DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
AND
MINISTRY OF HEALTH AND FAMILY WELFARE

ACCREDITATION OF PUBLIC HEALTH FACILITIES

EVALUATING THE IMPACT OF THE INITIATIVES TAKEN ON IMPROVING SERVICE DELIVERY, DOCUMENTING THE CHALLENGES AND SUCCESSFUL PRACTICES.

FINAL REPORT

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SUBMITTED BY

Deloitte.

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LIST OF ABBREVIATIONS USED	
ACMO	Assistant Chief Medical Officer
AERB	Atomic Energy Regulatory Board
AHA	Assistant Hospital Administrator
ASHA	Accredited Social Health Activist
ANM	Auxiliary Nurse Midwife
BEmONC	Basic Emergency Obstetric and Newborn Care
BMO	Block Medical Officer
BMW	Bio Medical Waste
BOR	Bed Occupancy Rate
CDMO	Chief District Medical Officer
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHC	Community Health Centre
DH	District Hospital
EAG	Empowered Action Group
FFHI	Family Friendly Hospital Initiative
GH	General Hospital
HEPA	High-Efficiency Particulate Air
HMIS	Hospital Information Management System
HUD	Health Unit District
IPHS	Indian Public Health Standards
ISO	International Organization for Standardization
LAMA	Leave Against Medical Advice
LSCS	Lower Segment Caesarean Section
MO	Medical Officer
MOIC	Medical Officer In charge
MoU	Memorandum of Understanding
NABH	National Accreditation Board for Hospitals and Healthcare Providers
NHSRC	National Health Systems Resource Centre
NRHM	National Rural Health Mission
OPD	Out Patient Department
PHC	Primary Health Centre
PIP	Project Implementation Plan
PNDT	Pre-Natal Diagnostic Techniques
QCI	Quality Council of India
QMS	Quality Management Systems
RCH	Reproductive and Child Health
RH	Referral Hospital
RKS	Rogi Kalyan Samiti
RMO	Residential Medical Officer
SDH	Sub-District Hospital
SOP	Standard Operating Procedure

SECTION I: INTRODUCTION

Introduction

1. Reproductive and Child Health, Phase II (RCH II), is a comprehensive sector wide programme, under the National Rural Health Mission (NRHM). It seeks to achieve reduction in maternal and infant mortality and total fertility rates and reduce social and geographical disparities in accessing affordable and quality health care services to the rural population of the country. Deloitte Touche Tohmatsu India Private Limited has been working as the Technical Management and Support Agency for the program since April 2009.

2. The Ministry of Health and Family Welfare (MoHFW) has appointed Deloitte to carry out a study on "Accreditation of public health facilities – Evaluating the impact of the initiatives taken on improving service delivery, documenting the challenges and successful practices".

Background of the Study

3. As the demand for the public health services increases, so does the concern about the quality of service delivered. One of the goals of the NRHM is "*the availability of and access to quality health care by people, especially for those residing in rural areas, the poor, women and children*." The RCH II program also talks about the improvement in "*quality, coverage and effectiveness of existing FW services*."

4. Accreditation or certification of services is one of the widely accepted methods of quality improvement across different sectors, including healthcare, the world over. Various states across India are trying to improve the quality service at public health facilities by either accreditation or through certification. However, the pace of implementation of these programs has varied across states. While some of them, such a Gujarat and Tamil Nadu have made commendable headway on the initiative, other states, such as Jharkhand and Madhya Pradesh have faced a number of challenges.

5. The two of the most widely used standards are the National Accreditation Board for Hospitals and Healthcare Providers (NABH) (by the Quality Council of India) and ISO 9001:2008 (supported by the National Health Systems Resource Centre).

6. Set up in 2005 under the umbrella of the QCI, the NABH is aimed at creating and operating an accreditation program in the country. It is also an institutional member of the International Society for Quality in Healthcare (ISQua) since 2008. It has separate accreditation programs for Hospitals, Blood Banks, Small Healthcare Organisations, Clinics, etc. Till date, it has accredited 123 hospitals – both public and private (as of 28 March, 2012) across the country.

7. The NHSRC, created with quality improvement as one of its aims, has been in the process of adapting and implementing the ISO 9001:2008 – Quality Management System at government facilities at all levels across the country since 2008. It has successfully completed the certification of 74 facilities across various states (*as on 1st March 2012*).

8. Within the public health space, Gujarat leads the way for NABH implementation, with 1 DH, 2 Mental Hospitals, 1 CHC, and 10 PHCs already accredited and many more in the process. Tamil Nadu is a front runner when it comes to ISO certification, with 48 facilities already certified. Interestingly enough Tamil Nadu has gone in for implementation of both standards, with NABH being used for District and Sub-District/Taluk Hospitals and ISO for PHCs and Upgraded PHCs.

9. Keeping the various quality improvement initiatives in mind and the given diversity of standards, there is a need to undertake a comprehensive assessment of the process followed for accreditation/certification (including the standard chosen), the challenges faced and the best practices used to overcome them, and the impact of accreditation/certification on service delivery.

Scope of Work

10. The Scope of Work for the study as agreed upon with the MoHFW is as follows:

Accreditation of public health facilities – Evaluating the impact of the initiatives taken on improving service delivery, documenting the challenges and successful practices with an aim:

- To identify challenges faced by public health facilities across all levels (PHC, CHC, DH, SDH, etc.) in obtaining and maintaining accreditation (procedures, resource availability – human and financial, infrastructure, management/staff buy-in, etc.) across states
- To understand the methods used to overcome the challenges and learning thereof
- To assess the impact on service delivery at institutions where accreditation has been successfully completed and maintained
- To make actionable recommendations suggesting the way forward to enhance the chances of success - key action required at central/ state/ local administration/ unit level
- To document and share the successful practices/ processes through a national level dissemination

11. As part of the study four states, namely Gujarat, Tamil Nadu, Bihar, and Chhattisgarh have been chosen for conducting field visits. The states were chosen based on a number of factors including success of accreditation/certification programme (state should have at least 4-5 facilities that are either accredited or are in advanced stages of the process), initial state of facilities, experience with both NABH and ISO standards and geographic spread across the country. Gujarat and Tamil Nadu were chosen as they have shown the most progress in the accreditation/certification process. Also Tamil Nadu has made significant progress in the implementation of both NABH and ISO standards. Chhattisgarh and Bihar were chosen as they have comparatively faced more issues with the entire process and the state of facilities prior to accreditation/certification would be lower compared to Gujarat or Tamil Nadu. This sample would provide a more balanced view of what works in advanced states as well as resource constrained environments.

12. Within each state 3 to 4 selected facilities are being studied including PHC, CHC, DH or SDH. The selection criteria may include - location of facility, stage at accreditation, perceived impact/improvement on service delivery, etc.

13. The outcome of the study will be actionable recommendations backed by case studies of major challenges encountered and successful practices observed in obtaining and maintaining accreditation / quality certification at public health facilities to improve service delivery.

Assignment Deliverables

14. The key deliverables for the assignment are as follows:

i. Interim Report
ii. Draft Report and Presentation
iii. Final Report

15. The interim and draft reports for the study have already been shared with the MoHFW earlier for feedback and comment.

16. This document is the final report for the study and contains findings from the study, key issues and gaps, and recommendations, backed by analysis of various challenges faced and best practices identified from various field visits, for obtaining and maintaining accreditation/certification at public health facilities, and incorporates the feedback from the MoHFW on the draft report.

SECTION II: APPROACH AND METHODOLOGY

1. The following approach and methodology was used for the study.

Exhibit 1: Approach and Methodology

Desk Research & Preparation for Visits	Field Visits	Analysis and Recommendations
Secondary Research • Conduct research on quality in public facilities across various countries • Review of NABH standards, Guidelines on quality management system by NHSRC, sample gap analysis reports, action plans, MoUs, etc. • Review of state PIPs, and assessment reports on quality improvement initiatives elsewhere **Meeting with Central Agencies** • Meet with WHO, QCI, and NHSRC • Develop understanding of the two initiatives, and gain initial insights • Finalize States to be visited, and shortlist facilities to be visited **Preparation for field visits** • Detailed analysis of State Health websites, and other documents available in public domain • Development of questionnaires for various stakeholders • Finalization of list of people to be met in consultation with state authorities, and the actual list of facilities	**Field Visits** • Visit four states to gain insights into both NABH and ISO accreditation process • Discussions and meetings with relevant officials at state level (PS-Health, MD-NRHM, State Quality Cell, State program coordinator etc.) • Visit 3-4 facilities per state which are accredited with NABH/ISO or are undergoing the process • Discussions and meetings with relevant officials at facility level (District Quality officer, CDMO/BMO, Consultants, and Doctors etc.) • Collection of relevant documents and information at state and facility level • Information collected at state level – History of initiative, current status, timelines, expenditure, challenges and best practices, future plans, etc. • Information collected at facility level – documents related to accreditation (gap analysis and audits), action plans, HMIS data, etc. Also, a facility tour would be undertaken to assess the impact of accreditation and remaining gaps • Meeting with Staff and Patients to understand their views on the process, the outcome, and impact on service delivery	**Detailed Analysis** • Identification of overall best practices, shortcomings and challenges in the process of accreditation/certification • Financial analysis of NBAH accreditation and ISO certification process • Comparison of NABH and ISO Standards in terms of Structure, Process, and Outcomes • Detailed analysis of the quality policy followed by different states • Relevance of the standards in the context of public health facilities vis-à-vis private ones • Relevance of accreditation • Case studies based on facilities visited **Preparation of Draft Report** • Recommendations – containing changes that need to be made at an overall level, including policy changes and suggested roadmap, best practices at a state level, and inputs from similar programs from other countries **Feedback** • Feedback from MoHFW and DFID **Submission of Final Report** • Incorporation of feedback from Ministry and DFID in the final report

SECTION III: SUMMARY OF ACTIVITIES

1. A summary of the activities undertaken during the project is provided below.

2. The report contains an overview of quality in context of healthcare and a brief history of the various initiatives taken to improve quality of services delivered by public health facilities in India. The report presents the findings based on secondary research, central level meetings, and primary visits conducted across four states and analysis of documents collected there. These findings have been classified under sub categories of findings that affect the overall quality improvement programs at a national level, those that are quality standard specific, and those that are state specific. The report then lists down the issues and gaps identified during the visits followed by recommendations for the larger implementation of the program.

3. The report also contains, as appendices, an overview of the quality improvement standards and systems being used across states, namely NABH, ISO 9001:2008, and FFHI, brief profiles of the four states visited, reports on the facilities visited, and a list of people met during our visits.

SECTION IV: BACKGROUND ON QUALITY & PUBLIC HEALTHCARE IN INDIA

Quality in Healthcare

1. The Oxford Dictionary defines Quality as a "*degree of excellence of something*". In healthcare, quality has various definitions and varies between countries and stakeholders. The first accepted definition, put forth by Donabedian (1980) was to achieve maximum output possible given the inputs available while taking into account the expected gains and losses from the process.

2. Over the past couple of decades there has been an increasing demand globally for the need to assess and improve the quality of public health programs given their impact on overall status of public health. In context of a larger population and public health goals, the World Health Organization (2000) described quality in healthcare as "*the level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectations of the population.*"

3. A systems providing quality healthcare should be *safe, effective, patient-centric, timely, efficient,* and *equitable*.

4. Various concepts have been used across the world to help improve the service delivery in healthcare. The most prominent amongst them have been total quality management, continuous quality improvement, peer review, accreditation, and quality management systems. However, there is a need for creating a roadmap for quality improvement that optimizes the usage of resources, expand coverage, and provides the most impact on outcomes delivered by healthcare systems.

Attributes of Quality in Healthcare

5. Donabedian suggested a method of assessment of healthcare quality which contains three components: *structure*, *process*, and *outcome*.

a. ***Structure*** refers to the attributes of the setting in which care is provided including material resources, human resources, and organization structure.

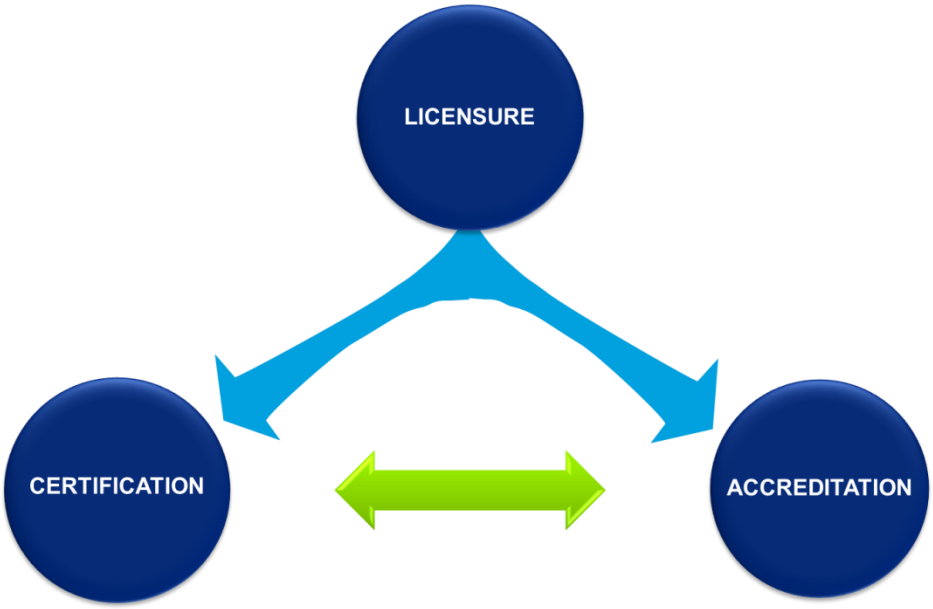
b. ***Process*** refers to the actual process of giving and receiving care. It includes activities of the patient seeking care as well as those of the caregivers.

c. ***Outcome*** refers to effects of the care provided on the health status of the patients and communities. Other than clinical outcomes, it also includes patient's knowledge of the health status and satisfaction with care provided.

6. The relationship between the three is often complex and indirect. However, it can be said that the presence of good structure aids the implementation of good processes, and the presence of good processes improves the chances of good outcomes.

Instruments to Regulate Quality

7. There are three main approaches used by governments and professional bodies to regulate the Quality of Care: *licensure, certification, and accreditation*. The approaches are not mutually exclusive and differ in the multiple aspects such as if they are mandatory or voluntary, and the assessment method used (Rooney and van Ostenberg, 1999).



a. **Licensing** – is a mandatory legal mechanism by which a government agency gives an (individual or) organisation permission to operate and provide healthcare services. It provides the government a tool to ensure basic safety of the public by establishing minimum standards for operating.

b. **Certification** – is a voluntary process by which an (individual or) organisation is evaluated by a recognized authority to determine if they meet pre-determined requirements to demonstrate competence in a specialty area.

c. **Accreditation** – is a voluntary process by which an (individual or) organisation is evaluated by a recognized accrediting agency to determine if they meet pre-established performance standard. By focusing on optimal, while still achievable, and not minimum requirements, accreditation encourages continuous quality improvement to achieve better quality.

8. Accreditation and certification are neither sequential nor mutually exclusive. For example, a facility might aim to achieve accreditation after being certified, or vice versa. Also, a facility might opt for both and the presence of one does not mandate or preclude it from aiming for the other. In fact, in some cases, certification might for the basis for accreditation. For example, some hospital accreditation standards require the certification of laboratories by ISO 15189:2007.

9. While licensing is a starting point for ensuring quality of health facilities, there remain significant gaps even in that area for public health facilities. Realising that a

large resource gap existed for public facilities, the central government framed the Indian Public Health Standards (IPHS) in 2006 and these were revised again in 2010. The IPHS lays out the essential and desirable requirements for services available, building, equipment, manpower, and drugs. It also includes sections on allied services, such laundry and waste management, quality assurance, monitoring, accountability, and the roles and responsibilities of various staff members. These standards are available for sub-centres, PHCs, CHCs, and hospitals with varying bed strength.

10. Notwithstanding this gap, a number of states have started on a quality improvement initiative, using either certification or accreditation as a means to improve quality of services at public health facilities. While NABH has been the standard of choice for accreditation, ISO 9001:2008 has been the accepted standard for certification.

History of Quality in Indian Public Healthcare

11. Quality in Healthcare came into focus with the launch of the RCH scheme in 1997, with one of its main objectives as improvement of quality. Around the same time, the Health Systems Development Project (HSDP) financed by the World Bank also tried to improve quality of services in District hospitals and community hospitals.

12. It was the Ninth Five Year Plan (1997-2002) that really brought quality into focus, and raised concern about the quality of services provided at public health centres. Similarly, the National Health Policy (2002) noted that the reach and quality of the public health services was below the desired standards.

13. The Tenth Five Year Plan (2002-2007) stated that one of its major focus areas was the improvement "*the efficiency of the existing health care system, **quality of care**, logistics of supplies of drugs and diagnostics and promotion of the rational use of drugs.*"

14. The National Rural Health Mission (2005) was launched with a mission goal "*to improve the availability of and **access to quality health care** by people, especially for those residing in rural areas, the poor, women and children*." It lays emphasis on strengthening of the CHCs and PHCs, and the codification of the Indian Public Health Standards for defining the minimum acceptable levels of infrastructure, staff, equipment, and services available.

15. Another watershed moment in the quality improvement initiative came in March 2005, when the Honourable Supreme Court, *in Ramakant Rai and Health Watch UP and Bihar vs the Union of India (Writ Petition (C) No 209 of 2003)*, directed all states to set up a quality assurance committee (QAC) at the state and district level. A mid-term review of the RCH II showed that while the QACs had been set up, they remained non-functional for the large part. Further, the review recommended the technical strengthening of the QAC and increasing its scope to cover other activities as well.

16. Finally, the Eleventh Five Year Plan (2007-2012) declared that the "*Development of uniform standards for infrastructure and service delivery*" would be a priority area.

Formation of NABH and NHSRC

17. The National Accreditation Board for Hospitals and Healthcare providers (NABH) was formed by the Quality Council of India (QCI) in 2005 it released the revised version of its standards in 2007. These standards were approved by International Society for Quality in Healthcare (ISQua) in 2008. The QCI signed the first MoU for implementation of NABH in public health facilities with the Government of Gujarat in 2007, and the General Hospital in Gandhinagar became the first public health facility to achieve NABH accreditation. Till date, 10 public hospitals and 10 PHCs have received NABH accreditation (on 30 September, 2012).

18. It was around the same time the National Health Systems Resource Centre (NHSRC) was setup under NRHM with one of its primary objectives as to facilitate Quality Improvement in Public Healthcare. A pilot project for Quality Management Systems through implementation of the ISO 9001:2008 standards in district hospitals in Empowered Action Group (EAG) states was started by NHSRC in April 2008. The District Hospital in Korba was the first public health facility to receive ISO 9001:2008 certification under the initiative. So far 21 DHs, 5 CHCs, and 48 PHCs have received the certification.

19. Another quality improvement initiative, supported by the NHSRC, is the Family Friendly Hospital Initiative (FFHI). However, this initiative is still in very early phases of evolution and so far no facility has been granted the FFHI certification.

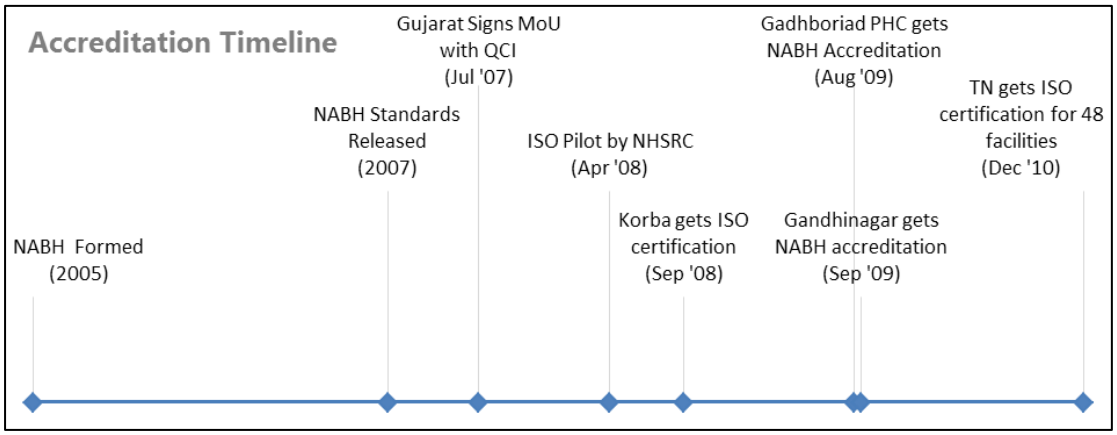
Facilitated Accreditation

20. The model of accreditation whereby the accrediting agency or another body, NABH and NHSRC in this case, assumes the responsibility of assisting a healthcare facility to undertake the quality improvement initiatives needed to achieve compliance with accreditation standards is known as ***facilitated accreditation***.

Accreditation of public health facilities in India

21. Gujarat was the first state to take up such an initiative and it signed a bipartite MoU with QCI for the NABH accreditation of 8 civil hospitals, 1 teaching hospital and 6 laboratories in July 2007. This agreement was expanded first in 2008 to include more hospitals and again in 2010 to include more facilities including mental hospitals. The state signed separate MoU in 2009 for creation of standards for CHCs and PHCs its and implementation in Gujarat. Similarly, the Government of Tamil Nadu and QCI signed an agreement in 2008 for support in implementation of NABH standards in 12 facilities.

22. Meanwhile, in April 2008 the NHSRC started a pilot program to get 8 facilities from the EAG states ISO certified. After the completion of this program, the NHSRC entered in a tri-partite agreement with the Government of Tamil Nadu for the implementation of ISO standards across 48 facilities. This has now been expanded to include 30 more facilities. The NHSRC now has similar agreement with the state governments in Maharashtra, West Bengal, Punjab, and others.



Current Status of Accreditation/Certification

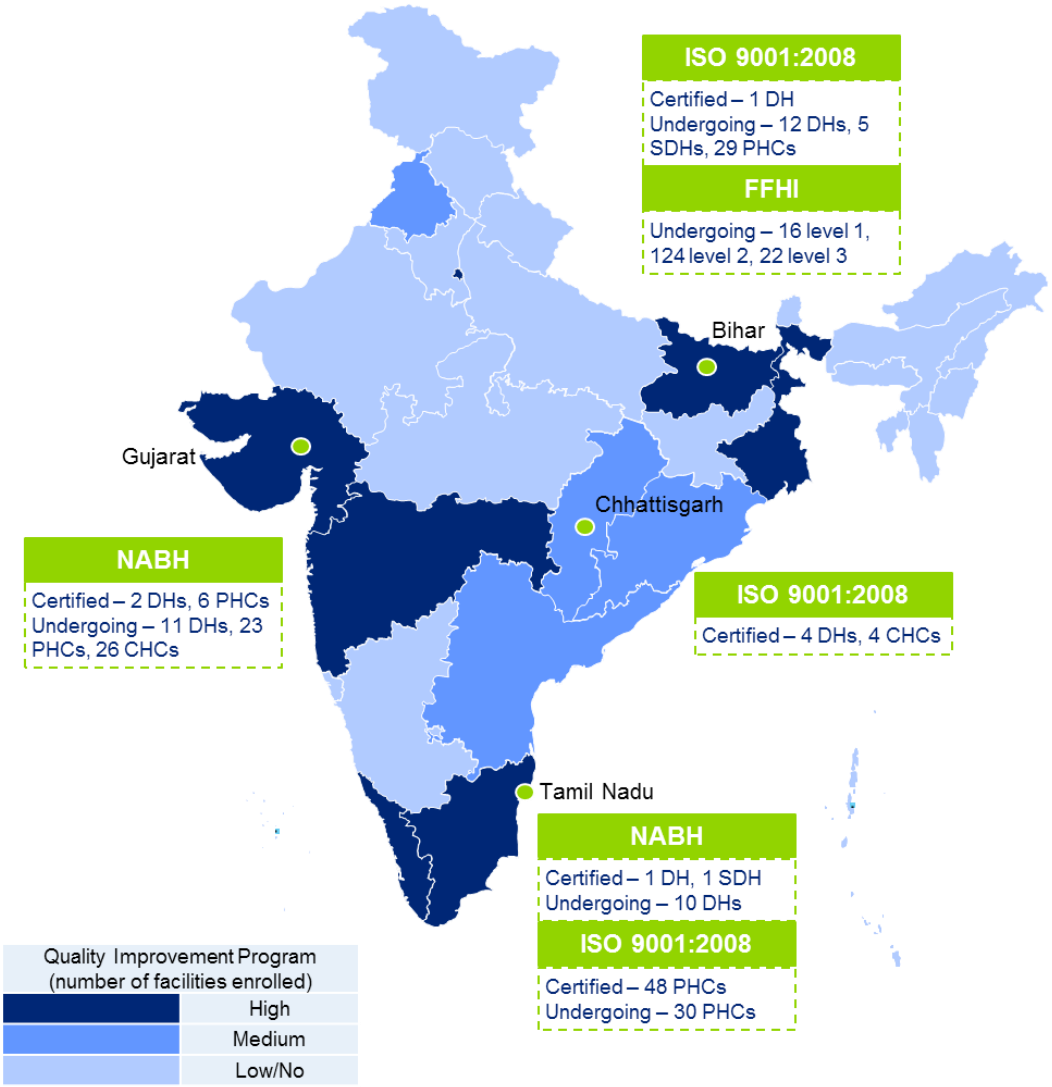
23. **Gujarat** – The State Government of Gujarat is carrying on with the process of quality improvement of hospitals through implementation of NABH standards. Further, the state has performed an analysis of the standard to identify elements that can be implemented across facilities without much investment and is implementing them across facilities, even if they are not seeking accreditation.

24. **Tamil Nadu** – The state has decided to take up two hospitals every year for getting NABH accreditation to manage appropriate funding. It has also decided to take up the ISO certification process for an additional 30 facilities. This will ensure that each health unit district (HUD) has a certified facility. These facilities will then provide handholding support to two facilities each for quality improvement without seeking certification. The state is also debating drafting its own standards for PHCs and Upgraded PHCs (equivalent to CHCs).

25. **Chhattisgarh –** The certification process is currently on hold in the state. The state is in process of setting up a Quality Cell and aims to restart the accreditation process in year 2013-14. Further, the state is considering trying out the implementation of NABH standards in the next phase.

26. **Bihar** – The state is currently undertaking the implementation of ISO and FFHI across various facilities. None of the facilities is current accredited, other than District Hospital in Ara which was certified during the ISO pilot.

27. **NABH Implementation in Other States** – Quite a few states are pursuing the NABH accreditation for their hospitals, especially secondary care facilities including Kerala, Delhi, and Punjab. However, a lot of states also realize that significant investments would be needed to get over the final hurdle, and are also thinking of alternatives. For example, Punjab is also experimenting with the implementation of ISO, while Kerala is setting up its own standards.



28. **ISO Implementation in Other States** – Some states are also pursuing the ISO standards in the meanwhile. The major ones (other than the ones mentioned above) include Maharashtra, Karnataka, West Bengal and Punjab. According to NHSRC, more than 450 healthcare facilities are currently implementing the ISO Quality Management Systems.

29. **FFHI Implementation in Other States** – The FFHI standard is being currently being implemented across multiple facilities in Jharkhand, Bihar, and Uttar Pradesh but it is yet to certify any facility.

SECTION V: POSITIVE IMPACT OF ACCREDITATION ON PUBLIC HEALTHCARE FACILITIES

1. This section contains findings on the positive impact that the quality improvement initiatives have had on the public healthcare programs and facilities.

2. Overall at the state level quality initiatives have shown that accreditation of public health facilities is feasible and has made the officials focus on improving quality of services delivered. Meanwhile, the facilities undergoing accreditation have shown improvement in most areas and an improved public perception of the facility has led to increased usage.

Positive Impact of Accreditation

3. **Achievement of Accreditation/Certification of Public Health Facilities is feasible though it was considered very difficult at the onset**

The most important outcome of the various quality initiatives is the fact that, given adequate resources and proper attention, public health facilities can achieve a significant improvement in quality and comply with even the most difficult of standards.

When the states initially embarked on the quality improvement initiatives either through NABH accreditation or through ISO certification there were huge doubts regarding the success of any such initiative.

However, in September 2008, the District Hospital in Korba became the first ISO 9001:2000 (ISO 9001:2008) certified public health facility. Similarly, the General Hospital in Gandhinagar became the first public health facility to be accredited by NABH in September 2009. Though the overall numbers are not very large but a few more facilities have achieved accreditation and many more are undertaking this initiative (details in the following table – as on 30 September 2012).

	NABH		ISO 9001:2008	
	Accredited	On-going	Accredited	On-going
Number of facilities	23	50	81	446

The issues of scalability and sustainability of the initiative aside, these achievements have instilled in the states a belief that quality services, comparable to those delivered at any world class private facilities, can be delivered at public health facilities.

Further, some of these facilities have since undergone surveillance and completed re-certification indicating examples that such improvements are sustainable

4. **Accreditation/certification has led to increased awareness of state officials about quality and increased focus on non-accredited facilities as well**

Overall, one of the biggest benefits of the accreditation process has been that it has got some of the state government officials thinking about improving healthcare quality delivered at public facilities.

In absence of any national policy or guidelines, before the accreditation drive, very few states had any initiative on quality improvement in healthcare. However, once they start working towards accreditation of a few facilities, they start thinking about ways of improving quality at other facilities as well.

Most states start off with one or two facilities but then quickly ramp up the quality improvement programs. They set up internal quality teams that look after these programs and provide them with appropriate support needed. For example, Bihar started off with the FFHI certification of just one facility but quickly saw the merit in it and has expanded it to more than 150 facilities now.

Another positive spill over effect of accreditation is that the state starts thinking of improving quality in facilities that are not undergoing accreditation. Due to resource constraints, the state might not opt for getting accreditation for all facilities, but the officials are now thinking about implementing certain elements of quality improvement processes at facilities not undergoing accreditation.

> *In Gujarat, the Quality Cell has analysed the NABH standards and identified elements that can be implemented at all facilities without any significant investment. Also, they have created a list of key licensing gaps, and have asked all facilities to start working towards closing them even before starting the accreditation process.*

5. **Facilities that have undertaken Accreditation/Certification have shown improvement in licensing compliance, infrastructure, and human resources**

Significant gaps exist in public healthcare facilities, be it in infrastructure, human resources, or process related requirements. However, most facilities undertaking accreditation initiatives have made some impressive gains and managed to address a lot of these requirements.

Improved compliance of licensing and regulatory requirements

Most public health facilities do not meet a number of licensing requirements. One of the key requirements of both NABH and ISO is that the facility undergoing should get all the requisite regulatory clearances including fire safety clearance, and AERB certification, without which they do not get accredited.

Most accredited facilities have either met regulatory requirements or have completed the ground work and applied for the clearances.

Accredited facilities show improvement in infrastructure and medical equipment

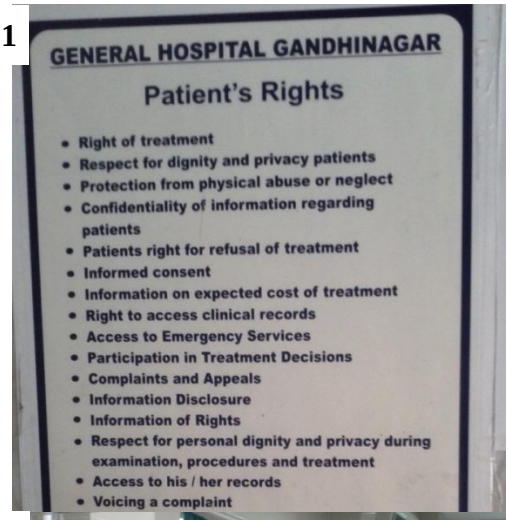
A large percentage of public healthcare facilities function out of old and dilapidated buildings and a number of medical equipment is either missing or not functioning properly.

The facilities undergoing accreditation undertake a major improvement of the infrastructure and equipment. Major renovation work is undertaken to improve infrastructure including cleaning, painting, removing water seepage, building ramps, etc. Also, most of the existing equipment is repaired, calibrated, and brought to functional state and new equipment is also purchased based on the need.

These improvements help in improving service delivery and accessibility. Most accredited facilities are in good condition, clean, well lit, and have working equipment. They also have patient friendly facilities such as:

1. Seating arrangement in waiting area
2. Rain and sun shelters
3. Display information for patients, such as services provided and patient rights
4. Signages are installed for easy navigation of the facility

1



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3

4

1 Display of patient's rights in GH Gandhinagar, Gujarat
2 Colour Coding for Linen followed at DH Aurangabad, Bihar
3 Newly Built NICU at DH Durg, Chhattisgarh
4 Mechanical Laundry at GH Sholingur, Tamil Nadu

Increased availability of human resources improves service delivery

One of the largest gaps in public health facilities is the availability of human resources. Most facilities, depending on their level, have less than the optimum number of doctors, nurses, and non-clinical staff.

