	10.0	10.0	10.0	30.0	10.0	10.0

(Contd)

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipments & Furniture	WEST GODAVARI		KRISHNA		GUNTUR		PRAKASAM		
		Tanuku	Tadepalli gudem	Nuzivedu	Gudivada	Bapatla	Narsaraopeta	Cherala	Markapuram	Kandukur
1	Imaging Equipment	50.0	50.0	40.0	30.0	50.0	40.0	50.0	30.0	30.0
2	X-Ray Room Accessories	85.7	85.7	85.7	71.4	71.4	85.7	100.0	85.7	71.4
3	Cardiac Equipment	46.2	38.5	30.8	23.1	61.5	46.2	61.5	61.5	38.5
4	Labour ward & Neonatal Equipment	50.0	72.2	27.8	44.4	61.1	50.0	83.3	50.0	55.6
5	Ear Nose Throat Equipment	0.0	23.5	0.0	0.0	0.0	0.0	47.1	0.0	0.0
6	Eye Equipment	71.4	71.4	0.0	71.4	14.3	71.4	85.7	71.4	0.0
7	Dental Equipment	60.0	60.0	60.0	60.0	40.0	100.0	80.0	80.0	60.0
8	Operation Theatre Equipment	44.0	40.0	40.0	40.0	52.0	52.0	60.0	64.0	56.0
9	Laboratory Equipment	53.3	53.3	60.0	53.3	56.7	66.7	73.3	46.7	46.7
10	Surgical Equipment Sets	59.6	31.9	29.8	36.2	53.2	53.2	55.3	31.9	29.8
11	Physiotherapy Equipment	0.0	33.3	66.7	0.0	0.0	0.0	0.0	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Anaesthesia Equipment	46.7	40.0	33.3	26.7	80.0	46.7	66.7	40.0	26.7
14	Furniture & Hospital Accessories	49.4	50.6	50.6	46.8	62.0	53.2	70.9	59.5	53.2
15	PM Equipment	55.6	55.6	66.7	55.6	11.1	66.7	88.9	77.8	11.1
16	Linen	62.5	41.7	54.2	41.7	83.3	45.8	66.7	37.5	41.7
17	Teaching Equipment	33.3	44.4	22.2	0.0	22.2	0.0	44.4	0.0	33.3
18	Administration	10.0	30.0	10.0	10.0	10.0	40.0	30.0	20.0	10.0
19	Refrigeration & AC	28.6	57.1	42.9	42.9	71.4	42.9	71.4	57.1	42.9
20	Hospital Plants	25.0	12.5	25.0	25.0	25.0	25.0	37.5	25.0	25.0
21	Hospital Fittings & Necessities	35.0	55.0	25.0	10.0	25.0	40.0	50.0	65.0	20.0
22	Transport	10.0	10.0	10.0	20.0	10.0	20.0	30.0	10.0	20.0

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipments & Furniture	NELLORE		CHITTOOR					KADAPA	
		Gudur	Kavali	Kuppam	Madanapalli	Srikalahasti	Chandragiri	Palamaneru	Pulivendula	Proddutur
1	Imaging Equipment	50.0	30.0	40.0	30.0	40.0	0.0	50.0	30.0	50.0
2	X-Ray Room Accessories	71.4	71.4	85.7	85.7	71.4	0.0	57.1	57.1	71.4
3	Cardiac Equipment	23.1	30.8	38.5	15.4	38.5	0.0	38.5	46.2	84.6
4	Labour ward & Neonatal Equipment	27.8	44.4	50.0	22.2	44.4	11.1	66.7	44.4	50.0
5	Ear Nose Throat Equipment	0.0	41.2	17.6	35.3	17.6	5.9	17.6	0.0	0.0
6	Eye Equipment	57.1	57.1	71.4	57.1	71.4	0.0	42.9	57.1	0.0
7	Dental Equipment	60.0	40.0	60.0	60.0	80.0	0.0	80.0	100.0	80.0
8	Operation Theatre Equipment	32.0	40.0	52.0	36.0	48.0	8.0	52.0	40.0	60.0
9	Laboratory Equipment	46.7	50.0	56.7	43.3	53.3	16.7	43.3	46.7	43.3
10	Surgical Equipment Sets	29.8	42.6	46.8	48.9	70.2	8.5	48.9	44.7	61.7
11	Physiotherapy Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0
13	Anaesthesia Equipment	40.0	53.3	60.0	46.7	53.3	0.0	80.0	0.0	60.0
14	Furniture & Hospital Accessories	63.3	57.0	69.6	59.5	51.9	10.1	59.5	59.5	83.5
15	PM Equipment	77.8	0.0	77.8	33.3	22.2	0.0	55.6	44.4	100.0
16	Linen	66.7	25.0	50.0	45.8	33.3	12.5	54.2	50.0	75.0
17	Teaching Equipment	11.1	22.2	33.3	0.0	0.0	0.0	77.8	0.0	0.0
18	Administration	40.0	10.0	30.0	10.0	30.0	10.0	40.0	20.0	10.0
19	Refrigeration & AC	71.4	42.9	71.4	85.7	85.7	14.3	71.4	71.4	57.1
20	Hospital Plants	37.5	12.5	37.5	12.5	25.0	0.0	12.5	50.0	25.0
21	Hospital Fittings & Necessities	50.0	15.0	30.0	35.0	35.0	25.0	50.0	10.0	65.0
22	Transport	10.0	10.0	10.0	10.0	10.0	0.0	10.0	10.0	10.0

(Contd)

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipments & Furniture	ANANTAPUR			KURNOOL	MAHABUBNAGAR				RANGA REDDY
		Kadiri	Hindupur	Guntakal	Adoni	Gadwal	Narayanpet	Nagar Kurnool	Wanaparth	Kondapur
1	Imaging Equipment	20.0	40.0	50.0	40.0	40.0	40.0	20.0	40.0	40.0
2	X-Ray Room Accessories	71.4	85.7	85.7	85.7	100.0	57.1	85.7	71.4	85.7
3	Cardiac Equipment	38.5	46.2	0.0	46.2	38.5	46.2	46.2	61.5	23.1
4	Labour ward & Neonatal Equipment	55.6	55.6	38.9	0.0	66.7	61.1	55.6	55.6	55.6
5	Ear Nose Throat Equipment	0.0	11.8	0.0	0.0	0.0	5.9	0.0	5.9	0.0
6	Eye Equipment	71.4	71.4	0.0	0.0	28.6	14.3	100.0	28.6	57.1
7	Dental Equipment	0.0	80.0	80.0	80.0	80.0	80.0	20.0	60.0	60.0
8	Operation Theatre Equipment	48.0	40.0	40.0	40.0	64.0	44.0	56.0	44.0	40.0
9	Laboratory Equipment	53.3	50.0	50.0	43.3	60.0	60.0	50.0	50.0	36.7
10	Surgical Equipment Sets	44.7	40.4	40.4	34.0	59.6	34.0	21.3	17.0	21.3
11	Physiotherapy Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	0.0	28.6	0.0	0.0	0.0	0.0
13	Anaesthesia Equipment	73.3	60.0	60.0	53.3	86.7	73.3	73.3	93.3	100.0
14	Furniture & Hospital Accessories	49.4	83.5	55.7	53.2	51.9	50.6	46.8	69.6	44.3
15	PM Equipment	66.7	77.8	11.1	33.3	22.2	55.6	11.1	11.1	0.0
16	Linen	45.8	58.3	50.0	33.3	79.2	66.7	37.5	70.8	66.7
17	Teaching Equipment	11.1	0.0	66.7	0.0	55.6	0.0	44.4	33.3	55.6
18	Administration	30.0	20.0	10.0	10.0	20.0	10.0	20.0	20.0	40.0
19	Refrigeration & AC	57.1	71.4	85.7	28.6	85.7	71.4	42.9	42.9	28.6
20	Hospital Plants	12.5	25.0	12.5	25.0	37.5	25.0	12.5	12.5	12.5
21	Hospital Fittings & Necessities	60.0	60.0	10.0	30.0	40.0	15.0	15.0	35.0	35.0
22	Transport	20.0	0.0	20.0	0.0	20.0	0.0	10.0	10.0	10.0

(Contd)

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipments & Furniture	HYDERABAD				MEDAK		NIZAMBAD		
		Nampally	Malakpet	Golkonda	Vanasthalipuram	Medak	Siddipet	Kamareddy	Bodhan	Bansuvada
1	Imaging Equipment	40.0	40.0	40.0	40.0	30.0	40.0	50.0	50.0	30.0
2	X-Ray Room Accessories	71.4	85.7	85.7	100.0	71.4	71.4	100.0	71.4	71.4
3	Cardiac Equipment	30.8	30.8	30.8	46.2	30.8	30.8	46.2	61.5	38.5
4	Labour ward & Neonatal Equipment	38.9	61.1	27.8	33.3	61.1	0.0	33.3	44.4	55.6
5	Ear Nose Throat Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Eye Equipment	0.0	100.0	0.0	0.0	57.1	0.0	85.7	0.0	0.0
7	Dental Equipment	60.0	80.0	60.0	60.0	80.0	100.0	100.0	40.0	60.0
8	Operation Theatre Equipment	44.0	32.0	52.0	60.0	48.0	76.0	52.0	20.0	44.0
9	Laboratory Equipment	43.3	53.3	43.3	70.0	40.0	40.0	30.0	56.7	43.3
10	Surgical Equipment Sets	29.8	40.4	53.2	38.3	38.3	36.2	55.3	0.0	38.3
11	Physiotherapy Equipment	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0
13	Anaesthesia Equipments	53.3	93.3	53.3	53.3	73.3	93.3	60.0	0.0	0.0
14	Furniture & Hospital Accessories	69.6	92.4	63.3	57.0	62.0	57.0	82.3	64.6	55.7
15	PM Equipment	22.2	0.0	0.0	0.0	44.4	55.6	66.7	0.0	88.9
16	Linen	54.2	70.8	54.2	16.7	16.7	41.7	41.7	58.3	37.5
17	Teaching Equipment	0.0	55.6	0.0	0.0	0.0	0.0	11.1	22.2	66.7
18	Administration	10.0	40.0	10.0	20.0	10.0	20.0	30.0	30.0	30.0
19	Refrigeration & AC	57.1	71.4	28.6	57.1	42.9	57.1	85.7	85.7	85.7
20	Hospital Plants	12.5	12.5	12.5	12.5	25.0	12.5	25.0	25.0	25.0
21	Hospital Fittings & Necessities	20.0	70.0	15.0	30.0	25.0	35.0	40.0	40.0	50.0
22	Transport	10.0	10.0	10.0	20.0	10.0	10.0	10.0	10.0	10.0

(Contd)

Table 2.2.7 District-wise availability of equipment, furniture and support services in area hospitals

S. No.	Equipments & Furniture	ADILABAD		KARIMNAGAR			WARANGAL		KHAMMAM		NALGONDA			
		Mancherial	Bhainsa	Jagityal	Sirisilla	Godavarikhani	Mahabu-babad	Jana-gam	Kotha-gudem	Bhadra-chalam	Surya-pet	Miryal-guda	Bhongiri	N.Sagar
1	Imaging Equipment	50.0	60.0	40.0	40.0	30.0	40.0	40.0	50.0	40.0	30.0	40.0	30.0	50.0
2	X-Ray Room Accessories	71.4	71.4	85.7	85.7	71.4	85.7	57.1	85.7	85.7	85.7	85.7	85.7	71.4
3	Cardiac Equipment	53.8	38.5	46.2	61.5	53.8	7.7	53.8	38.5	38.5	23.1	53.8	46.2	30.8
4	Labour ward & Neonatal Equipment	72.2	0.0	50.0	44.4	55.6	50.0	50.0	38.9	44.4	22.2	66.7	66.7	50.0
5	Ear Nose Throat Equipment	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	5.9
6	Eye Equipment	71.4	0.0	42.9	42.9	0.0	42.9	71.4	28.6	71.4	0.0	71.4	57.1	14.3
7	Dental Equipment	80.0	60.0	80.0	60.0	20.0	80.0	80.0	60.0	80.0	60.0	20.0	60.0	80.0
8	Operation Theatre Equipment	44.0	36.0	40.0	64.0	56.0	60.0	48.0	44.0	44.0	40.0	56.0	40.0	48.0
9	Laboratory Equipment	90.0	53.3	46.7	56.7	50.0	60.0	66.7	53.3	53.3	46.7	50.0	56.7	70.0
10	Surgical Equipment Sets	29.8	31.9	74.5	23.4	23.4	29.8	34.0	34.0	38.3	29.8	40.4	46.8	46.8
11	Physiotherapy Equipment	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0
12	Endoscopy equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Anaesthesia Equipments	40.0	26.7	80.0	66.7	53.3	53.3	33.3	40.0	66.7	80.0	66.7	80.0	33.3
14	Furniture & Hospital Accessories	63.3	51.9	73.4	35.4	57.0	70.9	70.9	67.1	59.5	45.6	70.9	69.6	64.6
15	PM Equipment	11.1	77.8	33.3	33.3	33.3	11.1	11.1	55.6	77.8	66.7	22.2	88.9	22.2
16	Linen	41.7	33.3	37.5	16.7	45.8	29.2	50.0	50.0	45.8	50.0	41.7	50.0	45.8
17	Teaching Equipment	11.1	0.0	55.6	22.2	44.4	55.6	66.7	11.1	22.2	0.0	55.6	66.7	0.0
18	Administration	20.0	0.0	30.0	10.0	10.0	40.0	20.0	20.0	20.0	10.0	30.0	50.0	40.0
19	Refrigeration & AC	42.9	57.1	71.4	42.9	57.1	85.7	71.4	71.4	57.1	42.9	42.9	14.3	71.4
20	Hospital Plants	12.5	12.5	25.0	12.5	12.5	12.5	25.0	25.0	12.5	12.5	25.0	25.0	12.5
21	Hospital Fittings & Necessities	40.0	50.0	45.0	30.0	25.0	55.0	55.0	40.0	50.0	20.0	35.0	50.0	45.0
22	Transport	10.0	10.0	20.0	20.0	20.0	10.0	10.0	20.0	10.0	10.0	10.0	10.0	10.0

2.3 Specialized Hospitals

There are 10 special category hospitals in the state providing services in the areas of Mother and child (7), Chest diseases (2) and Paediatric care (1) with varying bed strength. The availability of assured services, manpower and diagnostic facilities is presented in Table 2.3.1.

There are seven Mother and child hospitals in the state with varying bed strength. All the hospitals providing specialist services related to obstetrics & gynecology, general medicine, surgery and paediatrics. Laboratory facilities are available in all the centers. The X-ray and ultrasound services are available in all centers except in the Nellore and Ongole hospitals. The Mother and child hospitals have fully equipped operation theatres and fully equipped delivery suite units and follow safe bio-medical waste management.

There are two Chest hospitals in Nellore (264 beds) and Anantapur (100 beds). The two hospitals have no specialists in TB related specializations. The Nellore hospital have a superintendent, one general medicine specialist and 5 general duty medical officers (GDMO) where as the chest hospital in Anantapur has one Anesthetist and one GDMO. The Para-medical staff is also sparse in the hospitals. Both the hospitals have laboratory facilities. The Nellore Chest hospital is equipped with X-ray facility with 300 M.A machine together with dark room facilities. Safe waste management practices are available in both the hospitals. Citizen's Charter is not available in the hospitals.

The Pediatric hospital in Nellore town has 100 bedded facilities. The hospital had a laboratory, X-ray facility. There are 3 pediatricians and no GDMOs available in the hospital. There exist 5 staff nurses and 2 pharmacists in the hospital. The hospital is equipped with a baby incubator facility. The drinking water facility is from the bore well and available round-the-clock.

Table 2.3.1 Availability of services, manpower and equipment in specialized hospitals

S.No	Particulars	Vizianagaram	Nellore	Prakasam	Kurnool	Hyderabad	Medak	Adilabad	Nellore	Anantapur	Nellore
1	Place of Hospital	Vizianagaram	Nellore	Ongole	Adoni	Shalibanda	Siddipet	Nirmal	Nellore	Anantapur	Nellore
2	Type of hospital	MCH	MCH	MCH	MCH	MCH	MCH	MCH	CH	CH	Pediatric Hospital
3	Number of Beds	100 Beds	100 Beds	50 Beds	50 Beds	50 Beds	50 Beds	50 Beds	264 Beds	100 Beds	50 Beds
4	Specialist Services Available:										
a)	General Medicine	100.0	-	-	100.0	-	100.0	100.0	-	100.0	-
b)	General Surgery	-	100.0	-	-	-	100.0	100.0	100.0	-	-
c)	Obstetric & Gynecology	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-
d)	Pediatrics	100.0	-	100.0	100.0	100.0	100.0	100.0	-	-	100.0
e)	Anesthesia	-	-	-	100.0	-	100.0	100.0	-	100.0	-
5	Diagnostic Services :										
a)	Laboratory	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
b)	X-Ray	100.0	-	-	100.0	100.0	100.0	100.0	100.0	-	100.0
c)	Ultrasound	100.0	-	-	100.0	100.0	100.0	100.0	-	-	-
d)	ECG	100.0	-	-	100.0	100.0	100.0	100.0	-	-	-
6	Support Services:										
a)	Medico legal / postmortem	100.0	100.0	100.0	-	-	-	-	-	-	-
b)	Ambulance Services	100.0	100.0	100.0	100.0	-	-	100.0	-	-	-
c)	Waste Management	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-
7	Fully Equipped Blood Bank	-	-	-	-	-	-	-	-	-	-
8	Critical Care Area	-	100.0	-	100.0	-	-	100.0	-	-	-
9	Fully Equipped Operation Theatre	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-
10	Fully Equipped Delivery Suit Unit	100.0	100.0	100.0	-	100.0	100.0	100.0	-	-	-
11	Water Supply (1-Pipped, 2- Bore well, 3-Others)	1	1	1	1	1	2	2	1	1	2
12	Waste Disposal System	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

S.No	Particulars	Vizianagaram	Nellore	Prakasam	Kurnool	Hyderabad	Medak	Adilabad	Nellore	Anantapur	Nellore
13	Man Power:										
i)	Hospital Superintendent	1	1	1	1	1	1	1	1	-	-
ii)	Medical Specialist	4	-	-	-	-	-	-	1	-	-
iii)	Surgery Specialists	-	-	-	-	1	-	-	-	-	-
iv)	O & G Specialist	12	9	5	2	-	2	2	-	-	-
v)	Pediatrician	2	-	1	2	-	2	-	-	-	3
vi)	Anesthetist	2	2	-	2	-	1	-	-	1	-
vii)	Casualty Doctors	-	2		2	9	1	1	5	1	-
viii)	Staff Nurse	14	17	5	12	15	11	8	24	5	5
ix)	Laboratory Technician	2	2	2	1	1	1	1	1	1	-
x)	Pharmacist	4	3	1	2	2	3	2	3	1	2

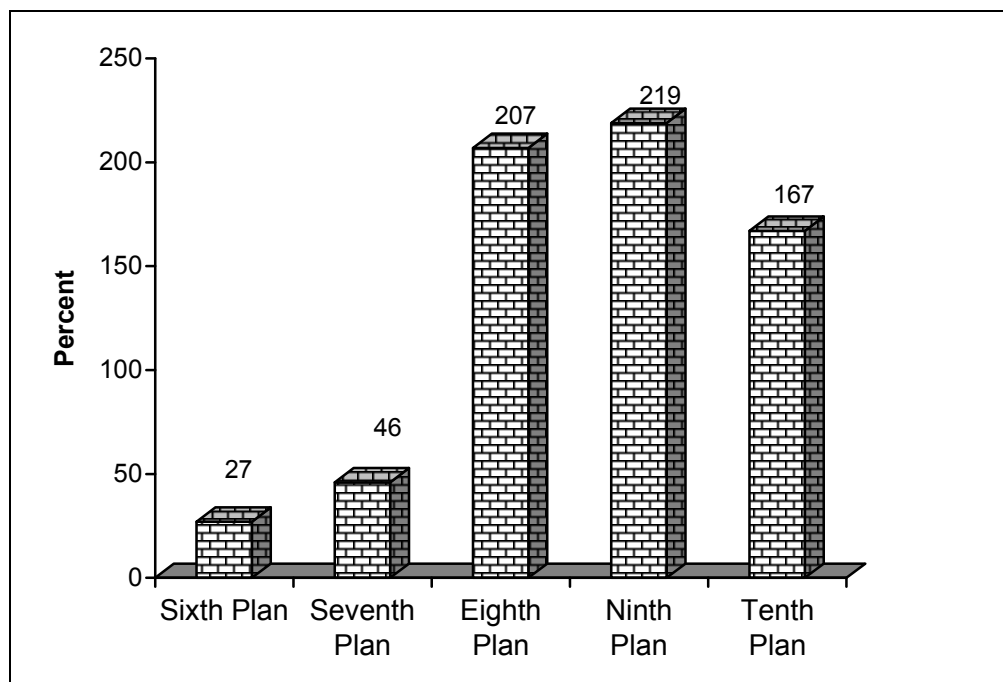
Chapter -3

3.1 Community Health Centre

Health care delivery has been envisaged at three levels namely Primary, Secondary and Tertiary. The secondary level of health care essentially includes Community Health Centres (CHCs) constituting the First Referral Unit (FRU) and the District Hospitals. The CHCs were designed to provide referral health care for cases from the primary level and for those in need of specialist care approaching the centre directly. Four PHCs are included under each CHC thus catering to approximately 80,000 populations in tribal areas and 1.2 lakh or more population in plain areas. In the state CHCs are classified into two categories namely those with 30-bed and 50-bed strength. The organization of the chapter is as follows: first we discuss the status regarding CHC (30 beds) and later that of CHC (50 beds).

In the State there are 167 CHCs functioning and the requirements of CHCs as per 2001 Census norm was 481. There has been a deficit of 314 (65 percent) CHCs in the State. In different Five Year Plans some of the CHCs were upgraded as Area hospitals with 100-bed strength. To meet the objectives, the CHCs were designed to be equipped with four specialists in the areas of medicine, surgery, paediatrics and gynaecology, thirty beds for indoor patients, operation theatre, labour room, X-ray machine, pathological laboratory, and standby generator etc along with the required medical and paramedical staff.

Figure 3.1.1 Number of CHCs existing during each Five Year Plan Period



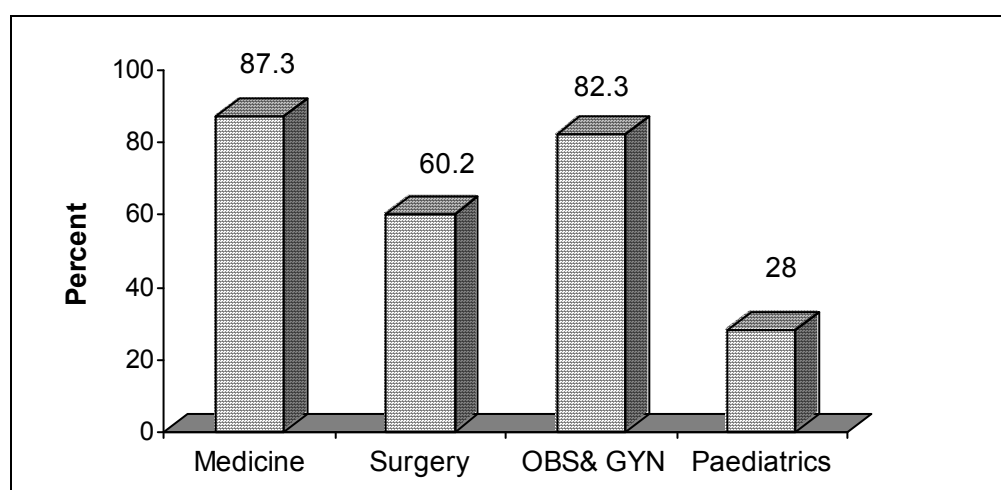
This section covers detailed data on 118 CHCs with 30 beds under APVVP and Directorate of Health, Andhra Pradesh. For technical reasons, we have administered the CHC (30 beds) format to all upgraded PHCs. However the data included in the data CD has not been included in calculating the CHCs performance.

3.1.1 Services

(a) Assured Services

Assured services in the CHC include routine and emergency care in surgery, medicine, obstetrics and gynaecology and paediatrics in addition to all services under the National health programmes. Table 3.1.1 provides the district-wise percentage of centres with availability of specialist consultation services. A maximum of 87.3 percent CHCs provide specialist services in medicine and 82 percent CHCs in Obstetrics & Gynaecology while 28 percent centres provided specialist services in paediatrics (Figure 3.1.2). CHCs in the districts of Anantapur, Kadapa and Mahabubnagar provided lower specialist services in the State.

Figure 3.1.2 Percentage-wise availability of assured specialist services in 30- bedded CHCs

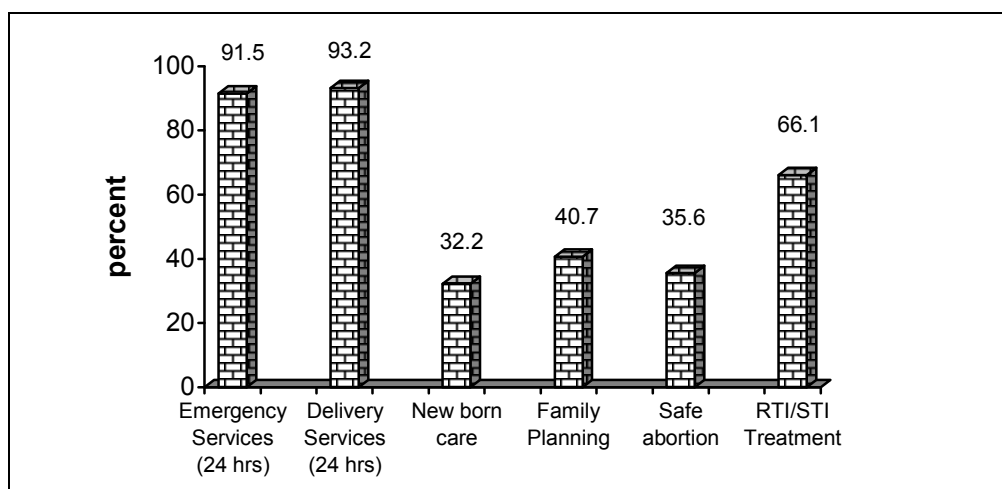


The other assured services provided by CHCs include emergency and delivery services which need to be available 24 hours a day. It also includes services for newborn children, family planning services, abortion and RTI / STI services (Figure 3.1.3).

The 24 hour emergency services are available in 91.5 percent CHCs in the State. Though CHCs are expected to cater to all emergency services, in districts like Srikakulam, Vizianagaram, Anantapur, Kurnool, Ranga Reddy, Karimnagar and Warangal all CHCs are not catering the emergency services to the people. Delivery services require improvements in the CHCs located in Srikakulam, Vizianagaram, Anantapur Kurnool and Nizamabad districts. Newborn care services are available only in less than 32 percent of CHCs in the State. More than 50 percent of CHCs located in Vizianagaram, Visakhapatnam, West Godavari, Mahabubnagar, Ranga Reddy, Medak and Nizamabad districts respectively are providing

new born care. All CHCs in the Karimnagar district are offering family planning services. More than 75 percent of CHCs located in Kurnool, Medak, Adilabad and Nalgonda are offering family planning services. Safe abortion services are available in CHCs (35.6 percent) in most of the districts of Andhra Pradesh. About 60-70 percent of CHCs in Visakhapatnam, Krishna, Nellore, Chittoor, and Ranga Reddy districts are providing safe abortion services.

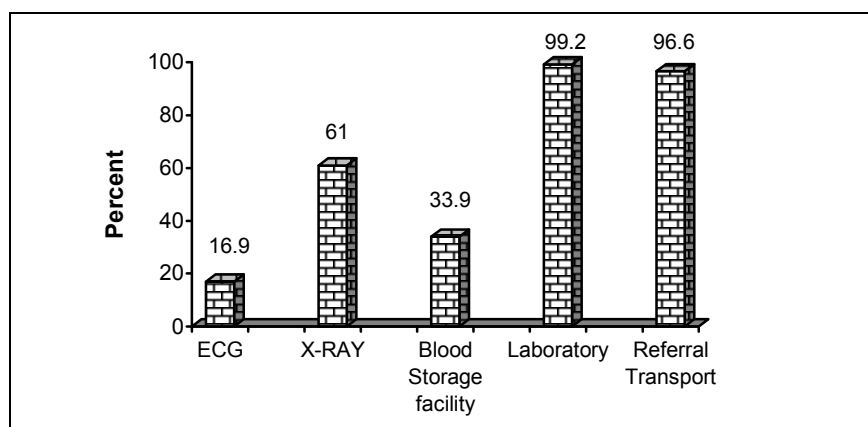
Figure 3.1.3 Percentage-wise availability of specific assured services in 30- bedded CHCs



(b) Para Clinical Services

In order to cater all assured services, CHCs need to be well equipped with suitable diagnostic and investigative facilities. Table 3.1.3 shows the percentage of CHCs in each district with availability of various para clinical services. The X-ray facility is available in 61 percent of the CHCs in the State. Slightly lower than one fourth of CHCs are providing X-ray services in the districts of Visakhapatnam, East Godavari, Chittoor and Khammam. All CHCs in the state have good laboratory test facilities (99 percent). More than half (52.2 percent) laboratories in the CHCs have necessary reagents, glassware and facilities for collection and transportation of samples.

Figure 3.1.4 Percentage-wise availability of para-clinical services in 30-bedded CHCs



3.1.2 Manpower

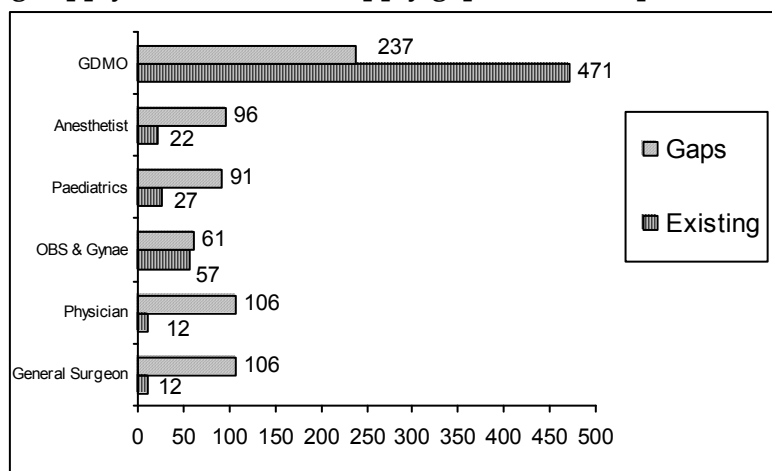
(a) Medical Staff

IPHS recommends a minimum requirement of one specialist each in the areas of surgery, medicine, obstetrics & gynaecology and paediatrics. Besides, it also recommends additional specialist posts namely anesthetist, eye surgeon and public health programme manager on contractual basis. The IPHS recommends persons with MD /DNB degrees in Family medicine, Hospital administration, Public health, and Community health administration as eligible persons for the public health programme manager in CHCs. Persons who have completed the Professional Development Course (PDC) of 3 months with about nine month field training in recognized institute are also eligible for the post.

