



ASSESSMENT OF COMMUNITY HEALTH CENTERS OF BELAGAVI DISTRICT ACCORDING TO INDIAN PUBLIC HEALTH STANDARDS 2012 GUIDELINES: A CROSS SECTIONAL STUDY

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ABSTRACT

Introduction: The Community Health Centres (CHCs) are under constant criticism for their inability to deliver quality services. National Rural Health Mission (NRHM) has provided the opportunities to develop Indian Public Health Standards (IPHS) in 2005.

Objective: To assess Community Health Centres of Belagavi District according to Indian Public Health Standards 2012 guidelines.

Methodology: A facility based cross-sectional study was conducted in Belagavi District of Karnataka. Ten CHCs, one CHC from each of the 10 Talukas of Belagavi district were selected by simple random sampling (out of 17 CHCs).

Results: In the present study, 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 paediatricians, 20% had anaesthetists. All the CHCs had 50-75% of the equipments and drugs and more than 75% of the furniture as per the IPHS norms. Minor surgeries were performed in all the CHCs. Only tubectomy and vasectomy were performed in 50% of CHCs. Obstetric and gynaecological operations were performed in 40% of CHCs.

Conclusion: IPHS guidelines are not fully being followed at CHC level in the district. Recruitment of Specialists should be augmented as per the norms.

Keywords: Community Health Centres, Indian Public Health Standards, Assessment

INTRODUCTION

Primary Health Centre is the first level of contact of individuals, the family and community with the national health system. The next higher level of care is the secondary (intermediate) health care level. At this level more complex problems are dealt with. In India, this kind of care is generally provided in district hospitals and community health centres, which also serve as the first referral level.¹ The CHCs were designed to provide referral health care for cases from the Primary Health Centres level and for cases in need of specialist care approaching the centre directly.

The health care system in India has expanded considerably over the last few decades; however, the quality of services is not uniform, due to various reasons like non availability of manpower, problems of access, acceptability, lack of community involvement, etc. Hence, standards are being introduced in order to improve the quality of public health level and to facilitate actions strengthening CHCs for first referral care. Hence there is a need to carry out a "facility survey" to understand the current availability of services.²

National Rural Health Mission (NRHM) has provided the opportunity to develop standards for

Community Health Centres (CHCs) in the country, known as 'Indian Public Health Standards (IPHS)' in 2005 and revised in 2012.³ Introduction of the IPHS is an important factor in the improvement of the quality services provided. In the above context, the present study was undertaken with the objective to assess the availability of services, manpower and facilities in the CHCs of Belagavi district.

METHODOLOGY

The Belagavi district, situated in Karnataka, has 10 Talukas and 17 Community Health Centres. A facility based cross-sectional study was conducted over a period of one year from 1st January 2014 to 31st December 2014 and total 10 CHCs, one CHC from each Taluka, were selected out of 17 CHCs by simple random technique. The permission letter was obtained from the District Health Officer (DHO) of Belagavi and also from the Principal of the Medical College. Ethical clearance obtained from the Institutional Ethics Committee and written informed consent was obtained from all the participants. The data was collected using a Pre-designed and structured questionnaire constructed according to the proforma for IPHS facility survey given by IPHS guidelines 2012 for CHCs.

Questionnaire was given to the Medical officer / staff to fill the details of services, manpower, training of personnel during previous year, essential laboratory services, physical infrastructure, equipments, drugs, furniture and quality control. Along with it, personal interview was done for the same. Hospital data was collected from the records for training of personnel during preceding year. Verification was done for physical infrastructure, equipments, drugs and furniture by the investigator.

Data was coded and entered in a Microsoft Excel sheet. Tables and Charts were prepared. Rates, Ratios and percentages were calculated.

RESULTS

In the present study, 60% of CHCs covered the population between 80,000 to 1,20,000. All the CHCs had the General duty officer (Medical Officer) and less than one fourth of the required specialist staff were present (Table 1a, 1b). All the CHCs provided 24 hours x7days/week emergency services, delivery services including normal and assisted deliveries and other services. (Table 2).

