

# **Gap Analysis on CHC as Functional FRU in Jaipur district of Rajasthan**

**A Dissertation Proposal for**

**Post graduate diploma in Health and Hospital Management**

**By**  
**Vivek Singhal**  
**PG/10/119**



**International Institute of Health Management Research**

**New Delhi – 11075**

**May, 2012**

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**Dissertation submitted in partial fulfillment of the requirements**

**For the award of**

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**By**

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ISO 9001 : 2008 Certified Institution

## State Institute Of Health & Family Welfare

Jhalana Institutional Area,  
Near Doordarshan Kendra, Jaipur-302 004  
www.sihfwrajasthan.com



Director

F-76(1)/SIHFW/Internship/2011-12/ 390

### TO WHOM IT MAY CONCERN



This is to certify that Mr. Vivek Singhal, a student of PGDHHM course from IIHMR-Delhi has successfully completed his internship as management trainee from Feb to April 2012 at SIHFW-Rajasthan..

During his internship he conducted study on "Gap Analysis on CHC as Functional FRU in Jaipur district of Rajasthan" under the guidance of me and my team at SIHFW.

His work is satisfactory and his performance and conduct as a trainee was good.

We wish him good luck for his future assignments

Dr.Akhilesh Bhargava

Director-SIHFW

### Certificate of Approval

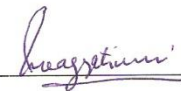
The following dissertation titled "Gap Analysis on CHC as Functional FRU in Jaipur district of Rajasthan" is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **Post- Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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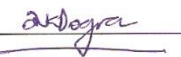
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### Certificate from Dissertation Advisory Committee


This is to certify that Mr. Vivek Singhal, a student of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision.

He/She is submitting this dissertation titled " Gap Analysis on CHC as Functional FRU in Jaipur district of Rajasthan " in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management**.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

  
Faculty Mentor  
Dr. Dharmesh Lal

Designation : Associate Dean  
IIHMR  
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Date

  
Organizational Advisor  
(Dr. Mamta Chauhan)  
Associate Professor  
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Jhalana Institutional Area  
24.04.2012

## **Abstract**

The present study is proposed to envisage a gap analysis of nearby CHC of Jaipur District as functional FRUs regarding assured services, human resource, physical infrastructure, quality assurance as per IPHS standards on FRU Guidelines and to know the delivered mother's satisfaction for emergency obstetrics and new born care services at these CHC.

**Scope of work:** For assessing the gaps and bottlenecks of the existing CHCs, and to determine where that CHC lacks according to the standards guided by IPHS as an FRU, it was decided to conduct a Facility Survey.

## **Methodology**

### **1. Study design**

- ❖ Cross sectional descriptive study
- ❖ Quantitative study

### **2. Area of Study**

- ❖ Study was conducted in Jaipur district of Rajasthan.
- ❖ The 5 CHC, designated as functional FRU by Medical health department, Rajasthan were taken. These 5 CHC are Govindgarh, Jamwa-Ramgarh, Amber, Choumu, and Sanganer.

### **3. Sampling design**

#### **Study population**

- ❖ Study population was divided into two categories, Providers (MO/IC) and Beneficiaries.
- ❖ Beneficiaries were
  - Recently delivered Mothers- available/discharged from CHC.

- Discharge mother-Mothers visited health facility for their sick newborn (till 30 days after birth) and mothers with healthy newborn.
- ❖ Sample population of beneficiaries –
  - From each facility 12 recently delivered /discharged mothers were taken.
  - Total Recently delivered / discharged Mothers = 60 (12x5)
- ❖ Sample population of Service provider-
  - MO/IC of each FRU = 5 (5x1)
- ❖ Total study population = 65 (60 beneficiaries + 5 MO/ IC)

### **Selection criterion**

Since Jaipur district was selected for study and there are 5 CHCs were declared as functional FRU by medical and health department out of total 11 CHCs, so all these 5 CHC were taken.

### **Data collection method**

- By checklist prepared according to IPHS standards and FRUs guidelines
- Questionnaire for IPD patient satisfaction
- Questionnaire for recently delivered mothers satisfaction (available and discharged)
- Some information will be collected from available records
- Observation

### **Data analysis**

All filled questionnaire from delivered mothers/discharged mother satisfaction were entered in SPSS sheet and analyzed through SPSS 16.0 and checklist were manually analyzed.

## **Conclusion**

Gap analysis study reveals that not even a single CHC was fully functional FRU as per IPHS standards. Many gaps have been identified in the study related to emergency obs & new born care, blood storage unit, availability and training of human resources, physical infrastructures and equipments

From the view point of service seeker (Delivered mother), around 90% women availed service immediately after reaching hospital and 90% women were satisfied with behavior aspect of doctor and other staff but on the other side 50% women were unsatisfied with emergency obstetrics and new born care services due to unavailability of blood transfusion facility, lack of emergency new born care, modern sick new born care equipment and lack of specialist.

As a priority, efforts should be made to make it FRU as per the Guidelines given by IPHS. Moreover, specific interventions to fill up this identified gaps need to be outlined.

## **ACKNOWLEDGEMENT**

Dissertation is a crucial part of PGDHHM; successful completion provides a better roadmap for future endeavors. This internship could not be completed without a substantial support from a great number of people.

I would like to thank the staff of **SIHFW, Jaipur** for extending their cooperation and help in the process of understanding various dimension of organization.. Although it is not possible to acknowledge each and every person individually, I would like to thank all those who have contributed their time and efforts.

At the onset of the report, I would like to acknowledge my sincere thanks to **Dr. Akhilesh Bhargava**, Director, SIHFW, and Rajasthan for support us n each and every manner .

I would like to express my gratitude to my mentor **Dr. Mamta Chauhan**, Associate professor, SIHFW for their support during training.

I also take this opportunity to express my deep sense of gratitude to my guide and mentor **Dr. Dharmesh Lal**, Associate Dean, International Institute of Health Management Research, New Delhi for his helpful attitude and valuable suggestions, which helped in shaping and completion of this project.

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**Vivek Singhal**

**IIHMR, New Delhi**

**Batch ‘C’**

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**Acronyms:**

<b>ANC</b>	Anti Natal Care
<b>ANM</b>	Auxiliary Nurse Midwife
<b>ARSH</b>	Adolescent Reproductive Sexual Health
<b>ASHA</b>	Accredited Social Health activist
<b>BCMO</b>	Block Chief Medical Officer
<b>BPM</b>	Block Programme Manager
<b>BPL</b>	Below poverty Line
<b>CDPO</b>	Child Development Project Officer
<b>CHC</b>	Community Health Centre
<b>CSSM</b>	Child Survival and Safe Motherhood
<b>DD ICDS</b>	Deputy Director ICDS
<b>DWCD</b>	Department of Women & Child Development
<b>ENT</b>	Eye Nose Throat
<b>FBNC</b>	Facility Based New Born Care
<b>FRU</b>	First Referral Unit
<b>HIV</b>	Human Immunodeficiency Virus
<b>ICU</b>	Intensive Care Unit
<b>ICDS</b>	Integrated Child Development Service

<b>IPD</b>	In Patient Department
<b>IPHS</b>	Indian Public Health Standards
<b>IUD</b>	Intra Uterine Device
<b>JSY</b>	Janani Suraksha Yojna
<b>LHV</b>	Lady Health Visitor
<b>MCHN</b>	Maternal and Child Health Nutrition
<b>MO</b>	Medical Officer
<b>NGO</b>	Non Government Organization
<b>NRHM</b>	National Rural Health Mission
<b>OBG</b>	Obstetrics and Gynecology
<b>OPD</b>	Out Patient Department
<b>OT</b>	Operation Theatre
<b>PHC</b>	Primary health centre
<b>PNC</b>	Post Natal Care
<b>PRI</b>	Panchayati Raj Institution
<b>QC</b>	Quality Control
<b>RKS</b>	Rogi Kalyan Samiti
<b>RI</b>	Routine Immunization

**Part - 1**

**Internship Report**

### **Organizational profile**

State Institute of Health & Family Welfare (SIHFW) Rajasthan is an apex level autonomous training and research organization in the Health Sector of the State. The institute was established on April 19, 1995 as a registered society (Reg. No.25/Jaipur/1995-96) by the Government of Rajasthan under Societies Registration Act 1958.

SIHFW is the only ISO 9001:2008 certified training institution in health sector. It is the only Institute across the country which has self financed Dress Code for staff and faculty, working 24 x 7, the committee staff has the privilege of bare minimum no. of holidays. There is an HR manual in place besides a quality manual endorsed by BSCIC. The institute has a virtually paperless office and is energy efficient contributing to safe environment in a modest manner.

Institute is located in a sprawling campus of 4.4 hectare in the east of the Jaipur city in a scenic and serene area. The constructed area includes State of art training facilities along with lodging and boarding facilities for training participants

### **Work profile**

The process of developing human resources for the health is being augmented by SIHFW through:

- Enhancing the capacity of the HFWTCs in Rajasthan.
- Enhancing the capacity of ANM training centers located in different districts and uses them concurrently for in-service training of health functionaries.
- Conduct training of Trainers (ToT) for different programs.
- Developing Training Program and modules on the basis of Training Need Assessment of the health staff at various levels.
- Contributing to organization development of Medical, Health and Family Welfare of the State Government through operational research.
- Providing consultancy on issues related to health

**Mission:**

The mission of the institute is committed to improvement in health care through HRD, Health Research, Consultancy and networking aiming at enhancement in the quality of life.

1. Develop Human Resources for Health (HRH) through capacity building.
2. Organization Development (OD) through operations research.

**The key Functions of SIHFW are:**

- |                  |                 |
|------------------|-----------------|
| 1. Training      | 4. Recruitments |
| 2. Consultancy   | 5. Research     |
| 3. Documentation | 6. Monitoring   |

**Networking:**

SIHFW has established formal linkages with IIHMR, IIPS, IIHM, ASCI, VHAI, FRCH, TISS, PRB, PFI, EPOS, NACO, NIHFW and other institute and welcomes the collaboration with other institutes. The Institute is in the process of making its campus Wi-Fi. Presently all faculty and staff computers are connected through LAN and have broadband facility.

**Faculty:**

Director and the team of Institute possess the expertise in providing consultancy for Health Services Research and capacity building in Health Management.

### **Work assigned**

Task assigned to me for internship was to review the Development of State Institute of Health and Family Welfare, Rajasthan

To review the development of the Institute, the timeline from its inception to present was divided into five year intervals.