There are total of 136 Specialist and 471 General duty medical officers (GDMOs) working in the 118 CHCs in the State (Table 3.1.4). At the state level, there exist 12 general surgeons, 12 physicians, 57 obs. & gynaec specialists, 27 paediatrics available. As per the IPHS norms, the gap indicates a requirement of 106 general surgeons and physicians, 61 obs. & gynaec surgeons and 91 paediatrics specialists. The availability of specialist doctors is poor in East Godavari, Prakasam, Nellore, Kurnool, Medak, Adilabad, Karimnagar and Khammam district CHCs. According to IPHS recommendation, one eye surgeon is to be appointed on contract basis for five CHCs. The CHCs have only 6 eye surgeons (supposed to cater 30 CHCs according to the norm) and a gap of 18 eye surgeons is evident.

The State has good number of general duty medical officers in all CHCs with an average of 3.9 GDMO per centre. In case of GDMOs, the IPHS recommended at least 6 per a CHC. Thus out of the 708 required GDMOs, only 471 are presently available in the CHCs in the State. A gap of 237 GDMOs exists for catering round-the-clock services in all the CHCs. However, a lower number of specialists and GDMOs in the CHCs of the districts Prakasam, Kadapa, Kurnool, Nizamabad, Adilabad and Karimnagar require immediate attention.

Figure 3.1.5 Existing supply and demand – supply gap of medical personnel in 30-bedded CHCs



(b) Nursing & Para-medical Staff

The state more or less has the required number of para-medical and nursing staff in all districts. As per IPHS norms, sufficient para-medical staffs of all categories (ANM, nurses, pharmacists and lab technicians) are available in the CHCs. Availability of para-medical staff is in complete contrast to availability of specialist doctors. There are 208 ANMs posted in CHCs which is in excess of the required 118 (one ANM for each CHC). There is an excess of 90 ANMs available in the CHCs.

There are a total of 573 staff nurses (average 4.9 per centre) available in the CHCs. The existing availability falls short of IPHS standard (7 staff nurses per CHC) showing a gap of 253 as per norms. A total of 120 pharmacists are available in 118 CHCs in the state. This implies that one pharmacist is present in every centre. The existing availability falls short of IPHS standard (3 pharmacists per CHC) resulting in a gap of 234 as per norms. Availability of lab technician is critical for conducting routine lab tests. Every CHC has one lab technician. Sixty-four percent of CHCs have a radiographer. All the CHCs in the Chittoor, Anantapur, Nizamabad, Karimnagar and Warangal have radiographers. Ophthalmic assistants are present in 12 CHCs indicating a gap of 106.

3.1.3 Physical Infrastructure

As per the IPHS norms, a CHC should have 30 indoor beds with one operation theatre, labour room, X-ray facility and laboratory facility. The physical infrastructure requirement is aimed at providing these facilities.

(a) Essential Infrastructure

Physical facilities like emergency / casualty rooms, separate wards for male and female patients, operation theatres, labour room and blood storage facility are essential for efficient service delivery in a CHC. Table 3.1.6 gives the essential infrastructure facilities of CHCs. Emergency / Casualty room which is an essential infrastructure requirement for CHCs are available in less than 59 percent of the centres. In West Godavari, Krishna, Chittoor, Adilabad and Nalgonda districts, more than 80 percent of CHCs have functioning Emergency / Casualty room.

The inpatient services with separate ward for male and female cases are available in 68.6 percent centre. More than 80 percent of CHCs have separate male and female wards available in Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Prakasam, Adilabad and Nalgonda districts.

Operation theatre is available in all CHCs (94 percent) in the State. However a lower percent of CHCs with operation theatres exist in East Godavari (83 percent), Chittoor (86 percent), Ranga Reddy (67 percent) and Mahabubnagar (83 percent). Labour room is one of the

essential infrastructure requirements for CHCs to strengthen maternal and child health care services available in all CHCs in the state. The number of CHCs having blood storage centres are very low (33.9 percent). In Guntur and Kurnool districts, all CHCs have a blood storage centre. However, the CHCs in Krishna, Prakasam, Kadapa, Warangal and Nalgonda districts have no blood storage facility.

(b) Basic amenities & Ancillary facilities

Basic amenities and ancillary facilities are essential part of the hospital infrastructure. Table 3.1.7 provides details on availability of amenities and ancillary facilities like electricity in all parts of the building, electric generator for standby power supply in emergencies, availability of incinerator and telephone facility in the CHCs respectively.

The availability of incinerator for hospital waste management is negligible. All CHCs are practicing segregation and disposed waste either by burning the waste or dumping in a deep pit / dispersing through a private autoclave centres.

All CHCs have electricity facility in all the parts of the building. A standby electric generator for emergency purposes was available in 65.3 percent of centres. All CHCs were provided with an electric generator in the districts of Visakhapatnam, West Godavari, Kadapa, and Karimnagar districts. Less than half of the CHCs have a telephone facility and about half of the centres possess a vehicle for transport purposes.

3.1.4 Furniture and Equipment

(a) Furniture

Barring very few CHCs in some districts, most of the centres are well equipped with essential furniture in working condition. The details are provided in Table 3.1.8. Important equipment like Examination table, Iron beds, Delivery tables are available in sufficient quantities in all the centres. Adequate number of saline stands, stretchers and almirahs were reported in all CHCs across the districts.

(b) Equipment

According to IPHS norms, 15 types of surgical equipment sets (with varying items and components) are prescribed. It will be cumbersome to verify all the equipment components available under the 15 broad sets. To make the task simple, number of CHCs, possessing more than 50 percent of individual items or equipment components coming under each equipment set was worked out. Table 3.1.9 provides the list of centres possessing 50 per cent availability of 15 types of equipment.

All CHCs in the state have more than 50 percent of equipment under the normal delivery kit, equipment for operation theatre and equipment for labour room in the state.

However, a lower percentage of centres reported shortage of standard surgical set- V, standard surgical set- VI, equipment for anesthesia, equipment for neo-natal resuscitation, material kit for blood transfusion.

Standard surgical kit (50 percent of 32 different items) recommended for the First Referral Unit (FRU) was available in the centres of Vizianagaram, Visakhapatnam, Krishna, Guntur, Nellore, Prakasam, Anantapur, Chittoor, Nizamabad, Khammam and Adilabad districts.

3.1.5 Quality Control

Citizens Charter was available in 98 percent of centres and equal number of CHCs received funds under Hospital Development Society (HDS) during 2007-08. The HDS meeting conducted more than 3 times in the financial year in 86 percent of CHCs. About half of the centres in Guntur, Nellore, Anantapur, Ranga Reddy, Medak, Karimnagar and Warangal conducted HDS meetings less than 3 times. Identification of Hospital requirements in the HDS meetings and proper fund utilization can improve the implementation of NRHM goals.

Table 3.1.1 District-wise availability of specialist services in CHCs (30 beds)

Sl.No.	Districts	No. of. CHCs	Medicine	Surgery	Obs & Gynaec	Pediatrics
1	Srikakulam	6	100.0	50.0	100.0	16.7
2	Vizianagaram	6	100.0	16.7	50.0	50.0
3	Visakhapatnam	8	87.5	75.0	87.5	12.5
4	East Godavari	6	100.0	66.7	100.0	-
5	West Godavari	2	100.0	100.0	100.0	50.0
6	Krishna	5	100.0	100.0	100.0	80.0
7	Guntur	7	100.0	57.1	85.7	28.6
8	Prakasam	4	100.0	75.0	100.0	25.0
9	Nellore	6	100.0	83.3	100.0	16.7
10	Chittoor	7	100.0	71.4	100.0	14.3
11	Kadapa	3	100.0	33.3	100.0	-
12	Anantapur	7	42.9	-	14.3	14.3
13	Kurnool	8	-	-	25.0	12.5
14	Mahabubnagar	6	66.7	33.3	66.7	16.7
15	Ranga Reddy	6	100.0	66.7	100.0	50.0
16	Medak	6	100.0	50.0	83.3	33.3
17	Nizamabad	4	100.0	100.0	100.0	75.0
18	Adilabad	4	100.0	100.0	100.0	50.0
19	Karimnagar	3	100.0	100.0	100.0	33.3
20	Warangal	6	100.0	100.0	83.3	33.3
21	Khammam	4	100.0	75.0	100.0	-
22	Nalgonda	4	100.0	75.0	100.0	50.0
ALL AP		118	87.3	60.2	82.2	28.0

Table 3.1.2 District-wise availability of specific services in CHCs (30 beds)

SI.No.	Districts	No. of CHCs	Emergency services (24 Hrs)	Delivery services (24Hrs)	New born care	Family Planning	Safe Abortion	RTI/ STI Treatment
1	Srikakulam	6	83.3	83.3	16.7	-	16.7	66.7
2	Vizianagaram	6	83.3	83.3	50.0	50.0	50.0	83.3
3	Visakhapatnam	8	100.0	100.0	62.5	37.5	75.0	87.5
4	East Godavari	6	100.0	100.0	33.3	16.7	50.0	100.0
5	West Godavari	2	100.0	100.0	50.0	-	50.0	50.0
6	Krishna	5	100.0	100.0	20.0	20.0	60.0	40.0
7	Guntur	7	100.0	100.0	14.3	42.9	42.9	71.4
8	Prakasam	4	100.0	100.0	25.0	25.0	25.0	100.0
9	Nellore	6	100.0	100.0	16.7	16.7	66.7	66.7
10	Chittoor	7	100.0	100.0	42.9	28.6	71.4	71.4
11	Kadapa	3	100.0	100.0	33.3	-	33.3	66.7
12	Anantapur	7	85.7	71.4	-	42.9	-	71.4
13	Kurnool	8	87.5	87.5	37.5	75.0	25.0	87.5
14	Mahabubnagar	6	100.0	100.0	66.7	50.0	33.3	66.7
15	Ranga Reddy	6	83.3	83.3	50.0	33.3	66.7	50.0
16	Medak	6	100.0	100.0	50.0	83.3	16.7	100.0
17	Nizamabad	4	100.0	50.0	50.0	50.0	-	50.0
18	Adilabad	4	100.0	100.0	-	75.0	-	50.0
19	Karimnagar	3	33.3	100.0	-	100.0	33.3	-
20	Warangal	6	50.0	100.0	33.3	33.3	16.7	16.7
21	Khammam	4	100.0	100.0	-	25.0	-	25.0
22	Nalgonda	4	100.0	100.0	25.0	75.0	-	50.0
ALL AP		118	91.5	93.2	32.2	40.7	35.6	66.1

Table 3.1.3 District-wise availability of para- clinical services in CHCs (30 beds)

SI. No.	Districts	No. of CHCs	X-ray	Ultra sound	Laboratory	Referral Transport	Avail. Reagents Glassware
1	Srikakulam	6	66.7	16.7	100.0	100.0	37.5
2	Vizianagaram	6	83.3	-	100.0	100.0	100.0
3	Visakhapatnam	8	25.0	-	100.0	100.0	50.0
4	East Godavari	6	33.3	16.7	100.0	100.0	37.5
5	West Godavari	2	50.0	50.0	100.0	100.0	28.5
6	Krishna	5	100.0	-	100.0	100.0	37.5
7	Guntur	7	85.7	-	100.0	100.0	66.6
8	Prakasam	4	75.0	-	100.0	100.0	87.6
9	Nellore	6	66.7	-	100.0	100.0	63.6
10	Chittoor	7	28.6	-	100.0	100.0	57.1
11	Kadapa	3	100.0	-	100.0	100.0	100.0
12	Anantapur	7	57.1	-	100.0	100.0	100.0
13	Kurnool	8	62.5	-	100.0	100.0	40.0
14	Mahabubnagar	6	66.7	-	100.0	83.3	57.1
15	Ranga Reddy	6	50.0	-	83.3	50.0	70.0
16	Medak	6	50.0	16.7	100.0	100.0	14.3
17	Nizamabad	4	75.0	-	100.0	100.0	60.0
18	Adilabad	4	50.0	-	100.0	100.0	62.5
19	Karimnagar	3	100.0	-	100.0	100.0	41.7
20	Warangal	6	66.7	-	100.0	100.0	100.0
21	Khammam	4	25.0	-	100.0	100.0	83.3
22	Nalgonda	4	75.0	-	100.0	100.0	66.6
ALL AP		118	61.0	3.4	99.2	96.6	52.6

Table 3.1.4 District-wise availability of doctors in CHCs (30 beds)

Sl. No.	Districts	No. of CHCs	General surgeon	Physician	Obs/ Gynaec	Pediatrician	Anesthetist	Eye surgeon ¹	GDMO
1	Srikakulam	6	1	-	4	1	-	-	11
2	Vizianagaram	6	-	2	3	3	2	1	14
3	Visakhapatnam	8	3	2	3	1	1	-	14
4	East Godavari	6	-	-	1	-	-	-	15
5	West Godavari	2	-	-	3	1	1	-	6
6	Krishna	5	-	-	3	4	-	1	15
7	Guntur	7	1	1	5	1	2	1	23
8	Prakasam	4	-	-	1	-	1	1	4
9	Nellore	6	2	-	-	1	-	-	21
10	Chittoor	7	-	1	7	-	3	1	15
11	Kadapa	3	-	4	1	1	1	1	8
12	Anantapur	7	1	1	3	1	2	-	14
13	Kurnool	8	-	-	2	-	-	-	8
14	Mahabubnagar	6	-	-	3	1	-	-	14
15	Ranga Reddy	6	-	-	6	1	2	-	11
16	Medak	6	-	-	1	2	1	-	18
17	Nizamabad	4	1	-	2	3	1	-	1
18	Adilabad	4	-	-	1	1	-	-	6
19	Karimnagar	3	1	-	-	2	-	-	6
20	Warangal	6	2	1	4	1	1	-	16
21	Khammam	4	-	-	-	-	2	-	9
22	Nalgonda	4	-	-	4	2	2	-	6
	All A.P	118	12	12	57	27	22	6	471
	<i>Gap</i>		<i>106</i>	<i>106</i>	<i>61</i>	<i>91</i>	<i>96</i>	<i>18</i>	<i>237</i>

1. One Eye surgeon per five CHCs (IPHS norm)

Table 3.1.5 District-wise availability of nursing and para-medical staff in CHCs (30 beds)

Sl.No.	Districts	No. of CHCs	ANM	Staff nurse	Pharmacist/ compounder	Lab. technician	Radio grapher	Ophthalmic assistant
1	Srikakulam	6	12	26	6	6	3	-
2	Vizianagaram	6	9	34	7	6	4	-
3	Visakhapatnam	8	12	25	9	7	1	2
4	East Godavari	6	5	29	5	4	3	2
5	West Godavari	2	2	16	2	3	-	-
6	Krishna	5	10	25	5	5	3	-
7	Guntur	7	12	40	10	7	5	-
8	Prakasam	4	9	23	4	4	2	-
9	Nellore	6	5	25	6	4	4	-
10	Chittoor	7	9	16	7	8	7	2
11	Kadapa	3	7	14	3	4	2	-
12	Anantapur	7	15	37	5	5	5	1
13	Kurnool	8	15	37	8	11	4	2
14	Mahabubnagar	6	9	23	6	7	4	-
15	Ranga Reddy	6	15	42	6	5	1	-
16	Medak	6	17	27	7	6	5	1
17	Nizamabad	4	9	18	4	2	5	-
18	Adilabad	4	8	26	4	4	2	-
19	Karimnagar	3	6	12	2	5	3	-
20	Warangal	6	10	27	6	5	8	-
21	Khammam	4	7	25	4	9	2	1
22	Nalgonda	4	5	26	4	5	4	1
	All-AP	118	208	573	120	122	76	12
	<i>Gap</i>		+ 90	618	234	232	42	106

Table 3.1.6 District-wise availability of essential infrastructure in CHCs (30 beds)

Sl. No.	Districts	No. of CHCs	Emergency/ causality room	Separate ward for male & female cases	Operation theatre	Labour room	Blood storage facility
1	Srikakulam	6	50.0	33.3	100.0	100.0	16.7
2	Vizianagaram	6	66.7	83.3	100.0	100.0	50.0
3	Visakhapatnam	8	75.0	87.5	100.0	100.0	12.5
4	East Godavari	6	33.3	100.0	83.3	100.0	33.3
5	West Godavari	2	100.0	100.0	100.0	100.0	50.0
6	Krishna	5	80.0	100.0	100.0	100.0	0.0
7	Guntur	7	71.4	71.5	100.0	100.0	100.0
8	Prakasam	4	50.0	100.0	100.0	100.0	0.0
9	Nellore	6	66.7	66.7	100.0	100.0	33.3
10	Chittoor	7	85.7	57.1	85.7	100.0	14.3
11	Kadapa	3	33.3	66.7	100.0	100.0	0.0
12	Anantapur	7	57.1	71.4	100.0	100.0	85.7
13	Kurnool	8	37.5	37.5	100.0	100.0	100.0
14	Mahabubnagar	6	66.7	66.7	83.3	100.0	33.3
15	Ranga Reddy	6	50.0	50.0	66.7	100.0	16.7
16	Medak	6	50.0	66.7	100.0	100.0	14.3
17	Nizamabad	4	50.0	75.0	100.0	100.0	25.0
18	Adilabad	4	100.0	100.0	100.0	100.0	25.0
19	Karimnagar	3	0.0	33.3	100.0	100.0	33.3
20	Warangal	6	50.0	50.0	100.0	100.0	0.0
21	Khammam	4	50.0	25.0	75.0	100.0	25.0
22	Nalgonda	4	75.0	100.0	100.0	100.0	0.0
All AP		118	59.3	68.6	94.9	100.0	33.9

Table 3.1.7 District-wise availability of basic amenities & ancillary facilities in CHCs (30 beds)

SI. No.	Districts	No. of CHCs	Incinerator	Electricity	Generator	Telephone	Vehicle
1	Srikakulam	6	16.7	100.0	50.0	66.7	66.7
2	Vizianagaram	6	16.7	100.0	83.3	83.3	83.3
3	Visakhapatnam	8	0.0	100.0	100.0	50.0	50.0
4	East Godavari	6	16.7	100.0	50.0	33.3	33.3
5	West Godavari	2	0.0	100.0	100.0	50.0	50.0
6	Krishna	5	0.0	100.0	60.0	40.0	40.0
7	Guntur	7	14.3	100.0	42.9	28.6	28.6
8	Prakasam	4	0.0	100.0	75.0	50.0	50.0
9	Nellore	6	16.7	100.0	33.3	50.0	50.0
10	Chittoor	7	0.0	100.0	71.4	14.3	14.3
11	Kadapa	3	33.3	100.0	100.0	0.0	0.0
12	Anantapur	7	14.3	100.0	85.7	42.9	42.9
13	Kurnool	8	0.0	100.0	62.5	37.5	37.5
14	Mahabubnagar	6	0.0	100.0	66.7	66.7	66.7
15	Ranga Reddy	6	0.0	100.0	16.7	33.3	33.3
16	Medak	6	0.0	100.0	16.7	66.7	66.7
17	Nizamabad	4	0.0	100.0	75.0	50.0	50.0
18	Adilabad	4	0.0	100.0	50.0	75.0	75.0
19	Karimnagar	3	33.3	100.0	100.0	66.7	66.7
20	Warangal	6	66.7	100.0	83.3	33.3	33.3
21	Khammam	4	0.0	100.0	50.0	75.0	75.0
22	Nalgonda	4	0.0	100.0	50.0	75.0	75.0
All AP		118	10.2	100.0	65.3	48.3	48.3

Table 3.1.8 District-wise availability of essential furniture (number) in CHCs (30 beds)

Sl. No.	Districts	No. of CHCs	Examination table	Delivery table	Saline stand	Stretcher on Trolley	Iron bed	Almirah
1	Srikakulam	6	20	8	41	8	105	33
2	Vizianagaram	6	16	9	43	8	132	17
3	Visakhapatnam	8	24	11	65	8	156	56
4	East Godavari	6	15	9	36	7	138	26
5	West Godavari	2	7	3	5	3	36	8
6	Krishna	5	18	8	28	5	126	20
7	Guntur	7	25	11	50	12	176	35
8	Prakasam	4	9	7	34	5	102	30
9	Nellore	6	12	9	35	10	134	21
10	Chittoor	7	23	12	52	11	133	31
11	Kadapa	3	6	6	22	6	28	15
12	Anantapur	7	17	11	50	10	95	29
13	Kurnool	8	20	13	44	9	138	50
14	Mahabubnagar	6	17	5	31	8	95	33
15	Ranga Reddy	6	22	5	42	10	139	36
16	Medak	6	24	11	49	8	150	30
17	Nizamabad	4	11	7	33	5	104	16
18	Adilabad	4	12	7	30	7	104	20
19	Karimnagar	3	5	3	30	4	77	8
20	Warangal	6	18	9	60	9	145	31
21	Khammam	4	8	7	22	5	65	8
22	Nalgonda	4	20	7	40	8	79	21

Table 3.1.9 District-wise availability of medical equipment and kits in CHC (30 beds)

S. No.	Equipments	SKL	VZN	VSP	EG	WGD	KRI	GTR	NLR	PKM	KNL	ANT	KDP	CTR	RR	NZB	MDK	MHB	WAR	KHM	NLG	KAR	ADB
1	Standard surgical sets-1 Instruments FRU	39.1	51.0	53.9	49.5	0.0	60.0	68.3	65.1	57.1	6.6	63.8	46.9	53.1	17.7	69.5	28.6	43.2	33.9	71.9	38.3	26.0	63.3
2	Standard Surgical Set - II	30.3	43.4	27.7	20.2	36.4	14.5	15.2	31.3	17.4	34.1	49.4	41.4	16.5	8.6	0.0	21.2	32.8	6.1	0.0	8.3	11.1	1.5
3	IUD insertion kit	33.3	49.1	49.3	17.5	36.8	47.4	53.4	69.3	27.6	39.5	66.2	54.4	35.3	15.8	0.0	44.7	27.2	14.9	18.4	15.8	7.0	6.6
4	CHC surgical Standard set-III	33.3	29.4	16.9	20.6	23.5	36.5	27.7	41.2	26.5	0.0	62.2	47.1	32.8	10.8	26.5	40.2	29.4	7.8	7.4	20.6	7.8	30.9
5	Normal delivery kit	73.6	61.1	63.5	72.2	37.5	71.7	75.0	87.5	81.3	90.6	77.4	77.8	76.2	41.7	81.3	66.7	70.8	65.3	70.8	56.3	52.8	79.2
6	Standard surgical set-IV	46.9	31.3	3.1	17.7	0.0	7.5	8.0	25.0	7.8	0.0	62.5	41.7	27.7	4.2	0.0	26.0	32.3	3.1	0.0	23.4	0.0	0.0
7	Standard surgical set-V	28.6	13.5	9.5	2.4	0.0	5.7	6.8	9.5	3.6	0.0	52.4	20.6	15.0	7.9	0.0	34.1	13.5	0.8	0.0	7.1	0.0	0.0
8	Standard surgical set-VI	37.9	16.7	19.3	19.7	0.0	18.2	6.5	18.2	11.4	0.0	64.9	30.3	29.9	10.6	18.2	47.0	15.2	7.6	0.0	6.8	0.0	27.3
9	Equipment for Anesthesia	21.6	20.6	5.9	19.6	0.0	35.3	36.1	23.5	33.8	0.0	50.4	2.0	24.4	6.9	22.1	41.2	21.6	3.9	0.0	0.0	5.9	26.5
10	Equipment for Neo-natal Resuscitation	30.0	24.7	11.5	16.0	12.0	25.6	27.4	18.7	41.0	5.0	32.6	24.0	24.6	16.0	16.0	41.3	27.3	25.3	14.0	13.0	16.0	15.0
11	Material kit for Blood Transfusion	27.8	5.6	13.3	7.8	0.0	17.3	25.7	37.8	46.7	0.0	0.0	15.6	9.5	6.7	15.0	6.7	2.2	5.6	15.0	8.3	11.1	10.0
12	Equipment for Operation Theatre	83.3	59.0	64.4	46.2	57.7	58.5	79.1	75.6	61.5	65.4	81.3	61.5	69.2	39.7	76.9	62.8	65.4	76.9	36.5	69.2	87.2	65.4
13	Equipment for Labour Room	74.4	52.2	52.5	70.0	66.7	54.7	71.4	66.7	61.7	62.5	76.2	57.8	67.6	42.2	40.0	46.7	70.0	40.0	45.0	61.7	57.8	78.3
14	Equipment for Radiology	25.9	63.0	19.4	24.1	16.7	71.1	66.7	59.3	44.4	34.7	39.7	63.0	9.5	27.8	72.2	22.2	44.4	57.4	11.1	69.4	70.4	47.2
15	Equipment for Laboratory tests and Blood Transfusion	24.6	46.0	32.1	37.3	19.0	68.6	66.7	64.3	82.1	55.4	54.4	30.2	44.9	23.0	48.8	28.6	26.2	40.5	57.1	26.2	14.3	50.0

3.2 Community Health Centre (50 Beds)

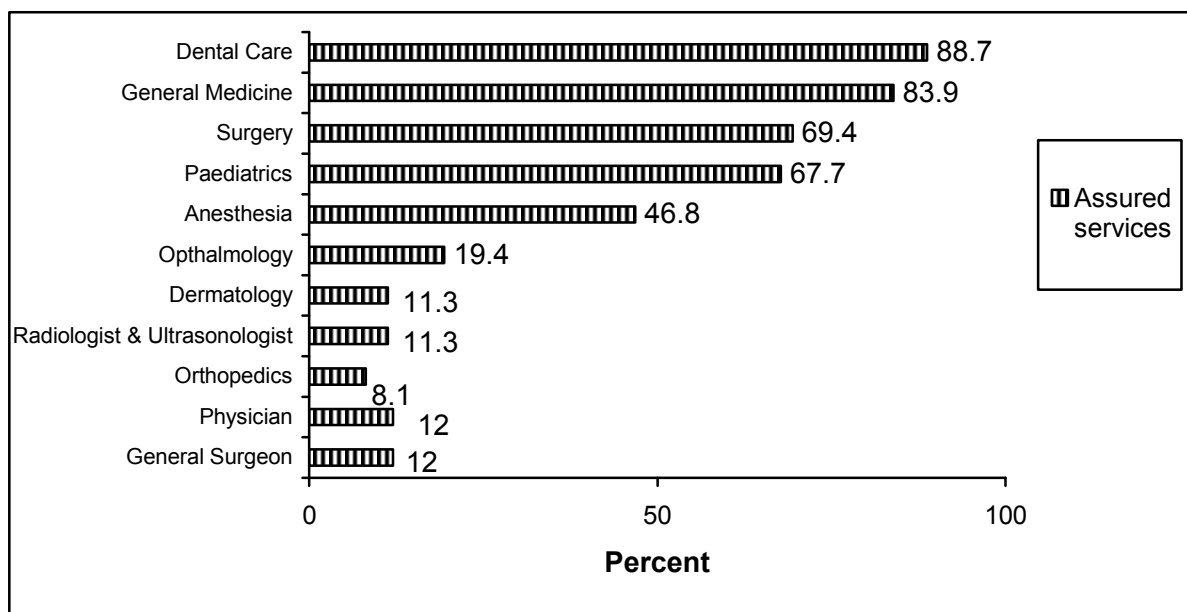
Sub-district (Sub-divisional) hospitals are at intermediate level between the district level and block level (CHC) hospitals. They act as First Referral Units for the Mandal population in their jurisdiction. To fulfill the set objectives, the CHCs (50 beds) were designed to be headed by a hospital superintendent, with specialists in medicine, surgery, obstetrics & gynaecology, dermatologist/venereologist, pediatrician, anesthetist, ophthalmologist, orthopedician, radiologist, dental surgeon, forensic specialist, ENT surgeon, AYUSH Physician and GDMOs. They have 50 beds for indoor patients, operation theatre, labour room, X-Ray machine, pathological laboratory, and standby generator etc along with the required medical and paramedical staff. This section presents detailed data for 62 CHCs with 50 beds under APVVP and Directorate of Health Andhra Pradesh.

3.2.1 Services

(a) Assured Services

Assured services in the CHC include routine and emergency care in general surgery, general medicine, obs. & gynaec, paediatrics, orthopedics, ENT, ophthalmology, dermatology and venereology, dental care and AYUSH in addition to all the National health programmes. Table 3.2.1 provides the district-wise percentage of centres with availability of specialist consultation services. Eight out of ten centres provide general surgery, obs. & gynaec and dental care specialties. The services namely orthopedics, radiology, ophthalmology, dermatology are available in lower than one-fifth of the centres. Out of three CHCs in Visakhapatnam district, except Aganampudi CHC, other centres (Aruku and Paderu) provision of expected services was poor. In case of four CHCs in Anantapur district, except for general medicine and dental care, none of the centres are providing any type of specialist services. In the existing centres, a gap of about 50-60 specialists existed in the areas of orthopedics, ENT, radiology, ophthalmology areas.

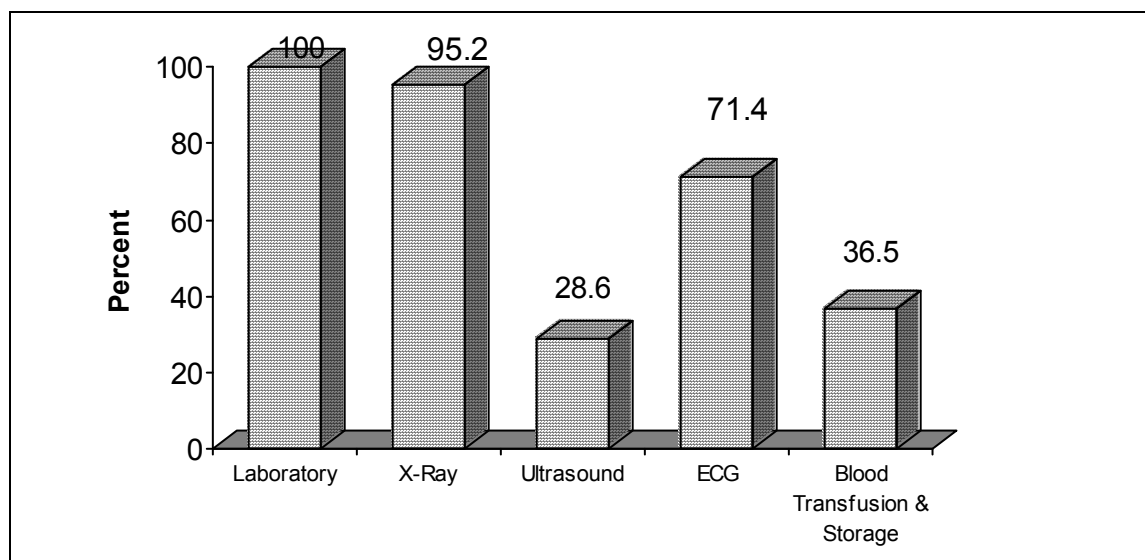
Figure 3.2.1 Percentage-wise availability of assured specialty services in 50- bedded CHCs



(b) Para Clinical Services

In order to extend all assured services, CHCs need to be well equipped with suitable diagnostic and investigative facilities. Figure 3.2.2 shows the percentage of CHCs with availability of various para clinical services. All CHCs in the state have adequate laboratory facilities. The X-ray facility is available in 95.2 percent of the CHCs. The ultrasound machines are available in 28.6 percent centres. Seven out of ten centres (71.4 percent) are provided with ECG facility. Thirty-six percent of centres are provided with a blood transfusion and storage facility.

