

**A CROSS SECTIONAL STUDY ON ASSESSMENT OF HEALTH WORKFORCE
IN COMMUNITY HEALTH CENTRE AND SUB-DISTRICT HOSPITAL OF
GADAG, SOUTH INDIA**

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ABSTRACT

Introduction - The health care system in India has expanded considerably over the last few decades; however, the quality of services especially for referral services is not freely available and where available quality may not be good due to inadequate manpower, infrastructure . Hence, standards (IPHS) are being introduced in order to improve the quality of public health services through strengthening CHCs and SDH for first referral care. Hence there is a need to carry out a “facility survey” to understand the current availability and quality of services.

Objectives – To assess the existing manpower in Community health centre and sub district hospital.

Methodology– A cross sectional study was done in 4 sub-district hospital and 2 Community health centers, observational survey was done using the predesigned checklist and the obtained data was verified by checking registers existed at health facilities about manpower.

Results – Study found that no health facilities are having manpower as per IPHS norms. out of 2 CHC, there is 50% of physician and general surgeon available and none of the CHCs having obstetrician and gynecologist. Overall, 70.31% medical and paramedical staffs exist in both CHCs. 41.66% administrative staffs and 100% D group workers currently available in CHCs. Out of 4 SDH, 48.75% specialist service, 63.33% paramedical, 70.83% administrative, 35% OT staff are available. Obstetrician and gynecologist available in all 4 sub -district hospital where as only 2 sub-district hospitals having pediatrician and general physician, where 3 having anesthetist , general duty doctors and general surgeon. In supportive staffs, 61% staff nurse, 43.75% lab technician, 91.6% pharmacists are available in sub district hospitals. There is no ECG technician in any sub district hospital. It is lacking in physiotherapist, dietician, dental assistant, general duty attendant.

Conclusion - Health manpower shortage is the key bottleneck problem in service delivery. IPHS are not fully being followed in the CHC and sub district hospitals of Gadag district either in man power or in service provision. As CHC and Sub district hospitals are FRUs for the rural and remote population these needs to be at upto the standards to serve rural community.

Key Words: IPHS for Sub-district; IPHS for CHC; Manpower; Health workforce ; Karnataka.

INTRODUCTION

India has traditionally been a rural, agrarian and second highest populated country in the world. To achieve right to health we need a good health care system which are designed to meet health care needs of target population. Health care system means people, organization and resources.

Health care is one of the largest service sector of India .As of today Indian health system in rural area comprises of 3 tier system ie Primary health care, Secondary health care, Tertiary health care. During the last decade to improve rural healthcare NRHM been launched ie. National Rural Health Mission (NRHM) by the Hon'ble Prime Minister of India in the year of 2005 with the goal of improving the availability and accessibility of the quality health care to the people, especially for those residing in rural areas, the poor, and women(1). To maintain quality and to improve the quality set of some standards were advocated on health centers, In order to provide optimum level of quality care a set of standards called, IPHS – Indian Public health standards were prepared in 2006, and revised in 2007, 2010, 2012. It is a benchmark of infrastructure, manpower, equipment, quality services, treatment protocols(1). A wide range of services are prescribed by IPHS to fulfill the minimum requirements at health centers such as medical care through OPD 24 hour emergency service, maternal and child health, non -communicable disease related services, basic laboratory service, minor surgical procedures, implementation of national health program (2). The main objectives of IPHS are to provide optimal expert or specialist care to community and achieve and maintain an acceptable standard of quality care.to ensure that services at health centers are commensurate with universal best practices and are responsive and sensitive to the client/ patient needs or expectation(3).

The health care system in India has expanded considerably over the last few decades however the quality is not uniform especially for referral services is not freely available and where available quality may not be good due to inadequate manpower, infrastructure. Hence standards are being introduced in order to improve the quality of public health services through strengthening CHCs and SDHs for first referral care. Hence there is need to carry out a facility survey to understand the current availability and quality of service.

OBJECTIVES

1. To assess the existing manpower in Community health centre as per IPHS guidelines
2. To assess the existing manpower in sub district hospital as per IPHS guidelines

METHODOLOGY

Study design and setting

A facility based cross sectional study was conducted at the 4 sub district hospital and 2 community health centers of Gadag taluq , Gadag district. And data was obtained using Pre tested, pre designed checklist as per IPHS guidelines.

Participants

Sub district hospital and community health centers of Gadag district

Variables

Dependent variables are manpower present in the community and sub-district hospitals.

Independent variables are Indian public health standards.