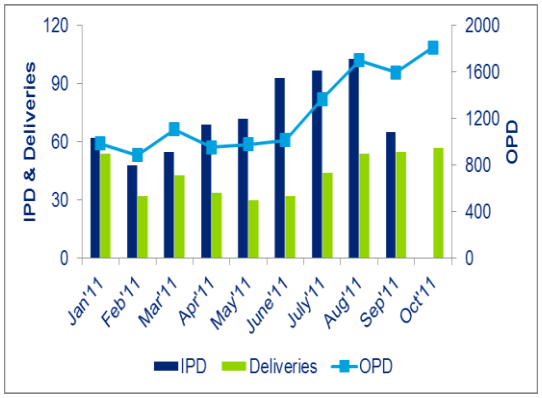
Accredited facilities have been able to close most of the human resources gaps, either through transfer of staff from other facilities, contractual hiring, or by engaging external practitioners on a per case basis, and this has improved the facility's ability to deliver quality services.

6. **Patients' perception about the facilities has improved and it has led to increased usage of facilities**

The various quality improvement initiatives at facilities have had a positive impact on the perception of the public about the facility in general. Most patients interviewed talked about improvements in the hospital such as improvement in cleanliness, and availability of doctors and medicines. People visit accredited facilities from distant places as they are perceived to be providing better care.

This positive perception has improved the usage of the facility in most places. Patient volumes indicators (both IPD and OPD) across most facilities visited were found to have increased significantly since the facility undertook the quality improvement initiative.

For example, the IPD and OPD volumes in Godhra, Gujarat increased by over 25% from pre-accreditation levels while the number of deliveries nearly doubled after it undertook accreditation. However, these numbers declined again (though still above initial figures) when some of the specialists left the facility. A couple of other similar examples from Gujarat and Bihar are mentioned below.



PHC, Salun, Nadiad, Gujarat

Referral Hospital, Sonepur, Bihar

7. **Accreditation is a source of pride and motivation for the facility staff**

Most of the staff members, both clinical and non-clinical, were extremely proud and motivated about the accreditation process.

Most staff members initially had fears of increased work load or of being found inadequate at handling the new roles. However, the experience with the process proved that they were able to perform more effectively and efficiently due to

improved resources, processes, and trainings leading to increased job satisfaction. Staff members also described how positive patient feedback helped improve their morale.

A sense of pride at being amongst the few accredited facilities was clearly noticeable. Visits by delegations from other facilities and meetings to share their experience with their colleagues serve as a platform for the staff members to exhibit their achievements.

Evolution of accreditation standards and suitability for use in public health facilities

The section below highlights how the various accreditation standards have evolved and improved over the last few years. A brief overview of the standards and their strengths with respect to public facilities are also discussed.

1. **Accreditation standards have evolved over time and tried to adapt to needs of a public healthcare facility**

NABH was the first available standard to be used for quality improvement but it was largely designed for private facilities. Over time, the NHSRC adapted the ISO standards for use in public healthcare facilities. Later, the FFHI standards were framed by NHSRC with a focus on maternal and child health services, the key focus area of most primary public health facilities.

However, the standards themselves, be it NABH, ISO, or FFHI, have evolved rapidly over time and started integrating the knowledge gained through implementation at various places.

The NABH standards currently used are the second version and the third is already available as a draft. Further, it has recently released a separate set of standards for CHCs and PHCs, and even though they might need some more adaptation, it is a step in the right direction.

Similarly, the NHSRC initially used the ISO 9001:2008 standards directly with some additions for healthcare. However, learning from its experience it has made a number of changes. The NHSRC has added a number of new clinical and administrative procedures to increase the scope in a public health facility, and is now working on a list of minimum requirements for the certification process.

Finally, the FFHI was framed for public health facilities with a focus on maternal and child health services and is still evolving based on the experience gained for implementing it.

Detailed profiles of the three accreditation standards are provided in the appendices and a brief summary highlighting the positive impact on public healthcare facilities is provided below.

2. NABH – a credible and process focused standard which is still evolving to adapt to the needs of public health facilities

The NABH accreditation was developed by the QCI and is generally associated with private facilities, is resource intensive, and is perceived to be very difficult to achieve. Because of these issues, there is a certain aura associated with it, and it is the current gold standard that states aim to achieve.

Built for healthcare facilities and focuses on processes as well
NABH was created for accreditation of hospitals and includes most of the elements (both structural and procedural) needed to deliver quality healthcare services. Any facility going for NABH accreditation not only has to comply with all licensing requirements which are mostly structural, they also need to improve their processes a great deal. This brings about a lot of improvement in the facility and its services.

Significant improvement shown in public facilities undergoing NABH accreditation
The facilities that have achieved NABH accreditation or are in the process of getting it have shown some significant improvement in almost all aspects of service delivery.

The hospitals were generally clean and well managed, had proper waiting areas, were easily navigable, and delivered quality care. A number of economically well-off patients were found using these facilities, as they believed that the facility provided quality of care equal to that delivered at private facilities.

It has started adapting to public healthcare needs but still some distance to go
NABH started as a standard for private facilities and it did not have the flexibility needed for use in a public setting. They have now recognized this and have released a version of NABH for PHCs and CHCs.

These are only initial steps and NABH needs to go a long way to fully incorporate the needs of public health facilities in its standards.

3. ISO 9001:2008 – a widely accepted and flexible standard

The ISO 9001:2008 standards were initially framed for the manufacturing industry and later adapted for service industry. The NHSRC adapted the standards for public healthcare facilities and have already released in 2011 an updated version of their implementation handbook on "*Quality Management in Public Health Facilities*".

It has gained wide acceptance amongst states
Due to its flexibility and being less resource intensive than NABH, the ISO standard has gained higher adoption. States perceive it as a good starting point and more achievable in with limited resources.

More and more states have approached the NHSRC to start the ISO certification programs in their state, and it is undertaking the certification process across 8 states in more than 450 facilities.

It provides a lot of flexibility

The ISO standard is quite flexible and the NHSRC version of it has rapidly evolved to include a number of extra elements according to public healthcare requirements. These are based on the resources available and the services generally provided at the facilities. Also, the same set of standard can be used for certification across different level of facilities.

4. **FFHI – Clear and level based requirements, and focus on trainings**

The FFHI standards were drafted to address quality improvement in maternal and child health (MCH) services provided by different level of facilities.

From a requirement perspective, the FFHI standard is almost a subset of the requirements drafted for the ISO 9001:2008 (as adapted by NHSRC). However, it also includes a number of requirements on skills that are necessary for delivering services envisaged and specifies the trainings that need to be conducted to build those.

The FFHI provides clearly defined requirements in terms of physical infrastructure needed (and its condition), equipment, manpower, and supplies for various level of facilities. These requirements are tiered and based on the level of the services delivered at the facility. Each higher level includes requirements of the level below it and adds some more elements to it.

The FFHI also includes objective elements on service guarantee, the skills that staff members should have, and the trainings they should have undergone. The NHSRC has also set up, with the help of donor agencies a "*Skill Lab*" that conducts the various trainings that are a part of the standard.

The FFHI standards have recently attracted a lot of engagement with governments, especially those in resource constrained environments, because of its focus on training and the high priority of MCH services for most states.

5. **Accreditation provides a good beginning but the execution can be improved**

The various quality improvement initiatives across states are a good beginning. Public healthcare facility faces multiple issues before they can even start working on improving quality of processes, and these initiatives serve as a good starting point to addressing many of them.

Accreditation/certification initiatives provide a tool for addressing these licensing gaps along with many others issues related to human resource, process improvements, infrastructural improvements, etc.

However, the implementation of these initiatives has been haphazard at best and can definitely improve. Some of the key issues that the state face while implementing such programs are discussed in section VII.

SECTION VI: KEY ISSUES & GAPS

1. This section provides an overview of the key gaps and issues identified during the study. These issues have been grouped under three broad heads as given below.

a. Policy, Financial and Human Resources issues impacting accreditation programs
b. Specific accreditation standards related issues
c. Implementation issues at various states and facilities undergoing accreditation

Policy, Financial and Human Resources issues impacting accreditation programs

2. **Multiple initiatives across different states with limited success has created confusion**

In the absence of a comprehensive national policy on quality in healthcare (also, very few states have a quality policy for healthcare), a number of states have gone about implementing quality improvement initiatives with varying levels of success. These initiatives, while commendable, have only increased the overall confusion as different states have moved in circles in their approach for implementation according to their own understanding.

Duplication of effort in reinventing the wheel
Rather than learning from other states' experience, states go through the entire process all over again. They spend a lot of time and effort in understanding the standards, picking one that suits their needs, and moving forward with implementation. With time and difficulty in achieving certification states change their focus on accreditation and then move to a different standard for un-accredited facilities.

Multiple quality initiatives undertaken without synergy amongst them
So far the experiences of states that have undertaken quality initiative programs indicate a trial and error approach. Some states that started with NABH are now evaluating other options such as ISO or an indigenously developed standard (for e.g., Kerala) while some others that started with ISO now want to adopt NABH despite it being more resource intensive (for e.g., Chhattisgarh) and without fully realizing the requirements of the standard. In Tamil Nadu, two separate health directorates manage the implementation of two different standards (ISO and NABH) without exploring the synergies that can be gained.

Scalability and sustainability issues have given rise to demand for state specific standards
While it has been established that public health facilities can get accredited, the resources needed and the expected timelines have led to more than one state questioning the ability to scale up and sustain such programs. These states are exploring the option of drafting their own standards. Some experts feel that such a step might dilute the entire accreditation initiative.

The states that have not been front runners in accreditation are confused on the best possible approach to initiate the process. The root cause for such confusion is an absence of a national policy or a guiding document which can help the states towards achieving their quality improvement goals in a step by step manner.

3. Financial Issues

Lack of adequate funding and monitoring of spending is another key issue. States often struggle for providing financial support for the facilities undergoing the process as well as support after achieving certification.

Limited availability of funding

A number of states embarked on ambitious plans of getting many facilities accredited very quickly. However, given the scale of gaps that exist, the process of accreditation is highly expensive and resource intensive. These states have realized that they can't afford to focus on multiple facilities at the same time and have scaled down their goals.

> *For example, Gujarat started off on the process of getting NABH accreditation for 21 hospitals (including mental, dental, paraplegia, and district hospital) in 2007. However, so far, only two hospitals have attained accreditation. Similarly, Tamil Nadu started on the process of NABH accreditation of 12 facilities in 2008. So far, only two facilities have been accredited and the state has decided to focus on only two facilities each year given the financial resources needed.*

Lack of granular tracking of expenditure

The lack of structured and granular recording of expenditure has led to lack of clarity in understanding of financial requirements for accreditation. States have not separated the money spent on accreditation as money used to close gaps arising from licensing requirements and that used to address the accreditation related requirements. Therefore, it is difficult to arrive at an estimate of actual amount of funds required for accreditation.

Lack of clarity on source of funding and use of untied and RKS funds

Most facilities are not aware of the specific heads for funds to close various gaps pointed by accreditation requirements. This leads to delays in approval and release of funds which in turn delays the accreditation process.

A lot of facilities utilized untied and RKS funds for accreditation related expenditure. It becomes difficult to reconcile these at a later stage. Facilities which have spent money from such sources are now waiting for government for reimbursement.

> *For example, the accreditation process in the General Hospital in Godhra is held up because the funds needed to close some key gaps (Operation Theatre and Air Handling Unit) have not yet been released. Similarly, in Chhattisgarh, facilities have not been reimbursed the money used from RKS funds for the certification process.*

No allocation for increased expenditure due to increased patient load
Most facilities see a rise in facility usage post accreditation which increases their operating expenditure. Implementation of certain processes impacts the use of consumables such as gloves, patient tags, cleaning material etc. However, this increase in expenditure is often not taken in to account and the annual budgets of these facilities remain close to the pre-accreditation levels. This makes it difficult for the facilities to sustain the improvements over a longer period of time.

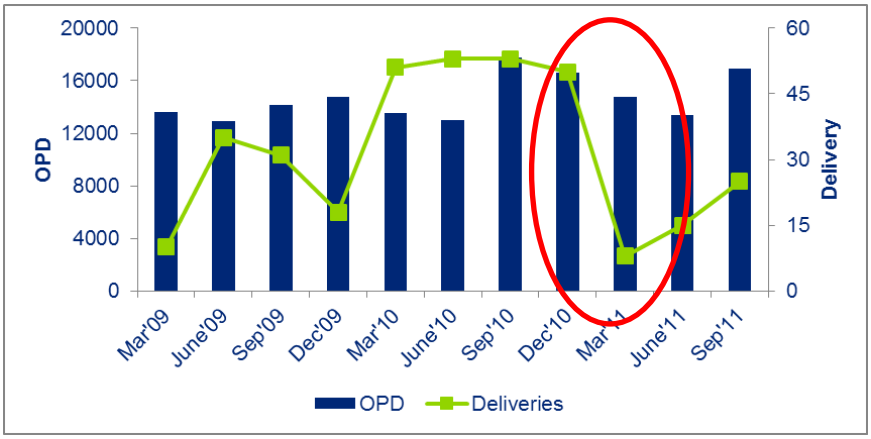
4. **Shortage of human resources impacts both the availability as well as quality of services availability**

One of the biggest issues is closing human resource related gaps that exist at all levels across facilities and states. More than 20% of the sanctioned positions for doctors at PHCs are vacant across India, and the situation worsens when it comes number of specialists at CHCs and DHs.

These gaps arise from multiple reasons such as lower than required number of doctors, low salary levels in government jobs, the absence of permanent positions, and the unwillingness of doctors to be posted in rural areas.

Lack of doctors hurts implementation both at facility and state level
The lack of human resources is one of the key stumbling blocks. Accreditation of a few facilities can be achieved through transfers and reallocation during the accreditation process, but quality drops when the manpower gets transferred again.

> *For example, the number of deliveries at the General Hospital in Godhra from less than 15 in March 2009 to more than 50 in December 2010 when the accreditation process started and a gynaecologist was positioned at the facility. However, the gynaecologist left in January 2011, and the number of deliveries went down again to older levels.*



There is a drop in number of deliveries at GH, Godhra when no Gynaecologist was available

Also, given the overall shortfall at the state level, only a few facilities can achieve accreditation since there will always be a shortage of manpower at some facilities.

Large portion of accreditation budget spent of human resources
A large portion of the accreditation budget is spent on paying salaries and being a recurring expenditure, this inflates the entire accreditation budget.

According to an estimate by Gujarat government (PIP 2011), 62% of the cost of accreditation for a DH is spent on manpower, which is a recurring expenditure. In fact, in Nadiad General Hospital, 67% of the money spent for NABH accreditation was spent on hiring contractual manpower, most of them specialists.

5. **Suboptimal deployment of human resources, high transfer rates, and management of redundancies created by outsourcing**

Apart from the general lack of manpower, there is also an issue with proper allocation of human resource, high transfer rates, and management of redundancies created by the outsourcing of services.

Suboptimal deployment of resources

The lack of adequate and appropriate human resources is further compounded by the improper deployment of human resources. A number of specialists are deployed in primary facilities as MOs where the utility of specialists is limited by the available infrastructure, while the secondary and tertiary facilities face a lack of specialists.

In Chhattisgarh, post graduate doctors (specialists) were posted to PHCs as Medical Officers, while district hospitals suffered from the lack of adequate number of specialists. Similarly, in Tamil Nadu, an upgraded PHC had gynaecologists, anaesthesiologists, and paediatricians and performed elective LSCS surgeries while a close by Taluk Hospital had to be downgraded from being a designated First Referral Unit because of the lack of some of these specialists.

High transfer rates

One of the observations made was that facilities that had relatively lesser number of transfers during or after the accreditation process were able to handle the process much better than those that saw frequent changes. Momentum is lost when some key member of the implementation team leaves. Situations where key members involved in the quality improvement process leave even after the accreditation process is completed; the sustainability of the improvement suffers.

Redundancies created by outsourcing not managed appropriately

Outsourcing of services has resulted in a number of full-time staff at the facility becoming redundant and facilities have not figured out a way of utilising their services.

For example, in Bihar the diagnostic technicians at facilities have become redundant after the outsourcing of diagnostic services, and now have no day to day tasks. They are being used by facility administration to complete other tasks such as managing stores and pharmacies without proper knowledge or training.

Such deployment of redundant staff on other specialized tasks might impact quality of services provided as they are not trained to perform those tasks.

6. **Low motivation levels of facility staff**

More often than not the process is driven from the state level authorities and senior facility management and there is very little buy-in from the facility staff. Most of them have fears of accreditation being an assessment of their abilities and increasing their work load. Moreover, the lack of any incentives on accreditation does not help.

This tends to make the process more difficult as the staff is not motivated enough to go the extra distance needed for successful implementation.

Issues related to accreditation standards (NABH, ISO, and FFHI)

7. **Lack of Standard Interpretation of Requirements & Survey Methodology for Assessors**

There is a huge variance in the interpretation of standards by consultants, hospital authorities, and the assessors. Assessment of facilities was not uniform as certain gaps were pointed out in a few facilities and not in others. Also, while a number of processes existed on paper, they are indications that these are practiced only during survey visits and discontinued in normal working.

> *For example, a number of ISO certified facilities were found to have more than one operating table in the Operation Theatre which would violate most clinical and standard guidelines. However, these facilities were still awarded certification with this gap not even being noted during certification visit. Similarly, different assessors had different interpretation of the Operation Theatre air flow requirements for NABH at Sholingur and this led to the accreditation getting delayed by almost six months.*
>
> *Another example is medication safety. It is recognized world-wide that medication errors account for more than 60% of all adverse events in healthcare settings. Both ISO certified and NABH certified facilities had inappropriate medication storage that would render the medication unusable, prone to errors when taking out medication, prone to error of wrong dosage, wrong patient, and wrong administration.*

Both ISO and NABH certified facilities had several issues regarding the safety of occupants, especially with regards to fire safety.

Issues related to NABH accreditation

8. **The standard is too resource intensive for public health facilities**

The NABH requirements are very stringent, resource intensive, and sometimes not feasible to meet in context of a public health facility.

Few requirements account for most of the budget

Some of the requirements of NABH, such as those for operation theatre including air handling units and HEPA filters, are very costly. It may not be feasible to implement these across all public facilities given the quantum of investments required.

Large and recurring manpower cost

Another large gap in NABH is the manpower requirements for a facility. These requirements are based on the recommendations in the IPHS and are often too many for a facility to meet, especially at a CHC level. Even if they are met, they place a large operating expenditure burden on the facility.

> *According to a Gujarat government estimate, ₹80 lakhs was budgeted (on average) per annum to cover contractual staff salaries at a District Hospital level. This is around two thirds (67%) of the overall accreditation budget for a year and around 90% of the recurring cost post-accreditation. While the requirements are much lower at a CHCs and PHCs at ₹3 lakhs and ₹1.5 lakhs respectively, they still represent more than 90% of the recurring expenditure.*

9. **A lot of unnecessary expenditure being done in the name of accreditation**

One of the issues with the quality improvement initiative is that a number of facilities go overboard with spending and try to put into place infrastructure that might not be required by the quality standard.

> *For example, while the gap analysis report for General Hospital in Nadiad (Gujarat) estimated a one-time expenditure of ₹1.4 Crores on infrastructure and equipment, the actual expenditure is much more. The facility has already spent close to ₹85.5 lakhs (between April 2008 and September 2011) on such activities, and this does not include ₹2 Crores the facility wants to spend on a new modular operation theatre and department of microbiology.*

This often leads to high cost overruns and makes the accreditation process seem too expensive for a public facility.

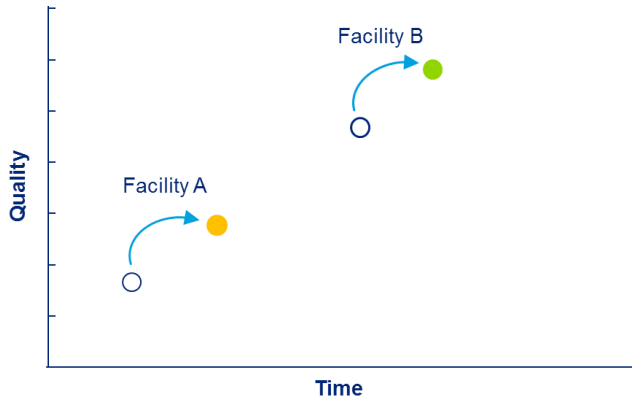
Issues related to ISO 9001:2008 certification

10. **Lack of minimum requirements might impact improvement in quality and reduces homogeneity**

One of the biggest benefits of the ISO 9001:2008 certification is the flexibility it provides. Unfortunately, this flexibility is also a major weakness.

The basis of certification is that all certified facilities "*meet **predetermined standards** designated to improve quality of care*." Allowing the facility to define its own quality policy and objectives of certification might impact the quality of the service provided, and the improved status might be below desirable levels.

In the hypothetical representation below, both Facility A and B have shown improvements and would get ISO certification even though there might be a large difference in the quality of services offered by them.



There was vast variation in the quality of services provided between the various ISO certified facilities visited across states, as well as those within the same state.

> *For example, in Tamil Nadu, while the Banavaram and Medavakkam Upgraded PHCs had good infrastructure and patient facilities, the PHC in Pozichalur still faces a number of problems despite being ISO certified. One of the quality objectives in Medvakkam was to improve Bed Occupancy Rate from 75% to 90%, while the same objective in Pozhichalur was to improve it from 30% to 40%.*

Issues related to FFHI certification

11. **The scope of FFHI is too narrow for implementation at higher facilities and it needs to build credibility and acceptance**

The focus of FFHI is only maternal and child related services. This helps in implementation at a sub-centre or a PHC where the range of services provided are generally restricted to these areas. However, given the scope of services to be provided at higher facilities, the standard becomes too narrow to achieve overall quality improvement.

Further, the FFHI standard is still in its infancy and has a long way to go before its gains credibility. FFHI leaves it up to the state to form an assessing and certifying agency. This lack of an independent assessing and certifying body reduces the overall validity of the standard creates a large conflict of interest with the state assessing and certifying its own facilities.

Implementation related issues

12. **The accreditation process takes too long**

The entire accreditation process, especially for NABH, gets too stretched at time due to shift in focus or priority of officials, lack of funding, and closing major gaps, such as human resource vacancies.

> *The General Hospital in Gandhinagar took almost 2.5 years to get accredited while some others, like General Hospital in Godhara, are still finding it difficult to close certain gaps even after 4 years. Similarly, it took the General Hospital in Sholingur more than 3 years to achieve accreditation.*

Some infrastructural and compliance requirements need more time
Some specific requirements of the standards contribute to the overall stretching of timelines. This includes renovation of the facility and new buildings/areas to be constructed and regulatory requirements. These are typically outside the control of the facilities, often requiring significant changes, and the delay causes the motivation of the staff to slip and focus reduces.

> *For example, the approval of X-Ray machines by the AERB under the Atomic Energy Act (required by both NABH and ISO) takes a long time to be processed. Similarly, meeting the Operation Theatre requirements of NABH along with air handling units takes longer time to close than others.*

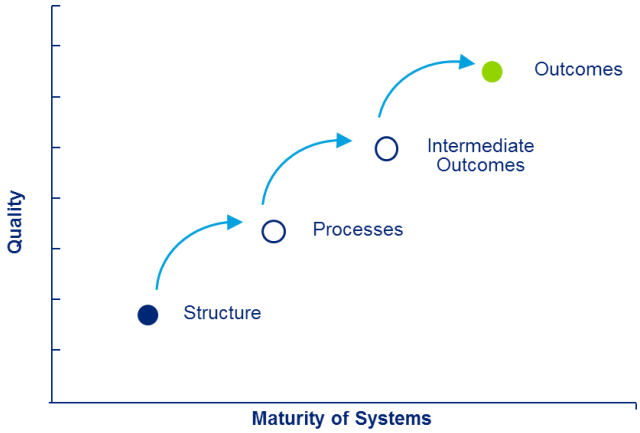
Frequent changes in implementation team increases implementation time
The frequent changes in facility management adversely impact the process. It takes time for the new management to understand the process, get up to speed, and regain the lost momentum.

Such delays without any intermediate or progressive accreditation status impacts the enthusiasm of the facility staff as well as the focus of the state level program coordinators.

13. **Most of the focus is on addressing structural gaps**

At most places the accreditation drive is being used as a way to ensuring the presence of structural requirements as recommended by the government.

Implementation teams largely focus on structural requirements, such as improvements in infrastructure, human resources, and equipment, and tend to ignore improving clinical processes that also have significant impact on outcomes.



As health systems become more mature, the focus of quality shifts from structure, to processes, to outcomes. However, such a shift was not observed at most facilities.

> *For example, the presence of safety belts for securing patients in stretchers is a structural requirement for accreditation. Most of the programs have looked at ensuring that the belts are present but few facilities focus on ensuring the use of*

these belts. Further, at a number of places the belt was found to be missing after the accreditation visit was over.

14. **There is a lack of convergence amongst support services and adequate monitoring at state level**

A state might have different initiatives and programme for quality improvement, and convergence of policies and actions of different departments/agencies handling these initiatives is needed.

There is a lack of convergence between various departments
There are a number of state departments, such as PHED, PWD, and Fire Safety Department, which play an important role in the entire accreditation process. However, there is very little coordination between them at the state level which delays the accreditation process.

Inadequate monitoring of the accreditation process at the state level
The quality improvement initiatives need to be monitored at a state level to study the impact of quality improvement and ensure sustainability of quality improvement process. However, this is often missing, especially in states that do not have a dedicated team for the accreditation process.

In Chhattisgarh there was no monitoring of the impact of certification of facilities at a state level despite it having the first ISO certified facility in the country (General Hospital, Korba) and as many as 8 certified facilities. No attempts have been made at understanding the outcomes or impact of the certification of these facilities by in-depth data analysis.

The study of aggregated state level data from accredited facilities vis-à-vis non-accredited facilities might highlight interesting insights which can be used to improve the implementation process.

15. **Data on quality indicators is not collected consistently and accurately**

There are problems in collection and analysis of meaningful data under quality improvement initiatives. While the volumetric data (IPD, OPD, Deaths, Births, etc.) were easily captured, the quality related indicators, such as infection rates or medication error rates, have not been appropriately collected.

Improper collection of data
The staff members are generally not well aware of the reason for collecting data or the appropriate method for doing it.

For example, they did not know what situations constituted medication error but were still collecting data on it. At many places data was being collected even when it was not relevant for the facility. At one facility, data was being collected as "Nil" for adverse events from blood transfusion even when the facility did not perform transfusions at all.

Also, there is no incident or error reporting mechanism to collect data indicators requiring monitoring of sentinel events, near-misses, or other errors.

Data collected is not analysed

While a lot of data is captured due to these initiatives, they are of doubtful value. It is not adequately analysed to draw insights on disease trends, medicine usage, and public health at large. Such insights can help in better planning of services, streamlining procurement, and identifying larger health trends.

16. **Outsourced services have not been integrated properly and there is no mechanism to monitor their quality at the facility level**

While a number of states have started outsourcing some of the services at the facility level, the quality of these services remain to be evaluated.

Since the outsourced services and vendors do not come under the purview of facility management they express inability in ensuring quality. At a number of places, one could perceive a conflict between the outsourced service provider and hospital staff as the vendor had not been integrated into the hospital structure.

> *For example, in Bihar, where the primary diagnostic services including X-Ray and Ultrasonography (USG) have been outsourced, the quality of services was found to be questionable. There was a gap in the information about the manufacturing of the X-Ray machines used which prevented the AERB certification of the same. Also, the people running the X-Ray and USG services were not qualified for doing the same and did not observe safety practices such as use of TLD batches or lead aprons.*
>
> *Similarly, in Tamil Nadu, the collection of biomedical waste has been outsourced. However, the frequency of collection of waste was found to be irregular across different facilities.*

17. **Services of Technical Support Agencies are not adequately utilized**

In absence of any minimum criterion for entering the quality improvement program, a number of facilities that face large structural gaps have started the accreditation program.

In these facilities, the work of the Technical Support Agencies (TSA) have stopped after the baseline assessment since the facilities have not been able to close the gaps identified in this phase. A number of trainings and process improvements are dependent on the closure of these structural gaps for work on them to begin.

This limits the effectiveness of the consultant provided by the TSA as they spend most of their time waiting for these gaps to be closed.

SECTION VII: IMPLEMENTATION BEST PRACTICES

1. While the states have faced a number of issues in implementation of quality improvement initiatives, there are also a number of findings that can be replicated across states to improve effectiveness of such programs.

2. This section contains the best practices that help improve the implementation of quality improvement initiatives.

3. **Centralized planning and execution improves program implementation**

One common feature of states doing well on the quality improvement initiatives is the presence of a state level implementation team. Such a team increases the focus and ensures that adequate support from the state administration. Further, the centralization of the effort ensures that best practices are easy to identify and replicate.

> *Tamil Nadu has separate departments that look after the both the ISO and NABH accreditation processes. This helps in providing undivided attention to the facilities and also reducing confusion since different level of facilities are going for separate programs.*

4. **Separate construction unit specifically for healthcare facilities speeds up infrastructural improvements**

One of the issues that impact the implementation timelines are infrastructural gaps. Given the load of work on them, the PWD generally takes a long time to complete construction or renovation work at the facility.

To overcome this obstacle, Gujarat and Bihar have set up separate unit that takes care of all construction work. The Project Implementation Unit was set up in Gujarat, while the Bihar Medical Services & Infrastructure Corporation Limited (BMSIC) was set up by the Government of Bihar under the Department of Health and Family Welfare. Additionally, the BMSIC is also tasked with procurement of drugs and equipment.

However, the process of handover of work from PWD to the newly created agency should be streamlined to ensure quicker completion of tasks. At a couple of facilities, incomplete handover has resulted in delay of the entire process.

5. **Regular reviews and Quality Committees improve efficiency**

The presence of facility level Quality Committees and regular review meetings helps the implementation process by ensuring that the focus and momentum on quality is not lost. Also, such committees often have representatives from different functions and class of employees. This helps in better coordination between different functions and support for bringing about behavioural change.

Regular review meetings help in ensuring that the gaps are closed on time and improves accountability. It brings transparency and participation to the entire quality improvement process. The inclusion of representatives from different functions and

addressing the day-to-day issues faced by them also increases the staff participation in the accreditation process.

6. **Appointment of a dedicated hospital administrator helps implementation of the quality improvement programs**

A hospital administrator helps streamlining the accreditation process and ensuring that the gains are sustained, especially at larger facilities such as District Hospitals.

They help reduce administrative and reporting burden on facility Heads help them focus on improvement of processes. They coordinate various activities such as conducting trainings, documentation, and communicating with state teams. They facilitate communication between the facility management and staff and ensure that gaps are closed as per timelines.

At facilities with no hospital administrators a similar role is being performed by the consultant engaged in the accreditation process.

7. **Use of technology helps the quality improvement process and improves access**

Both Gujarat and Tamil Nadu have started using technology to improve its quality improvement processes. Other states such as Chhattisgarh are also trying to implement similar initiatives.

> *Gujarat already has a state-wide HMIS system connecting all its Hospitals and Medical Colleges that captures in digital format the patients' records and test results. The test results are also coupled with SMS alert facility that is triggered in cases of pre-defined criterion such as an adverse result.*

Linking patient registration to BPL data helps in improving access

The patient registration system in Gujarat is connected with the Below Poverty Line database that allows the operator to quickly check the economic status of the patient and provide free services as required. A similar system is also in place in Chhattisgarh that uses smart card technology to improve access for the poor.

Use of data entry operators helps adoption of IT systems

Gujarat has recruited Data Entry Operators to digitise patient registration, prescription, and diagnostic test records. This helps in reducing the additional work load on the existing staff.

SECTION VIII: RECOMMENDATIONS

1. This section of the report covers the recommendations for the successful design and implementation of quality improvement programs across the country.

2. The recommendations are divided into those that need to be implemented at a national level, state level, and finally facility and program level.

Policy Level Recommendations

3. Frame a national policy on quality improvement in healthcare facilities

There is a lot of confusion and experimentation on quality improvement initiatives in the absence of any national policy or framework. There is a strong need for the central government to roll out a national policy for improvement of quality of public health facilities. The policy should address issues such as desired outcomes, standards to be used, source of financing, and the roadmap to be followed, while still allowing the state governments the flexibility to adapt the recommendations based on their goals and resources available.

