



Adarsh Hamar Aspataal

Enhancing Health Care Services by
Demonstrating Model Centres



In collaboration with National Health Mission, Govt. of Chhattisgarh.

टी. एस. सिंहदेव

मंत्री

छत्तीसगढ़ शासन

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// शुभकामना संदेश //

राज्य की समस्त जनता को सहज सरलता से निःशुल्क स्वास्थ्य सुविधा उपलब्ध कराये जाने के लिए स्वास्थ्य एवं परिवार कल्याण विभाग, छत्तीसगढ़ प्रतिबद्ध है।

उत्कृष्ट प्राथमिक सेवाओं को जन सामान्य तक पहुंचाने हेतु स्वास्थ्य एवं परिवार कल्याण विभाग एवं राष्ट्रीय स्वास्थ्य मिशन द्वारा आधारभूत प्रावधानित सेवाओं का सुदृढीकरण किया जा रहा है।

इस हेतु राष्ट्रीय शहरी स्वास्थ्य मिशन अन्तर्गत राज्य के शहरी क्षेत्रों में शहरी प्राथमिक स्वास्थ्य केन्द्रों द्वारा सेवाएं दी जा रही हैं। इन केन्द्रों को "हमर अस्पताल" के रूप में उन्नयन करके गुणवत्तापूर्ण प्राथमिक सेवाएँ देने हेतु विकसित किया जा रहा है।

इस दिशा में टाटा ट्रस्ट की सहयोगी संस्था, कलेक्टिव्हस फॉर इटीग्रेटेड लाइव्हलीहुड इनिशिएटिव (CInI) द्वारा राज्य में 20 शहरी प्राथमिक स्वास्थ्य केन्द्रों को आदर्श के तौर पर विकसित किया गया है। यह हर्ष का विषय है कि आदर्श शहरी प्राथमिक स्वास्थ्य केन्द्रों को विकसित करने की मार्गदर्शक प्रणाली, मानकों एवं क्षमता वर्धन की पद्धति को प्रकाशित किया जा रहा है।

मैं आशा करता हूँ कि यह प्रयास, उत्कृष्ट स्वास्थ्य सेवाओं के क्रियान्वयन में सहायक सिद्ध होगा।

आदर्श शहरी प्राथमिक स्वास्थ्य केन्द्रों में प्राप्त अनुभव से हमारे अन्य केन्द्र भी लाभान्वित हो, ऐसी मेरी शुभकामना है।

आपका

(टी. एस. सिंहदेव)

Siddhartha Komal Singh Pardeshi
L.A.S.
Secretary



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MESSAGE

Government of Chhattisgarh is committed to strengthen the primary healthcare services in urban area through National Urban Health Mission. The "Adarsh Hamar Aspatal" handbook features the model approach to improve the quality of care at Urban Health Centers. It presents an integrated framework for improving quality of care through supportive handhold.

The approach incorporates the guidelines and standards developed by the Government of India. It also integrates the learnings from the various health systems strengthening initiatives of the Tata Trusts across geographies.

I am happy to note that Collectives for Integrated Livelihood Initiatives, an associate organization of Tata Trusts, has successfully implemented the Model UPHC project in the State and has documented the framework. It comprehensively covers details on infrastructure upgradation, capacity building of health workforce, technology adoption, stakeholder engagement with periodic monitoring & reviews. It highlights the best practices with the importance of patient centric approach while delivering primary healthcare.

While there is no one size fits all, there needs to be a shared understanding about the operationalization of the quality of care framework at the health care facilities. I urge to utilise the approach and disseminate the best practices for improving quality of care.

Siddhartha Komal Singh Pardeshi, IAS



भोसकर विलास संदिपान

भा.प्र.से.

मिशन संचालक (राष्ट्रीय स्वास्थ्य मिशन)



राष्ट्रीय स्वास्थ्य मिशन
स्वास्थ्य एवं परिवार कल्याण विभाग
छत्तीसगढ़ शासन

अर्द्ध शास. पत्र क्र. १९६

दिनांक 23/06/2023



—: संदेश :-

केन्द्रीय स्वास्थ्य मंत्रालय ने शहरी क्षेत्रों में स्वास्थ्य सुविधाओं की गुणवत्ता को सुदृढ़ करने के लिए वर्ष 2013 में राष्ट्रीय शहरी स्वास्थ्य मिशन का शुभारंभ किया है। इसके अन्तर्गत शहरी प्राथमिक स्वास्थ्य केन्द्रों के द्वारा व्यापक प्राथमिक स्वास्थ्य सेवाओं को प्रदान किया जा रहा है। इन सेवाओं से विशेषकर शहरी बस्तियों एवं स्लम के रहवासियों को लाभ मिल रहा है।

गुणवत्तापूर्ण स्वास्थ्य सेवायें उपलब्ध कराना राज्य सरकार की एक महत्वपूर्ण जिम्मेदारी है। इस हेतु मूलभूत अधोसंरचना, प्रशिक्षित मानव संसाधन, दवाईयां एवं जांच की उचित व्यवस्था आदि की आवश्यकता होती है। इस दिशा में कलेक्टिविडस फॉर इंटीग्रेटेड लाइव्हलीहुड इनिशिएटिव्स (CInI) द्वारा मॉडल यू.पी.एच.सी. प्रोजेक्ट के अन्तर्गत चयनित शहरी स्वास्थ्य केन्द्रों को आदर्श हमर अस्पताल के रूप में उन्नयन कर इस प्रक्रिया को लेखाबद्ध किया गया है।

मुझे विश्वास है कि आदर्श हमर अस्पताल की यह मार्गदर्शिका अन्य स्वास्थ्य केन्द्रों के उन्नयन में भी उपयोगी सिद्ध होगी। मैं आशा करता हूँ कि इस कार्यपद्धति के उचित प्रसार से हम अन्य स्वास्थ्य केन्द्रों को सुदृढ़ कर अधिक से अधिक नागरिकों तक गुणवत्ता पूर्ण स्वास्थ्य सेवाओं का लाभ पहुँचा सकेंगे।

शुभकामनाओं सहित ...

(भोसकर विलास संदिपान)

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Date:.....

Message



The National Urban Health Mission (NUHM) as a sub-mission of National Health Mission (NHM) envisages to meet health care needs of the urban population with the focus on urban poor, by making available to them essential primary health care services thereby reducing their out of pocket expenses for treatment and diagnostics.

Chhattisgarh being the 9th largest state in India, has nearly 23% of population living in urban areas. To cater their health care needs, Urban Primary Health Centres (UPHCs) play a very pivotal role. As of now, there are 52 UPHCs in the state delivering comprehensive primary health care services to the people residing in the urban areas, especially the vulnerable sections like slum population and urban poor.

The state has also pioneered the concept of "Hmar Aspatal" which aims at providing state of art infrastructure; expanded scope of services; accessible & free of cost healthcare; adequate and trained human resources and uninterrupted supply of drugs & diagnostic services

To improve the quality of services and bring about the behavioral changes amongst the healthcare workers, CINI – Tata Trusts is helping the NUHM under the Model UPHC project. The key aspects of this intervention are capacity building; technology adoption; patient flow & ambience management; demonstration of Model Immunization room and supporting the facilities for National Quality Assurance Standards Assessment.

This synergistic approach is resulting in more utilization of services as reflected in increasing OPD footfall. With good quality infrastructure and ambience management, it is expected that the caregiver's satisfaction will also rise. I am optimistic that the skilled healthcare workforce and best practices will lead to improved quality of care.

I am happy that the CINI-Tata Trusts has made efforts to compile all their learnings from the Model UPHC project and publish this booklet. This can be used as a ready reference for replicating the Model Approach in other public healthcare facilities. I urge the concerned stakeholders to make best use of it.

(Dr. Surendra Kumar Pambhoi)

Foreword

Ganesh Neelam
Executive Director
Collectives for Integrated
Livelihood Initiatives (CInI)



Comprehensive Primary Healthcare delivered through Public Health Centers is the stepping stone for creating access to affordable health services for the citizens living in urban areas. The Government has been playing its pivotal role of establishing the required infrastructure and creating institutional mechanisms for delivery of essential services to the communities. Committed social action along with the Government is important to strengthen linkages, build capacities and leverage technology to generate optimum value for the communities.

CInI has pioneered several models of enabling the ecosystem for the marginalized communities through thematic interventions in the areas of agriculture, skills, livelihoods, water, sanitation, nutrition, health and education, CInI's Model UPHC Project, with the kind support of Tata Trusts, endeavors to improve access and quality of Primary Healthcare for nearly 20 lakh population by demonstrating Model Urban Health Centers, enabled by patient friendly infrastructure, capacity building and technology adoption. This project is being implemented in partnership with the Government of Chhattisgarh.

Our effort is to present an evidence-based approach of demonstrating model centers with patient centric and staff friendly amenities, enhanced capacities of workforce through supportive handhold and improved utilisation of technology platforms. We are happy to release the first edition of “Adarsh Hamar Aspataal” document, showcasing the approach towards development of Model Centers. We hope that this will serve as a reference point for the key stakeholders to replicate the learnings at a wider level.

Acknowledgment

We are pleased to collaborate with the Government of Chhattisgarh (GoCG) in this unique health systems strengthening intervention to strengthen the primary healthcare services in the urban areas of the state. Model Urban Primary Health Centre (UPHC) project has been an enriching journey for us. We believe that documenting the best practices and approach undertaken will serve as a reference manual for further replication across the public health system.

We thank Hon. Health Minister, GoCG, for his inspiring vision towards creating Hamar Aspataals as patient-centric health centers.

We thank the Secretary, Health & Family Welfare, Government of Chhattisgarh for his guidance and encouragement during the intervention.

We express our gratitude to the Mission Director, National Health Mission (NHM), GoCG, for his leadership and support during the implementation.

Our sincere thanks to Dr. Surendra Pambhoi, Joint Director, NHM, for his guiding inputs throughout the execution. We acknowledge the cooperation extended by Dr. Pradeep Tandon, State Program Manager, NUHM and the entire team of Urban Health for their continued involvement in program management.

We appreciate the constant support of the Chief Medical and Health Officers, District Program Managers and City Program Managers, for their facilitation in the field engagement.

A special mention to the inspired participation of the respective Medical Officers In charge, Quality Champions and other staff of the intervention UPHCs, as without their participation and ownership, Model Hamar Aspataal would not be a reality.

We acknowledge the active involvement of our technical agency for design and upgradation, Creative Design, for contributing their architectural expertise towards re-organising the UPHCs as patient centric and staff-friendly health facilities.

Lastly, we express our gratitude to our partners Tata Trusts, Durg Shivnath Express Highway - Tata Realty, and Indian Oil Corporation Limited, whose valuable support helped us transform the UPHCs as Model Hamar Aspataals.

Table of Contents

	Page No.
Chapter 1 : Introduction	01
Chapter 2 : Project Background	01
Chapter 3 : Approach	02
Chapter 4 : Innovative Practices	34
Chapter 5 : Key Achievements	42

INTRODUCTION



India is rapidly urbanizing and nearly 40% of the population is expected to live in urban areas by 2030. The unregulated growth of cities and informal settlements has made planning and delivery of civic services to the urban poor, especially health services, a challenging task. High population density, overcrowding, inadequate access to water & sanitation, lifestyle changes, etc. have also adversely affected the health status of the urban poor. There is a rise in both communicable and non-communicable diseases, creating complex challenges for already strained public health systems in the urban area.

Chhattisgarh is a state with around 40% of its population living below the poverty line, a higher tribal population (31%, census 2011) and is also affected by left-wing extremism. Access to public health services is compromised in both remote rural areas and urban areas. Over the past eight years, the National Urban Health Mission (NUHM) has targeted the revival of service delivery in primary care for the urban poor living in slums and vulnerable pockets in all major cities of the country. The National Health Policy, 2017, recommended strengthening the delivery of Comprehensive Primary Health Care (CPHC), and called for a commitment of two thirds of the health budget towards primary health care. To strengthen the efforts, Tata Trusts collaborated with the National Health Mission (NHM), Chhattisgarh to improve the quality of service delivery at select 20 Urban Primary Health Centers (UPHCs) under the "Model UPHC Project"

PROJECT BACKGROUND



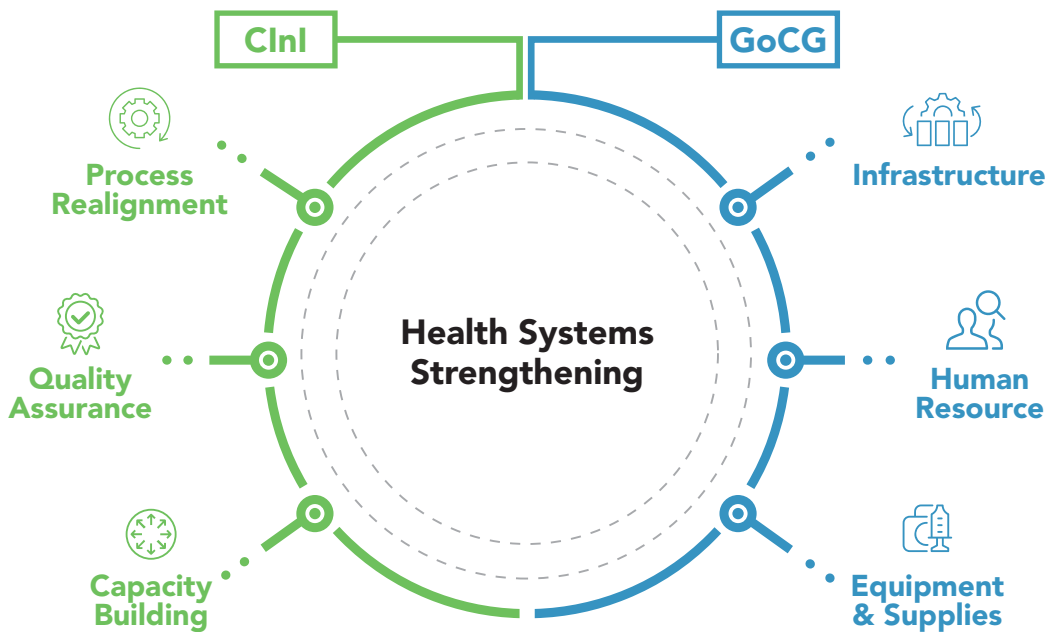
In September 2019, based on an invitation from the State Government of Chhattisgarh, Tata Trusts initiated an engagement with the National Health Mission (NHM), Chhattisgarh, to develop 20 Model UPHCs. The focus of the partnership is demonstrating an efficient patient management system, creating Model Immunization Rooms, digitalizing health records and building the capacity of the healthcare workforce, including developing master trainers to provide good quality health services to patients.

