

## Original Article

## A Study to assess Health Care Facilities at community health centres in Udaipur District and their conformance to Indian Public Health Standards 2007

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### ABSTRACT

**Background:** Community health centre is a 30-bedded hospital providing specialist care in Medicine, Obstetrics and Gynaecology, Surgery and Paediatrics.

**Aims:** This study aimed to assess available health care facilities at the community health centres in Udaipur district and to conform available facilities vis-a-vis standards prescribed under "Indian Public Health Standards-2007" for CHCs and find the gaps or lacunae in these services.

**Materials and Methods:** It was a cross-sectional study conducted at all community health centres in Udaipur district and data were collected on predesigned and pre-structured Performa through observation, records available and interviews of medical officer in-charge and concerned staff of CHCs.

**Results:** Emergency Services were available at majority of CHCs (95.2%), family planning only at 7(33.3%), 24-hour delivery services at all CHCs (100%), emergency obstetric care and blood storage facility only at 1(4.8%) of CHCs. Majority (95%) CHCs did not have ophthalmologists, paediatricians and even general duty Medical officers. Only 5(23.8%) of CHCs had the facility of both surgeon and gynaecologist. Similarly, almost 95% of CHCs did not have Ultrasound facility. All CHCs had their Rajasthan Medicare Relief Society and 33 to 38% CHCs could not reveal any documentary proof of any internal or external monitoring.

**Conclusion:** There is an immediate need to ensure availability of specialists and their services, laboratory facilities, infrastructure and regular internal or external monitoring for proper functioning of CHCs.

**Key words:** Community health centres, IPHS-2007

### INTRODUCTION:

Health care delivery in India has been envisaged at three levels namely primary, secondary and tertiary. The secondary level of health care essentially includes Community Health Centres (CHCs) and district hospitals (satellite hospital), constituting the First Referral Units (FRUs). The CHCs were designed to provide referral health care for cases from the Primary level and for cases in need of specialist care approaching the centre directly. In this framework, the Community Health Centre (CHC), the second tier of the network of rural health care units, was required to act primarily as a referral centre (for the neighbouring PHCs) for the patients requiring specialized treatment. The objective was two-fold; to make modern health

care services accessible to the rural people and to ease the overcrowding of the district hospitals [1]. They are fulfilling the tasks entrusted to them only to a limited extent [2].

National Rural Health Mission proposed up-gradation of public health institutions to achieve a level of set standards called Indian Public health standards. Udaipur is a predominantly tribal district of southern Rajasthan, with a population of 30,67,549 (Census 2011) and have 21 community health centres. This study was planned as part of dissertation to take stock of the status with special reference to implementation of Indian Public Health standards 2007, in order to provide acceptable standards of quality care as per

the prescribed norms specially focusing system on community health centres in Udaipur district.

## MATERIAL AND METHODS

**Study design:** This was a cross sectional study conducted at community health centres of Udaipur district.

**Study area:** Study was conducted at CHCs of Udaipur district.

**Sampling:** There are 21 CHCs in Udaipur district and all CHCs were included in the study.

**Study period:** 6 months (July 2011 to December 2011)

**Study tool and technique:** Prior to study permission was taken from Chief Medical and Health Officer (CM and HO) of Udaipur District. Predesigned, pretested, structured Performa was the major tool of the study to assess the available health care facilities at the community health centres in Udaipur district and to conform the available facilities vis-a-vis standards prescribed under "Indian Public Health Standards 2007" for CHCs and find the gaps in these facilities. This Performa includes information regarding services, manpower, investigative facilities, infrastructure and quality control. The data was collected through observation, records available and interviews of medical officer in-charge and concern staff of CHCs.

**Analysis of data:** Data thus collected was entered analyzed using Micro Soft Excel Sheet Version 2007.

## RESULTS

In the present study all 21 CHCs of Udaipur were visited and data regarding services, manpower, investigative facilities, infrastructure and quality control were assessed.

**Services:** Table 1 depicts availability of services and comparison with IPHS 2007 for CHCs.

**Manpower:** Table-3 depicts the status of availability of clinical manpower.

**Support staffs:** Majority 20 (95.2%) of CHCs did not have sanctioned strength of staff nurses (19 staff nurse as per norms). The post of Public Health Nurse at most 19 (90.5%) of the CHCs was vacant (1 PHN as per norms). None of the CHCs had post of dresser

as proposed under IPHS norms (2 dressers as per norms).