The presence of a national policy would serve as a guiding document for the states to work on and increase the acceptability of any such initiatives. It can be also used as a tool to set expectations of the users of the facility, and to influence stakeholders and state authorities to sustain allocation of funds for the facilities.

4. Use different standards for different level of facilities

Healthcare facilities at different levels, i.e., primary, secondary and tertiary, provide different range of services. Hence, the elements that impact quality would vary a lot between the various types of facilities.

For example, there are quality elements in NABH that address administration of anaesthesia and usage of radioactive and chemotherapeutic drugs. These elements would be useful at a DH or Medical Colleges and are not applicable at a PHC where allied services might not be provided.

There is a clear need for accreditation standards that have different standards for different levels of facilities. While a state might choose between the various standards based on its goals and resource availability, the standards must be customized according to the scope of services provided at a specific facility level.

While certain programs have a single standard for various levels of facilities (e.g. ISO), others like NABH have started realizing the need for separate standards and have been working on the same. NABH recently launched different standards for PHCs and CHCs. However, the adoption of these standards has been low with only two facilities outside Gujarat applying for accreditation using these standards. Even within Gujarat no CHC has yet been accredited using the new standards.

5. A tiered accreditation structure with stepwise approach is needed

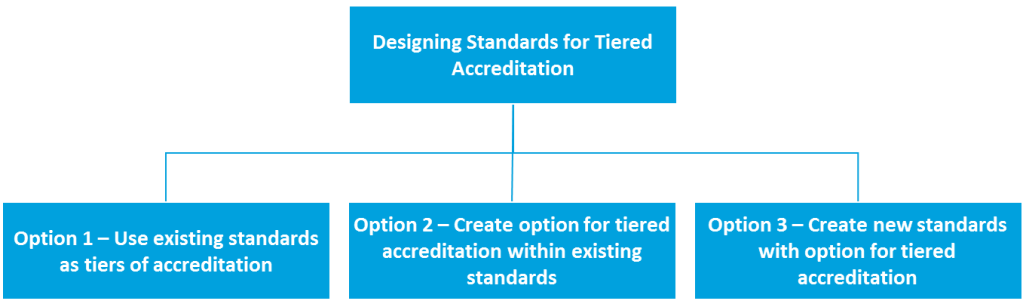
In its current form, accreditation is a binary process where a facility either achieves accreditation or fails.

There is a large variation in baseline of the various facilities undertaking accreditation and they require different amount of time and inputs to get accredited. For some facilities, the time and investment required might deter them from ever targeting accreditation if the chance of failure is high.

To ensure that facilities do not get intimidated by the end goal, there are small wins, and the investments get staggered over a period of time, use of a tiered accreditation standard should be considered.

Designing standards for tiered accreditation

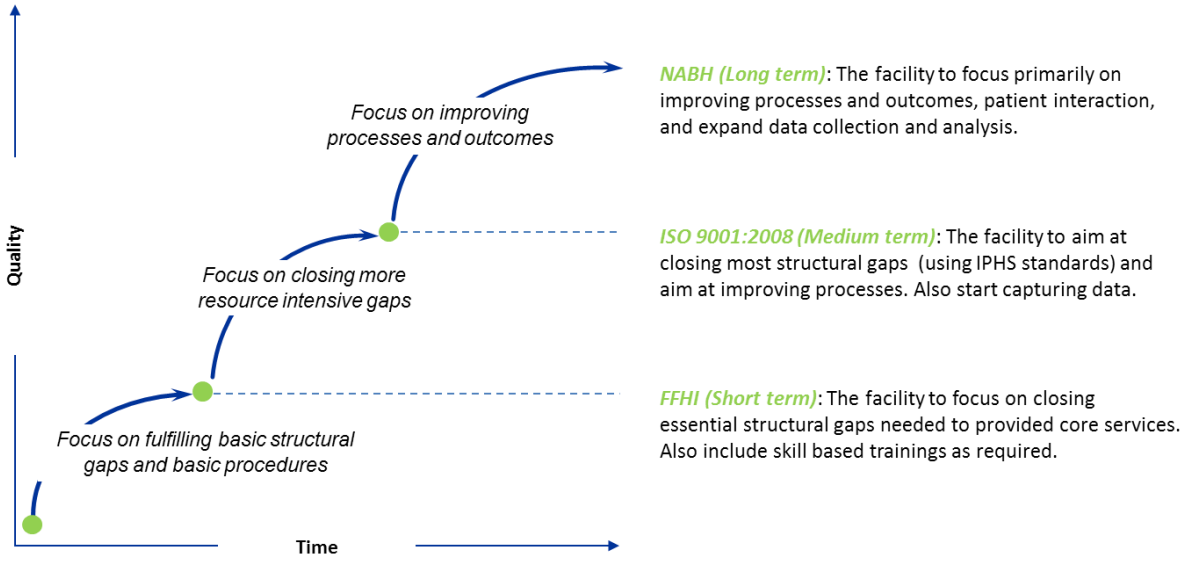
There are three ways in which this tiered approach could be implemented. The first option is to use the current standards (with some modifications) as tiers and create a roadmap in which the facilities progressively aim to achieve the next accreditation standard as a higher tier of accreditation. The second option would be to create tiers within the existing standards such that all standards provide an option for tiered accreditation. In a scenario where the first two options do not work, creation of a new set of standards with option for tiered accreditation could be explored. The three options are discussed in detail below.



Option 1 - Use the currently available standards as tiers

It is generally acknowledged that the three standards discussed are increasingly resource intensive, i.e., FFHI → ISO → NABH. The scope of services also increases from FFHI, which focuses primarily on RCH services, to ISO 9001:2008, and finally to NABH which essentially covers all services.

One of the ways to go about implementing quality improvement initiatives is to use these standards as a tiered structure and allow facilities to move from one standard to the next. The facilities would be required to achieve a particular standard, maintain it for at least one surveillance visit, and then be allowed to work on achieving the next level.



However, given the differences between the different standards and the structure of implementing agencies, this might not be the most optimal way of going about the accreditation process as a lot of work done for one particular standard might become useless when the facility aims to upgrade to the next level.

Option 2 - Create option for tiered accreditation within existing standards

The second approach is to build in a tiered accreditation system into the existing standards. In this approach, each standard would have an option for tiered accreditation. Each facility undertaking accreditation would progress from Tier I (lowest tier) to Tier III (highest tier) in a stepwise fashion. For example, NABH would have three or more tiers of accreditation. FFHI has proposed a similar structure with an option for Silver and Gold certification but its implementation remains to be seen.

A state might choose between the different standards available for its accreditation process but standards would have a provision for tiered accreditation. This is assuming that the standards have already been customized for different levels of facilities.

Depending on the existing condition of a facility it might need significant work to reach a tier I accreditation, while another facility might already be at a tier I accreditation level when they begin the process. In such a case, the latter facility would aim towards achieving higher level (tier II) accreditation.

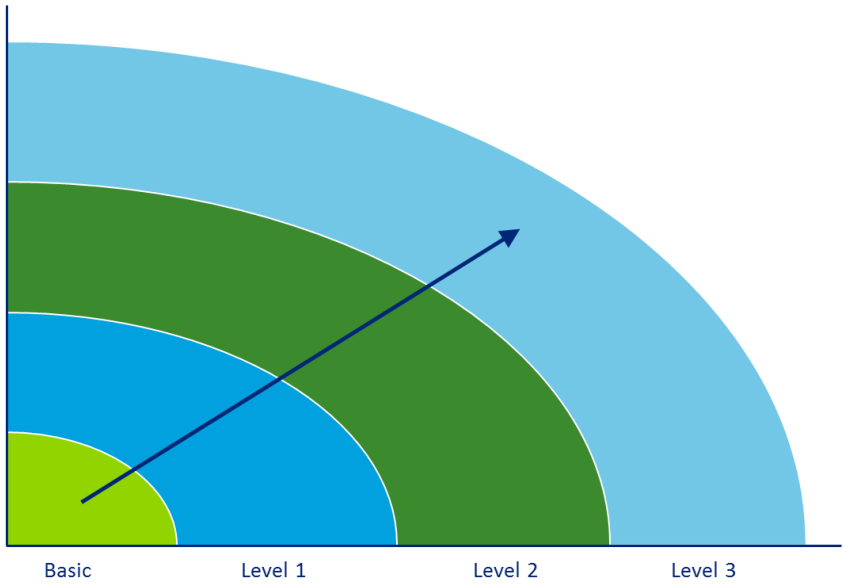
Option 3 - Create a new set of standards with option for tiered accreditation

The different standards available today have different genesis and are structurally quite different from each other. Therefore, it might not be appropriate to use them as tiers for accreditation given that there would be very little overlap between any two. Also, it may not be possible for the agencies that are responsible for the different standards to build in tiers into the existing standards.

In such a scenario, the third option of creating a new standard with may be explored. These standards would be drafted specifically to address the public health needs, services provided at various levels of facilities, and would provide an option for tiered accreditation.

One of the approaches to creating a new standard is to classify the different quality elements as *core*, *critical*, and *desirable*. The different *tiers* of accreditation would contain increasing number of elements from the different categories that a facility would need to comply with.

For example, Level 1 facility would need to adhere to 80% *core* elements and 20% *critical* elements. Level 2 facility would need to comply with all *core* elements and 50% *critical* elements. This gradation could be increased to various levels and the highest facility would need to adhere to all *core* and *critical* elements and a high percentage of *desirable* elements as well.



An expert panel on quality improvement in public healthcare should be instituted to frame the national policy and provide inputs on standards. These experts could be drawn from national and international agencies such as the NABH, NHSRC, WHO etc., officials involved with implementation of quality improvement initiatives from

across states, apex medical bodies such as the MCI, and industry representatives amongst others.

Create a time bound plan to move from one tier to the next

It is recommended that the states ensure that the facilities aim to reach the next higher tier of accreditation within a specified time frame. This would help in ensuring that the facilities continuously work towards improving their quality standards.

For example, a facility could start preparation for the next higher tier after its first post-accreditation surveillance visit, and should aim to achieve it within a year of starting preparation.

Make the accreditation process inclusive
Also, these systems should be inclusive whereby health facilities that are not providing all services as defined by the government should also be able to get accreditation for the services they provide and not penalized for the ones they are unable to provide due to lack of resources. This will ensure that at least the services provided meet quality standards.

6. **Incentivize accreditation to motivate the staff at facilities**

One of the findings of the study has been that there is very little motivation for the facility staff members to undertake the accreditation process. The state government could handle this using financial incentive to motivate people to achieve and maintain accreditation for facilities.

For example, facilities that achieve certain tiers of accreditation could be provided higher budgetary allocation, and a small part of this can be used to increase the staff remuneration. The quantum of the funds increase as the facility achieves higher tiers of accreditation and the incentives are rolled back when the facility loses accreditation or moves from a higher to a lower tier.

7. **Provide a framework to close human resource gaps**

Human resources' gaps present one of the biggest challenges during accreditation of a public health facility, especially for those located in the rural areas. These gaps include doctors, specialists, and trained medical staff such as nurses and pharmacists.

Different states have tried to address the issue using different approaches. While some states have formulated rules for compulsory rural postings after graduation, others have created special shortened medical courses for rural doctors.

However, these rules treat the symptom and not the disease and do not address some of the key issues that give rise to such issues. Also, they might not have the desired effect as doctors are serving in rural areas against their wishes might not be as motivated.

Some of these issues include low salary levels of government jobs when compared to private sector jobs, inadequate number of full time positions, lack of clarity related to

career development and progression for contractual employees, and inadequate infrastructure and facilities for doctors opting to take up government jobs.

State Level Recommendations

8. Establish a dedicated quality improvement team

States undertaking a quality improvement process should set up a dedicated team to manage it. A typical team would consist of 3-5 members who have experience of working in or managing a public healthcare facility and are trained in implementation of quality initiatives. For example, a team might have 1-2 CMHO level doctors, 1-2 hospital administrators, an M&E specialist, and a training coordinator.

Setting up a state level team ensures that the project receives the focus needed for successful implementation. It also provides for a robust monitoring mechanism to track progress, coordination between various departments, follow-ups, and ensures smooth flow of work in general.

9. Create a preparatory stage for facilities entering accreditation program

A number of facilities enter the quality improvement program with vast gaps in structural and licensing requirements. Additional time is spent closing these gaps and the entire accreditation process gets delayed. Also, it results in sub-optimal use of assistance provided by external consultants provided by the Technical Support Agencies engaged.

To speed up the accreditation process, the states could create a preparatory phase for all facilities entering the accreditation program. During this stage the facility would work towards ensuring compliance with a preliminary list of requirements. This preliminary list of requirements can be created by the state quality implementation team taking into account the general structural and licensing gaps that have been identified across most facilities. These can be defined separately for different levels of facility, also taking into account the standards that the state wants to use for accreditation.

The preliminary list of requirements could include compliance with licensing gaps, such as fire safety clearance, as well as certain structural inputs such as medical equipment which take longer time to procure and install. For certain gaps which take longer time to close, such as getting AERB certification, the facility should be asked to complete all necessary groundwork.

Facilities must ensure these preliminary gaps are closed before they enter the quality improvement process in a full-fledged fashion. The state in turn should ensure that dedicated technical and financial support is provided to the facilities during this phase.

10. Ensure rational deployment of human resources and adequate training

While there are huge gaps in human resources required across most states, there also exists an irrational deployment at a number of places and lack of adequate training.

The states should create an updated database of the human resources at its disposal with in-depth information on educational qualifications, skills developed, and trainings completed. It should also create a database of the human resource requirements at various health facilities along with a priority status, and skills and qualifications required. An IT system should be used to match the requirements to the availability of resources, and based on certain predefined guidelines, recommend allocation of resources to various facilities.

A number of staff members were found to be inadequately trained to handle the tasks assigned to them. The system created above should identify the training needs of staff members and supplement the capacity building efforts at the state level. The state quality team should ensure that relevant trainings are conducted at regular intervals to upgrade the skills of the various staff members and increase their productivity. Similarly, staff members made redundant due to outsourcing can be retrained and be redeployed at various facilities.

11. **Reduce transfers in facilities undertaking such programmes**

One key factor in the success of the quality improvement program is the continuity in the staff members involved in the program implementation.

Every change in the implementation team impacts the accreditation process and sets it back by some time. Such team changes disrupt the momentum of the process, and in absence of proper knowledge transfer mechanisms, lead to a loss of insights and experience. Further, any new member takes time to build rapport with the team and get fully engaged in the process.

The state government should ensure that as far as possible, the team that leads the project execution at the facility level remains constant.

Also, high rate of attrition of other staff members, especially the class IV employees means that a number of trainings related to processes executed by them need to be repeated quite often which adds to the delays.

12. **Create mechanisms for data gathering and analysing quality indicators**

Both NABH and NHSRC require facilities undergoing accreditation to record and document a predefined set of quality indicators. The purpose of this exercise is not just to record the patient volumes but also to track the other performance related indicators of the facility and the health of the community in general. However, the data collected and method of data collection is sub-optimal and can be improved.

Provide flexibility in deciding quality indicators

At the moment, every facility records the same set of indicators. The scope of services provided by each facility varies based on resources available and it results in collection of data which might not be applicable for the facility. For example, many facilities do not have blood banks or blood storage units and collection of transfusion related data there is not useful.

To avoid this, a minimum set of indicators can be decided which all facilities record. Apart from a primary set, a second set of indicators can be selected based on the services provided at the facility or the priorities at the state level.

Train staff to accurately collect data

The correct process for collecting data is not well understood. For example, very few staff members understand which cases constitute medication errors, which leads to incorrect and incomplete collection of data.

The staff members need to be educated about the utility of the indicators being tracked and the right techniques to measure them.

Detailed analysis of quality indicators

The indicators recorded should be analysed regularly to gain insights into the performance of the facility, improvement areas, and health of the community.

The performance of the facility can be measured in terms volumetric indicators such as patient volumes, bed occupancy rates, etc., as well as quality indicators such as infection rates, patient readmissions, etc. To track the quality of interaction of the staff members with the patients' qualitative feedback could also be included in the analysis. The clinical data collected could also be used to monitor community health and identify emerging health trends in the community such as rise in non-communicable diseases or seasonal variations in certain infectious diseases.

13. **Implement HMIS Systems after reaching critical mass**

The use of technology can help in making processes more efficient. The use of Hospital Information Management System (HMIS) at public health facilities can help in better management of patient records, improved analysis of community health, and quicker identification of disease trends.

Doctors can make more informed decisions with information available from patient history. Integrated mobile alert systems can ensure that doctors can get real time updates and information on high risk patients. The state can get real time information on community health, performance of various facilities which can help in reallocating various resources in the short term and formulation of long term plans.

The appointment of data entry operators to manage HMIS (like in Gujarat) can also reduce the burden on doctors and paramedical staff and help them focus on their clinical duties.

However, such systems are expensive to deploy and maintain, and must be looked after the state reaches a critical mass in terms of hospitals achieving a certain level of quality improvement. This would ensure that such a system is adequately used and provides maximum benefit.

14. **Encourage appointment of Hospital Administrators**

It has been observed that effective hospital administrators help the implementation of the quality improvement programs. The state should try and appoint a full time hospital administrator, especially for secondary care facilities. An administrator can be shared between multiple facilities at the primary care level.

Hospital administrators understand the nitty-gritties of the accreditation process, pitfalls, and best practices. Further, they reduce the administrative load of the doctors and allow them to focus on process improvement and clinical practice. They help in coordination between different members of the staff and ensure that the process in on track and people perform the responsibilities assigned to them.

They also form a communication channel with the state level implementation team and provide real time, unbiased, and objective information from the facilities which allows for better monitoring and management of the accreditation process.

Facility Level Recommendations

15. **Form an inclusive implementation team**

The facility management should identify a team to lead the implementation. The team should include representatives from the various staff functions such as administration, doctors, pharmacy, nursing, house-keeping, etc.

The facility management must identify people who are enthusiastic about the quality improvement initiative and are well respected by their colleagues. These people would form a part of the major teams, drive its activities, and act as champions for the initiative. These representatives would help drive adoption of standard operating procedures, organizing trainings, and coordination between different teams. For example, the infection control team would need representatives from hospital administration, doctors, nursing staff, and class IV employees. Each stakeholder plays a critical role in ensuring that the team achieves its objectives.

The formation of such a cross functional team has multiple benefits. It improves staff buy-in, increases ownership of tasks, and serves as a motivator. It also helps in better coordination amongst various functions for closing gaps.

16. **Use model facilities to guide others – follow a hub and spoke model**

The state could use facilities that have successfully undergone accreditation as a model and mentor to help facilities close to it implement quality improvement initiatives.

The accredited facility would act as a hub, and the facilities close to it as spokes. The hub would help the spokes during the accreditation process and the people involved in the process at the hub facility would mentor those at spoke facilities. Once accredited, the spoke facilities would act as hub for the facilities close to it and help them in a similar fashion.

This would ensure better dissemination of learning and sharing of best practices. Also, since facilities in a region are more likely to face similar issues, the insights gained at a facility during the accreditation process would be more suited and applicable to those around it.

17. **Promote use of innovative solutions to tackle local problems**

A number of issues faced by the facilities are specific to a particular location or community where the facility operates. These can't be addressed at a state level and the facility needs to come up with innovative ideas to address them.

For example, due to the low literacy levels, the hospital management at Korba felt that signages weren't enough to guide patients to appropriate locations. They started using coloured guiding lines painted on the walls that would lead people to specific rooms and locations. Patients are told which line to follow at the "May I help you" counter.

Such innovative solutions and best practices need to be studied and scaled up, if appropriate, across locations that face similar issues.

18. **Get the community involved making it a joint movement with other stakeholders (patients, local administrators, etc.)**

The community being served by a facility is a key stakeholder in the entire accreditation process. Proper involvement of representatives from the community enhances their participation in the process and provides insights from people using the facility.

The facility management should ensure that they reach out to community members to understand their needs and expectations from the facility. This could help in addressing a lot of issues, increase patient satisfaction, and gain trust of the community members.

For example, a PHC in Gujarat changed its OPD timings to ensure that children could come to the facility as the old timing clashed with school hours. Also, a number of facilities highlighted examples of the local community and businesses supporting the process through donation in cash and kind.

SECTION IX: CONCLUSION

1. Quality improvement is the process of making changes that will improve performance of health delivery systems resulting in improved health outcomes. While there have been various initiatives over the years to improve the quality of services delivered at public health facilities in India, the past decade has seen a dramatic increase in focus on it.

2. Over the past five years, a number of states have embarked on quality improvement initiatives, with Tamil Nadu, Gujarat, and Kerala being the front runners. They have experimented with the different accreditation standards with varying degrees of success.

3. Success of accreditation initiatives is a mixed bag with only a few facilities achieving accreditation out of the many that initiated the process. The process is time and resource intensive and facilities face some common problems including limited availability of human resources, lack of financial resources, time undertaken to achieve accreditation and sustainability and scalability of improvements.

4. However, there are clear benefits to the facilities that have achieved accreditation. These facilities show an improvement in various service delivery aspects including improved infrastructure (building and medical equipment), availability of human resources, and improvement in processes leading to an increased usage of the facility.

5. As the initiative is in nascent stage, different states have been experimenting with different standards and implementation models. This has led to a lot of confusion, delays and sub-optimal usage of resources which can be addressed to improve implementation of quality improvement initiatives.

6. A quality policy needs to framed that would outline quality objectives, provide an assessment of various standards, and provide a long term roadmap for quality improvement. A few tactical steps to tackle common issues like adaptation of the standards for public health facilities, creation of a tiered accreditation model, and addressing human resources' gaps also needs to be taken.

7. These steps would encourage more states to undertake quality improvement initiatives. It would provide them with appropriate tools to go about effectively implementing these initiatives and ensuring the sustainability of improvements. During the implementation, they can adopt some of the best practices identified from the experience of other states.

SECTION X: NEXT STEPS

1. A meeting was organized by the National Health Systems Resource Centre (NHSRC) on 13 August 2012 at the Ministry of Health and Family Welfare to discuss the process of certification, lessons learnt from the quality improvement initiatives, and future roadmap for such initiatives in public health facilities.

2. The meeting was attended by the Ms. Anuradha Gupta (AS & MD – NRHM), Dr. Suresh Mohammed (Director – NRHM), Dr. Himanshu Bhusan, Dr. Ajay Khera and other representatives from MoHFW, Dr Sundararaman (ED – NHSRC), Dr. P Padmanabhan, and other representatives from NHSRC, representatives from states (Bihar and Tamil Nadu) undertaking quality improvement initiatives, representatives from the technical support agencies like Medica Synergie and Acme Consulting, and Deloitte.

3. Deloitte made a presentation on the key findings and recommendations from the study during the meeting. These were then discussed in detail and various recommendations were deliberated upon.

4. Some of other key points discussed during the meeting were:

   a. Having a national level quality framework for public health facilities.
   b. Need for sensitizing states on quality aspect of healthcare delivery and innovations for having implementing quality improvement.
   c. Need for institutional strengthening and capacity building for Quality Assurance cells at various levels for implementing and monitoring such programs.
   d. Need for quality standards dedicated for public health facilities which are comprehensive and self-explanatory, which can be monitored at state and facility level easily.
   e. Improvement in infrastructure should not be the only focus of quality improvement and the need for including processes improvement and outcomes as an integral part of any such initiative.

5. It was concluded that NHSRC would work set up an initiative towards developing a new set of standards focused on quality improvement in public health facilities in India. The standards should incorporate various other recommendations from the report such as having separate guidelines for different level of facilities, inclusion of more clinical SOPs and guidelines and other implementation level suggestions.

APPENDIX

APPENDIX I – OVERVIEW OF QUALITY STANDARDS & SYSTEMS

APPENDIX II – BRIEF PROFILES OF STATES VISITED

APPENDIX III –FACILITY VISIT REPORTS

APPENDIX IV – LIST OF PEOPLE MET

APPENDIX I – OVERVIEW OF QUALITY STANDARDS & SYSTEMS

APPENDIX I (A) – NABH

APPENDIX I (B) – ISO 9001:2008

APPENDIX I (C) - FFHI

APPENDIX I (A) – NABH

Introduction

1. National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up in 2005 to establish and operate accreditation program for healthcare organizations. Although NABH is a part of QCI, which is a government funded body, it is a self-sustaining board with no external funding.

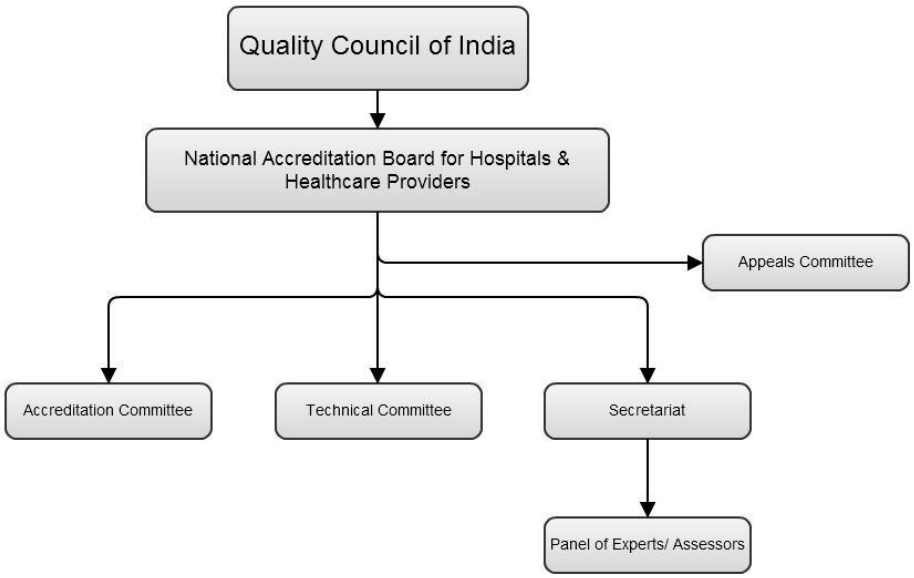
2. NABH provides accreditation to small and large hospitals, blood banks, wellness clinics, medical laboratories etc. NABH is an Institutional Member as well as a Board member of the International Society for Quality in Health Care (lSQua) which is a global accreditation body for accreditation agencies.

3. The Mission of the NABH is to "*establish and operate accreditation programme for healthcare organisations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry*."

4. The NABH standards for hospitals includes more than 500 quality elements grouped in 10 key areas such as management of medication, care of patients, human resource management, etc.

Structure of NABH

5. The structure of the NABH is provided below.

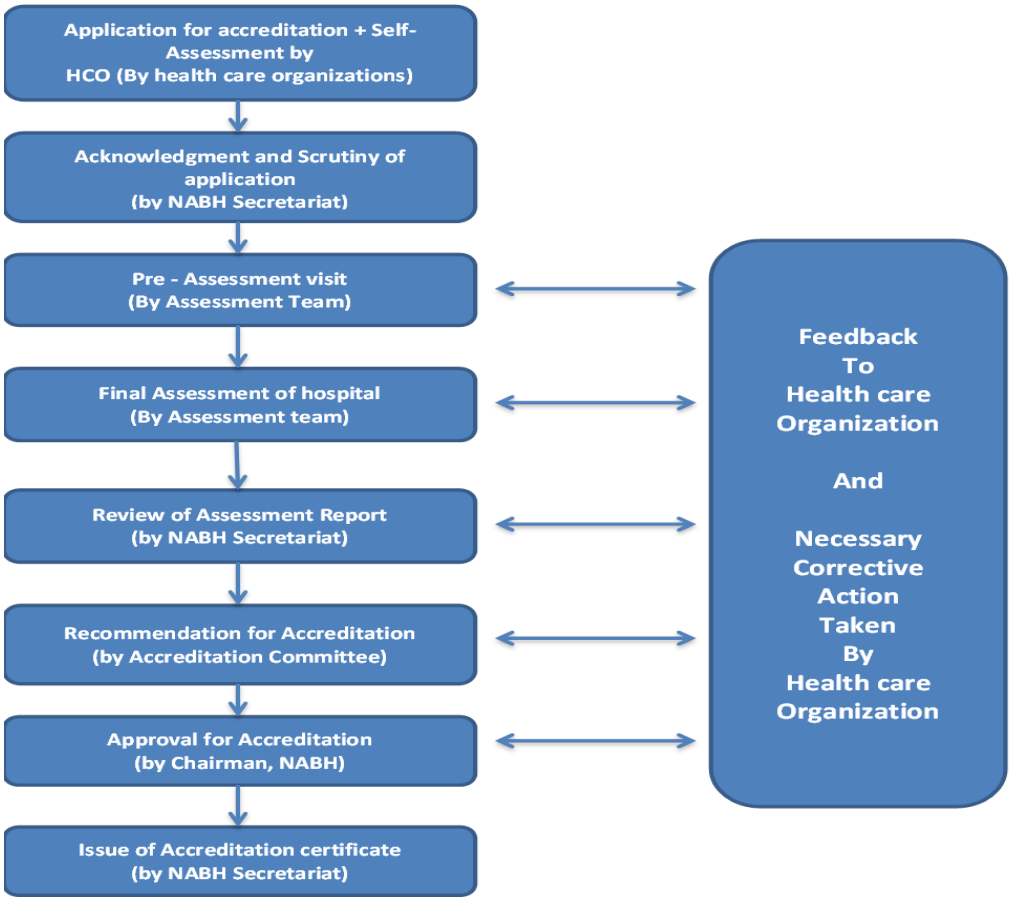


6. The Technical committee is responsible for drafting the standard and constantly reviewing them whereas the accreditation committee looks after the accreditation process .The panel of assessors are the ones that go to the facility, perform the audit

and submit the report to the accreditation committee. The accreditation committee decides whether or not a facility can get accreditation. A hospital can approach the appeals committee for any issues regarding the accreditation not granted to their organization.

Process of Accreditation

7. The general process and timelines of hospital accreditation by NABH is provided below.



8. The accreditation certificate is valid for 3 years after which the organisations have to undergo recertification. For recertification the facility has to apply 6 months before expiry and undergo a reassessment thereafter. More than 20 facilities have received recertification till date.

Benefits of NABH Accreditation

9. There are many benefits of accreditation by NABH. It ensures that the facility has the minimum level of structural inputs required for the effective delivery of services. This helps in raising the confidence of the community in the services provided by the hospital and leads to increased usage of the facility.

10. For the hospital staff, both clinicians and paramedical staff, it aids in professional development and ensures that there is an environment of continuous learning, leadership, and ownership of clinical processes.

11. Finally, accreditation acts as a reliable and certified source of information on facilities, infrastructure and level of care provided by the organisation. For example, the government has been thinking of mandating the accreditation of hospitals that want to be empaneled to provide services to the public sector employees covered under the Central Government Health Scheme.

12. For public facilities the biggest and most tangible benefit to the facility, and the people using the facility, is that NABH ensures that the facility has all regulatory approvals in place, infrastructure and equipment, and the requisite manpower needed for the proper delivery of services. Given that most public health facilities do not have well maintained infrastructure and are generally understaffed, the accreditation exercise ensures that these facilities achieve a good level of functionality.

Accreditation of Public Health Facilities

13. The Quality Council of India has entered into an Memorandum of Understanding (MoU) with some state governments, such as Gujarat, Kerala, and Tamil Nadu, for accreditation of public health facilities.

14. The process starts with a sensitization program for all the hospital heads where the top officials are made aware of the benefits of accreditation. A list of facilities that want to take up accreditation is then provided by the state government. Generally this is followed by a general baseline study which presents the current "*As-Is*" condition of the various facilities. After this the state might choose a few facilities for accreditation or prefer a phased implementation due to various reasons. The facilities are then provided consulting support by QCI through one of the six NABET accredited consultants. The agreement between QCI and the state is separate while QCI enters a separate agreement with the consultant. The consultant might be assigned for the entire state, as is the case in Tamil Nadu, or individual facilities, as in Gujarat.

15. The initiative has shown some results, and the District Hospital in Gandhinagar became the first public health facility to get NABH accreditation in September 2009. Since then three hospitals each in Kerala, Gujarat, and Delhi, one in Uttar Pradesh, two in Tamil Nadu, have been successful in gaining NABH accreditation.

S. No.	Stage of Accreditation	Overall	Government
1	Accredited Facilities	151	12 (Hospitals) +11 (CHCs/PHCs)
2	Facilities undergoing Accreditation	472	49

** Progressive certificate awarded to one facility. Please note that the table only includes Hospitals and not CHCs or PHCs.*

16. Further, ten primary health centres (PHCs) and one community health centre (CHC) has also been accredited in Gujarat. A separate set of standard, for CHCs and PHCs, was specially created under the MoU between QCI and the State Government of Gujarat.