Data sources

Primary data was obtained by pre structured checklist as per IPHS guidelines and verified data with existing registers.

Study size

Universal sampling techniques was adopted to choose the health facilities, in the Gadag district 4 Sub district hospital , 2 community health centers are there all centres were included for the data collection.

Statistical methods

Data was entered in excel sheets and analyzed, results were expressed in frequency and percentages.

Ethical clearance

Ethical clearance was obtained from the ethical committee of Karnataka State Rural Development and Panchayath Raj University, Gadag.

RESULTS

Table 1: Percentage of available manpower in community health centers of Gadag district

Variables	Man power					
	Recommended			Available		
	Medical and Paramedical	Administrative	D group	Medical and Paramedical	Administrative	D group
Laxmeshwara	32	06	07	25(78.12%)	03(50%)	08*
Gajendragada	32	06	07	20(62.5%)	02(33.33%)	06(85.71%)

In present study none of the health facility possess 100% manpower as per IPHS guidelines.

Table 2: Percentage of available manpower in sub district hospital of Gadag district

Variables	Man power							
	Recommended				Available			
	Medic al	Parame dical	Administra tive staff	OT staff	Medical	Paramedi cal	Administr ative staff	OT staff
Mundaragi Sub-district	20	45	12	05	11(55%)	31(68%)	9(75%)	01 (20%)
Shirahatti Sub-district	20	45	12	05	07(35%)	28(62%)	10(83.3%)	01 (8.3%)
Naragund Sub-district	20	45	12	05	12(60%)	24(53.3 %)	09(75%)	03(60%)
Ron sub district Hospital	20	45	12	05	09(45%)	31(68%)	06(50%)	02(40%)

In the present study, No health center is having 100% manpower, Naragund sub district hospital is comparatively better (ie> 50% in all departments) than rest of all in man power availability. Where as Shirahatti is being in last position but its having 83.33% in administrative staff i.e more than rest facilities .

Table 3 : Available Medical manpower in 4 Sub district hospitals

Personnel	Availability in 4 SDH (%)				
	Mundaragi	Shirahatti	Naragund	Ron	Total
Hospital superintendent	1	1	0	1	3 (75%)
Medical specialist	1	1	0	0	2(50%)
Surgeon	1	0	1	1	3(75%)

O&G specialist	1	1	1	1	4(100%)
Dermatologist	1	0	0	0	1(25%)
Pediatrician	1	0	1	0	2(50%)
Anesthetist	1	0	1	1	3(75%)
ENT surgeon	1	1	1	0	3(75%)
Ophthalmologist	1	0	1	1	3(75%)
Orthopedician	1	1	1	1	4(100%)
Radiologist	0	0	0	0	0(0)
Casualty / General duty doctors	1	1	1	1	3(75%)
Dental surgeon	1	1	1	1	4(100%)
Public health manager	0	0	0	0	0(0)
Forensic expert	0	0	0	0	0(0)
AYUSH physician	1	0	1	0	2(50%)
Pathologist	0	0	0	1	1(25%)
Psychologist	0	0	1	1	2(50%)

In present study all 4 sub-district hospitals having obstetrician and gynecologist and orthopedic surgeon. But about half of sub district hospitals having pediatrician specialist service. There is no radiologist in any one of sub district hospitals.

Table 4 : Available supportive staffs in 4 Sub district hospitals

Personnel	Availability in SDH (%)				
	Mundaragi	Shirahatti	Naragund	Ron	Total
Staff nurse	14	16	12	19	61 (84.72)%
ECG technician	0	0	0	0	0
Laboratory technician	2	2	1	2	7 (43.75%)
Radiographer	1	2	2	0	5
Pharmacist	3	3	2	3	11 (91.6%)

Physiotherapist	1	0	0	0	1(25%)
Office superintendent	1	1	1	1	4 (100%)
General duty attendant	0	0	1	0	1 (4%)
Accountant	1	1	1	0	3(37.5%)
Driver	1	2	2	2	7

In present study, found that there is no ECG technician in any one of the sub district hospital. Office superintendents are available in all sub district hospitals. 91.6% pharmacist and 84.72% staff nurse are there where as only 43.75% lab technicians are serving in sub district hospital laboratories.

DISCUSSION

As per IPHS guidelines 2012, In secondary level health care, CHC serves as a referral center for 4 PHCs and also provides facilities for obstetric care and specialist consultation. The centers are manned by 5 specialist doctors ie obstetrician & gynecologist, pediatrician, physician, surgeon, anesthetist and supported by 21 paramedical and other administrative staff.