Under the first stage of implementation, Tata Trusts demonstrated 5 UPHCs in Raipur as models during 2019-2021. After this, a project was granted to Collectives for Integrated Livelihood Initiatives (CInI) - an associate organization of Tata Trusts, in order to develop the remaining 15-Model UPHCs by the end of March 2023. Demonstration of Model facilities is a collaborative effort of the Chhattisgarh government, the National Urban Health Mission and the CInI-Tata Trusts to establish a reference point that can be scaled up and replicated in other UPHCs.

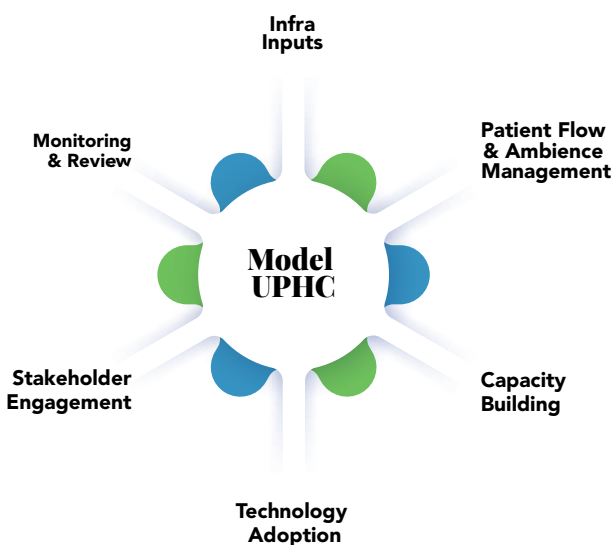
APPROACH

The overall approach was kept in alignment with the efforts being taken by state government to improve the quality of services at the UPHCs. The strategy so evolved was to help the UPHCs' journey towards achieving National Quality Assurance Standards.

It is a synergistic approach to fill up the gaps and strengthen the public health care facilities without duplicating the work of state government. State government ensured provisioning of the basic infrastructure, human resources, medicines & consumables, basic laboratory and referral services. While CInI-Tata Trusts supported on the techno managerial aspects from a public health perspective.



To operationalize the broader vision, the strategy evolved consists of six main pillars, as mentioned below:



- A) Provisioning of infra inputs for efficient storage capacities
- B) Improving patient flow & enhancing ambience for ease of access
- C) Building capacities of the health work force on select aspects of quality of care
- D) Supporting the adoption and utilisation of technology
- E) Engaging stakeholders at various levels
- F) Monitoring with data analysis & periodic reviews

A. Model Infra Inputs

Most of the Urban Primary Health Centres in Chhattisgarh do have an ample number of rooms and sufficient building space. However, the interior of certain rooms lacks efficient storage capacity and quality furniture. So, it was decided to support with overhead & understorage capacities in the laboratory; storage racks in the pharmacy; quality furniture with computer systems in the OPD; registration counters for front desk officers; ambience management in the immunization room; partitions / curtains (for patient's privacy wherever necessary); electrical and IT cabling systems; electronic token systems and visitor chairs in the waiting area.

The objective of these model infra inputs was to provide a good ambient work environment to the caregivers to enhance their satisfaction and, thus, service delivery. An external agency was identified with the civil & technical expertise to provide the model infra inputs of standard quality and to evolve standard guidelines for any such civil work to be done in the facility. Apart from the intervention UPHCs, joint visits were made by CInI Consultants & Engineers from an external agency, to all UPHCs in the state, to make the engineering layouts for proposed civil work. All these engineering layouts and standard guidelines have been submitted to the National Health Mission in the month of August 2022.



Prior to the installation of storages, pharmacy used to look unorganized. Now, because have spacious storage, I have been able to arrange medicines in a better way. This makes the pharmacy look just like a private pharmacy. It has made medicine dispensing easier for me. Due to the provision of partition between the registration and pharmacy, the patients are now able to differentiate between two service areas. This has been very helpful in avoiding the chaos and inconvenience.

Neha Gautam,
Pharmacist, UPHC Charoda, Durg

The installation of under-counter and overhead storages has been very helpful in arranging the equipment, solutions and other material neatly. The laboratory looks well organized now. This has also made my day-to-day work convenient.

Mrs. Ambalika Kaushik,
Lab Technician, UPHC Charoda, Durg





I really liked the efforts that a separate room has now been dedicated to the vaccination of children. My daughter got very happy seeing the cartoons and toys.

**Mrs. Seema Sahu, M/o Ms. Preeti Sahu,
New Khursipar**



Proposed Layout for UPHC Mathpuraina



Submission of engineering layouts at NHM

B. Patient flow & Ambience management

Problem Statement

Urban Primary health centres are generally over crowded during the OPD hours. It was observed that the Patients visiting the UPHCs

1. Had to stand in long queues for registration
2. Were unaware about which OPD they should visit
3. Were clueless about the direction for the rooms like OPD, laboratory, pharmacy etc.

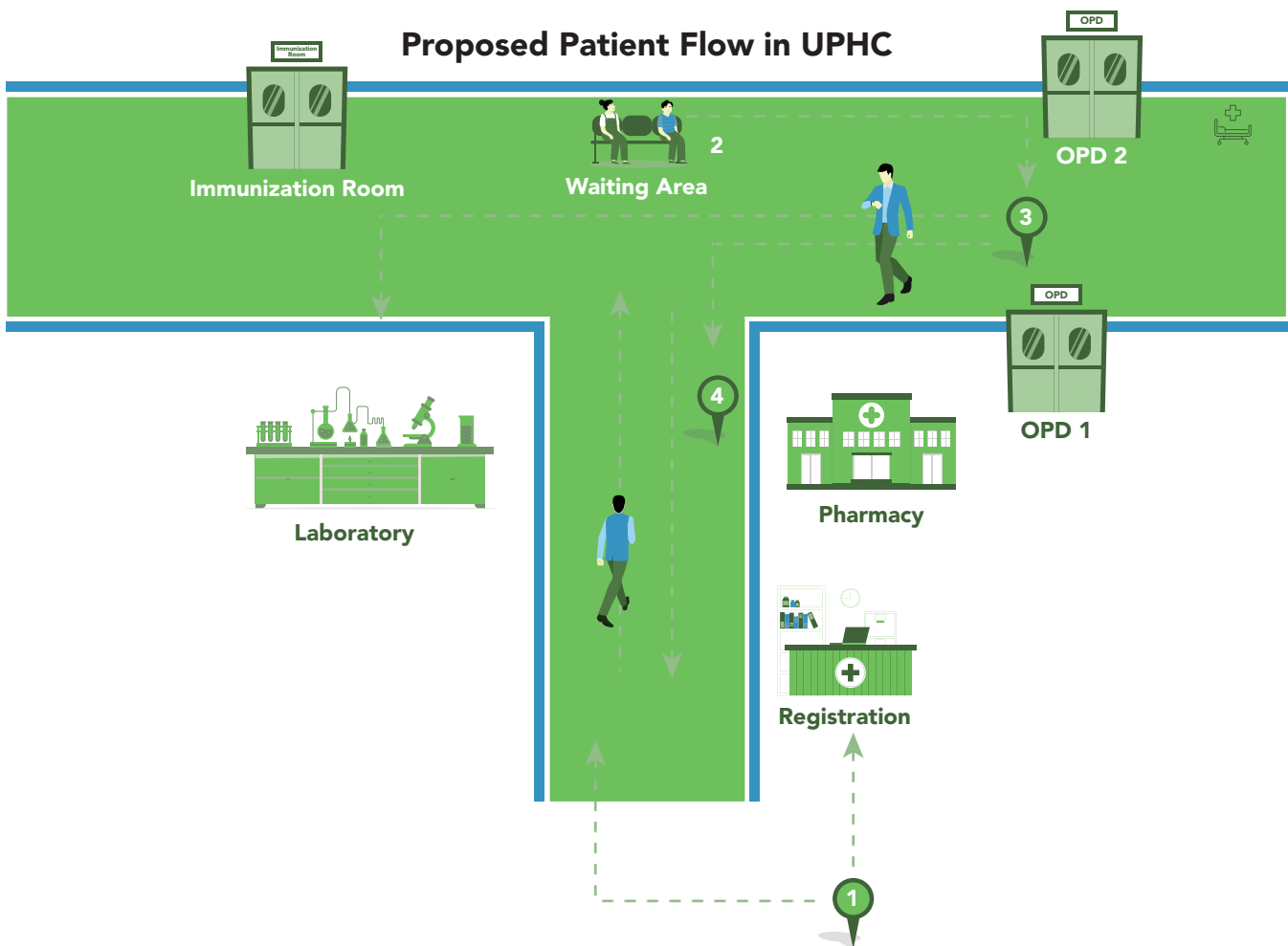
All these leading to the long waiting time for patients within the facilities.



Intervention

To address the overcrowding and reduce the turnaround time within the facilities, the following actions were taken wherever feasible:

1. Dedicated registration counters with separate entry were made available.
2. Circular or anti circular patient flow has been proposed and implemented
3. Token system and dedicated waiting area with basic amenities have been provided.
4. Signage developed and proper numbering of rooms done



All these efforts helped streamline the flow of patients going to the OPDs and thus enhanced ease of access. It was also suggested to have the dedicated immunization room away from the OPD rooms so that the beneficiary children and pregnant women can access it directly, reducing the chances of contact with other patients. Additionally, a set of 12 posters to be pasted in the facilities as part of IEC material has been decided upon in consultation with NUHM, addressing 12 services of comprehensive primary care.



IEC Poster



Signage



Token System



Dedicated Waiting Area



Rooms with Names & Numbers

C. Capacity building through Supportive Handhold Visits



Capacity building through supportive handhold visit is one of the key components of the model UPHC approach. For select areas as identified and in alignment with NQAS, CInI consultants visited each facility 2-3 times in a month to handhold and build the capabilities of health care workforce. The direct and personalized way of doing things helped to improve the practises and close the gaps. Along with patient flow management & technology adoption, SHVs were focused on 3 particular domains, as given below.

I. Biomedical Waste Management Practices

Background:

"Bio-medical waste" means any waste that is generated during the diagnosis, treatment, or immunization of human beings or animals, or research activities pertaining thereto, or in the production or testing of biological or health camps. It includes all the waste generated from the health care facility that can adversely affect the health of a person or the environment in general if not disposed of properly. All such waste is considered infectious and has to be managed as per the Biomedical Waste Management Rules, 2016.

Introduction

The Bio-Medical Waste Management Rules, 2016 categorise the bio-medical waste generated from the health care facility into four categories with colour coding and assign different ways for its segregation, collection, storage, and disposal.

Type of Waste with Color Coding



The following items should be disposed of in a Yellow dustbin:

Human anatomical waste Human tissues, organs, body parts, and the foetus below the viability period

Animal anatomical waste, including experimental animal carcasses, body parts, organs, and the waste generated from animals used during testing in veterinary hospitals, colleges, or animal houses

Soiled waste items contaminated with blood and body fluids, like dressings, plaster casts, cotton swabs, and bags containing residual or discarded blood and blood components

Discarded or expired medicine Pharmaceutical waste, like antibiotics and cytotoxic drugs, includes all items contaminated with it, along with glass or plastic ampoules, vials, etc.

Chemical Waste Chemicals used in the production of biological and used or discarded disinfectants

Chemical Liquid Waste: Liquid waste is generated due to the use of chemicals in the production of biological and used or discarded disinfectants, silver X-ray film developing liquid, discarded formalin, infected secretions, aspirated body fluids, floor washings, cleaning, housekeeping, and disinfecting activities, etc.

Discarded linen, mattresses, bedding contaminated with blood or body fluids, and routine mask and gown

Microbiology, Biotechnology, and Other Clinical Laboratory Waste (Pre-treated) Like Blood Bags, Laboratory Cultures, Specimens of Microorganisms, Live or Attenuated Vaccines, Human Cell Cultures Used in Research and Industrial Laboratories, Production of Biologicals and Residual Toxins, Devices Used for Cultures



The following items should be disposed of in a Red dustbin:

Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes without needles, fixed needle syringes with their needles cut, vacutainers, and gloves



The following items should be disposed of in a White dustbin:

Sharp Waste Sharps, including metal needles, syringes with fixed needles, needles from a needle tip cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts This includes both used, discarded, and contaminated metal sharps.



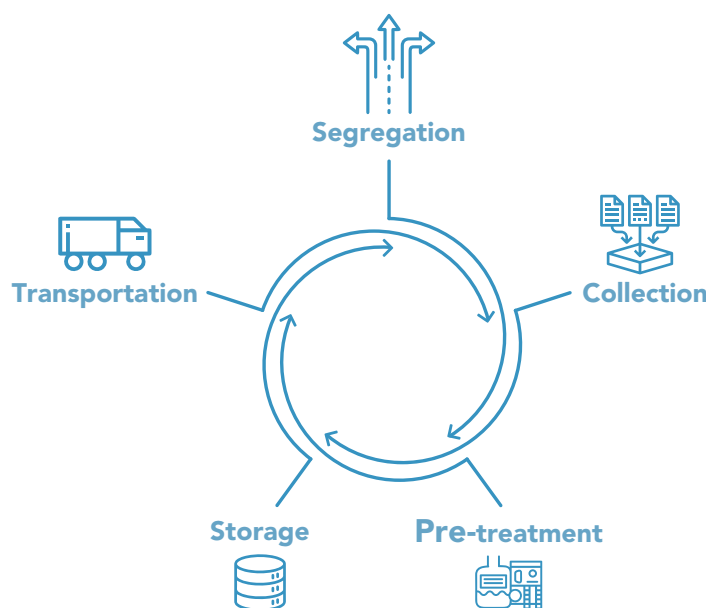
The following items should be disposed of in a Blue dustbin:

Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes.

In the context of health care facilities, the management of Bio Medical Waste (BMW) is of great importance due to its potential to cause environmental hazards and public health risks. It can lead to infections and injuries not only to the health care givers and patients coming to the facilities but also to the population at large when it is disposed of as general waste. Further, it can be a source of air, water, & soil contamination.