Key Issues

17. When it comes to implementation of NABH in public facilities, a lot of focus is put on getting the right infrastructure, manpower, and systems in place. The focus on the clinical processes, following of evidence based treatment, and use of standard treatment guidelines is not satisfactory. For example, while there is emphasis on collection of indicator data, not too much is done in terms of data analysis and addressing the root cause of outcomes.

18. **High human resource requirements make accreditation difficult to achieve** – Public health facilities are assessed for infrastructural, equipment, and manpower requirements based on the Indian Public Health Standards (IPHS). However, the manpower requirements of the IPHS are proving difficult to be met at most facilities, and are one of the biggest gap areas for most public facilities. The IPHS requires 6-7 specialists even at CHC levels, requirements that even some District Hospitals would struggle with. In fact, a quick analysis of facilities in Gujarat, which are accredited or are undergoing the process, shows that manpower is the single largest head of expenditure, accounting for more than 60% of all accreditation related expenditure. Further, facilities based in remote areas (rural or tribal) find it even more difficult to close manpower related gaps, and even when closed, the attrition rates are very high given most clinicians prefer to be transferred to urban facilities.

19. **Limited availability of financial resources** – given that the NABH standards are very highly input intensive, it requires a large investment and sustained support from the state government. Even after accreditation significant investment is needed as the operating expenditure also increases. At times the delays in getting approvals for certain funds might delay the entire accreditation process at a facility. Another impact of this is that it might divert funds from other facilities and effect their functioning as well.

20. **Some requirements are difficult to meet in public facilities** – a number of public health facilities are housed in old buildings that do not comply with the space requirements for accreditation. Extensive renovation work is needed to modify these old buildings to comply with the NABH requirements. Also, some specific requirements, such as HEPA filters in Operation Theatres are very expensive and it may not be feasible to implement them across all public facilities.

21. **Low level of staff motivation impacts the implementation of standards** – getting the staff motivated enough to perform additional tasks, such as filling in case sheets and completed prescription forms, needed to achieve NABH accreditation is a very difficult job as there are no incentives.

22. **Transfer of members of the implementation team and staff attrition delays accreditation process** – the transfer of the team and high attrition rate, especially for contractual staff, delays the accreditation process. Transfer of key implementation

personnel breaks the momentum gained and it takes time for new members adapt to the process and rebuild momentum. Further, high attrition rates means that new members need to be continuously trained on best practices and a lot of time and resources are wasted on it.

APPENDIX I (B) – ISO 9001:2008

Introduction to ISO 9001:2008

1. The International Organization for Standardization (ISO) is a global federation of national standards bodies with over 150 countries represented as members. It develops consensus based standards across industries through various technical committees.

2. The ISO 9001:2008 standard, titled "*Quality Management Systems (QMS) – Requirements*" lays out the requirements for a QMS for an organization that wants to consistently deliver a product/service which meets the customer and applicable statutory and regulatory requirement. It also aims at enhancing the customer satisfaction levels through the levels of service provided and the experience had. Though initially designed with the manufacturing industry in mind, the standard is now used across industries including services.

Use of ISO standards in Healthcare

3. As more and more healthcare providers started applying the ISO 9001 standard for quality improvement, the ISO drafted the International Workshop Agreement, IWA 1:2005, titled "*Quality Management Systems – Guidelines for Process Improvements for Health Service Organizations*" based on the ISO 9004:2000 (now merged in the ISO 9001:2008). The agreement provides guidance "*for any health service organization involved in the management, delivery, or administration of health service products or services, including training and research, in the life continuum process for human beings, regardless of type, size, and the product or service provided*."

Introduction to NHSRC

4. Setup under the NRHM in 2007, the National Health System Resource Centre is aimed at providing technical support and capacity building for strengthening public health systems. It has seven divisions – community participation, public health planning, human resources for health, quality improvement, healthcare financing, health management Information system (HMIS), and public health administration.

5. The aim of the quality improvement division is to get more and more facilities certified by external assessors and to have in place a Quality Management System that focuses on continuous quality improvement. It also believes that while the QMS should include national and international norms of Quality Management, it should be flexible enough to accommodate the diversity of the healthcare systems across states in India.

NHSRC's adaptation of ISO standards

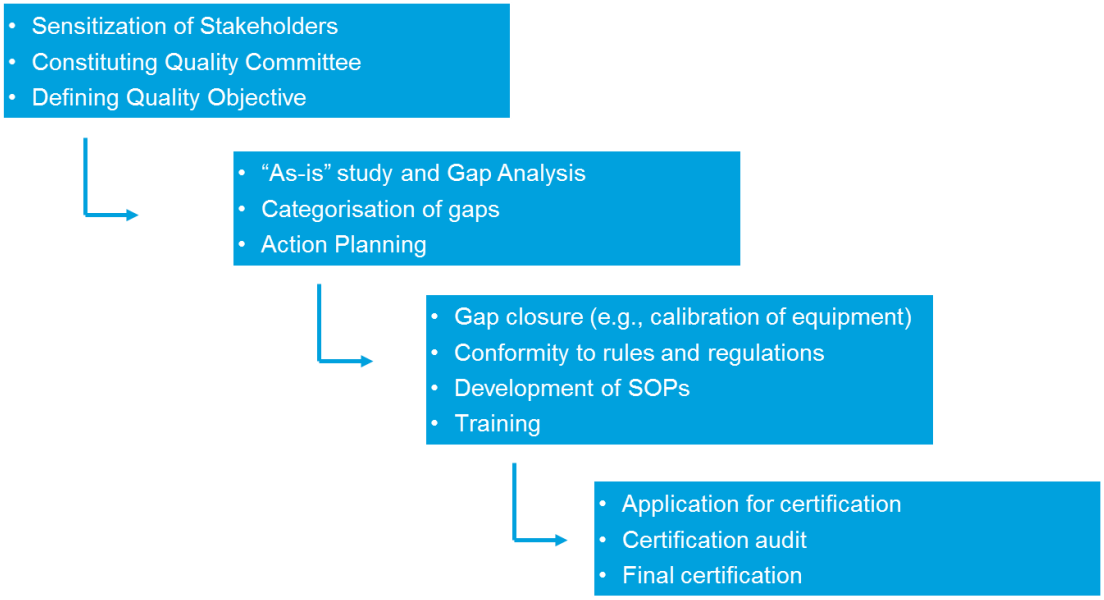
6. After much deliberation, the NHSRC adopted the ISO 9001:2008 as a tool for improving quality of public health facilities as it was internationally recognized, was relatively affordable, had a large pool of already trained auditors, and it allowed the facility the flexibility to define its own quality objectives.

7. The NHSRC has also adapted the ISO 9001 to suit its requirements and make it more specific for public health facilities. In addition to the six mandatory quality management processes, it has added twelve clinical and twelve administrative procedures to the standard. These include procedures like out-patient and in-patient management, blood bank management, and procurement and outsourcing management.

8. The NHSRC also mandated that the facilities complied with all the necessary statutory regulations such as the AERB approval for radiological diagnostic equipment, fire safety approval, PNDT Act, etc.

Certification Process

9. A brief outline of the process of getting ISO 9001:2008 certification is provided below.



10. In the first step, the facility has the flexibility of defining its quality objectives. These objectives are time based and measureable such as reduction of waiting time for OPD, or improving the Bed Occupancy Rates.

11. In the gap analysis and action planning phase, the gaps are divided based on the nature of the gaps (process, resource, infrastructure) and impact (high, medium, and low), and specific people are assigned tasks for closure of gaps along with expected timelines for the closure of the gaps.

12. Generally, from the inception phase to the final certification takes around 12-18 months depending upon the initial state of the facility and also the support provided by the state government.

Benefits of ISO Certification

13. The major benefit of the ISO 9001:2008 over the NABH is that it is relatively less resource intensive and more feasible in the public health context. It promotes an assured level of healthcare service delivery due to the adaptation and addition of clinical and management procedures by the NHSRC. It also incorporates the various national and local health programmes in its scope and leads to improvement in the implementation of these programmes as well.

14. It promotes the optimal use of various resources as standard operating procedures for various tasks are formed based on the on-ground situation at the facility, the infrastructure available, and the clinical load faced.

15. Patient satisfaction is a core parameter and is measured continuously. This ensures that the facility personnel and management is always on its toes to maintain the service levels to meet patient demands.

16. Some of the guidelines incorporated by the NHSRC into the processes (like separate queues for males and females, use of signages, etc.) help in enhancing equity, reducing gender bias, and improving access.

17. For the staff, it ensures a better working environment and an atmosphere of continuous learning due to the regular trainings, employee satisfaction surveys, and infrastructural improvement.

18. From a public health perspective, the adaptation of ISO by NHSRC includes the public health schemes, such as Universal Immunisation Program, within the scope of the services provided by the facility which improves the quality of these programs as well.

Certification of Public Health Facilities

19. The NHSRC has entered tripartite agreements with various state governments, such as Tamil Nadu, Bihar, and West Bengal, to assist them in the implementation of the ISO standards across multiple facilities.

20. While the NHSRC acts as a central administering and oversight body, the states are assisted by technical support partners (TSPs) in the on-ground activities. The rates for TSPs for assistance, for various facilities (based on the bed strength) and different models (complete support to supportive supervision), has been fixed by the NHSRC through a competitive bidding process.

21. So far the NHSRC has been able to get 81 facilities ISO 9001:2008 certified. Further, a total of 446 facilities are currently undertaking the implementation of the ISO standard, with Maharashtra alone accounting for 247 facilities.

Key Issues

22. A lot of issues faced during ISO implementation are common with those faced during implementation of NABH standards. These include infrastructural requirements, staff motivation levels, transfer of staff members, limited financial resources, and human resource requirements. However, it also faces some other issues which are discussed below.

23. **Absence of minimum standards reduces homogeneity and might impact credibility of the standard** – The flexibility that ISO provides and is one of its utility features is also one of its biggest drawbacks. There is no defined minimum standard for services or the structure. While the gap-analysis is done as per the relevant IPHS standard, it is not mandatory to meet those requirements to get an ISO certification. Further, since the facility is free to set quality objectives for itself, there might be huge variation in the basic quality of infrastructure and service available across two certified facilities. This variation in quality might impact the credibility of the standard.

24. **Inadequate focus on clinical processes** – As the ISO 9001:2008 standards were not built specifically for healthcare delivery, they do not have sections that deal with clinical processes. Despite the adaptation by the NHSRC, there is a scope for including elements on clinical processes such as medication management, patient rights and education, etc.

APPENDIX I (C) – FFHI

Introduction

1. The Family Friendly Hospital Initiative was initiated by Dr. Padmanabhan of NHSRC in 2010. The FFHI standard was created by taking elements from existing quality standards.

2. The objective of FFHI is "*to improve the quality of service delivery with specific focus on the implementation of evidenced based protocols to improve the quality of patient care and patient safety with the existing RKS resources and human resources*".

3. The main elements of FFHI are divided into five broad areas provided below:

a. Service Providers – this includes elements related to clinical and para-clinical staff members such as training, performance appraisals, etc.
b. Patient Safety – this includes clinical elements on standard treatment protocols, surgery check lists, infection control protocols, etc.
c. Patient Care – this includes most resource related elements such as equipment requirements, supplies, essential drug lists, etc.
d. Patient Stay – this includes elements on patient friendliness including facility cleanliness, friendly interaction with staff members, signages, etc.
e. Patient Feedback – this includes elements on creating a dialogue mechanism and providing a platform for voicing patient concerns.

FFHI has customized standards for different level of facilities

4. The FFHI standards are based on the scope of services provided at different levels of facilities. The facilities have been categorised under the following three levels:

a. Level 1 – Facilities providing delivery by skilled birth attendants (SBAs) – Sub-Centres, PHCs not functioning 24x7, and home deliveries conducted by SBAs
b. Level 2 – Facilities providing Basic Obstetric and Neonatal Care – 24X7 PHCs and CHCs other than FRUs
c. Level 3 – Facilities providing Comprehensive Obstetric and Neonatal Care – DH, SDH, RH, CEmONC, and CHCs designated as FRUs

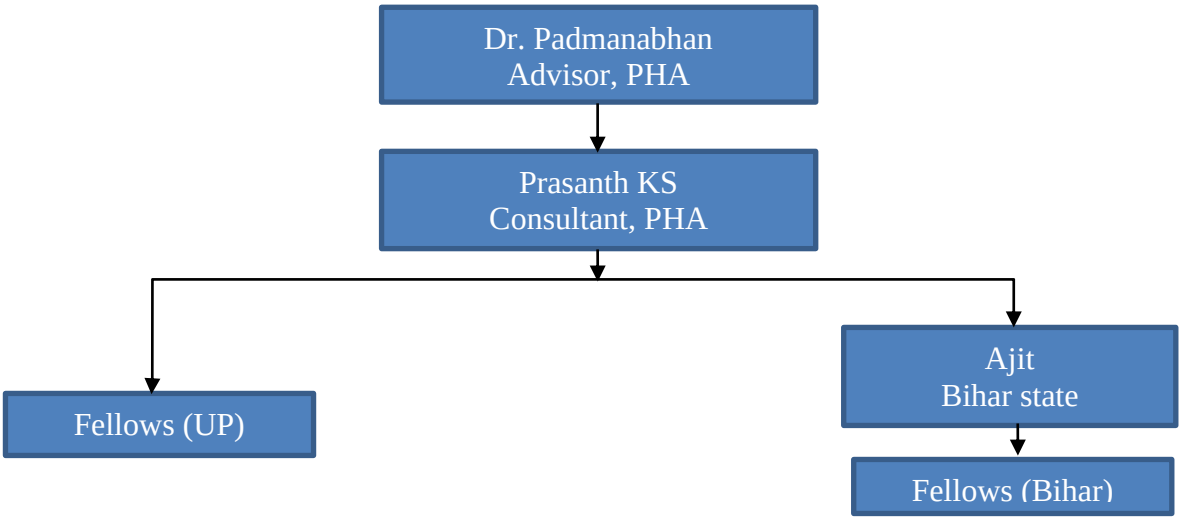
FFHI has proposed the use of tiered certification

5. There are two categories of certification – Silver /3 star FFH certificate & Gold /5 star FFH Certificate. There is a minimum score for required for certification for both levels.

6. The Silver/ 3 star FFH certification is awarded to the facilities which qualify for quality parameters listed in the certification format.

7. The Gold/5 star FFH certification is provided to District hospitals or FRUs which qualify all the quality parameters and also perform the designated functions like 24 hour C section, blood Transfusion services etc. A Silver/3 star FFH certified facility can move on to acquire the Gold/ 5 star FFH certificate.

FFHI Team



Certification of public health facilities

8. The Public Health Administration unit of NHSRC is currently supporting facilities in 3 states, Bihar, Uttar Pradesh and Jharkhand. The number of facilities participating in the process are as follows –

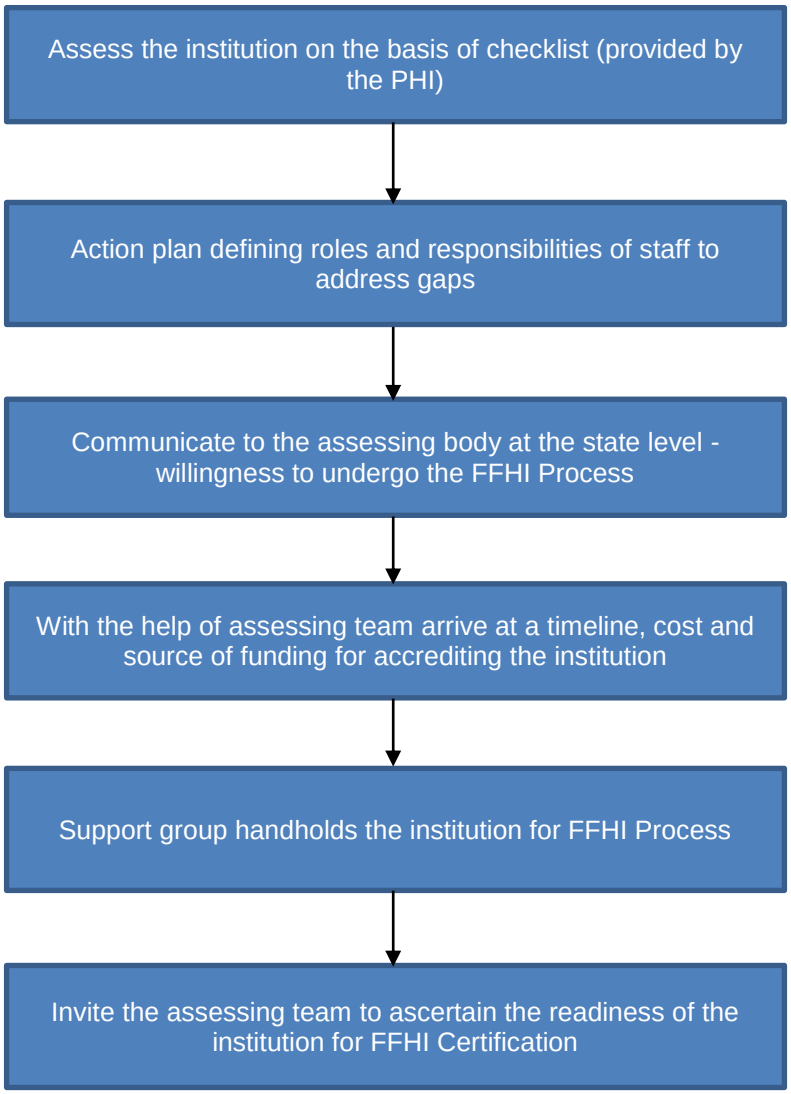
a. Bihar- 22 level 3, 124 level 2 and 16 level 1 facilities.
b. Uttar Pradesh - 80 level 3 facilities
c. Jharkhand- 21 level 3 facilities

9. The NHSRC has stationed 2 fellows each in Uttar Pradesh and Bihar to provide guidance to facilities undergoing certification.

10. Gujarat had taken up the certification process without support from NHSRC and has certified a few facilities in the state. Other than these, the FFHI has not certified any facility till date.

Process of certification

11. A sensitization workshop is conducted at state level. The Facilities can then volunteer for the process or the state selects some facilities for the process.



12. The facilities are certified by the state and the certification is valid for 3 years after which the facility will have to apply for recertification.

13. A surprise visit is also conducted every year during which if the facility is found to be not maintaining the required standards, the assessing team can recommend the withdrawal of the accreditation. Such Institutions can approach the assessing team for a revisit. The revisits by the assessing team have to be done in 3 months' time of the quality assurance office receiving the application.

Benefits

14. An FFHI certified facility shows improved patient and service providers satisfaction, reduction of morbidity, mortality, and hospital acquired infection, and improvement in the quality of care. An FFHI certification can also be used as a first step to achieve higher certifications like ISO or NABH.

15. **FFHI proposes a mechanism for tiered accreditation and the standards are customized for different level of facilities** – FFHI has proposed a mechanism for tiered accreditation which awards Silver and Gold certifications to facilities based on the number of elements achieved by them during evaluation. Also, the requirements of the standards are built taking into account the services provided at different level of facilities.

16. **FFHI focuses equally on structure and processes** – the FFHI focuses equally on structure and processes. 3 of the 6 categories and 50% of the weightage on the scoring sheet is assigned to Service Environment, Access, and Equipment and Supplies, while the remaining 3 processes such as Client Provider Interaction, Professional Standards and Technical Competence, and Service Delivery and Continuity of Care. It also lays down the skills (and the trainings) needed for clinicians and nurses for different level of facilities.

17. **FFHI has very clearly defined requirements –** the FFHI standard defines the equipment, infrastructure and equipment, consumable, and training requirements for different levels of facility. This makes it easier for the hospital staff to close gaps and achieve certification. Also, it makes the task of the assessor easier and ensures consistency of standards across facilities.

18. **It specifies the source of funding for different requirements –** the FFHI handbook also lists down suggested source of funds for closing each of the gaps. This helps in assigning responsibility to relevant authorities for closing gaps and ensures that they can be followed up appropriately.

19. **The implementation process has a large involvement of facility staff members –** rather than being an externally forced process, the FFHI includes the facility staff at each step of certification, right from gap analysis to making the action plan to finally closing gaps. This improves the ownership of the entire process and increases the motivation level of the facility staff.

Key Issues

20. **The narrow focus of FFHI limits it applicability in higher facilities –** FFHI standards focuses only on maternal and child health (MCH) services. While the focus on MCH works in the setting of primary health facility, the standard is not equipped to handle the requirements of the services delivered at a secondary health facility.

21. **It lacks a mechanism for independent assessment and certification –** the FFHI suggests that the assessment and certification committee consists of members from within the state, such as the SHSRC and the Directorate. While this might ensure

strong support and commitment, it reduces the independence and neutrality of the entire process, and possibly decreases the value of certification.

APPENDIX II – BRIEF PROFILES OF STATES VISITED

APPENDIX II (A) – GUJARAT

APPENDIX II (B) – TAMIL NADU

APPENDIX II (C) – CHHATTISGARH

APPENDIX II (D) – BIHAR

APPENDIX II (A) – GUJARAT

Introduction

1. Gujarat is one of the fastest developing and advanced states of India. The current population of Gujarat is 6.03 crores, according to the provisional data of the 2011 Census, with a population density of 308 persons per square kilometre, below the national average of 382 persons per square kilometre. Gujarat is also one of the most industrialized states in India.

2. The Gujarat government has tried to increase the public expenditure on to the health plan of the state. Between 2007-08 and 2010-11 the state allocation for medical and public health grew from 3.2% to 4.3% of the total state expenditure.

Item	2007-08	2008-09	2009-10	2010-11
Percentage Allocation	3.2%	3.1%	3.7%	4.3%

Gujarat faces a large crunch of doctors and trained manpower

3. Gujarat has a large number of sub-centres, PHCs, CHCs, DHs in place. However, there are still some minor gaps. For example, as per the 2001 population there still remains a gap of around 7% in the number of PHCs. And this gap will only widen once the 2011 census data is made available since the Gujarat population has grown by around 19% since 2001.

4. At the PHC level there are 259 vacancies against a sanctioned 1096 positions for doctors. 47 PHCs operate without any doctor, 380 PHCs operate without a lab technician, while 430 PHCs do not have a trained pharmacist.

5. The situation is even grimmer at the CHC level. There are only 63 surgeons at a CHC level against a sanctioned 278 positions (required 290) – a gap of 77.33%. There are only 34 sanctioned posts for Obstetricians & Gynaecologists, against a requirement of 290, and out of these only 11 are filled. Overall, while there is a requirement of 1160 specialists at a CHC level, there are only 346 sanctioned posts, out of which 276 were vacant as on March, 2010 (RHS Bulletin 2010).

Quality Improvement Program in Gujarat

6. The Quality Improvement Program in Gujarat started in 2003, and initiative initially focused on only mother and child health in 4 districts under the RCH. While this approach worked well for PHCs, it was felt that a different approach was needed for hospitals, which offered a wider range of services.

7. The Gujarat state quality cell was established in 2007 and permanent posts were created under the state government budget and staffed with people selected on a performance basis.

Signing of MoU with QCI

8. The Department of Health & Family Welfare (DoHFW), Government of Gujarat (GoG) signed a Memorandum of Understanding (MoU) with the Quality Council of India (QCI) on 7 July 2007 with the aim of establishing Total Quality Management System (TQMS) and seeking accreditation of 8 Civil Hospitals, 1 Teaching Hospital, and 6 Laboratories from the National Accreditation Board for Hospitals and Health Care Providers (NABH) and National Accreditation Board for Testing and Calibration Laboratories (NABL) Standards.

9. The MoU was expanded in 2008 to include 17 more District Hospitals and 5 Medical Colleges. The overall accreditation drive would be implemented in three phases with Phases I, II, and III having 9, 13, and 9 facilities respectively. These numbers do not include Blood Banks and Diagnostic Laboratories.

10. QCI would help the Gujarat government through its list of empanelled consultants in providing technical assistance required for the accreditation of the hospitals and laboratories.

11. A separate MoU was signed between DoHFW, GoG and the QCI for accreditation of PHCs and CHCs.

Current Status of the Program

12. So far Gujarat has successfully achieved NABH accreditation for 3 Hospitals (DH Gandhinagar and Mental Hospital, Vadodara and Ahmedabad), 10 PHCs, and 1 CHC.

13. 9 Hospitals and 6 PHCs are currently in various phases of the NABH accreditation process.

Key Shortcomings

14. **Very low focus on improvement of process** – while a lot of attention has been given in the improvement of infrastructure, getting adequate equipment in place, and regulatory compliance, the issue of standardizing clinical processes has taken a backseat. Hospitals still struggle with implementation of evidence based standard treatment protocols.

15. **Human resource gaps remain a key problem** – having the appropriate number of doctors (especially specialists) remains a key challenge, with some specialities being less available than others. For example, there were only two radiologists for all government hospitals in Gujarat, while the one radiologist is required per hospital as per NABH requirement.

16. **A number of facilities function out of old buildings which are difficult to renovate** – quite a few hospitals in Gujarat function out of heritage buildings that were donated by erstwhile royal families. This hinders the renovation work to upgrade the facilities to be compliant with the IPHS norms. The only solution is to either

create new facilities or to have extensive renovation work, which might not be feasible financially.

17. **Contractual staff has very low motivation to work towards accreditation** – Gujarat has tried to fill in human resources gaps through hiring contractual staff. However, these people are very difficult to motivate given the transient nature of the job and the high attrition rates, especially amongst the class IV employees. Further, constant training of these staff increases the cost and time spent on accreditation.

18. **State government's priorities have shifted from accreditation** – since one of the key issues faced during accreditation was filling human resource gaps, the state government has shifted its focus to creating more medical colleges to produce adequate number of doctors for the state. This has led to slowing of the pace of work on accreditation.

Best practices identified

19. **Dedicated unit for healthcare facilities speeds up infrastructural improvements** – Gujarat created a dedicated Project Implementation Unit for construction and renovation of the health infrastructure in the state. Being dependent on the Public Works Department for all infrastructure related work might lead to delay in some time bound activities which can throw the entire accreditation process off the track. A separate focused department helps overcome this barrier and ensures timely completion of infrastructural improvement tasks.

20. **Spill over of the accreditation experience helps in quality improvement across other facilities as well** – Learning from its accreditation experience, the state has started a few general initiatives to improve quality across all facilities, even if they are not undergoing accreditation. For example, recently the state undertook a cleanliness drive and instructed the facilities to perform certain routine cleaning exercises to improve the facility condition. It has also identified common regulatory gaps across all facilities, like AERB approval, and asked facilities to address them even if they are not a part of the accreditation process.

21. **Formation of State & District Level Quality Committees** – Gujarat has formed state and district level quality committees that have representation from various stakeholders (nursing, medical teaching, legal, etc.) that is responsible for the monitoring of the Quality initiative (and other government health programs) and taking corrective action wherever needed.

22. **Appointment of assistant hospital administrator helps in coordinating the accreditation process** – The AHA appointed by the GoG at a hospital level plays a key role in the entire accreditation process. She can be the central coordinator for all accreditation related activities, and ensure that all the requisite documentation is in place, and the systems in place. This frees up the other senior clinical staff to focus more on the process related improvements.

23. **Use of HMIS systems helps in improved monitoring of output and increased access –** Gujarat has set up a centralised HMIS system that serves all district hospitals and medical colleges, and connects them to the State Health Commissionerate. Not

only does it reduce the load on the Medical Records Department, it also saves time for a number of non-clinical staff, allows for quicker monitoring of health programmes, and allows the doctors to access patient records and test results online. It has unique facilities such as setting up of SMS alerts on predefined patient results for doctors. Also, the patient registration system is linked to the state BPL database, and user charges are waived off for patients who are registered there. Further, the state has recruited data entry operators (on a contractual basis) to enter patient data, doctor prescriptions, and test results into the system so that it does not increase the work load on the clinical staff.

24. **Most facilities have been successful in getting the local community involved in the process** – Support by the local community plays a key role in the process of quality improvement. A number of facilities in Gujarat have benefitted from the large amount of donations made by the community. For example, the PHC in Salun is housed in a building donated by a local community member, while people in Nadiad have contributed a number of equipment, such as water coolers, to the General Hospital there.

25. **Retaining implementation team members reduces delays and helps in sustaining improvements** – retention of members of the implementation team results in maintaining the continuity of the accreditation process, especially the top level employees such as the CDMO and the AHA. If new people are added to the system they need to be oriented to the entire process, and valuable time is lost during this change. For example, the General Hospital in Godhra saw a number of changes which has delayed the entire process, while the District Hospital at Gandhinagar has retained the top team involved in the accreditation process which has ensured that the entire process is now internalized in the system.

26. **User charges help in partially offsetting increased operating expenditure** – Gujarat has allowed the hospitals (but not CHCs and PHCs) to levy a nominal user fee that helps in partially funding the increase in the operating expenditure of the facility. People below the poverty line (BPL) are exempt from these charges.

27. **Separate budget for accreditation and increased budgetary allocation for accredited facilities improves financial sustainability** – Gujarat has separate budget for all the quality improvement initiatives under the NRHM which reduces the impact on other facilities. Also,

Future Plans

28. **Gujarat is pushing ahead with NABH accreditation** – The state is currently carrying on with its initiative to get more and more District Hospitals NABH accredited. Also, the state is now focussing more on getting even CHCs and PHCs certified. The 2012-13 PIP suggests that the state aims at getting 26 CHCs and 28 PHCs NABH accredited, apart from one District Hospital.

29. **It is also looking to experiment with other quality improvement tools** – The state is also considering a pilot implementation of other quality improvement initiatives such as ISO and Kaizen, with the aim of improving quality, efficiency, and decreasing waste in facilities.

APPENDIX II (B) – TAMIL NADU

Introduction

1. Tamil Nadu is ranked amongst the top states in India in terms of Public health Indicators and has very good network of public health facilities. The state has been involved in a number of projects with direct and indirect focus on quality.

Item	2007-08	2008-09	2009-10	2010-11
Percentage Allocation	3.3%	3.7%	4.7%	4.8%

Tamil Nadu has one of the best public health infrastructure in the country

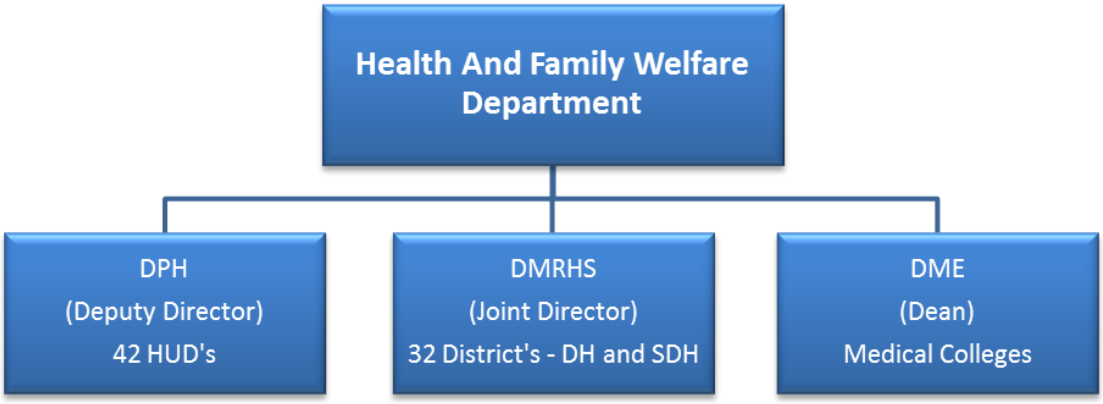
2. Tamil Nadu is one of the leading states in India in terms of the health infrastructure. Tamil Nadu has more PHCs and CHCs per capita than the national average.

3. It has adequate number of sub-centres and PHCs in place but faces a shortage of around 13% at the CHC level. Further most of these facilities operate out of government owned buildings.

4. Even in terms of manpower the situation at a PHC level is good with the almost twice the number of required doctors in place. However, about a third of the PHCs lack pharmacists and two thirds lack a lady doctor. There are no sanctioned positions for specialists at CHCs and most of the requirements are met on a contractual case-based-hiring.

Structure of the Health Department

5. The state health department is divided into different directorates, three of which are responsible for different levels of health facilities.



6. The Department of Public Health and Preventive Medicine (DPH) divides the state in to 42 Health Unit Divisions, and is responsible for all Primary Health Centres and Upgraded Primary Health Centres (equivalent to a CHC).

7. The Department of Medical and Rural Health Services (DMRHS) is responsible for the functioning of 25 District Head Quarters Hospitals, 162 Taluk Hospitals, 79 Non Taluk Hospitals, and dispensaries, mobile medical units, and other health facilities.