All the CHCs had 30 beds each and there were separate wards for Male and Female patients. Minor surgeries like incision and drainage, suturing etc., were performed in all the CHCs. Tubectomy

and vasectomy were performed only in 50% of CHCs. Obstetric and gynaecological operations were performed in 40% of CHCs. Facility for Caesarian delivery was available in 40% of CHCs. Operation Theatres (OTs) were available in all the CHCs and had enough space (Table 3).

Table 1a: Clinical Manpower in the studied CHCs

| Personnel | Availability in No. of CHCs (%) |
|--|---------------------------------|
| General Surgeon | 0 (0) |
| General Physician | 0 (0) |
| Obstetrician / Gynaecologist | 4 (40) |
| Paediatrician | 3 (30) |
| Anaesthetist | 2 (20) |
| General duty officers (Medical Officers) | 10 (100) |
| Eye Surgeon | 0 (0) |
| Dentist | 7 (70) |
| Public Health Programme Manager | 0 (0) |
| AYUSH Medical Officer | 2 (20) |

Table 1b: Support Manpower in the studied CHCs (N=10)

| Personnel | Availability in Number of CHCs (%) |
|----------------------|------------------------------------|
| Nursing Staff | 10 (100) |
| Pharmacist | 10 (100) |
| Lab. Technician | 10 (100) |
| Radiographer | 7 (70) |
| Ophthalmic Assistant | 7 (70) |
| Ward Boys | 10 (100) |
| OPD Attendant | 10 (100) |
| Sweepers | 10 (100) |
| Clerks | 9 (90) |

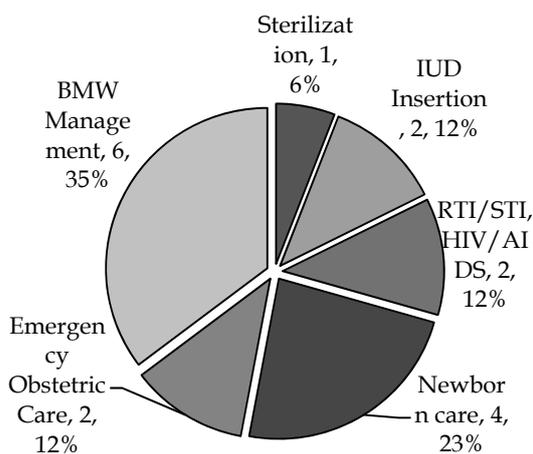
Table 2: Specialist services available in the studied CHCs (N=10)

| Specialist services in CHCs | Number of CHCs (%) |
|---|--------------------|
| General Medicine | 0 (0) |
| General Surgery | 0 (0) |
| OBG | 4 (40) |
| Paediatrics | 3 (30) |
| Emergency services (24 Hours/day) | 10 (100) |
| 24 - hour delivery services including normal and assisted deliveries | 10 (100) |
| Emergency Obstetric Care including surgical interventions like LSCS and other medical interventions | 4 (40) |
| New-born care | 10 (100) |
| Emergency care of sick children | 6 (60) |
| Family Planning Services | 10 (100) |
| Full range of FP services including Laparoscopic services | 3 (30) |
| Safe abortion practices | 4 (40) |
| Treatment of STI/RTI | 10 (100) |
| Referral transport facility | 9 (90) |

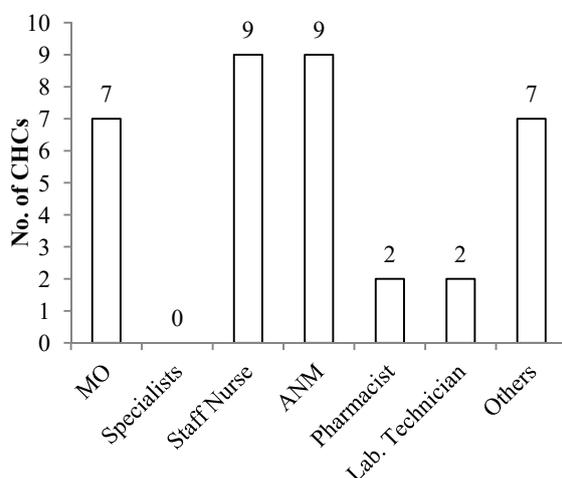
Table 3: Availability of other services / facilities at the studied CHCs (N=10)

| Other Services / Facilities | Number of CHCs (%) |
|--|--------------------|
| Number of cases of caesarian delivery (During last one year) | |
| 0 | 6 (60) |
| < 200 | 3 (30) |
| 200-300 | 1 (10) |
| Availability of AC in OT | 5 (50) |
| Availability of generator for OT | 9 (90) |
| Operation theatre equipments availability | |
| < 50% | 7 (70) |
| 50-75% | 3 (30) |
| Labour room deliveries | 10 (100) |
| Practice of use of Partograph in Labour room | 5 (50) |
| Blood storage facility | 0 (0) |
| Cold chain equipments | 10 (100) |
| Nurses rest room at CHCs | 8 (80) |