Steps Involved

There are 5 steps involved in BMWM, starting with Segregation, Collection, Pre-treatment, Storage to Transportation, which is the exclusive responsibility of Health Care Facility. Treatment and Disposal are primarily done at Common Bio-medical Waste Treatment Facilities (CBWTF). However for lab and highly infectious waste, pre-treatment is done at the Health Care Facility itself.



Our Approach

A. Initial Gap Assessment

First, we visited all the facilities to have a baseline understanding of common gaps across the facilities. We observed that

1. In general, health care workers lack proper knowledge for handling BMW.
2. Unavailability of bins, bags, or sharp containers at some facilities
3. There is a need for proper training and handholding for BMWM practises.
4. The biohazard symbol on the bags & bins was found missing.
5. The designated route for transporting BMWM is not evident in all UPHCs.
6. Unavailability of Trolleys for handling of BMWM.
7. There was no Centralized Storage area at some of the facilities
8. Vaccine vials were not disposed of properly
9. Deep pit and sharp pit were not covered, and the area was not demarcated properly.
10. Often, general waste is mixed with biomedical waste
11. Waste handlers do not use gloves, masks, or protective gears for their safety

B. Supportive Hand Holding

Through the supportive handholding visits and capacity building sessions, we engaged with the staff at the facility and helped them manage the biomedical waste as per the rules and guidelines. To make them aware of the existing practises and gaps, we created a standardised checklist. With these sustained efforts, we were able to improve the practises and also close some of the identified gaps.



SHV at UPHC Rajkishore Nagar



SHV at UPHC Nawapara, Ambikapur

C. Monitoring

At the facility -

- Our team monitored the Bio-medical waste management activities through a checklist during a hand-holding visit at their assigned UPHCs and sensitised all health care staff that they should follow the bio medical waste management techniques in their concerned department.
- Our Team Coordinated the Quality Team Meetings at the facility and made sure that BMWM should be one of the key agenda items for the discussions.
- We also took help from quality champions. They were involved in monitoring the BMWM activities on a daily basis and ensuring the use of protective gear by the waste collectors.



At District Level

We planned regular meetings with Chief Medical and Health Officers (CMHOs) and City Programme Managers (CPMs) of assigned district to raise our concerns for the Proper bio-medical waste management at the facility. They helped in the timely resolution of the issues.

For example- UPHC Gopalpur didn't have Common bio medical waste transportation facility (CBWTF), they dumped vaccine vials on the roof of the facility, even though they weren't following the BMWM rules earlier.

Our consultants spoke to the Medical officer in-charge about this issue, and suggested that they should coordinate with CBWTF. Further, it was discussed with the city programme manager (CPM) to have BMWW Certification. All these efforts culminated in receiving the BMWW certification for 3 years with the availability of a common bio medical waste transportation facility.

Case Study: UPHC Gopalpur, Korba

Before



Fig: Empty COVID Vaccine vials at the roof



Fig: Deep pit and sharp pit not covered

After



Learnings & Challenges

- Biomedical Waste should be segregated at the point of generation by the person who is generating the waste in a designated colour-coded bin or container.
- Biomedical Waste & General Waste shall not be mixed. Storage time for waste should be as less as possible so that waste storage, transportation and disposal are done within 48 hours.
- If a CBWTF facility is available at a distance of 75 km from the HCF, bio-medical waste should be treated and disposed of only through a CBWTF operator.
- Only Laboratory and Highly infectious waste shall be pre-treated onsite before being sent for final treatment or disposal through a CBWTF operator.
- Provide bar-code labels on all colour-coded bags or containers containing segregated bio-medical waste before such waste goes for final disposal through a CBWTF.
- It's a collective responsibility, and quality team meetings can help bring this behavioural change into practise.

II. Drug Store & Inventory Management Practices

Background

Studies have shown that nearly 70% of out of pocket expenditures (OOPE) for healthcare are due to medicines and consumables. Every patient has a right to affordable and equitable healthcare services. Hence, access to free medicines at Public Health Facilities plays an important role in reducing the burden of OOPE particularly for vulnerable groups like the urban poor.

Proper drug store and inventory management, along with the upkeep of the pharmacy, is one of the essential components of service delivery at the UPHCs. It helps in maintaining the required stock of medicines, reducing their wastage, and curtailing pilferage.

i. Drug Store & Pharmacy Management

Introduction

Drug stores & Pharmacy are very important in carrying out day-to-day operations in any public health care facility. The objective is to maintain the available medicines as per the guidelines and in proper racks in alphabetical order or according to their therapeutic use. It helps in dispensing the right medicines to the right patient in the right amount at the right time.

Rationale

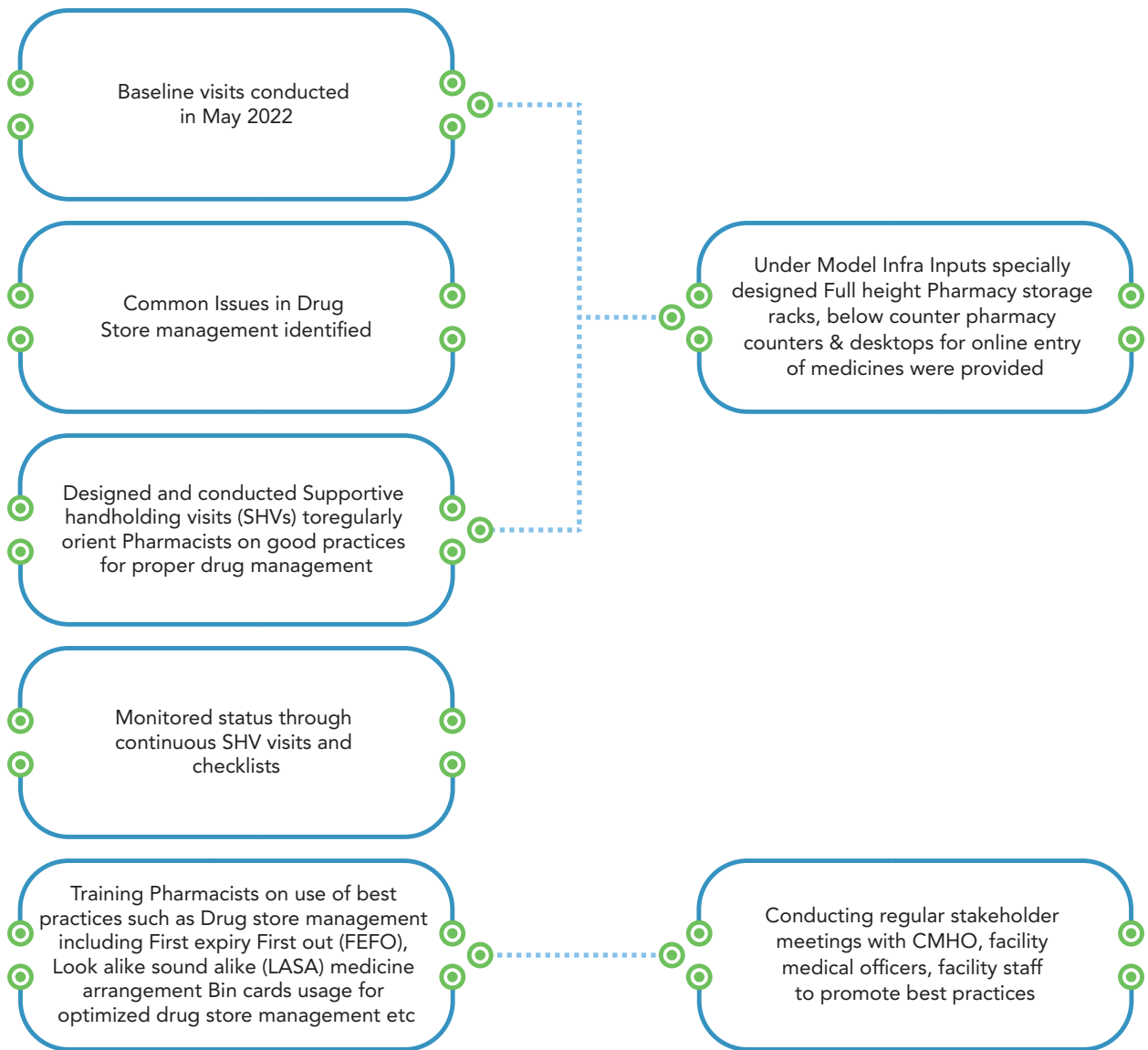
Proper maintenance of light, ventilation, spacing, labelling, and arrangement of medicines, reagents, and consumables in racks not only helps to reduce the damage but also helps to dispense them before the expiration date.

Approach

Baseline visits were conducted in May 2022 at our 23 intervention UPHCs indicated that there are multiple discrepancies. Some of these included:

- Boxes of medicines lie outside the drug stores.
- Proper labelling and spacing was not done.
- Medicines not arranged as per First expiry, first out (FEFO)/ First in first out (FIFO)/ Look Alike Sound Alike (LASA) arrangements
- Lack of awareness about LASA drugs
- Incomplete Stock Registers





- **LASA Drugs:** LASA stands for Look Alike Sound Alike and refers to two or more drugs that look similar or have a similar-sounding name. Due to this similarity, the risk of confusion while dispensing is particularly high with LASA drugs.
- **FEFO:** FEFO is an abbreviation for First Expiry First Out. In this case, the near expiry medicines need to be placed in front rows so that they can be cleared on priority while dispensing. This helps in reducing the wastage of medicines.
- **FIFO:** FIFO is an abbreviation for First In First Out. The first batch of medicines that have been received is the one that has to be dispensed to the patients first. FIFO ensures that the oldest stock is flushed out of the system first and the fresh stock remains.

Outcomes:

The efforts were aimed at improving best practises during the intervention period, and as a result, a few favourable outcomes were achieved in the following areas:

1. Pharmacy with specially designed storage systems
2. Drug Arrangement in Racks as per guidelines (LASA/FIFO etc)
3. Updated record keeping
(Drug Stock Register/ Drug Distribution Register/Drug Expiry Register/Consumables Register etc)



Drugs properly managed after installation of Pharmacy racks at UPHC Budha Mahadev, Kabeerdham



Properly managed Drug Store at UPHC Labhandi

CENTRAL STORE

DRUG DISTRIBUTION COUNTER

LASA



LASA Drugs

LOOK ALIKE

NAME OF DRUGS	CONFUSED WITH
TAB. DILTIAZEM	TAB. DILTIAZEM
TAB. TRAMADOL	TAB. TRAMADOL
TAB. VERAPAMIL	TAB. VERAPAMIL
TAB. VALPROIC ACID	TAB. VALPROIC ACID
TAB. LEVETIRACETAM	TAB. LEVETIRACETAM
TAB. METOPROLOLOL	TAB. METOPROLOLOL
TAB. CEFTRIAXONE	TAB. CEFTRIAXONE
TAB. PARACETAMOL	TAB. PARACETAMOL
TAB. PIPERAZINE	TAB. PIPERAZINE
TAB. FLUCONAZOLE	TAB. FLUCONAZOLE

SOUND ALIKE

NAME OF DRUGS	CONFUSED WITH
CLONAZEPAM	ALONAZEPAM
TAB. ALZHEIMER	TAB. ALZHEIMER

UPHC Rajatalab, Raipur adhering to LASA guidelines & Inventory Guidelines



Drug Store at UPHC Rajkishorenagar, Bilaspur



Best Practices followed at UPHC Kabeerdham

ii. Inventory Management

Introduction

Inventory is the stock of any item or resource used in an organization. In a hospital, this includes the drugs and all other raw materials or finished products involved in the diagnostic and therapeutic services for the patients. Maintaining stock of medicines is one of the essential aspects of inventory management at the UPHCs.

In Chhattisgarh, Chhattisgarh Medical Supplies Corporation (CGMSC) centrally procures medicines. Then these medicines are supplied to the different warehouses across the state. There are 16 such warehouses in the state, which then supply medicines to various districts. From districts, then, the medicines are transferred to the respective facilities as per their demand. To meet the requirement of supply chain management, every facility has to submit their annual indent beforehand as per the mandate.

Facilities make indents in their respective warehouses and receive the medicines. They further dispense these to the patients as per the prescriptions. This whole process of indenting to receipt and dispensing is supposed to be channelled through the online application meant for this purpose. The application is known as Drug Procurement & Distribution Management Information System (DPDMIS) and is designed by CGMSC to maintain robust supply chain management.

At the facility level, the pharmacist maintains the stock of medicines and further distributes them to different wards, Sub Centres (SSK) or dispenses them to the patients.