Figure 3.2.2 Percentage-wise availability of para-clinical services in 50-bedded CHCs



3.2.2 Manpower

(a) Medical Staff

IPHS recommends a minimum requirement of one specialist each in the areas of medicine, surgery, obs. & gynaec, dermatology / venerology, paediatrics, anesthesia, ophthalmology, orthopedics, radiology, dental, forensic sciences, ENT and AYUSH doctors. There are totally 241 specialist doctors and 148 general duty medical officers (GDMOs) working in the 62 CHCs in the State (Table 3.2.2). In the CHC (50 beds) in the state, there exist 10 general surgeons, 3 medical specialists, 42 obs. & gynaec, 42 pediatricians, 26 anesthetists and 55 dental surgeons. Except for obs. & gynaec, paediatrics, dental care all other specialists' posts are far short of the IPHS 50 beds hospital norms. The availability of forensic specialist, ENT surgeon, radiologist dermatologist and ophthalmologist is very negligible their immediate positioning as required under NRHM is essential.

Centres with 50 beds required seven general duty medical officers as per the IPHS norms. Thus out of the 434 required GDMOs, only 148 are presently available in the CHCs on the date of survey. A gap of 286 GDMOs exists for catering the round-the-clock services in all the CHCs. However, a lower number of specialists and GDMOs in the CHCs call for immediate attention of the authorities.

(b) Nursing & paramedical Staff

The state more or less fulfills the requirement of paramedical and nursing staff required in all CHCs in the districts. As per IPHS norms, sufficient para-medical staff of all categories (staff nurses, pharmacists, radiographers, laboratory technicians and sanitary workers) is available in the centres in the state. Availability of para-medical staff is poor in case of ophthalmic assistants, ECG technician, matron, physiotherapist, statistical assistant and electrician in the centres (Table 3.2.3). The IPHS norm prescribes higher percentage availability of Paramedical staff in every centre. As per the norms, 18 staff nurses are required per centre (a gap of 524 staff nurses is seen in 62 centres in the state). Five members of hospital workers (OP / ward and OT blood bank) are required per centre and there is a gap of 186 health workers, 53 ECG technicians, 40 radiographers, 325 pharmacists (3 per a centre) as per IPHS standards.

(c) Support Services

For better functioning of a CHC, besides infrastructure, clinical and para-clinical manpower, supportive services for maintenance of departments and premises play an important role. Information was also collected from the centres regarding Finance (Financial accounting and auditing) timely submission of SOEs /UCs; almost all centres have been submitting U.Cs on time. About 82.5 percent of centres have dietary services and 80.9 percent have own laundry service facilities. Separate inventory management and waste management facilities

are exist in 56 and 81 percentage of centres respectively in the state. The computerized office management of medical records is available in 34.9 percent of centres and needs strengthening under IPHS norm for prompt information transfer.

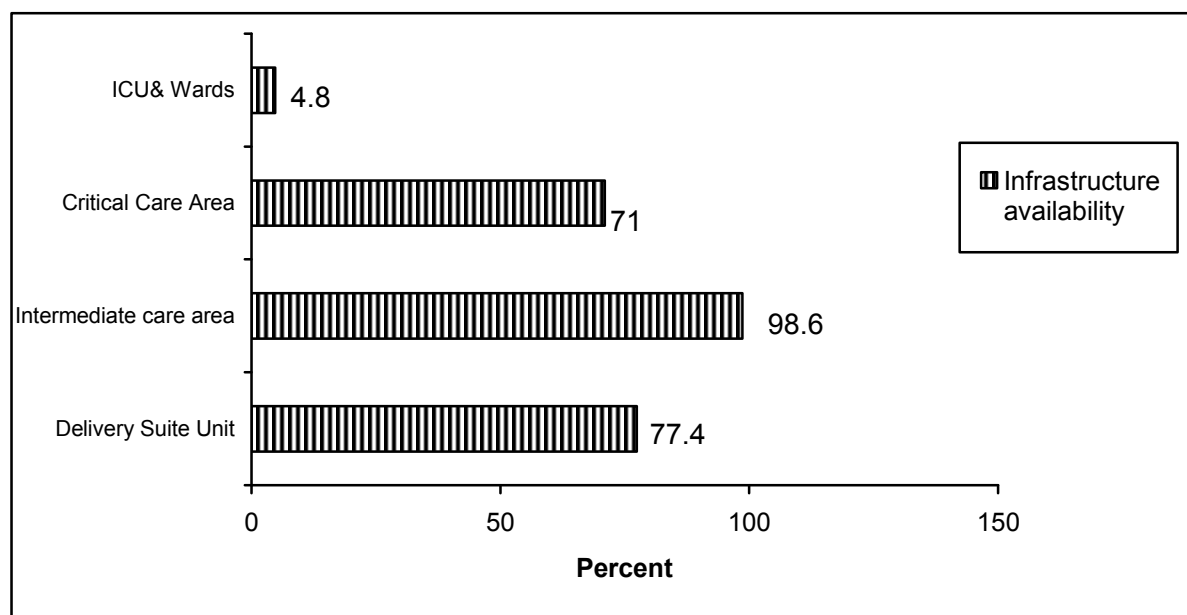
3.2.3 Infrastructure

(a) Physical infrastructure

The important infrastructure facilities in the CHC (50 beds) include water supply, availability of overhead tank, electricity in all parts of the building, standby power supply, telephone, operation theatre etc.

All the centres in the state have an assured source of water supply facility either exclusively piped water or a combination of piped and bore well facilities (Table 3.2.4). About 85.5 percent of the centres have overhead tank facility with a working pump. Of three centres in Krishna district, only Avanigadda centre has an overhead tank facility. In order to have assured water supply to the centres, it is required to strengthen the centre with an overhead tank facility along with a working pump facility. Ninetythree percent of centres are provided with electricity in all parts of the buildings. The standby generator availability was reported in 94 percent of centres in the centres in the state.

Figure 3.2.3 Percentage-wise availability of medical infrastructural units in 50 bedded CHCs



Operation theatre is available in 87 percent of CHCs in the State. However CHCs with a lower percent of operation theatres exist in Srikakulam (2 centres), one centre in Visakhapatnam districts. Separate aseptic labour room is one of the essential infrastructure requirements for CHCs in order to strengthen maternal and child health care services. About 90 percent of centres have an aseptic labour room.

(b) Operation theatre

As per the IPHS standards, the centres should have 50 indoor beds with fully equipped operation theatre, fully equipped delivery suite unit, located near OT, intermediate care area (inpatient nursing units), ICU & high dependency wards, critical care area etc.

(i) Basic operation theatre amenities

As for the availability of different equipment in the operation theatre, 85 percent centres have autoclave HP (Vertical 2 bin), 84 percent centres have operation table (Hydraulic Major), 84 percent centres equipped with suction apparatus (electrical), 81 percent centres have shadow-less lamp ceiling type, 50 percent centres have sterilizer (big) equipment and 18 percent centres have bowl sterilizer (Table 3.2.5). Many districts have inadequate availability of the above equipments and require strengthening under the IPHS norm.

(ii) Surgical equipments

Out of 62 CHCs, 79 percent have MTP sets, 31 percent have biopsy cervical set, 71 percent centres have D&C sets and 33.9 percent have IUCD kit. Wide variations of different surgical equipment kits were observed in the districts of Andhra Pradesh (Table 3.2.6).

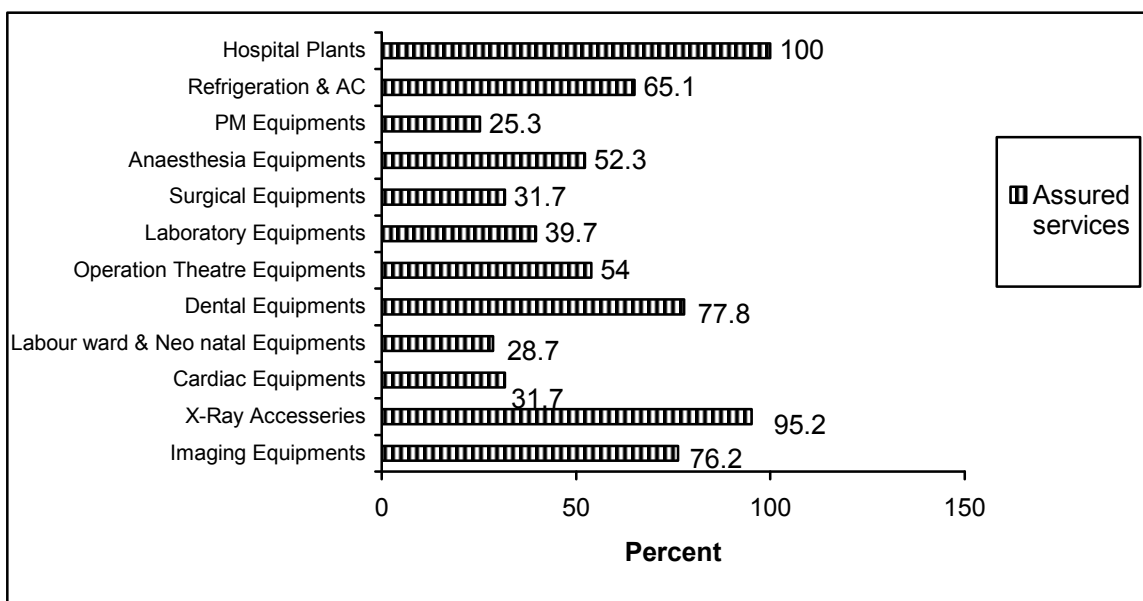
(c) Furniture and Hospital equipments

Data on the availability of furniture and hospital equipment is given in Table 3.2.7. Barring very few centres, across the districts, most of the CHCs are well equipped with essential furniture required at CHCs. The availability of furniture namely hospital cots, medicine almirahs, stretcher / patient trolley, delivery tables and saline stands was noted in 80-90 percent of centres in the state.

(d) Surgical equipment sets

Availability of important surgical sets was examined in each centre (with more than 50 percent of items availability). The X-ray accessories and hospital plants are commonly available in all centres. Availability of equipment sets range from 65-75 percent are imaging equipment, dental equipments, refrigeration and AC plants. The availability of equipment kits in the centres was cardiac equipments (31 percent), labour ward & neonatal equipments (29 percent), surgical equipments (32 percent), PM equipments (25 percent), in few centres in the state. However, the Eye equipment, Physiotherapy equipments, Endoscope equipments, teaching equipments are not available in any centres as recommended under IPHS norms for CHC 50 beds.

Figure 3.2.4 Percentage-wise availability of surgical and related equipments in 50 bedded CHCs



3.2.5 Quality Control

Citizen's Charter was constituted in 79 percent of the centres on the day of survey. About 98 percent of the centres registered the Hospital Development Societies (HDS) locally. Out of 62 centres, almost 54 centres received funds under HDS during the year 2007-08. Sixtynine percent of HDS societies met more than 3 times in the financial year. Internal monitoring is also done in majority of the centres.

Table 3.2.1 District-wise availability of specialist services in CHCs (50 beds)

Sl. No.	Districts	No. of. CHCs	General medicine	Surgery	OBG	Pedia- trics	Anes- thesia	Ortho- 0pedics	Radiologist- and Ultrasonologist	Ophthal- mology	Comm unity health	Derma- otology	Dental care
1	Srikakulam	3	100.0	100.0	100.0	66.7	66.7	33.3	33.3	33.3	66.7	33.3	100.0
2	Vizianagaram	1	-	100.0	100.0	100.0	-	-	-	-	-	-	100.0
3	Visakhapatnam	3	33.3	33.3	33.3	33.3	33.3	-	-	33.3	-	-	100.0
4	East Godavari	4	100.0	75.0	75.0	25.0	50.0	-	-	25.0	-	-	75.0
5	West Godavari	4	100.0	100.0	100.0	75.0	50.0	25.0	-	-	25.0	-	100.0
6	Krishna	3	100.0	100.0	100.0	33.3	33.3	33.3	-	-	-	-	100.0
7	Guntur	1	100.0	100.0	100.0	100.0	100.0	-	100.0	-	-	100.0	100.0
8	Prakasam	3	66.7	33.3	100.0	100.0	66.7	-	-	-	-	-	66.7
9	Nellore	1	-	-	-	100.0	-	-	-	-	-	-	-
10	Chittoor	3	66.7	66.7	66.7	33.3	66.7	-	-	33.3	-	33.3	66.7
11	Kadapa	3	33.3	66.7	66.7	100.0	100.0	-	-	33.3	-	33.3	100.0
12	Anantapur	4	100.0	-	25.0	25.0	25.0	-	-	-	-	-	100.0
13	Kurnool	3	100.0	33.3	100.0	33.3	33.3	-	-	-	33.3	0.0	100.0
14	Mahabubnagar	2	50.0	50.0	100.0	100.0	50.0	-	-	50.0	50.0	100.0	100.0
15	Ranga Reddy	3	100.0	100.0	100.0	66.7	66.7	-	-	66.7	33.3	-	100.0
16	Hyderabad	2	50.0	-	100.0	100.0	-	-	-	-	-	-	50.0
17	Medak	4	100.0	100.0	100.0	100.0	75.0	25.0	50.0	-	-	-	75.0
18	Adilabad	5	100.0	100.0	80.0	100.0	40.0	20.0	20.0	20.0	40.0	20.0	80.0
19	Karimnagar	3	100.0	33.3	66.7	33.3	33.3	-	-	-	-	-	100.0
20	Warangal	2	100.0	100.0	100.0	50.0	-	-	-	50.0	-	-	100.0
21	Khammam	2	100.0	100.0	100.0	100.0	50.0	-	100.0	50.0	50.0	-	100.0
22	Nalgonda	3	100.0	100.0	100.0	100.0	33.3	-	-	33.3	33.3	-	100.0
All AP		62	83.9	69.4	82.3	67.7	46.8	8.1	11.3	19.4	16.1	11.3	88.7

Table 3.2.2 District-wise availability of doctors in CHCs (50 beds)

S. No.	Districts	No. of CHCs	Hospital Superintendent	Medical	Surgery	O&G	Dermatologist/Venereologist	Pediatrician	Anesthetist	Ophthalmologist	Orthopedician	Radiologist	Casualty Doctors/General Duty Doctors	Dental Surgeon	Forensic Specialist	ENT	AYUSH Physician
1	Srikakulam	3	3	1	-	1	-	2	2	-	-	1	9	3	-	-	-
2	Vizianagaram	1	1	-	1	2	-	1	-	-	-	-	5	1	-	-	-
3	Visakhapatnam	3	3	-	-	1	-	1	1	1	-	-	8	3	-	-	1
4	East Godavari	4	3	-	-	1	-	1	3	2	-	1	3	4	-	-	1
5	West Godavari	4	3	-	1	2	-	4	2	-	1	-	6	4	-	-	2
6	Krishna	3	2	-	-	1	-	-	1	-	-	-	9	3	-	-	-
7	Guntur	1	1	-	-	1	-	1	1	-	-	-	3	1	-	-	-
8	Prakasam	3	1	-	-	7	-	4	1	-	-	-	2	2	-	-	-
9	Nellore	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-
10	Chittoor	3	1	-	1	3	-	1	3	1	-	-	5	1	-	-	1
11	Kadapa	3	2	-	1	3	1	2	3	-	-	1	8	3	-	-	-
12	Anantapur	4	1	2	-	1	-	2	1	2	-	-	11	4	-	-	3
13	Kurnool	3	2	-	1	3	-	2	2	-	-	-	5	3	-	-	-
14	Mahabubnagar	2	1	-	-	2	1	2	1	-	-	-	10	2	-	-	-
15	Ranga Reddy	3	2	-	-	2	-	2	-	-	-	-	6	3	-	-	1
16	Hyderabad	2	1	-	2	-	-	2	-	-	-	-	10	1	-	-	1
17	Medak	4	4	-	-	3	-	4	3	-	1	-	7	3	-	-	1
18	Adilabad	5	1	-	1	2	-	2	-	1	1	-	18	4	-	-	-
19	Karimnagar	3	1	-	1	1	-	1	1	-	-	-	7	3	-	-	-
20	Warangal	2	2	-	-	2	-	2	-	1	-	-	7	2	-	-	-
21	Khammam	2	-	-	-	1	-	1	1	1	-	-	1	2	-	1	-
22	Nalgonda	3	1	-	1	3	-	2	-	-	-	-	8	3	-	-	1
Total AP		62	36	3	10	42	2	42	26	9	3	3	151	55		1	12

Table 3.2.3 District-wise availability of para-medical staff in CHCs (50 beds)

S. No.	Districts	No. of CHCs	Staff nurse	Hospital worker (OP/ward +OT+ blood bank)	Sanitary worker	Ophthalmic assistant/ Refractionist	ECG technician	Laboratory technician (Lab + Blood Storage Unit)	Laboratory attend-ant (Hospital Worker)	Radio-grapher	Pharmacist	Matron	Physio-therapist	Statistical asst.	Medical Records Officer/ Technician	Electrician	Plumber
1	Srikakulam	3	22	8	18	-	1	3	2	3	4	1	-	2	1	1	1
2	Vizianagaram	1	10	1	10	-	-	2	-	1	1	2	-	-	-	1	1
3	Visakhapatnam	3	25	1	12	-	-	6	-	3	4	1	-	-	-	3	2
4	East Godavari	4	57	8	37	1	-	9	1	4	7	-	-	-	1	2	-
5	West Godavari	4	54	7	32	-	-	4	-	6	8	-	-	-	-	3	-
6	Krishna	3	34	4	25	-	2	7	2	3	4	-	-	1	-	3	-
7	Guntur	1	9	4	6	-	-	1	-	2	2	-	-	-	-	1	-
8	Prakasam	3	18	4	21	-	1	6	-	2	4	1	-	-	-	3	-
9	Nellore	1	5	-	7	-	-	-	1	1	2	-	-	-	-	-	-
10	Chittoor	3	31	8	18	-	1	5	-	3	3	1	-	-	1	2	-
11	Kadapa	3	33	-	11	-	-	4	-	1	3	2	1	1	-	1	1
12	Anantapur	4	24	10	15	1	-	5	-	3	8	1	-	-	1	-	-
13	Kurnool	3	31	10	30	-	-	2	-	3	6	-	-	-	-	2	-
14	Mahabubnagar	2	15	4	5	1	-	2	-	1	2	1	-	-	-	2	1
15	Ranga Reddy	3	26	4	20	2	1	2	1	3	4	1	-	-	1	2	1
16	Hyderabad	2	25	2	17	-	-	2	-	3	4	-	-	-	-	1	-
17	Medak	4	44	5	37	1	-	6	-	4	8	1	-	-	-	4	2
18	Adilabad	5	56	19	49	-	-	6	-	7	8	-	-	-	-	2	3
19	Karimnagar	3	19	6	16	-	1	5	3	4	5	-	-	1	-	1	-
20	Warangal	2	16	4	9	-	1	1	1	2	4	-	-	1	1	1	-
21	Khammam	2	20	7	3	-	1	2	-	2	3	-	-	-	-	2	-
22	Nalgonda	3	28	8	25	1	-	3	3	3	5	1	-	-	-	2	-
All AP		62	602	124	423	7	9	83	14	64	99	13	1	6	6	39	12

Table 3.2.4 District-wise availability of infrastructure and facilities in CHCs (50 beds)

S.No.	Districts	No. of CHCs	Water Facility		Overhead Tank and pump exist	Electricity in all parts	Generator	Telephone	Vehicle	Laboratory	Operation Theatre	Separate Aseptic-labour room	Linkage with district blood bank
			Piped	Bore well									
1	Srikakulam	3	-	100	100.0	66.7	100.0	100.0	66.7	100.0	33.3	100.0	33.3
2	Vizianagaram	1	100	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3	Visakhapatnam	3	100	-	100.0	100.0	100.0	100.0	33.3	100.0	66.7	100.0	66.7
4	East Godavari	4	-	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	75.0	25.5
5	West Godavari	4	-	100	75.0	100.0	100.0	100.0	75.0	100.0	100.0	100.0	-
6	Krishna	3	100	-	33.3	100.0	100.0	100.0	66.7	100.0	100.0	100.0	100.0
7	Guntur	1	-	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0
8	Prakasam	3	66.7	33.3	100.0	100.0	100.0	100.0	33.3	100.0	100.0	100.0	33.3
9	Nellore	1	-	100	100.0	100.0	100.0	100.0	0.0	100.0	-	-	-
10	Chittoor	3	33.3	66.7	66.7	100.0	100.0	100.0	66.7	100.0	66.7	66.7	33.3
11	Kadapa	3	66.7	33.3	100.0	66.7	66.7	66.7	66.7	100.0	66.7	66.7	33.3
12	Anantapur	4	25	75	50.0	75.0	75.0	100.0	75.0	100.0	100.0	100.0	50.0
13	Kurnool	3	100	-	100.0	66.7	100.0	100.0	33.3	100.0	100.0	100.0	33.3
14	Mahabubnagar	2	100	-	100.0	100.0	100.0	50.0	100.0	100.0	50.0	50.0	50.0
15	Ranga Reddy	3	50	50	66.7	100.0	100.0	33.3	33.3	100.0	100.0	100.0	-
16	Hyderabad	2	100	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	-
17	Medak	4	25	75	100.0	100.0	100.0	50.0	50.0	100.0	100.0	100.0	50.0
18	Adilabad	5	40	60	100.0	100.0	80.0	80.0	80.0	100.0	80.0	80.0	20.0
19	Karimnagar	3	100	-	100.0	100.0	66.7	66.7	33.3	100.0	100.0	100.0	33.3
20	Warangal	2	50	50	50.0	100.0	100.0	100.0	80.0	100.0	100.0	100.0	50.0
21	Khammam	2	50	50	50.0	100.0	100.0	100.0	50.0	100.0	100.0	100.0	50.0
22	Nalgonda	3	100	-	100.0	100.0	100.0	33.3	66.7	100.0	100.0	100.0	-
All AP		62	51.6	46.8	85.5	93.5	93.5	83.9	61.3	100.0	87.1	90.3	35.5

Table 3.2.5 District-wise availability of operation theatre equipments in CHCs (50 beds)

S.No.	Districts	No. of CHCs	Autoclave HP Vertical (2 bin)	Operation Table Hydraulic Major	Operation table Hydraulic Minor	Shadow-less lamp ceiling type major	Sterilizer big (Instrument)	Bowl Sterilizer-big	Suction Apparatus (Electrical)	Ultraviolet lamp Philips model
1	Srikakulam	3	66.7	66.7	66.7	100.0	33.3	33.3	66.7	-
2	Vizianagaram	1	100.0	-	-	-	100.0	-	100.0	-
3	Visakhapatnam	3	66.7	66.7	-	66.7	66.7	-	100.0	-
4	East Godavari	4	100	75	25	75	50	-	100.0	-
5	West Godavari	4	75.0	100.0	50.0	100.0	50.0	-	100.0	-
6	Krishna	3	100.0	66.7	33.3	100.0	66.7	33.3	66.7	33.3
7	Guntur	1	100.0	100.0	-	-	100.0	100.0	100.0	-
8	Prakasam	3	100.0	100.0	66.7	100.0	66.7	66.7	100.0	-
9	Nellore	1	-	-	-	-	-	-	-	-
10	Chittoor	3	100.0	100.0	100.0	100.0	66.7	33.3	66.7	33.3
11	Kadapa	3	100.0	100.0	33.3	100.0	-	-	100.0	-
12	Anantapur	4	100.0	100.0	75.0	100.0	50.0	25.0	100.0	25.0
13	Kurnool	3	100.0	100.0	-	33.3	33.3	-	100.0	-
14	Mahabubnagar	2	100.0	100.0	-	50.0	50.0	-	100.0	-
15	Ranga Reddy	3	66.7	66.7	-	33.3	33.3	33.3	66.7	33.3
16	Hyderabad	2	100.0	100.0	50.0	100.0	50.0	50.0	100.0	-
17	Medak	4	100.0	100.0	25.0	100.0	50.0	-	100.0	-
18	Adilabad	5	100.0	60.0	40.0	80.0	40.0	40.0	80.0	20.0
19	Karimnagar	3	66.7	66.7	66.7	66.7	33.3	-	-	-
20	Warangal	2	100.0	100.0	100.0	100.0	50.0	-	50.0	-
21	Khammam	2	50.0	100.0	50.0	100.0	50.0	-	100.0	-
22	Nalgonda	3	33.3	100.0	33.3	100.0	100.0	-	100.0	-
All AP		62	85.5	83.9	40.3	80.6	50.0	17.7	83.9	8.1

Table 3.2.6 District-wise availability of surgical equipment sets in CHCs (50 beds)

SI. No.	Districts	No. of CHCs	P.S. set	MTP Set	Biopsy Cervical Set	D & C Set	I.U.C.D. Kit
1	Srikakulam	3	-	66.7	33.3	66.7	66.7
2	Vizianagaram	1	-	100.0	-	100.0	100.0
3	Visakhapatnam	3	-	100.0	33.3	100.0	33.3
4	East Godavari	4	-	100.0	50.0	100.0	50.0
5	West Godavari	4	25.0	100.0	25.0	100.0	-
6	Krishna	3	33.3	66.7	66.7	66.7	33.3
7	Guntur	1	100.0	100.0	100.0	100.0	-
8	Prakasam	3	-	100.0	33.3	66.7	-
9	Nellore	1	-	-	-	-	-
10	Chittoor	3	-	100.0	100.0	100.0	66.7
11	Kadapa	3	-	66.7	66.7	66.7	66.7
12	Anantapur	4	-	75.0	25.0	50.0	50.0
13	Kurnool	3	-	100.0	33.3	100.0	33.3
14	Mahabubnagar	2	-	100.0	-	50.0	50.0
15	Ranga Reddy	3	33.3	33.3	0.0	-	-
16	Hyderabad	2	-	50.0	50.0	100.0	-
17	Medak	4	25.0	100.0	-	75.0	50.0
18	Adilabad	5	-	40.0	-	40.0	40.0
19	Karimnagar	3	-	100.0	-	-	-
20	Warangal	2	50.0	50.0	50.0	100.0	100.0
21	Khammam	2	-	50.0	50.0	100.0	-
22	Nalgonda	3	-	100.0	-	100.0	-
All AP		62	9.7	79.0	30.6	71.0	33.9

Table 3.2.7 District-wise availability of furniture and hospital accessories in CHCs (50 beds)

SI. No.	Districts	No. of. CHCs	Hospital Cots(ISI Model)	Medicine-Almairah	ICCU	Stretcher/Patient Trolley (SS)	Delivery Table (SS Full)	O2 Cylinder Trolley (SS)	Saline Stand (SS)
1	Srikakulam	3	66.7	33.3	-	100.0	66.7	66.7	66.7
2	Vizianagaram	1	100.0	-	-	100.0	100.0	100.0	100.0
3	Visakhapatnam	3	100.0	100.0	-	100.0	100.0	66.7	100.0
4	East Godavari	4	100.0	100.0	25.0	75.0	100.0	100.0	100.0
5	West Godavari	4	100.0	100.0	-	100.0	100.0	100.0	100.0
6	Krishna	3	100.0	100.0	33.3	100.0	100.0	100.0	100.0
7	Guntur	1	100.0	100.0	100.0	-	100.0	100.0	100.0
8	Prakasam	3	33.3	100.0	-	100.0	100.0	100.0	100.0
9	Nellore	1	-	100.0	-	-	100.0	-	-
10	Chittoor	3	100.0	66.7	-	100.0	100.0	100.0	100.0
11	Kadapa	3	66.7	100.0	-	100.0	100.0	100.0	100.0
12	Anantapur	4	50.0	100.0	-	100.0	100.0	100.0	100.0
13	Kurnool	3	100.0	100.0	-	100.0	100.0	100.0	100.0
14	Mahabubnagar	2	50.0	50.0	-	100.0	100.0	50.0	100.0
15	Ranga Reddy	3	66.7	-	33.3	66.7	100.0	100.0	100.0
16	Hyderabad	2	100.0	100.0	-	100.0	100.0	100.0	100.0
17	Medak	4	25.0	50.0	-	100.0	100.0	75.0	100.0
18	Adilabad	5	100.0	100.0	-	100.0	80.0	100.0	100.0
19	Karimnagar	3	100.0	100.0	-	100.0	100.0	100.0	100.0
20	Warangal	2	100.0	100.0	-	100.0	100.0	100.0	100.0
21	Khammam	2	100.0	100.0	-	100.0	100.0	100.0	100.0
22	Nalgonda	3	33.3	33.3	-	100.0	100.0	100.0	100.0
All AP		62	77.4	80.6	6.5	93.5	95.2	91.9	96.8

Table 3.2.8 District-wise availability of equipments & support services in CHCs (50 beds)

S. No.	Equipments	Srikakulam			VZM	Visakhapatnam			East Godavari			
		Patapatnam	N. Pet	Palasa	S.Kota	Aganam-pudi	Aruku	Paderu	Rajole	Kothapet	Rampa-chodavaram	Peddapuram
1	Imaging Equipments	33.0	67.0	100.0	100.0	100.0	65.0	65.0	67.0	67.0	-	67.0
2	X-Ray Room Accessories	100.0	83.0	100.0	10.0	100.0	100.0	100.0	100.0	100.0	65.0	65.0
3	Cardiac Equipments	28.0	42.0	85.0	43.0	42.0	42.0	42.0	70.0	57.0	70.0	58.0
4	Labour ward & Neonatal Equipments	75.0	22.0	50.0	60.0	44.0	40.0	40.0	30.0	30.0	50.0	40.0
5	Eye Equipments	-	-	-	-	-	20.0	20.0	-	-	-	-
6	Dental Equipment	100.0	25.0	100.0	50.0	100.0	75.0	75.0	50.0	100.0	100.0	100.0
7	Operation Theatre Equipment	82.0	35.0	35.0	41.0	48.0	25.0	25.0	35.0	60.0	70.0	45.0
8	Laboratory Equipments	72.0	90.0	40.0	45.0	55.0	75.0	75.0	45.0	75.0	25.0	45.0
9	Surgical Equipment Sets	60.0	10.0	30.0	25.0	55.0	20.0	20.0	65.0	60.0	60.0	80.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-	-	-	-
12	Anesthesia Equipments	70.0	30.0	62.0	-	85.0	-	-	70.0	-	90.0	100.0
13	PM Equipments	100.0	-	-	10.0	55.0	10.0	10.0	33.0	55.0	65.0	33.0
14	Teaching equipments	25.0	-	-	-	-	-	-	-	-	-	-
15	Refrigeration & AC	100.0	50.0	50.0	50.0	33.0	50.0	50.0	33.0	33.0	65.0	50.0
16	Hospital Plants	50.0	50.0	50.0	50.0	50.0	50.0	100.0	100.0	100.0	50.0	50.0

(Contd)

Table 3.2.8 District-wise availability of equipments & support services in CHC (50 beds)