8. Finally, the Department of Medical Education (DME) is responsible for the functioning of 17 Medical Colleges, and 36 Government Hospitals attached to it.

Quality Improvement Program in Tamil Nadu

9. The Tamil Nadu Area Health Care Project (TNAHCP) sponsored by Danish International Development Agency (DANIDA) was one of the first attempts at quality. The project aimed at improving overall health and family welfare status of rural population through improved infrastructure, knowledge and skill enhancement of health care providers and better management of health services and medical supply system.

10. The Reproductive and Child Health (RCH) project, launched in 1997-98, with one of the main objective as to increase the credibility of service providers through increased quality of service was another drive. A number of quality assurance methods were taken up as part of this project.

11. The Tamil Nadu Health Systems Project (TNHSP) was approved by the World Bank in 2005. Quality Assurance is one of the main focus areas of the project. As a part of TNHSP a pilot project for HMIS implementation was started in 5 hospitals and is now being implemented across the state. The project is now in its second phase which lasts till 2013.

12. The state has taken up various certifications for its healthcare facilities like Baby Friendly Hospital certification (UNICEF Project), NABH and ISO.

NABH Accreditation Initiative & Current Status

13. The NABH Accreditation initiative is being led by the DMRHS, and is being partly funded by the World Bank supported TNHSP project. The project is being managed by the MD, NRHM for Tamil Nadu. It signed a MoU with the QCI in June 2008 to support the accreditation of 12 Hospitals.

14. The District Government Head Quarters Hospital in Namakkal became the first NABH certified public hospital in Tamil Nadu in April 2011. The Government Hospital in Sholingur followed suit in November 2011. The TNHSP is now actively working on getting the Hospitals in Padmanbhapuram and Tamabaram NABH accreditation.

ISO Certification Initiative & Current Status

15. The ISO certification initiative is being driven by the DPH, and is being funded through NRHM funds. ACME Consulting was chosen as the Technical Support Agency for the project.

16. The process started in December 2009 and 48 facilities across 12 HUDs were selected for certification. By December 2010 48 PHCs had achieved ISO 9001:2008 certification in the state. All these facilities successfully completed the first surveillance audit in December 2011as well.

Key Shortcomings

17. **Insufficient coordination between the two departments implementing the quality improvement initiatives leads** – the existence of different departments help in providing focus on different level of facilities equally, it also creates a number of administrative silos. While the NRHM funds the ISO project and the MD, NRHM oversees the NABH project (as the Project Director of the TNHSP) there is very little communication between the two programmes. If the two departments worked in a coordinated fashion, a number of synergies could be explored and best practices from one program could be implemented in the other. For example, the General Hospital in Sholingur is unable to provide advanced maternal services due to the lack of a Blood Storage facility. At the same time the Upgraded PHC in Bannavaram (a few kilometres away) was providing elective LSCS services, and while referring more complex cases to the Vellore Medical College. Collaboration between the two facilities could go a long way in providing comprehensive services at both the centres.

18. **There is very little focus on process improvements** – Similar to Gujarat, while a lot of attention has been given in the improvement of infrastructure, getting adequate equipment in place, and regulatory compliance, the issue of standardizing clinical processes has taken a backseat. For example, multiple facilities visited had more than one operating tables within the operation theatre without any adequate separation. Moreover, simple analysis demonstrated that the facility did not need the extra table as the patient load could be adequately managed with a single table.

19. **Infrastructural gaps remain even after certification** – While the ISO gap analysis is done as per the IPHS standards, it is not mandatory to close the gaps for certification. As a result, even after certification the infrastructural gaps at some facilities are pretty glaring. One of the facilities visited was built on marshy land, and was very difficult to access during the monsoon seasons. The electricity supply at another facility was very poorly designed and could lead to a serious incident.

Best practices identified

20. **Decentralization of management of human resources helps in addressing closing gaps faster** – the state provides discretionary power to the Deputy Director of Health Services (DDHS) to recruit class IV employees through the State Employment Exchange. This helps in filling up manpower gaps faster than going through a centralized process. Also, the DDHS has the power to reallocate the manpower within his area for rational allocation of clinical staff.

21. **Use of different standards for different levels of facilities is commendable** – One of the outcomes of the different departmental structure of the health services in Tamil Nadu has been the choice of different standards for primary and secondary facilities. While NABH might be more appropriate as a standard for secondary

facilities (DHs and SDHs) given the wide range of services offered and the complexity involved, ISO might be more cost effective and efficient when it comes to primary facilities (PHCs and CHCs) given the focus on maternal services and implementation of primary health programs.

22. **The state is planning to use a hub and spoke model to help other facilities improve quality of services** – There is a move to institutionalise the quality improvement initiatives so that the gains from the quality initiative are sustainable. For example, Tamil Nadu has decided that there would be at least one ISO certified PHC in each of the 42 Health Unit Divisions in the state, and these facilities would provide hand holding support to another PHC (which is not aiming at certification) within the HUD to help it improve its quality. This will help ensuring that there some move towards quality improvement in each HUD and slowly most facilities will come up the quality curve.

23. **A number of gaps can be closed by coordination amongst facilities –** Due to the oversight of the DDHS, there is a lot of coordination and sharing of resources between facilities in a HUD. This ensures a more efficient distribution of resources such as manpower. For example, a gynaecologist from a one facility might be transferred to another within the HUD where the load is more and refers the more complicated cases there. Another example is in the area of biomedical waste collection and disposal. Tamil Nadu has outsourced the process of biomedical waste collection for its medical facilities. However, there is a minimum quantity of waste that must be produced by a facility for the collection agency to come and collect it. Because of this rider a number of PHCs do not come under the purview of this facility. However, at some places MOs at PHCs coordinate with other facilities around it and collect the waste at one facility which is later collected by the waste collection agency. This ensures that all facilities benefit from such services.

24. **Creation of standard treatment protocols is a good move but needs better implementation** – Tamil Nadu has a comprehensive Standard Treatment Guideline document that is made available at all facilities with detailed instructions on treatment of various conditions. However, the extent of use of these guidelines in actual practice in debatable.

Future Plans

25. **State will pursue phased implementation of NABH standards** – Due to the paucity of funds the state government has decided to focus on getting two hospitals accredited every year rather than going in for accreditation for all facilities at one go. This will help the state stagger the investments needed over a longer period of time.

26. **Expand the ISO certification program to cover one facility in every HUD –** There are multiple initiatives from the government on the ISO initiative. The first is to get an additional 30 PHCs (1 in each remaining 30 HUDs) ISO certification. Also, these facilities will support two other facilities in undergoing quality improvement without certification. Plus, the 48 already certified facilities would provide hand holding support to an additional 48 facilities in the quality improvement process. So they aim to have 196 facilities (48+48 and 30+ 2x30) that would then serve as models for quality improvement across the state.

27. **Tamil Nadu is exploring the creation of a state specific quality standard** – The state officials feel that it is not feasible to implement the ISO standards across all facilities due to the resources required. Because of this, the state is exploring the possibility of creating separate quality standard for the state which can be implemented at lower costs across all facilities.

APPENDIX II (C) – CHHATTISGARH

Introduction

1. Chhattisgarh is one of the youngest states in the country formed in November 2000. Chhattisgarh has a population of 2.55 crore (*provisional 2011 census data*) and a population density of 189 persons per square kilometre way below the national average of 382 persons per square kilometre. It is primarily a tribal state with the second highest tribal population in India after Madhya Pradesh.

2. The Expenditure on public health has increased steadily from 3.2% in 2007-08 to 4.3% in 2010-11.

Item	2007-08	2008-09	2009-10	2010-11
Percentage Allocation	3.2%	3.5%	4.1%	4.3%

Chhattisgarh faces a huge gap in medical and non-medical personnel

3. Chhattisgarh has sufficient number of PHCs and District Hospitals but there is still a gap of 6% SCs and 28% CHCs compared to the number required as per the population of the state. Also, the state requires 6 medical Colleges but currently has only 3. There are a reasonably good number of facilities in place but a majority of primary care centres (SCs and PHCs) do not have their own building.

4. In terms of manpower the situation is very grim. There is a vacancy of ~50% doctors in the state. For staff nurses the vacancy number stands at around 7% but the number of sanctioned posts for staff nurses is way below what is required for quality health services. The situation is similar for other support staff. Out of the 731 sanctioned posts for Lab Technicians 374 (51.16%) are vacant.

5. For Specialists the gap is even worse. There is shortage of 65% specialist in the state:

Category	Sanctioned	Filled	Gap	Gap%
Paediatrician	168	41	127	75.6
Gynaecologist	168	32	136	81
PGMO Anaesthetist	147	18	129	87.8
Anaesthetist	17	11	6	35.3

Quality Improvement Program in Chhattisgarh

6. The Quality initiative started in 2008 when District Hospital Korba was taken up by NHSRC for the pilot project on ISO certification in 8 EAG states with one facility each. The DH in Korba received ISO certification in Sep, 2008 and was the first public hospital in India to do so.

7. After certification of Korba the state took up 7 more facilities, 3 district hospitals and 4 CHCs, for ISO certification with support from NHSRC and Technical Support Agencies. All these facilities achieved certification by 2011.

Current Status

8. A total of 8 facilities have received ISO certification till date with support from NHSRC. These include 4 District Hospitals (Korba, Bilaspur, Durg and Ambikapur) and 4 CHCs (Manendragarh, Belha, Kurud and Khairagarh). The District Hospital in Korba completed the recertification process in 2011.

9. Apart from these, some facilities were taken up by the state on its own without support from any external agency. Out of these, so far the District Hospital in Kanker has achieved certification.

Key Shortcomings

10. **Acute shortage of human resources impedes the accreditation process** – The shortage of skilled manpower is a very serious problem in Chhattisgarh. Most of the facilities do not have any specialist doctors available. For example in Korba no anaesthetist was available in the entire district expect a Post Graduate Medical Officer. Due to such an acute shortage of clinical as well as non-clinical staff, the state understands that the accreditation program cannot be expanded to cover more facilities.

11. **There is a lack of focus on clinical processes** – Although ISO certification has improved the overall process and documentation in the facilities but there has been very little improvement on the clinical side. While the staff members are trained in infection control practices, they do not follow the standard guidelines. Needles are not discarded properly in wards and laundry workers were not wearing any gloves or mask to prevent injury. Medication management is another area of concern. At most of the facilities different drugs were mixed and not stored properly.

12. **Infrastructure needs a lot of improvement** – The infrastructure at the facilities, including certified facilities, was not satisfactory. The buildings were in very bad shape and in need or urgent renovation work. In the District Hospital at Korba an entire floor was not being used because of seepage issues.

13. **Lack of financial support from the state impacts sustainability of processes** – The facilities are not receiving the required support from state even when the state is carrying forward NRHM funds meant for the same. DH Korba went for recertification with its own resources and did not receive any funds from the state. DH Durg also did not receive any funds from state government for ISO Certification. Most of the work was done using JDS funds.

14. **Very little engagement of the state in the accreditation process** – There was very little engagement of the health department in the entire certification process and it was largely managed by the facilities and NHSRC. Most of the facilities are yet to be reimbursed the money spent by them on the certification process. Even after certification, there is very little monitoring of the certified facilities at the state level

to understand the impact of certification. So far, neither the current MD of NRHM nor Principal Secretary of Health has visited any of these facilities.

Key Learning

15. **Chhattisgarh is using Rural Medical Assistants to fill gaps in human resource requirements** – Given the acute shortage of doctors faced it, Chhattisgarh started a three year diploma course to train healthcare practitioners for rural areas. The state then started deploying RMAs at PHCs and all medical officers were then stationed at CHCs and higher facilities. A study conducted by SHRC has shown that the community has had a positive reaction towards RMAs so far.

16. **Chhattisgarh has instituted Jeevan Deep Samiti** (**JDS) on lines of the RKS** – The JDS is very similar to RKS but has been given more powers and at most places JDS funds are being used to support certification at all the facilities in absence of financial support from the state. A hospital can collect user charges under JDS and can use it for development purpose. The facilities are charging patients for OPD and IPD registration, diagnostics and investigations, and use of the blood bank etc.

Future Plans

17. **The state plans to upgrade facilities to meet IPHS norms** – The state wants to implement IPHS norms across all facilities before going ahead with any quality improvement programs. An analysis of existing IPHS norms has already been completed and implementation will start in 75 FRUs and 24X7 PHCs in 2012.

18. **Chhattisgarh wants to pilot NABH standards at some facilities** – The state is planning to take up few progressive facilities for NABH accreditation and use them as models to help improve quality across other facilities. These facilities will be chosen on the basis of infrastructure, availability of human resources, and existing quality of services. Because of the investments involved in NBAH accreditation only 1-2 facilities will be taken up at a time.

APPENDIX II (D) – BIHAR

Introduction

1. The state of Bihar is among the poorest in the country. The current population of Bihar according to the provisional data for census 2011 is 10.38 crores and the density of population is 1102 persons per square kilometre which is way above the national average of 382 persons per square kilometre. Although a number of healthcare reforms have been initiated in the past couple of years, the state is still far behind the national average for most of the indicators. The IMR & TFR of 261 and 3.9 is way above the national average of 212 and 2.6 respectively.

2. The percentage expenditure on public health as a percentage of GDP has decreased from 4.4% in 2007-08 to 3.9% in 2010-11.

Item	2007-08	2008-09	2009-10	2010-11
Percentage Allocation	4.4%	3.5%	3.7%	3.9%

Bihar faces a large shortage of facilities and human resources

3. The state lacks the infrastructure to cater to the health needs of the population across all the levels. In accordance with the government norms, except for PHCs there is huge shortfall of facilities especially at the level of Medical College's, CHCs and additional PHCs[1]. Only 70 CHCs are available against a requirement of 604 and only 7 Medical colleges are present as against a requirement of 20.

Type of Facility	Present	Required	Shortfall
MCH	7	20	13 (65%)
DH	36	38	2 (5.2%)
SDH	46	55	9 (16%)
CHC/RH	70	604	534 (88%)
PHC	534	534	0
APHC	1330	2787	1544 (55%)
HSC	9696*	16576	7718 (46%)
*4785 without own building			

4. There is also a huge gap in the availability of human resources[1]. Only 197 specialists are present as against a requirement of 604. Even at the level of medical officers, there is a gap of ~50 %. The state has only 1004 (against a requirement of ~15000 according to IPHS) sanctioned posts for Grade A nurses and out of these only 440 posts are filled.

Position	Present	Required	Shortfall
Regular Doctors	2519	4867	2348 (48%)
Contractual Doctors	1632	2375	743 (31%)

[1] 5th Common Review Mission- Bihar (NHSRC)

Specialist	197	604	407 (67%)
Grade A Nurse (Regular)	440	1004	564 (56%)
Grade A Nurse (Contractual)	1476	3395	1919 (57%)
Lab Tech.	331	680	349 (51%)

Quality Improvement Program in Bihar

5. The Quality Improvement process started in 2008 when District Hospital Ara was taken up by the NHSRC for ISO implementation as a part of the pilot project in 8 EAG states. The facility received certification in 2009.

6. In 2010 46 facilities were taken up for ISO certification process with the support of NHSRC and external consultants.

7. Apart from ISO certification the state has also taken up the Family Friendly Hospital Initiative (FFHI) accreditation in a big way. The Public Health Administration (PHA) department of NHSRC is providing technical support to the Bihar Government for implementation of FFHI. The project is being implemented through donor partners in several districts of the state. DFID is supporting facilities in 8 districts and Gates Foundation is helping facilities in another 9 districts through CARE.

Current Status

8. **ISO Certification –** The state has 1 ISO certified facility, the District Hospital in Ara. Apart from this 46 facilities are under various phases of implementation of ISO certification. These include 12 District Hospitals, 5 Sub- District Hospitals and 29 PHCs.

9. **FFHI Certification** – While no facility has been certified by FFHI so far, the state has 22 level-3 facilities, 124 level-2 facilities and 16 level-1 facilities which are working towards achieving FFHI certification.

Key Shortcomings

10. **Huge shortage of doctors, specialists, and trained staff** – Bihar faces an acute shortage of doctors and trained staff member. For example, the state has only 1004 sanctioned posts for Grade A nurses against a requirement of around 15000. The facility in Danapur had only 6 Grade A nurses against sanctioned posts of 50.

11. **Irrational deployment of human resources amplifies the problem** – the huge shortage of human resources is compounded by irrational deployment of human resources. A number of doctors and nurses have been posted in Additional PHCs where they are either not required or service itself is not available. This affects the quality of service being provided at the higher facilities where these resources could be better utilised.

12. **Poor infrastructure is an issue** – Most of the facilities have very poor infrastructure and some them are even being run in pre-independence structures. Even

the newer facilities that have been built are not designed according to the needs of a healthcare facility. A facility had their OT on first floor but the building did not have a ramp because of which it could not be used. Also, there have been problems of handing over the work from private contractors to BMSI (Bihar Medical Services and Infrastructure Corporation Ltd.) and a lot of infrastructural work is stuck midway.

13. **Medical equipment is often faulty and lacks supporting infrastructure rendering them unusable** – Most facilities have medical equipment that are either not functioning correctly or do not have supporting equipment. For example, facilities have been provided with baby warmers without stabilizers. Due to problem of voltage fluctuation the machines don't work and are lying unused.

14. **Extensive retraining of nurses and staff members is needed** – Although trainings have been conducted by the technical support agency, the nurses and other staff members are not very confident about the correct process of performing certain tasks. Further, due to absence of properly working equipment staff members are not able to practice the methods and tend to forget the standard operating procedures. For example, as most of the baby warmers were not working properly, nurses have forgotten how to operate them at most places.

15. **Sustainability of improvements is questionable** – Facilities undergoing quality improvement are often not able to sustain the progress made. For example, in DH in Ara, BMW management is no longer being practiced and the waste generated is not being segregated as per guidelines. Most of the issues that have been pointed out in regular surveillance visits and internal assessments still exist and are not addressed adequately.

16. **Outsourced services are not fully integrated and their quality is questionable** – The state has outsourced a number of services including collection of biomedical waste and diagnostic services. These services are yet to be integrated with the facility and there are no mechanisms for monitoring their quality at the facility level. For example, the frequency of waste collection by the outsourced agency was found to be very erratic. Further, the quality of services provided is often questionable. For example, the X-Ray equipment used by the vendor did not have AERB clearance. Also, since the origin of these machines was not clear and did not have *type* or *make* information, it would be difficult to get AERB clearance.

17. **Redundancies created by outsourcing have not been managed** – A number of positions, such as lab technicians, have been rendered redundant because of outsourcing of services by the state government. These staff members are currently being utilised by the facilities to perform other tasks. However, as these staff members have not been trained adequately to perform these tasks, the output might not be up to desirable standards.

Key Learning

18. **Appointment of Hospital Manager helps the implementation of quality improvement initiatives** – The hospital managers appointed by the state at the District and Sub District hospitals are playing an important role in the certification process by coordinating between the consultant and the facility administration. The

presence of a hospital manager greatly reduces the burden on the staff and will also help maintain the certification once the support is withdrawn.

19. **Establishment of Skill Labs will help in training of staff members** – The state is setting up skill labs in various districts to provide training to the staff. These labs are being run by respective donor partners (Gates Foundation and DFID). These labs will train healthcare staff to enhance the knowledge and skills on; assessment of maternal and new born, conduction of labour, recognition and management of complications of maternal and new born using standard practices. These labs will assess the competency of staff, train them in lacking areas and then test the staff to ensure sustained improvement in competencies. This initiative will help in introducing standard procedures and guidelines and greatly improve the quality of care at the PHC level.

20. **Formation of BMSI is expected to speed up infrastructure improvement** – The state has formed a Bihar Medical Services and Infrastructure Corporation Limited (BMSI) for procurement of quality drugs, equipment, services and works for the Department of Health and Family Welfare. The creation of this dedicated agency is expected to speed up the process of infrastructural improvement.

Future Plans

21. **State wants to expand FFHI initiative across facilities** – The state wants to bring all primary care facilities providing delivery services to FFHI level starting with the block level facilities given that it is the most feasible of all standards to implement on a larger scale due to the paucity of funds. The focus of the state is currently on providing full range of quality RCH services before moving towards a general quality improvement initiative.

22. **No expansion of ISO certification is on cards** – the state is not planning to expand the ISO certification initiative given that the progress of most facilities under this initiative has been very slow. According to the NHSRC, of the 46 facilities under the initiative, only 5 facilities have shown favourable progress while 22 facilities are categorised as difficult or desperate.

23. **Might experiment with implementation of NABH but recognizes it would be difficult** – The state might take up NABH for higher facilities but realizes that the standards are very resource intensive and might not be appropriate for the state to pursue.

APPENDIX III – SAMPLE FACILITY VISIT REPORTS

APPENDIX III (A) – DISTRICT HOSPITAL, GANDHINAGAR, GUJARAT

APPENDIX III (B) – DISTRICT HOSPITAL, GODHRA, GUJARAT

APPENDIX III (C) – GENERAL HOSPITAL, NADIAD, GUJARAT

APPENDIX III (D) – PHC, DABODHA, GANDHINAGAR, GUJARAT

APPENDIX III (E) – PHC, SALUN, NADIAD, GUJARAT

APPENDIX III (F) – UPGRADED PHC, MEDAVAKKAM, TAMIL NADU

APPENDIX III (G) – GENERAL HOSPITAL, SHOLINGUR, TAMIL NADU

APPENDIX III (H) – UPGRADE PHC, BANAVARAM, TAMIL NADU

APPENDIX III (I) – ADDITIONAL PHC, POZICHALUR, TAMIL NADU

APPENDIX III (J) – DISTRICT HOSPITAL, KORBA, CHHATTISGARH

APPENDIX III (K) – DISTRICT HOSPITAL, DURG, CHHATTISGARH

APPENDIX III (L) – PHC, DAUDNAGAR, BIHAR

APPENDIX III (M) – DISTRICT HOSPITAL, AURANGABAD, BIHAR

APPENDIX III (N) – REFERRAL HOSPITAL, SONEPUR, BIHAR

APPENDIX III (O) – DISTRICT HOSPITAL, ARA, BIHAR

APPENDIX III (A) – DISTRICT HOSPITAL, GANDHINAGAR, GUJARAT

Location	Gandhinagar
Level	District Hospital
Catchment Population	14 lakhs
# of beds	300 (Functional)
# Facilities referring to Hospital	25 PHCs, 8 CHCs
Patient Load	Avg. OPD ~850
Accreditation Status	NABH Accredited

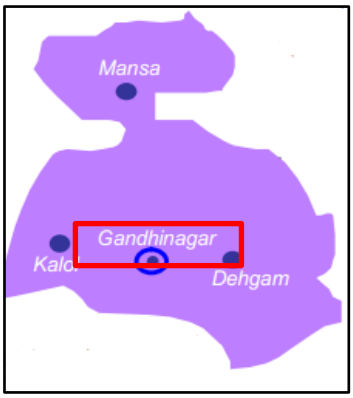
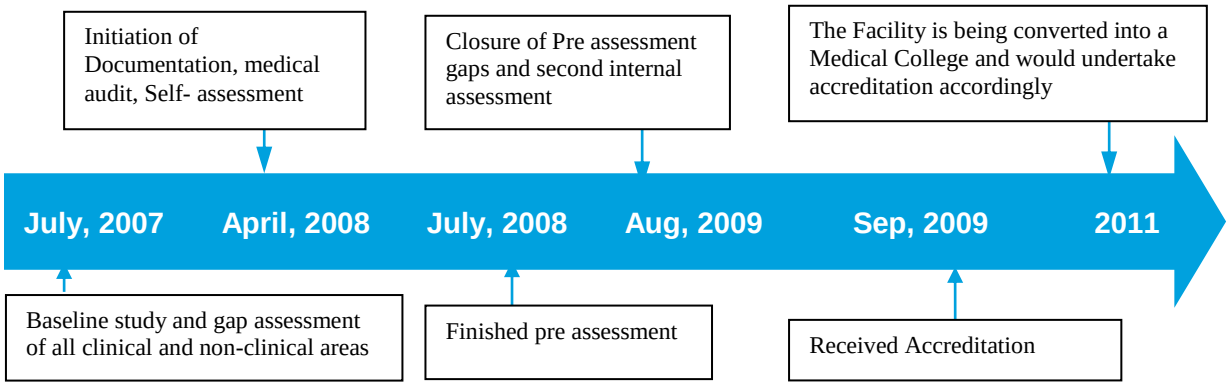


Fig: Map of Gandhinagar District

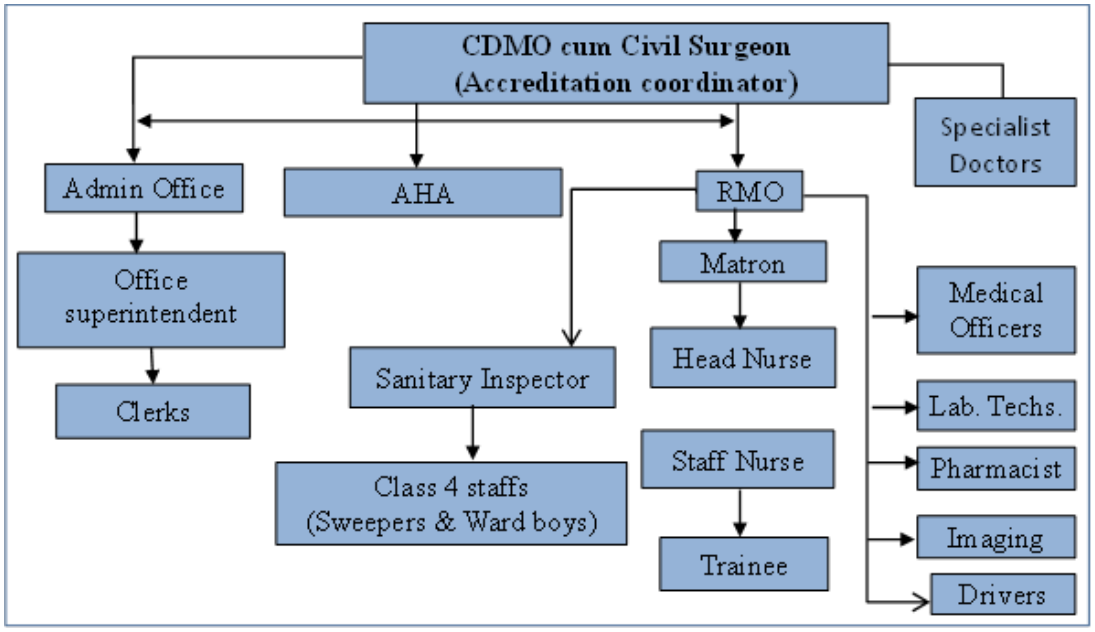
1. Services Offered

General Medicine	Dietary Services (only for indoor patients)
General Surgery	Physiotherapy
ENT	Central Sterile and supplies Department
Gynaecology	Medical stores
High Risk Obstetric Care	Mortuary
Paediatrics & Neonatal Services	Medical gases
Orthopaedics	Housekeeping
Ophthalmology	Ambulance Services
Dermatology	Hospital Management Information System
Dental Services	Imaging
Anaesthesia Services	Blood transfusion
Laboratory	Electro medical Investigation

2. Accreditation Timeline



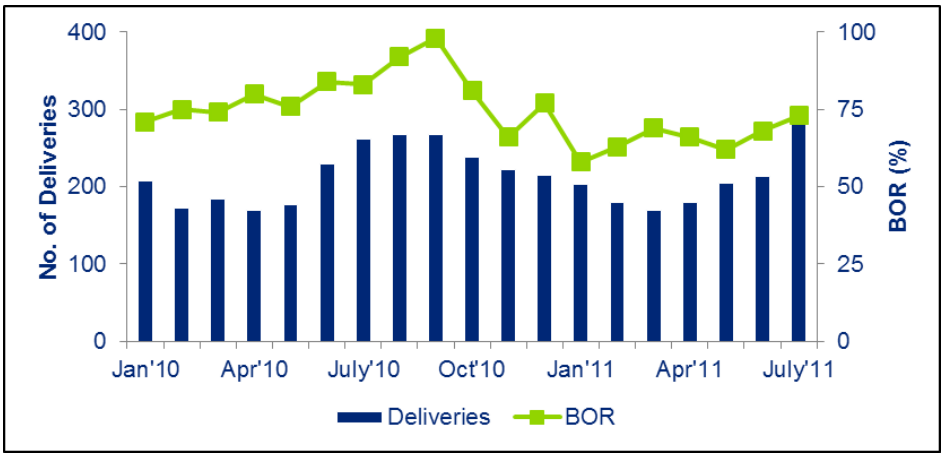
3. Organizational Structure



4. Expenditure on NABH

S. No.	Head	Cost In INR
	Instrument and equipment	25,00,000
	Manpower	58,31,204
	Operational Fund	25,00,000
	Training	87,000
	Total budget requirements for 2011-12	**1,09,18,204**
	Total Expenditure from April, 2008 to June, 2011	**4,52,80,000**

5. Indicators



6. Observations

a. After accreditation the patient volume has gone up and even well-to-do patients are now coming to the facility.
b. The facility currently has the required manpower through regular and contractual staff and the attrition rate is very low. Being located in the capital the manpower situation is much better than other district hospitals in the state. Still manpower costs account for ~50% of the recurring costs.
c. The operational expenditure of the hospital has increased due to increased documentation, maintenance, electricity for central AC etc.
d. The facility is being converted into a medical college and will have to undergo accreditation for medical colleges.