Rationale

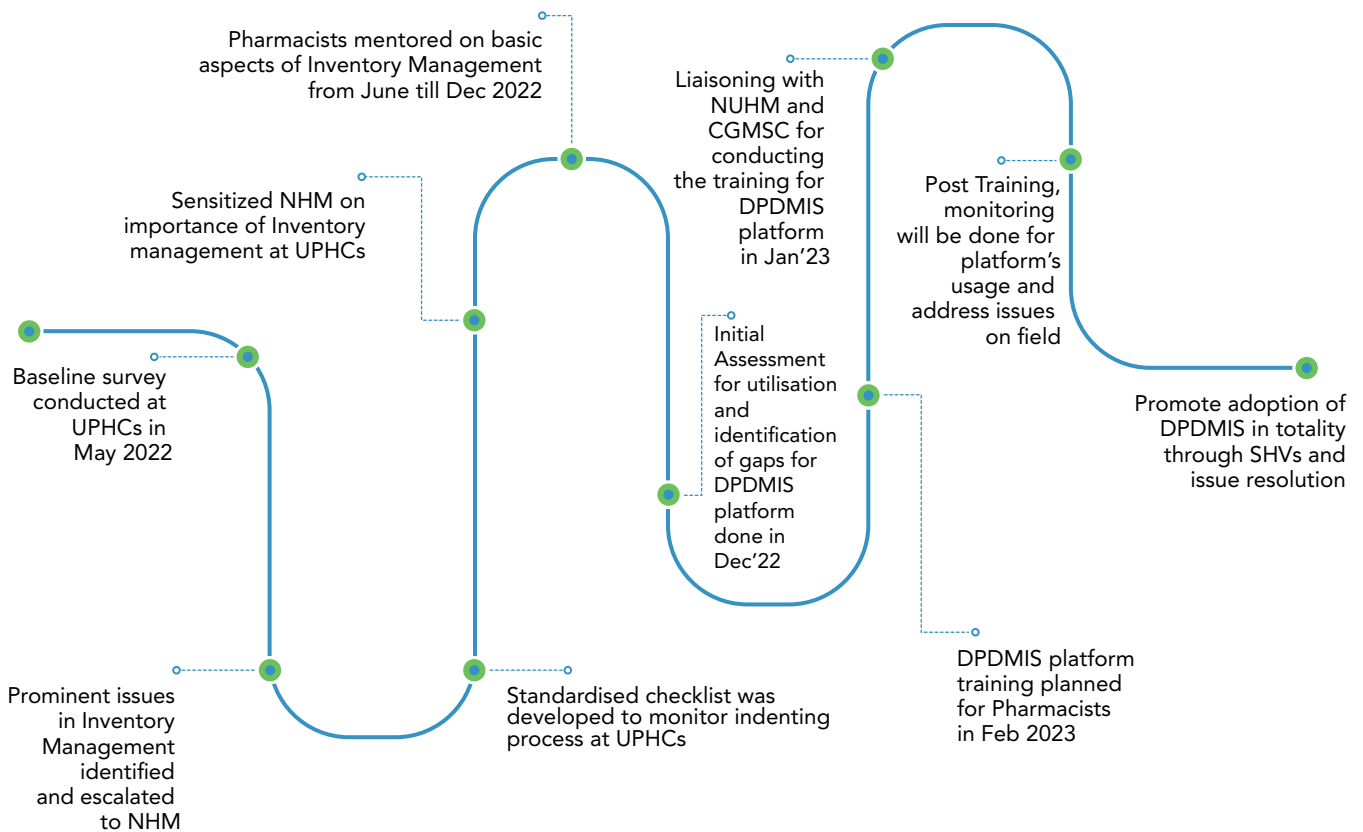
Inventory management is the backbone of any public health system. Its importance lies in maintaining regular stocks of essential drugs at the UPHCs all the time and avoiding stockouts of vital lifesaving drugs at all costs. Procurement and supplies are dependent on demand forecasting. Thus, the exercise of annual indenting is of great importance. Similarly, monthly indenting, when done in a scientific manner, can help maintain stocks at the facilities at appropriate levels.

Approach

A baseline survey was conducted in 23 UPHCs. The following gaps were observed in the facilities:

- Unscientific indenting methods were being followed.
(Drugs are not being ordered as per consumption rates, leading to shortages or excesses of medicines.)
- Annual/Monthly Indents are not being done in timely manner
- Incomplete Records like Indent Registers & drug Stock registers
- Pharmacists lack proper training for inventory management
- State owned online drug management platform is not being fully utilised
- Data for local purchases is not being updated on the DPDMIS portal.
- Masters and receipts are not being updated on DPDMIS in a timely manner.

Post baseline, some of the issues identified were discussed at both the facility and state level. Basic aspects of inventory management were mentored during the regular SHV visits to UPHCs. Further to enhance the uptake of the technology platform (DPDMIS), a training is planned for pharmacists in collaboration with NUHM and CGMSC.



Learnings:

- Staff was reluctant to maintain basic pharmacy registers due to a lack of human resources and time. To motivate them, consistent mentoring and handholding, along with recognition of good work, are essential.
- The drugs were not arranged as per guidelines earlier. As a result, many drugs expired without the knowledge of pharmacists. Drugs were also not indented as per their consumption rates. With the introduction of drug arrangement norms and scientific indenting methods, this scenario is improving.

Testimonials



"With the support from Tata Trusts, we got the first model Pharmacy of Chhattisgarh, which was praised everywhere. This was a matter of pride for us. We were able to keep our pharmacy more updated than before. We are also encouraged to work as per SOPs in the Pharmacy and drug store."

**Mrs Archana Gupta,
Pharmacist, UPHC Gudhiyari**

"We are grateful to Tata Trusts for their efforts in making our workplace equipped with good facilities. The kind of wooden furniture and shelves and other amenities provided by Tata Trusts add to a positive work environment, and these are like an asset for the employees to perform better. Also, the regular quality meetings help us in achieving our monthly goals, performing proper register maintenance and uplifting our performance in terms of quality."

**Mrs Jayanti Tiwari & Mrs Maya Dwivedi,
Pharmacist, UPHC Labhandi**



III. Model Immunization Room & Practices

Background:

Childhood immunization is one of the most cost-effective public health interventions to reduce infant and child morbidity and mortality from several infectious diseases. Hence, aiming to achieve 90% full immunization coverage by 2018, the Government of India launched Intensified Mission Indra- Dhanush in the year 2017. Through this program, achieving immunization coverage at urban slums with migratory population was prioritised. The focus was on reaching every infant and child in the urban slums, settlements and cities identified under National Urban Health Mission (NUHM). However, despite the relentless efforts, infant and child deaths due to infectious and vaccine preventable diseases are significantly prevalent.

As per National Family Health Survey 5 (NFHS 5), only 79.7 percent, of children aged 12-23 months were fully vaccinated in Chhattisgarh in the years 2019-21. Of these, 96.6% received most of their vaccinations in a public health facility, compared to 3.1% Children who received most of their vaccinations in a private health facility. With the urbanization and increasing slum population, there has been an increased demand for routine immunization services in the urban primary health care facilities.

Strengthening routine immunization services in order to achieve full immunization coverage has been one of the priorities of State Government and National Health Mission (NHM), Chhattisgarh. To provide support in this endeavour, Collectives for Integrated Livelihood Initiatives (CINI)- TATA Trust has demonstrated Model Immunization Rooms in 20 Urban Primary Healthcare centres (UPHC) across the state.

Introduction

During the initial stages of project discussion with the authorities of NHM, it was suggested to look into the various models related to strengthening of immunization care and take learnings from them. Accordingly, consultants at Tata Trusts looked into the various best practises across India, including the dedicated immunization corners in the public health care facilities being developed in Bihar. Taking cues from this it was decided to demonstrate dedicated Model Immunization Rooms in the Model UPHCs.

Rationale

It was observed that during OPD hours, UPHCs tend to get overcrowded with patients. Since a separate room solely for immunization services was not available at the UPHCs, immunization of infants and children was being done in common areas meant for the provisioning of other health care services. Such an environment seemed unsuitable for vaccination, often making the child anxious before immunization. Vaccinating under such conditions had other consequences, like putting the infant or child at risk of acquiring infections. Taking learnings from existing models across India and realising the need for a child friendly environment for immunization, the idea of a dedicated room for immunization in the UPHCs pioneered in the Model UPHCs.

Objectives

1. The objective behind developing model immunization rooms at the UPHCs is to develop a dedicated area for routine immunization service delivery such that infant and children can be immunized in safe hygienic conditions and a child friendly environment.
2. Proper ambience management has the potential to enable positive experience in seeking care and improving patient satisfaction.
3. Improvement in quality of immunization services, could also lead to its improved uptake at the UPHCs.

Our Approach

After studying the best practises across India, we went ahead with a three pronged approach consisting of

- A) Infrastructural development
- B) Building capacities of the health workforce and
- C) Monitoring for increasing utilisation of immunization services.

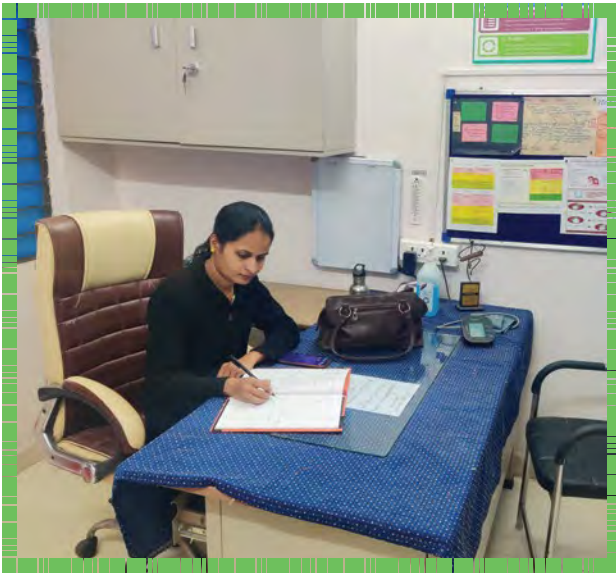
A. Infrastructural development

During initial visits to the UPHCs, rooms which could be dedicated solely to routine immunization of infant and children were identified in consensus with the City Program Manager and Medical Officer in-charge of the facility. Since it is proven through research that distracting the child while vaccinating is an efficient way of pain management, the entire immunization room has been planned and developed such that it seeks the child's attention and induces positive emotions. Entire walls in the room have been covered with colourful mural paintings depicting age-appropriate characters or figures. Integration of stadiometer for growth monitoring and IEC related to Mission Indra Dhanush and immunization has been incorporated in the wall paintings such that it serves as an interesting way of awareness generation among the children's care givers. The immunization bed installed has also been given 3D effect through paintings.



Integration of IEC in wall mural painting at UPHC Potiyakala, Durg

- Furniture, including tables for assembling vaccines and other equipment required during immunization, and chairs for the comfort of UPHC staff, patients, and visitors have been provisioned.
- Overhead and low height Storage units have been installed for the neat arrangement of toys provisioned, necessary files, equipment, kits, and apparatus.
- Adding to the aesthetics of the MI room, vinyl flooring which is resilient and durable enough has been done.
- Since most of the vaccines are sensitive to high temperatures, the installation of an air conditioner will be helpful in temperature regulation for vaccine handling. A suitable temperature of the room might also serve for the comfort of the children seeking care and the staff delivering service.



The model Immunization room, before and after at UPHC Amaseoni

B. Inputs in the capacity building of UPHC staff in delivering routine immunization services:

We also focused on staff capacity building in the delivery of immunisation services through mentoring. Knowledge-building sessions are delivered to the concerned stakeholders during the supportive handholding visits done periodically to each UPHC. Sessions on cold chain management, handling of vaccines, identification of AEFI and its management, headcount survey, and administration of vaccines have been delivered to the staff nurses, RHO, ANM and Mitans. Often, we used the pre-structured checklist and questionnaire to identify the gaps and then provided handholding to close them.

C. Monitoring of routine immunization services

Periodic monitoring of routine immunization delivered at UPHCs is done through supportive handholding visits to each UPHC at least twice a month. The monitoring is done with an electronic checklist developed in an application. The main objective was to ensure utilization of the model immunization rooms developed at UPHCs for routine immunization of infants and children. As a result of the efforts made through the handholding visits, immunization sessions are now being regularly conducted in the Model Immunization Rooms at the UPHCs.



Mitans, ANMs indulged in knowledge building activities held at UPHC Charoda and Kabeerdham

Intended outputs:

Model immunization rooms are being developed at 20 UPHCs across Chhattisgarh. At these facilities, availability of dedicated rooms for routine immunization has enabled better queue management & delivery of service with better infection control and hygiene standards.

Expected outcomes of developing a model immunization room and practices:

An improvement in the quality of service delivery will help to create a positive experience in seeking health care from the UPHCs and good patient satisfaction.

In long run, this will help to increase the percentage of children with Full Immunization Coverage and thereby meet the goals of the state Governments.

Learnings and challenges:

Due to the increased workload during OPD hours and lack of staff dedicated solely to immunization service, ensuring utilization of the model immunization room for vaccination of infants and children is challenging.

D. Technology adoption

We support two technology platforms (CPHC NCD IT platform & DPDMIS platform) for their effective deployment, adoption, and utilisation in the state.

I. CPCH NCD IT Platforms: These have been deployed in the state since 2018 with the help of CInI- Tata Trusts as a part of pan India engagement under the GOI NCD program. The main approach followed here is the training of district level healthcare workers with the help of state NCD cell; supporting them with troubleshooting as required; and monitoring with periodic reviews at the divisional and state level. After imparting the necessary training to the majority of the concerned healthcare workers, the thrust is now on monitoring the progress. The monitoring and evaluation approach being followed currently is yielding good results in terms of people brought under the continuum of care umbrella.

Despite the visible success of this approach, the uptake was poor in urban health care centres. So to address this issue, it was decided to provide the staff of the intervention UPHCs with direct engagement during the SHVs (May'22 onwards), in addition to the engagement at district levels.

II. EHR to DPDMIS Platform: At the inception of the Model UPHC program, it was envisioned to have electronic health records and completely paperless patient flow within the facilities. For this to be achieved, an EHR application was developed & was being customized with the help of a third party private application developer.

However, with the passage of time and changed government policies, this exercise has been abandoned. The latest government policy prohibits any such private third party involvement in creating the digital architecture, including that of the EHR system. So, currently, the E-Hospital platform has been promoted as a solution towards digitisation of patient records. However, currently it is being used in select District Hospitals only. It is yet to be customized with the various modules appropriate only for UPHCs.

Another platform known as the Drug Procurement & Distribution Management Information System (DPDMIS) is now being promoted for all public health care facilities including UPHCs for effective supply chain management of medicines and related supplies.

I. CPHC NCD IT Platform

Background

To address the rising burden of Non Communicable Diseases (NCDs), the Government of India introduced Population Based Screening (PBS for NCDs) in the year 2017 to the existing National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS) which was launched in 2010. As a part of this initiative, all individuals over the age of 30 need to be screened for Hypertension (HTN), Diabetes (DM) and the 3 cancers viz, Oral, Breast and Cervical. The MoHFW strengthened PBS for NCDs by integrating with Ayushman Bharat Health & Wellness Centres (AB-HWC) initiative in 2018.