S. No.	Equipments	West Godavari				Krishna			Guntur	Nellore	Prakasam		
		Kovvur	Narasapur	Palakole	Bhimavaram	Avanigadda	Nandigama	Tiruvuru	Sattenapally	Nellore	Kanigiri	Giddalur	Ongole
1	Imaging Equipment	30.0	60.0	60.0	100.0	100.0	30.0	65.0	65.0	30.0	65.0	65.0	-
2	X-Ray Room Accessories	100.0	100.0	100.0	100.0	100.0	80.0	100.0	100.0	100.0	80.0	100.0	-
3	Cardiac Equipments	58.0	40.0	70.0	70.0	30.0	30.0	40.0	10.0	10.0	57.0	70.0	-
4	Labour ward & Neonatal Equipments	70.0	20.0	25.0	30.0	45.0	50.0	30.0	75.0	40.0	65.0	60.0	60.0
5	Eye Equipments	-	-	-	-	-	-	-	-	-	-	-	-
6	Dental Equipment	-	50.0	50.0	75.0	50.0	50.0	100.0	-	-	100.0	100.0	-
7	Operation Theatre Equipment	70.0	50.0	60.0	50.0	60.0	48.0	40.0	65.0	-	70.0	65.0	60.0
8	Laboratory Equipments	50.0	35.0	45.0	35.0	45.0	55.0	55.0	35.0	25.0	40.0	50.0	55.0
9	Surgical Equipment Sets	60.0	68.0	50.0	60.0	-	-	-	-	-	-	-	25.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-	-	-	-	-
12	Anesthesia Equipments	75.0	30.0	70.0	70.0	50.0	30.0	30.0	90.0	-	75.0	75.0	-
13	PM Equipments	65.0	-	-	-	75.0	50.0	45.0	33.0	-	65.0	75.0	-
14	Teaching equipments	-	-	-	-	-	-	-	-	-	-	-	-
15	Refrigeration & AC	65.0	30.0	30.0	50.0	50.0	80.0	50.0	82.0	50.0	50.0	65.0	30.0
16	Hospital Plants	-	50.0	50.0	50.0	100.0	100.0	50.0	50.0	50.0	100.0	50.0	100.0

(Contd)

Table 3.2.8 District-wise availability of equipments & support services in CHC (50 beds)

S. No.	Equipments	Kurnool			Anantapur				Kadapa		
		Banaganapally	Adoni	Yemmiganur	Penukonda	Dharmavaram	Madakasira	Gootty	Rayachoti	Rajampet	J. Madugu
1	Imaging Equipment	30.0	30.0	30.0	65.0	100.0	65.0	65.0	65.0	33.0	100.0
2	X-Ray Room Accessories	83.0	100.0	100.0	83.0	83.0	45.0	65.0	83.0	67.0	83.0
3	Cardiac Equipments	57.0	42.0	57.0	28.0	57.0	43.0	57.0	57.0	42.0	86.0
4	Labour ward & Neonatal Equipments	33.0	40.0	40.0	20.0	28.0	28.0	28.0	50.0	10.0	32.0
5	Eye Equipments	-	-	-	25.0	-	-	-	-	-	-
6	Dental Equipment	50.0	100.0	100.0	100.0	50.0	100.0	25.0	100.0	25.0	50.0
7	Operation Theatre Equipment	53.0	40.0	50.0	30.0	60.0	100.0	70.0	48.0	41.0	53.0
8	Laboratory Equipments	30.0	38.0	25.0	45.0	50.0	38.0	60.0	20.0	50.0	25.0
9	Surgical Equipment Sets	25.0	42.0	25.0	-	55.0	35.0	20.0	50.0	5.0	32.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-	-	-
12	Anaesthesia Equipments	-	42.0	-	10.0	60.0	30.0	22.0	61.0	75.0	92.0
13	PM Equipments	20.0	-	40.0	44.0	-	65.0	10.0	33.0	33.0	33.0
14	Teaching equipments	-	-	-	-	-	-	-	-	-	-
15	Refrigeration & AC	50.0	30.0	50.0	66.0	82.0	20.0	67.0	67.0	67.0	67.0
16	Hospital Plants	50.0	50.0	50.0	50.0	50.0	50.0	100.0	50.0	50.0	100.0

(Contd)

Table 3.2.8 District-wise availability of equipments & support services in CHC (50 beds)

S. No.	Equipments	Chittoor			Ranga Reddy			Hyderabad		Medak			
		Punganur	Satyavedu	Pileru	Vikarabad	Ghatkesar	Chevella	Shalibanda	Barkas	Jogipet	Gajwel	Zaheerabad	Siddipet
1	Imaging Equipment	65.0	65.0	100.0	65.0	65.0	35.0	67.0	67.0	33.0	66.0	66.0	66.0
2	X-Ray Room Accessories	100.0	67.0	100.0	83.0	65.0	100.0	100.0	100.0	100.0	83.0	66.0	100.0
3	Cardiac Equipments	28.0	-	28.0	42.0	30.0	42.0	57.0	43.0	-	43.0	43.0	43.0
4	Labour ward & Neonatal Equipments	35.0	28.0	44.0	44.0	44.0	33.0	50.0	17.0	40.0	50.0	40.0	60.0
5	Eye Equipments	-	-	-	100.0	-	-	-	-	-	75.0	-	-
6	Dental Equipment	100.0	75.0	50.0	100.0	75.0	100.0	-	100.0	100.0	100.0	100.0	-
7	Operation Theatre Equipment	65.0	76.0	50.0	90.0	25.0	-	53.0	71.0	59.0	59.0	41.0	41.0
8	Laboratory Equipments	38.0	45.0	48.0	51.0	50.0	20.0	45.0	35.0	35.0	29.0	55.0	28.0
9	Surgical Equipment Sets	80.0	40.0	38.0	46.0	-	-	39.0	21.0	30.0	15.0	29.0	43.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-	-	-	-	-
12	Anaesthesia Equipments	61.0	61.0	70.0	76.0	46.0	15.0	54.0	-	-	55.0	61.0	85.0
13	PM Equipments	10.0	100.0	44.0	67.0	-	10.0	-	-	67.0	15.0	30.0	-
14	Teaching equipments	-	-	-	-	-	-	-	-	-	-	-	-
15	Refrigeration & AC	33.0	15.0	66.0	50.0	75.0	20.0	33.0	33.0	67.0	50.0	67.0	66.0
16	Hospital Plants	100.0	100.0	100.0	-	50.0	50.0	50.0	50.0	50.0	100.0	50.0	50.0

(Contd)

Table 3.2.8 District-wise availability of equipments & support services in CHC (50 beds)

S. No.	Equipments	Mahabubnagar		Nalgonda			Warangal		Khammam		
		Farooqnagar	Kalwakurti	Ramannapet	Huzurnagar	Devarakonda	Narsampet	Mulugu	Palvancha	Sattupally	Penuballi
1	Imaging Equipment	100.0	33.0	100.0	66.0	100.0	66.0	35.0	-	100.0	66.0
2	X-Ray Room Accessories	100.0	100.0	66.0	66.0	83.0	83.0	83.0	-	100.0	100.0
3	Cardiac Equipments	43.0	-	30.0	43.0	30.0	43.0	43.0	43.0	58.0	58.0
4	Labour ward & Neonatal Equipments	44.0	22.0	33.0	33.0	70.0	56.0	44.0	22.0	72.0	22.0
5	Eye Equipments	-	-	-	-	100.0	40.0	-	-	20.0	-
6	Dental Equipment	100.0	100.0	100.0	50.0	50.0	50.0	100.0	-	75.0	75.0
7	Operation Theatre Equipment	47.0	29.0	47.0	60.0	47.0	35.0	65.0	65.0	53.0	65.0
8	Laboratory Equipments	48.0	50.0	52.0	40.0	38.0	50.0	52.0	20.0	55.0	51.0
9	Surgical Equipment Sets	40.0	68.0	30.0	43.0	30.0	57.0	29.0	43.0	21.0	18.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-	-	-
12	Anaesthesia Equipments	55.0	60.0	40.0	38.0	38.0	85.0	55.0	-	50.0	-
13	PM Equipments	10.0	-	22.0	22.0	100.0	10.0	10.0	67.0	-	22.0
14	Teaching equipments	25.0	-	-	-	-	-	-	-	-	-
15	Refrigeration & AC	33.0	50.0	50.0	40.0	65.0	33.0	65.0	33.0	33.0	33.0
16	Hospital Plants	50.0	-	50.0	50.0	50.0	50.0	100.0	-	50.0	50.0

(Contd)

Table 3.2.8 District-wise availability of equipments & support services in CHC (50 beds)

S. No.	Equipments	Karimnagar			Adilabad				
		Metpally	Peddapally	Manthani	Utnoor	Khanapur	Nirmal (CH)	Asifabad	Nirmal (MCH)
1	Imaging Equipment	66.0	66.0	66.0	65.0	100.0	100.0	100.0	65.0
2	X-Ray Room Accessories	83.0	83.0	83.0	67.0	100.0	82.0	83.0	100.0
3	Cardiac Equipments	30.0	43.0	30.0	30.0	57.0	30.0	-	57.0
4	Labour ward & Neonatal Equipments	33.0	22.0	33.0	10.0	17.0	-	10.0	16.0
5	Eye Equipments	-	-	-	-	-	60.0	-	-
6	Dental Equipment	25.0	25.0	25.0	100.0	100.0	100.0	100.0	-
7	Operation Theatre Equipment	-	53.0	30.0	65.0	65.0	40.0	47.0	47.0
8	Laboratory Equipments	38.0	35.0	35.0	28.0	60.0	60.0	40.0	40.0
9	Surgical Equipment Sets	30.0	40.0	20.0	20.0	35.0	20.0	18.0	32.0
10	Physiotherapy Equipments	-	-	-	-	-	-	-	-
11	Endoscopy Equipments	-	-	-	-	-	-	-	-
12	Anaesthesia Equipments	-	42.0	42.0	61.0	30.0	85.0	47.0	75.0
13	PM Equipments	-	20.0	20.0	-	44.0	33.0	34.0	-
14	Teaching equipments	-	-	-	-	-	-	-	-
15	Refrigeration & AC	65.0	65.0	65.0	50.0	33.0	33.0	50.0	33.0
16	Hospital Plants	-	50.0	100.0	100.0	50.0	50.0	-	50.0

Chapter- 4

4.0 Primary Health Centres

Primary health centres have the major responsibility of providing both preventive and curative health care services in the area. This includes delivery of reproductive and child health services, such as antenatal care and immunization in addition to routine inpatient and outpatient services. Compared to District hospitals or Community health centres, PHCs are accessible and expected to serve 30,000 populations. It must be realized that simple availability of PHCs is not sufficient for an effective delivery of the health services. PHC should possess essential infrastructure, staff, equipment and supplies etc. This chapter presents the status of the 1458 PHCs surveyed in all districts of Andhra Pradesh with the exception of Hyderabad urban district.

PHC acts as a referral unit for six sub-centres and refers cases to CHC (30 bedded hospital) and higher order public hospitals located at sub-district and district level. The nomenclature of a PHC varies from state to state that included a) block level PHC (located at block headquarters and covering about 10,000 population and with varying number of indoor beds) and additional PHCs / New PHCs / Upgraded PHCs / covering a population of 20,000 to 30,000 population. After discussion with program officers, it was decided to canvas the CHC (30 beds) format for all PHCs with ten or more beds. This chapter presents the status of the 1458 PHCs surveyed in the 22 districts of Andhra Pradesh (except Hyderabad urban district) with respect to the availability of selected infrastructure, staff and equipment and supplies. The average population covered by each PHC is approximately 42,909 with a high coefficient of variation of 114.2 indicating greater inter-district variations in the population coverage. The actual coverage varies around 1027 to 9, 27,760 approx.

4.1 Infrastructure

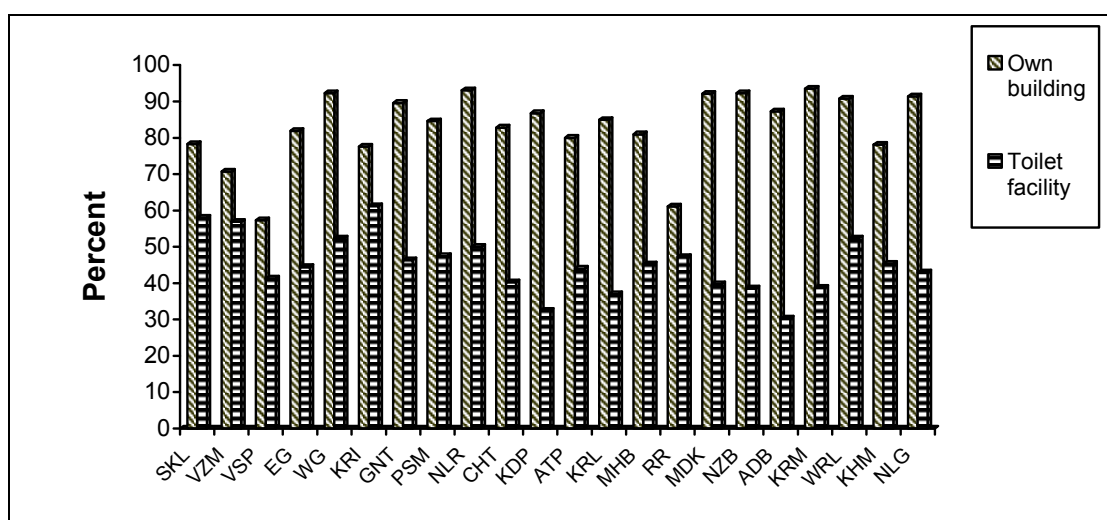
Table 4.1 presents the percentage of PHCs with selected infrastructural facilities such as own building, toilet facility, continuous supply of tap water, electricity, labour room, laboratory, telephone, functional vehicle and beds for in-patients in each district. In Andhra Pradesh, out of 1458 PHCs surveyed, 83 percent are functioning from their own building, but only 45 percent have at least a flush toilet facility. The PHCs functioning from rented premises are above 40 percent in Visakhapatnam and Ranga Reddy districts. Fiftysix percent of PHCs have piped tap water supply and 95 percent of PHCs have electricity available in all parts of the building. The communication facilities like telephone and functional vehicle for transportation are not very common; with only 68 percent having the former and 17 percent the latter. Ninetysix percent of PHCs had at least one in-patient bed facility in the PHCs. The provision of institutional deliveries under NRHM, availability of labour room is a critical facility required at PHC level. However, eighty-nine percent of PHCs in the state have a labour room. An examination of the availability of major infrastructure facilities, own building, availability of electricity, labour room, laboratory

facilities and at least one inpatient bed are available among higher percentage of PHCs, but the facilities of toilet, piped drinking water, telephone and functional vehicle are available in a limited number of PHCs (Table 4.1).

(a) Own building and toilet facility

In PHCs where women are expected to get services like antenatal, delivery, post natal check-ups, MTP services, IUD insertions etc, requires at least clean toilet facility should be available in the premises. It is reported that less than half (55 percent) of PHCs did not have toilet facility which is necessary for conducting ANC care of pregnant mothers. The lowest percentage of own buildings for PHCs was recorded in Visakhapatnam (57 percent), while it was Ranga Reddy (61 percent), Vizianagaram (71 percent) respectively.

Fig 4.1 Percent of PHCs having own building and toilet facilities



(b) Continuous water supply

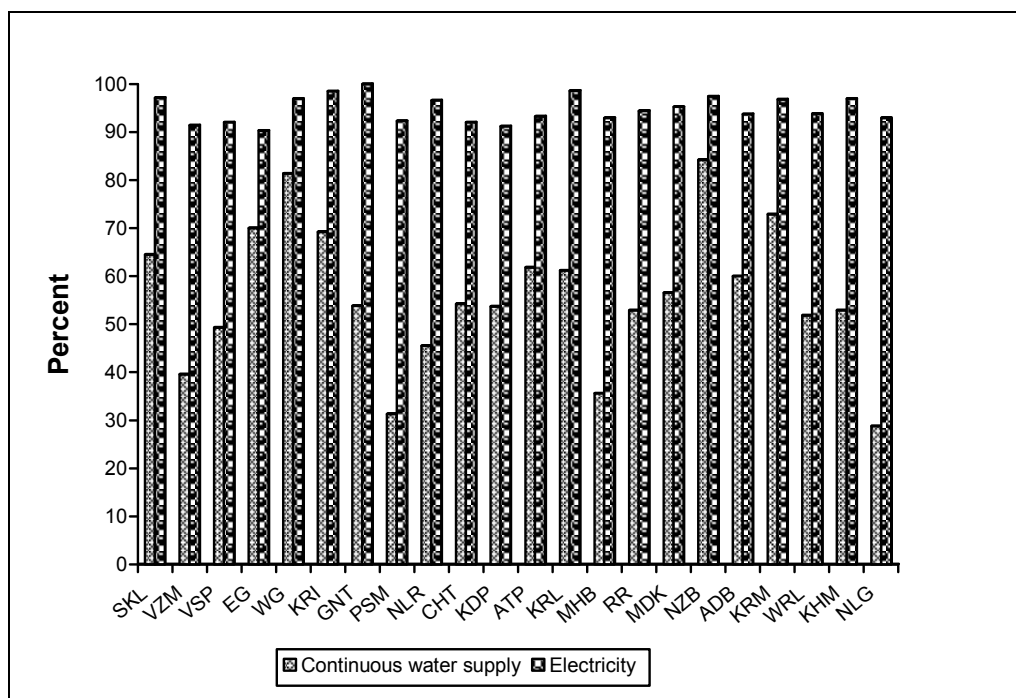
In any health facility continuous supply of water is one of the crucial requirements. Little more than half (55 percent) of the PHCs have continuous piped tap water supply. Seven out of ten PHCs in East Godavari, West Godavari, Nizamabad and Karimnagar districts have piped water supply. Low percentages were recorded in Prakasam (31 percent), Mahabubnagar (36 percent) and Vizianagaram (40 percent) districts respectively. Under the NRHM, all PHCs (especially 24x7 Mother and Child Centres) should be ensured with continuous piped water supply.

(c) Electricity

Provision of immunization to children and pregnant women is one of the important functions of the PHC. For the storage of vaccines at specified temperature in refrigerators/freezers as well as for the operation of many other types of equipment besides lighting purpose, PHCs need electric supply or availability of a generator/ inverter. About ninetyfive percent of PHCs have electricity in all parts of the building. About 72 percent of

PHCs in the state possessed stand by electricity facility (Generator / Inverter) and half of them are in good working condition. Percentage of PHCs having continuous water supply and electricity is shown in Fig 4.2. Districts having lower percentage (90 - 92 percent) of electric facilities in the PHCs are Prakasam, Mahabubnagar and Nalgonda districts.

Fig 4.2 Percent of PHCs having electricity and continuous water supply



(d) Laboratory

In the context of provision of RCH services, the availability of laboratory facilities in PHC is crucial to test blood and urine of women seeking antenatal care as well as for the diagnostics of RTI / STI among men and women. Eightynine percent of PHCs surveyed in the state have laboratory facilities. Availability of these facilities varied from a high of 98 percent of PHCs in Krishna district to a low of 81 percent in those in Nellore district. At state level, 67 percent of PHCs have adequate laboratory equipment and availability of required chemical reagents. It is also reported that 83 percent of laboratories are maintained in an orderly manner.

(e) Labour room

Effective institutional deliveries under NRHM, calls for availability of labour room in every PHC. Nine out of ten PHCs in the state possess a labour room facility. A lower percentage 81-83 percent of labour room facilities was recorded in Srikakulam, Vizianagaram and Prakasam districts. About 86 percent of PHCs are conducting deliveries regularly. Even though nine out of ten PHCs in Karimnagar and Nalgonda districts have labour room facilities, the percentage of deliveries conducted are meager i.e., 41 percent and 71 percent respectively. There is a need to strengthen the equipment for safe delivery

and new born care and encourage deliveries in the PHCs. Only thirtysix percent of PHCs in the state possess separate areas for septic and aseptic deliveries.

(f) *Waste disposal*

Hospitals, nursing homes, clinics, dispensaries, animal houses, pathological lab etc are required to set in place the biological waste treatment facilities. It is incumbent on the occupier to ensure that the waste is treated within a period of 48 hours as per norms. Around 92 percent of PHCs in the state are practicing segregation / separation of hospital waste from ordinary waste according to the norms laid down. About 57 percent of PHCs in the state disburse the segregated waste into a closed pit followed by 37 percent PHCs burning the waste within the PHC premises. Six out of ten PHCs in West Godavari, Nellore, Kadapa, Anantapur, Mahabubnagar, Nizamabad, Warangal, Khammam, and Nalgonda districts dump the hospital waste in a deep pit. Syringe needles were disposed through the use of needle cutters available in all PHCs and sub centres.

(g) *Communication facilities*

Sixty eight percent of the PHCs have telephone facility, out of which only 45 percent are in working condition. The availability of mobile phones with medical officer and staff made the utilization of PHC telephone to a lesser utilization. Three fourths (78 percent) of PHCs has a computer facility and only 57 percent are in working condition. More than 90 percent of the PHCs are accessible by public transport facility and by all weather road facility.

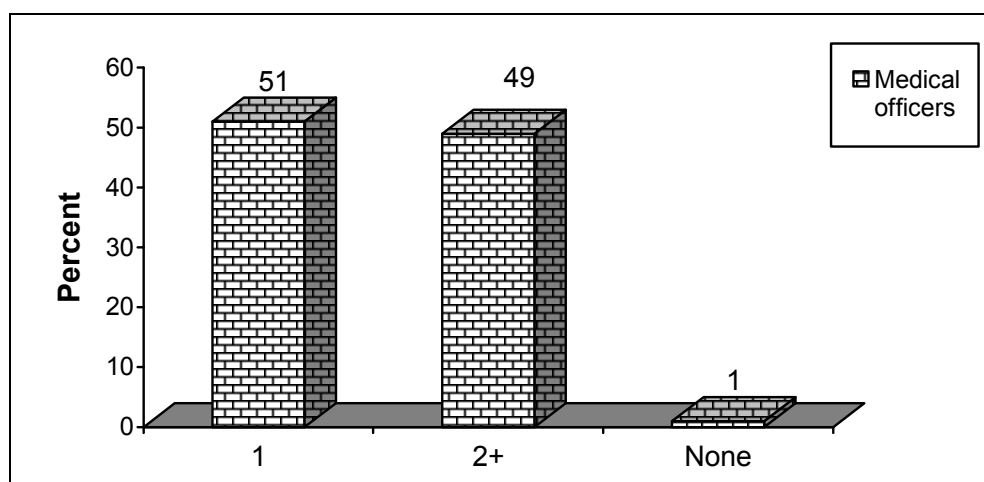
(h) *Residential facility*

Less than one-quarter of PHCs in the state have a residential facility with all amenities for medical officers. Out of the available quarters, roughly three-fourth of the quarters are occupied by medical officers. In case of Pharmacists, only 36 percent of PHCs have residential accommodation and all are occupied.

4.2 Staff

The IPHS has framed the minimum requirement for manpower based on the assumption of 40 patients per doctor per day, the expected number of beneficiaries for MCH and FP and about 60 percent utilization of the available indoor/observation beds (4-6 beds). The requirement will be higher as the utilization of services goes up and the number of beds is increased. The IPHS norm suggests 3 medical officers (one female medical officer and one from AYUSH). The availability of at least one Medical Officer (M.O) posted at PHC is essential. Fifty one percent of PHCs in the state have at least one MO and 49 percent have two or more MOs (Table 4.2). More than 55 percent of PHCs in Kadapa, Kurnool, Mahabubnagar, Adilabad, Warangal, and Khammam districts have more than two medical officers. At the time of survey, on an average, the PHC to medical officer ratio was 1: 1.5 in the state. The survey did not collect the information about female MOs or the ratio by system of medicine.

Fig 4.3 Percent distribution of PHCs showing availability of medical officers



(a) Paramedical staff

Among the nursing and paramedical personnel, IPHS prescribes a minimum of 3 nurses/ Midwife to operationalise 24 hours services in the PHC. According to the survey, the ratio Nurse/Midwife was 1: 1.5 in PHC and the proportion in respect of health assistant was 1: 1.3. About 80 to 84 percent PHCs have at least one pharmacist, health worker (female) and clerks. Among other paramedical staff, 76 percent of lab-technicians were existing in the PHCs. Ophthalmic assistants were available in 21 percent of PHCs. In the state, most of the monitoring and supervision activities are undertaken by the PHCs. Therefore the availability of Health assistant (male and female) is important. There is at least one health worker (male) in each PHC, while 84 percent of PHCs has the health assistant female. Health educators are available in 94 percent of centres while clerks are available in 84 percent of them.

4.3 Physical Infrastructure

More than 86 percent of PHCs are located within the village boundary and accessible by bus or auto with all weather road connectivity. The average distance of PHC from the farthest village in coverage area is 22 kms which sometimes takes more than 90 minutes to travel to the centre. The average distance from the PHC to the CHC is 20 kms while that for district hospital is 69 kms respectively. About 21 percent in Mahabubnagar and 19 percent in Nalgonda and Khammam district PHCs located either in village outskirts or far from the village (Table 4.3).

At the state level, about 17 percent of villages under PHC coverage area are located more than 30 kms away from the PHC headquarters. About 30 percent PHCs are in the 21-30 kms range and 40 percent of PHC headquarters' located 11-20 kms from the farthest village (Table 4.4). About 30 percent of PHCs in Mahabubnagar, 25 percent in West Godavari and 20 percent in Anantapur district were located within 10 kms from the PHC headquarters. More than half of the PHCs in the districts namely Visakhapatnam, Nellore,

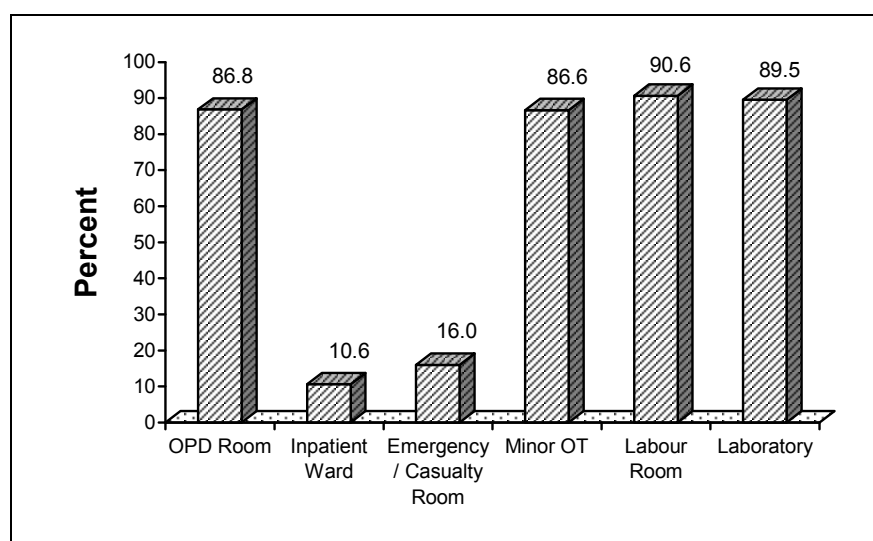
Kadapa, Anantapur, Kurnool, Mahabubnagar, Adilabad, Warangal, Khammam and Nalgonda were located at more than 30 kms from PHC headquarters.

Six out of ten (63 percent) PHCs were located within 20 kilometers from the nearest CHC / District Hospitals (Table 4.5). PHCs were located beyond 30 Kms from a referral hospital (CHC / DH) in Anantapur (22.7 percent), Adilabad (23.8 percent), Warangal (20 percent) and Khammam (29.7 percent).

a) *Building infrastructure*

All PHCs are operating from their own buildings (83 percent) and a majority of the buildings are in good condition with well plastered walls and floor in good condition. More than 85 percent of PHCs have compound wall with a gate. Slightly higher than half (52 percent) of PHCs are disabled friendly infrastructure with ramp/ side rail facility. Seventysix percent of centres did not have any polluting agents such as garbage dump; stagnant pool etc near its premises. Ninety one percent of centres have a prominent and legible display boards at the entrance. Registration counters are available in 65 percent of PHCs. Separate counters near entrance for obtaining contraceptives, ORS packets, Vitamin A and vaccinations are available in 87 percent of centres. Drug stores are available in all PHCs and the drug balance information card system is maintained in 88 percent of centres. About half of the centres have complaint and suggestion box. The following figure provides information on the availability of facilities in hospital building in PHCs in Andhra Pradesh.

Figure 4.4 Percentage-wise availability of medical treatment-related infrastructure in PHC



Eightyseven percent of the PHCs have separate OPD rooms with adequate number of windows in the room for good ventilation. Family rooms exist in 71.5 percent of centres and less than half (47 percent) of centres have waiting rooms for patients. Inpatient ward with functional beds are available in 11 percent of the centres on an average of 4 beds per PHC.

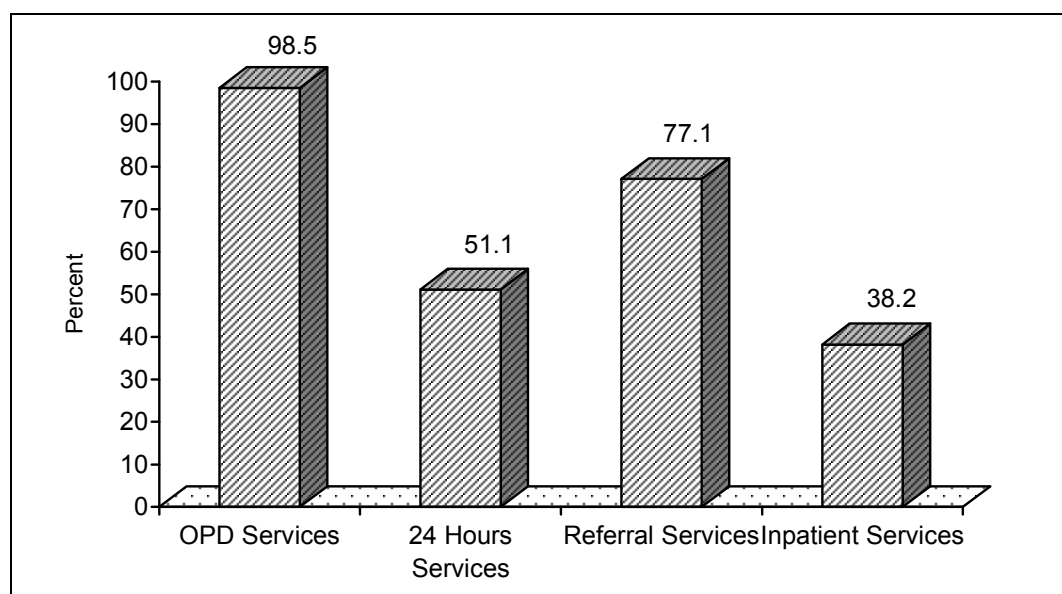
4.4 Service availability

PHCs are expected to provide comprehensive primary health care to the community covering preventive, curative and rehabilitative primary health care besides regular national health programmes. Different assured services available in the PHC include medical care, maternal and child health care, family planning, MTP, management of RTI/STI and other services such as nutritional services, School health services, Adolescent health services etc.

(a) Medical care

Medical care provision at PHC includes OPD services, 24 hours emergency services, referral services and inpatient services. All PHCs provide regular OPD services while average daily OPD attendance in the last one week was estimated to be 463 patients per centre. The outpatients varied from the highest of 600 out-patients per week in Ranga Reddy district to the lowest of 342 per week in Visakhapatnam district. A great deal of variation exists in the availability of inpatients services. Overall, 38 percent centres provide inpatient services. Districts with more than 58 percent of available inpatient services were Vizianagaram, Mahabubnagar and Khammam districts respectively (Table 4.6).