APPENDIX III (B) – DISTRICT HOSPITAL, GODHRA, GUJARAT

Location	Godhra
Level	District Hospital
Catchment Population	22 lakhs
# of beds	210
# Facilities referring to Hospital	68 PHCs, 13 CHCs, 2 SDH
Patient Load	Avg. OPD ~500
Accreditation Status	Final Assessment was completed in 2009

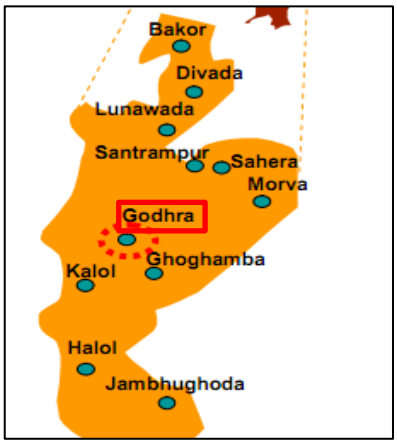
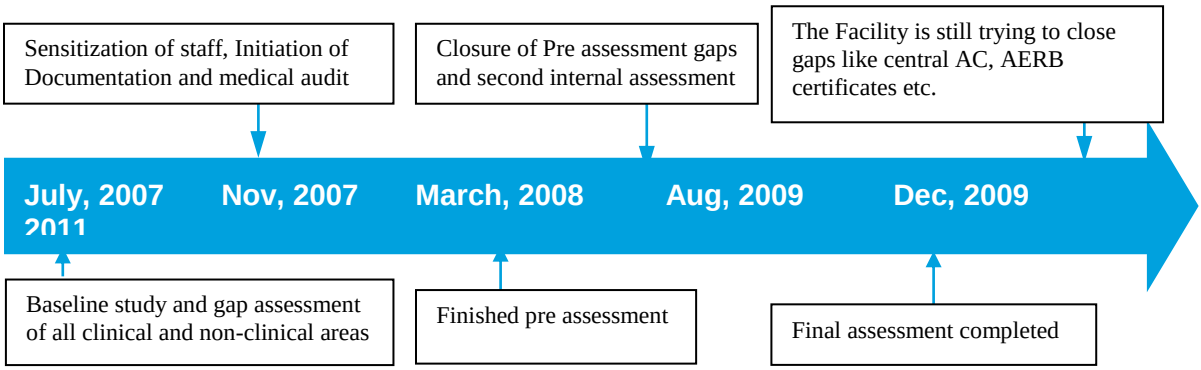


Fig: Map of Panchmahal District

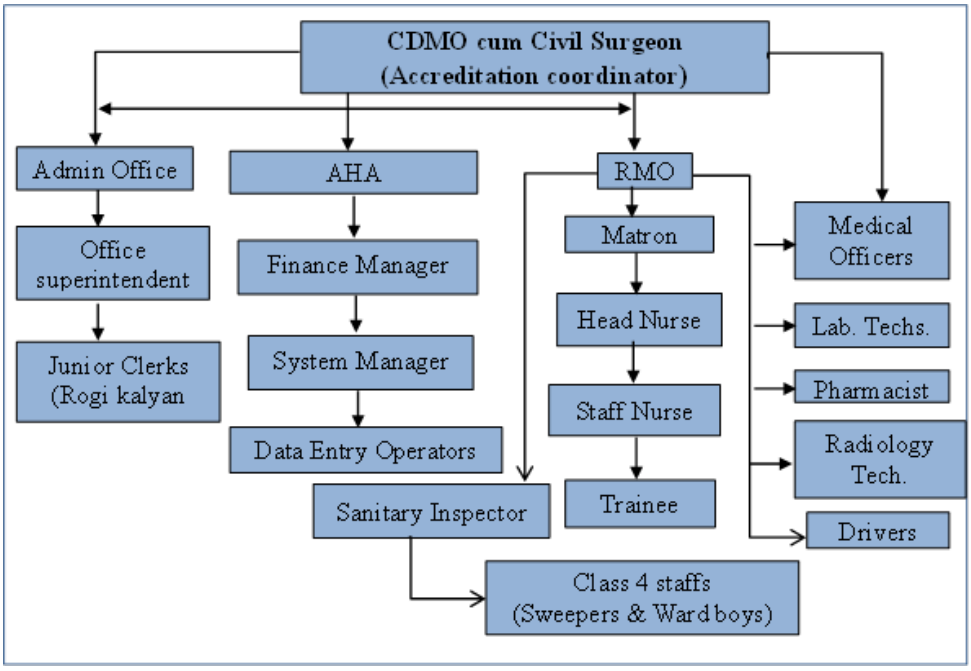
1. Services Offered

Causality 24 x 7	Anaesthesia
Internal Medicine	Radiology
Obstetrics& Gynaecology	Pathology
Paediatrics & Neonatology	Blood Bank
General Surgery	Psychology
Orthopaedics	ART Centre
Critical Care Medicine	Silicosis Centre
Ophthalmology	Physiotherapy & Rehabilitation
ENT	Medical Record Dept.
Dermatology	CSSD
Dentistry	Central Oxygen Supply System
TB & Chest	Ambulance Service 24 x 7

2. Accreditation Timeline



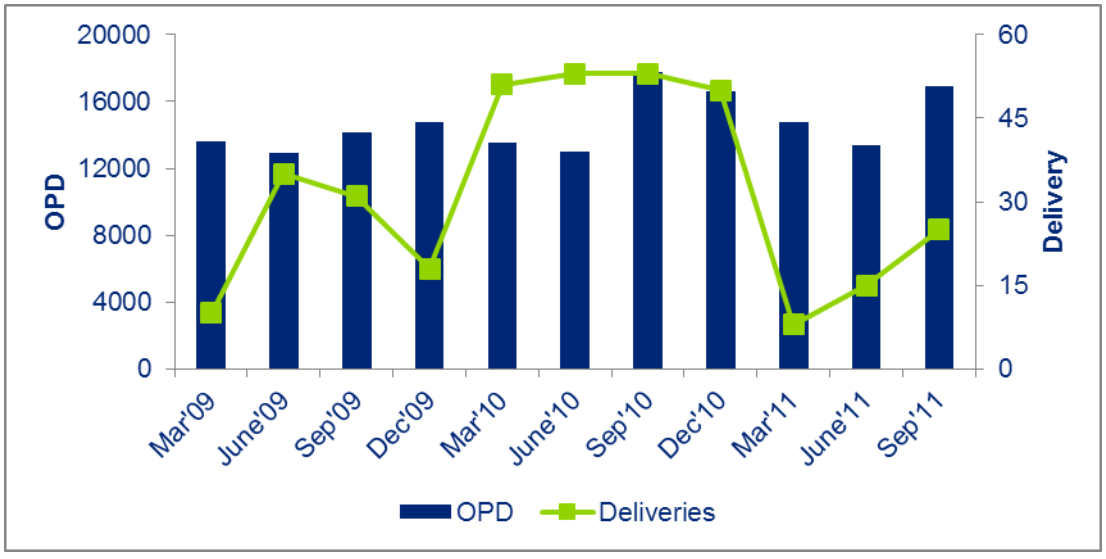
3. Organizational Structure



4. Expenditure on NABH

S. No.	Head	Cost In INR
	Instrument and equipment	21,13,000
2.	Manpower	1,88,78,448
3.	Operational Fund	10,70,000
4.	Training	1,77,000
	Total budget requirements for 2011-12	**2,22,38,448**
	Total Expenditure from April, 2008 to June, 2011	**4,99,31,186**

5. Indicators



6. Observations

a. Patient load (both OPD and IPD) have gone up. Lab usage has also increased and the facility is getting more referrals now. There was sudden fall in the number of deliveries due to the absence of gynaecologist in the hospital.
b. There was a gap of almost 50% of human resources during initial assessment and even now the facility is facing a shortage of specialist & doctors.
c. The facility has a very high attrition rate especially for nurses as the majority of the nursing staff is hired on contractual basis (1 year contracts). Because of short term contracts it is very difficult to retain the contractual staff.
d. Of the total budgeted amount for 2011-12 85% is for manpower. Since the facility is in the final stage of accreditation the amount of 2.22 crores represents very closely the recurring expenditure of the facility.
e. The facility was taken up in the first phase and still hasn't been able to get accreditation which has greatly affected the motivation levels of the staff.

APPENDIX III (C) – GENERAL HOSPITAL, NADIAD, GUJARAT

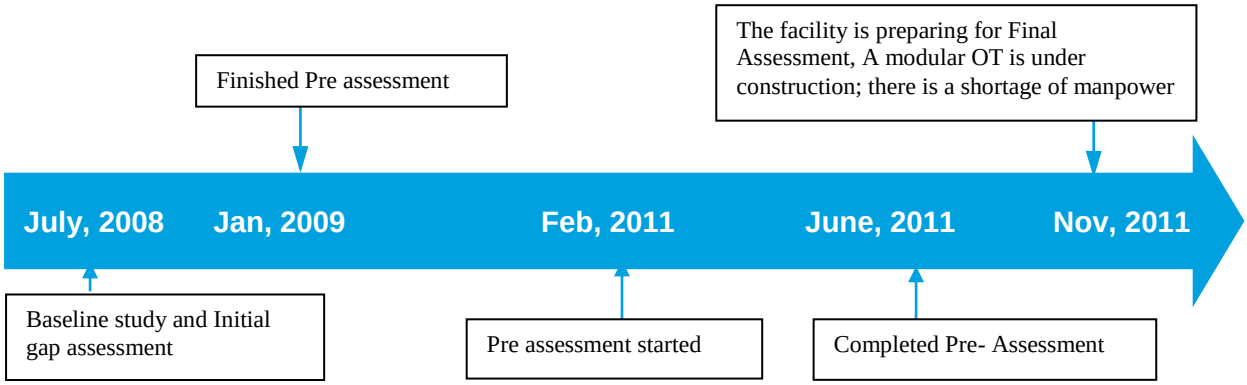
Location	Nadiad (Distt. Kheda)
Level	General Hospital
Catchment Population	20 lakhs
# of beds	160 (Functional)
# Facilities referring to Hospital	50 PHCs, 12 CHCs & 1 SDH
Patient Load	Avg. OPD ~350
Accreditation Status	Finished Pre-Assessment, Preparing for Final Assessment

Fig: Map of Kheda District

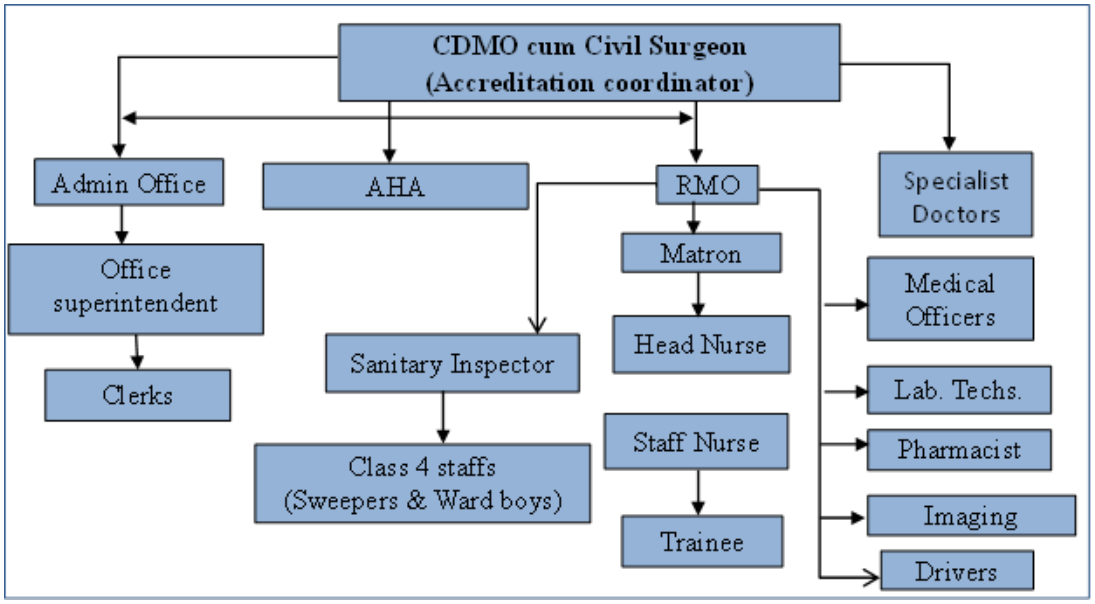
1. Services Offered

General Medicine	Emergency Medicine
Obstetrics and Gynaecology	Anaesthesia
Paediatrics and Neonatology	Radiology
Orthopaedics	Pathology
Ophthalmology	Ambulance
ENT	Laundry
General Surgery	House Keeping
Dermatology	MIS
Dentistry	Waste Management
Medical Records	

2. Accreditation Timeline



3. Organizational Structure

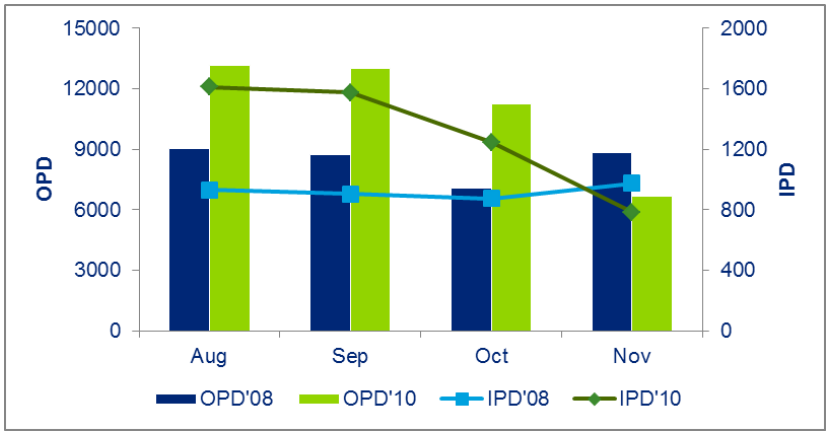


4. Expenditure on NABH

S. No.	Year	Cost In INR
1.	2008-09	3,81,414
2.	2009-10	87,75,963
3.	2010-11	1,49,22,906
4.	2011-12 (till 22/07/11)	1,11,53,720
	Total Expenditure till 22/7/2011	**3,52,34,003**
	Total Government grant from 2008- 2011	**3,40,00,000**

- The facility is also building a new OT complex at cost of ~2 crores which will be borne by Project Implementation Unit (PIU)

5. Indicators



6. Observations

a. A total of 48 gaps were found during the initial gap assessment. 40 of these gaps were related to process and documentation.
b. There has been an increase in the number of patients visiting the facility. The patients have felt improvement in not only the overall infrastructure and cleanliness but also the attitude of staff and doctors.
c. The facility receives very generous donations from community which has helped it in improving the facilities at the hospital
d. Despite being near to Gandhinagar availability of doctors is a still a problem. The facility is facing a shortage of specialists. Of the total fund requirement of 1.68 crores for 2011-12 ~75% was allotted for manpower.
e. A modular OT (not required for NABH) is being built which has increased the infrastructure cost

APPENDIX III (D) – PHC, DABODHA, GANDHINAGAR, GUJARAT

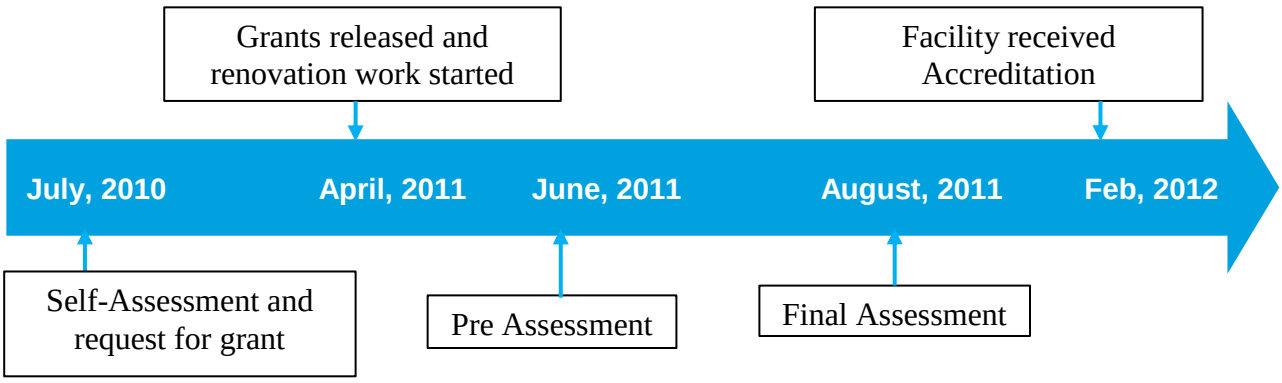
Location	Dabodha (Distt. Gandhinagar)
Level	PHC
Catchment Population	48706
# of beds	6
# Facilities referring to PHC	7 Sub Centres
Patient Load	Avg. OPD -~20-30 Monthly Deliveries~10
Accreditation Status	Accredited[2] FFHI Certified

Fig: Map of Gandhinagar District

1. Services Offered

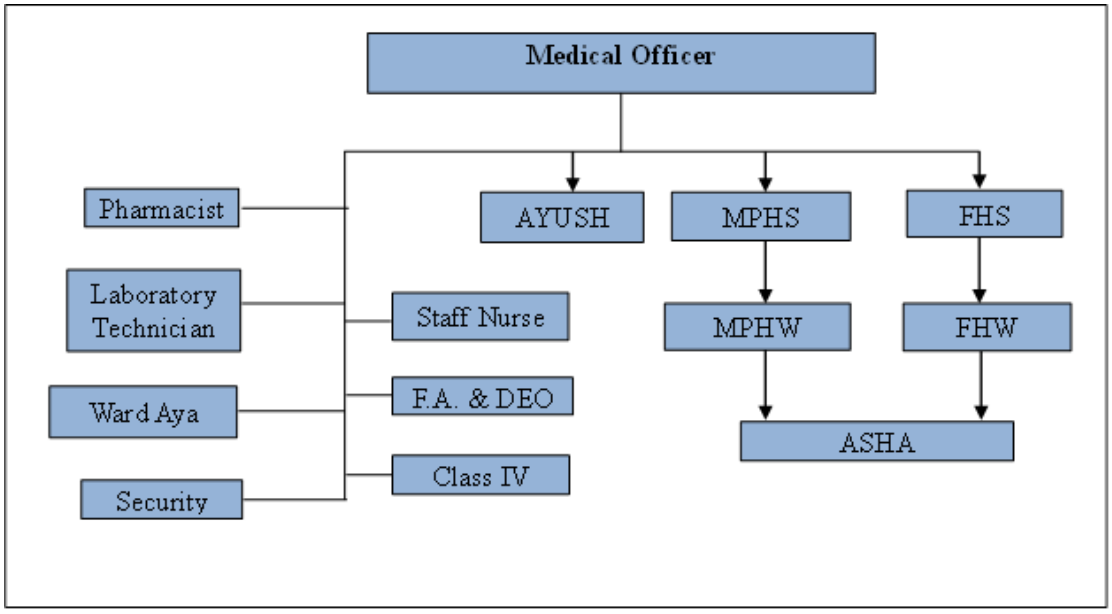
24 hours delivery service	OPD- Dressing, Injection etc.
Emergency Services	Laboratory services
New born care	Diagnostics
Infant Care Services	AYUSH
Family Planning	National Health Programs
Ante Natal	State Health Programs
Post Natal	MAMTA Clinic
Referral transport service	Medico Legal Services

2. Accreditation Timeline



[2] The facility had not received accreditation during the visit in November 2011

3. Organizational Structure



4. Expenditure on NABH (2010-11)

S. No.	Year	Cost In INR
	Infra	10,86,429
	Equipment & Instrument	24,642
	Manpower & training	14,160
	Others	1,94,769
	Total Expenditure from 2008 to 2011	**13,20,000**
	Total Govt. Grant from 2008 to 2011	**7,50,000**

5. Observations

a. There has been a positive impact on the facility. Patients trust has gone up and more people now visit the PHC for consultation and tests. This has reflected in their interest in the facility and the donations received.
b. The infrastructure in the facility has improved quite a lot. All buildings have been repaired, pavements have been created, signages have been put and facility was very clean. Infrastructure constituted the largest share of expenditure on NABH.
c. The documentation process and patient registration has improved and records are now properly maintained.

APPENDIX III (E) – PHC, SALUN, NADIAD, GUJARAT

Location	Salun (Distt. Kheda)
Level	PHC
Catchment Population	~38000
# of beds	6
# Facilities referring to PHC	7 Sub Centres
Patient Load	Avg. OPD - 50-60, Monthly Deliveries~90
Accreditation Status	NABH Accredited, FFHI Certified

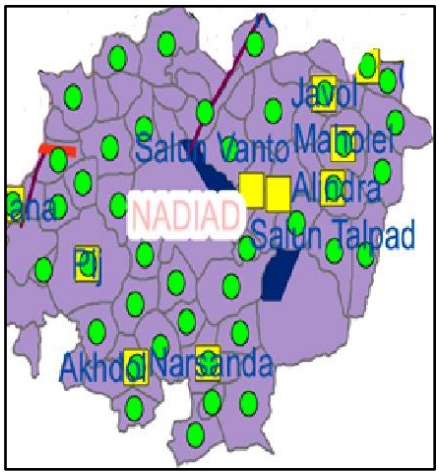
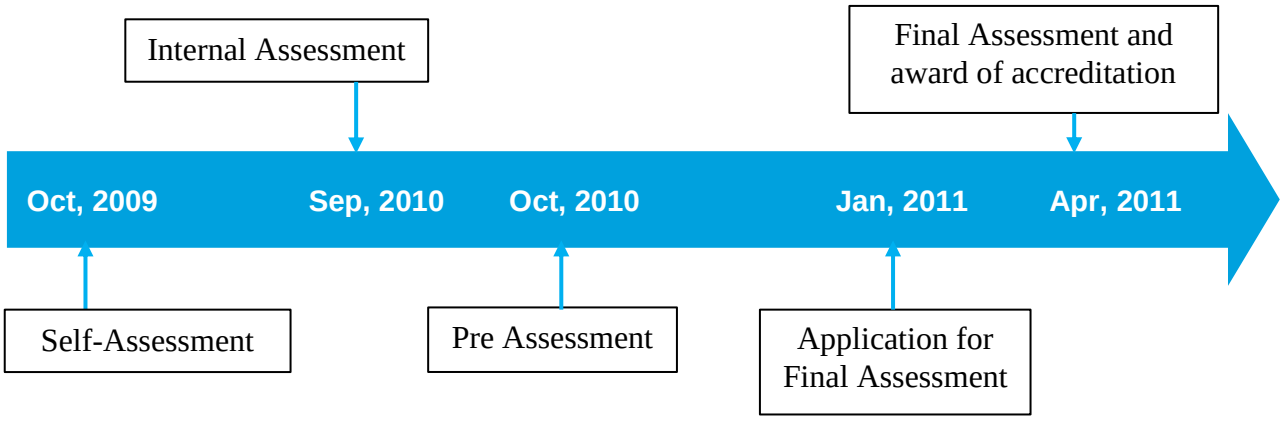


Fig: Map of Nadiad

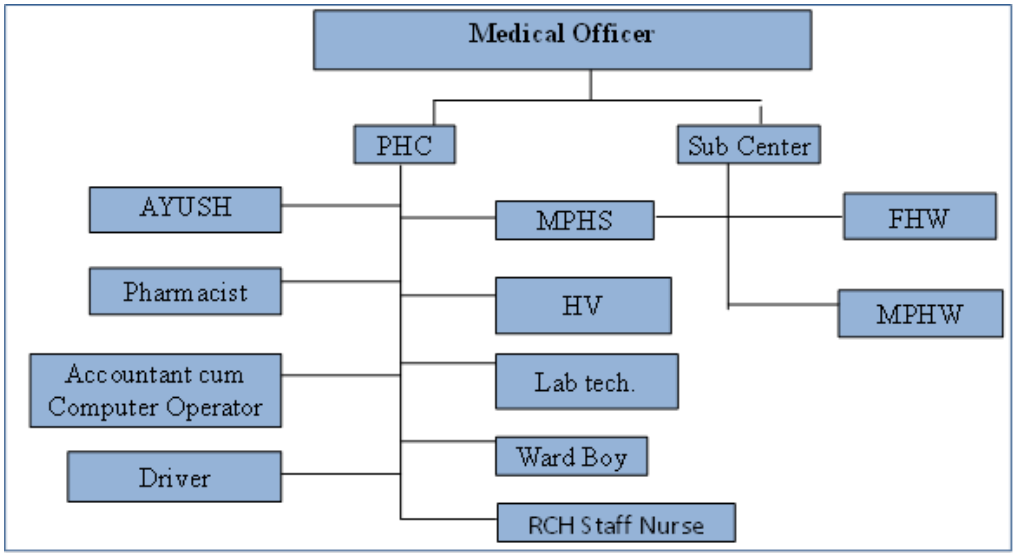
1. Services Offered

24 hours delivery service	OPD- Dressing, Injection etc.
Emergency Obstetric care	Laboratory services
New born care	Diagnostics
Family Planning	AYUSH
Ante Natal Clinic	National Health Programs
Post Natal Clinic	State Health Programs
Referral transport service	

2. Accreditation Timeline



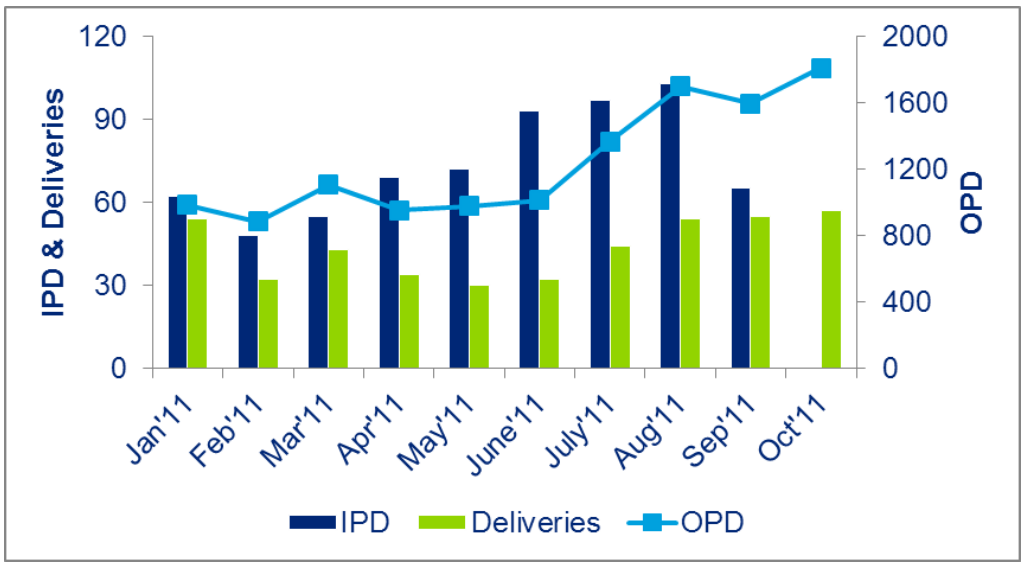
3. Organizational Structure



4. Expenditure on NABH (2010-11)

S. No.	Year	Expenditure In INR
1.	Infra	7,07,857
2.	Consumables	1,60,733
3.	Maintenance	1,98,790
4.	Others	1,59,750
5.	Manpower	42,870
	Total	**12,70,000**

5. Indicators



6. Observations

a. During the initial assessment most of the gaps were related to infrastructure and processes.
b. The Patient load has increased a lot after accreditation. The facility conducted 101 deliveries in the month of November. The yearly numbers of deliveries have increased from 282 in 2008 to 552 in 2011 (up to November 2011).
c. The staff members at the PHC are very motivated and are aware about the importance of quality.
d. The facility receives generous donations. The land and building have been donated to the facility.
e. With the increased patient volumes the burden on the staff has also increased and the facility needs additional manpower to handle the load.
f. The facility took two years to achieve accreditation. Infrastructure requirements like BMW room, attached toilet in labour room etc. took most time.

APPENDIX III (F) – UPGRADED PHC, MEDAVAKKAM, TAMIL NADU

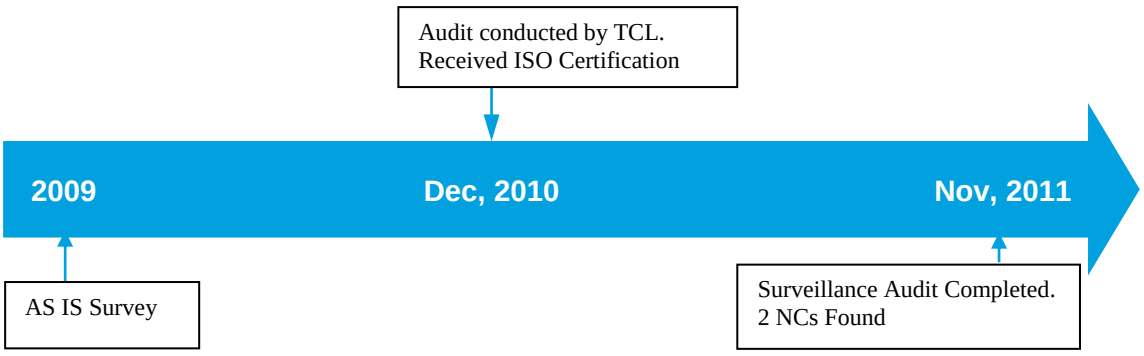
Location	Saidapet HUD
Level	Upgraded PHC
Catchment Population	95226
# of beds	42
# of Sub-Centres	5
First Referral Unit	Saidapet General Hospital
Patient Load	Avg. OPD ~400
Accreditation Status	ISO Certified

Fig: Map of Punithathomaiyarmalai Block

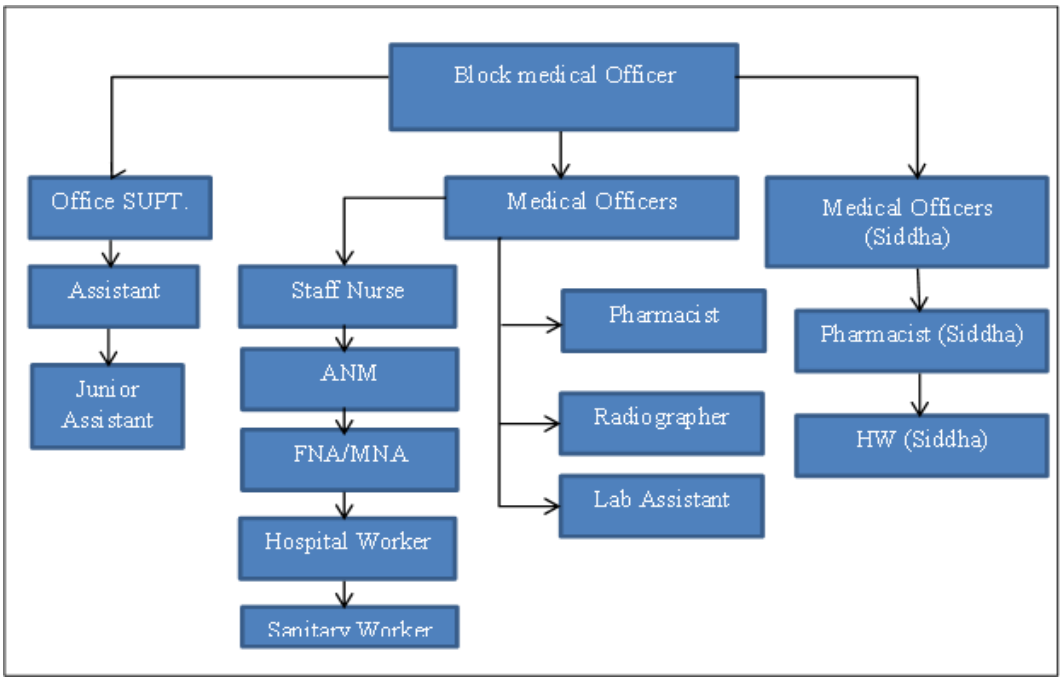
1. Services Offered

24 hours delivery service	OPD- Dressing, Injection etc.
Emergency Obstetric care	Laboratory services
New born care	Blood storage
Family Planning	Diagnostics
Ante Natal Clinic	AYUSH
Post Natal Clinic	National Health Programs
Referral transport service	State Health Programs

2. Accreditation Timeline



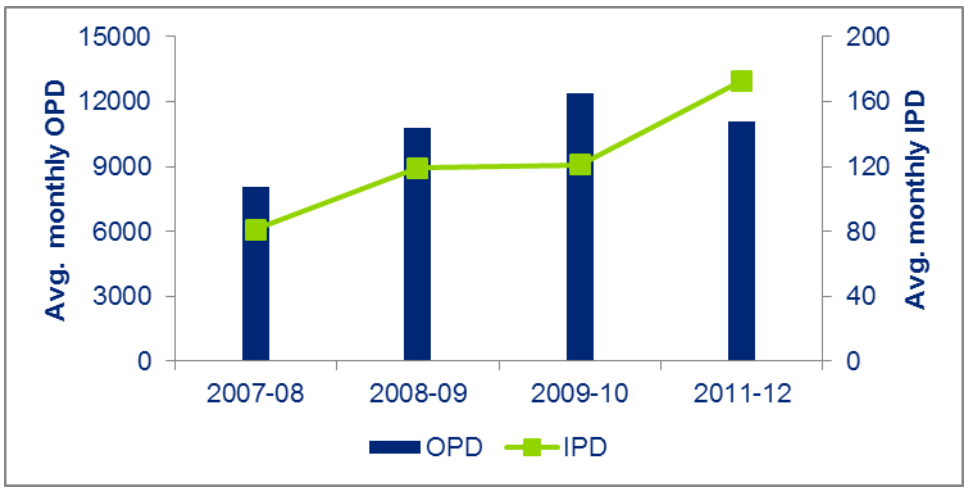
3. Organizational Structure



4. Expenditure on ISO

a. The total Annual budget of the PHC is around 5 crores.
b. The facility received an additional grant of Rs 5 lakhs from the state for ISO process.
c. The facility also received Rs 24 lakhs under NRHM, out of which 14 lakhs were used for hiring contractual staff
d. The facility was built using donations from Terratech. Additionally, Cognizant Technology Solution provides for the maintenance and upkeep of the 2.5 acres landscaping and gardening.

5. Indicators



6. Observations

a. After certification the patient load has gone up. The number of deliveries has increased from an average of about 80 per month to 180 per month now.
b. To avoid staff shortage, the DDHS reallocates staff from other PHCs in the block. For example a gynaecologist was recently transferred here.
c. The facility had 82 gaps. Some of the gaps are still present. For example the patient case sheets were not consistent, medicines were not labelled properly, paediatrician is not available 24 hours etc.
d. The facility has a very high LSCS rate (~40%)
e. Nearby facilities which don't have a BMW collection agency are send their waste to PHC Medavakkam from where it is collected by the BMW disposal agency.