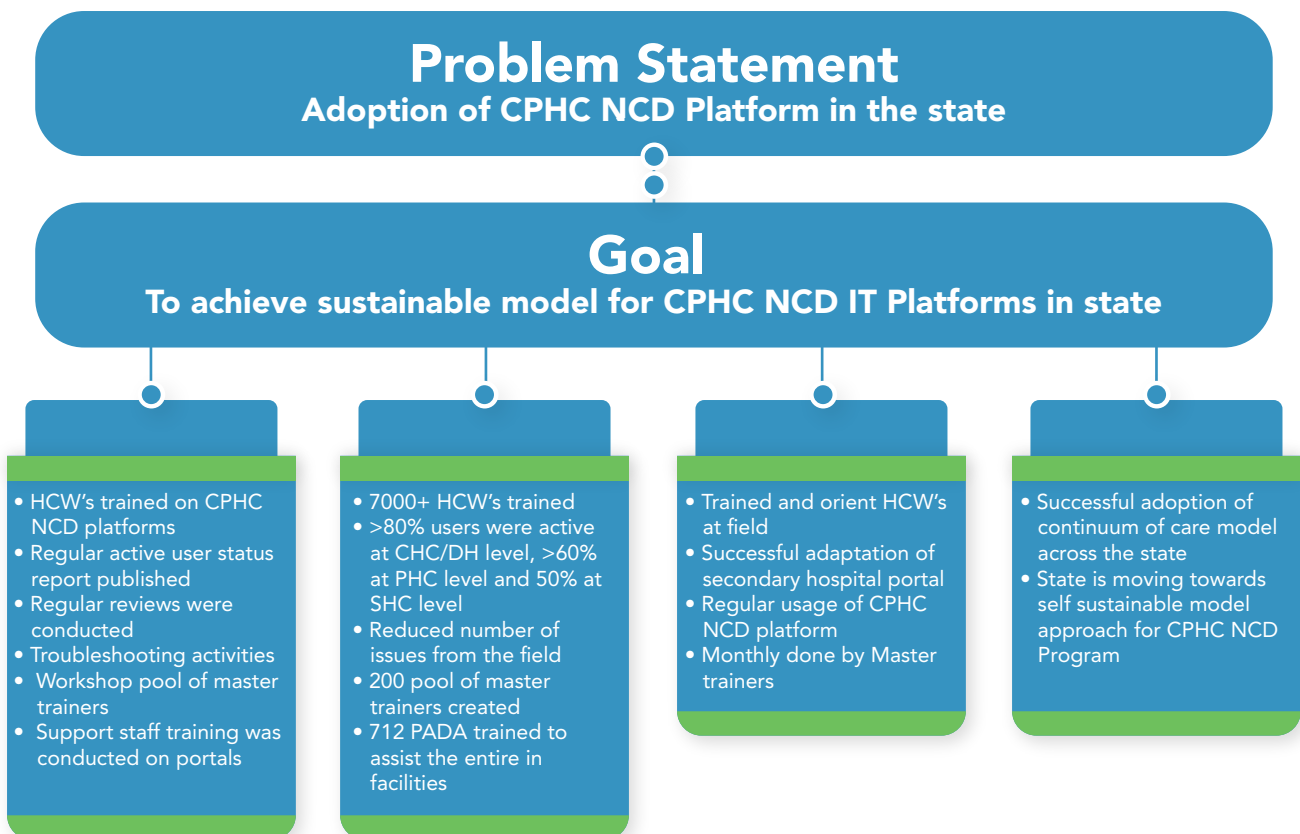
The CPHC NCD IT platforms were launched to support the PBS for NCDs and to bring the needy under the umbrella of a continuum of care by providing timely diagnosis, treatment, and referral services.

Districts Level Engagement: Monitoring & Evaluation Approach (M & E)

Rationale

Effective M & E extends far beyond simple reporting. Regular review of program data makes it possible for healthcare workers to identify areas for improvement in service delivery or quality and equips decision makers with the facts they require to safely discontinue or change practices in order to better help patients.

The existence of multiple monitoring frameworks for health systems results in considerable duplication, overlap, and confusion. In the case of CPHC NCD Program monitoring, too many departments involved not only create confusion & lead to poor communication but also result in a lack of accountability. Hence, it was decided to streamline the monitoring process to improve the outcomes of the program



LOGICAL FRAMEWORK FOR CPHC NCD PROGRAM

Approach

The approach was to make the districts capable of implementing the program on the ground and monitor them on a regular basis, with the provisioning of handholds & the support as needed.

Specific Strategies Adopted:

The journey of the CPHC NCD program started in 2018. The initial strategy to launch this program in the state was with the help of drives like "NCD Pakhwada". The state officials were oriented on platforms first, followed by district wise trainings conducted across the state. There used to be day to day monitoring of activities at both the district and state level during the drive. Initially, it yielded immediate results by increasing the number of people enrolled and screened for NCDs. However, the progress declined after such drives, bringing the usage of platforms to a near halt.

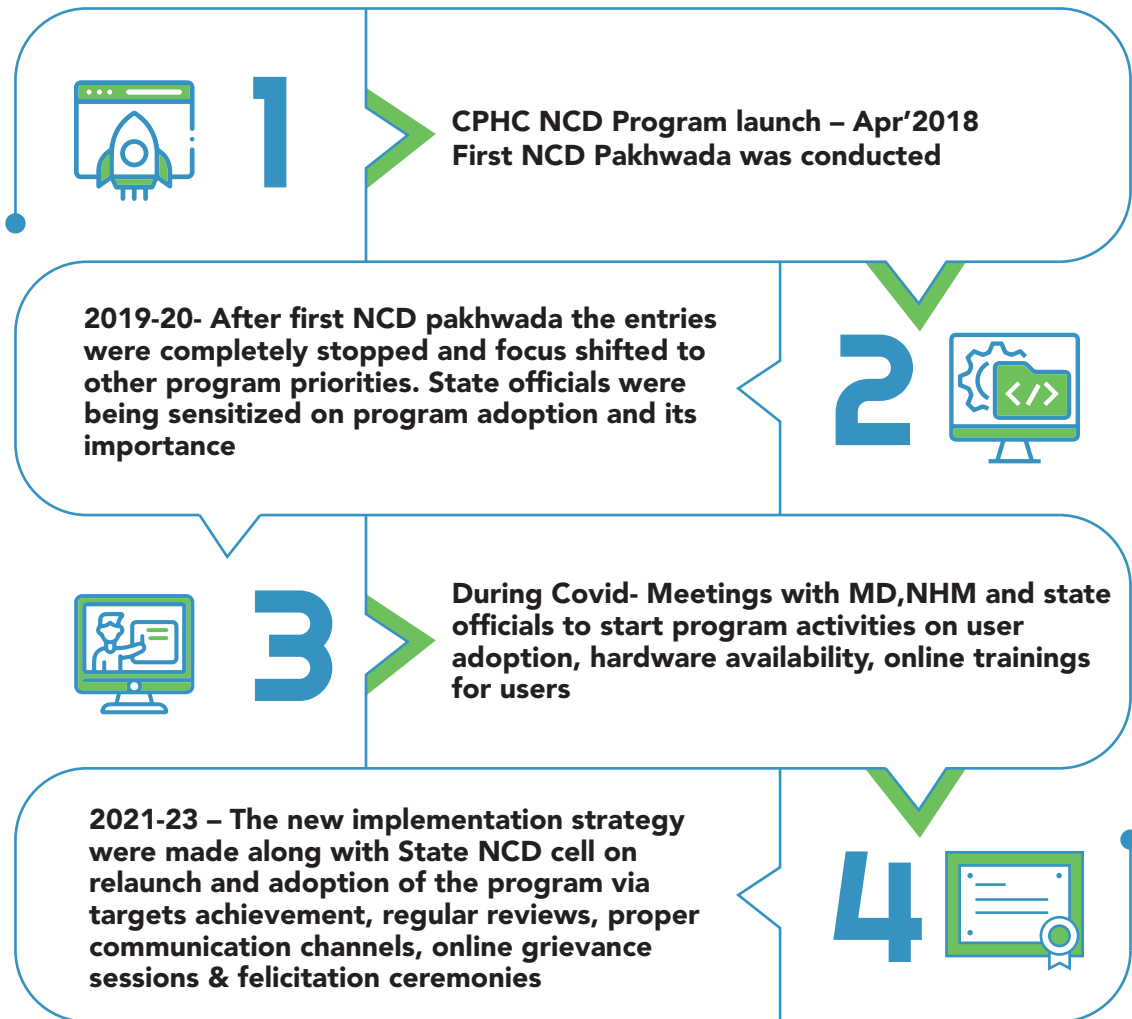
Learning the lessons from the past, a new strategy was proposed for better adoption and long term sustainability of CPHC NCD IT Platforms in the state. The effort was made to sensitize the State officials to adopt the platforms on a regular basis. Meetings with MD NHM, JD NHM, Deputy Director NCD and other concerned officials were made to start rolling out the platforms in the districts on a regular basis.

The COVID pandemic hit the state and nearly stopped the progress made erstwhile during 2020-21. COVID cases were at their peak, and most of the HCWs were occupied with managing them. We used this time to sensitise the officials about the potential benefits of the data captured in the CPHC NCD IT platform. They were made aware of the line list option available on the portal, which can be put to use for better management of NCD cases, including regular follow ups. During this period, we went ahead with small and achievable targets for screening and rescreening without burdening the already stretched out public healthcare system.

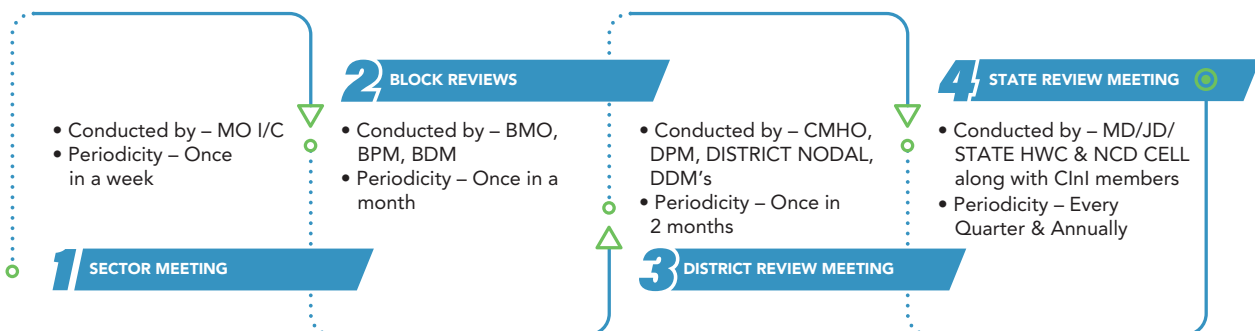
Post COVID period, the momentum was regained. This time the focus was on achieving a continuum of care. Hence, the thrust was not only for enrolments and screenings but also for successful diagnosis and treatment thereafter. This time, specific targets were given for diagnosis as well. Regular review meetings were conducted at the division and state levels to monitor the progress. To help the state in this endeavour, we had CInI consultants assigned to every division and looking after the districts therein. They acted as a Special Point Of Contact (SPOCs) for trainings, reviews, & issue resolutions. Through this strategy, we were able to initiate adoption of CPHC NCD IT Platforms at secondary hospitals like PHC, CHC & DH.

To further implement the strategy of creating SPOCs (within the government system), we proposed to train and create a pool of Master trainers at every district.

Figure : Implementation Strategy



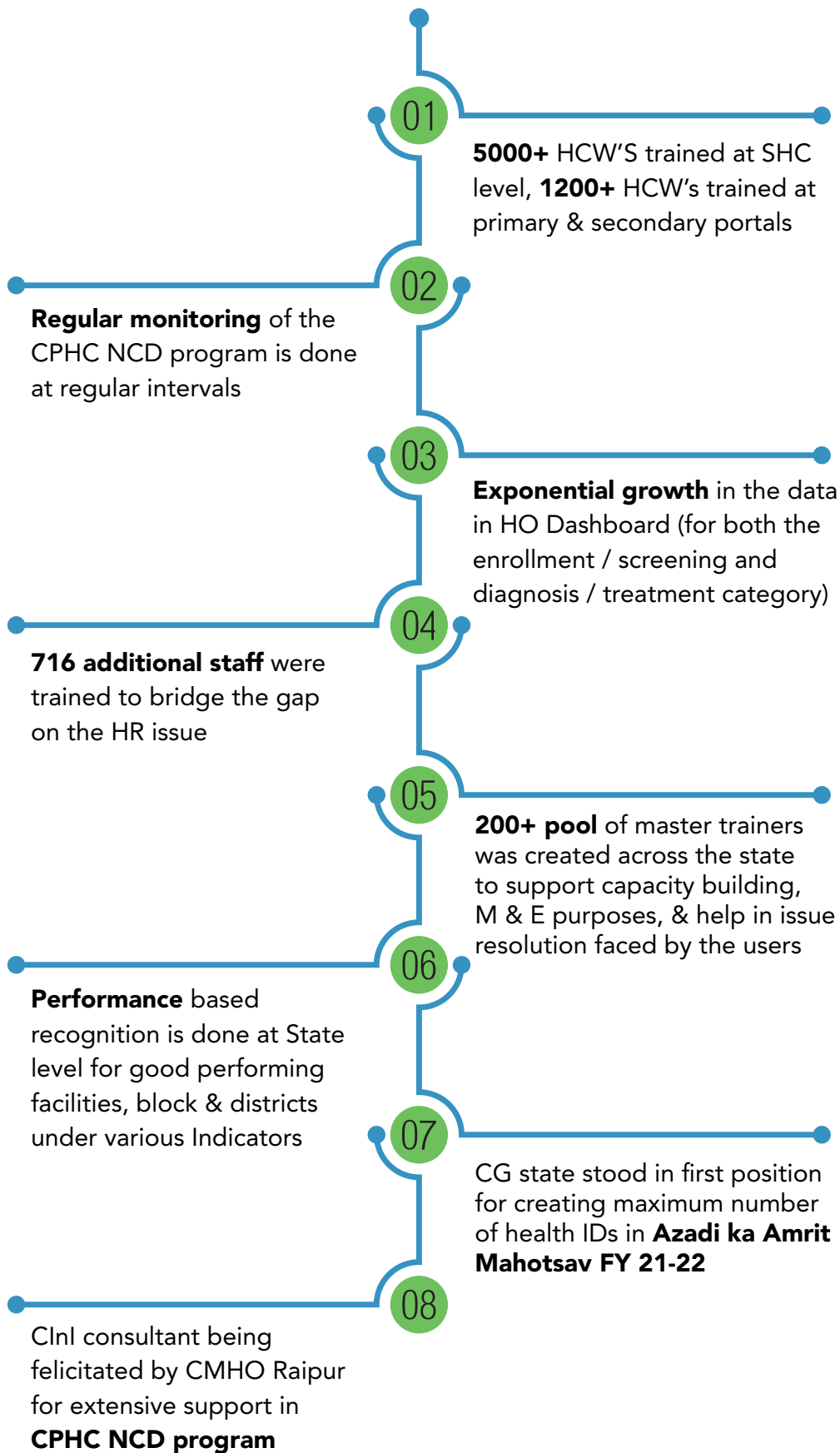
SYSTEM MAP ON REVIEW MECHANISM:



INDICATOR MONITORED:

- No. of Individuals Enrolled
- No. of Individuals Screened
- No. of Individuals Rescreened
- No. of Individuals Referred to respective higher centre
- No. of individuals Examined for HTN, DM, BC, CC, OC
- No. of Individuals Under Treatment for HTN,DM, BC, CC, OC
- No. of Individuals Diagnosed for HTN, DM, BC, CC, OC

Outcomes



Facility Level Engagement: Engagement at 23 Intervention UPHCs

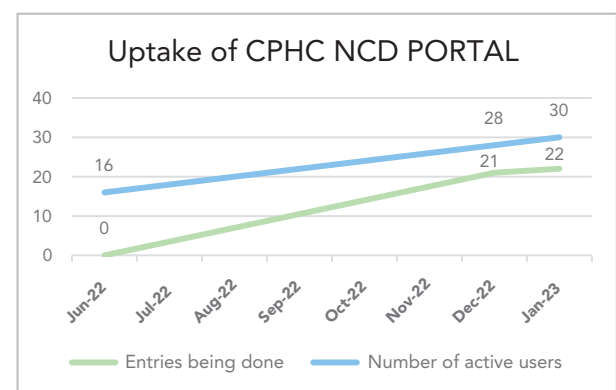
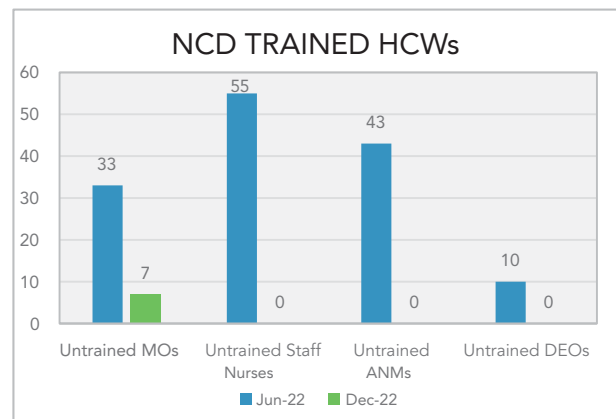
Rationale

Despite the increase in uptake of CPHC NCD IT Platforms at the PHC , CHC & DH levels, it was observed that the UPHCs are failing to adopt this platform. During the reviews, it was quite noticeable that UPHCs had very dismal entries. To change this scenario, a facility level engagement with the help of CInI consultants was suggested.

Approach

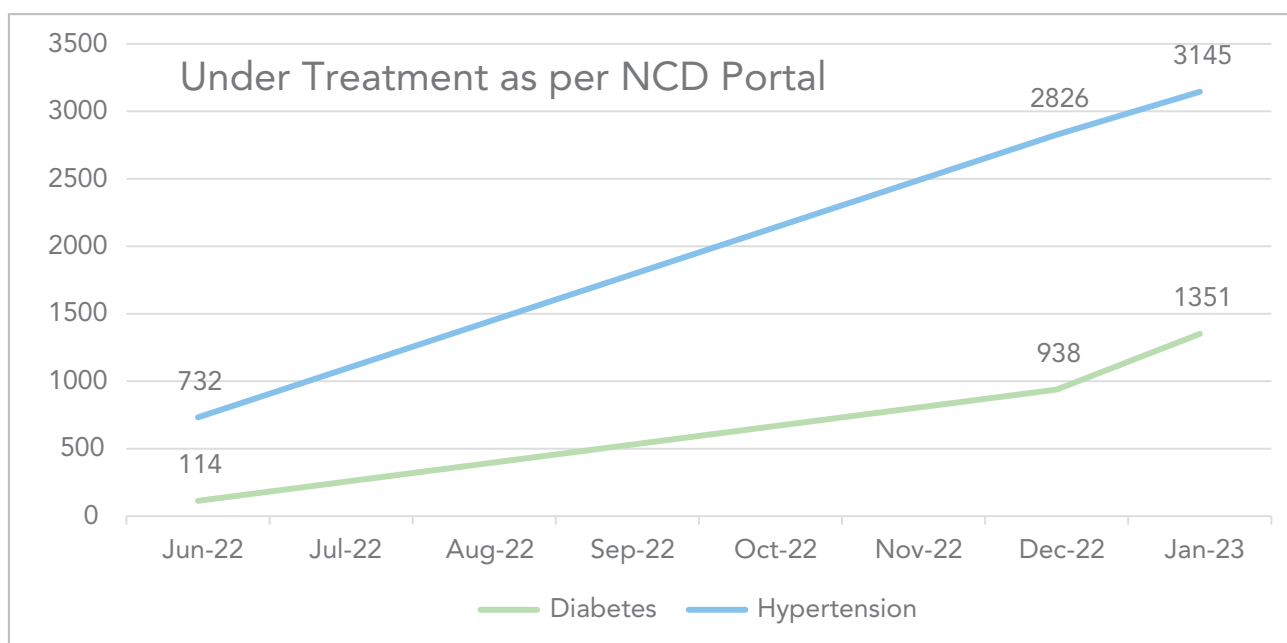
Adoption of PHC portal and increasing it's usage at UPHCs was one of the core area identified for Supportive Handhold Visits at the UPHCs.

During initial assessment, the untrained staff was identified and subsequently their capacities were built by mentoring and hand holding at facilities by CInI consultants. They were regularly monitored with the help of data and supported for troubleshooting of issues.



Results

- Now most of the concerned staff at the UPHCs has undergone training
- All facilities are now doing NCD entries using PHC portal
- The active users' status has been consistently improving
- Trend of under treatment patients for DM & HTN is upward moving



The Changemaker: Case Study of UPHC Bhatagaon

This facility, situated in Raipur district, caters to population of 52,590 out of which target population for NCD is 19,459. It has 5 Shahri Swasthya Kendra under its jurisdiction. This is one of the 20 Model UPHC being developed in the state and has recently qualified for NQAS certification.

This facility has shown a remarkable increase in the uptake of CPHC NCD IT platforms. As compared to the last year, in which 1287 examination entries were done throughout the year, 1706 such examinations were done in first quarter of this year alone.

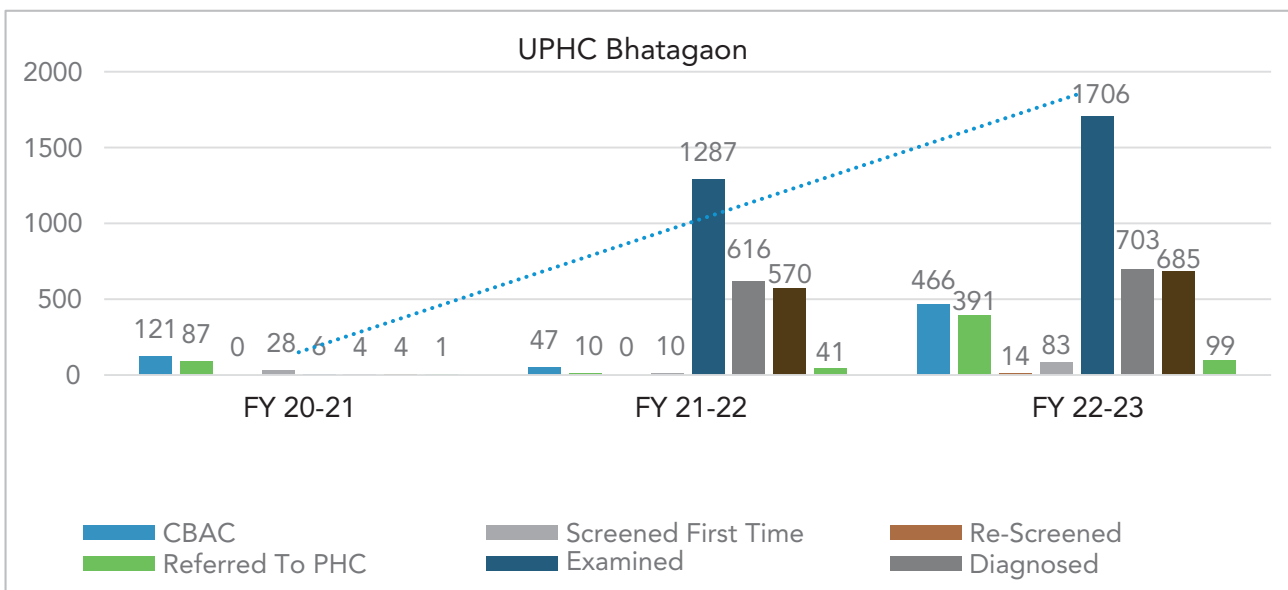
This was achieved through the constant efforts of the Medical officer, Dr. Arunim Singh. He was posted here only for a short period of time from March–June 2022, during which he succeeded in achieving this target. We discussed, about the factors that led him to this success. The main takeaway message is as below.

- Leading the way by doing the entries himself
- Regular monitoring of entries is done by staff every 2–3 days
- Motivating the staff nurse and Data operators regularly

(Initially, there were negative feedback regarding this platform. Staff was expecting incentives for every activity. Dr Arunim himself started doing the entries, which motivated the staff, who took it up with enthusiasm later. He proved a role model during such uncooperative circumstances and changed the scenario on the ground.)

- Five computer systems were provided as part of the Model UPHC inputs in the year 2020. This facilitated multiple entries through 2–3 systems at a time.

Dr Arunim succeeded in setting up a system in which, through making the entries & regular monitoring, remarkable growth was achieved. The culture, which he has developed, is bearing fruit with the continuous usage of the PHC Portal at the facility. Nearly 121 individuals were examined during 1st–11th July 2022, even after his transfer to the other facility.



II. DPDMIS Platform

To address the issues of proper inventory & stock management at the UPHCs, recently it was proposed to strengthen the usage of DPDMIS platform by the state government.

To support the state in this endeavour, as a first step, we conducted a baseline assessment at 23 UPHCs to understand the status of usage of DPDMIS platform and gaps therein. It was observed that this platform is being used only for limited functions and in a haphazard manner. So to strengthen its adoption and further utilisation a one day workshop is conducted on 23rd January 2023 for pharmacists of all 52 UPHCs across the state in collaboration with NUHM and CGMSC.

Post-training, these pharmacists are being guided and monitored in the field with the help of CInI consultants. The overall objective is to enhance the adoption and utilisation of the DPDMIS Platform for proper inventory management and digitisation of the records.

III. Way forward

- JSA posted under urban health facilities were trained for patient registration system protocol under DPDMIS platform
- Along with PRS system other reports were developed in DPDMIS in support with CGMSC team

Drug Cluster

	PT. FLOW MANAGEMENT	FUNCTIONAL TOKEN SYSTEM	NCP ADOPTION (PHC portal usage) PHC Portal Us.vel	DPDMIS ADOPTION		DAILY HYGIENE KEEP		BMWM		PHARMACY RACK ARRANGEMENT	Quality team meeting (April)	Critical HR GAP
				Tier-3	Tier-4	YES/NO	Logistics	(Practices Collection, Storage Transport)	YES/NO			
Charoda	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	lack of support staff during day hours.
Khursipar	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	1.BMW not segregated 2.Storage & collection lot waste is not done as per user guideline 3.A separate room for storage of BMW is available. Needs to be equipped.	Yes	Yes	Medical Officer in-charge is not assigned. 1 MO available from CD and 1 MO is attached or UPHC on temporary basis.
Potiyakala	Yes	Not utilized regularly. 1 MO is attached temporarily, so token is used as per MO's will.	Yes	Yes	No	Yes	Yes	Yes	BMW storage space needs to be developed	Yes LASA drugs need to be displayed	No	Two MOs available, Out of which 1MO is posted on everyday basis, only 2 staff nurses
Baikunthdham	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	BMW not segregated as per color codes	No LASA drugs need	Yes	No pharmacist since 2 months. Only 2 staff nurses for 10 beds
			Yes	Yes		Yes	Yes					
Buddha Mahadev	Yes	Not utilized regularly. Depends on crowd	Yes	Yes	Yes	Yes	Yes	Yes	Storage space needs to be developed	Yes	No	No HR issues

Drug Distribution & Management Information System
Chhattisgarh Medical Services Corporation Limited, Government of Chhattisgarh

OPD | Change password | Logout
Main Store: Hamar Hospital | District: RAIPUR

Home Stock Facility Masters Reports Registration

New Patient Registration

DDC Name
Search Patient Record (Old Patient) Adhar No Mob No Name AdharNo/Mob No/Name