- **Phase 1: 1995-1999:** SIHFW was established under the India Population Project IX, funded by the World Bank. With the principle of providing a formal institute to provide quality trainings for strengthening the in-service training programmes of all categories of health care providers and by providing technical support to other training institutions in the state.
- **Phase 2: 2000-2004:** In 2001 when IPP ended, SIHFW faced a crisis. The funding for the entire establishment expenditure including salary of the faculty and support staff, office expenses and other contingency expenditure ran dry and the institute had to find alternative sources of funding to function from January 1<sup>st</sup>, 2002.
- **Phase 3: 2005-2009:** Under the NRHM it was proposed to set up a State Health System Resource Centre. The objectives of the SHSRC were almost same as envisaged in the MOU of SIHFW society of Rajasthan, therefore a proposal was developed, whereby in Rajasthan could be located within SIHFW albeit maintaining its own identity.
- **Phase 4: 2009 to Present:** New reforms were introduced in SIHFW. Staffing pattern as per the recommendations of SHSRC was implemented. As it became a growing organization, employee motivation and retention also became areas of interest to administrators. The focus, which was earlier only on completion of trainings, now included to in-house capacity building and growth.

### **Major developments during different phases:**

- **Phase 1:** SIHFW was assigned the responsibility of developing a training policy for the State in 1997. Training programmes for various cadres were conducted. Technical support and backstopping to Regional Health & Family Welfare Training Centers located at Jaipur, Ajmer & Jodhpur and 15 District Training Centers & 12 ANM

Training Centers was provided. The institute conducted several research assignments for international donors such as UNFPA, UNICEF and CARE India. The institute utilized more than 85 % funds received under IPP-IX. The Institute also contributed in developing Population Policy for the State.

- **Phase 2:** It submitted proposals for short-term and long term sustainability to the Government and requested the State Government to allot funds in the State budget. It was recognized that the Institute had a potential to become self sustainable in due course of time, if it functions at full capacity with full staff contingent and is given complete autonomy to raise and retain funds by organizing trainings and carrying out research & consultancy. A new process of induction of faculty and initiating the training activities from a new end and taking up relevant operational studies for the state was started. SIHFW became a resource center for RCH Projects. UNICEF funded Border District Cluster Strategy provided SIHFW an opportunity to initiate a special project of capacity building of service delivery system in three border districts. For the capacity development, collaborations with agencies like IIMR and EPOS Health Consultants were formed.
- **Phase 3:** SIHFW got approval of creation of Health System Resource Centers (SHSRC) in Rajasthan. This meant a new lifeline for the institute with new funds and additional posts. The honorarium paid to the trainers was raised from the earlier level. The trainings which were held only in 3 districts, gradually increased and after NRHM an increasing number of districts were covered.
- **Phase 4:** Various new changes were introduced in the Institute. Including:
  - Appointment of a full time director
  - Introduction of an appraisal system
  - Increase in remuneration package
  - New strategies and mission were adopted
  - ISO 9001:2008 certification was obtained
  - Became a fully self financed organization
  - A documented HR Policy was developed
  - A Quality manual endorsed by BSCIC was adopted

- Paperless and energy efficient office
- Staff was covered with Med-claim
- Website Developed (<http://sihfwrajasthan.com>)
- Uniform was introduced
- Evaluation of trainings was done on regular basis and feedback was obtained
- Establishment of Communications Resource Centre

## **Human Resource Development Initiatives**

### **Phase 1:**

- As all of the staff was invited as guest faculty, much emphasis was not given to staff development.

### **Phase 2:**

- Faculty Development Programs were initiated and members attended various workshops/ seminars/ conferences nationally and internationally on various topics like:
  - RCH program
  - Immunization
  - Home Based Post Natal Care
  - Neonatology
  - Pediatrics
- Various publications in this period were produced covering topics like:
  - Reproductive and Child Health
  - IMNCI
  - Enhancing Vitamin A coverage: Process Evaluation.

### **Phase 3:**

- Faculty Development Programs continued and members attended various workshops/ seminars/ conferences nationally and internationally on various topics like
  - RCH program

- Immunization
  - Home Based Post Natal Care
  - Neonatology
  - Pediatrics
- A new library was established and a large number of books and journals were made available to the faculty and staff for enhancing their academic acumen

#### **Phase 4:**

- Faculty Development Programs continued and members attended various workshops/ seminars/ conferences nationally and internationally on various topics
- A practice of welcoming and orientation all new staff members was started
- Birthday parties and festivals celebrated in the organization
- In-House development programs are organized weekly where presentations were given by staff members
- National and International exposure was provided to faculty members for attending various conferences and workshops related to topics of Public Health, IT, Capacity Building, Demography, Epidemiology, HIV/ AIDS etc

#### **Trainings Scheduled during dissertation period**

1	ICTC Team Training	Training	RSACS	24	Feb 1-3	ICTC In-charge/ Counselor/ Lab. Technician	Ms.Nishanka
2	Consultation Workshop on Pre School Curriculum	Workshop	UNICEF	13	Feb 6-7	Officials from Education dept	Ms.Poonam
3	ToT for WASH	Training	UNICEF	29	Feb 13-14	Officials from Education dept/	Mr. Ravi Garg

						SIHFW staff	
4	Workshop on Prison Visiting System	Workshop	CHRI	13	Feb 14-15	Officials from different depts./ businessmen/ private firms	Ms.Divya
5	Review Meeting of Focus District Coordinators and Divisional Coordinators	Workshop	UNICEF	17	Feb-15	Focus District Coordinators and Divisional Coordinators	Ms.Poonam
6	ToT on Supervisory module for delivery of HBPNC	Training	NIPI	26	Feb 15-17	DMCHN/ BMCHN/ BCMOs/ MOs/ RO & Consultants - RCH (SIHFW)	Ejaz Khan
7	ICTC Team Training	Training	RSACS	32	Feb 20-22	ICTC In-charge/ Counselor/ Lab. Technician	Ms.Nishanka
8	Workshop on Developing Training Manual for CCE	Workshop	UNICEF	15	Feb 21-22	Officials from Education dept	Ms.Poonam

**Part - 2**

**Dissertation Report**

## **INTRODUCTION**

Maternal and infant Mortality in India continues to remain unacceptably high and it is possible to bring down maternal and infant mortality effectively if a package of obstetric and newborn care services is provided within reach of the communities and the families.

The maternal mortality ratio and infant mortality rate was 437 and 78.5 in 1991 so in this context efforts were initiated in 1992 with the implementation of the Child Survival and Safe Motherhood (CSSM) Programme for upgrading the existing CHCs and Sub-District hospitals into FRUs by equipping it to provide round the clock services for Emergency Obstetric and New Born Care, in addition to all emergencies that any hospital is required to provide.

Over the years a number of steps have been taken under the RCH Programme for facilitating the operationalisation of these FRUs. These included funds for operationalising Operation Theatre (OTs) and Labour Room (LRs), supply of equipment kits, supply of drug kits containing emergency obstetric care, drugs and funds for hiring of anesthetists from private sector. Under the next RCH Programme (Phase II), efforts were made for operationalising 2000 FRUs in a phased manner, of which **237** were selected in Rajasthan. Central assistance was provided to 1724 FRUs( 237 Rajasthan) identified by the States in the form of 12 types of equipment kits which were considered necessary for carrying out Laparotomies, Caesarean Sections and other surgical interventions for Emergency Obstetric Care and New-born Care. Despite all these efforts, not many FRUs identified by the State Governments have become fully operational for provision of 24-hours Emergency Obstetric and Child Health care services. On review of FRU at state level, it has been found that 150 should be made functional till March 2010 but till 31<sup>st</sup> dec.2011 only 70 FRUs were fully functional (MIS, NRHM report as on 31.12 2011) and rest were non functional.

Under the RCH program, provision has been made for supply of drug kits to the FRUs in form of Emergency Obstetric Drug kits containing 65 items of drugs @ 3 kits in 'C' Category districts and 2 Kits in each of the 'B' Category districts in the states. The states have also been provided assistance for civil works to upgrade the infrastructure for Operation Theatres and Labour Rooms.

Drugs and Cosmetics Rules have been amended and now it is possible to set up blood storage centers at the sub-district level health facilities identified as FRUs. Guidelines for setting up Blood Storage facilities at FRUs have been prepared by a group of experts and circulated.

The working group on health care for women and children for Tenth Five Year Plan identified establishment of fully functional and operational FRUs as the priority area for the provision of Emergency Obstetric and New-born Care. In view of the recommendations, it was considered imperative that the States look at the existing facilities and identify clearly their requirements for putting into place fully functional FRUs. It was envisaged that by the end of the Tenth Five Year Plan, each district should have at least 3-4 fully functional facilities which are equipped to provide the full range of Emergency Obstetric and New-born care on a round-the-clock basis. Consolidation of the district plans at the state level thus brought out the overall requirement of the State in various areas, such as infrastructure, equipment, manpower and training needs for operationalising FRUs during the Tenth Plan.

FRU operationalisation is not just about more equipment and funds; it is about empowering the facilities to respond to emergencies. Therefore, once an FRU becomes operational, it shall be ensured that there is no disruption in the services due to any constraint, for example: lack/absence of staff and/or minor requirement of funds and ilk.

Despite massive investments under RCH-II Programme and NRHM, and visible improvements in health system, the decline in IMR and MMR has been inadequate: much less than what would be required to reach the MDG goals of reducing IMR to 30/1000 live births and MMR to 100/100,000 live birth by the year 2015. While there has been some decline in the mortality among infants from one month to one year of life, the Newborn mortality has remained almost static for past seven years. So there are need to find out the gaps regarding assured services in these CHC and satisfaction level of delivered mother regarding emergency obs & new born care services so that further improvement can be done.

Hence, there is a need to carry out an assessment as part of the process of operationalising FRUs so that the functionality of FRUs already established can be taken into account while determining the challenges and lacunae.

### **Service package for fully functional FRU recommended by IPHS:-**

Following services should be met for fulfill the requirement of CHC to be a functional FRU:-

- Is to provide optimal specialist care in the FRU of acceptable standard.
- “Assured Services” provided at FRU will include
  - ✓ Routine and emergency care in Surgery, Medicine, Obstetrics and Gynecology and Pediatrics in addition to all the National Health programmers and Integrated Disease Surveillance Project.
  - ✓ Apart from the existing 4 specialists in Surgery, Medicine, Obstetrics and Gynecology and Pediatrics, it is proposed to make available the services of an Anesthetist and a Public Health Programme Manager on contractual basis to ensure optimal utilization and good quality services.
- The equipment already provided under the CSSM program is deemed adequate for provision of all the envisaged *assured services*.
- Fully operational labor room.
- An separately area earmarked and equipped for new born care near or within the labor room (New born care stabilization unit)
- Emergency care of sick children ( Sick new born care unit)
- Blood storage facility as per guideline issued by govt. of India.
- Fully functional operational theatre equipped for undertaking anesthetic and emergency surgical procedures including caesarian section and laporotomies.
- The Essential drug list at the FRU level has been updated to ensure proper treatment.
- A functional Laboratory with facility for all essential investigations.