APPENDIX III (G) – GENERAL HOSPITAL, SHOLINGUR, TAMIL NADU

Location	Sholinghur (Distt. Vellore)
Level	Sub-Taluk Hospital
Catchment Population	~60,000
# of beds	72
# Facility referring to	Vellore Medical College
Patient Load	Avg. OPD ~500
Accreditation Status	NABH Accredited

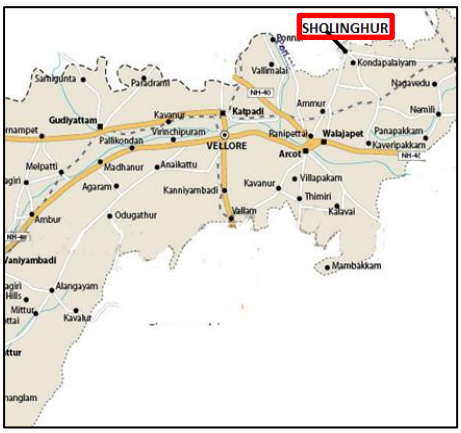
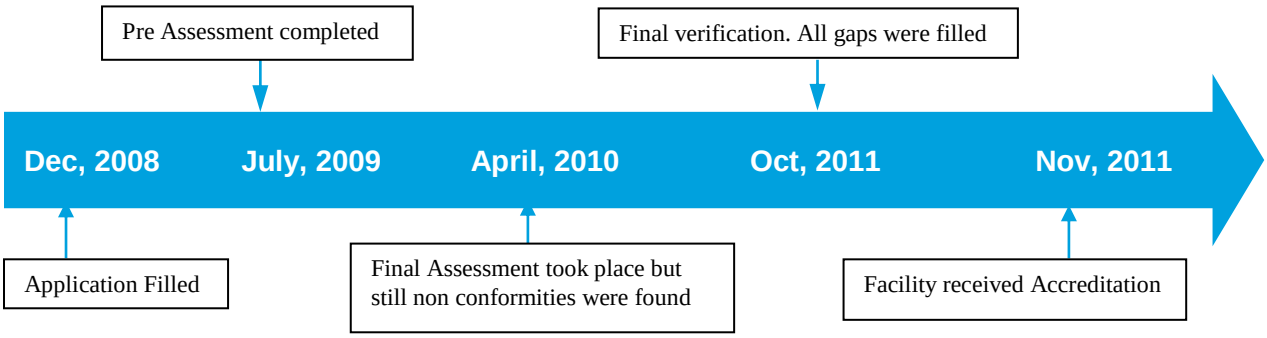


Fig: Map of Vellore District

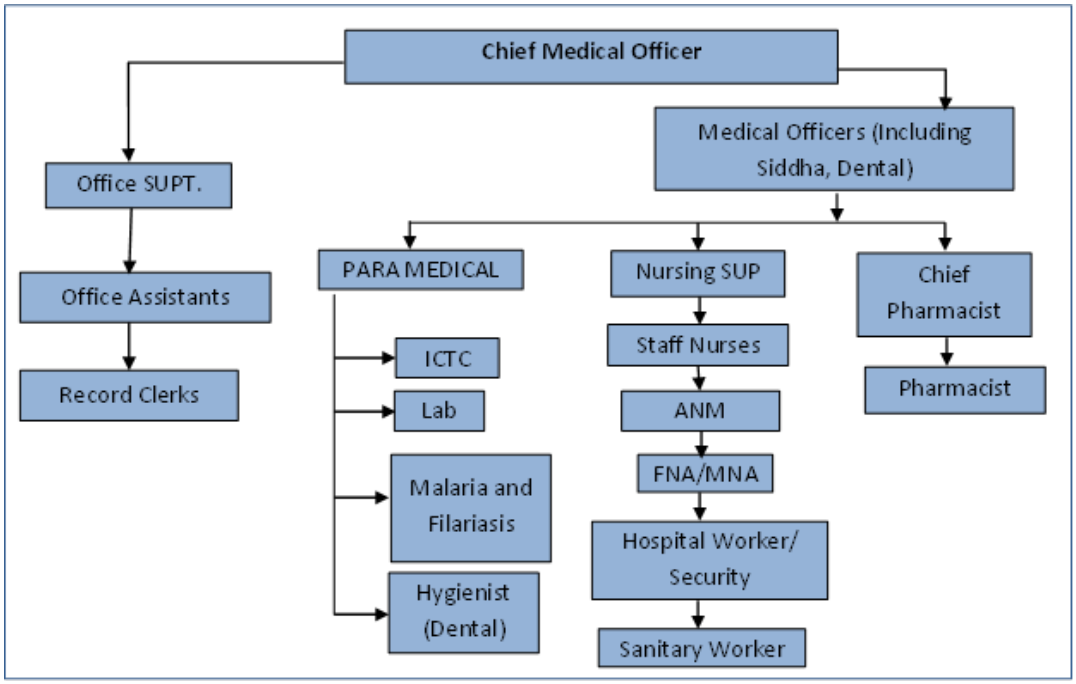
1. Services Offered

General Medicine	Post Natal OP
Obstetrics	Paediatric Services
Gynaecology	New born services
Siddha	Pharmacy
Gynaecology	Laboratory
Malaria and Filaria cases	X-Ray Dept.
Casualty	ECG
Ante Natal OP	ICTC

2. Accreditation Timeline



3. Organizational Structure



4. Expenditure on NABH

S. No.	Head	Cost In INR
	Instrument and equipment	13.57 lakhs
	Consulting Fees	~10 lakh
	Cost of AHU, CSSD, STP etc.	~75-80 lakhs

**Cost Of infrastructure was borne by PWD*

5. Observations

a. Very clean and well maintained facility. NABH process has enabled the Facility to improve some infra-structure, and has created awareness of quality amongst the healthcare professionals.
b. Medical record keeping has improved - the storage of medical records was very impressive, and case files were maintained in storage as per process laid out. The facility is also connected to HMIS although only around 50% of cases are being entered into the system to due to time crunch.
c. The implementation of standards means that a number of costs such as consumables have gone up. The facility needs additional funds to keep up the accreditation.
d. A number of HR related issues are not addressed. Further, there has been an unnecessary burden imposed on staff to collect irrelevant data on quality indicators without any benefit.

e. The facility had to build a Sewage Treatment Plant (STP) although it is not required under NABH causing unnecessary delay and expenditure.

APPENDIX III (H) – UPGRADED PHC, BANAVARAM, TAMIL NADU

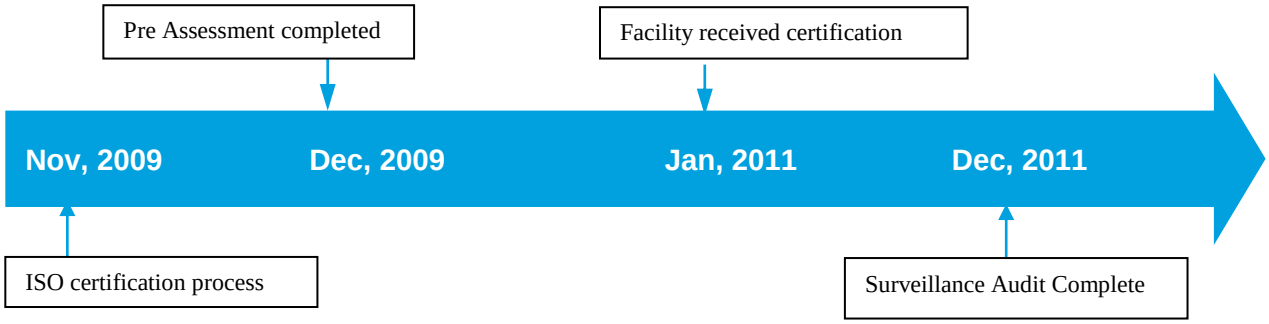
Location	Banavaram (Distt. Vellore)
Level	Upgraded PHC
Catchment Population	~35,000
# of beds	54
First Referral Unit	GH Sholingur
Patient Load	Avg. OPD ~250
Accreditation Status	ISO 9001:2008 Certified

Fig: Map of Vellore District

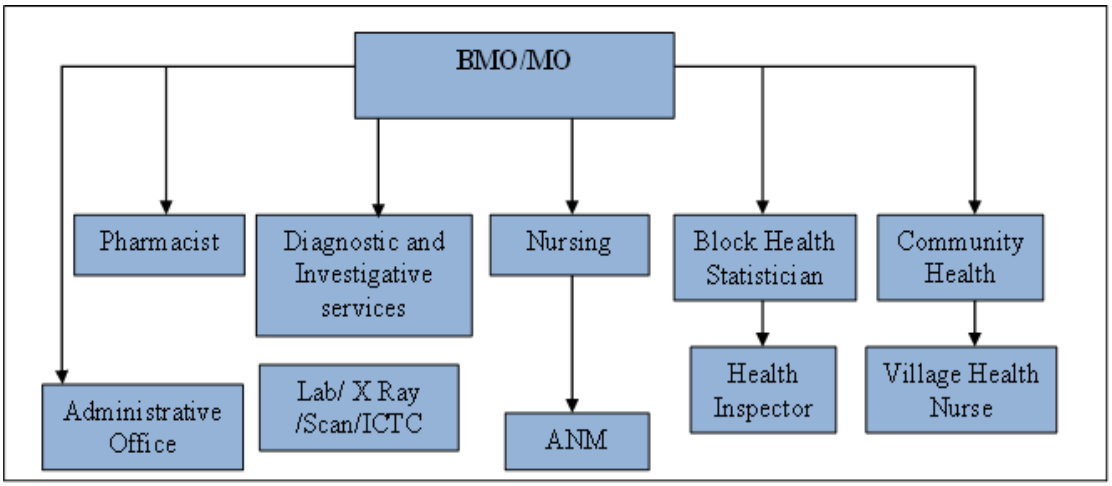
1. Services Offered

General Medicine	LSCS
Delivery Care	Post Natal OP
Ophthalmic Care	New born services
Siddha	Investigative and Diagnostic Services
Hypertension Clinic	Emergency
Diabetic Clinic	Counselling Services
RTI/STI Clinic	Pharmacy
Ante Natal OP	Laboratory
Dental	ICTC
Minor Surgeries	Tubectomy/Vasectomy
	Leprosy

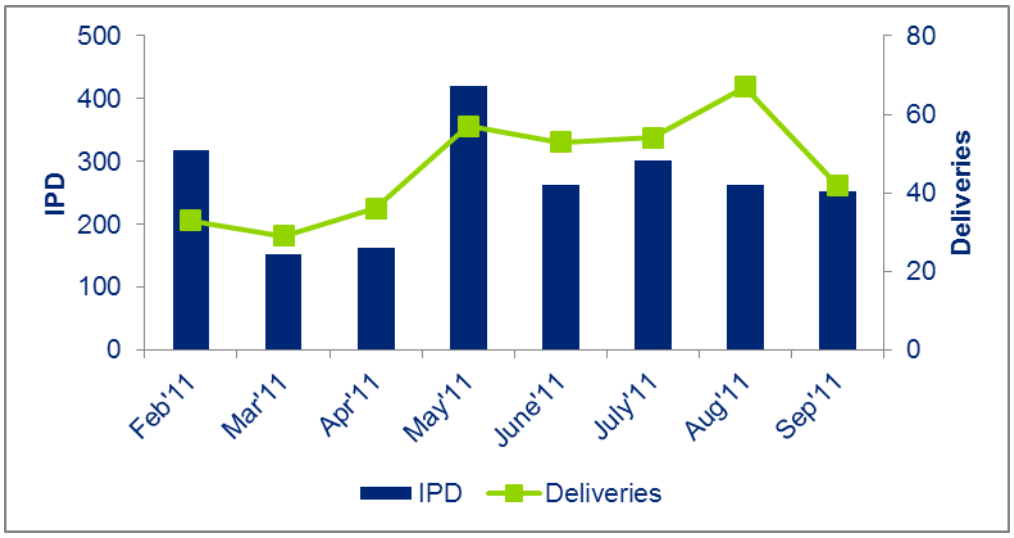
2. Accreditation Timeline



3. Organizational Structure



4. Indicators



5. Observations

a. The facility had a total of 103 gaps, 49 of these were process related and 28 were infrastructure gaps. Some of the gaps are still present. The PHC still does not have AERB clearance for the X-ray room. Also there is no dentist at the facility since last six months (not in initial gap).
b. Well-built and well maintained facility. More than 50% of the deliveries conducted at the facility are LSCS. The amount of LSCS performed suggests that the facility has adequate staff and other necessary equipment and consumables. However, there is minimal to no impact on quality of clinical processes.
c. Load on the PHC has increased a lot. A number of nearby PHCs send complicated delivery cases there as LSCS is performed there. In fact, even

the GH in Sholingur doesn't have the facilities to conduct a LSCS, and some cases come from there are well.

d. OPD attendance as gone up- largely due to old patients coming back. Total IPD attendance has also increased

APPENDIX III (I) – ADDITIONAL PHC, POZICHALUR, TAMIL NADU

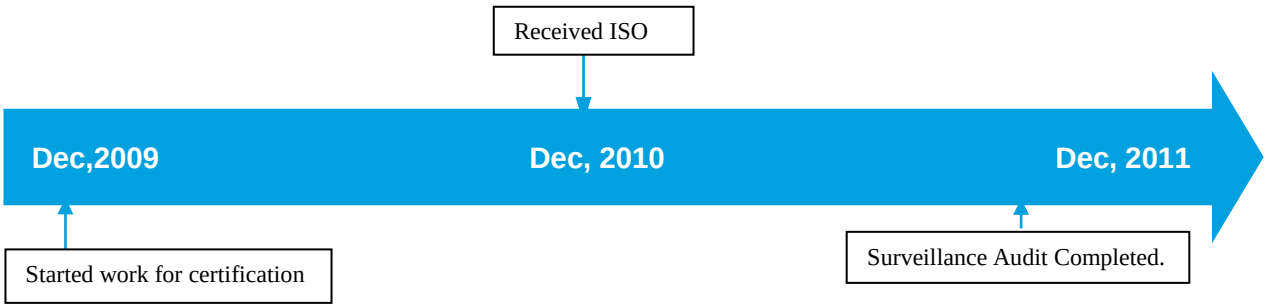
Location	Saidapet HUD (Distt. Kancheepuram)
Level	Additional PHC
Catchment Population	86046
# of beds	6
# of Sub-Centres	7
First Referral Unit	General Hospital Chromepet
Patient Load	Avg. OPD ~120-150
Accreditation Status	ISO Certified

Fig: Map of St. Thomas Mount Block

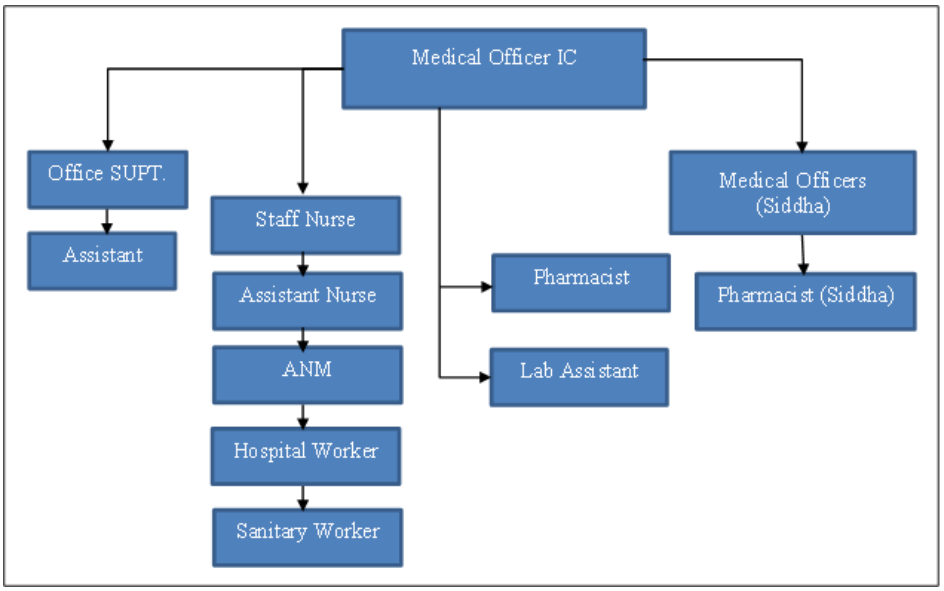
1. Services Offered

BEmONC	OPD- Dressing, Injection etc.
Normal Delivery	Laboratory services
New born care	Diagnostics- ECG, Ultrasonogram
Family Planning	AYUSH
Ante Natal Clinic	National Health Programs
Post Natal Clinic	State Health Programs
Referral transport service	

2. Accreditation Timeline



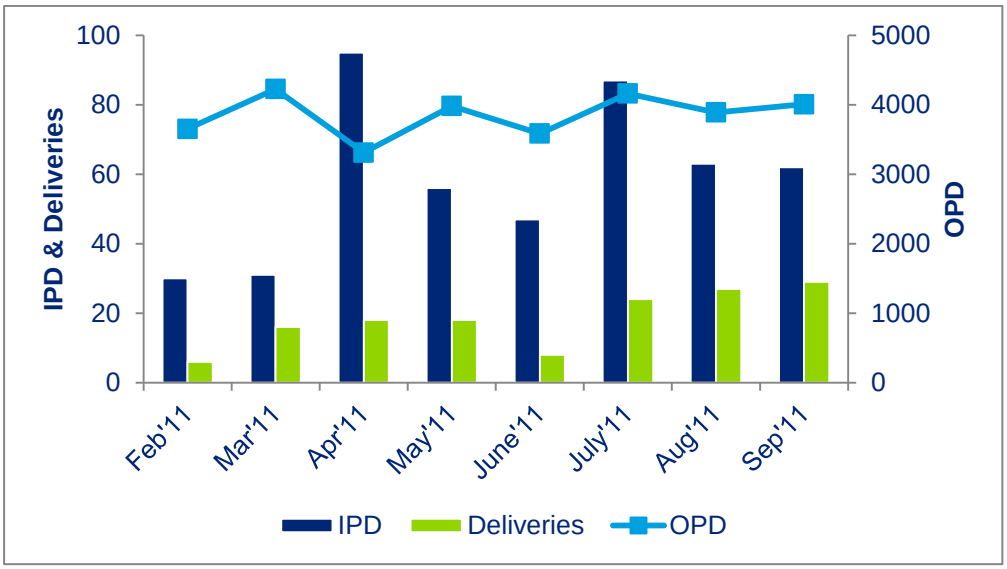
3. Organizational Structure



4. Expenditure on ISO

a. The facility got Rs. 5 lacs for the certification process.
b. The Panchayat also contributed with some work in land-fill and getting the approach road fixed
c. There has been a 30-40% increase in the consumables, but no corresponding increase in the budget.

5. Indicators



6. Observations

a. During the initial gap analysis the largest number of gaps was in infrastructure followed by process gaps. The facility was made in a swamp

and was mostly water logged earlier. Now the facility is clean and well maintained. There are proper bins for waster disposable.

b. The record management has improved- the autoclave/sterilization register is maintained with the (sterilization) indicator strips stuck for every cycle.
c. A lot of good practices were being followed by the facility like the lab at the facility followed a weekly standardization routine using the chemicals supplied by the DPH.
d. The community has also changed and people are now happy with the services provided by the facility. The patient volumes though decreased initially due to opening up of another PHC in the area.
e. Some areas still need improvement like – labour room is very small, the BMW is stored in the labour room itself after delivery, the approach road to the facility is still in a very bad shape which makes the facility inaccessible during rainy season.

APPENDIX III (J) – DISTRICT HOSPITAL, KORBA, CHHATTISGARH

Location	Korba
Level	District Hospital
Catchment Population	~11 lakhs
# of beds	100 (70 functional)
# Facilities referring to Hospital	2 PHCs, 3 CHCs
Patient Load	Avg. OPD ~ 130
Accreditation Status	ISO 9001:2008 Certified

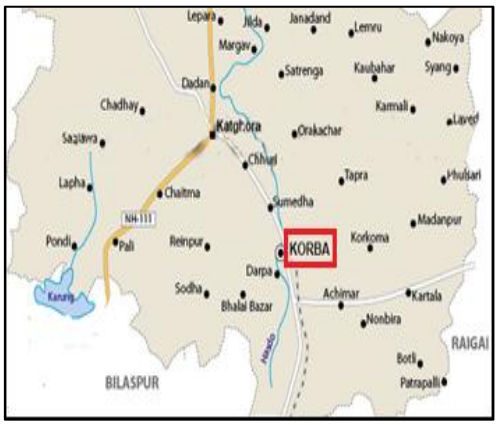
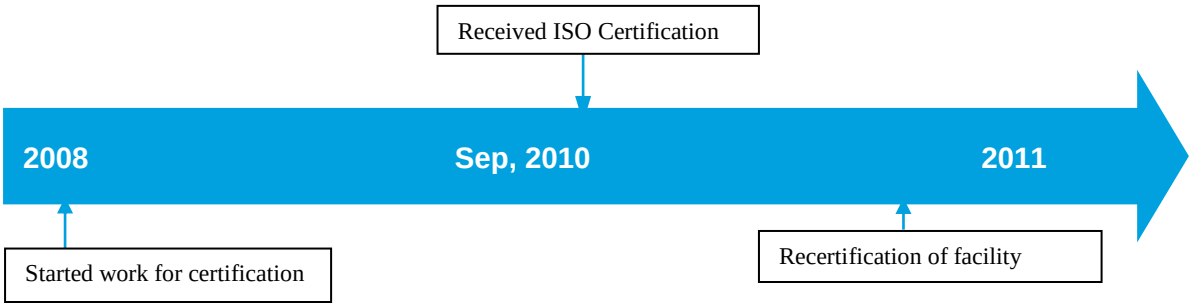


Fig: Map of Korba District

1. Services Offered

General Medicine	ECG
General Surgery	Blood Transfusion and storage
Obstetrics and gynaecology	Medico legal/ Post mortem
Paediatrics & Neonatal Services	Ambulance
ENT	Dietary
Orthopaedics	Laundry
Anaesthesia Services	Housekeeping and sanitation
Ophthalmology	Waste Management
Dental Services	Ultrasound
Laboratory	X-Ray

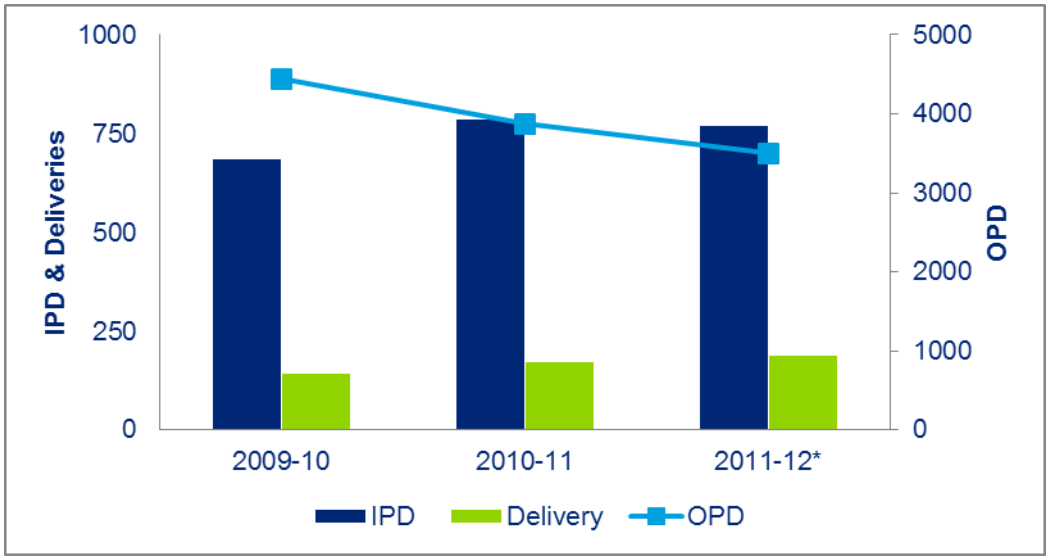
2. Accreditation Timeline



3. Expenditure on ISO

S. No.	Head	Cost In INR
1.	Infrastructure	50,2,595
2.	Equipment	3,40,240
3.	Medicines and Consumables	71,599
4.	ISO Certification	2,060
5.	Misc. and taxes	86,987
	TOTAL	**10,03,481**

4. Indicators



* Data till Jan'12 ** Average monthly values for OPD, IPD and Delivery

5. Observations

a. After accreditation the number of deliveries has gone up continuously over the years. However, OPD has decreased over the years because of PSU hospitals have started allowing outside patients.
b. To guide the patients to various rooms, the administration had painted strips of different colours on the wall at waist height.
c. There is a lot of seepage problem in the entire facility. As a result the entire 1st floor was not used. Even after recertification the problem remains.
d. The facility received recertification on its own. There was no monetary support from state. The facility spent ~10 lakhs during the certification process. Of this 85% was on infrastructure and equipment.
e. The facility had a huge shortage of both medical and paramedical staff during the As-Is Survey. Only 17 doctors were available against a requirement of 32 whereas only 68 paramedical staff was available against

a requirement of 99. The shortage of doctors especially specialists remains a major area of concern even now.

APPENDIX III (K) – DISTRICT HOSPITAL, DURG, CHHATTISGARH

Location	Durg
Level	District Hospital
Catchment Population	~24 lakhs
# of beds	450
# Facilities referring to Hospital	72 PHCs, 17 CHCs
Patient Load	Avg. OPD ~ 600-700
Accreditation Status	ISO 9001:2008 Certified

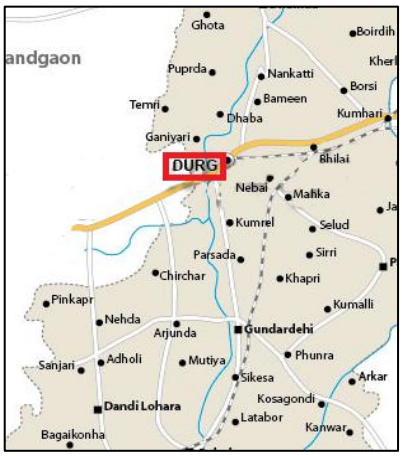
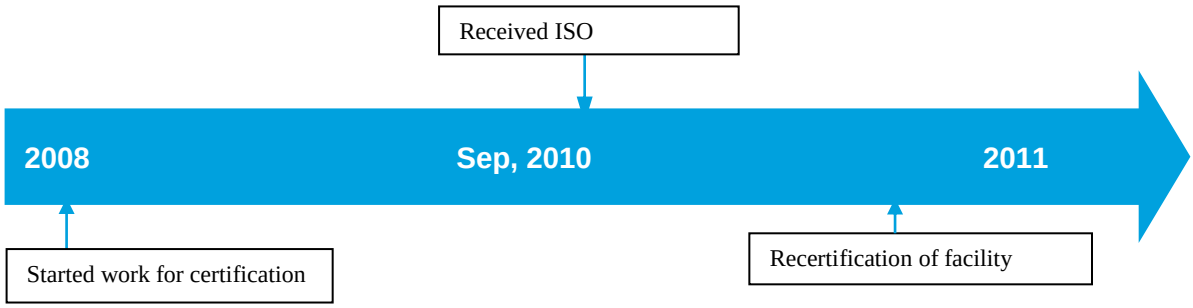


Fig: Map of Durg District

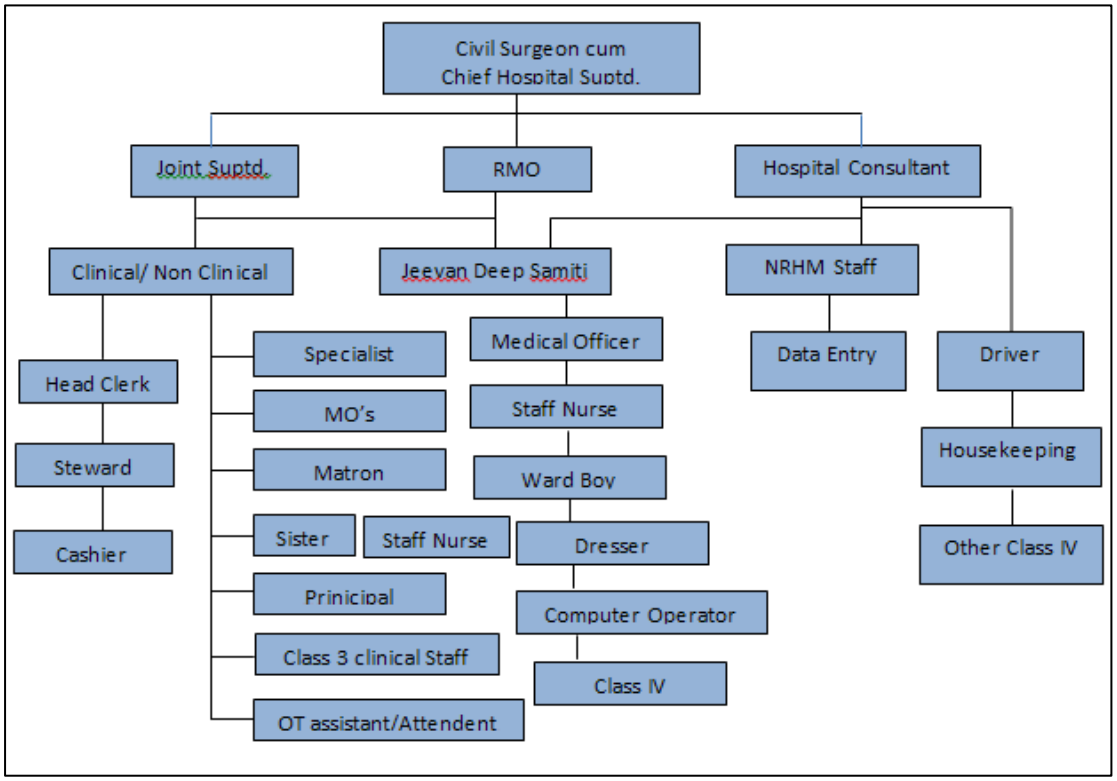
1. Services Offered

General Medicine	Emergency services
General Surgery	Malaria Testing Centre
Obstetrics and gynaecology	Blood Bank
Paediatrics & Neonatal Services	ART
ENT	TB & Isolation
Orthopaedics	I.C.U
Anaesthesia Services	Radiology
Ophthalmology	Immunization
Dental Services	Dietary
Laboratory	Laundry
ICTC	Housekeeping and sanitation
Family Planning	Waste Management
Physiotherapy	Dialysis

2. Accreditation Timeline



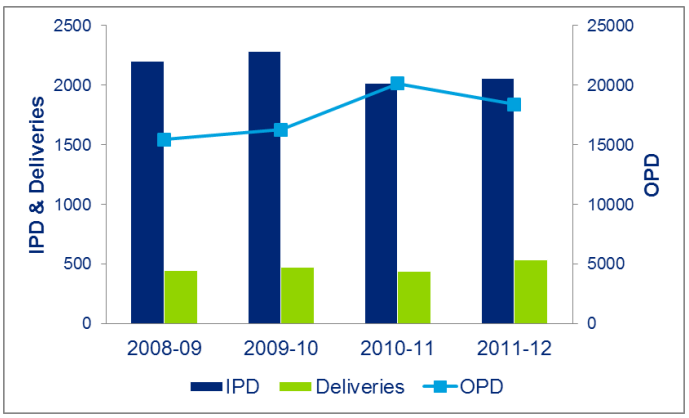
3. Organizational Structure



4. Expenditure on ISO

S. No.	Head	Cost In INR
1.	Infrastructure (Including Delivery room)	13,46,250
2.	Equipment (Including Blood Bank and OT equipment)	39,01,000
3.	Signage	3,66,800
4.	Hospital Infection Control	1,51,900
5.	Pest Control	1,87,000
	TOTAL	**59,52,947**

5. Indicators



6. Observations

a. During the gap analysis 68 gaps were found in the hospital. The largest number of gaps was in Hospital Infrastructure, CSSD and General Management. Also, there was shortage of 150 nurses and only 36 doctors were available against a requirement of 77.
b. The facility witnessed a drop in patient volumes in 2010-11 due to the opening of SDH Supela nearby. IPD has fallen below the pre ISO certification level.
c. A number of staff including doctors, nurses, ward boys and technicians have been hired through the Jeevan Deep Samiti.
d. The hospital has a good blood bank with all the modern equipment and facilities. For Above Poverty Line (APL) patients the hospital charges rates comparable to private blood bank facilities.
e. The entire cost associated with certification was borne by the facility. The hospital has now submitted a proposal to the state for funding which has not been approved yet. The major expenditure was on equipment and infrastructure.
f. There is no hospital administrator since last 1 year, and there is also a shortage of staff and equipment