Figure 4.5 Percentage-wise availability of medical services in PHCs



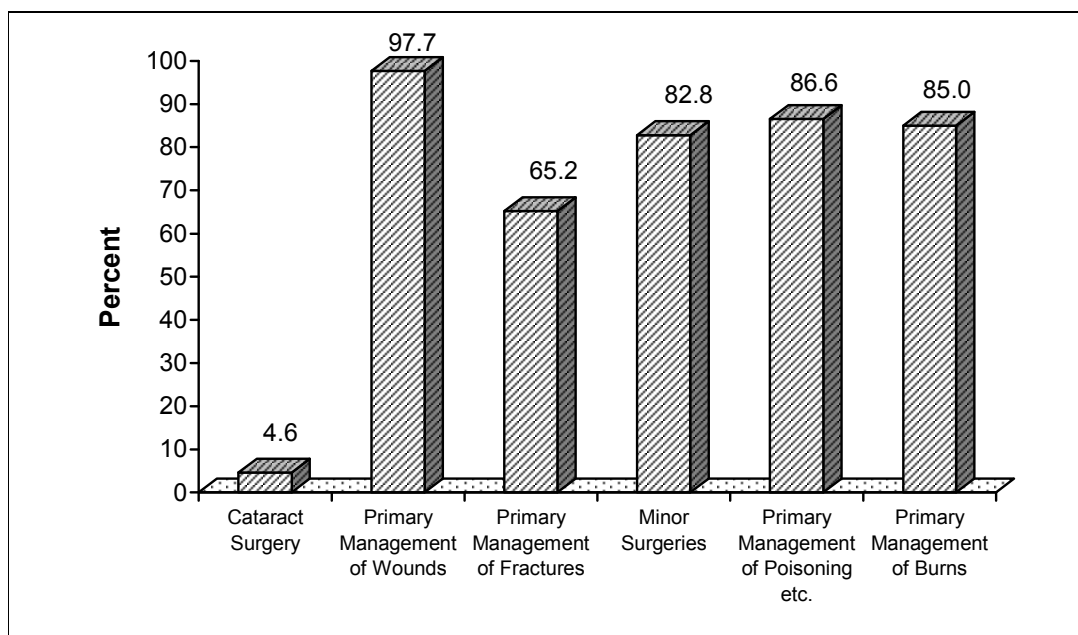
Availability of 24 hours services which is a critical component of medical care under NRHM is available in a fairly high percentage of PHCs (77 percent). The capacity to provide primary management of specific conditions such as wounds, fracture, snake bite, poisoning burns etc forms an important component of 24 hours emergency services.

(b) Treatment of specific cases

Besides the general medical care services, PHCs are also expected to provide primary management of specific minor treatment of ailments. The details of some of the

specific services provided by the PHC are given in Figure 4.6. The camp approach in conducting cataract surgery (an important component of blindness control programme) is available only in 4.6 percentage centres in the state. Primary facilities of management of wound, snake bite and burns are available in eight out of ten centres. More than four-fifths (65 percent) of PHCs have good facilities for management of fracture emergencies.

Figure 4.6 Percentage-wise availability of specific medical services in PHCs

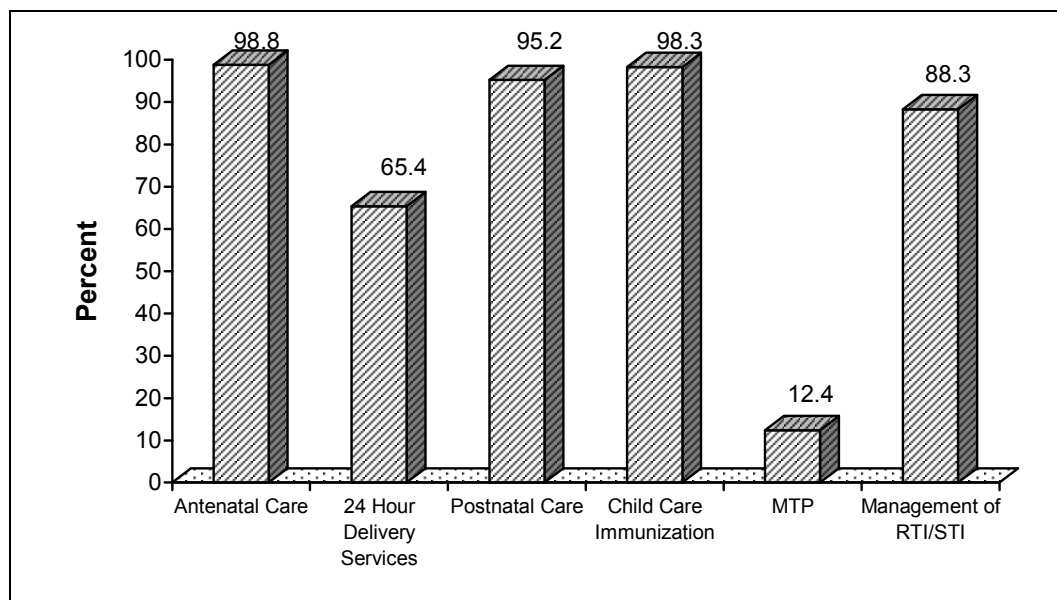


(c) Maternal and child health services

Reduction of infant mortality rate and maternal mortality ratio is one of the important goals of NRHM. Strengthening maternal and child health care is crucial for reduction of IMR and MMR. Antenatal care, intra-natal care, post-natal care, new born care, child health care including immunization and family planning services form the basic maternal and child health services.

Regular antenatal care availability is universal in all PHCs. Round-the- clock delivery services for both normal and assisted deliveries which has been given very high priority under NRHM are available in only 65.4 percent of PHCs. Districts recording below 50 percent of 24-hour delivery services are Ranga Reddy, Adilabad and Karimnagar. Special emphasis is required to extend 24-hour delivery services in these districts. As for child immunization services, fixed immunization day is available in all centres. Medical termination of pregnancy (MTP) using manual vacuum aspiration (MVA) technique requires availability of trained personnel, equipment for MVA and a well equipped labour room /operation theater. MTP services are available in only 12.4 percent of centres. The districts having more than 17 percent PHCs providing the MTP services are Srikakulam, Vizianagaram, Visakhapatnam, Prakasam, Nellore and Chittoor districts. At the other end, a low (3 to 4 percent) of MTP services are available in Karimnagar, Adilabad and Ranga Reddy districts (Table 4.7).

Figure 4.7 Percentage-wise availability of MCH Care, MTP & RTI services in PHCs



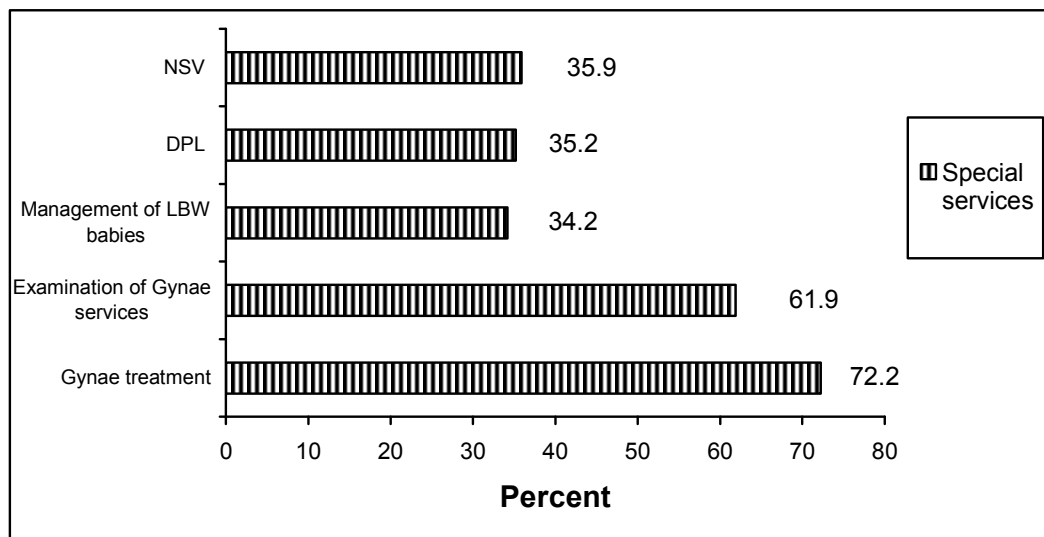
(d) Availability of specific services

Specific services provided by the PHCs in the state were, 24-hour delivery facility, availability of sterilization (DPL and NSV), examination and treatment of Gynecological services and management of Low birth Weight (LBW) babies. Availability of 24 hour delivery facility was functional in 65 percent of PHCs with wide inter-district variations. All districts in Coastal Andhra and Rayalaseema regions recorded 61 to 75 percent of service availability. However, in the Telangana districts it was Ranga Reddy (47 percent), Adilabad (47 percent), Karimnagar (36 percent) and Warangal (52 percent) respectively. As per the vision of NRHM, there is an urgent need to expand the full activities of 24x7 hospitals and support referral services with First referral Units. It is observed that seven out of ten PHCs in the state provided gynecological treatment and 24-hour delivery facilities.

Slightly more than one-third (36 percent) PHCs provided DPL and NSV type family planning operations. The DPL type of sterilization operation facility varied from a low of under 25 percent in Guntur, Prakasam, Anantapur, Kurnool, and Karimnagar districts to 60 percent in Visakhapatnam and East Godavari districts.

NSV type sterilization was provided in more than 50 percent of PHCs in Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Karimnagar and Warangal districts.

Figure 4.8 Percentage-wise availability of sterilization and Gynaecological services in PHC



Gynecological treatment facilities were available in 72 percent of PHCs in the state, ranging from a low of 57 percent in Adilabad to a high of 88 percent in Vizianagaram districts (Table 4.8).

(e) Other services

Besides the regular assured services, every PHC is expected to provide other National health programmes in the PHC locality. About 94 -99 percent of PHCs in the state are providing nutritional services, school health programmes, promotion of safe water supply and basic sanitation, prevention and control of locally endemic diseases, collection and reporting of vital statistics. It was observed that only 26 percent of PHCs in the state have availability of AYUSH services (Table 4.9).

(f) Monitoring and supervision activities

Under NRHM, better management practices include monitoring and supervision of services both at the PHC and sub-centre level by the PHC medical officer. Table 4.10 presents the monitoring and supervision activities in PHCs. Regular meetings at Sub-centre / periodic visits are common and conducted more than twice in a month in 60 percent of PHCs. The staff of remaining PHCs visited once in a month. About 53 percent of PHCs monitor National Health programmes twice in a month, staff and other programme where as managers of remaining PHCs did so once a month. The monitoring of ASHA was almost universal in all the PHCs and 98 percent of the PHCs indicated that the medical officer visits the PHC once in a month and verify reports and records.

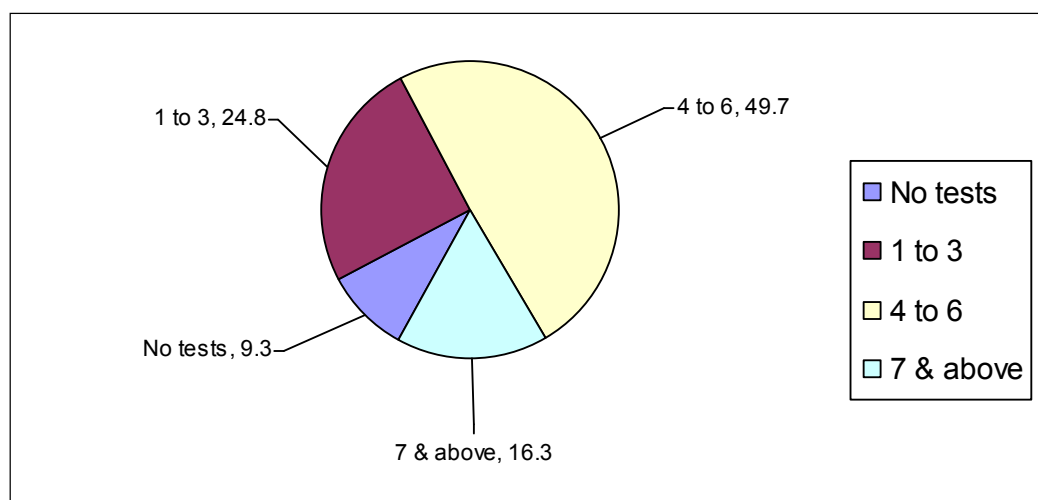
(g) Essential Laboratory services

Across PHCs in the state, blood smear examination for malaria (84 percent), Routine urine test (75 percent) and blood test (66 percent) laboratory facilities available. Wide inter-

district variations were reported in case of all laboratory services. The availability of stool test facilities (13 percent), Diagnosis of RTI/STDs with mounting, RPR test for Syphilis, Rapid test for HIV are provided by one-fifth of the PHCs was reported (Table 4.11).

Under the prescribed IPHS norm, a PHC has to provide the following laboratory services. The tests include a) Routine urine test, b) Stool test, c) Blood test, d) Blood grouping, e) Bleeding time, clotting time, f) Diagnosis of RTI/STDs with wet mounting, gram stain etc, g) Sputum testing for TB, h) Blood smear examination for malaria parasite, i) Rapid tests for pregnancy, j) RPR test for Syphilis /YAWS surveillance, k) Rapid test for HIV. All the above 11 types of tests to be conducted in the PHCs were grouped by giving one score for each test. About one-tenth of the PHCs are not conducting any laboratory tests. A quarter of the PHCs are conducting 1-3 tests followed by 4-6 tests conducted by 50 percent of the PHCs in the state. Hardly any PHCs are conducting more than 9 tests prescribed by the IPHS norms. Stepping up of PHCs with all essential laboratory services requires immediate attention under NRHM.

Figure 4.9 Percent distribution of PHCs showing number-wise availability of essential Lab. tests



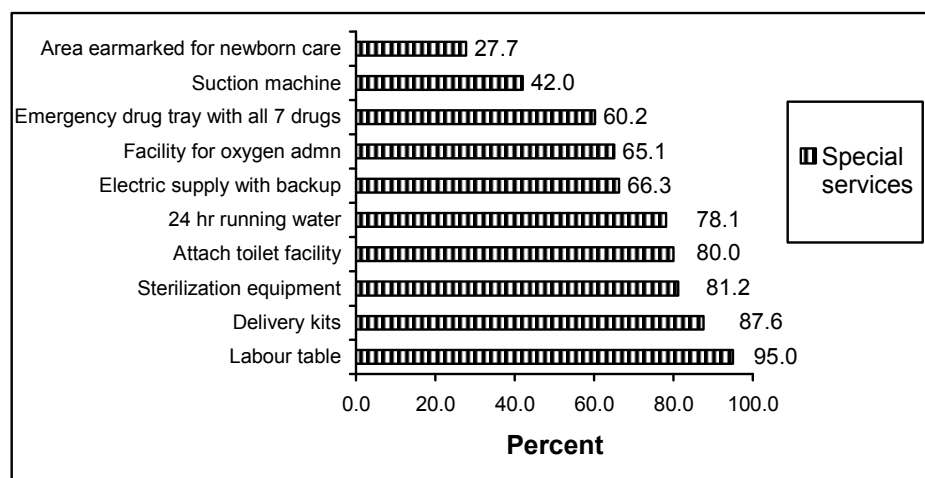
(h) Equipment and furniture

As per IPHS, the equipment provided to the PHCs should be adequate to provide all the assured services in the PHCs. This will include all the equipment necessary for conducting safe deliveries, immunization, contraceptive services like IUD insertion, etc. In addition, equipment for first aid and emergency care, water quality testing etc should be available. The available equipment in PHCs are listed in Table 4.12.

Standard surgical kit for minor procedures is available in 77 percent of the centres. The PHCs are the main points for storage and distribution of vaccines; some of the PHCs have also been made nodal centres for vaccine distribution. Essential cold chain equipment available are Refrigerator (165 liters) and ILR (Deep Freezers) about 91 percent and 95 percent respectively were found functional. Nearly 92 percent of PHCs have the normal delivery kit. Across the districts, the availability of labour room was in over 95 percent in all PHCs. Eight out of ten PHCs in the state possess sterilization equipment (ranging from

60 percent in Kurnool to a high of 94 percent in West Godavari district). About 78 percent operational labour rooms in PHC have 24 hour running water facility, while 66 percent have electric back-up facility and 80 percent have attached toilet facility to the operational labour room.

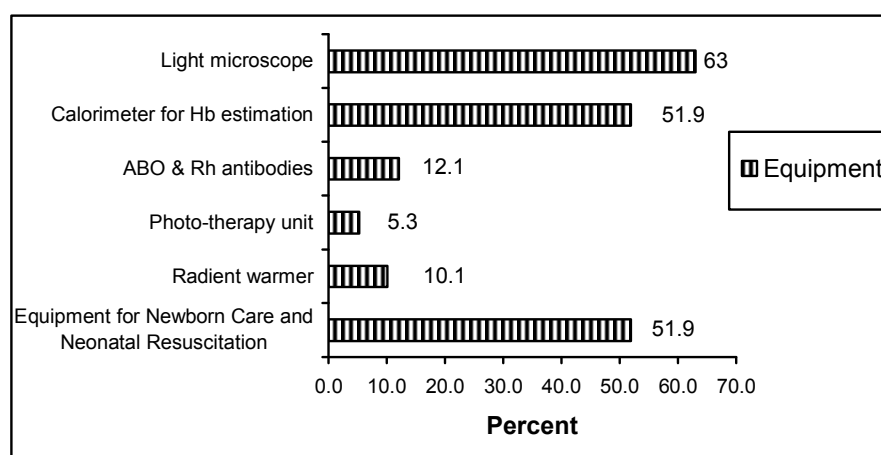
Figure 4.10 Percentage-wise availability of equipment and facilities in the operational labour room in PHCs



(i) Essential newborn care & laboratory equipment

Essential newborn care equipment includes infant resuscitation bag, Radiant warmer and Photo-therapy unit. No district in Andhra Pradesh has adequate number of newborn care equipment. 52 percent of PHCs have Calorimeter for Hb estimation in the state. More than 40 percent of calorimeters were reported from Raga Reddy, Nizamabad, Adilabad districts. The availability of light microscope was 63 percent and the districts reporting less than 40 percent of PHCs are Ranga Reddy, Medak, Nizamabad and Adilabad districts. Ten percent of PHCs possessed Radiant warmer for newborn babies at the state level. However, Radiant warmers are available in PHCs of Medak (54 percent), Nizamabad (41 percent) and Warangal (28 percent) above the state average figure of 10 percent.

Figure 4.11 Percentage-wise availability of lab equipment for essential newborn care in PHCs



(j) Citizen's Charter

Three-fourths of PHCs in the state constituted citizen's charter body. On the date of survey, more than 45 percent of PHCs in Ranga Reddy, Adilabad, Karimnagar and Khammam district have yet to form the citizen's charter. Eighty-eight percent of PHCs in the state constituted Rogi Kalyan Samithi. Internal monitoring is done in 86 percent of centres whereas external monitoring is done in only 39 percent of centres.

4.5 Percentage of PHCs adequately equipped

Table 4.13 shows district-wise adequacy of each component of critical inputs namely Infrastructure (regular supply of tap water, electricity, telephone, toilet facility, septic sewerage facility, laboratory and labour room availability), Services (medical officers, lab technician and health assistant - male and female), Supply (IUD insertion kit (Kit- G), normal delivery kit (Kit - I), standard surgical kit, mounted lamp, refrigerator, computer with accessories including internet facility, IFA large tablets and ORS) and Equipment (deep freezer, vaccine carrier, binocular microscope, needle cutter, MTP suction apparatus, labour room table and equipment). It is observed that 81 percent of the PHCs in the districts are adequately equipped with respect to infrastructure. There is no single district with all PHCs adequately equipped in terms of infrastructure, staff, supply, or equipment. It is interesting to observe that the Ranga Reddy district recorded lower percentage in three out of four indicators (exception was equipment availability, Table 4.13). Ranking of districts was done from poor performance to good performance districts. The identified five indicators showed the low level in Visakhapatnam, Prakasam and Ranga Reddy districts respectively.

Table 4.1 District-wise availability of infrastructure in PHCs (Percent)

S.No	District	No. of PHCs	Own Building	Toilet Facility	Tap Water Piped	Electricity Available in all parts	Labour Room	Laboratory	Telephone	Vehicle Functional	PHCs with at least one bed	Segregation of Hosp. Waste
1	Srikakulam	69	78.3	58.0	64.5	97.1	82.6	91.3	68.1	17.4	89.9	88.4
2	Vizianagaram	58	70.7	56.9	39.6	91.4	81.0	82.8	79.3	12.1	96.6	93.1
3	Visakhapatnam	75	57.3	41.3	49.3	92.0	93.3	90.7	57.3	41.3	97.3	93.3
4	East Godavari	72	81.9	44.4	70.0	90.3	91.7	90.3	76.4	18.1	97.2	93.1
5	West Godavari	65	92.3	52.3	81.4	96.9	93.8	93.8	93.8	16.9	100.0	96.9
6	Krishna	67	77.9	60.3	68.2	98.5	92.6	98.5	80.9	14.7	100.0	88.1
7	Guntur	67	89.6	46.3	53.8	100.0	97.0	89.6	74.6	11.9	94.0	94.0
8	Prakasam	78	84.6	47.4	31.3	92.3	82.1	87.2	62.8	15.4	97.4	88.5
9	Nellore	58	93.1	50.0	45.5	96.6	98.3	81.0	70.7	22.4	100.0	93.1
10	Chittoor	87	82.8	40.2	54.2	92.0	94.3	93.1	90.8	8.0	98.9	89.7
11	Kadapa	68	86.8	32.4	53.7	91.2	86.8	86.8	64.7	8.8	92.6	88.2
12	Anantapur	75	80.0	44.0	61.8	93.3	93.3	97.3	76.0	12.0	93.3	92.0
13	Kurnool	73	84.9	37.0	61.2	98.6	89.0	83.6	41.1	11.0	84.9	97.3
14	Mahabubnagar	84	81.0	45.2	35.6	92.9	92.9	91.7	79.8	23.8	97.6	82.1
15	Rangareddy	36	61.1	47.2	52.9	94.4	86.1	83.3	41.7	8.3	94.4	88.9
16	Medak	63	92.1	39.7	56.5	95.2	92.1	87.3	66.7	9.5	98.4	96.8
17	Nizamabad	39	92.9	40.5	85.0	97.6	90.5	85.7	59.5	11.9	95.2	97.4
18	Adilabad	63	86.9	29.5	59.3	93.4	85.2	83.6	54.1	36.1	98.4	97.2
19	Karimnagar	62	93.4	37.7	72.4	96.7	90.2	90.2	60.7	13.1	93.4	95.2
20	Warangal	65	90.8	52.3	51.8	93.8	90.8	89.2	32.3	21.5	92.3	89.2
21	Khammam	64	77.8	46.0	54.0	96.8	92.1	90.5	65.1	41.3	100.0	92.2
22	Nalgonda	70	91.4	42.9	28.8	92.9	94.3	92.9	75.7	5.7	98.6	88.6
Andhra Pradesh		1458	83.1	45.0	55.7	94.6	90.6	89.5	68.0	17.5	96.0	91.6

Table 4.2 – District-wise availability of manpower in PHCs (Percent)

S.No.	District	Medical Officer	Pharmacist	Nurse Mid-wife	Health Worker Female	Health Asst.	Clerks	Lab Technician	Driver	Ophthalmic Asst.
1	Srikakulam	99	58	80	46	63	61	70	11	16
2	Vizianagaram	86	43	91	117	122	58	51	15	16
3	Visakhapatnam	97	52	83	45	84	58	58	28	14
4	East Godavari	104	61	94	42	108	59	54	25	16
5	West Godavari	94	52	105	30	84	59	47	11	12
6	Krishna	97	49	116	43	70	56	54	11	14
7	Guntur	105	51	126	54	91	64	48	9	15
8	Prakasam	115	63	115	77	91	61	57	16	18
9	Nellore	89	51	76	40	92	52	19	14	15
10	Chittoor	134	65	168	70	73	74	73	8	12
11	Kadapa	127	56	119	55	71	55	45	12	15
12	Anantapur	117	68	134	87	169	58	70	17	18
13	Kurnool	108	60	88	49	106	62	56	10	14
14	Mahabubnagar	129	65	143	171	157	64	71	33	15
15	Ranga Reddy	46	28	59	16	29	35	23	4	13
16	Medak	89	50	90	29	76	53	31	11	15
17	Nizamabad	50	34	41	17	53	27	20	6	9
18	Adilabad	85	61	64	36	64	45	40	22	12
19	Karimnagar	84	48	74	29	61	55	45	10	11
20	Warangal	100	55	114	58	93	60	46	17	15
21	Khammam	86	47	101	62	74	50	62	24	13
22	Nalgonda	93	53	93	53	79	58	64	6	13
Andhra Pradesh		2134	1170	2174	1226	1910	1224	1104	320	311

Table 4.3 District-wise and location-specific availability of PHCs (Percent)

S.No	District	No. of PHCs	Within village boundary	Village outskirts	Far from village	Total
1	Srikakulam	69	89.9	8.7	1.4	100.0
2	Vizianagaram	58	82.8	17.2	-	100.0
3	Visakhapatnam	75	93.3	4.0	2.7	100.0
4	East Godavari	72	98.6	1.4	-	100.0
5	West Godavari	65	90.8	9.2	-	100.0
6	Krishna	67	86.6	11.9	1.5	100.0
7	Guntur	67	88.1	11.9	-	100.0
8	Prakasam	78	79.5	17.9	2.6	100.0
9	Nellore	58	86.2	13.8	-	100.0
10	Chittoor	87	80.5	18.4	1.1	100.0
11	Kadapa	68	85.3	11.8	2.9	100.0
12	Anantapur	75	86.7	13.3	-	100.0
13	Kurnool	73	90.4	9.6	-	100.0
14	Mahabubnagar	84	77.4	21.4	1.2	100.0
15	Rangareddy	36	86.1	13.9	-	100.0
16	Medak	63	90.5	9.5	-	100.0
17	Nizamabad	39	97.4	2.6	-	100.0
18	Adilabad	63	88.6	11.4	-	100.0
19	Karimnagar	62	82.3	14.5	3.2	100.0
20	Warangal	65	93.8	4.6	1.6	100.0
21	Khammam	64	79.7	18.8	1.5	100.0
22	Nalgonda	70	78.6	21.4	-	100.0
Andhra Pradesh		1458	86.6	12.4	1.0	100.0

Table 4.4 District-wise distance ranges from the farthest village to PHCs (percent)

S.No.	District	No. of PHCs	Up to 10 Kms	11-20 Kms	21-30 Kms	>30 Kms	Total
1	Srikakulam	69	15.9	55.1	20.3	8.7	100.0
2	Vizianagaram	58	17.2	34.6	31.0	17.2	100.0
3	Visakhapatnam	75	9.3	40.0	29.4	21.3	100.0
4	East Godavari	72	16.7	48.6	22.2	12.5	100.0
5	West Godavari	65	24.6	38.5	30.7	6.2	100.0
6	Krishna	67	13.4	64.2	16.4	6.0	100.0
7	Guntur	67	11.9	41.8	32.9	13.4	100.0
8	Prakasam	78	15.4	35.9	26.9	21.8	100.0
9	Nellore	58	15.5	32.8	32.7	19.0	100.0
10	Chittoor	87	13.8	42.5	31.0	12.7	100.0
11	Kadapa	68	10.3	39.7	35.3	14.7	100.0
12	Anantapur	75	20.0	28.0	29.5	22.5	100.0
13	Kurnool	73	15.1	31.5	24.7	28.7	100.0
14	Mahabubnagar	84	29.8	28.6	28.6	13.0	100.0
15	Ranga Reddy	36	-	44.4	30.6	25.0	100.0
16	Medak	63	4.8	47.6	34.9	12.7	100.0
17	Nizamabad	39	12.8	41.0	28.3	17.9	100.0
18	Adilabad	63	3.2	39.7	15.9	41.2	100.0
19	Karimnagar	62	14.5	41.9	29.0	14.6	100.0
20	Warangal	65	10.8	32.3	41.5	15.4	100.0
21	Khammam	64	9.4	34.4	40.6	15.6	100.0
22	Nalgonda	70	10.0	40.0	40.0	10.0	100.0
Andhra Pradesh		1458	13.9	39.9	29.6	16.6	100.0

Table 4.5 District-wise distance ranges from the PHCs to the respective CHC/D.H (percent)

S.No.	District	No. of PHCs	Up to 10 Kms	11-20 Kms	21-30 Kms	>30 Kms	Total
1	Srikakulam	69	36.2	47.8	11.7	4.3	100.0
2	Vizianagaram	58	27.6	43.1	20.7	8.6	100.0
3	Visakhapatnam	75	28.0	38.7	14.7	18.6	100.0
4	East Godavari	72	30.6	38.9	20.8	9.7	100.0
5	West Godavari	65	41.5	38.5	13.8	6.2	100.0
6	Krishna	67	25.4	43.3	22.3	9.0	100.0
7	Guntur	67	22.4	53.8	13.4	10.4	100.0
8	Prakasam	78	10.3	42.3	28.2	19.2	100.0
9	Nellore	58	12.1	43.1	29.3	15.5	100.0
10	Chittoor	87	16.1	40.2	32.2	11.5	100.0
11	Kadapa	68	16.2	45.6	22.0	16.2	100.0
12	Anantapur	75	16.0	33.3	28.0	22.7	100.0
13	Kurnool	73	13.7	45.2	28.8	12.3	100.0
14	Mahabubnagar	84	19.0	41.7	22.6	16.7	100.0
15	Ranga Reddy	36	22.2	55.5	5.6	16.7	100.0
16	Medak	63	15.8	54.0	27.0	3.2	100.0
17	Nizamabad	39	20.5	51.3	23.1	5.1	100.0
18	Adilabad	63	15.9	34.9	25.4	23.8	100.0
19	Karimnagar	62	19.4	40.3	27.4	12.9	100.0
20	Warangal	65	21.5	33.9	24.6	20.0	100.0
21	Khammam	64	17.2	25.0	28.1	29.7	100.0
22	Nalgonda	70	21.4	41.4	22.9	14.3	100.0
Andhra Pradesh		1458	21.2	41.8	22.8	14.2	100.0

Table 4.6 District-wise availability of assured services in PHCs (percent)

S.No.	District	No. of PHCs	OPD Services	Inpatient Services	Emergency Services	Transport/ referral services
1	Srikakulam	69	98.6	30.4	56.5	91.3
2	Vizianagaram	58	100.0	60.3	65.5	62.1
3	Visakhapatnam	75	100.0	24.0	61.3	86.7
4	East Godavari	72	97.2	34.7	63.9	93.1
5	West Godavari	65	100.0	46.2	64.6	96.9
6	Krishna	67	100.0	33.8	30.9	77.9
7	Guntur	67	94.0	25.4	52.2	91.0
8	Prakasam	78	97.4	25.6	46.2	73.1
9	Nellore	58	98.3	34.5	53.4	81.0
10	Chittoor	87	98.9	36.8	57.5	55.2
11	Kadapa	68	100.0	30.9	45.6	47.1
12	Anantapur	75	100.0	34.7	57.3	52.0
13	Kurnool	73	100.0	41.1	46.6	84.9
14	Mahabubnagar	84	98.8	58.3	52.4	60.7
15	Ranga Reddy	36	97.2	38.9	38.9	75.0
16	Medak	63	100.0	49.2	58.7	92.1
17	Nizamabad	39	97.6	47.6	47.6	90.5
18	Adilabad	63	100.0	32.8	39.3	93.4
19	Karimnagar	62	100.0	29.5	32.8	85.2
20	Warangal	65	98.5	38.5	43.1	80.0
21	Khammam	64	98.4	55.6	58.7	73.0
22	Nalgonda	70	91.4	38.6	41.4	71.4
Andhra Pradesh		1458	98.5	38.2	51.1	77.1