- Laundry, diet, referral transport and waste management are proposed to be outsourced after appropriate training.
- 24 hour water supply.
- Regular electric supply with Backup arrangement to ensure uninterrupted supply to operation theatre, labour room, cold chain and blood storage unit.
- It is mandatory for every FRU to have “Rogi Kalyan Samiti” to ensure accountability.
- Every FRU shall have the “Charter of Patients’ Rights” displayed prominently at the entrance
- Every FRU shall also have the Standard Operating Procedures and Standard Treatment Protocols for common ailments and the National Health Program me.
- Social audit by means of involvement of the community through Consumer Forum and Rogi Kalyan Samities is being recommended.
- To maintain quality of services, external monitoring through Panchayati Raj Institutions and internal monitoring at appropriate intervals will be advocated.

### **Equipment kits for FRU**

Twelve types of equipment kits (Kit-E to Kit-P) were designed under the CSSM programme for functional FRU

Kit-E: Standard Surgical Set-I (instruments) FRU

Kit-F: CHC Standard Surgical Set-II

Kit-G: IUD Insertion Kit

Kit-H: CHC Standard Surgical Set-III

Kit-I: Normal Delivery Kit

Kit-J: Standard Surgical Set IV

Kit-K: Standard Surgical Set-V

Kit-L: Standard Surgical Set VI

Kit-M: Equipment for Anesthesia

Kit-N: Equipment for Neo-natal Resuscitation

Kit-O: Equipment for Laboratory Tests and Blood Transfusion

Kit-P: Materials Kit for Blood Transfusion.

### **Blood storage facility**

**Space:** The area required for setting up the facility is only 10 square meters, well-lighted, Clean and preferably air-conditioned.

**Manpower:** One of the existing doctor and technician should be designated for this purpose. They should be trained in the operation of blood storage centers and other basic procedures like storage, grouping, cross- matching and release of blood. The medical officer designated for this purpose will be responsible for overall working of the storage center.

**Electricity:** 24 hours supply is essential. Provision of back-up generator is required.

**Equipment:** Each FRU should have the following:

1. Blood bag refrigerators having a storage capacity of 50 units of blood.
2. Deep freezers for freezing ice packs required for transportation. The deep freezers available in the FRUs under the Immunization Programme can be utilized for this purpose.
3. Insulated carrier boxes with ice packs for maintaining the cold chain during transportation of blood bags.
4. Microscope and centrifuge: since these are an integral part of any existing laboratory, these would already be available at the FRUs. These should be supplied only if they are not already available.

### **Suggested quantities of Whole Blood Units to be available at Blood Storage Units**

- 5 units each of A, B, O (Positive)
- 2 units of AB (Positive)

- 1 unit each of A, B & O (Negative)

## **Referral services**

Since most of the referrals originate from the field, the information on availability of emergency services at FRUs will have to be effectively disseminated to all villages in the area so that the population knows where they should reach for getting appropriate emergency care.

6.2 The provision of emergency care has to be supported by (i) appropriate referral transport from the periphery to the functioning First Referral Units providing emergency services and (ii) also from FRUs to district/tertiary level institutions. State Government will have to develop administrative mechanisms to facilitate transportation of patients from the field to the FRU on the one hand and from the FRU to higher facilities (district hospital and/or tertiary care facility), if required, on the other.

Providing Government procured vehicles should not be seen as the only option for referral transport/linkage. The option of providing funds to the facility in-charges, together with administrative and financial powers to make local arrangements is a recommended option for smooth running of FRUs. Even after tremendous efforts from all side, only few FRUs are fully functional, the reasons for not functionality of these FRUs are-

- Lack of provision of emergency drugs
  - Inadequate infrastructure in terms of Operation Theatre and Labor Rooms
  - Non-availability of blood banking facilities
  - Lack of skilled manpower, particularly Anesthetics and Gynaecologistics
- Some of the studies conducted at Gujarat and Jharkhand also indicate importance of Strengthening FRU services.

1. The study, 'Assessing the regional and district capacity for operationalising emergency obstetric care through First Referral Units in Gujarat', was conducted by—Parvathy Sankara

Raman, Bharati Sharma, Dileep Mavalankar and Mudita Upadhyaya of IIMA, gives an insight into the functioning of various health facilities and highlights the results from the basic to the more comprehensive level of EmOC services. Twenty seven facilities from 6 districts from each administrative region of Gujarat were studied to understand the management of EmOC at regional, district and below the district levels. In all 7 district hospitals, 8 FRUs, 4 community health centers (CHC) and 8 round the clock primary health centers (PHC) were selected. Observation checklists, semi-structured interviews with service providers were used to collect data. The study also gives recommendation on various measures to rectify shortcomings noticed and make EmOC a more effective at different levels in the state of Gujarat. The findings of the study indicate a lack of infrastructure in labour rooms, non-recording of maternal deaths occurring both in and out of institutions, lack of midwives dedicated to maternal health, inadequate trained staff, unavailability of information related to functioning of FRUs with the management information system of the state health department, to name a few. The study states that EmOC is crucial for preventing maternal deaths for which the policy has been to establish FRUs. The study shows that the monitoring capacity at the regional and the district levels is very limited and hence FRUs are not fully functional. The study recommends that functioning of FRUs could improve if there is a dedicated officer for maternal health in the regional office who can liaison with both the directorates at state level and the CDHO and CDMO at district level. It would be ideal if there is a dedicated officer for maternal health and/or midwifery at the district level. This would ensure regular visits to the FRUs and day-to-day monitoring of implementation, better management of logistics and supply of drugs and equipment, maintenance of equipment, referral transport etc. for round the clock emergency services.

2. The government of Jharkhand has shown tremendous commitment to ensure the improved functioning of its designated First Referral Units (FRUs). A gaps analysis was conducted at 12 FRUs facilities in March 2009. The state health department used findings from the gaps analysis to understand the magnitude of the problem and identify priority areas for improving FRU functionality. Key district and FRU staff resolved to address local issues during the action planning. Senior state health officials and NRHM consultants also planned to fill existing gaps and mobilized some of the required resources. PHFI helped organized need

based capacity building of FRU functionaries through trainings, routine consultations and exposure visits. Joint monitoring visits by state health officials and PHFI staff to the 12 FRUs assessed progress. Visible improvements in the FRUs were noted between June- Sept09 by these monitoring visits. Although the achievements are impressive for such a short span of time, significant steps are needed to be taken by the state health department in order to achieve complete functionality across all FRUs as per Indian Public Health Standards (IPHS).

Key findings are -- Lack of formal document for operationalisation of FRUs, Certification and scoring of FRUs not in place, Inadequate health and support infrastructure (water & electricity) to ensure 24 \* 7 hr functioning, Laboring and postpartum women are placed in general women's ward, where there is no privacy. There were severe dearth of anesthetists and pediatricians. Paucity and lack of training for lab technicians, routine blood and urine investigations are currently not been conducted, and blood storage and transfusion units are not functional.

As far as Rajasthan is concerned out of 237 FRU, till March, 2010 150 FRUs were targeted to make functional, but till 31<sup>ST</sup> dec. 2011 only 70 FRUs are fully functional (MIS, NRHM report as on 31.12.2011) and others are partially functional.

Since Jaipur is the capital of Rajasthan, health facilities nearby Jaipur are considered of providing all standard facilities and services to patients, therefore the present study is proposed to envisage a gap analysis of nearby CHC of Jaipur District as functional FRUs regarding assured services, human resource, physical infrastructure, quality assurance as per IPHS standards on FRU Guidelines and to know the delivered mother's satisfaction for emergency obstetrics and new born care services at these CHC.

**Scope of work:** For assessing the gaps and bottlenecks of the existing CHCs, and to determine where that CHC lacks according to the standards guided by IPHS as an FRU, it was decided to conduct a Facility Survey.

## **Objectives**

To conduct the gap analysis of CHC as functional FRUs in Jaipur district of Rajasthan, as per IPHS standards in terms of -

- Delivery of services
  - Appropriate Human Resources availability
  - Training aspects
  - Availability of physical infrastructure and equipment (Equipment, Blood Storage, Referral, Laboratory, Pharmacy)
  - Quality assurance (Charter of patient rights, Record maintenance)
2. To find out the delivered mothers satisfaction from services provided at FRUs

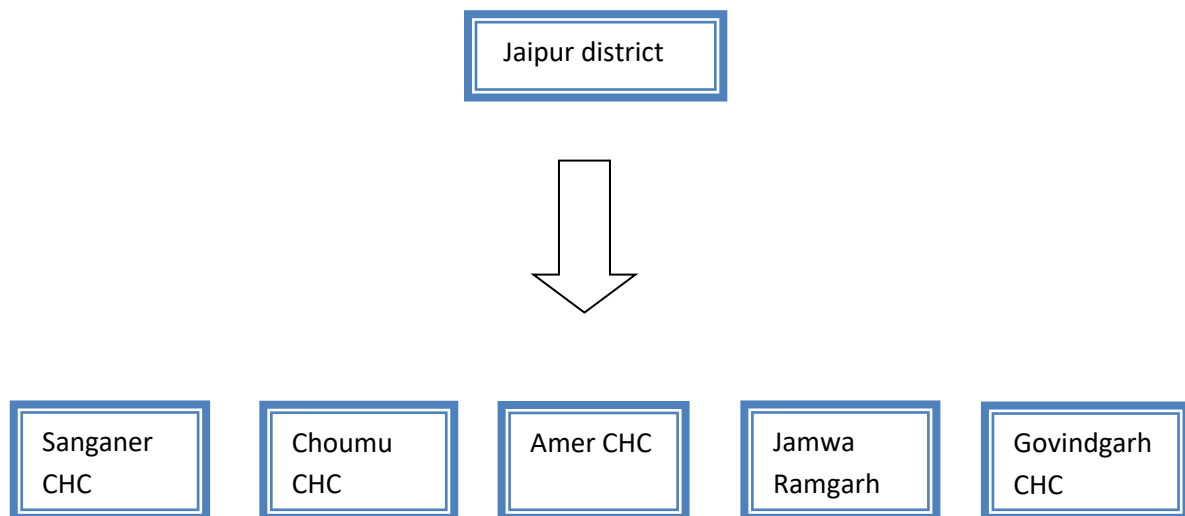
## **Methodology**

### **1. Study design**

- ❖ Cross sectional descriptive study
- ❖ Quantitative study

### **2. Area of Study**

- ❖ Study was conducted in Jaipur district of Rajasthan.
- ❖ The 5 CHC, designated as functional FRU by Medical health department, Rajasthan were taken. These 5 CHC are Govindgarh, Jamwa-Ramgarh, Amber, Choumu, and Sanganer.