APPENDIX III (L) – PHC, DAUDNAGAR, BIHAR

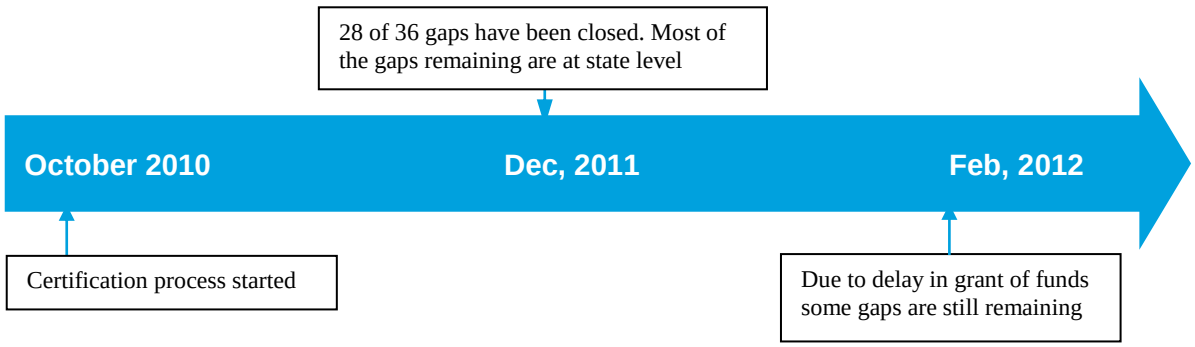
Location	Daudnagar (Distt. Aurangabad)
Level	PHC
Catchment Population	2,03,495
# of beds	6 (Functional 10)
Facility referring to	RH Haspura, Sadar Hospital Aurangabad
# facilities referring to PHC	4 additional PHC, 16 Sub Centre's
Patient Load	Avg. OPD ~ 600
Accreditation Status	In Process of ISO 9001:2008 certification

Fig: Map of Saran District

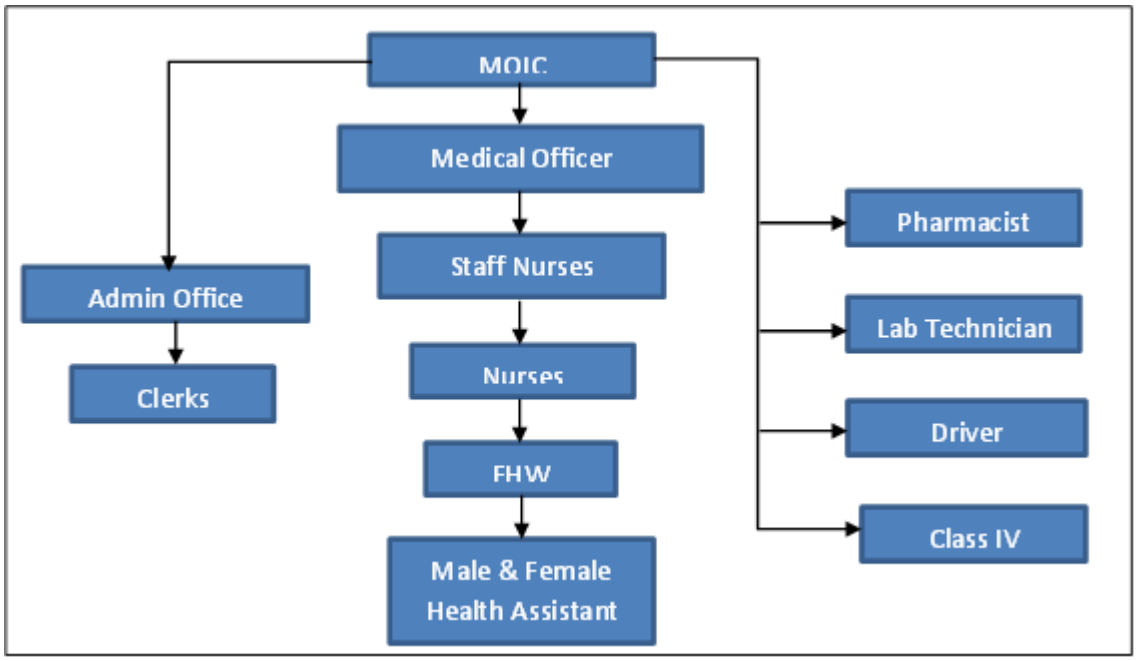
1. Services Offered

OPD Services	Family Planning
Emergency Services	Nutrition Services
Referral Services	School Health Programs
Ante-natal care	National Health Programs
Intra natal care	Behaviour change communication
Post natal care	Disease Surveillance
New born care	Immunization
Child care including immunization	Ambulance

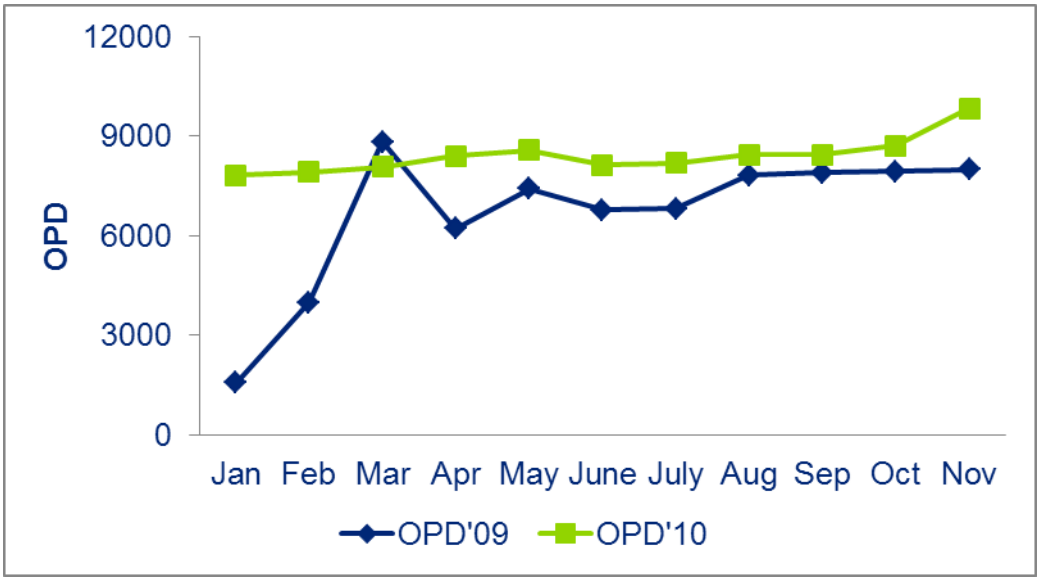
2. Accreditation Timeline



3. Organizational Structure



4. Indicators



5. Observations

a. The facility has witnessed an increase in both OPD and IPD over the last two years. Also the number of deliveries has gone up considerably.
b. The facility had 36 gaps during the initial survey. Majority of the gaps remain unplugged due to the paucity of funds.
c. The facility's focus is more on getting more buildings than on SOPs and improved quality. They already have sparsely used facility, and have planned for more from the funds requested rather than on more important areas such as OT equipment.

d. Nurses were aware of new born care methods but were not very confident though.
e. Due to absence of food services, bed occupancy is low – mothers leave in 6-8 hours after delivery.
f. Due to local customs, mothers leave their clothes behind after delivery – these are burnt at the facility which is not acceptable. Also, due to the weight, they are not given to the BMW collection agency. Need to draw up SOPs for disposal of such clothes.

APPENDIX III (M) – DISTRICT HOSPITAL, AURANGABAD, BIHAR

Location	Aurangabad
Level	Sadar Hospital
Catchment Population	~23 lakhs
# of beds	100 (87 functional)
# Facilities referring to Hospital	3 R , 11 PHCs, 58 additional PHCs
Patient Load	Avg. OPD ~ 600-700
Accreditation Status	In Process of ISO 9001:2008

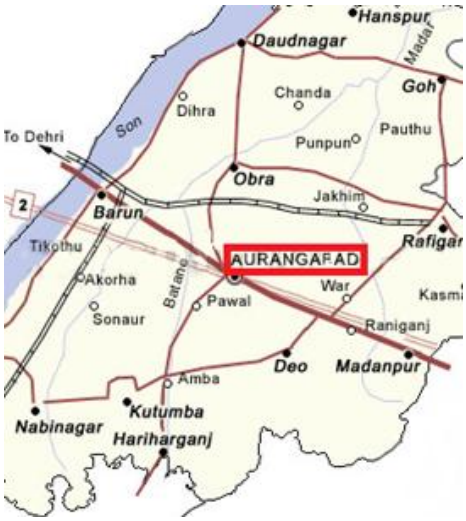
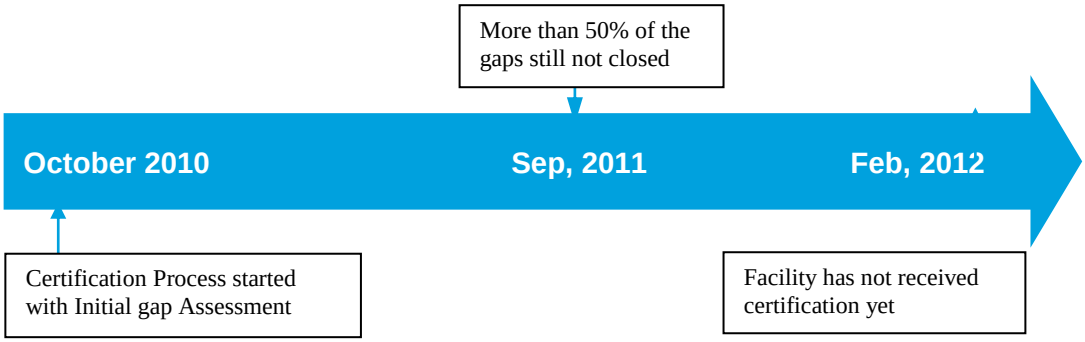


Fig: Map of Aurangabad District

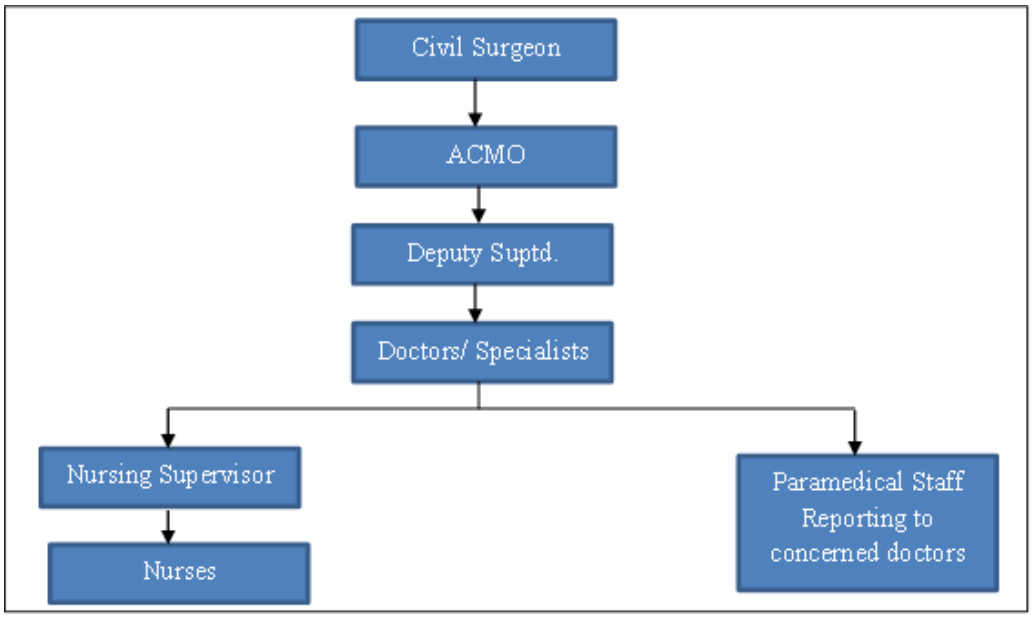
1. Services Offered

General Medicine	DOT Centre
General Surgery	Ayush
Obstetrics and gynaecology	Designated Microscopy Centre
Paediatrics & Neonatal Services	ICTC
Dermatology	Laboratory
Venerology	Diagnostics
Orthopaedics	Blood Storage and Transfusion
Ophthalmology	Dietary
Dental Services	Laundry
RTI/STI	Housekeeping
Family Planning	

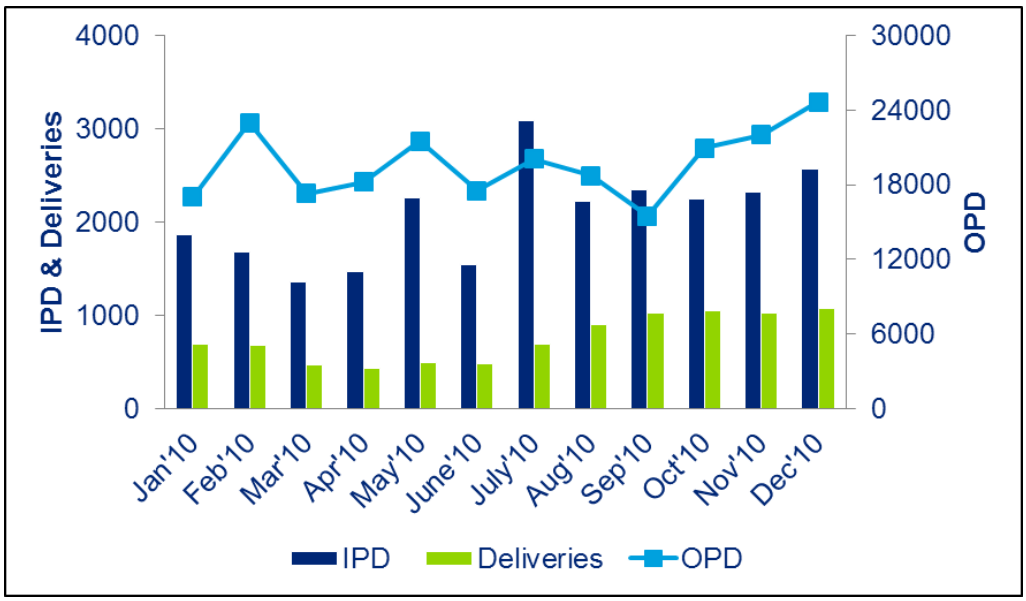
2. Accreditation Timeline



3. Organizational Structure



4. Indicators



5. Observations

a. People's faith in the facility has improved. More people use the facility now. Also, Leave Against Medical Advice (LAMA) rates have come down from 27% to 12%. BOR has increased (25% to 32%), but still needs to be much higher.

b. The facility started forming LSCS recently. However LSCS rate is still very low.

c. Law and order situation needs to be improved as thefts have taken place at the facility. Also, Hospital staff has been threatened in the past.

d. Due to the nearness of the facility to the highway a lot of emergency cases come to the facility. Hence there is a need for Trauma centre.
e. Training of the staff remains a major block. A number of trainings yet to be conducted. Also the Attitude of staff towards Quality is still not very positive.

APPENDIX III (N) – REFERRAL HOSPITAL, SONEPUR, BIHAR

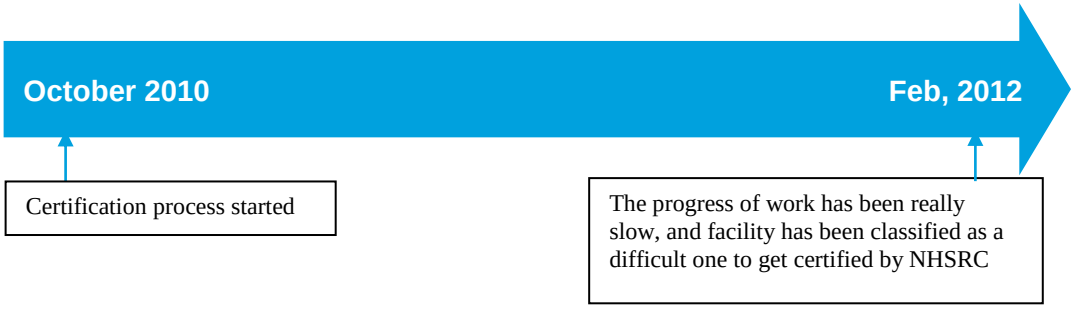
Location	Sonepur
Level	Referral Hospital
Catchment Population	~ 2.6 lakhs
# of beds	75 (45 Functional)
Facility referring to	Sadar Hospital Saran
Patient Load	Avg. OPD ~ 220
Accreditation Status	In Process of ISO 9001:2008 certification

Fig: Map of Saran District

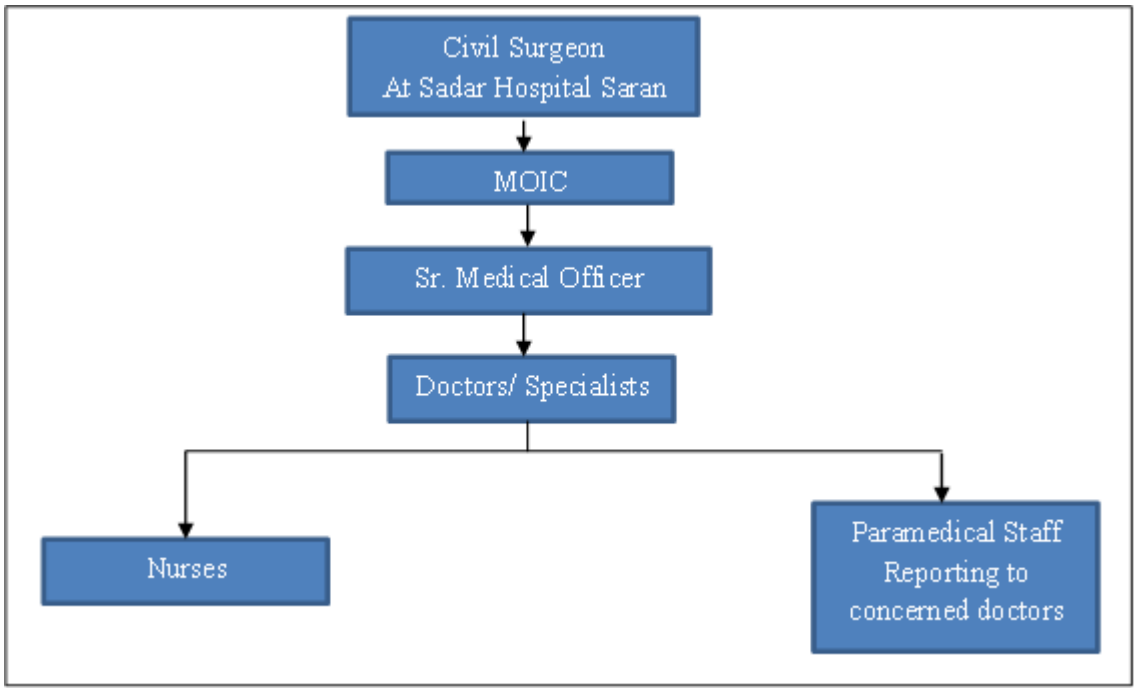
1. Services Offered

General Medicine	Para Clinical services
General Surgery	Dental
Emergency	Gynaecology
Family Planning	Obstetrics
Paediatrics	Immunization
DOT Centre	Ambulance
Diagnostics	Dietary
Laboratory	Laundry
Disability Certification	Housekeeping
Anaesthesia	

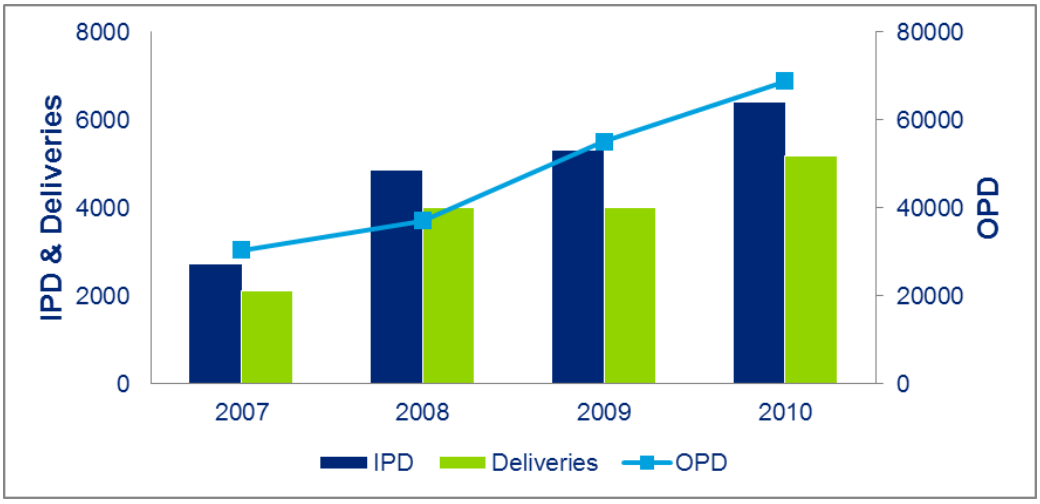
2. Accreditation Timeline



3. Organizational Structure



4. Indicators



5. Observations

a. Patient volumes (OPD, IPD, Delivery etc.) have more than doubled from 2007 to 2010 and the number of referrals has fallen to almost 1/3rd. The facility has also started conducting LSCS procedure in February, 2012.

b. The hospital was undergoing renovation through the PWD when the Bihar Government formed the Bihar Medical Services and Infrastructure Corporation Limited. The work was stopped mid-way and now there is no handover of the facility.

c. There are two buildings in the facility which were supposed to be interconnected but that has not happened. Also, the new hospital building

has not been planned properly and has smaller rooms rather than longer wards.

d. No racks or cupboards are available in the store and the medicine is stored on the floor.
e. The facility has a severe shortage of Para medical staff especially Grade A nurses.

APPENDIX III (M) – DISTRICT HOSPITAL, ARA, BIHAR

Location	Ara
Level	District Hospital
Catchment Population	~ 23 lakhs
# of beds	150
# Facilities referring to Hospital	3 CHC , 9 PHCs
Patient Load	Avg. OPD ~ 700
Accreditation Status	ISO 9001:2008 certified

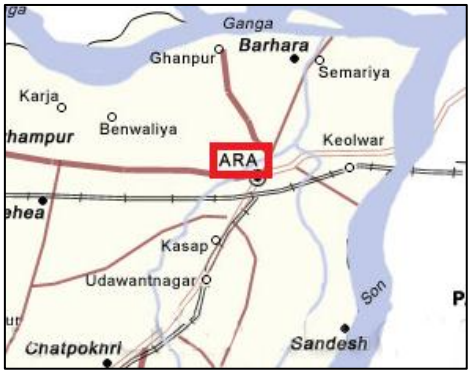
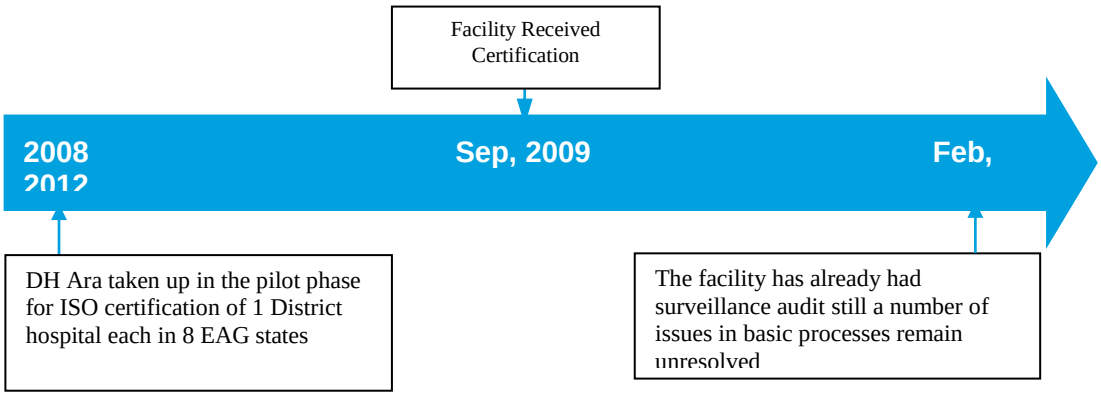


Fig: Map of Bhojpur District

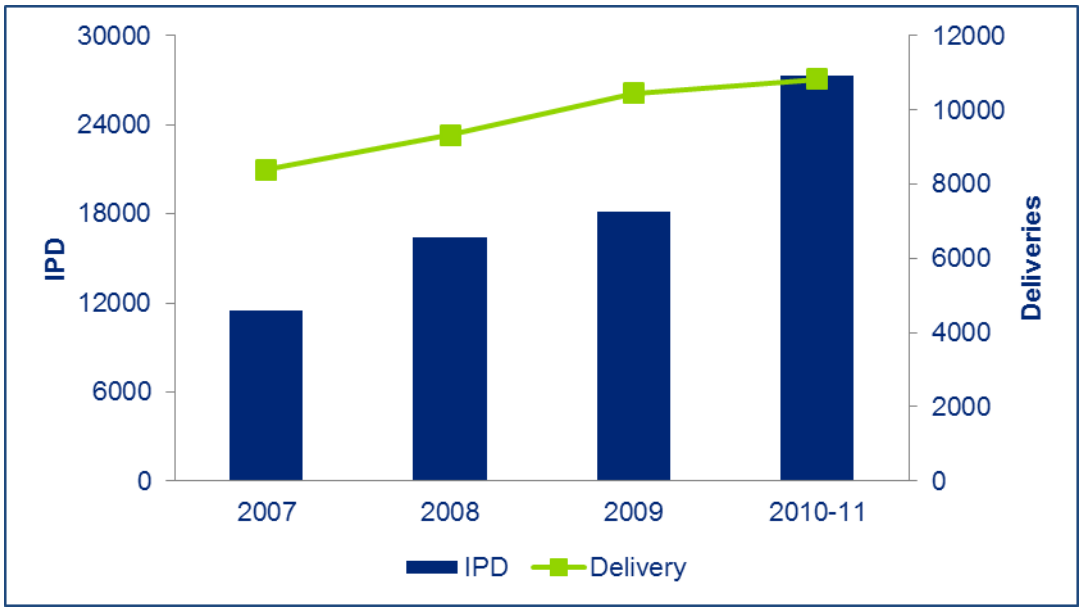
1. Services Offered

General Medicine	ENT
General Surgery	Ayush
Obstetrics and gynaecology	Ultrasound
Paediatrics & Neonatal Services	Radiology
Dermatology & Venerology	ICTC
Anaesthesia	Laboratory
Orthopaedics	Medico Legal/ Post-mortem
Ophthalmology	Blood Transfusion
Dental Services	Dietary
Emergency	Laundry
Family Planning	Housekeeping

2. Accreditation Timeline



3. Indicators



4. Observations

a. The average OPD has increased from ~300 in 2007-08 to ~700 in 2010-11. The IPD patient volume has more than doubled since 2007.
b. The availability of doctors has also improved after ISO implementation.
c. 98 gaps were found during the initial gap analysis of the facility. The facility has also had a surveillance audit during which 3 NCs (Non Conformities) were found.
d. Most of the gaps such as facility cleanliness, audits, calibration, and BMW management have been coming up in all internal audits and have not improved over the years.
e. Due to inadequate furniture (low number of racks and cupboards) in the store, all the medicine is stored on the floor and not even stacked properly. Inflammable material is not being stored separately.
f. BMW Segregation and Disposal is not functional at the moment. The facilities were made once and staff started it. However, due to issues with the collection agency, the collection stopped, and so did the segregation at the facilities.

APPENDIX IV – LIST OF PEOPLE MET

APPENDIX IV: LIST OF PEOPLE MET

1. Provided below is the list of people met so far for the study.

List of People Met at Central Level

S. No.	Name	Organization	Designation
1	Dr. Girdhar J. Gyani	NABH	CEO
2	Deepti Mohan	NABH	Assistant Director
3	Dr. Zainab Zaidi	NABH	Assistant Director
4	Dr. Ravindra Karanjekar	NABH/Global Hospital	Member, Accreditation Committee
5	Dr. T. Sundararaman	NHSRC	Executive Director
6	Dr. J.N. Sahay	NHSRC	Advisor
7	Dr. Parminder Gautam	NHSRC	Senior Consultant
8	Dr. Nikhil Gupta	NHSRC	Research Assistant
9	Dr Prashanth KS	NHSRC	Senior Consultant
9	Anagha Khot	WHO	

List of People Met in Gujarat

S. No.	Name	Organization	Designation
1	Mrs. Anju Sharma	NRHM	Mission Director
2	Dr. J.L. Meena	State Quality Assurance cell	State Quality Assurance Officer
3	Dr. Bharat B. Patel	GH Gandhinagar	CDMO cum CS
4	Dr. Devang Shah	GH Gandhinagar	Accreditation Coordinator (in absence of AHA)
5	Dr. Jaydeep Gadhavi	GH Gandhinagar	GS (also an NABH assessor)
6	Dr. Vimal Modi	GH Gandhinagar	Orthopaedic
7	Dr. Hitesh Bhrambhatt	GH Gandhinagar	Asst. Prof, Dept. of Anaesthesia
8	Suresh Rout	Astron	Consultant
9	Dr. Tejash R. Mistry	PHC Dabodha	MO(MBBS)
10	Dr. Mrs. Patel	PHC Dabodha	MO, AYUSH
11	Dr. L.M. Chandana	GH Godhra	CDMO
12	Dr. Prital Ghetiya	GH Godhra	AHA
13	Dr. Bharti A Dholakia	GH Godhra	DQA officer
14	Dr. Akshay Upadhyay	GH Godhra	Paediatric
15	Dr. K.A. Ravat	GH Godhra	General Physician
16	Dr. F.J. Gohil	GH Nadiad	CDMO
17	Dr. Neetu Upreti	GH Nadiad	AHA
18	Dr BM Vaghela	GH Nadiad	RMO
19	Mrs AD Shukla	GH Nadiad	Head Nurse
20	Dr. Anjana S. Soni	PHC Salun	MOIC

List of people met in Tamil Nadu

S. No.	Name	Organization	Designation
1	Mrs. Girija Vaidyanathan	TNHFW Dept.	Principal Secretary
2	Mr . Pankaj Kumar Bansal	NRHM	MD, NRHM
3	Dr. K.Kolandaswamy	TNHFW Dept.	JD (Epi), DPH
4	Dr. (Mrs.) K. Amudhadevi	DPH	JD (Inspection)
5	Dr. J. Prebhu Clement Devadoss	TNHSP	NRHM Consultant
6	Dr. Elango	TNHSP	Expert Adviser, Ex CDMO – Namakkal
7	Dr (Capt) M Kamatchi	TNHSP	Expert Adviser, Strategic Planning Cell
8	Jaisee Suvetha	TNHSP	Coordinator, TNHSP/MD – NRHM
9	Dr. S. Rajasekaran	HUD Saidapet	Dy. Director
10	Dr. V. Bharathi	GH Sholingur	In-Charge CMO & NABH Coordinator
11	Dr. E. Ravichandran	PHC Medavakkam	MO
12	Dr Kalyanasundaram	PHC Banavaram	BMO
13	Dr. G. Kavitha	PHC Pozichalur	MO
14	B.G. Menon	ACME	MD
15	C.S. Ramakrishnan	ACME	VP, Operations

List of people met in Chhattisgarh

S. No.	Name	Organization	Designation
1	Shri Vikas Sheel	DoHFW	Principal Secretary, Health
2	Shri Anand Babu	NRHM	MD, NRHM
3	Dr Rajesh Sharma	DoHFW	Nodal Officer, Quality
4	Dr R.K. Thawait	DH Korba	Civil Surgeon
5	Piyusha Ranjan Mohanty	HOSMAC	Consultant
6	Dr Prashant Srivastav	DH Durg	Civil Surgeon
7	Dr JP Meshram	DH Durg	Pathologist
8	Dr SN Dutta	DH Durg	RMO
9	Dr Gopinath	SDH Supela	MOIC

List of people met in Bihar

S. No.	Name	Organization	Designation
1	Shri Sanjay Kumar	State Health Society	MD
2	Dr K.M. Pratap	DH Aurangabad	D.S.
3	Dr Binay K. Singh	DH Aurangabad	M.O.
4	Hemant Rajan	DH Aurangabad	Hospital Manager
5	Mr Nagendra Keshari	RITES	Consultant
6	Dr Saurabh Prasad	DH Ara	CS
7	Dr D.K. Prasad	DH Ara	D.S.
8	Dr Prateek	DH Ara	Dentist
9	Rajaram Pandey	DH Ara	Octavo Consultant
10	Dr Krishna Kumar	DH Ara	Hospital Manager
11	Dr Arun	DH Ara	MO
12	Dr Naresh	DH Ara	Quality Officer
13	Dr Ravishankar Choudhary	RH Sonepur	MOIC
14	Dr Mritunjay Pandey	RH Sonepur	Hospital Manager
15	Dr Iqbal	RH Sonepur	RITES consultant
16	Dr Ajay K. Sharma	RH Sonepur	M.O.
17	Dr Choudhary	PHC Daudnagar	First MOIC
18	Dr U.K. Singh	PHC Daudnagar	MO
19	Dr Devendra Singh	SDH Danapur	Deputy Superintendent
20	Ms Seema	SDH Danapur	Hospital Manager
21	Dr Nagesh Sonkamble	SDH Danapur	NHSRC Consultant