Table 1: Status of availability of services at all 21 CHCs in Udaipur district

	Services	IPHS Norms	Availability (%)	
			Yes	No
1	National Health Programs	Yes	20(95.2)	1(4.8)
2	Emergency services (24 Hours)	Yes	20(95.2)	1(4.8)
3	24 - hour delivery services including normal and assisted deliveries	Yes	21(100)	0(0)
4	Emergency Obstetric Care including surgical interventions like Caesarean Sections and other medical interventions	Yes	1(4.8)	20(95.2)
5	New-born care	Yes	3(14.3)	18(85.7)
6	Emergency care of sick children	Yes	4(19.0)	17(81.0)
7	Full range of family planning services including laproscopic services	Yes	7(33.3)	14(66.7)
8	Safe abortion services	Yes	6(28.6)	15(71.4)
9	Treatment of STI / RTI	Yes	17(81.0)	4(19.0)
10	Essential laboratory services	Yes	20(95.2)	1(4.8)
11	Blood storage facility	Yes	1(4.8)	20(95.2)
12	Referral transport service	Yes	16(76.2)	5(23.8)

\*Figures in the parenthesis indicates percentage

Out of all CHCs, majority of CHCs (71.4%) did not have any Pharmacist and drug dispensing was being carried out by compounder or other paramedical staff. Majority (62.0%) of CHCs had one laboratory technician against the sanctioned strength, only 19.0% of CHCs had 2 Lab technicians whereas 19.0% of CHCs did not have any Lab. Technician (3 Lab. technicians as per norms).

Out of all CHCs, 7 (33.3%) did not have any radiographer (2 Radiographer as per norms). Majority 19 (90.5%) of CHCs did not have Ophthalmic Assistant (1 Ophthalmic Assistant as per norms) and

none of the CHCs had Operation Theatre Attendant (1 O.T. attendant as per norms). Majority 17 (81%) of CHCs did not conform the facility for counsellor.

Table 2: Availability of maternal and child health services

Sr. No.	Services	IPHS Norms	Availability (%)	
			Yes	No
1	Ante-natal Clinics	Yes	20(95.2)	1(4.8)
2	Post-natal Clinic	Yes	20(95.2)	1(4.8)
3	Immunization Sessions	Yes	21(100)	0(0)

\*Figures in the parenthesis indicates percentage

Table 3: Status of availability of clinical manpower

Sr. No	Clinical manpower	IPHS Norms	Availability (%)	
			Yes	No
1	General Surgeon	1	5(23.8)	16(76.2)
2	Obstetrician /Gynaecologist	1	5(23.8)	16(76.2)
3	Physician	1	7(33.3)	14(66.7)
4	Paediatrician	1	1(4.8)	20(95.2)
5	Anaesthetist	1	0(0)	21(100)
6	Public Health Program Manager	1	6(28.6)	15(71.4)
7	Ophthalmologist	1	1(4.8)	20(95.2)
8	General duty officers (Medical Officer)	6 (at least 2 female doctors)	1(4.8)	20(95.2)
9	Dental surgeon	1	0(0)	21(100)

\*Figures in the parenthesis indicates percentage

When we talk about training of medical officers the term "Training" refers to the percentage of CHCs where at least one doctor received in- service training during the previous year. Medical officers at most of the CHCs (95.2%) were not trained in key areas like; sterilization, Intrauterine devices insertion, emergency contraception, Integrated Management of Neonatal and childhood illness (IMNCI) and Hospital waste management. In 81% and 76.2% of CHCs, medical officers were not trained in new born care and emergency obstetric care respectively, but all CHCs medical officers were trained in routine immunization.