### **3. Sampling design**

#### **Study population**

- ❖ Study population was divided into two categories, Providers (MO/IC) and Beneficiaries.

❖ Beneficiaries were

- Recently delivered Mothers- available/discharged from CHC.
- Discharge mother-Mothers visited health facility for their sick newborn (till 30 days after birth) and mothers with healthy newborn.

❖ Sample population of beneficiaries –

- From each facility 12 recently delivered /discharged mothers were taken.
- Total Recently delivered / discharged Mothers = 60 (12x5)

❖ Sample population of Service provider-

- MO/IC of each FRU = 5 (5x1)

❖ Total study population = 65 (60 beneficiaries + 5 MO/ IC)

### **Selection criterion**

Since Jaipur district was selected for study and there are 5 CHCs were declared as functional FRU by medical and health department out of total 11 CHCs, so all these 5 CHC were taken.

### **4. Tools used**

- IPHS Checklist.
- Interview with head of the CHC.
- Questionnaire for Beneficiaries
- Observation
- Review of Registers and Records.

### **5. Tools preparation**

There is one checklist and one questionnaire for delivered mother satisfaction from emergency obstetrics and new born care were prepared (see Annexure A and Annexure B). The questionnaire and the formats were finalized after a series of discussion with mentor and other staff of SIHFW.

**5a. Preparation of FRUs checklist** – The checklist was prepared according to IPHS standard for CHC and FRUs guidelines. In each section different parameters measuring the IPHS standard for FRUs were included. (Annexure A)

**5b. Preparation of questionnaire for delivered mothers satisfaction from emergency obstetrics and newborn care services** -- A set of questions were prepared to check the satisfaction level of delivered mother in the respect of emergency obstetrics care, new born care, blood transfusion facility, availability of doctors and staff on 24 hour basis, behavior of doctors and staffs towards patients, privacy for pregnant mothers etc. This questionnaire was made close ended, each question having 4-5 option. (Annexure B)

## **6. Data Collection Methods-**

- Both Primary and Secondary data were collected.
- Primary data were collected through the check list for CHC and structured questionnaire for delivered mother satisfaction from these emergency obstetrics and new born care services.
- Secondary data were collected from the available records at the health facilities.

## **7. Data collection**

Data was collected in March, 2012. Two days visits were planned for each health facility. Total 5 CHCs were visited. Beneficiaries (delivered mother) were interviewed with structured schedule at every selected CHC (Sanganer Choumu, Amer, Jamwa-Ramgarh and Govindgarh).

Data collection was done through checklist, prepared according to IPHS standards and FRUs guidelines, Questionnaire for recently delivered mothers satisfaction (available and discharged), reviewing the records, and interviewing the key official's and observation.

On reaching the facility MO/IC was contacted and Checklist was filled as per the records and responses from MO/IC of Facility.

Before beginning the data collection, the purpose of the study was explained to the respondent and his/her verbal consent was obtained. Beneficiaries were contacted and questions were asked from questionnaire to delivered mother/caretaker about related to emergency obstetrics, newborn care and blood transfusion facility, OT facility, laboratory services and availability of doctors and staff. On an average 2 days time was taken to complete one CHC.

### **8. Data analysis**

All filled questionnaire from delivered mothers/discharged mother satisfaction were entered in SPSS sheet and analyzed through SPSS 16.0 and checklist were manually analyzed.

# **Results and discussion**

**Observations table** (Annexure A)

## **I. Gaps identification**

❖ **Gaps identified in Sanganer CHC**

### **Services**

- **Essential emergency sick new born care** – there was functional SNCU but emergency cases were not treated due to lack of equipment and services and referred to J.k.loan hospital.
- **Blood storage unit (BSU)** - BSU was there but no trained medical staff was there. There was no regular blood supply in CHC and not even specified quantity of blood, they collect the blood from the SMS hospital as and when they require. So in the emergency cases, patients have to go either in SMS hospital or in Janana hospital.

### **Man power**

Sufficient manpower was not there as per IPHS norms. There were vacant positions of eye surgeon, ophthalmic assistant, OPD attendant and OT attendant. Same Nursing staff has to handle JSSY ward and IPD/OPD room. There was no separate nursing staff for JSSY ward.

**Training of MO during previous year-** there were not sufficient training conducted for MO. In the sterilization, emergency contraception and blood storage not even single MO was trained.

### **Physical infrastructure and equipments**

- No sufficient waiting space for patients. Small rooms were provided to specialist and great rush of patients was observed during OPD hours
- There were no separate ward for male and females.
- There were no separate pediatric beds available, if any sick newborn care was admitted they had given maternal bed and in emergency cases they referred to JK loan hospital.
- **Cleanliness** – cleanliness inside the labour room, wards, OPD was not up to the mark. Toilets were not clean. There was shortage of sweepers; only 2 sweepers were not able to manage all the cleaning of premises.

### **Equipments**

- Cold chain equipments – Walk in freezers was not there.
- BSU equipments – DG set was not there. .

### **Quality control**

Standard Operating Procedures (SOP) / Standard Treatment Protocols (STP)/ Guideline were not available.

### **❖ Gaps identified in Choumu CHC**

### **Services**

- Emergency care of sick newborn was lacking. Cases were referred to J.k.loan hospital.
- A dental specialty service was not there.
- **Blood storage unit (BSU)** - BSU was there but there was no regular blood supply in CHC and not even specified quantity of blood, they collect the blood from the SMS hospital as and when required. So in the emergency cases patients have to go either in SMS hospital or in Janana hospital.

### **Man power**

Sufficient manpower was not there as per IPHS norms. There were vacant posts of dental surgeon.

### **Physical infrastructure and equipments**

- There were no separate ward for male and female. Both male and female were admitted in the same ward.
- 2 specialists were giving services in a single OPD room.

**Cleanliness** - cleanliness inside the labour room, wards, OPD was not up to the mark. Toilets were not clean.

### **Equipments –**

- Operation theatre - horizontal high pressure sterilizer, defibrillator was not available.

- Surgical set – there were no separate surgical kits (I to VI) available but individual equipments were there which meet the requirements.

#### ❖ **Gaps identified in Amer CHC**

##### **Services**

- **New born care stabilization unit** – was not there but services were provided by pediatrician.
- **Essential emergency sick new born care** – SNCU was not there so emergency cases were not treated and referred to J.k.loan hospital.
- **Blood transfusion facility** – BSU and trained medical staff in blood storage were lying vacant and the patients were referred to SMS and janana hospital.

##### **Man power**

- There was shortage of doctors and paramedical staff. Eye and dental surgeon were not there.
- Positions of Ophthalmic assistant, OT attendant and OPD attendant were also laying vacant
- There was not separate nursing staff for JSSY ward. There was only 5 nursing staff available instead of 7+2 as per IPHS norms.

**Training of MO during previous year-** Staff was not trained. None of the MO was trained in the emergency contraception, HIV/AIDS, new born care and blood storage.

##### **Physical infrastructure and manpower**

- Separate Pediatric beds were not there, sick newborn were admitted in the maternal ward.
- Generator was not there; only one inverter was available which was used in OT and labour room for uninterrupted electric supply, in cold chain and other rooms inverter facility was not there.

- Blood storage unit was not available.

### **Equipments –**

- Operation theatre - vertical high pressure sterilizer was not available. Oxygen and nitrous oxide cylinder were not in sufficient number as per requirement.
- BSU equipments – only refrigerator was there but not used in blood storage because of lack of trained staff.
- ECG machine was old and not in functional condition.
- Laboratory – adequate equipment and chemicals were absent so patients have to go outside the hospital for some biochemical test.
- Surgical kits (I to VI) – as such kits were not available but individual equipments were there which meet the requirement.
- Kit for donor blood transfusion was not there.

### **❖ Gaps identified in the Jamwa Ramgarh CHC –**

#### **Services**

- Obstetrics and Gyneco services were provided by contract basis specialist, permanent specialist was not available.
- **New born care stabilization unit** – unit was not there but services were provided by pediatrician.
- **Essential emergency sick new born care** – SNCU was not present so emergency cases were not treated and referred to J.k.loan hospital.
- **Blood transfusion facility** – trained medical staff in blood storage were lying vacant so the patients were referred to SMS and janana hospital.

#### **Man power**

- Post of Anesthetics was vacant. They hired the privately anesthetics for the operation.
- Positions of Eye and dental surgeon were also vacant.

- Radiographer, ophthalmic assistant, OPD attendant, OT attendant, registration clerk post were also vacant.

**Training of MO during previous year-** only one MO was trained in sterilization services. For emergency contraception, IUD insertion, HIV/AIDS, emergency obstetrics care, new born care and blood storage even not a single MO was trained.

### **Physical infrastructure and equipments**

- Separate Pediatric beds were not there.
- OT had not enough space.
- Blood storage unit was not functional.

### **Equipments –**

- Operation Theater – cardiac monitor, defibrillator, horizontal high pressure sterilizer were not available.
- Only 2 nitrous oxide cylinders were present.
- BSU- DG set was absent.
- Surgical kits (I to VI) – as such kits were not available but equipments were there which meet the requirement.
- Kit for safe delivery- lab test & blood transfusion kits was not available.
- Kit for donor blood transfusion was not available.

### **❖ Gaps identified in Govindgarh CHC**

#### **Services**

- Emergency obstetrics care including surgical interventions like Caesarean Sections services were not available.
- Abortion care services were lacking due to absence of gynecologist.

- Pediatrics services were lacking due to absence of specialist.

**New born care stabilization unit** – unit was there but services like resuscitation not provided due to lack of specialist.

**Essential emergency sick new born care - SNCU** was not constructed so emergency cases were not treated and referred to J.k.loan hospital.

### **Manpower**

- Pediatrics, gynecologist posts were vacant. Eye and dental surgeon's posts were also vacant.
- Positions of Ophthalmic assistant, OPD attendant, OT attendant were also vacant.

**Training of MO during previous year-** even not a single MO was trained in specialist medical services.

### **Physical infrastructure and equipments**

- Separate Pediatric beds were not available.
- Operation Theater was not used for the caesarian surgery and other gyneco problem due to lack of specialist services.
- Suggestion /complaint box was not there.
- **Cleanliness** –. Inside the premises cleaning services was not up to the mark.

### **Equipments –**

- Operation theatre - cardiac monitor, defibrillator were not available.
- Cold chain equipments – cold boxes and walk-in-freezers were not there.