Table 4.7 District-wise availability of MCH services in PHCs (Percent)

S.No.	District	No. of PHCs	MCH Services at PHC						
			Ante-natal Care	24 Hour Delivery Service	Post-natal Care	New-born Care	Immunization	Family Planning	MTP
1	Srikakulam	69	97.1	60.9	94.2	81.2	98.6	98.6	18.8
2	Vizianagaram	58	100.0	67.2	98.3	82.8	100.0	91.4	22.4
3	Visakhapatnam	75	100.0	64.0	98.7	89.3	98.7	88.0	17.3
4	East Godavari	72	100.0	69.4	98.6	88.9	100.0	91.7	12.5
5	West Godavari	65	100.0	73.8	100.0	90.8	100.0	95.4	9.2
6	Krishna	67	100.0	73.5	98.5	80.9	98.5	92.6	8.8
7	Guntur	67	98.5	70.1	95.5	79.1	97.0	86.6	10.4
8	Prakasam	78	97.4	69.2	94.9	82.1	100.0	75.6	17.9
9	Nellore	58	98.3	62.1	91.4	79.3	94.8	63.8	17.2
10	Chittoor	87	100.0	69.0	92.0	72.4	98.9	60.9	21.8
11	Kadapa	68	100.0	73.5	94.1	64.7	98.5	66.2	14.7
12	Anantapur	75	100.0	74.7	92.0	82.7	96.0	40.0	16.0
13	Kurnool	73	97.3	68.5	94.5	79.5	98.6	49.3	8.2
14	Mahabubnagar	84	97.6	75.0	92.9	81.0	96.4	59.5	11.9
15	Ranga Reddy	36	97.2	47.2	86.1	66.7	97.2	63.9	2.8
16	Medak	63	98.4	65.1	95.2	92.1	98.4	66.7	12.7
17	Nizamabad	39	95.2	69.0	95.2	88.1	95.2	83.3	7.1
18	Adilabad	63	100.0	47.5	96.7	70.5	98.4	77.0	3.3
19	Karimnagar	62	100.0	36.1	96.7	72.1	100.0	86.9	1.6
20	Warangal	65	98.5	52.3	90.8	78.5	98.5	96.9	13.8
21	Khammam	64	100.0	66.7	98.4	69.8	98.4	73.0	4.8
22	Nalgonda	70	95.7	65.7	97.1	77.1	98.6	87.1	8.6
Andhra Pradesh		1458	98.8	65.4	95.2	79.7	98.3	76.5	12.4

Table 4.8 District-wise availability of specific services in PHCs (Percent)

S. No.	District	24 Hour Delivery Facility	Availability of Facility		Treatment of Gynecological Disorders Availability	Management of LBW Babies
			DPL	NSV		
1	Srikakulam	60.9	44.9	27.5	75.4	37.7
2	Vizianagaram	67.2	48.3	51.7	87.9	44.8
3	Visakhapatnam	64.0	60.0	65.3	78.7	48.0
4	East Godavari	69.4	59.7	62.5	69.4	34.7
5	West Godavari	73.8	47.7	52.3	78.5	36.9
6	Krishna	73.5	45.6	32.4	66.2	38.2
7	Guntur	70.1	25.4	38.8	74.6	35.8
8	Prakasam	69.2	25.6	30.8	80.8	21.8
9	Nellore	62.1	32.8	22.4	67.2	39.7
10	Chittoor	69.0	31.0	19.5	77.0	24.1
11	Kadapa	73.5	29.4	26.5	66.2	29.4
12	Anantapur	74.5	17.3	10.7	69.3	25.3
13	Kurnool	68.5	15.1	9.6	75.3	20.5
14	Mahabubnagar	75.0	25.0	8.3	66.7	42.9
15	Ranga Reddy	47.2	44.4	25.0	77.8	30.6
16	Medak	65.1	34.9	27.0	74.6	47.6
17	Nizamabad	69.0	35.7	31.0	66.7	42.9
18	Adilabad	47.5	26.2	39.3	57.4	37.7
19	Karimnagar	36.1	16.4	63.9	77.0	21.3
20	Warangal	52.3	44.6	78.5	69.2	35.4
21	Khammam	66.7	38.1	42.9	69.8	39.7
22	Nalgonda	65.7	34.3	35.7	61.4	24.3
Andhra Pradesh		65.4	35.2	35.9	72.2	34.2

Table 4.9 Availability of special services in PHCs

S. No.	Other Services	Availability (%)
1	Nutrition Services	93.9
2	School Health Programmes	99.5
3	Promotion of safe water supply and basic sanitation	97.8
4	Prevention and control of locally endemic diseases	98.2
5	Disease surveillance and control of epidemics	98.8
6	Collection and reporting of vital statistics	97.1
7	Education about health / behavior change communication	98.7
8	National Health Programmes	97.0
9	AYUSH service availability	25.7

Table 4.10 Frequency of monitoring and supervision in PHCs

S.No.	Other Services	Availability (%)
1	<i>Sub centre regular meetings / periodic visits</i>	
	i) Once in a month	39.3
	ii) Twice in a month	60.5
2	<i>Monitoring of National Health Programmes</i>	
	i) Once in a month	46.2
	ii) Twice in a month	52.9
3	Monitoring of ASHA workers	98.9
4	Visit of MO to all sub centres once in a month	98.1
5	Visit of Health Assistant(M) and LHV to sub centres once in a week	96.5

Table 4.11 District-wise availability of essential laboratory services in PHCs

S. No.	District	Routine Urine Test	Stool Test	Blood Test	Blood Grouping	Diagnosis of RTI/STDs with mounting, grams stain etc.	Sputum Test for TB	Blood Smear Exam for Malaria	RPR Test for Syphilis	Rapid Test for HIV
1	Srikakulam	81.2	4.3	75.4	17.4	11.6	29.0	89.9	5.8	2.9
2	Vizianagaram	86.2	24.1	81.0	36.2	15.5	51.7	94.8	15.5	12.1
3	Visakhapatnam	70.7	9.3	64.0	18.7	2.7	45.3	84.0	0.0	10.7
4	East Godavari	87.5	13.9	76.4	40.3	11.1	55.6	94.4	12.5	26.4
5	West Godavari	95.4	7.7	72.3	16.9	10.8	84.6	98.5	4.6	27.7
6	Krishna	95.6	22.1	89.7	32.4	14.7	44.1	97.1	10.3	42.6
7	Guntur	77.6	13.4	65.7	10.4	7.5	47.8	83.6	1.5	37.3
8	Prakasam	84.6	14.1	76.9	20.5	7.7	32.1	84.6	3.8	25.6
9	Nellore	58.6	20.7	43.1	13.8	1.7	39.7	56.9	5.2	25.9
10	Chittoor	88.5	26.4	81.6	25.3	9.2	43.7	90.8	5.7	6.9
11	Kadapa	69.1	16.2	63.2	29.4	10.3	32.4	85.3	5.9	63.2
12	Anantapur	86.7	14.7	74.7	29.3	5.3	34.7	88.0	6.7	5.3
13	Kurnool	68.5	12.3	58.9	21.9	4.1	47.9	87.7	9.6	6.8
14	Mahabubnagar	79.8	9.5	60.7	13.1	8.3	32.1	84.5	3.6	4.8
15	Ranga Reddy	61.1	2.8	47.2	13.9	2.8	41.7	77.8		2.8
16	Medak	46.0	6.3	38.1	7.9	9.5	30.2	65.1	6.3	3.2
17	Nizamabad	54.8	2.4	45.2	2.4	2.4	35.7	69.0	2.4	21.4
18	Adilabad	41.0	1.6	41.0	3.3	0.0	27.9	78.7	1.6	3.3
19	Karimnagar	67.2	6.6	63.9	16.4	0.0	26.2	82.0	1.6	26.2
20	Warangal	63.1	13.8	55.4	15.4	4.6	32.3	75.4	1.5	3.1
21	Khammam	76.2	9.5	79.4	17.5	7.9	38.1	92.1	3.2	28.6
22	Nalgonda	77.1	14.3	71.4	38.6	7.1	34.3	80.0	10.0	11.4
Andhra Pradesh		74.8	12.6	66.0	20.7	7.3	40.3	84.4	5.5	18.0

Table 4.12 Availability of equipment, furniture and kits in PHCs (Percent)

S.No.	Item	Available	Functional
1	Normal delivery kit	92.2	89.5
2	Equipment for assisted vacuum delivery	18.8	92.0
3	Equipment for assisted forceps delivery	45.1	91.5
4	Standard surgical kit (stitching of episiotomies)	76.9	98.0
5	Equipment of manual vacuum aspiration	29.4	94.6
6	Equipment of newborn care and neonatal resuscitation	51.9	95.9
7	IUD insertion kit	82.0	97.0
8	Refrigerator (165 liters)	90.8	94.1
9	ILR and Deep Freezer	95.1	98.6

Table 4.13 District-wise availability of operational labour room equipment in PHCs

S. No.	District	Labour Table	Suction Machine	Sterilization Equipment	24-Hour running Water	Electricity Backup Facility	Attached Toilet Facility	Emergency Drug Tray with all seven drugs
1	Srikakulam	91.3	36.2	92.8	75.4	55.1	72.5	43.5
2	Vizianagaram	100.0	63.8	89.7	81.0	74.1	82.8	60.3
3	Visakhapatnam	98.7	41.3	86.7	78.7	68.0	85.3	32.0
4	East Godavari	94.4	36.1	88.9	86.1	73.6	75.0	43.1
5	West Godavari	98.5	47.7	93.8	87.7	49.2	78.5	52.3
6	Krishna	98.5	41.2	94.1	83.8	82.4	88.2	44.1
7	Guntur	94.0	82.1	91.0	83.6	62.7	79.1	49.3
8	Prakasam	92.3	35.9	85.9	74.4	79.5	74.4	51.3
9	Nellore	96.6	34.5	81.0	87.9	79.3	81.0	55.2
10	Chittoor	97.7	44.8	75.9	78.2	70.1	72.4	40.2
11	Kadapa	92.6	30.9	69.1	64.7	73.5	80.9	39.7
12	Anantapur	98.7	38.7	68.0	68.0	64.0	82.7	24.0
13	Kurnool	97.3	26.0	60.3	84.9	71.2	76.7	28.8
14	Mahabubnagar	92.9	29.8	69.0	71.4	53.6	82.1	23.8
15	Ranga Reddy	88.9	27.8	61.1	72.2	41.7	66.7	16.7
16	Medak	95.2	58.7	87.3	79.4	49.2	85.7	38.1
17	Nizamabad	90.5	35.7	81.0	85.7	73.8	83.3	35.7
18	Adilabad	88.5	29.5	78.7	72.1	72.1	77.0	36.1
19	Karimnagar	98.4	26.2	82.0	78.7	29.5	85.2	23.0
20	Warangal	89.2	60.0	89.2	78.5	72.3	90.8	41.5
21	Khammam	95.2	39.7	79.4	68.3	82.5	71.4	57.1
22	Nalgonda	95.7	55.7	80.0	80.0	71.4	85.7	38.6
Andhra Pradesh		95.0	42.0	81.2	78.1	66.3	80.0	39.8

Table 4.14 District-wise availability of critical inputs and facilities in PHCs

S.No.	District	No. of PHCs	Percentage of PHC having at least 60 percent				Average weekly OP
			Infra Structure ¹	Staff ²	Supply ³	Equ-ipment ⁴	
1	Srikakulam	69	75.4	63.8	73.9	63.8	471
2	Vizianagaram	58	81.0	69.0	84.5	89.7	449
3	Visakhapatnam	75	77.3	68.0	68.0	60.0	342
4	East Godavari	72	86.1	61.4	76.4	72.2	449
5	West Godavari	65	90.8	58.5	89.2	83.1	477
6	Krishna	67	89.6	50.7	65.7	73.1	432
7	Guntur	67	83.6	50.7	85.1	88.1	384
8	Prakasam	78	78.2	48.7	79.5	59.0	352
9	Nellore	58	89.7	53.4	75.9	63.8	460
10	Chittoor	87	82.8	46.0	79.3	70.1	516
11	Kadapa	68	77.9	44.1	73.5	54.4	598
12	Anantapur	75	80.0	66.7	76.0	77.3	467
13	Kurnool	73	75.3	57.5	71.2	67.1	491
14	Mahabubnagar	84	83.3	78.6	69.0	59.5	497
15	Ranga Reddy	36	58.3	38.9	61.1	63.9	613
16	Medak	63	87.3	55.6	77.8	77.8	546
17	Nizamabad	39	84.6	46.2	69.2	61.5	541
18	Adilabad	63	79.4	52.4	58.7	66.7	500
19	Karimnagar	62	74.2	58.1	59.7	69.4	436
20	Warangal	65	83.1	61.5	58.5	67.7	513
21	Khammam	64	76.6	56.2	75.0	71.9	397
22	Nalgonda	70	82.9	48.6	80.0	78.6	359
Andhra Pradesh		1458	81.1	56.8	73.5	69.9	468

1. Infrastructure includes Regular supply of tap water, electricity, telephone, toilet facility, septic sewerage facility, laboratory and labour room availability
2. Services include Medical officers, lab technician and health assistant (Male and Female)
3. Supply includes IUD insertion kit (Kit- G), normal delivery kit (Kit – I), standard surgical kit, mounted lamp, refrigerator, computer with accessories including internet facility, IFA large tablets and ORS
4. Equipment includes deep freezer, vaccine carrier, binocular microscope, needle cutter, MTP suction apparatus, labour room table and other equipment

Chapter -5

5.0 Sub-centres in Andhra Pradesh

Sub-centres are expected to provide promotive, preventive and a few curative primary health care services. As per the population norm, one sub-centre is established for every 5000 population in plain areas and for every 3000 population in hilly/ tribal areas. It is the lowest referral linkage of the Primary health care.

A sub-centre is managed by one Female health worker commonly known as Auxiliary nurse midwife (ANM) and one Male health worker commonly known as multi purpose worker (Male). One Health assistant (Female) commonly known as Lady Health visitor (LHV) and one Health assistant (Male) located at the PHC level are entrusted with the task of supervision of all the sub-centres under the PHC preview.

The Ministry of Health and Family Welfare (MOHFW), GOI provides assistance to all the Sub-centres in the country since April 2002 in the form of salary of ANMs and LHVs, rent (if located in a rented building) and contingency, in addition to drugs and equipment kits. The salary of the Male health worker is borne by the State Governments. Sub-centre provides a package of services such as immunization, antenatal, natal and post natal care, prevention of malnutrition and common childhood diseases, family planning services and counseling. They also provide elementary drugs for minor ailments such as ARI, diarrhea, fever, worm infection etc, and also carry out the community needs assessment/ help in Village health action plan by ASHA. In addition to the above activities, the government implements several National health programmes delivered through these frontline workers of the sub-centres in the country.

As per Rural Health Statistics-2007, Andhra Pradesh had surplus sub-centres 12522 (more than 7 percent of the norm of 11699 sub-centres as per 2001 Census). There was a deficit of 18 percent PHCs (1570 PHCs against the recommended norm of 1924 PHCs) as per the Census 2001 population criteria (RHS, 2007). The successful implementation of various health programme interventions mainly depends on optimal functioning of sub-centres with adequate staff providing acceptable standard service to the community, which in turn influence maternal mortality and infant mortality in general and vulnerable groups in particular.

The RCH-II Baseline survey has shown higher levels of infant mortality rate among scheduled caste and scheduled tribe communities and households below poverty level (BPL) households (Satya Sekhar et al. 2007). Better provision of promotive and preventive health services at sub-centre level and curative services at PHCs and CHCs with IPHS norms may be a pre-requisite under the NRHM initiatives.

For a long time, it is felt that there is a need to improve quality management and quality assurance in public health delivery institutions. The MoHFW made a concerted effort and developed the guidelines for comprehensive standards for sub-centres and prescribed IPHS norms to maintain an acceptable standard quality of care. Setting

standards has been a dynamic process and would require monitoring and improving functioning of the sub-centre along with good referral at PHCs and CHCs. The MoHFW developed IPHS for sub-centres keeping in view the resources available with respect to functional requirements maintaining minimum standards such as building, manpower, instruments and equipment, drugs, citizen's charter etc.

The chief objective of the IPHS for sub-centres is to provide quality oriented community specific health care. The specific objectives are:

- a) to provide basic health care to the community
- b) to achieve and maintain an acceptable standard health care services
- c) to make the services more responsive and sensitive to the needs of the community

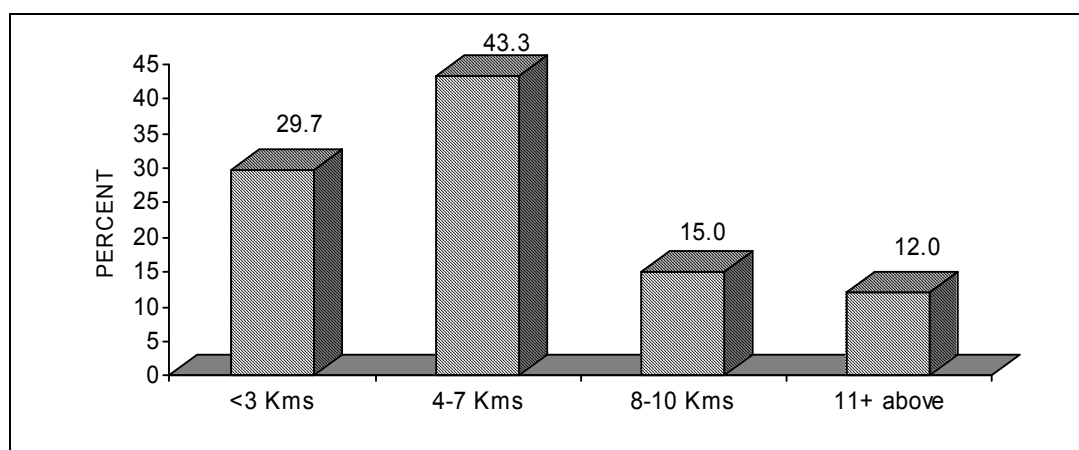
Under the Facility survey, 2008, a total of 11978 sub-centres were surveyed from the 22 districts (Hyderabad urban district was not included) of Andhra Pradesh. This Chapter presents the findings for 11978 sub-centres (SCs) surveyed.

5.1 Location and accessibility of the sub-centres

(a) Distance from village

At the state level, 30 percent of SCs have the farthest village located within a radius of 3 km and around 12 percent of the SCs have the farthest villages located beyond a distance of 11 km and above. About 22-25 percent of SCs in Visakhapatnam and Adilabad have the farthest village located beyond a distance of 11 km and above. At the other extreme, 38 – 45 percent of SCs in East Godavari, West Godavari, Krishna and Nizamabad have the farthest village with in a radius of 3 km distance (Table 5.1).

Figure 5.1 Percent distribution of sub-centres showing distance (Kms) from farthest village

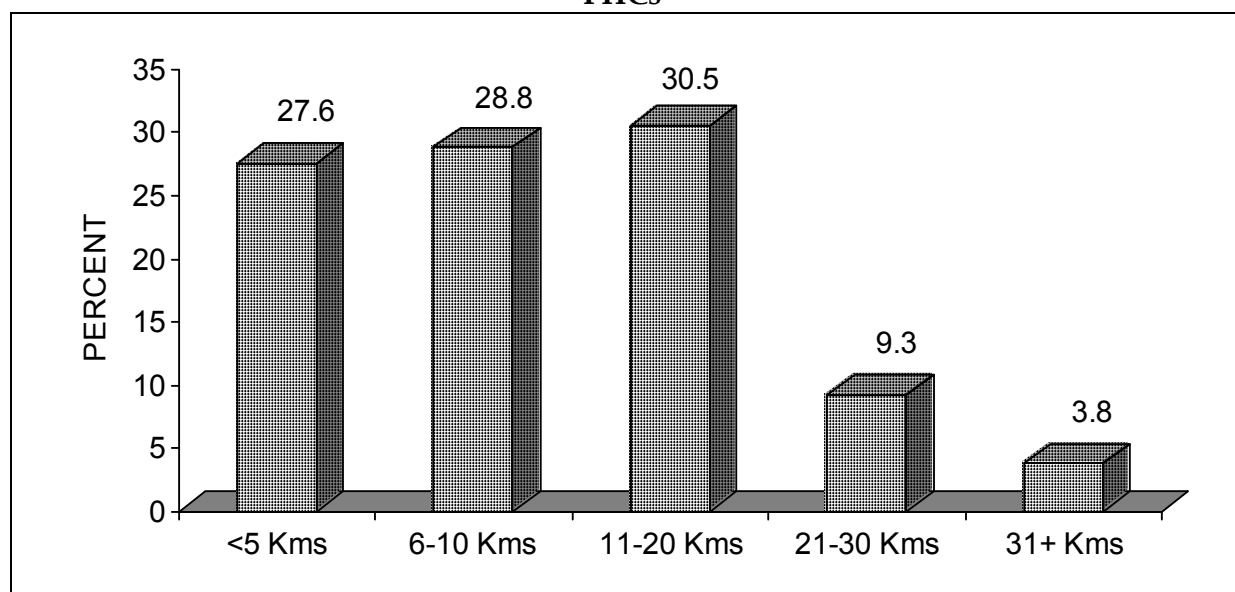


(b) Distance from PHC

At the state level, the average distance of SC from a PHC recorded as 12 Km. About 28 percent of the SCs are located at less than 5 km distance from the PHC and about 3.8 percent of SCs are located at a distance of more than 31 km.

In Anantapur, Kurnool, Adilabad districts, less than 10 percent of SCs are located at a distance of more than 31 km from the PHC. However in Srikakulam, Visakhapatnam, Vizianagaram, East Godavari, West Godavari, Krishna and Guntur more than 30 percent of SCs are located within 5 km from the PHC (Table-5.2).

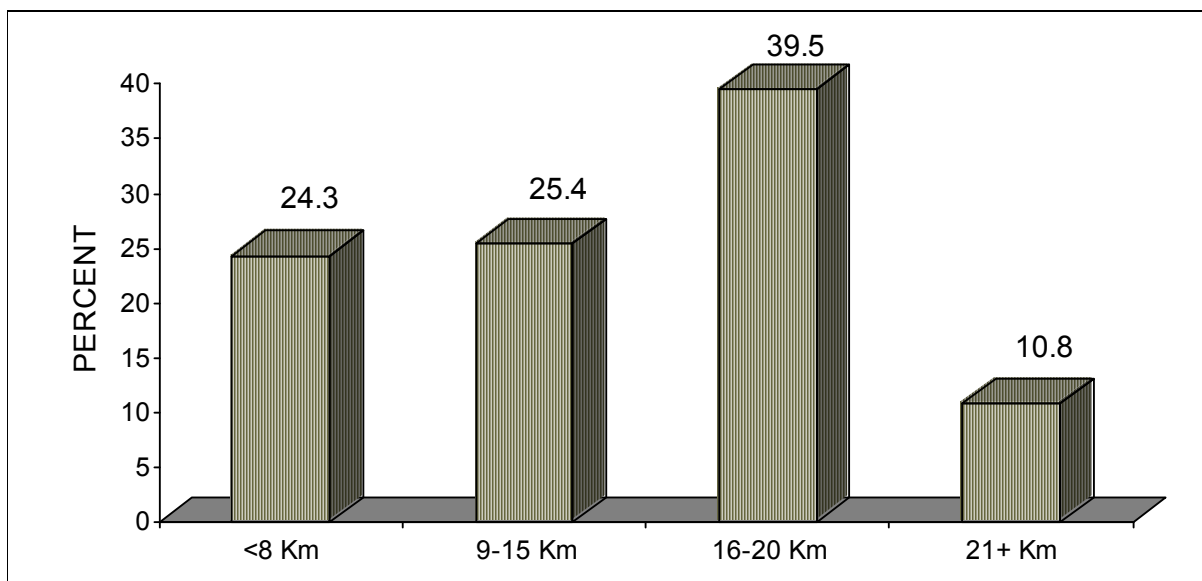
Figure 5.2 Percent distribution of sub-centres showing distance (in kms) from parent PHCs



(c) Distance from CHC/DH

Table-5.3 presents the distance (in Km) from SCs to CHC/AH in the districts of Andhra Pradesh. On an average, the mean distance of SC to CHC/DH was 19 Km. in the state. At the state level, about 24 percent of SCs are located within 8 km radius from the CHC/DH. Another 25 percent of SCs are located in the radius of 9-15 km and 11 percent of SCs are located more than 20 km from the CHC/DA. Slightly above 10 percent of SCs in Visakhapatnam, Guntur, Prakasam, Chittoor, Kadapa, Kurnool, Mahabubnagar, Medak, Adilabad, Karimnagar, Warangal and Nalgonda districts are located more than 20 km from CHC/AH. However, the SCs which are less than 8 km from CHC/DH are more than 27-33 percent located in Srikakulam, Vizianagaram, East Godavari, West Godavari, Chittoor, Ranga Reddy, Nizamabad and Khammam districts.

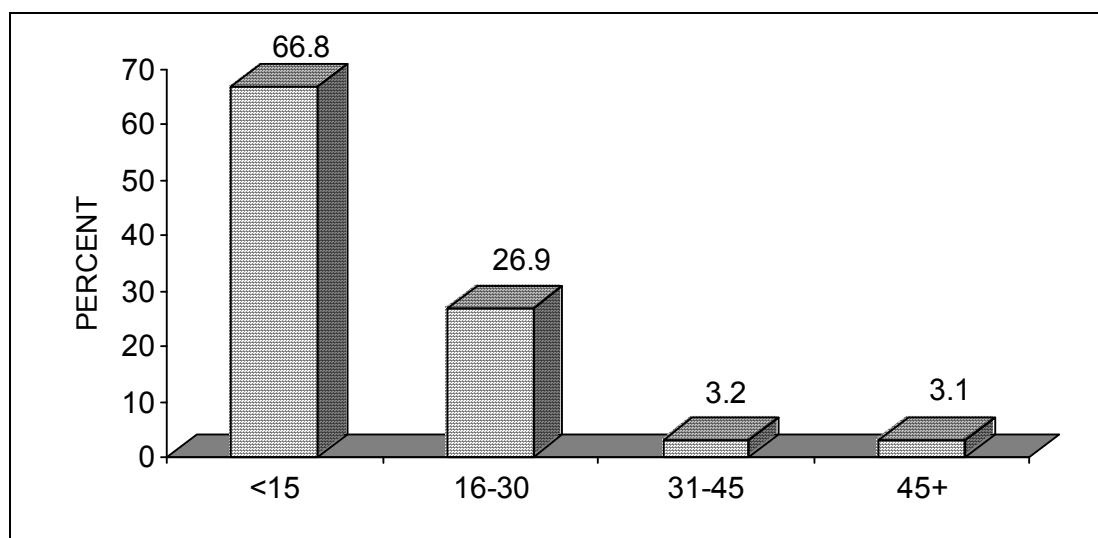
Figure 5.3 Percent distribution of sub-centres showing distance (in Kms) from CHC/DH



(d) Time taken to reach SCs from farthest village

It is reported that the time taken to reach SC from the farthest village was 18 minutes (range varies from zero minutes to 60 minutes). More than 67 percent of SCs in the state can be reached from the farthest village within 15 minutes of time either by bus or any public transport (Fig. 5.4). The percentage of SCs located within 15 minutes from the farthest villages are more than 80 percent, located in West Godavari, Krishna, Guntur and Nizamabad districts (Table 5.4).

Figure 5.4 Percent distribution of sub-centres showing time taken to reach them from the farthest village

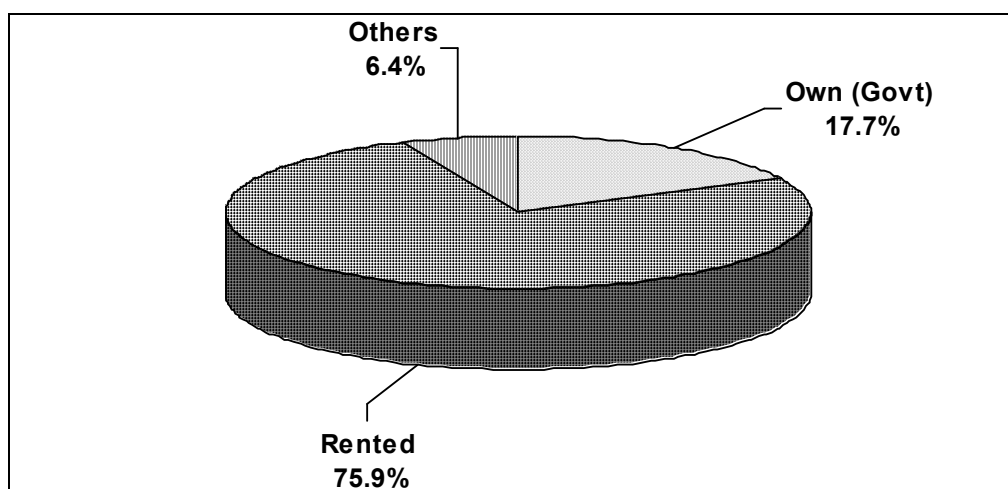


5.2 Infrastructure

(a) Sub-centre building

Eighteen percent of SCs functioning not from own government building. About 31-35 percent of sub-centres in Chittoor, Kadapa, Anantapur and Mahabubnagar function from government buildings. The situation is worse in Srikakulam, Vizianagaram and Prakasam where below 10 percent of the sub-centres are functioning from the government building.

Figure 5.5 Percent of sub-centres occupying own building



As per the standards, a sub-centre should have its own building. If that is not available immediately, the premises with adequate space should be rented in a central location with easy access to population. Out of the Sub-centres which have no government building, 95 percent are functioning from rented building and remaining 5 percent working from Anganwadi centre or from other government buildings. The district-wise details of infrastructure and ownership of sub-centre building are given in Table-5.5 & 5.6

- Fortynine percent of SCs have good condition building
- Sixtythree percent of SCs have well plastered walls, 73 percent of sub-centres have floor in good condition.
- Three-fourths (76 percent) of the sub-centres have no compound wall or fencing.
- Cleanliness of the rooms was reported well in 76.3 percent of the SCs whereas only five percent of SCs have clean toilet facility.
- Among available facilities, 78.5 percent of SCs have prominent display boards in local language
- Sixteen percent of sub-centres have complaint/suggestion box

(b) Other amenities and facilities at the Sub-centres

Basic amenities such as toilet, water supply, electricity, telephone etc. are essential part of sub-centre infrastructure. Table 5.7 presents the district-wise information of amenities available in the sub-centre buildings in the districts of Andhra Pradesh. Tap is the main source of water (drinking and other purposes) in sub-centre, which is available in 74 percent of sub-centres. Around 38 to 55 percent of safe water utilization was reported in Vizianagaram, Chittoor, Anantapur and Mahabubnagar respectively. Only 6.5 percent of sub-centres have a over-head tank facility. Only 7 percent of sub-centres have water pump facility in working condition. Electricity is available in 11 percent of sub-centres. More than 14 percent of sub-centres have electrical connection in the Vizianagaram, Krishna, Mahabubnagar, Nizamabad, Karimnagar and Warangal districts.