Patient ID:-

Patient Details

Full Name* Relation To* S/O Relationship Name*

Gender* Male Age* Year Month Days

Adhar No Mob NO ABHA NO

UHID Ward No/Name City

Full Address

Hospital Work

Doctor Select Chief Complaint Select

E. Stakeholder Engagement

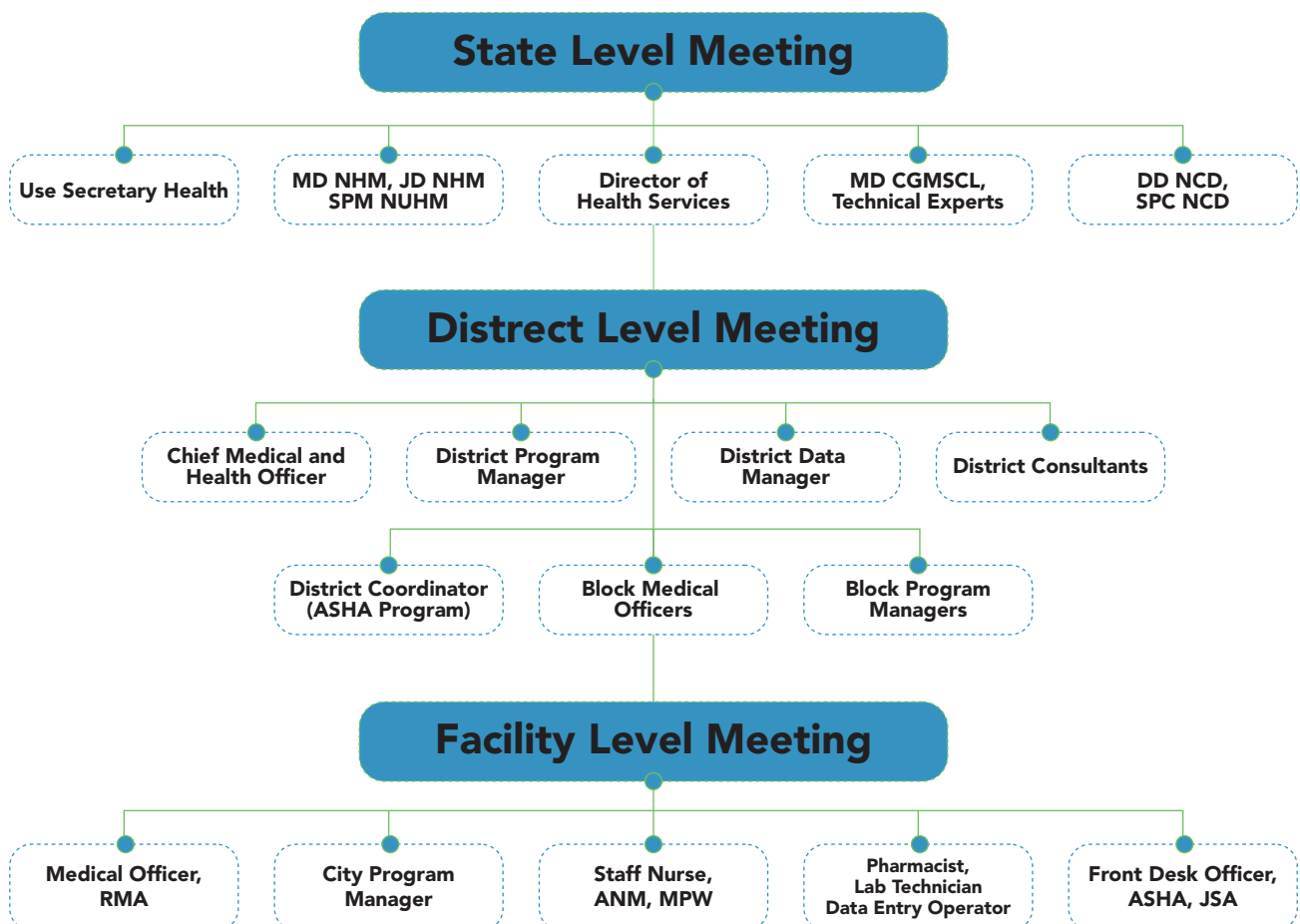
- An organization engages with the people who may be affected by the decisions it makes or who can influence the implementation of those decisions in the process.
- They may support or oppose the decisions, be influential in the organization or within the community in which it operates, hold relevant official positions or be affected in the long term.

Importance

- Continuous engagement at various levels is essential for the effective and efficient implementation of the programs on the ground.
- It helps the organization, to work in an increasingly complex and ever-changing competitive environment, while at the same time bringing about systemic change towards sustainable development.

Process

- Conduction of frequent facility-level meetings at the UPHCs has helped the staff better realise their roles and responsibilities at the health facility. It also helped them solve their issues in a friendly and time-bound manner. It ultimately helps in building team spirit and good interpersonal relations.
- Periodic meetings with the CMHO and CPM also helped to address the underlying issues affecting the progress on the ground on time.
- At the state level the constitution of Executive Committee chaired by MD NHM and it's quarterly meetings helped to review the program, make course corrections, and get support from higher authorities in a timely manner.





Facility & District Level meetings



State Level Meetings

F. Data Analysis & Monitoring

Monitoring:

Monitoring is the regular observation and recording of activities taking place in a project or programme. It is a process of routinely gathering information on all aspects of the project. It also involves giving feedback about the progress of the project to the donors, implementing agencies and beneficiaries of the project.

Purpose of Monitoring

Monitoring is very important in project planning and implementation. It helps in

1. Determining whether the inputs in the project are being well utilized
2. Ensuring all activities are carried out properly by the right people and in time
3. Identifying problems and challenges the project is facing to provide timely solutions
4. Analysing the progress for any course correction to achieve the intended outputs & outcomes

Data often play an important role in monitoring and taking decisions in an evidence-based manner. However, raw data needs to be processed first. Data analysis and analytics help to convert such raw data into information and actionable insights.

Data Analysis & Data Analytics

Data analysis is one of the most crucial stages in the monitoring and evaluation of any program. The main purpose of conducting data analysis is to convert raw data into usable information. It involves the process of understanding, summarising, and organising the collected data in a manner that gives insights about the progress in real time. Data analysis is important to understand whether the intervention under the study is progressing towards completing its intended objectives or not and if any course corrections are needed.

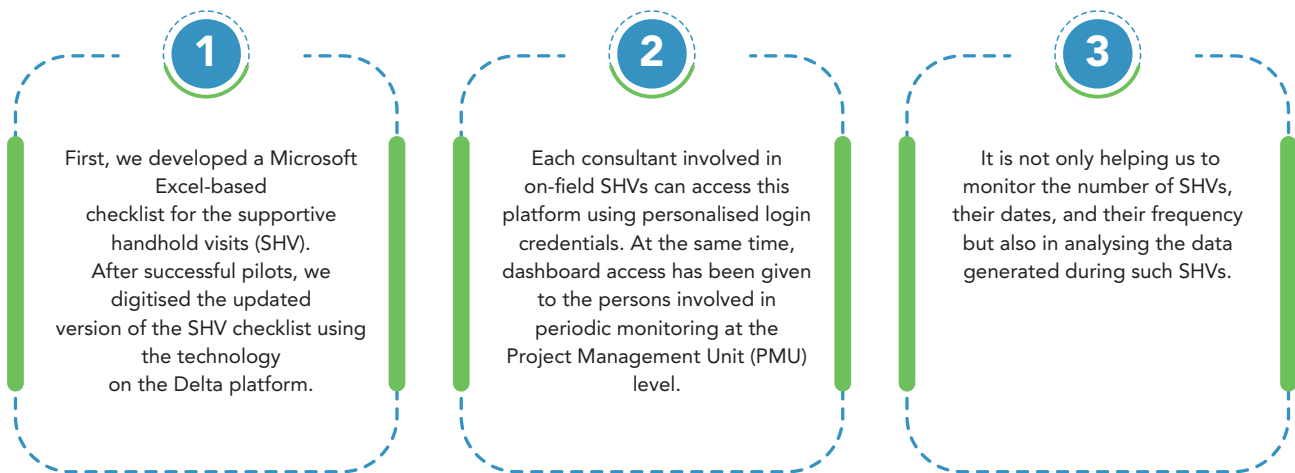
It's a common misconception that data analysis and data analytics are the same thing. However, the two are distinct. Data analysis is a process involving the collection, manipulation, and examination of data to gain deep insight. Data analytics is taking the analysed data and working on it in a meaningful and useful way to make well informed decisions.

Data is the 'New Oil' in 21st century. Data is valuable, with immense untapped potential. However, as with oil, unless refined, raw data is of no use. With data analysis and analytics techniques, data can actually help implement the programs in an effective manner. The data-driven monitoring and decision-making is the core of new age program management. Healthcare being no exception, we incorporated the monitoring using data analysis and analytics from the beginning.



State Level Data Analytics Workshop

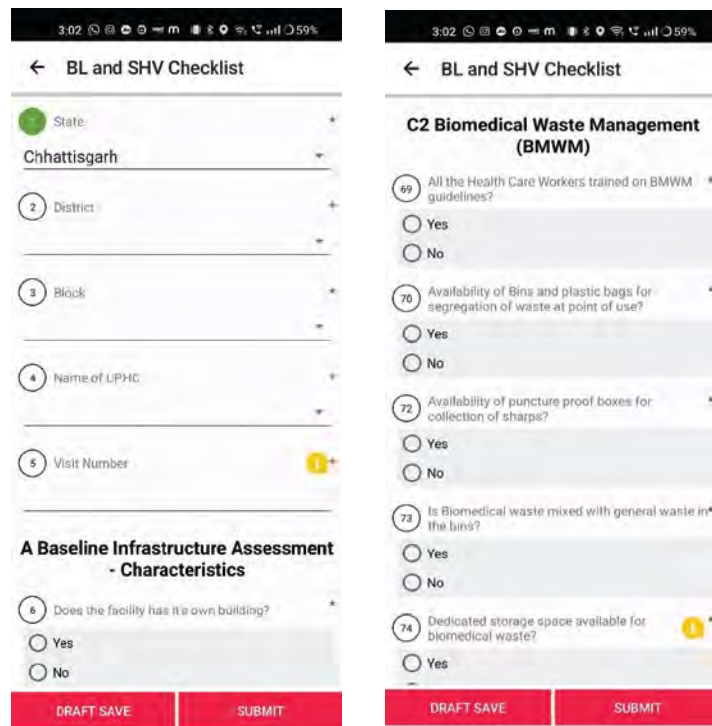
Our Approach



During every such SHV, the data points of the checklist are captured as a new form on the Delta platform. Since the beginning, we have maintained the data for every such SHV. Using the filter pane, we can search for specific date ranges, districts, or facilities. The data can be easily downloaded and put through further analysis.

Digital Platform

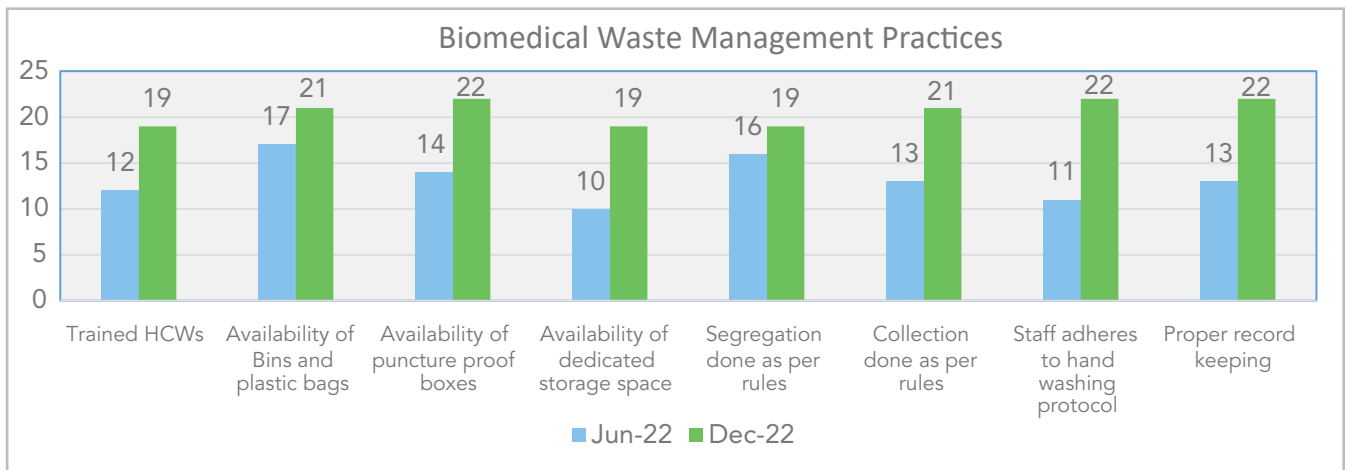
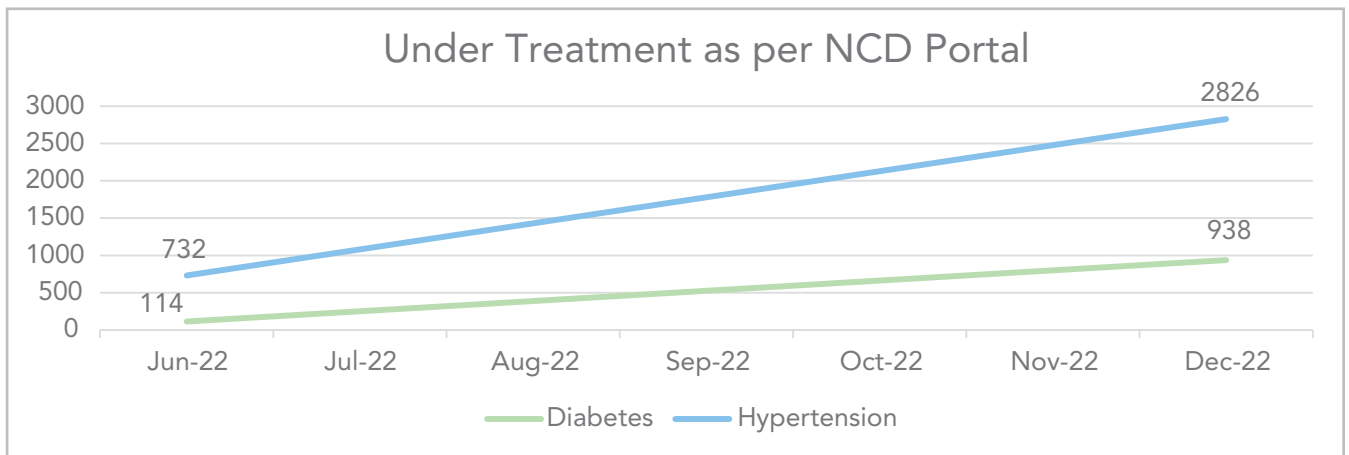
We used an android-based solution to do the real time data entry for the prefixed questionnaire. A new form is to be opened and used during every such SHV by the consultants.



Data Analysis & Report Generation

By making comparisons with the baseline data, we also generate data analytic reports and submit them to the National Health Mission for periodic monitoring & review. Such reports help to seek support from state officials in a timely manner.