## **II. Recently delivered mother's satisfaction from emergency obstetrics and newborn care services**

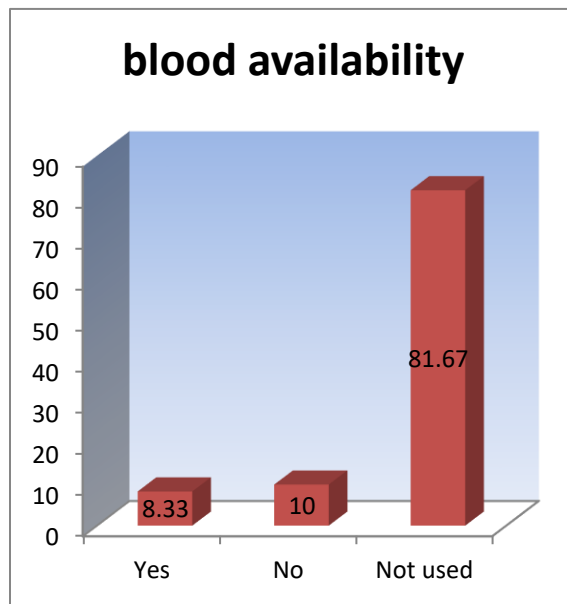
### **Table 1 Time in service delivery –**

	Time taken to admit in ward after reaching to CHC		Time taken to provide services by service provider	
	Frequency	Percentage	Frequency	Percentage
Within 5 min	52	86.7	53	88.3
5- 15 min	8	13.3	7	11.7
Total	60	100.0	60	100.0

Services delivery was quite good. Out of the 60 delivered women, 52 women were admitted immediately within 5 min after reaching hospital while 8 admitted within 5-15 min.

**Table 2 Blood transfusion facility at day**

	Frequency	Percentage
Yes	5	8.33
No	6	10.0
Not used	49	81.67
Total	60	100.0



**Figure 1**

**Table 3 Delay in blood transfusion availability**

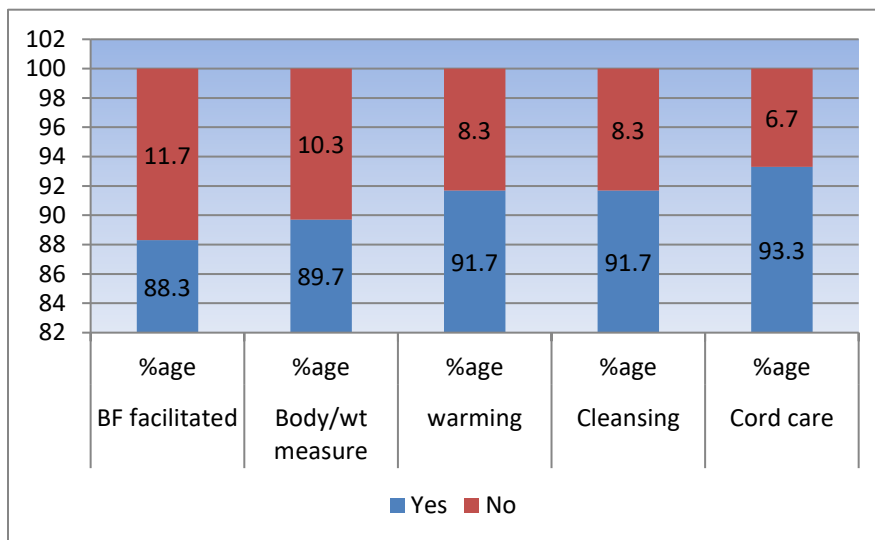
	Frequency	Percentage
Immediately(with in 10 min)	3	60
10-15 min	1	20
0.5-1 hour	1	20
Total	5	100

Out of 5 delivered mothers, for 3 bloods was provided immediately while for remaining 2 mothers blood provided after 10-15 min and 0.5-1 hr respectively.

Out of 60 delivered mother, 11 (18.33%) mother needed blood transfusion. Out of 11, for only 5 mothers blood transfusion facilities were provided by respected CHC while the remaining 6 were referred to Janana hospital.

**Table 4 New born care within 48 hours**

	BF facilitated		Body/wt measure		warming		Cleansing		Cord care	
	Frequency	%age	Frequency	%age	Frequency	%age	Frequency	%age	Frequency	%age
Yes	53	88.3	52	89.7	55	91.7	55	91.7	56	93.3
No	7	11.7	8	10.3	5	8.3	5	8.3	4	6.7
Total	60	100.0	60	100	60	100	60	100	60	100

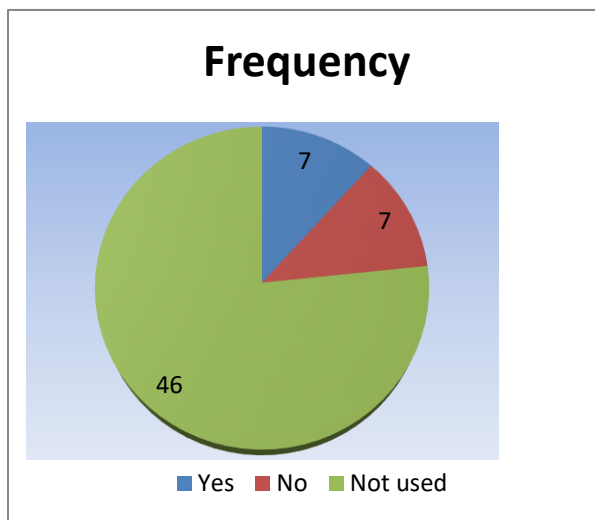


**Figure 2**

Around 90% women told that essential new born care were provided to their infant with in 48 hour of the birth.

**Table 5 If infant had problem then admitted to SNCU**

	Frequency	Percentage
Yes	7	11.7
No	7	11.7
Not used	46	76.6
Total	60	100



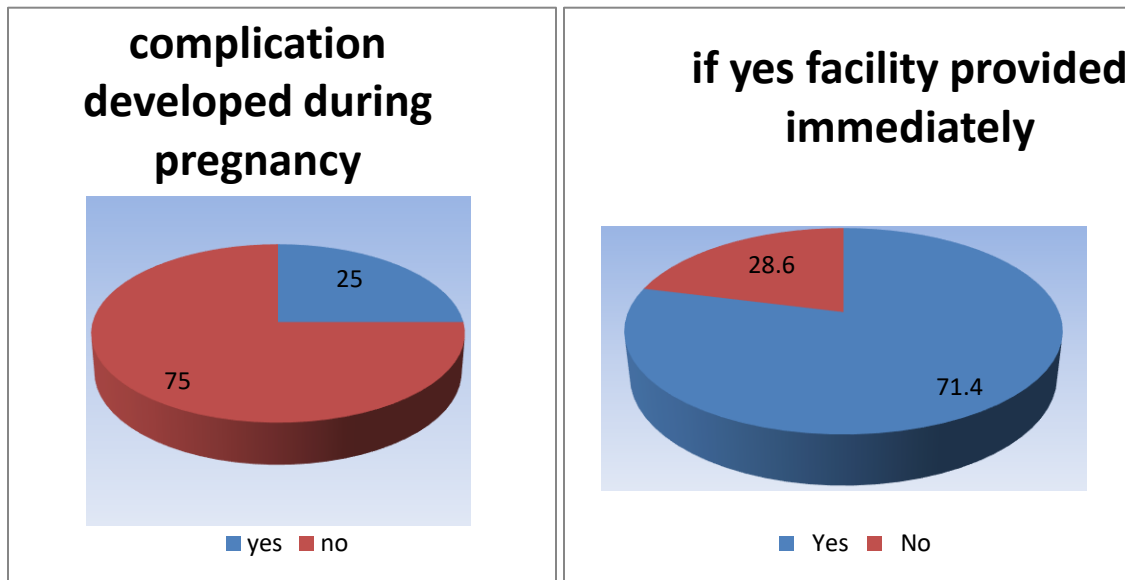
Out of 60 delivered mother's baby, 14 (23.4%) had the problem like infection, prematurity, low weight birth, respiration, etc

Out of 14 sick infants, 7 (50%) were admitted to SNCU, while remaining 7 (50%) not because either absence of sick newborn care unit or absence of specialist

**Figure 3**

**Table 6 Complication during delivery –**

	Complication developed at time of delivery		If yes, facility provided immediately	
	Frequency	Percentage	Frequency	Percentage
yes	15	25	11	71.4
no	45	75	4	28.6
Total	60	100.0	15	100.0



**Figure 4 and 5**

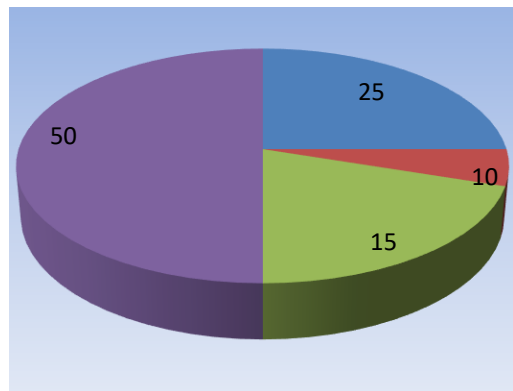
Out of 60 delivered mothers, 15 (25%) were developed complication after delivery.

From out of these 15 mothers, 11 mothers (71.40%) were provided immediately treatment while for remaining 4 mothers (28.6%) treatment were not provided immediately or referred to Janana hospital.

**Table 7 Satisfaction from emergency obstetrics and new born care services –**

	Frequency	Percentage
Satisfied	15	25.0
Average	6	10.0
Unsatisfied	9	15.0
Not used	30	50.0
Total	60	100.0

**satisfaction from  
emergency obs &  
newborn care**



■ Satisfied ■ Average ■ Unsatisfied ■ Not used

Out of 60 mothers, 30 (50%) utilized emergency services like EmOC new born care and emergency blood transfusion etc.

From out of these 30 women, 15 (50%) were satisfied, 9 (30%) were unsatisfied while remaining 6 (20%) were neutral towards these emergency service

**Figure 6**

**Table 8 Satisfaction from other services --**

	OT services		Laboratory services		Medicine availability	
	frequency	percentage	frequency	percentage	frequency	percentage
Satisfied	11	18.3	50	83.3	57	95
Average	2	3.3	4	6.7	3	5
Unsatisfied	3	5.0	2	3.3		
Not used	44	73.3	4	6.7		
Total	60	100	60	100	60	100

**Satisfaction from OT services –**

Out of 60 delivered mothers 16 (26.67%) were utilized operation theatre facility either for caesarian surgery, complication and others.

Out of 16 mothers, 11 mothers (68.75%) were satisfied, 3 mothers (18.75%) were unsatisfied and remaining 2 mothers (12.50%) were neutral towards OT services.