Wide inter-district variations are reported across the districts in terms of piped water supply, electricity and toilet facilities. More than 60 percent of sub centres in Chittoor, Anantapur and Mahabubnagar districts have lack of piped water facilities. Ninety percent of sub-centres lack electricity facility in the sub-centre and 95 percent lack proper toilet facility.

In recent times, hospital waste (needles and other waste) attained importance due to the use of disposable syringes for vaccination purposes. 97 percent of sub-centres indicated that they dispose the used needles / syringes by dumping in a deep pit and burn the other waste within the centre premises.

From the information on infrastructure and amenities available in the SCs across the districts, it is seen that they require protected and piped water supply, electricity connection, availability of toilet facilities and construction of own government building as the important inputs.

(c) Residential facility

As per the IPHS, residential accommodation should be made available to the Health workers with each one having 2 rooms, kitchen, bathroom and toilets. Residential facility for one ANM should be contiguous with the main sub-centre area.

Residential facility for ANM was available in 14.1 percent of sub-centres; however slightly more than half (52 percent) of the available sub-centre quarters were occupied by ANMs. Districts reported 30-34 percent of SCs with residential quarters for ANMs i.e. Anantapur, Chittoor and Kadapa districts. Less than 10 percent reported availability of quarters for ANMs in East Godavari, Guntur, Khammam, Nalgonda, Nellore, Prakasam, Ranga Reddy, Srikakulam and Warangal districts.

More than 50 percent of available quarters were occupied by ANMs in the districts of Anantapur, East Godavari, Guntur, Kadapa, Khammam, Prakasam, Srikakulam and West Godavari. Residential quarters for Male health workers are available in 10 percent of SCs and only 25 per cent are staying in the allotted quarters.

(d) Delivery and labor room availability

Delivery/ labor room is a critical area in the sub-centre building and it is available in only 8.6 percent of centres. The sub-centres in Kadapa (23 percent), Anantapur (23 percent), Mahabubnagar (20 percent), Chittoor (14 percent), and Kurnool (14 percent) respectively recorded availability of delivery rooms. At the other end, the sub-centres in the districts of Srikakulam, Vizianagaram, East Godavari, Krishna, Guntur, Ranga Reddy, Medak Warangal, Nizamabad and Khammam districts recorded below 5 percent of delivery rooms. Only 29.7 per cent SCs utilized delivery rooms regularly whereas around 33.7 percent of sub-centres were sometimes utilizing delivery room facilities. The reasons mentioned for not utilizing the delivery room regularly for conducting deliveries in SCs were lack of trained staff (34 percent), poor premises (36.6 percent) followed by non-availability of electricity (33.7 percent) in the sub-centre building. Eightyfour per cent of centres have a clinic room and 73 percent have examination room/facility in the sub-centre.

5.3 Services

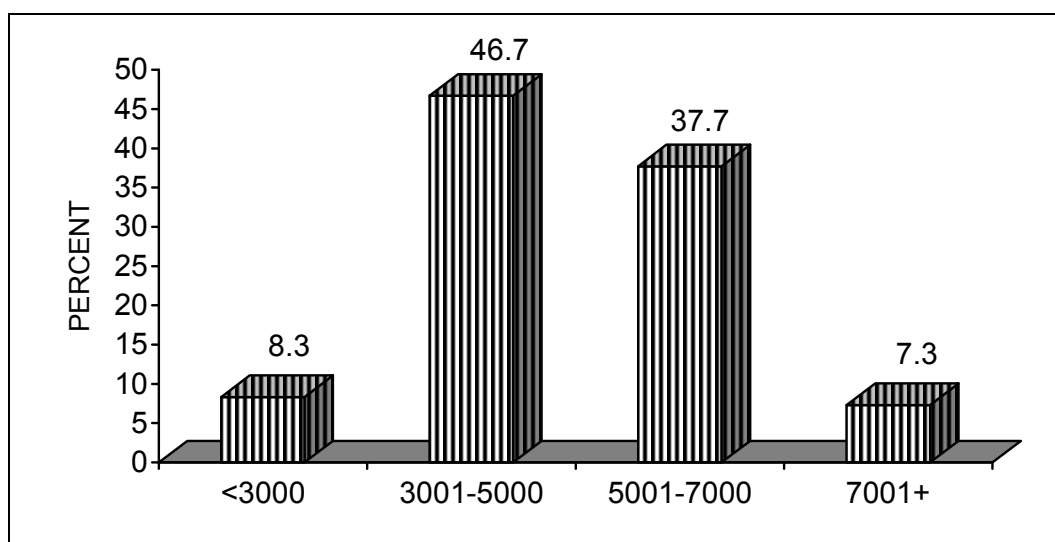
The important assured services that should be made available at the sub-centres include preventive, promotive, few curative and referral services, immunization, antenatal, natal and postnatal care, prevention of malnutrition and common childhood diseases, family planning services and counseling.

(a) Population coverage

In Andhra Pradesh, as per IPHS norms, a sub-centre should cover a population of 5000 in plain areas and 3000 in tribal areas. The average population covered by each sub-centre in the state was 4956 persons with the number going up to 229700 in Jagadgirigutta SC in Ranga Reddy district. Twentynine percent of SCs in Khammam district is covered less than 3000 population. At the other extreme, SCs covered more than 7000 population as recorded at 43 percent in Ranga Reddy followed by 9-10 percent in Srikakulam, Visakhapatnam, West Godavari, Kurnool, Kadapa and Karimnagar districts (Table 5.8).

About 47 percent of SCs covered a population between 3001-5000 and 45 percent of SCs covered more than 5000 population. Even though, the number of SCs in the State is 7 percent more than the Census 2001 norms, the coverage or spread of population per SC requires immediate correction for better service provision by the SC staff.

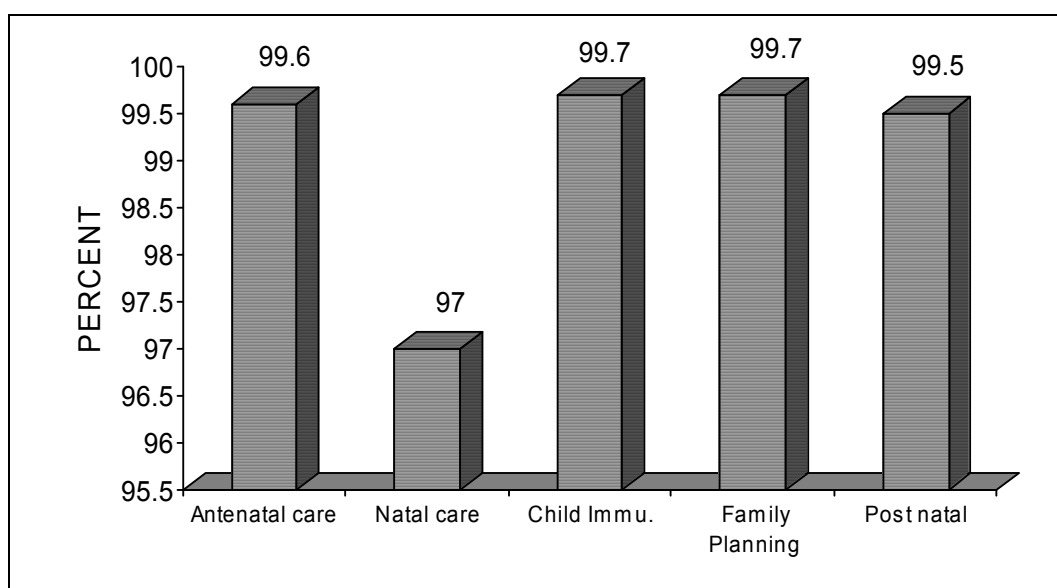
Fig 5.6 Percent distribution of sub-Centres with population coverage



(b) MCH Care including Family Planning

Maternal and child health services at the sub-centre level essentially include antenatal care, natal care, post-natal care, newborn care, child care including immunization and family planning services. The following figures show the availability of some of the MCH care services at sub-centres in Andhra Pradesh.

Figure 5.7 Percentage-wise availability of MCH and family planning services in sub-centres



Early registration of all pregnancies ideally in the first trimester, minimum three antenatal checkups, nutrition & health counseling and identification of high-risk pregnancies are some of the essential services under antenatal care. Antenatal care is provided by 99.6 percent of sub-centres. No significant variation was reported across the

districts (Table 5.9). Nine out of ten sub-centres provided intra-natal, post-natal, child immunization, adolescent health, school health care services and first aid services. The percentages are ranging from 98-100 percent in all the sub-centres in the state.

Education, motivation and counseling to adopt appropriate family planning methods, provision of contraceptives such as condoms, oral pills, emergency contraceptives, IUD and follow up services are covered under family planning services. Family planning services and contraception are available in all the sub-centres.

The different types of assured antenatal care services available in the sub-centres (namely TT injection, IFA tablets, Weight measurement, Height measurement, BP examination, Availability of malaria examination facility) were in the range of 80 to 98 percent of centres. Only 58 percent of sub-centres have the facility for checking blood pressure (Table 5.10). Across the districts, nine out of ten sub-centres were providing TT injection, IFA tablets, height measurement, and Malaria examination facility in all the districts. However, the availability of weight measurement scales (for pregnant women) varied in the range of 86 percent in Vizianagaram and Karimnagar and 99 percent recorded in Guntur, Prakasam and Medak districts respectively. Availability of weighing machine in working condition at the sub-centre is a pre-requisite for full ANC care of pregnant women.

(c) Availability of specific services

Doctors visit 98.2 per cent of SCs once in a month, out of which only 64 percent have a fixed day and time of visit. Health assistant /LHVs visit 97 percent of SCs at least once in a week. Nine out of ten referred cases to hospitals were accompanied by ANM/ASHA/trained person to the health facility. All the immunization programs are conducted as per the government norms in all the sub-centres. More than 95 percent of sub-centres are providing spacing methods of family planning and are also functioning as DOTS centres.

(d) Other functions and services performed

Ninetyeight percent of centres are involved in Disease Surveillance activities. Control of local endemic diseases is undertaken by 98 percent sub-centres. Field visit and home care are undertaken by ANM and ASHA in 97 percent of sub-centres. National Health Programmes (including HIV/AIDS control programme) related activities are being carried out by 98 percent of centres. Training of traditional birth attendants, ASHA and coordinating their work is one of the important activities of the sub-centre. In all sub-centres coordination and supervision of activities of ASHA are performed in 99 percent of centres. More than 98 percent of sub-centres monitor the water quality in the village apart from keeping watch over unusual health events and sanitation aspects. Records and registers are properly maintained in 98 percent of the centres.

(e) Monitoring and Supervision activities

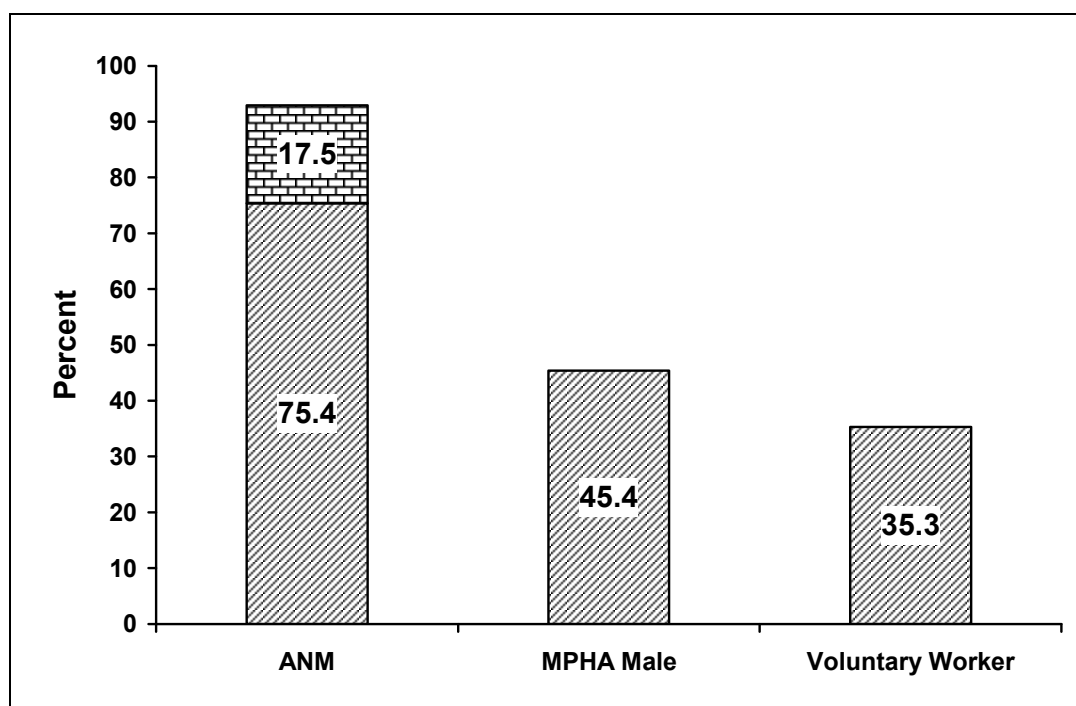
Training of traditional birth attendants, ASHA and Voluntary Health workers and coordinating their work is one of the important activities of the sub-centre. Training of

traditional birth attendants and ASHA is undertaken by 98 percent of sub-centres. Coordination and supervision of activities of ASHA are performed by 99 percent of centres.

5.4 Manpower

In order to provide basic primary health care services to the community and achieve and maintain an acceptable standard of quality care in the sub-centres, Indian Public Health Standards (IPHS) has proposed to increase the number of ANMs from existing one ANM per centre to two ANMs.

Figure 5.8 Percentage-wise availability of sub-centre manpower



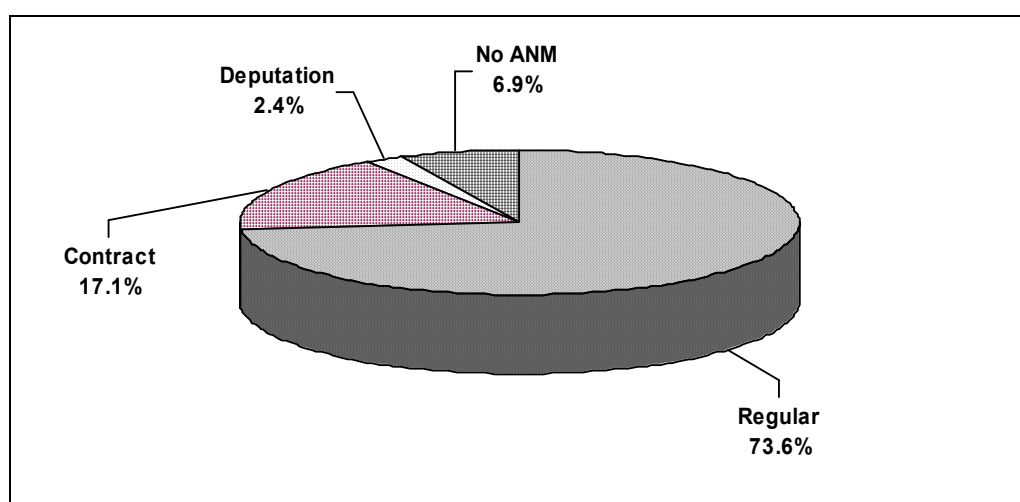
The above figure shows that 93 percent of SCs in the state have at least one ANM. The percentage of SCs with only one ANM is 75.4 percent where as centres with two ANMs is 17.5 per cent. Less than half of the sub-centres in Srikakulam, Vizianagaram, Prakasam, Kadapa, Kurnool, Adilabad districts have one ANM. The availability of second ANMs was recorded in more than 50 percent in the districts of Srikakulam, Vizianagaram, Prakasam, Kadapa and Kurnool respectively (Table 5.11).

The multi-purpose health worker Male has a critical role in the implementation of various National health programmes such as NVBDCP, Malaria control programme, NLEP, NBCP, RNTCP etc and other activities of the sub-centre. However, less than half (43 percent) of the sub-centres have one MPHW male. The MPHW male recorded the highest in East Godavari (68%), Anantapur (61 percent), Nellore (58 percent) and Vizianagaram (57 percent).

At the state level, 73.6 percent of ANMs are the regular category followed by 17.1 percent of contract category. Only 2.4 percent are under deputation and 6.9 percent of sub-

centres have no ANM during the field survey period (Figure 5.9). About 11-15 percent of sub-centres in Visakhapatnam, Nellore, Chittoor, Ranga Reddy and Nalgonda districts have no ANMs. The availability of regular ANMs was recorded lowest (60 percent) in Kurnool and highest (87 percent) in Khammam district. However, districts that recorded more than 80 percent of regular ANMs were Nellore, Adilabad, Warangal and Khammam districts.

Figure 5.9 Availability of ANMs with different service status in sub-centres



5.5 Equipment

As per the IPHS, the equipment provided to the sub-centre should be adequate to provide all the assured services in the sub-centres. This will include all the equipment necessary for conducting safe deliveries, immunization, contraceptive services like IUD insertion, etc.

Ninetyseven percent of sub-centres have vaccine carriers (92 percent in Mahabubnagar and highest of 98.9 percent in Srikakulam). About 87-89 percent of sub-centres have Ice pack box, Micro glass slides, Slide box (25 slides). About 40 to 50 percent of sub-centres possessed Stethoscope, clinical thermometer, disposable gloves, and mucus extractor. Availability of Flashlight (box-type 4 cells), Hemoglobinometer, Scissors (cord cutting, busch, curved or flat), Infant scale, Talquist Hb scale, Hemoglobin colour scale equipment was noted in less than 10 percent of sub-centres at the state level. Only 17.2 per cent of centres provided with sterilization equipment (Table 5.12).

Sixtyfour percent of SCs have Foetoscope (ranging from 41 percent in Kadapa district to 87.5 in Nizamabad district). Four out of ten (41 percent) sub-centres in the state have clinical thermometer availability (ranging from 19 percent each in West Godavari, Anantapur and Kadapa districts to a high of 70 percent in Prakasam district). More than 50 percent of sub-centres in Krishna, Prakasam, Medak, Nizamabad, Adilabad, Karimnagar, Nalgonda and Warangal districts have stethoscope with the sub-centre. About 28 percent of sub-centres in the state have weighing (baby) hanging type scale. For examination of malaria fever, 87 percent of sub-centres have Micro-glass slides, 92 percent of sub-centres

have disposable lancet (pricking needles) and 88 percent sub-centres have slide boxes of 25 slides capacity.

5.6 Furniture availability

The IPHS provides a detailed list of furniture including surgical furniture for various service delivery requirements in the sub-centre. Table 5.13 provides the district-wise availability of essential furniture in the sub-centres. Nine out of ten (93 percent) sub-centres possess needle cutters across the districts. The percentage varied from 79 percent in Kadapa to a high of 98 percent in Prakasam, Kurnool and Medak districts. At the state level, 38.2 percent SCs were equipped with examination table/cot. More than 58 percent of sub-centres possessed examination table/cot in Vizianagaram, Mahabubnagar, Ranga Reddy, Nizamabad and Nalgonda districts respectively. About one-fourth of SCs at the state level possess armless chairs, almirahs, Meckintosh rubber sheet availability. In order to provide privacy at the sub-centre, 32.7 percent of SCs have availability of Green cloth screen facility. The districts recorded below 25 percent of availability of Green cloth in Krishna, Guntur, Nellore, Kadapa, Karimnagar, Khammam and Nalgonda districts.

5.7 Drugs availability

The availability of adequate stock of drugs in the sub-centre was found to be good. The Drug Kit -A [ORS of 150 packets, Tablet IFA (large) of 15,000 tablets, Tablet IFA (small) of 13,000, Vitamin A solution (6 bottles of 100 ml each) and Tab Cotrimoxazole (Paediatric 1000 tablets)] was available in 94.6 per cent of centres. The Drug kit B was available in 88.6 percent of centres (71 percent in Vizianagaram and highest in 97.5 percent in Nizamabad district). About 97 percent of centres have Chloroquine tablets available in the districts with marginal inter-district variations. Less than 40 percent of centres reported availability of DEC tablets in Kadapa, Anantapur, Kurnool, Warangal, Adilabad and Khammam districts (Table-5.13).

More than 60 percent of the sub-centres in Vizianagaram, Guntur, Kadapa, Mahabubnagar, and Nalgonda supplied MDT drugs. The RNTCP drug for T.B was available in 72-92 percent of district sub-centres in all the districts of Andhra Pradesh. Rapid diagnostic kit for malaria was available in more than 40 percent in the sub-centres of the districts namely Guntur, Chittoor, Kadapa, Mahabubnagar, and Nalgonda districts respectively.

5.8 Quality Care

Quality control can be ensured through regular skill development training of health workers. Regular monitoring was done by internal (by MO-PHC or external agencies (Village health and sanitation committee). In order to ensure quality of services and patient satisfaction, it is essential to encourage community participation. To ensure accountability at the sub-centre, the NRHM initiated the necessity of Citizen's Charter in all sub-centres.

About 92 percent of sub-centres in the state have provision of all guidelines of central and state government. About 37 percent of sub-centres have Citizen's Charter board at the time of survey date. Ninetyeight percent of sub-centre ANMs indicated that the PHC medical officer /staff verify records every month. An equal percentage of Sub-centre ANMs indicated that the Village health and sanitation committee monitor the sub-centre activities.

NRHM has proposed strengthening of sub-centres in the form of provision of untied funds of Rs. 10,000 per annum. This fund has to be utilized for local needs and maintenance of sub-centres. The units will also be provided with essential drugs, both allopathic and AYUSH. Upgradation of sub-centres is planned with provision of additional manpower in vacant positions.

5.9 Assessment of districtwise Sub centre activities

The above analysis of sub centre performance in different districts was done by developing comprehensive indices based on the criteria namely a) conduct of pregnancy tests (TT injection, IFA tablets, weight measurement, height measurement and BP checkup); Availability of assured services indicated by the sub centre ANMs; service provision of disease surveillance programs and other health-related programs like DOTS, HIV/AIDS, ORS availability, treatment of cold, cough, etc.

Table 5.15 provides five indices for the surveyed districts in Andhra Pradesh. The index developed by simple aggregation of different indicators is under observation. Across districts, the provision of general health-related services, disease surveillance program implementation and minimum assured services provided by Sub centres as per the IPHS norm was very encouraging. At the state level, only 57 percent of sub-centres are equipped with all five antenatal tests / measurements availability. Srikakulam, East Godavari, West Godavari and Khammam districts recorded less than 30 percent of all five services.

Nine out of ten sub-centres in the districts provided the services namely TT injections, supply of IFA tablets, measurement of weight and height. However, only 58 percent of sub centres were providing the services of testing blood pressure. The status of equipments and supplies in the districts also indicate the need to supply weighing scale, height measuring equipment, stethoscope and BP apparatus for timely referral to the health facility by ANM / ASHA.

Table 5.1 District-wise distribution of distance ranges from farthest village to SCs

S.No.	District	No. of SCs	Distance in kilometers				All
			< 3 Kms	4 - 7	8 - 10	11& Above	
1	Srikakulam	468	22.0	44.0	19.7	14.3	100.0
2	Vizianagaram	429	31.2	38.9	18.4	11.5	100.0
3	Visakhapatnam	579	24.9	32.4	19.9	22.8	100.0
4	East Godavari	711	42.2	42.3	7.6	7.9	100.0
5	West Godavari	606	46.5	40.9	8.8	3.8	100.0
6	Krishna	593	43.8	43.7	8.6	3.9	100.0
7	Guntur	676	30.9	57.1	6.8	5.2	100.0
8	Prakasam	536	31.9	38.6	15.9	13.6	100.0
9	Nellore	477	32.1	39.4	16.8	11.7	100.0
10	Chittoor	641	25.1	48.0	15.6	11.3	100.0
11	Kadapa	422	23.0	38.1	22.5	16.4	100.0
12	Anantapur	590	22.0	44.1	17.5	16.4	100.0
13	Kurnool	530	26.4	44.7	14.7	14.2	100.0
14	Mahabubnagar	668	32.2	40.4	17.5	9.9	100.0
15	Ranga Reddy	389	22.6	47.3	17.5	12.6	100.0
16	Medak	509	26.3	50.7	14.5	8.5	100.0
17	Nizamabad	396	37.9	46.7	10.0	5.4	100.0
18	Adilabad	460	17.4	36.1	21.3	25.2	100.0
19	Karimnagar	573	33.5	45.9	13.1	7.5	100.0
20	Warangal	598	29.6	41.3	16.7	12.4	100.0
21	Khammam	569	25.1	42.2	14.8	17.9	100.0
22	Nalgonda	558	17.9	46.6	19.9	15.6	100.0
ALL AP		11978	29.7	43.3	15.0	12.0	100.0

Table 5.2 District-wise distribution of distance ranges from SCs to PHCs (Percentage)

S.No	District	No. of SCs	Distance from SC to PHC (kms)					All
			<5km	6-10km	11-20km	21-30km	31+km	
1	Srikakulam	468	33.6	32.0	29.4	4.8	0.2	100.0
2	Vizianagaram	429	30.8	30.5	30.3	6.7	1.7	100.0
3	Visakhapatnam	579	31.7	29.7	31.0	5.0	2.6	100.0
4	East Godavari	711	30.9	33.1	27.8	6.6	1.6	100.0
5	West Godavari	606	34.2	32.0	26.0	6.6	1.2	100.0
6	Krishna	593	34.8	31.9	24.0	4.2	5.1	100.0
7	Guntur	676	31.1	24.5	32.8	9.3	2.3	100.0
8	Prakasam	536	26.8	26.4	31.7	8.4	6.7	100.0
9	Nellore	477	26.6	24.4	29.1	13.9	6.0	100.0
10	Chittoor	641	28.4	25.3	33.4	11.2	1.7	100.0
11	Kadapa	422	29.4	35.7	27.0	6.3	1.6	100.0
12	Anantapur	590	20.2	24.6	31.3	15.6	8.3	100.0
13	Kurnool	530	27.5	22.6	27.1	13.3	9.5	100.0
14	Mahabubnagar	668	23.4	27.3	35.2	10.7	3.4	100.0
15	Ranga Reddy	389	22.9	29.9	35.8	9.2	2.2	100.0
16	Medak	509	23.7	29.2	33.3	10.4	3.4	100.0
17	Nizamabad	396	28.1	28.6	28.1	12.8	2.4	100.0
18	Adilabad	460	27.3	24.1	27.1	13.0	8.5	100.0
19	Karimnagar	573	24.4	33.1	31.2	8.0	3.3	100.0
20	Warangal	598	25.9	30.3	29.8	9.2	4.8	100.0
21	Khammam	569	27.0	29.3	31.6	8.7	3.4	100.0
22	Nalgonda	558	17.7	30.6	37.6	10.2	3.9	100.0
ALL AP		11978	27.6	28.8	30.5	9.3	3.8	100.0

Table 5.3 District-wise distance ranges from SCs to CHC/DH

S.No	District	No. of SCs	Distance from SC to CHC/DH				All
			<8 kms	9 -15 kms	16- 20 kms	21+kms	
1	Srikakulam	468	27.6	34.6	29.5	8.3	100.0
2	Vizianagaram	429	27.7	29.1	35.7	7.5	100.0
3	Visakhapatnam	579	23.8	27.5	38.7	10.0	100.0
4	East Godavari	711	33.6	31.1	26.4	8.9	100.0
5	West Godavari	606	32.3	30.4	30.4	6.9	100.0
6	Krishna	593	24.6	36.6	29.7	9.1	100.0
7	Guntur	676	23.5	26.8	37.3	12.4	100.0
8	Prakasam	536	22.7	19.2	43.5	14.6	100.0
9	Nellore	477	25.4	20.5	44.2	9.9	100.0
10	Chittoor	641	29.0	22.3	38.1	10.6	100.0
11	Kadapa	422	24.9	23.2	41.5	10.4	100.0
12	Anantapur	590	16.9	22.7	51.6	8.8	100.0
13	Kurnool	530	20.6	21.9	43.2	14.3	100.0
14	Mahabubnagar	668	22.7	22.5	43.0	11.8	100.0
15	Ranga Reddy	389	26.7	27.5	37.5	8.3	100.0
16	Medak	509	20.4	24.0	40.9	14.7	100.0
17	Nizamabad	396	27.3	25.3	38.8	8.6	100.0
18	Adilabad	460	17.2	22.6	48.5	11.7	100.0
19	Karimnagar	573	20.2	23.6	45.0	11.2	100.0
20	Warangal	598	21.5	22.9	43.6	12.0	100.0
21	Khammam	569	27.2	21.3	42.0	9.5	100.0
22	Nalgonda	558	17.2	21.5	42.8	18.5	100.0
ALL AP		11978	24.3	25.4	39.5	10.8	100.0

Table 5.4 district-wise distribution of time taken to travel from the farthest village to SCs

S.No.	District	No. of SCs	Time Taken in (Minutes)				All
			< 15 Minutes	16- 30 Minutes	31-45 Minutes	45+	
1	Srikakulam	468	61.2	33.5	1.7	3.6	100.0
2	Vizianagaram	429	65.5	29.1	1.4	4.0	100.0
3	Visakhapatnam	579	47.2	19.2	30.7	2.9	100.0
4	East Godavari	711	63.9	29.8	4.8	1.5	100.0
5	West Godavari	606	83.7	14.7	0.3	1.3	100.0
6	Krishna	593	83.5	15.0	0.5	1.0	100.0
7	Guntur	676	82.8	14.8	0.9	1.5	100.0
8	Prakasam	536	65.2	28.7	2.2	3.9	100.0
9	Nellore	477	67.3	26.8	1.5	4.4	100.0
10	Chittoor	641	66.0	29.2	1.5	3.3	100.0
11	Kadapa	422	53.8	39.3	1.9	5.0	100.0
12	Anantapur	590	60.5	31.0	3.6	4.9	100.0
13	Kurnool	530	67.4	27.5	1.3	3.8	100.0
14	Mahabubnagar	668	68.6	27.2	1.2	3.0	100.0
15	Ranga Reddy	389	60.6	33.2	3.1	3.1	100.0
16	Medak	509	73.5	23.5	1.2	1.8	100.0
17	Nizamabad	396	80.5	17.7	-	1.8	100.0
18	Adilabad	460	45.6	42.4	3.3	8.7	100.0
19	Karimnagar	573	74.3	23.7	1.0	1.0	100.0
20	Warangal	598	68.1	27.9	1.0	3.0	100.0
21	Khammam	569	61.8	31.3	2.3	4.6	100.0
22	Nalgonda	558	59.1	35.7	2.0	3.2	100.0
All AP		11978	66.8	26.9	3.2	3.1	100.0

Table 5.5 District-wise availability of SCs Building status (Percentage)