**Investigative Facilities:** Table 4 depicts status of availability of investigative facilities.

Table 4: Status of availability of investigative facilities

Sr. No.	Investigative facilities	IPHS Norms	Availability (%)	
			Yes	No
1	Availability of ECG facilities	Yes	6(28.6)	15(71.4)
2	X-Ray facility	Yes	12(57.1)	9(42.9)
3	Ultrasound facility	Yes	1(4.8)	20(95.2)
4	Appropriate training to a nursing staff on ECG	Yes	2(9.5)	19(90.5)
5	Lab test facilities	Yes	21(100)	0(0)
6	All necessary reagents, glassware and facilities for collection and transportation of samples	Yes	19(90.5)	2(9.5)

\*Figures in the parenthesis indicates percentage

Table 5: Status of availability of essential drugs and equipment

Sr. No	IPHS Norms	Availability in % at CHCs			
		*Completely meeting criteria	*Partially meeting criteria	*Not meeting criteria	
1	Equipment (As per list) <sup>4</sup>	All instruments as per list	6(28.6)	10(47.6)	5(23.8)
2	Drugs (As per essential drug list) <sup>4</sup>	All drugs as per list	6(28.6)	9(42.8)	6(28.6)

\*: Completely meeting, partially meeting and not meeting criteria: CHCs having more than 80% , Between 50% to 80% and less than 50% of Equipment/drugs respectively as per essential Equipment/Drugs list in IPHS-2007 for CHC.

**Physical Infrastructure:** Majority 17 (81.0%) of CHCs were located within the village itself, rest 4 (19%) CHCs located outside the village and one CHC was located at more than 2 hours of travel distance from the farthest village. All CHCs were running in Govt. buildings.

About 17 (81.0%) of the CHCs had Operation Theatre facility, out of these only 29.4% operation theatres were functional and 19.0% operation theatres were

being used for Obstetric/ Gynaecological purpose. Major reason behind non functional operation theatres is obviously non availability of man power (doctors/anaesthetist/staff). There was no proper display of fixed days for sterilization on notice board at 70% CHCs. More than 80% CHCs did not have advanced equipment like cardiac monitors, defibrillators or ventilators. While other equipments as desired and envisaged although were available but were not being properly installed or used for the purpose.

Indoor patient's load of CHCs was variable as two third (66.7%) of CHCs had bed occupancy less than 40%, about one fourth (23.8%) CHCs had more than 60% bed occupancy and only 9.5% CHCs had 40-60% bed occupancy rate. Only two third (66.7%) CHCs fulfilled the criteria of desired bed strength as per norms (30 beds). In majority of CHCs 15(71.4%) male and female wards were not separate and only 6 (28.6%) CHCs had separate ward.

Emergency room/ Casualty were available only at 8 (38.0%) CHCs and waiting room (covered area with some seating arrangement) was present at most (95.2%) CHCs.

Separate family welfare clinics were available at only 4 (19%) CHCs and adequate number of windows for proper ventilation and sunlight were available at majority (95.2%) of CHCs.

All the CHCs had a functional labor room with proper facilities and deliveries were being carried out. Majority 18(85.7%) CHCs did not have separate toilets with running water facility. None of the CHCs had laundry facility available and majority (95.2%) of CHCs had outsourcing for it and out of them only at 1(9.5%) CHC washer man was trained in separate treatment of infected and non-infected linen. Majority (95.2%) of CHCs had indigenous source of water supply, only 1(9.5%) CHCs do not had electric supply in all parts of the hospital, only 16 (76.2%) CHCs had standby facility (generator) at their centres.

Proper segregation of hospital waste is done only at 1(9.5%) CHCs and majority (95.2%) of CHCs had waste disposal facilities.

Most (90.5%) of CHCs had telephone and internet facilities at their centres. Residential facilities at 28.6% CHCs for general surgeon, at 23.3% CHCs for physicians, at 19% CHCs for Obstetrician/Gynaecologists, at 4.8% CHCs for Paediatricians and anaesthetists were available but

majority (76.2%) of CHCs had residential facilities for general duty medical officers.

Residential facilities at 71.4% CHCs for staff nurses, at 33.3% CHCs for ward boy/nursing orderly and at 9.5% CHCs for Laboratory technicians, radiographers and sweepers were available but none of the CHCs had residential facilities for rest of the supporting staffs. None of the CHCs had kitchen at their centres.