**Satisfaction from laboratory services –**

Out of 60 delivered mothers 56 (93.3%) utilized laboratory services either during delivery or pregnancy (ANC) and remaining not utilized these services.

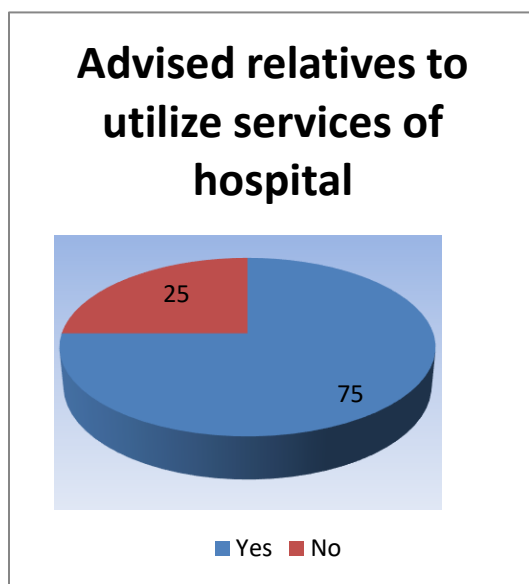
Out of 56 mothers, 50 (89.2%) were satisfied while 2 (3.57%) were unsatisfied and remaining 4 (7.14%) were neutral towards these services.

**Satisfaction from medicine availability –**

Out of 60 delivered mothers 57 (95%) were satisfied from medicine availability while remaining 3 (5%) were neutral.

**Table 9 Advised relatives to utilize services of hospital –**

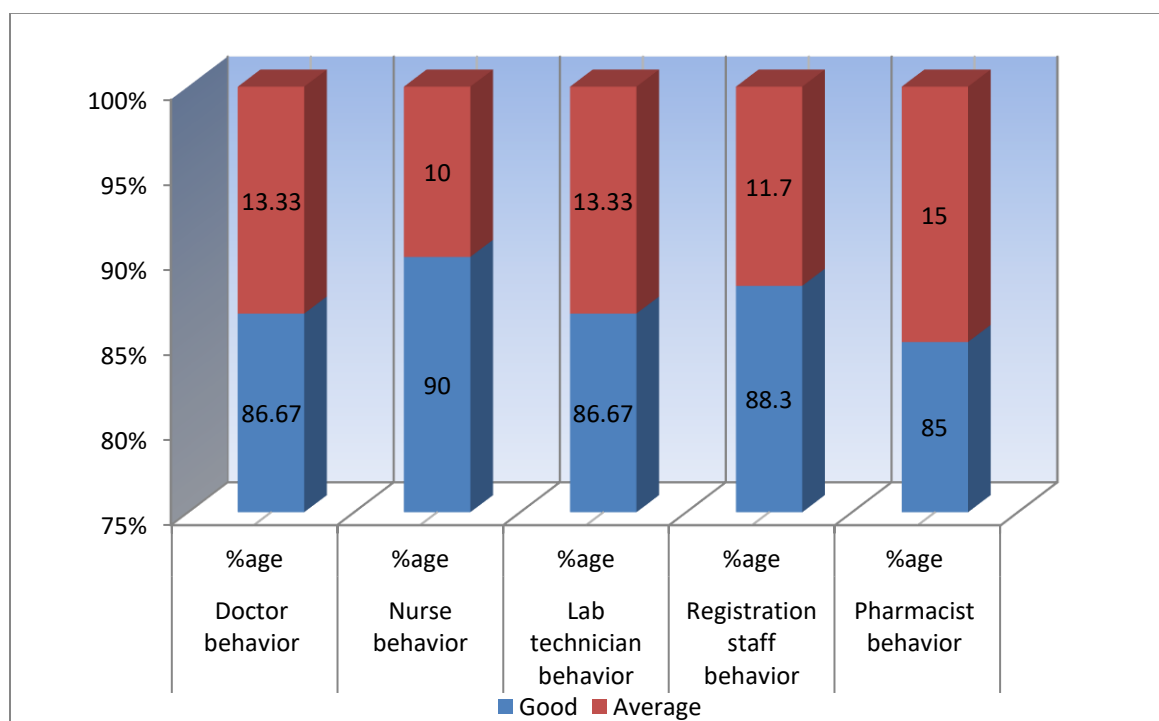
	Frequency	Percentage
Yes	45	75.0
No	15	25.0
Total	60	100.0



Out of 60 delivered mothers, 45 mothers were satisfied with services and will give advice to relatives to come in this hospital while the remaining 15 mothers (25%) were unsatisfied with services and deny giving advice to relatives to come in this hospital.

**Figure 7    Table 10 Behavior aspect of doctors and staff nurses –**

	Doctor behavior		Nurse behavior		Lab technician behavior		Registration counter staff behavior		Pharmacist behavior	
	Frequency	%age	Frequency	%age	Frequency	%age	Frequency	%age	Frequency	%age
Good	52	86.67	54	90	52	86.67	53	88.3	51	85
Average	8	10.0	6	10	8	13.33	7	11.7	9	15
Total	60	100.0	60	100	60	100	60	100	60	100



**Figure 8**

Delivered mother reported that their staff's behavior is courteous with the patients and there wasn't any incidence of any sexual advances, verbal or physical abuse by doctor and other paramedical. Examinations on women patients are conducted in presence of a female attendant and procedure conducted under conditions that ensure privacy.

### **Key findings**

#### **A) Key Findings from gap analysis of FRU**

- ❖ These FRUs have a severe dearth of medical officer and paramedical staff
- ❖ In the Govindgarh CHC there were no emergency obstetrics care including caesarian sections and new born care due to vacant positions of gynecologist and pediatrician.
- ❖ There was no separate ward for labor and Gynecology patients. Parturients women are kept in general women's ward, where there was no privacy and they and their newborns were exposed to infections
- ❖ Most of FRUs experience erratic power supply. In the Amer CHC, which is almost apart of Jaipur, there was no electricity back up available even for blood storage unit and cold

chain room. In the Govindgarh CHC no backup arrangement available in the labour room..

- ❖ In most of the CHCs, none of the Medical officer was trained in emergency obs & new born care except Sanganer CHC. And no one was trained in blood storage unit for different type of investigation test and blood cross matching, grouping test.
- ❖ Blood storage and transfusion units were not functional in most of the facilities surveyed.
- ❖ Ultra Sonography facility was not available at any CHC visited. Patients have to go outside the hospital for this service.
- ❖ In most of FRUs cardiac equipments (ventilator, cardiac monitor were not available) and regarding autoclave either horizontal or vertical high pressure sterilizer were available but not both at a place.
- ❖ As such standard surgical set (1-V1) were not available in any FRU, instead they separately had equipments like tray, gloves, forceps, needles, scissors, syringe, catheter, knife holder, speculum and sterilizer etc.

#### **(B) Key findings from delivered mother satisfaction**

- ❖ With reference to satisfaction level of delivered mothers, around 50 % mothers were satisfied from emergency obs & new born care services from those who have utilized these services at the facility. The reason behind this is the unavailability of blood, sick new born care services and equipments.
- ❖ Out of 60 delivered women, 14 were developed the complication at time of delivery. Out of these 14, 80% females were attended immediately, while rests were referred due to lack of blood transfusion facility and specialist services.
- ❖ Out of the 10, only 30% women, were provided blood immediately. Rest were referred to higher centers due to non functional BSU and untrained staff for blood transfusion.
- ❖ Fifty percent sick new born were referred due to nonfunctional SNCU In most of the CHC.
- ❖ The behavior aspect of doctor and other staff was good, almost 90% delivered mother were satisfied from their behavior.

## **Conclusions**

To bring down the infant and maternal mortality in Rajasthan, CHC were upgraded as FRU for providing 24x7 emergency obstetrics and new born care under RCH and CSSM program by medical health department, Rajasthan. Total 70 CHCs in Rajasthan state including 5 CHCs in Jaipur district have been declared as functional FRUs by the medical health department. But gap analysis study reveals that not even a single CHC was fully functional FRU as per IPHS standards. Many gaps have been identified in the study related to emergency obs & new born care, blood storage unit, availability and training of human resources, physical infrastructures and equipments.

In all of the 5 CHCs emergency new born care was not available due to lack of equipments. Out of the 5 CHC, in one CHC (Govindgarh) emergency obstetrics services, c-sections and abortion care services were not available due to absence of gynecologist. Separate Pediatrics beds were not available in any CHC except Choumu CHC.

MOs were not trained for emergency obs & new born care, blood transfusion and other services. Cleanliness of all of the CHCs was not up to the mark. In all the CHC waiting space for OPD patients was not sufficient so patients have to wait outside the premises in the peak hours.

From the view point of service seeker (Delivered mother), around 90% women availed service immediately after reaching hospital and 90% women were satisfied with behavior aspect of doctor and other staff but on the other side 50% women were unsatisfied with emergency obstetrics and new born care services due to unavailability of blood transfusion facility, lack of emergency new born care, modern sick new born care equipment and lack of specialist.

As a priority, efforts should be made to make it FRU as per the Guidelines given by IPHS. Moreover, specific interventions to fill up this identified gaps need to be outlined.

### **Recommendations**

- There should be establishment of dedicated maternity and neonatal care area on priority basis.
- Improvement in the efficiency of the logistics and procurement division of the state health department to provide maintenance on a 24X7 basis is needed.
- Convergence of the district administration with other key departments like water and sanitation, and power and electricity should made be strengthen.
- The Medical Officers and the paramedical staff must undergo relevant skill development trainings before appointment to the facilities and periodic in service training thereafter.
- Prioritize large scale capacity building of MBBS doctors in life saving anesthetic skills (LSAS) and neonatal care.
- Training and feedback of staff should be done on regular basis, for capacity building and quality control.
- Posting and training of lab technicians for blood storage management.
- Institutionalize a FRU certification process and ensure routine review by a quality assurance team.
- Focus on sanitation and cleanliness is required.