Graph 1: Training of MOs during previous year in various medical topics



Graph 2: Availability of Residential facility for the Staffs at the studied CHCs (N=10)



About 50% of CHC Medical Officers had undergone two trainings in the previous one year, in various medical topics (Graph 1). ECG facility was available in 50% of CHCs. X-ray facility was available in 80% of the CHCs and was in working condition. None of the CHCs had Ultrasound facility. In all the CHCs, blood and urine tests were done. In 80% of CHCs, there were 75-100% of laboratory equipments.

All the CHCs were located within the village/town. All the CHCs had the designated government buildings, but the CHC area was inadequate according to the IPHS norms. Building Construction of all the CHCs was complete. Labour rooms were present in all the CHCs and were functional. Blood storage unit was not available in any CHC. All the Cold chain equipments were available in all the CHCs.

Residential facility for Medical officers and others like class IV staff and drivers were available in 70% of the CHCs and none of the CHCs had residential facility for the specialists (Graph 2). As per the IPHS norms, all the CHCs had 50-75% of the equipments and drugs and more than 75% of the furniture.

The IPHS norms stress not only on the infrastructure, but also on the quality of services. In the present study, all the CHCs had quality control mechanisms like setting up of *Rogi Kalyan Samithis (RKS)* (Patient Welfare Committee) and display of citizen's charters. Internal monitoring by Social audit / Medical audit / Economic audit was done in all the CHCs and external monitoring by *Zila Panchayat* (District Council) / *RKS* was done in 60% of the CHCs. None of the CHCs had the Standard Operating Procedures Manual.

DISCUSSION

The Community Health Centres (CHCs) were designed to provide referral health care for cases from the Primary Health Centres level and for cases 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/hilly/desert areas and 1,20,000 population for plain areas. CHC is a 30-bedded hospital providing specialist care in Medicine, Obstetrics and Gynecology, Surgery and Paediatrics and serves as First Referral Unit for surrounding 4-5 PHCs.

In the present study, 40% of CHCs covered more than 120,000 populations, which is more than the IPHS norms for CHCs indicating the less number of CHCs in the district and more burden on the existing CHCs for service delivery. Less than one

fourth of specialists (Surgeons, Gynecologists, Physicians & Paediatricians) were present at the CHCs (Table 1a, 1b). This was very less when compared to the Rural Health Statistics 2015 data of Karnataka, in which overall 61% of specialists (Surgeons, OB & GY, Physicians & Paediatricians) were working at the CHCs.⁴

A study was conducted in Bharatpur district of the of Rajasthan in 2011 for assessing IPH Standards for Community health centres (CHCs) on 13 CHCs according to the revised draft (2010) showed that the availability of 31% of general surgeons and paediatricians as per the requirement. Only one CHC had the availability of anaesthetist. Only 38% of CHCs had physician, obstetrician and only four CHCs were functioning with paediatricians. It showed that the availability of specialists to provide various specialist services at CHCs was found to be very poor.⁵

Another study conducted during April 2012 to September 2013 in six CHCs for assessment of Health Centers as Per the Indian Public Health Standards in Chandigarh, Panchkula and Mohali (Tricity) showed, overall specialists and General duty doctors at CHCs in Chandigarh were more in number as compared to prescribed norms. General surgeon and anesthetist were available at 50% of CHCs in Chandigarh and Panchkula, but none in Mohali. Physician and Paediatrician posts were lying vacant at CHCs in Mohali. Public health programme manager was not posted at CHCs in tricity.⁶

In present study, all the CHCs had Nursing staff, Pharmacist, Laboratory technician, ward boys, OPD attendant and sweepers. Radiographer and Ophthalmic Assistant were present in 70% of CHCs and clerks were present in 90% of CHCs (Table 1b).