In my study out of 2 CHC, there one physician and one general surgeon available in only one CHC and none of the CHCs having obstetrician and gynecologist. Overall, 70.31% medical and paramedical staffs exist in both CHCs. 41.66% administrative staffs and 100% D group workers currently available in CHCs. Similar study conducted at Belagavi District of Karnataka by S Patil et al and found that , only 60% of CHCs covered the population as per the norms. All the CHCs had the General Duty Officers, nursing staff, pharmacist and laboratory technician. 40% of CHCs had OBG specialists, 30% had pediatricians, 20% had anesthetists. IPHS guidelines are not fully being followed at CHC level in the district(4). Similar study was conducted by R Chauhan et al in seven CHCs of Shimla District and evaluated in terms of health manpower, infrastructure, and services 2012. This study shows as No specialist doctor was posted at any of

CHCs. In 3 (42.8%) CHCs, no pharmacist was posted. Three (42.8%) CHCs did not have a laboratory technician. In CHCs, separate labor room was available in 6 (85.7%) whereas a separate laboratory was available in all seven(5). Similar study was done by P. Sodhani et al in 2011 Bharatpur District of Rajasthan State. It was found that infrastructure were available in almost all the CHCs, but shortage of manpower especially specialists was observed(6). A study conducted by Dr. Shashank Patel et al in Ahemadabad, Gujarat in 2015 Result were found this 28.57 % CHCs had General surgeon, Physician and Anesthetist, while 71.42 % CHCs had OBG and 57.14 % CHCs had Paediatrician.100 % MBBS Medical Officer and 42.85 % AYUSH present at all 7 CHCs. 68.57 % Staff nurse, 100 % Pharmacist available, while 57.14% Lab technician and 71.14% Radiographer available. IN this Study100% CHCs had OT and Labour room. The availability of medical staff and support manpower was also poor (1). A study conducted in Bengaluru by Karthika P et al in 2018 and study shows that in the human resources domain, All CHCs had medical officer (100%), staff nurse (50%), laboratory technician(100%) and pharmacist(100%), Data entry operator was present in 3 (50%) CHCs. Nutritionist post was vacant in all the CHCs. Only one CHC had physiotherapist or community-based rehabilitation worker. Health educator was absent in all the facilities surveyed(7).

According to IPHS, the Sub district hospitals are to be provide medicine, surgery, O&G specialist, pediatrician, anesthetist, ENT surgeon, ophthalmologist, orthopedician, general duty doctors, AYUSH physician, pathologist, psychiatrist specialists and 45 supporting paramedical staffs which includes 18 staff nurse, 4 lab technician, ECG technician etc, separate 5 OT staffs and 12 administrative staffs. It should have blood storage unit and separate staffs for the blood storage unit.

In my study, 48.75% specialist service, 63.33% paramedical, 70.83% administrative, 35% OT staff are available in all sub district hospitals. Obstetrician and gynecologist available in all 4 sub-district hospital where as only 2 sub-district hospitals having pediatrician, where 3 having anesthetist, general duty doctors and general surgeon. Only 2 sub-district hospitals having general physician etc. In supportive staffs, 61% staff nurse, 43.75% lab technician, 91.6% pharmacists are available in sub district hospitals. There is no ECG technician in any sub district hospital. It is lacking in physiotherapist, dietician, dental assistant, general duty attendant. Similar study conducted at Leh district by Yangchen Dolma in 2018, found as The hospital had some consultant with the exception of Surgeon, Pediatrician, ENT Surgeon and dermatologist. There was no General duty medical officer and Medical officer AYUSH. However, there was provision for OPD service of local AMCHI System. So far as the availability of paramedical staff is concerned, it lacked sister in charge, general duty attendant, ECG Technician, Audiometrician, Laboratory attendant, Radiographer, Multi rehabilitation worker, Medical record officer, electrician, plumber etc .The centre lack administrative staff like accountant, computer operator, security staff and junior administrative officer(8).

CONCLUSION

IPHS are not fully being followed by CHC and sub district hospitals of Gadag district in manpower. As CHC and Sub district hospitals are FRUs for the rural and remote population these needs to be at upto the standards to serve rural. The Obstetrician and gynecologists are available in all 4 sub district hospital is appreciable as at least obstetric care is running smoothly. At the same time there is no functioning new born care unit in any of the health facility is worst part of health care delivery system due unavailability of pediatrician. Full-fledged health facilities with sufficient manpower, good infrastructure and good knowledge of delivery of health care among

health care providers would definitely improve the level of services provided to the community. Health manpower shortage is the key bottleneck problem in service delivery.

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