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## Appendices

### **A. Observation table/check list (Table 11)**

#### **I. SERVICES**

	<b>Sanganer CHC</b>	<b>Choumu CHC</b>	<b>Amer CHC</b>	<b>Jamwa Ramgarh CHC</b>	<b>Govindgarh CHC</b>
<b>Particulars</b>					
Population covered (in numbers)	200000-250000	1,25,000	80000-100,000	250000	200,000
Bed Occupancy Rate in the last 12 months	18-20%	30%	20%	30%	30-35%
Average daily OPD Attendance	500	650	350	400	350-400
Male	200	300	150	150	150
Female	300	350	200	250	250
24 - hour delivery services including normal and assisted deliveries(Yes/No)	Yes	Yes	Yes	Yes	Yes
Emergency Obstetric Care including surgical interventions like Caesarean Sections and other medical interventions(Yes/No)	Yes	Yes	Yes	Yes	No
Comprehensive abortion care services (Yes/No)	Yes	Yes	Yes	Yes	No
Number of cases of caesarian delivery (During April to sept. 2011)	13	10	2	4	Nil
Total hour/day of stay after normal delivery	48 hour	48 hour	48 hour	48 hour	48 hour
Total hour/day of stay after cesarean delivery	Up to 7 days	Up to 7 days	Up to 7 days	Up to 7 days	Up to 7 days
Total day of stay in	2-7 days	2-7 days	2-7 days	2-7 days	2-7 days

complication after delivery					
New born care stabilization unit (separate room or area for new born care) (Yes/No)	Yes	Yes	No separate room	No separate room	Yes
following services are provided(Yes/No) i. Provision of warmer ii. Resuscitation iii. Supporting care including oxygen, IV fluid iv. Breast feeding support v. Referral services	Yes, all are available	Yes, all are available	Yes, all are available	Yes all are available	all are available except resuscitation
Emergency care of sick children (SNCU) (Yes/No)	Yes, But complex cases referred to J.k.loan hospital	No (refer to J.k.loan hospital)	No, cases are referred	No (refer to J.k.loan hospital)	No (refer to J.k.loan hospital)
Full range of family planning services including Laparoscopic Services(Yes/No)	Yes	Yes	Yes	Yes	Yes
Treatment of STI / RTI(Yes/No)	Yes	Yes	Yes	Yes	Yes
Blood storage facility (Yes/No)	Yes	Yes	No	No	Yes
Blood transfusion (Yes/No)	Yes	Yes	No, refer to Janana and SMS	No, refer to Janana and SMS	Yes
Trained staff in blood storage unit(Yes/No)	No	Yes	No	No	No (transferred)
Referral transport service	Yes	Yes	Yes	Yes	Yes
<b>HIV / AIDS</b>					
Availability of Counseling facility on HIV/ AIDS / STD etc. (Yes/No)	Yes	Yes	Yes	Yes	Yes
ICTC facility is available	Yes	Yes	Yes	Yes	Yes

(yes/no)					
<b>Service availability (Number of days in a month the services are available)</b>					
Anti natal Clinics	Daily	Daily	Daily	Daily	Daily
Post-natal Clinics	Daily	Daily	Daily	Daily	Daily
Immunization Sessions	Daily	Daily	Monday Thursday	Monday, Thursday	Thursday

## II. Manpower

Personnel	IPHS Norm					
General Surgeon	1	1	1	1	1	1
Physician	1	1	1	1	1	1
Obstetrician / Gynecologist	1	1	1	1	1(NRHM)	-
Pediatrics	1	1+1(NRHM)	1	1	1(NRHM)	-
Anesthetist	1	1(NRHM)	1(NRHM)	1(NRHM)	-	1(NRHM)
Eye Surgeon	1	-	1	-	-	-
Dental surgeon	1	1	-	-leave	-	-
Other specialists (if any)	3 M.O	2 M.O	3 M.O, M.O(medicine) M.O(pediatrics) M.O (gyneco.)	3 General Medical Officer		1 M.O

### (B) Support Manpower

Personnel	IPHS Norm					
Nursing Staff	7+2	7+3	7+2	5	7+4	8+4
Public Health Nurse	1	1	1(NRHM)	-	-	1
ANM	1	2	2	-	1	1+1(NRHM )

Staff Nurse	7	7	6	5	10	6
Nurse/Midwife						
Dresser	1	-		-	-	-
Pharmacist / compounder	1	2(NRHM)	1+2(RMSCL)+(BPL)	1(RMSCL)+1(BPL counter from court stay)	2(under RMSCL)	1(NRHM)+1(BPL)+2(RMSCL)
Lab. Technician	1	1	1+1(contract)	1	1+1(contract)	1+1(NRHM)
Radiographer	1	1	1	1	-	1
Ophthalmic Assistant	1	-	1	-	-	-
Ward boys / nursing orderly	2	5	2+3 contract)	5	3	5
Sweepers	3	2	2	1+2(contract)	1	1+2(contract)
Chowkidar	1	2(contract)	-	-	-	-
OPD Attendant	1	-	1	-	-	-
Statistical Assistant / Data entry operator	1	1 (contract)	1 (contract)	2(contract)	1(contract)	2(contract)
OT Attendant	1	-	1	-	-	-
Registration Clerk	1	1 (contract)	1(MRSH)	2(LDC+UDC)	-	1
Any other staff (specify)			LHV(1)	Ayush compounder(1) Accountant(1) GNM(contract)		GNM(2) LHV(1) Accountant (1)

### C. Training of MOs during previous (full) year

Available training in (Number of Mos trained)					
Sterilization	-	1	1	1	-
IUD Insertions	2	1	1	-	-
Emergency contraception	-	1	-	-	-
RTI / STI, HIV/ AIDS	2	-	-	-	-

Newborn care	3	-	-	-	-
Emergency obstetric care	1	-	1	-	-
Blood storage	-	1	-	-	-
Other subjects (mention)					
Do you think the number of trainings given is adequate? Yes/no	No	Yes	No	No	No

### III. Investigation facility

<b>IPHS norm</b>					
Availability of ECG facilities (Yes / No)	Yes	Yes	No	Yes	Yes
X-Ray facility (Yes / No)	Yes	Yes	Yes	Yes	Yes
Any lab test / diagnostic test outsourced to private lab / hospital (please specify the test)	Outsourcing Under process	Ultra Sonogrphy	Ultra Sonogrphy and liver, renal test	under process	T <sub>3</sub> , T <sub>4</sub>

### IV. Physical Infrastructure (As per specifications)

<b>Where is this CHC located?</b>					
a. Within Village Locality	Yes	Yes	Yes	Yes	Yes
b. Far from village locality					
If far from locality					

specify in km.....					
Whether located at less than 2 hours of travel distance from the farthest village? (Yes/No)	Yes	Yes	Yes	Yes	Yes
Whether the district head quarter hospital located at a distance of less than 4 hours travel time? (Yes/No)	Yes	Yes	Yes	Yes	Yes
<b>Whether the cleanliness is Good / Fair / Poor? (Observe)</b>					
OPD	Fair	Fair	Good	fair	fair
OT	Good	Good	Good	Good	Good
Delivery room	Fair	Fair	Fair	Good	Fair
Other Rooms	Fair	Fair	Fair	Fair	Fair
Wards	Fair	Fair	Fair	Fair	Fair
Toilets	Poor	Poor	Poor	Poor	Poor
Premises (compound)	Fair	Fair	Good	Fair	Fair
Registration counters (Yes/No)	Yes	Yes	Yes	Yes	Yes
X-ray room with dark room facility (Yes/No)	Yes	Yes	Yes	Yes	Yes
Separate wards for males and females (Yes/No)	No	No	Yes	Yes	Yes
No. of beds : Male	Common beds(20)	Common beds(30)	15	10	15
No. of beds : Female	Common beds(20)+ Jssy ward +ANC ward	Common beds(30)+Jssy ward	15+Jssy ward	10+ Jssy ward +ANC ward	15+ JSY ward
Total number of pediatric beds	No separate beds	8 beds	No separate beds	No separate beds	No separate beds
Pharmacy for drug	Yes, 1 DDC+1	Yes, 3 DDC+1	Yes, 2 DDC	Yes, 2 DDC+1	Yes, 2

dispensing and drug storage (Yes/No)		medical life line drug store			DDC
Counter near entrance of hospital to obtain contraceptives, ORS packets, Vitamin A and Vaccination (Yes / No)	Yes	Yes	Yes	Yes	Yes
<b>Operation theater</b>					
Operation Theatre available (Yes/No)	Yes	Yes	Yes	Yes	Yes
If operation theatre is present, are surgeries carried out in the operation theatre?					
Yes	Yes	Yes	Yes	Yes	Yes
No					
Sometimes					
Operation Theatre used for obstetric / gynecological purpose (Yes / No)	Yes	Yes	Yes	Yes	No
Has OT enough space (Yes / No)	Yes	Yes	Yes	No	Yes
Is OT fitted with air conditioner? (Yes / No)	Yes	Yes	Yes	Yes	Yes
Is the air conditioner working? (Yes / No)	Yes	Yes	Yes	Yes	Yes
Is generator available for OT? (Yes / No)	Yes	Yes	No	Yes	Yes
Is emergency light available in OT? (Yes / No)	Yes	Yes	Yes	Yes	Yes
Is fumigation done regularly? (Yes / No)	Yes	Yes	Yes	Yes	Yes

<b>Operation Theatre Equipment</b>					
Boyles apparatus	Yes	Yes	Yes	Yes	Yes
Cardiac Monitor for OT	Yes	Yes	Yes	No	No
Defibrillator for OT	Yes	No	Yes	No	No
Horizontal High Pressure Sterilizer	Yes	No	Yes	No	Yes
Vertical High Pressure sterilizer	Yes	Yes	No	Yes	Yes
Shadowless lamp ceiling trak mounted	Yes	Yes	Yes	Yes	Yes
Shadowless lamp pedestal for minor OT	Yes	Yes	Yes	Yes	Yes
OT care / fumigation apparatus	Yes	Yes	Yes	Yes	Yes
Gloves & dusting machines	Yes	Yes	Yes	Yes	Yes
Oxygen cylinder (660 Ltrs) 10 cylinders for 1 Boyles Apparatus	Yes, but less in no.	Yes	Yes, but less in no.	Yes, (7)	Yes (5)
Hydraulic Operation Table	Yes	Yes	Yes	Yes	Yes
<b>BSU equipment</b>					
Blood bag Refrigerators(50 unit of blood)	Yes	Yes	Yes	Yes	Yes
Microscope	Yes	Yes	No	Yes	Yes
Centrifuge machine	Yes	Yes	No	Yes	Yes
DG set	No	Yes	No	No	Yes
Other specify.....					
<b>Cold chain equipments</b>					
Walk in coolers	No	Yes	No	Yes	No
Walk-in freezers available	No	Yes	Yes	Yes	No
Icelined freezers	Yes	Yes	Yes	Yes	Yes