Facility of Suggestion Box/ Complaint Box is available only at 7(33.3%) CHCs and Only 7(33.3%) CHCs had separate public utilities for male and female. Only at 13(62%) CHCs women could be provided with privacy during examination. About half (52.3%) CHCs had Contraceptives, ORS packets vitamin A and vaccination facility at the entrance of CHCs.

Out of all CHCs 17(81%) had adequate and required furniture except bed side screens, lockers and attendant chairs.

**Quality Control:** All CHCs had their Rajasthan Medicare Relief Society, majority (90.5%) of CHCs had citizen charters properly displayed at prominent places, only 33 to 38% CHCs could not reveal any documentary proof of any internal or external monitoring and 6(28.6%) CHCs were not aware of any Standard Operating Procedures (SOP) / Standard Treatment Protocols (STP) Guidelines.

## DISCUSSION

It was painful to note that majority 20(95.2%) of CHCs still lack emergency obstetric care, majority 18(85.7%) CHCs did not have facilities for new born care and majority (71.4%) of CHCs were not in a position to provide safe abortions services for want of sufficient numbers of available specialists and their willingness to work in difficult terrains of a district like Udaipur. Although it was heartening to note that 24-hour delivery services were being made available at all the CHCs through with help of trained nursing/paramedical staffs. The women could had access to emergency obstetric care only at 1(4.8%) CHC. Availability of other assured services like essential laboratory services at 20(95.2%) and referral transport of services at 16(76.2%) CHCs can be seen as a great relief in saving lives of needy patients by prompt and timely referral. Our findings are in tune with the finding of a study conducted by State Institute of Health and Family Welfare (SIHFW), Rajasthan [3]. But the availability of blood storage facilities only in one (4.8%) out of 21 CHCs defy IPHS on this account and also goes contrary to SIHFW, study which had

claim the availability of blood storage facility at majority (61.3%) of CHCs. The DLHS-3 Survey [4] also could come out with availability of this facility only at 15% CHCs.

In present study majority 17(81%) CHCs did not conform the facility for counsellor, Majority 14(67.7%) CHCs did not had separate toilets with running water facility and only at 13(62%) CHCs women could be provided with privacy during examination at these health facilities. Our results are not comparable with the findings of SIHFW, Rajasthan which claims the availability of counsellor at majority (80.7%) of CHCs, Majority (90.4%) CHCs providing separate toilet facility and majority (93.6%) of CHCs providing privacy during examination. As regards the availability of maternal and child health services in terms of antenatal clinics, post natal clinics and immunization sessions 95-100% CHCs conform to IPHS norms. Similar reports by SIHFW, Rajasthan [3] are encouraging.

As regards status of availability of specialist services majority 16(76.2%) CHCs did not had the services of a surgeon, majority 14(66.7%) CHCs did not comply with having a physician. Whereas only 5(23.8%) CHCs could deliver specialized maternity services and only 1(4.8%) CHCs had availability of a paediatrician. Such a low number of specialists in district which cater to tribal population do not speak well about the claims made for improving the availability of skilled manpower at such institutions even after six year of operationalization of NRHM. The results of other studies conducted by Sodani PR et al [5] and SIHFW, Rajasthan [3] are in congruence with the results of our study. Similarly a limited study comparing specialist's facility at 2 CHCs by PRC, department of statistics, The Maharaja Sayaji Rao university of Baroda [6] has also concluded by reflecting acute shortage of specialists at secondary level health institutions. DLHS-3 survey [4] (2007-08) of Rajasthan also supports finding of our study with regard to availability of obstetrics/gynaecology only at (30%) of CHCs. It was painstaking to observe that none of the CHCs had the services of a full time Anaesthetist and majority (71.4%) of CHCs do not had a full time public health manager to oversee the implementation and execution of various national health programs as envisage under the program. Likewise non-availability of support staffs like public health nurses at majority (90.5%) of CHCs, staff nurse/midwives, pharmacists at most (71.4%) of CHCs, radiographer at 33.3% of CHCs, ophthalmic assistant at majority (90.5%) of CHCs and OT

attendant 0(0%) gives a very poor image in terms of providing the supportive care to the beneficiaries coming to these institutions. None of these CHCs had the position of dresser. Similar finding have been projected by the study conducted by SIHFW, Rajasthan [3].