In Chandigarh study, Nurses and para-medical staff were in excess at all CHCs in tricity. Support manpower was found to be poor only being 50%, 44% and 39% CHCs in Panchkula, Mohali and Chandigarh respectively. Infrastructure facilities were adequate in all CHCs. Availability of equipments was found to be maximum in Chandigarh (94%) followed by Panchkula (75%) and Mohali (69%).⁶

About half of the CHC Medical Officers had undergone two trainings in the previous one year in various medical topics (Graph 1). In a study done in Sheikhpur district of Bihar in 2011 showed that, none of the doctors had undergone training in sterilization, RTI / STI, HIV / AIDS, newborn care, emergency obstetric care (EmOC) in the last one year. They underwent training only in IUD insertions, emergency contraception and Integrated

Management of Neonatal and Childhood Illness.⁷ Periodic training is very necessary to keep updated with the present health care demands.

In the present study, ECG service was not available in any of the CHCs mainly because there was no training for the nursing staff on ECG and half of the CHCs didn't have ECG facility. In a study done in Sheikhpur district of Bihar showed that, pathological tests were available at all the thirteen CHCs in the study district. Similarly, majority of the CHCs (69.2%) had X-ray facility. However, only three CHCs (23.1%) had facilities for ECG. It was also observed that all necessary reagents, glass ware and facilities for collecting and transport of samples were available. The analysis suggests that efforts should be made to provide ECG services at CHC level.⁷

Minor surgeries like incision and drainage, suturing etc., were performed in all the CHCs. Tubectomy and vasectomy were performed only in 50% of CHCs. Obstetric and gynaecological operations were performed in 40% of CHCs. Facility for Caesarian delivery was available in 40% of CHCs. (Table 3). The DLHS-IV reported that, Caesarian delivery service was available in 23.1% of CHCs in Karnataka and 18.7% of CHCs in India.⁸

In the present study, Operation Theatres (OTs) were available in all the CHCs and had enough space. In 70% of the CHCs there were <50% of the OT equipments (Table 3). Rural Health Statistics 2015 reported, 83% of CHCs in the country have functional O.T. and 91% have functional labour room.⁴

Blood storage unit was not available in any CHCs. DLHS-III reported that, 5.6% of CHCs in Karnataka and 9.1% of CHCs in India have blood storage facility.⁸

None of the CHCs had residential facility for the specialists (Graph 2). But Rural Health Statistics 2015 reported, 75% of CHCs in the Karnataka and 48% of CHCs in the country have quarters for the specialist Doctors.⁴

The Bihar study showed that, CHC was located in the same PHC premises. Staff quarters were not available. There existed a medical officer (MO) residence which was not in living condition. It had an outsourced generator supply for electricity back up because of frequent load shedding.⁷

Rural Health Statistics in India 2015 had reported that all the 206 CHCs of Karnataka to be having registered RKS.⁴ DLHS-III reported that, in 76.3% of CHCs citizen's charter was displayed, RKS was constituted in 70.3% and Monitoring by RKS was done regularly in 85.5% of CHCs in Karnataka.⁸

CONCLUSION AND RECOMMENDATIONS

IPHS guidelines were not fully being implemented at CHC level in the district. About 40% of the CHCs covered more population than the IPHS recommendation. There is a need for increasing the number of CHCs as per the standards. Only one sixth of the total required specialists were available at the Community Health Centres and in about more than half of the CHCs only two thirds of total required staff was available, indicating the increased workload on the existing staff and non-availability of quality services to the community. Health manpower shortage, especially the specialists, is the key bottleneck in service delivery. Recruitment of Specialists should be augmented at all the CHCs as per the Indian Public Health Standards for CHCs. Outsourcing of specialists on the basis of remuneration per cases can be done at all the CHCs where specialists are not available.

A deficiency worth highlighting in the present study was the absence of residential facilities for the staff in half of the CHCs. Residential facilities should be provided within the CHC premises to render clinical services round the clock. It is therefore recommended that identified gaps including infrastructure, human resources, equipments, laboratory facilities and drugs should be addressed on priority basis to achieve desired goals as envisaged by National Rural Health Mission to achieve full potential of the Community Health Centres.

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