Deep freezers	Yes	Yes	Yes	Yes	Yes
<b>Other equipments</b>					
X-Ray machine	Yes	Yes	Yes	Yes	Yes
ECG machine	Yes	Yes	Not functional	Yes	Yes
Ultrasound machine	No	Yes(not functional)	No	No	No
<b>Labour room</b>					
Labour room available? (Yes/ No)	Yes	Yes	Yes	Yes	Yes
<b>If labour room is present, are deliveries carried out in the labour room?</b>					
a. Yes	Yes	Yes	Yes	Yes	Yes
b. No					
c. Sometimes					
<b>If labour room is present but deliveries are not being conducted there, then what are the reasons for the same?</b>					
a. Non-availability of doctors / staff					
b. Seepage in the labour room					
c. No power supply in the labour room					
d. Any other reason (specify)					
<b>Laboratory</b>					
Laboratory (Yes/No)	Yes	Yes	Yes	Yes	Yes
Are adequate equipment and chemicals available? (Yes/No)	No	Yes	No	Yes	Yes
Suggestion / complaint box (Yes/No)	Yes	Yes	Yes	Yes	No
Family Welfare Clinic (Yes/No)	No	Yes	Yes	Yes	Yes
Waiting room for patients (Yes/No)	Yes	Yes	Yes	Yes	Yes
<b>Blood storage unit</b>					

Blood Storage Unit available (Yes/No)	Yes	Yes (started on 14 <sup>th</sup> feb.2012)	No	Yes, but not functional, no proper equipment	Yes
Is it well lighted and air conditioned (Yes/No)	No	Yes	No	Yes	Yes
Is the CHC having linkage with district blood bank? (Yes / No)	Yes	Yes	Yes	Yes	Yes
Is regular blood supply available (24x7 hr)? (Yes / No)	No	No	No	No	Yes
<b>Water supply</b>					
24 hour water supply (Yes / No)	Yes	Yes	Yes	Yes	Yes
Source of water (1- Piped; 2- Bore well/ hand pump / tube well; 3- Well; 4- Other (specify.....	2	2	2	1 and 2	2
<b>Sewerage</b>					
Type of sewerage system ( 1- Soak pit; 2- Connected to Municipal Sewerage)	1	1	1	1	2
<b>Waste disposal</b>					
<b>Is waste segregated as infectious and non infectious (Yes/No)</b>	Yes	Yes	Yes	Yes	Yes
If yes then what is the mode of disposal of infectious waste	On contract basis by NGO	Contract by municipal corporation	Contract by municipal corporation	On contract basis by NGO	On contract basis by NGO

(1. Bury in a pit. 2. Thrown in common/public disposal pit 3. Thrown outside hospital compound. 4. Thrown outside hospital compound 5. Incinerator 6. Other) (specify.....)					
what is the mode of disposal of non-infectious waste (same option)	On contract basis by NGO	Contract by municipal corporation	Contract by municipal corporation	On contract basis by NGO	On contract basis by NGO
If no, what is the mode of disposal of bio waste (same option)					
<b>Electricity</b>					
Is there 24 hour electric supply in all departments of the hospital? (yes/no)	No	No	No	No	No
Is there backup arrangement available to ensure uninterrupted electric supply in					
OT (yes/no)	Yes	Yes	Yes	Yes	Yes
Labor room (yes/no)	Yes	Yes	Yes	Yes	NO
blood storage facility (yes/no)	Yes	Yes	No	Yes	Yes
Cold chain (yes/no)	Yes	Yes	Yes	Yes	Yes
<b>Laundry facility</b>					
Laundry facility available (Yes/No)	No	No	No	No	No
If no, is it outsourced?(Yes/No)	Yes	Yes	Yes	Yes	Yes
Telephone (Yes/No)	Yes	Yes	Yes	Yes	Yes

Personal Computer (Yes/No)	Yes	Yes	Yes	Yes	Yes
Internet facility (Yes / No)	Yes	Yes	Yes	Yes	Yes
<b>Diet</b>					
Diet provided by hospital (Yes/No)	No	No	No	No	No
How diet is provided to the delivered women?	By Mahila Bal Vikas Samiti and SHGs	By ICDS	By ICDS	By Mahila Vikas Samiti and SHGs	By Mahila Vikas Samiti and SHGs
<b>Vehicles</b>					
<b>If running</b>					
Ambulance	1	2(12 hr+12 hr)	1	1	1
Jeep	-	10 (hire)			
Car		-			
<b>If vehicle is not running (reason)</b>					
Ambulance					
Jeep	Not sanctioned		Not sanctioned		Not sanctioned
Car	Not sanctioned	Not sanctioned	Not sanctioned		Not sanctioned

## V. Supply of kits

<b>Type of kit</b>					
Standard surgical set I	No as such set available but equipments were there	No as such set available but equipments were there	No as such set available but equipments were there	No as such set available but equipments were there	No as such set available but equipments were there
Standard surgical set II					
Standard surgical set III					
Standard surgical set IV					

Standard surgical set V					
Standard surgical set VI					
IUD insertion kit	Yes	Yes	Yes	Yes	Yes
Normal delivery kit	Yes	Yes	Yes	Yes	Yes
Kit equipment for anesthesia	Yes	Yes	Yes	Yes	Yes
neonatal resuscitation kit	Yes	Yes	Yes	Yes	Yes
Kit for safe delivery- lab test & blood transfusion	Yes	Yes	Yes	yes	Yes
Kit for donor blood transfusion	No	Yes	No	No	Yes

## VI. Drugs

<b>Drugs as per list</b>					
Essential drug as per drug list	Yes	Yes	Yes	Yes	Yes
Life saving drugs including anti snake venom	Yes	Yes	Yes	Yes	Yes
Laboratory reagents including blood testing reagent (for diagnostic purpose)	Yes	Yes	Yes	Yes	Yes
Pediatrics drugs	Yes	Yes	Yes	Yes	Yes

## VII. Quality Control

<b>Particular</b>					
Citizen's charter	Yes	Yes	Yes	Yes	Yes

If Yes ,whether displayed properly(Yes/No)	Yes	Yes	Yes	Yes	Yes
Constitution of Rogi Kalyan Samiti	MRS	MRS	MRS	MRS	MRS
Internal monitoring (Social audit through Panchayati Raj Institution / Rogi Kalyan Samitis, medical audit, technical audit, economic audit, etc. (Specify)	MRS, medical and economical auditing	MRS, medical and economical auditing, PRI	MRS(bimonthly ), medical and economical auditing	MRS, medical and economical auditing	MRS, medical and economical auditing
External monitoring (Gradation by PRI (Zila Parishad)/ Rogi Kalyan Samitis	MRS	CMHO, block CMHO, local MLA	MRS	PRI, MRS	MRS
Availability of Standard Operating Procedures (SOP) / Standard Treatment Protocols (STP)/ Guidelines (Please provide a list)	No	Yes	Yes	No	Yes

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gsrq ejht dh larqf"V dks tkuus ds fy, iz'ukoyh**

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3- D;k HkrhZ gksus ds rqjUr ckn vkidks LokLF; lqfo/kk iznku dh xbZ\    
ugh

4- D;k vkidks fuEu lsok,a feyh\

Ø-la	lsok,a	fnu		jkr		foyac					mi;ksx ugh fd;k
v	fuEu dh miyC/krk	g k a	ugh	gk a	ugh	rqj ar	10&1 5 feuv	15&3 0 feuv	vk/ks ls ,d ?kaVk	,d ls nks ?kaV s	
I.	MkWDVj										
II.	ulZ										
III.	ySc VDuhf'k;u										
IV.	jftLV <sup>as</sup> 'ku dkamVj LVkWQ										
V.	nokbZ;ka										
VI.	[kwu p<+kuk										
VII.	[kkus dh O;oLFkk										
c	tkpa lqfo/kk,sa										
I.	[kwu tkap										
II.	ew= tkap										

III.	xHkZorh tkap										
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	lqfo/kk,sa	v- larq"V	c- Bhd&Bkd	l- vlarq"V	vlarq"Vrk dk dkj.k
1-	bejtsalh				
2-	iz;ksx'kkyk tkp				
3-	,Dljsa				
4-	vkWijs'ku fFk;sVj				
5-	nokbZ;ka				

6- vkids izfr fuEu dk O;ogkj dSlk gSa\

		v- vPNk	c- Bhd&Bkd	l- [kjc
1-	MkWDVj			
2-	ulZ			
3-	jftLVªs'ku dkamVj LVkWQ			
4-	rduhf'k;u			
5-	QkesZfLkLV			

7- D;k mipkj ds nksjku vkidh xksiuh;rk dk /;ku j[kk x;k\

gkW u

8- D;k MkWDVj j[kk tkpa ds nksjku efgy ulZ mifLFkr Fkh\

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	lqfo/kk,sa	gkW	ugh
1-	'kkjhfd tkpa		
2-	iks"k.k ,oa foVkfeu		
3-	vU; ¼Li"V djsa		

6- D;k fMyhojh ds le; vkids tfVyrk gqbZ Fkh\

gkW ug

7- ;fn gkW] rks D;k vkidks 'kh?kz lqfo/kk iznku dh x;h Fkh\ gkW  ugh

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9- ;fn gka] rks D;k vkidks 'kh?kz [kwu dh lqfo/kk iznku dh xbZ Fkh\

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v- 1&2 fnu  c- 2&4 fnu  4&7 fnu  n- 7 ls vf/kd

; - lqfo/kk iznku  dh xbZ@nwjls vLirky esa jSQj fd;k x;k

11- D;k vkidks fuEu ds fy, ijke'kZ lqfo/kk nh x;h\

	ijke'kZ lqfo/kk	gkW	ugh
1	RTI/STI		
2	ifjokj fu;kstu		
3	uotkr dh ns[kHkky		
4	izloksÙkj ns[kHkky @ izloksÙkj tfVyrk ds fy, ijke'kZ (bleeding, eclampsia, anemia, haemorrhage, etc)		

**uotkr dh ns[kHkky ds fy, ¼uotkr ds ekrk@firk@ns[kHkky dÙkkZ ls iwNsa tk;sxa½**

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		gkW	ugh
1	Lruiku djokuk		
2	'kkjhfd tka@otu ukiuk		
3	cPpsa dks xeZ j[kuk		
4	cPpsa dh IQkbZ djuk		
5	xHkZuky dh ns[kHkky		
6	vU; ¼Li"V djsa½ -----		

2- D;k uotkr ds iSnk gksus ds ckn fuEu esa ls dksbZ leL;k Fkh\

	leL;k	gkW	ugh
1	otu de gksuk ¼ fdruk otu Fkk½		
2	laØe.k gksuk ¼cq[kkj vkuk] Ropk dk jax uhyk&ihyk iM+uk½		
3	'okl ysus esa dfBukbZ gksuk		
4	le; iwoZ tUe gksuk		

5	vU; ¼Li"V djsa½ -----
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3- ;fn leL;k Fkh rks D;k Sick Newborn care unit esa HkrhZ fd;k x;k Fkk\ gkV  ugh

4- D;k uotkr dks fn;s x;s mipkj ls vki larq"V gSa\

v- larq"V  c- Bhd&Bkd  l- vlarq"V