Training and continue medical educations (CMEs) are an integral part for any organization to enrich the knowledge and develop minimum skills to the manpower to deliver quality services but unfortunately our study also supported by the results of SIHFW, Rajasthan revealed that majority of medical officers did not receive any training to enhance their skills during previous full year in crucial areas pertaining to sterilization, IUD insertions, emergency contraception, newborn care, emergency obstetric care and hospital waste management.

It was disgusting to note that majority 15 (71.4%) CHCs still did not have ECG facility, 9 (42.9%) CHCs did not have X-ray facilities and what to talk about 95.2% of CHCs did not have Ultrasound facility which such First Referral Units should possess in spite of the norms laid down under IPHS and supported by sufficient funds by Government of India, keeping in view the outcome of this mission. Similar findings were reported by study conducted by Sodani PR et al [5] reflects the awful facilities being made available to people attending such an important link between PHC and tertiary level institutions.

Findings of State Institute Of Health And Family Welfare, Rajasthan as well as PRC, department of statistics, The Maharaja Sayaji Rao University of Baroda [6] are comparable to the results of our study with regard to location of CHCs within the village (81%) with exception of 1(4.8%) CHC, which is located at more than 2 hour of travelling distance from the farthest village. Only 5 (23.8%) CHCs had a bed occupancy rate of more than 60% in last 12 months is suggestive of a poor utilization of the indoor facilities.

Efforts made to assess the status of quality control revealed encouraging results since all (100%) CHCs have their RMRS, majority 19 (90.5%) CHCs have citizen charters in place but continue social audit and external monitoring still needs improvements to bring about transparency in functioning of these institutions. Likewise availability and use of Standard operating protocol/Standard treatment protocol needs attention of the authorities.

## CONCLUSION AND RECOMMENDATION

After six years of execution of National Rural Health Mission, we found dearth at CHCs regarding services, manpower, investigative facilities, infrastructure and quality control and the findings have been an eye opener. There is an immediate need to fulfil the commitment and ensure availability of specialists at CHCs as per proposed norms. Increase in numbers of undergraduate and postgraduate seats in all government and private medical colleges by hastening the process would be a wise step to have increased number of specialists in different fields to fill the gap. Assured services like emergency obstetric care, new born care, safe abortion services and treatment of STI/RTI still remain a distant dream for the tribal population and needs immediate attention through periodic mobilization with some incentive of specialist from urban areas. Upgradation of PHCs to CHCs for political or other reasons should be deferred till these facilities have been provided the requisite manpower, infrastructure, logistics and other resources.

Capacity Building will be ensured at CHCs by periodic training of medical officers. Majority of CHCs had non-functional operation theatre and lack of essential drugs and equipments. Regarding quality control, deficit also found in conduction of external and internal monitoring therefore to maintain quality of services and transparency, frequency of external and internal monitoring should be increased and accountability of monitoring should be fixed.

## REFERENCES

1. Functioning of community health centers, PEO study. (Assessed March 1st, 2011 at [www.planningcommission.nic.in/reports/peoreport/cmpdmpeo/.../176.pdf](http://www.planningcommission.nic.in/reports/peoreport/cmpdmpeo/.../176.pdf)).
2. Ministry of Health and family welfare, India. *Indian public health standards for community health centres (revised) 2007*. New Delhi: Ministry of Health and family welfare;2007.p3

3. Analysis of Community health centers in Rajasthan. Rajasthan, State institute of health and family welfare. (Assessed March 1st, 2011 at <http://sihfwrasthan.com-analysis> of CHCs in Rajasthan).
4. District Level Household survey, Family Welfare Statistics in India 2009. (Assessed July 2<sup>nd</sup> 2011 at DLHS3- <http://www.isk.gov.in/dlhs3/rajasthan.pdf>.)
5. Sodani PR, Sharma K. Assessing Indian public health standards for community health centres .A case study with special reference to essential newborn care services. *Indian Journal of Public Health* 2011; 55:260-6.
6. Population Research Centre, Department Of Statistics. The Maharaja Sayaji Rao University of Baroda. Rapid Appraisal Of National Rural Health Mission (NRHM) Implementation, Banaskantha District, Gujarat, India: The Maharaja Sayaji Rao University Of Baroda;2009

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