S.No	District	SCs	Govt Building	Sub-centre functioning form			Total
				Rented Building	Other Govt Building	AWWs	
1	Srikakulam	468	7.1	97.7	1.1	1.2	100.0
2	Vizianagaram	429	9.6	95.1	2.5	2.4	100.0
3	Visakhapatnam	579	15.0	92.5	3.7	3.8	100.0
4	East Godavari	711	12.5	96.9	2.3	0.8	100.0
5	West Godavari	606	16.8	89.1	8.5	2.4	100.0
6	Krishna	593	16.2	86.2	6.4	7.4	100.0
7	Guntur	676	11.7	95.7	2.2	2.1	100.0
8	Prakasam	536	9.9	92.1	3.9	4.0	100.0
9	Nellore	477	10.7	96.2	2.2	1.6	100.0
10	Chittoor	641	33.9	87.5	4.2	8.3	100.0
11	Kadapa	422	35.8	85.2	2.6	12.2	100.0
12	Anantapur	590	36.3	93.9	3.4	2.7	100.0
13	Kurnool	530	12.5	98.1	1.5	0.4	100.0
14	Mahabubnagar	668	31.9	82.4	12.1	5.5	100.0
15	Ranga Reddy	389	15.2	80.3	12.8	6.9	100.0
16	Medak	509	19.4	87.6	10.0	2.4	100.0
17	Nizamabad	396	27.5	88.9	8.0	3.1	100.0
18	Adilabad	460	16.3	93.0	4.4	2.6	100.0
19	Karimnagar	573	16.4	95.2	2.3	2.5	100.0
20	Warangal	598	11.4	97.3	2.1	0.6	100.0
21	Khammam	569	7.7	97.7	1.7	0.6	100.0
22	Nalgonda	558	15.4	90.7	5.1	4.2	100.0
ALL AP		11978	17.7	92.3	4.4	3.3	100.0

**Table 5.6 District-wise availability of physical infrastructure facilities in SCs
(Percentage)**

S. No	District	No. of SCs	Condition of Building (Good)	Fencing around SC (Complete)	Condition of Wall (Wall Plastering)	Condition of ground (Good)	Cleanliness at SC (Good)	Display Boards in Telugu	Complaint/ Suggestion box
1	Srikakulam	468	55.3	20.1	77.1	83.8	87.2	86.3	20.5
2	Vizianagaram	429	49.9	27.0	65.7	72.7	83.0	76.0	22.8
3	Visakhapatnam	579	48.2	13.8	53.7	65.1	74.4	75.6	14.2
4	East Godavari	711	62.9	25.3	71.0	78.9	84.4	78.8	11.7
5	West Godavari	606	66.5	35.3	70.1	78.9	88.1	88.0	32.2
6	Krishna	593	53.8	43.3	67.5	75.2	80.9	86.8	30.5
7	Guntur	676	48.1	26.9	64.1	81.7	82.1	86.7	26.2
8	Prakasam	536	56.2	34.9	75.0	82.8	81.2	87.5	12.9
9	Nellore	477	55.1	37.3	72.5	76.9	80.5	78.4	19.5
10	Chittoor	641	42.7	30.7	57.3	61.6	60.4	65.7	14.7
11	Kadapa	422	32.7	31.5	42.4	52.6	52.4	69.7	14.9
12	Anantapur	590	36.1	27.6	46.6	54.1	64.7	72.4	13.7
13	Kurnool	530	57.5	7.0	65.1	77.9	83.2	88.5	16.2
14	Mahabubnagar	668	48.1	23.1	65.0	75.0	71.7	68.1	7.9
15	Ranga Reddy	389	26.7	15.9	48.8	60.9	67.4	72.8	7.2
16	Medak	509	48.1	11.0	61.5	73.7	78.8	85.7	5.5
17	Nizamabad	396	50.5	8.8	63.6	73.2	82.8	82.8	8.6
18	Adilabad	460	44.8	11.1	60.0	70.9	79.8	75.7	5.7
19	Karimnagar	573	62.3	20.1	76.1	85.9	85.0	77.3	9.4
20	Warangal	598	46.2	18.4	57.0	71.9	69.7	75.1	12.4
21	Khammam	569	39.7	25.7	53.4	62.4	66.8	72.8	13.9
22	Nalgonda	558	41.8	34.4	70.1	82.4	72.4	78.0	21.1
ALL AP		11978	49.3	24.5	63.2	73.0	76.3	78.5	15.8

Table 5.7 District-wise availability of amenities in the SCs (Percentage)

S.No.	District	No. of SCs	Functioning from Govt. Building	Water Supply		Electricity	Toilet	Display Board in Local Language
				Tap	Others			
1	Srikakulam	468	7.1	75.6	24.4	12.8	2.8	86.3
2	Vizianagaram	429	9.6	55.0	45.0	19.1	3.7	76.0
3	Visakhapatnam	579	15.0	80.5	19.5	10.7	2.9	75.6
4	East Godavari	711	12.5	88.2	11.8	12.8	5.3	78.8
5	West Godavari	606	16.8	92.2	7.8	9.4	5.0	88.0
6	Krishna	593	16.2	81.1	18.9	14.3	7.6	86.8
7	Guntur	676	11.7	79.9	20.1	5.3	3.6	86.7
8	Prakasam	536	9.9	67.9	32.1	11.0	2.2	87.5
9	Nellore	477	10.7	70.2	29.8	3.8	3.6	78.4
10	Chittoor	641	33.9	47.7	52.3	10.5	3.1	65.7
11	Kadapa	422	35.8	59.7	40.3	9.7	4.5	69.7
12	Anantapur	590	36.3	43.7	56.3	10.3	4.6	72.4
13	Kurnool	530	12.5	75.3	24.7	10.8	6.0	88.5
14	Mahabubnagar	668	31.9	36.7	63.3	15.0	5.8	68.1
15	Ranga Reddy	389	15.2	74.3	25.7	7.5	3.3	72.8
16	Medak	509	19.4	87.4	12.6	9.6	1.8	85.7
17	Nizamabad	396	27.5	86.1	13.9	13.6	3.5	82.8
18	Adilabad	460	16.3	91.5	8.5	8.9	4.6	75.7
19	Karimnagar	573	16.4	93.5	6.5	18.0	3.7	77.3
20	Warangal	598	11.4	88.6	11.4	14.0	4.8	75.1
21	Khammam	569	7.7	78.7	21.3	7.6	4.0	72.8
22	Nalgonda	558	15.4	78.5	21.5	9.5	9.0	78.0
All AP		11978	17.7	74.1	25.9	11.1	4.4	78.5

Table 5.8 District-wise population coverage of SCs (Percentage)

S.No.	District	No. of SCs	Population Covered by Sub centres				All
			Below 3000	3001-5000	5001-7000	7001+	
1	Srikakulam	468	5.3	38.7	46.8	9.2	100.0
2	Vizianagaram	429	14.7	48.7	32.3	4.3	100.0
3	Visakhapatnam	579	18.7	44.0	28.0	9.3	100.0
4	East Godavari	711	13.8	33.9	45.4	6.9	100.0
5	West Godavari	606	12.7	32.2	45.2	9.9	100.0
6	Krishna	593	3.1	42.4	48.6	5.9	100.0
7	Guntur	676	3.8	65.3	29.4	1.5	100.0
8	Prakasam	536	1.5	44.6	47.3	6.6	100.0
9	Nellore	477	9.5	62.9	25.3	2.3	100.0
10	Chittoor	641	3.4	56.2	35.2	5.2	100.0
11	Kadapa	422	11.7	48.3	30.7	9.3	100.0
12	Anantapur	590	3.7	56.4	35.5	4.4	100.0
13	Kurnool	530	1.5	35.7	52.6	10.2	100.0
14	Mahabubnagar	668	6.2	45.4	42.5	5.9	100.0
15	Ranga Reddy	389	1.6	17.1	38.2	43.1	100.0
16	Medak	509	3.7	60.7	32.5	3.1	100.0
17	Nizamabad	396	4.8	43.5	47.1	4.6	100.0
18	Adilabad	460	12.3	51.0	28.8	7.9	100.0
19	Karimnagar	573	4.0	44.7	42.2	9.1	100.0
20	Warangal	598	13.4	53.2	30.0	3.4	100.0
21	Khammam	569	28.7	50.8	16.8	3.7	100.0
22	Nalgonda	558	2.7	45.8	46.3	5.2	100.0
ALL AP		11978	8.3	46.7	37.7	7.3	100.0

Table 5.9 - District-wise availability of MCH Care and Family Planning Services in SCs

S.No.	District	Ante-natal	Natal Care	Post-natal Care	Child Immunization and Diseases	FP	Adolescent Health Services	School Health Care Services	First Aid	Treatment for Minor Ailments
1	Srikakulam	100.0	99.8	100.0	100.0	100.0	100.0	99.8	100.0	100.0
2	Vizianagaram	99.1	98.1	99.1	99.1	99.3	98.8	99.3	98.8	99.3
3	Visakhapatnam	97.6	97.6	97.8	98.8	99.7	99.5	99.7	99.5	99.5
4	East Godavari	100.0	100.0	100.0	100.0	100.0	99.7	99.9	99.9	100.0
5	West Godavari	99.8	99.8	100.0	100.0	100.0	100.0	99.8	100.0	100.0
6	Krishna	99.5	97.6	99.7	99.7	99.7	99.5	99.7	99.7	99.7
7	Guntur	99.9	95.1	99.7	99.9	99.9	99.9	99.7	99.9	99.9
8	Prakasam	100.0	96.8	99.8	100.0	100.0	100.0	100.0	98.3	100.0
9	Nellore	99.6	97.1	98.7	99.8	99.4	99.6	100.0	99.2	100.0
10	Chittoor	98.6	85.3	98.1	99.2	99.5	98.9	99.7	98.6	99.4
11	Kadapa	100.0	98.1	100.0	100.0	100.0	99.8	99.8	99.8	100.0
12	Anantapur	99.5	97.1	99.5	100.0	99.5	99.5	99.7	98.8	99.8
13	Kurnool	100.0	99.4	99.8	100.0	100.0	99.8	100.0	99.8	100.0
14	Mahabubnagar	99.7	96.9	99.4	99.7	99.6	99.7	99.6	99.6	99.6
15	Ranga Reddy	98.7	96.9	98.7	98.7	99.0	98.7	98.2	97.7	99.0
16	Medak	99.8	99.2	99.8	100.0	100.0	99.6	100.0	99.8	100.0
17	Nizamabad	100.0	98.5	99.7	100.0	100.0	99.7	100.0	100.0	100.0
18	Adilabad	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.3	99.6
19	Karimnagar	100.0	94.1	100.0	100.0	100.0	99.7	100.0	99.7	100.0
20	Warangal	99.7	93.5	99.7	99.7	99.7	99.5	99.5	99.7	99.5
21	Khammam	99.5	99.1	99.5	99.5	99.5	99.5	99.3	98.9	99.5
22	Nalgonda	100.0	96.4	100.0	100.0	99.8	100.0	99.8	99.1	100.0
All AP		99.6	96.9	99.5	99.7	99.7	99.6	99.7	99.4	99.8

Table 5.10 District-wise availability of antenatal care services in SCs

S.No.	District	TT Injection	IFA Tablets	Weight Measurement	Height Measurement	Blood Pressure Examination	Availability of Malaria Examination Facility
1	Srikakulam	100.0	100.0	88.7	97.6	11.1	99.8
2	Vizianagaram	99.3	95.3	86.9	88.1	59.2	76.0
3	Visakhapatnam	98.6	95.2	92.4	93.8	51.6	97.1
4	East Godavari	99.7	100.0	94.2	96.6	29.1	100.0
5	West Godavari	100.0	100.0	95.0	98.8	18.3	99.7
6	Krishna	99.7	99.7	99.0	98.8	75.9	99.7
7	Guntur	99.7	99.7	98.8	95.6	63.0	98.1
8	Prakasam	99.8	99.8	95.7	96.3	72.4	96.3
9	Nellore	99.6	100.0	91.2	96.2	41.3	87.6
10	Chittoor	99.8	99.8	96.6	96.4	52.6	97.8
11	Kadapa	99.8	100.0	96.4	93.8	63.3	97.4
12	Anantapur	99.7	100.0	96.8	97.6	61.9	97.5
13	Kurnool	100.0	100.0	94.5	98.3	60.0	98.9
14	Mahabubnagar	99.6	99.4	98.5	96.7	82.0	95.8
15	Ranga Reddy	99.0	99.0	88.2	94.3	61.4	97.2
16	Medak	100.0	100.0	99.2	99.0	83.3	95.1
17	Nizamabad	99.7	99.7	98.0	98.7	77.5	99.5
18	Adilabad	99.6	99.6	95.7	94.6	77.2	96.1
19	Karimnagar	100.0	100.0	86.0	83.8	56.2	99.7
20	Warangal	99.7	99.5	94.8	91.6	84.1	96.8
21	Khammam	99.5	98.9	81.5	91.0	28.5	96.1
22	Nalgonda	99.6	100.0	97.0	97.0	81.5	98.7
All AP		99.7	99.4	94.1	95.3	58.3	96.7

Table 5.11 District-wise availability of SCs manpower

S.No.	District	One ANM	Two ANM	MPHW Male	Voluntary Worker
1	Srikakulam	35.5	64.1	43.8	37.2
2	Vizianagaram	40.8	55.5	57.1	27.5
3	Visakhapatnam	92.2	1.4	54.6	33.9
4	East Godavari	88.2	0.8	68.6	37.7
5	West Godavari	94.2	0.0	55.9	56.9
6	Krishna	91.6	0.3	43.2	46.7
7	Guntur	93.0	0.9	40.2	16.9
8	Prakasam	39.0	58.4	46.6	11.4
9	Nellore	86.4	1.5	57.9	15.5
10	Chittoor	83.9	0.0	37.0	21.7
11	Kadapa	47.2	49.3	48.1	30.6
12	Anantapur	84.9	1.4	61.5	46.9
13	Kurnool	34.7	62.6	42.5	42.5
14	Mahabubnagar	55.7	42.5	34.4	69.3
15	Ranga Reddy	86.1	0.5	22.1	58.4
16	Medak	92.5	0.0	29.1	48.1
17	Nizamabad	54.5	41.7	25.8	33.6
18	Adilabad	48.7	47.0	43.0	38.5
19	Karimnagar	91.8	0.2	45.4	33.9
20	Warangal	94.8	0.3	40.0	30.4
21	Khammam	96.0	0.2	41.8	18.5
22	Nalgonda	87.8	0.2	46.1	18.8
All AP		75.4	17.5	45.4	35.3

Table -5.12 District-wise availability of equipment in SCs

S. No	District	No.of SCs	Regent Strips for urine	Scale, Infant (metric)	Vaccine Carrier	Ice Pack Box	Thermo-meter Oral/ Rectal	Foetoscope	Scale-weighing (baby) hanging type	Uristix	Stethoscope	Micro-glass slides for Malaria
1	Srikakulam	468	16.5	8.8	98.9	96.4	35.7	47.9	13.2	26.5	6.8	79.3
2	Vizianagaram	429	12.8	12.8	93.5	76.7	39.2	59.2	20.0	8.6	30.5	70.6
3	Visakhapatnam	579	12.3	9.0	96.0	92.6	37.7	66.7	22.1	14.0	48.7	74.3
4	East Godavari	711	24.6	13.8	98.6	94.5	52.6	69.8	32.9	15.6	12.2	84.7
5	West Godavari	606	25.7	13.7	98.5	95.5	19.8	68.6	37.8	21.8	15.5	96.4
6	Krishna	593	37.6	15.5	96.1	93.4	58.0	66.9	32.0	30.5	52.8	94.3
7	Guntur	676	28.0	8.4	98.5	82.1	57.4	59.0	23.4	33.7	47.2	95
8	Prakasam	536	33.4	6.9	97.4	84.1	69.8	49.6	14.9	32.8	55.8	89.0
9	Nellore	477	19.1	6.3	98.1	87.8	35.4	53.2	17.2	24.1	21.0	66.5
10	Chittoor	641	17.8	13.1	97.5	78.9	39.2	68.8	26.1	22.6	15.3	85.3
11	Kadapa	422	18.7	7.8	97.2	82.9	19.2	41.2	18.7	16.8	12.8	83.9
12	Anantapur	590	30.0	13.1	94.2	70.2	19.8	55.9	19.7	40.8	7.1	75.1
13	Kurnool	530	13.4	9.2	98.7	91.3	32.5	67.7	19.8	15.5	32.5	96.2
14	Mahabubnagar	668	28.0	10.0	92.2	70.5	24.9	69.2	17.5	33.7	14.7	76.9
15	Ranga Reddy	389	33.9	11.1	97.9	93.1	53.7	68.6	14.1	17.7	48.3	90.5
16	Medak	509	32.6	26.1	98.8	98.6	35.6	72.9	77.2	17.9	88.6	93.1
17	Nizamabad	396	14.4	21.0	98.2	97.2	26.3	86.9	68.9	31.1	83.1	99.5
18	Adilabad	460	14.1	21.7	98.3	95.4	49.3	74.6	66.5	16.3	70.0	95.7
19	Karimnagar	573	20.4	5.2	99.3	98.4	35.1	64.2	18.3	13.8	38.6	98.3
20	Warangal	598	14.5	9.0	97.5	94.1	58.7	80.3	34.4	22.2	63.0	84.8
21	Khammam	569	27.2	6.5	94.6	86.6	56.4	50.4	15.8	19.0	13.7	88.8
22	Nalgonda	558	21.7	4.1	98.0	93.7	43.7	71.3	15.1	16.8	64.2	95.2
ALL AP		11978	22.8	11.3	97.1	88.5	41.3	64.4	27.9	22.7	37.1	87.0

Table -5.13 District-wise availability of essential furniture and tools in SCs

S. No	District	No.of SCs	Examination table/cot	Armless chairs	Labour -Table	Green Cloth-Screen	Stool	Almi- rahs	Torch light/ Lamp	Needle- cutter	Water- Filter	Meckin- tosh Rubber- sheet	Talquist HB scale
1	Srikakulam	468	18.2	20.1	6.8	50.0	25.4	13.2	20.3	96.4	6.2	23.9	4.7
2	Vizianagaram	429	72.7	40.6	13.8	43.1	49.7	11.7	22.8	90.2	4.9	15.6	7.5
3	Visakhapatnam	579	34.0	18.1	9.3	26.3	33.7	12.6	19.5	91.0	6.0	20.2	6.7
4	East Godavari	711	48.9	25.5	8.9	32.6	30.9	32.8	11.7	96.8	8.6	21.1	9.7
5	West Godavari	606	30.7	17.7	11.9	50.7	27.6	23.1	11.9	97.4	3.8	23.9	8.7
6	Krishna	593	33.6	23.8	11.5	13.7	26.1	33.2	20.6	89.2	49.4	34.1	21.1
7	Guntur	676	35.1	26.9	8.6	23.1	39.3	33.3	15.7	92.0	4.3	23.5	10.1
8	Prakasam	536	33.4	23.5	6.9	32.1	42.7	22.4	12.9	98.5	11.0	12.5	26.3
9	Nellore	477	8.0	1.5	2.5	7.1	10.5	9.4	10.1	91.0	2.3	19.9	13.0
10	Chittoor	641	26.5	11.2	12.3	26.1	15.9	10.8	3.0	83.3	1.6	18.3	15.1
11	Kadapa	422	15.9	5.2	10.2	18.7	8.1	4.5	5.9	78.7	2.6	11.8	5.5
12	Anantapur	590	31.5	10.2	19.0	42.4	25.1	10.5	7.1	86.6	3.6	31.7	13.6
13	Kurnool	530	42.6	35.1	22.3	60.6	39.2	18.9	20.8	92.8	2.3	36.4	4.9
14	Mahabubnagar	668	65.3	43.9	24.0	37.9	63.9	31.6	7.2	83.4	3.0	27.2	14.5
15	Ranga Reddy	389	59.4	42.4	13.4	36.2	58.9	41.6	36.8	89.5	6.7	16.2	17.7
16	Medak	509	33.4	26.1	7.5	52.5	33.0	13.8	8.3	98.2	1.6	44.4	6.3
17	Nizamabad	396	57.8	30.1	18.4	45.7	31.1	34.1	8.3	98.0	1.5	34.8	7.1
18	Adilabad	460	49.6	44.8	38.3	32.0	54.8	30.4	7.4	90.2	2.4	35.0	4.8
19	Karimnagar	573	24.3	35.6	6.6	20.9	27.6	28.8	7.3	95.3	3.7	18.2	4.5
20	Warangal	598	44.8	43.1	22.6	35.1	60.7	48.2	32.1	94.1	3.3	20.7	8.9
21	Khammam	569	14.6	13.4	4.9	18.1	14.2	12.5	5.1	90.9	2.3	12.1	3.5
22	Nalgonda	558	65.1	27.4	25.1	21.5	60.2	57.2	13.8	93.5	2.2	31.7	17.7
	All	11978	38.2	25.6	13.8	32.7	35.4	24.7	13.7	91.7	6.3	24.3	10.7

Table 5.14 District-wise availability of Drugs in SCs

S.No.	District	No. of SCs	Drug Kit-A any 3	Drug Kit-B any 5	Tab Chloro-quine	Tab Pri-maquine	Tab DEC	MDT	Rapid Diagnos-tic Kit for Malaria	RNTCP Drugs
1	Srikakulam	468	97.4	91.0	98.5	59.2	80.8	39.3	24.8	72.4
2	Vizianagaram	429	71.8	70.6	91.8	56.6	69.5	61.8	37.3	88.6
3	Visakhapatnam	579	91.4	93.1	86.2	68.0	70.3	39.6	32.3	72.4
4	East Godavari	711	92.1	92.4	96.6	33.8	65.5	38.8	21.8	84.7
5	West Godavari	606	91.6	93.4	94.7	31.4	64.7	44.9	25.9	89.4
6	Krishna	593	97.8	97.0	99.0	8.6	54.8	27.3	6.2	82.3
7	Guntur	676	99.7	97.5	96.7	48.4	77.4	69.5	42.0	97.6
8	Prakasam	536	93.1	74.3	98.5	40.5	59.1	38.4	37.3	77.6
9	Nellore	477	99.4	94.8	89.1	35.2	67.5	36.5	32.1	78.6
10	Chittoor	641	97.5	79.7	96.4	60.5	68.6	48.8	44.9	88.1
11	Kadapa	422	98.3	93.4	97.6	72.3	30.6	64.0	43.8	95.5
12	Anantapur	590	95.3	82.5	99.3	45.6	26.1	56.6	36.9	96.1
13	Kurnool	530	98.9	93.8	96.0	34.9	47.9	19.8	11.3	81.1
14	Mahabubnagar	668	97.9	74.0	95.2	43.9	72.0	63.3	47.0	90.4
15	Ranga Reddy	389	97.9	82.3	95.6	17.2	65.3	17.5	12.1	79.7
16	Medak	509	98.0	91.2	95.9	20.4	78.2	43.8	23.6	95.3
17	Nizamabad	396	94.7	96.7	99.5	14.1	74.2	19.2	10.4	95.2
18	Adilabad	460	89.1	87.6	98.9	30.9	45.2	11.3	7.6	68.7
19	Karimnagar	573	93.0	90.9	94.6	6.6	71.2	12.4	3.1	91.8
20	Warangal	598	94.6	90.6	93.3	26.3	46.3	31.3	24.4	91.0
21	Khammam	569	94.4	88.8	94.7	49.6	49.0	15.5	18.8	72.1
22	Nalgonda	558	100.0	93.2	98.4	41.9	78.7	80.3	44.3	96.2
All AP		11978	94.9	88.6	95.7	38.6	62.1	40.9	27.3	85.9

Table 5.15 District-wise availability of Citizen Charter (Quality control) in SCs

S.No	District	No. of SCs	Availability of Citizen Charter Board	PHC MO/Staff Examination of Records	Monitoring of SC by VHSC	Availability of Guidelines at SC
1	Srikakulam	468	19.7	99.8	99.1	91.5
2	Vizianagaram	429	66.2	99.1	99.3	97.9
3	Visakhapatnam	579	19.3	97.1	95.0	90.0
4	East Godavari	711	25.2	99.4	99.9	93.2
5	West Godavari	606	58.4	100.0	99.5	99.3
6	Krishna	593	33.6	99.3	98.7	91.1
7	Guntur	676	30.5	97.9	98.2	96.7
8	Prakasam	536	32.3	98.3	98.1	89.0
9	Nellore	477	41.3	100.0	99.8	88.7
10	Chittoor	641	56.8	97.0	97.8	90.5
11	Kadapa	422	60.4	99.5	96.4	86.3
12	Anantapur	590	61.7	99.8	99.2	89.0
13	Kurnool	530	30.2	99.6	98.5	90.4
14	Mahabubnagar	668	56.1	97.9	96.0	85.3
15	Ranga Reddy	389	23.1	91.5	84.3	89.2
16	Medak	509	37.3	99.6	99.0	99.2
17	Nizamabad	396	42.9	99.7	99.5	98.7
18	Adilabad	460	19.8	99.1	97.4	97.0
19	Karimnagar	573	21.3	99.5	99.0	90.1
20	Warangal	598	23.9	98.7	98.8	89.8
21	Khammam	569	24.6	98.1	96.3	82.6
22	Nalgonda	558	38.0	99.1	99.8	97.0
ALL AP		11978	37.3	98.7	97.9	91.8

Table 5.16 District-wise availability of consolidated services in SCs

S.No.	District	No. of SCs	Pregnancy Tests ¹		Assured services ²	Surveillance programs ³	Other Health services ⁴	All services available in SCs ⁵	
			4 tests	All tests				All (28) services	>75% of All services
1	Srikakulam	468	76.7	10.9	99.6	99.8	97.2	10.7	100.0
2	Vizianagaram	429	28.7	55.6	97.4	99.3	70.1	46.0	99.1
3	Visakhapatnam	579	46.2	45.5	96.6	99.1	83.6	40.2	98.4
4	East Godavari	711	64.0	28.8	99.3	99.6	92.8	27.3	100.0
5	West Godavari	606	76.6	18.0	99.7	99.5	96.5	17.3	99.8
6	Krishna	593	22.6	75.7	97.3	99.7	96.8	72.7	99.7
7	Guntur	676	32.5	62.6	93.5	99.4	91.1	56.7	99.9
8	Prakasam	536	23.9	70.3	96.3	99.4	86.2	58.8	99.8
9	Nellore	477	48.0	41.4	94.5	99.8	79.0	34.0	98.8
10	Chittoor	641	42.3	52.6	82.8	98.4	88.6	41.2	98.6
11	Kadapa	422	29.4	63.3	96.7	98.6	86.3	54.3	99.8
12	Anantapur	590	34.1	61.4	94.6	99.2	79.3	50.3	99.7
13	Kurnool	530	38.7	57.4	99.1	99.8	94.0	53.2	99.8
14	Mahabubnagar	668	17.7	79.9	96.1	98.5	79.6	62.6	99.7
15	Ranga Reddy	389	27.2	59.4	95.6	98.5	80.2	47.8	97.9
16	Medak	509	16.9	82.3	99.0	99.8	91.0	74.1	100.0
17	Nizamabad	396	21.5	76.5	98.2	98.7	92.7	70.2	99.7
18	Adilabad	460	22.4	72.4	99.1	98.3	79.1	59.6	99.6
19	Karimnagar	573	32.5	49.7	92.3	99.8	85.5	42.9	100.0
20	Warangal	598	11.9	80.4	93.0	99.3	91.5	72.1	99.7
21	Khammam	569	51.0	27.8	98.1	98.6	80.8	22.5	99.5
22	Nalgonda	558	15.8	80.5	95.2	98.6	83.7	66.1	99.8
All AP		11978	36.2	56.6	95.9	99.2	86.9	62.0	99.6

Notes:

- Pregnancy Tests:** The five types of services available to pregnant women in the sub-centre namely a) TT injection; b) Provision of IFA tablets; c) Weight measurement; d) Measurement of height and e) Blood pressure examination. The information provided for i) at least 4 tests and ii) availability of all 5 tests in the sub-centre.
- Assured Services:** The 11 mother and child care and family planning services available in the sub-centre namely a) Antenatal care; b) natal care; c) Postnatal care; d) Care of new born child; e) child health services and disease control methods; f) Family planning and different F.P methods; g) services to adolescents; h) Services to School health program; i) Implementation JSY; j) Treatment for small ailments and k) First aid services
- Surveillance Activities:** The five types of activities at the sub-centre include a) Disease surveillance; b) Control of communicable diseases in the villages; c) Program in spreading information on cleanliness aspects; d) Field visit and home care and e) National health programmes (including HIV/ AIDS)
- Other health services** include a) Referral services of high risk pregnant mother ; b) accompanying the referred pregnant mother by ANM / ASHA to the health facility; c) Regular conducting of child immunization program as per government norms; d) Availability of ORS for dehydration and diarrhea; e) Availability of services for cough, cold and worm infections; f) availability of equipment for blood test in case of malaria; g) Availability of family planning services (Copper T, Oral pills, Condoms etc) and h) availability of DOTS service centre facility.
- All services available at Sub-centre** includes above (1) to (4) items mentioned. In all, 28 indicated services available in the sub-centre were aggregated in the index (Pregnancy tests for all five items). In the table, the results are presented in two different types. I) sub-centres with service availability of all 28 indicators and ii) sub-centres with 75% or more services availability.

References

- Government of Assam (2007), 'Facility Survey of Public Health Institutions in Assam-2007': A Report by Advent Healthcare Group, Mission Director, National Rural Health Mission, Government of Assam.
- Government of Jammu & Kashmir (2007), 'Health Facility Survey Report: Jammu Division, EPOS Health-India Pvt. Ltd.
- Kaveri Gill (2009), 'A primary evaluation of service delivery under the National Rural Health Mission (NRHM): Findings from the study in Andhra Pradesh, Uttar Pradesh, Bihar and Rajasthan', Working Paper 1/2009 -PEO, Planning Commission, May 2009.
- Ministry of Health and Family Welfare (2005), ' National Rural Health Mission: Meeting People's Health Needs in Rural Areas – Framework for Implementation 2005-2012', GOI, New Delhi.
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for Sub Centres', Directorate General of Health Services, GOI, New Delhi
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for Primary Health Centres', Directorate General of Health Services, GOI, New Delhi
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for Community Health Centres', Directorate General of Health Services, GOI, New Delhi
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for 31 to 50 bedded Sub-district/sub-Divisional Hospitals', Directorate General of Health Services, GOI, New Delhi.
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for 51 to 100 bedded Sub-District/Sub-Divisional Hospitals', Directorate General of Health Services, GOI, New Delhi.
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for 101 to 200 bedded Sub-District/Sub-Divisional Hospitals', Directorate General of Health Services, GOI, New Delhi.
- Ministry of Health and Family Welfare (2007), 'Indian Public Health Standards (IPHS), for 201 to 350 bedded Sub-District/Sub-Divisional Hospitals', Directorate General of Health Services, GOI, New Delhi.
- Planning Commission, 'Functioning of Community Health Centres ', PEO Study No. 176, Government of India, New Delhi.
- Ministry of Health and Family Welfare (2008), 'National Rural Health Mission: Second Common Review Mission', GOI, New Delhi, India.
- Sandhya Srinivasan (2005), Public health infrastructure: What we need and what we have', InfoChange News & Features, June 2005.
- Satya Sekhar P, Uma Devi, V, Rajeswari, NV, Ch. V.S. Rao (2007), ' Baseline Survey of Reproductive and Child Health (RCH-II) in Andhra Pradesh , (Mimeo), Indian Institute of Health and Family Welfare, Hyderabad.