Few examples of such comparative data analysis:

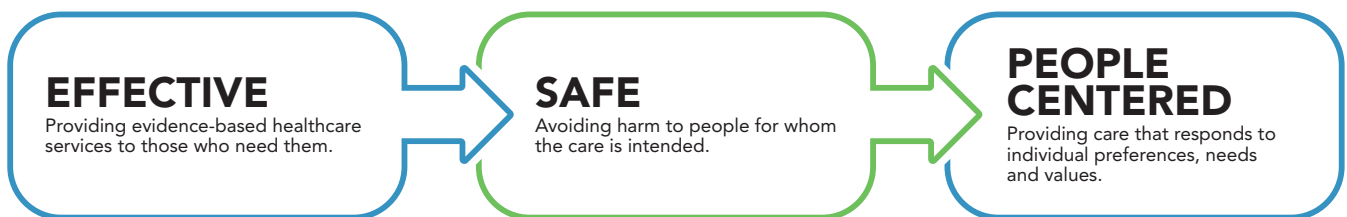


INNOVATIVE PRACTICES

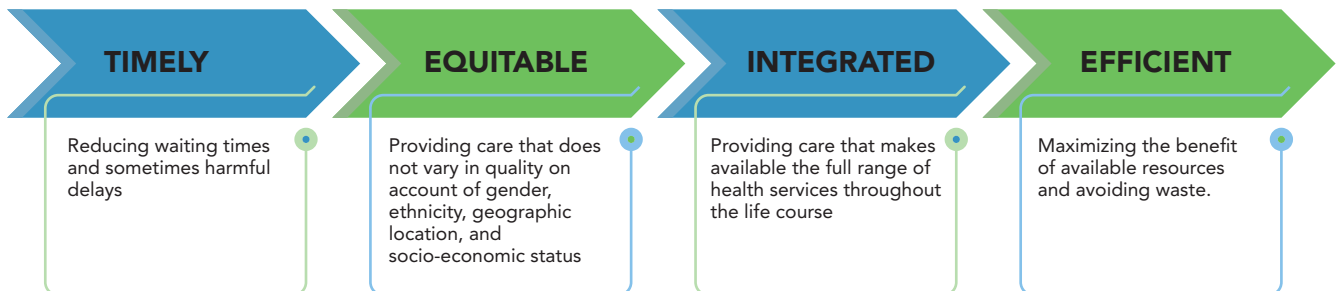
A. Quality Champions

Quality: Importance in Public Health

According to the World Health Organization, Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes. Quality health care can be defined in many ways but there is growing acknowledgement that quality health services should be:



To realize the benefits of quality health care, health services must be:



Every healthcare setup must therefore strive towards improving its quality of care. In this process, it is imperative to identify, promote and mentor such health staff from each health facility that are change makers in their domains. Hence, the concept of Quality Champions was brought into focus.

At UPHC level, there exists quality teams. The agenda of such teams is to monitor the quality of care at the facilities with certain checkpoints for each area of service delivery. However, post NQAS assessment these remain dormant without any regular meetings. An effort was made to revive them and make them functional with regular monthly meetings wherever feasible. In addition to the quality team meetings Quality Champion initiative was proposed.

Definition of a Quality Champion

A quality champion is an individual from the UPHC who has at least 1-3 of the below mentioned characteristics.

- Collective leadership
- Capacity to persuade
- Ability to communicate and humility
- Programmatic expertise
- Empathy
- Accountability
- Capacity to inspire and motivate people



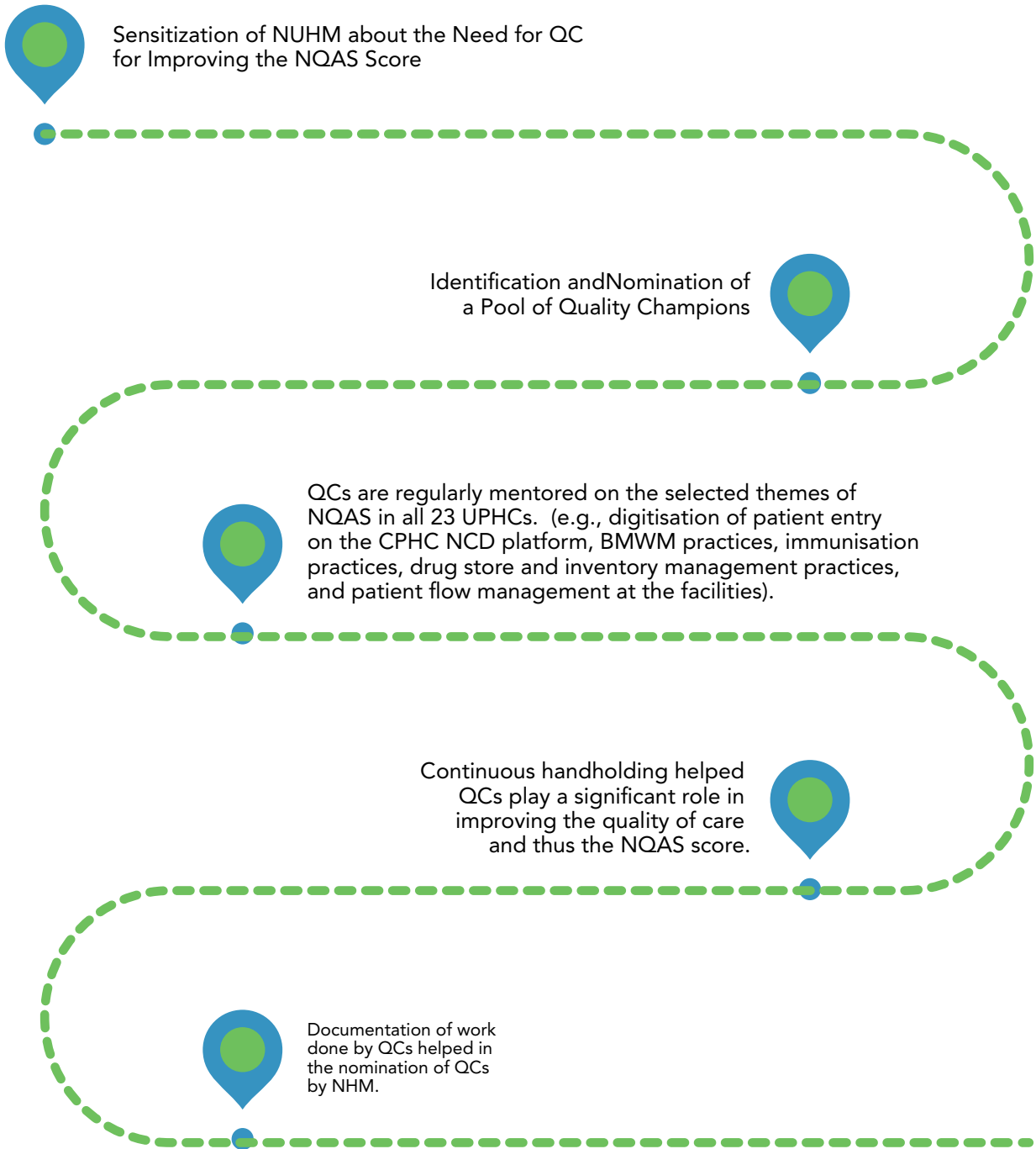
The Need of Quality Champions

Due to the COVID pandemic, the initial focus remained only on the provisioning of Model infra inputs without much emphasis on building the capacity of the health workforce. By the end of 2021, we had 5 UPHCs supported with model infra inputs and optimized patient flow. However, there seemed to be much scope of improvement in terms of Quality of Care provided at these facilities. At this juncture, it was decided to initiate the work to improve the quality of care through supportive hand-holding visits. To augment these efforts it was decided to bring in an innovative concept of Quality Champions.

Although there must be a dedicated Quality Team in every UPHC that has to work towards quality enhancement as per NQAS mandate, it is often observed that a group of this kind does not provide the necessary results. The members of such team often assume improving the quality of care is another person’s responsibility, and not their collective responsibility. This is where the concept of Quality Champions helps. These are the motivated individuals who act as changemakers in the long run.

Approach Followed

Initially, two such champions were nominated per facility. In this regard, a letter was issued with the help of NHM asking for nominations from the medical officer in charge of these UPHCs. Subsequently, this identified pool was mentored on select aspects of quality during the regular supporting handhold visits at the facilities by CInI consultants throughout the year. The overall flow of activities in this regard has been given below in a stepwise manner:



During this course of time, some nominated champions were transferred and few others opted to resign from government healthcare system. Also, it was observed that some staff members are more proactive than the nominated ones. So after a revisit, some changes were made in the pool of nominated champions as per the suggestions of CInI Consultants.

Examples of Quality Champion Led Initiatives

1. Regular facility level Quality Team Meetings

With the regular support from quality champions, we were able to translate significant progress on ground by the simple formula “**Translating knowledge into practice**”. Quality meetings were conducted once every month per UPHC to felicitate good performing staff members and identify the gaps for further improvement.



2. Improving the pharmacy upkeep and drug store management at UPHC Kawardha



3. Dedicated Biomedical Waste Collection Area at UPHC Labhandi



The practice followed earlier was that the collection staff used to enter the UPHC rooms and collect the BMW individually. This practice was against the basic norms of BMW segregation. The staff members from UPHC Labhandi acknowledged this issue and worked towards the development of a separate area for the BMW collection. Quality champions at this facility lead the way for this purpose.

Learnings & Challenges

- Discontinuity in the process due to Staff Attrition / transfers.
- Low motivation among other staff members to embrace change.
- MOIC and staff nurses are burdened with an overload of work in the morning shift.
- Lack of funds at UPHC to hire staff for basic cleanliness.
- However, some staff members were found to be highly proactive towards the quality improvement journey.

Theme	Topics for Quality Improvement
NCD	CPHC NCD Application & PHC portal, Digitisation of entries
Quality tools	5S, PDCA Cycle, Fishbone Diagram, Why Why Analysis
Bio medical waste management (checklist included)	Segregation, Availability & Usage of color coded bins, BMW common collection room allotment, Hand Hygiene, Mercury spill management, Chemical spill management
	BMW collection/packaging, In-house transportation of BMW
	BMW adherence at outreach camps.
Drug store & Inventory Management (checklist included)	Inventory control-Techniques/objectives/terminologies, Identification of poor quality and damaged supplies, organization of drugs and medicines at pharmacy, Drug management & Ordering at pharmacy
	LASA/SALA Arrangement of drugs, CGMSC's DPDMIS checklist
Immunization Practices	Cold Chain Management, AEFI, Headcount survey on field via ANMs, Pre test & discussion to enhance KAP for RI

Intended Benefits

So far, 12 out of these 20 UPHCs have received NQAS certification. This was possible because of the collective efforts of the quality teams and proactive roles played by the quality champions at the facilities.

Understandably, NHM has also recognised their importance and has hence agreed to felicitate them.

The revival of quality teams and Quality Champion led initiatives will help take the agenda of Quality of Care forward and to sustain the efforts in long run.

B. NCD-Master Trainers

Background

India is currently facing the burden of non-communicable disease in addition to the communicable diseases. Nearly 60% of deaths in the country are due to NCD's. NCD's are difficult to manage as their onset is silent and condition gets worsen over the time. Poor public health infrastructure, low awareness about NCD's and poor health seeking behaviour of the individuals all adds to the problem.

To tackle this problem, in line with WHO's Global action plan for the prevention and control of NCDs 2013–2020, India has developed specific national targets and indicators aimed at reducing the number of global premature deaths from NCDs by 25% by 2025. For this, MoHFW has launched the population-based screening (PBS) and management of NCDs. Under this, every individual over the age of 30 years needs to be screened for hypertension, diabetes and oral cancer while women will be additionally screened for breast and cervical cancers. All the screening data is being digitised by using technology at various levels ex: ASHA & ANM Application; Subcenter/PHC/CHC/DH portal (Collectively known as CPHC NCD IT Platforms) etc. This is helping in digitising the whole process from enrollment to screening, diagnosis, treatment and referral of the beneficiary under the continuum of care model.

Rationale

The adoption of digital technologies involves many challenges including the availability of equipment (tablets and laptops); the internet and trained health care workforce. Additionally, troubleshooting any of the technical glitches and periodic review with data analysis is cumbersome. This results in poor uptake of digital technologies.

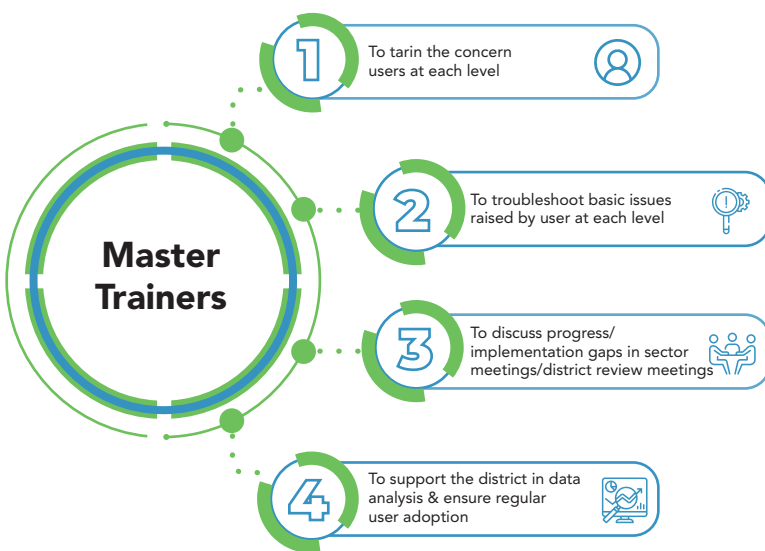
To aid the state in this endeavour, a novel idea of developing a pool of master trainers at every district has been proposed. It is envisioned that these master trainers will play a very important role in solving some of these issues. They will also help in motivating health workers and doctors to use digital technologies.

Definition of a NCD master trainer

In general, a Master trainer is a subject matter expert who brings deep knowledge in a particular field and serves as a lead trainer in the program implementation. An NCD Master Trainer is however, an employee of NHM based at the Block/District level as identified by the State NCD Cell with the following competencies:

- Have undergone training and is well versed in the usage of CPHC NCD IT Platforms
- Adept in the usage of computers/tablets and various IT platforms used in government system
- Capable of handling the troubleshooting of issues raised from their respective blocks/districts
- Have an authority to take periodic reviews and monitor the progress with the help of data

Pool Identified as Master Trainers and their Key Roles



Pool Identified as Master Trainers in Support with State NCD Cell:

- District Data Managers (DDMs)
- Consultants (NCD&HWC)
- Block Medical Officers (BMOs)
- Block Program Officers (BPMs)
- Block Data Managers (BDMs)

Approach

The need of master trainer was arose due to shortage of dedicated & trained staff who can do use the CPHC NCD IT platforms at the field level. So the concept used here was to train the Single Point of Contact Person (SPOCs) in CPHC NCD IT Platforms who in return can impart the training to the health care workforce in their region. Additionally they will assist the State NCD cell in monitoring the activities as needed.

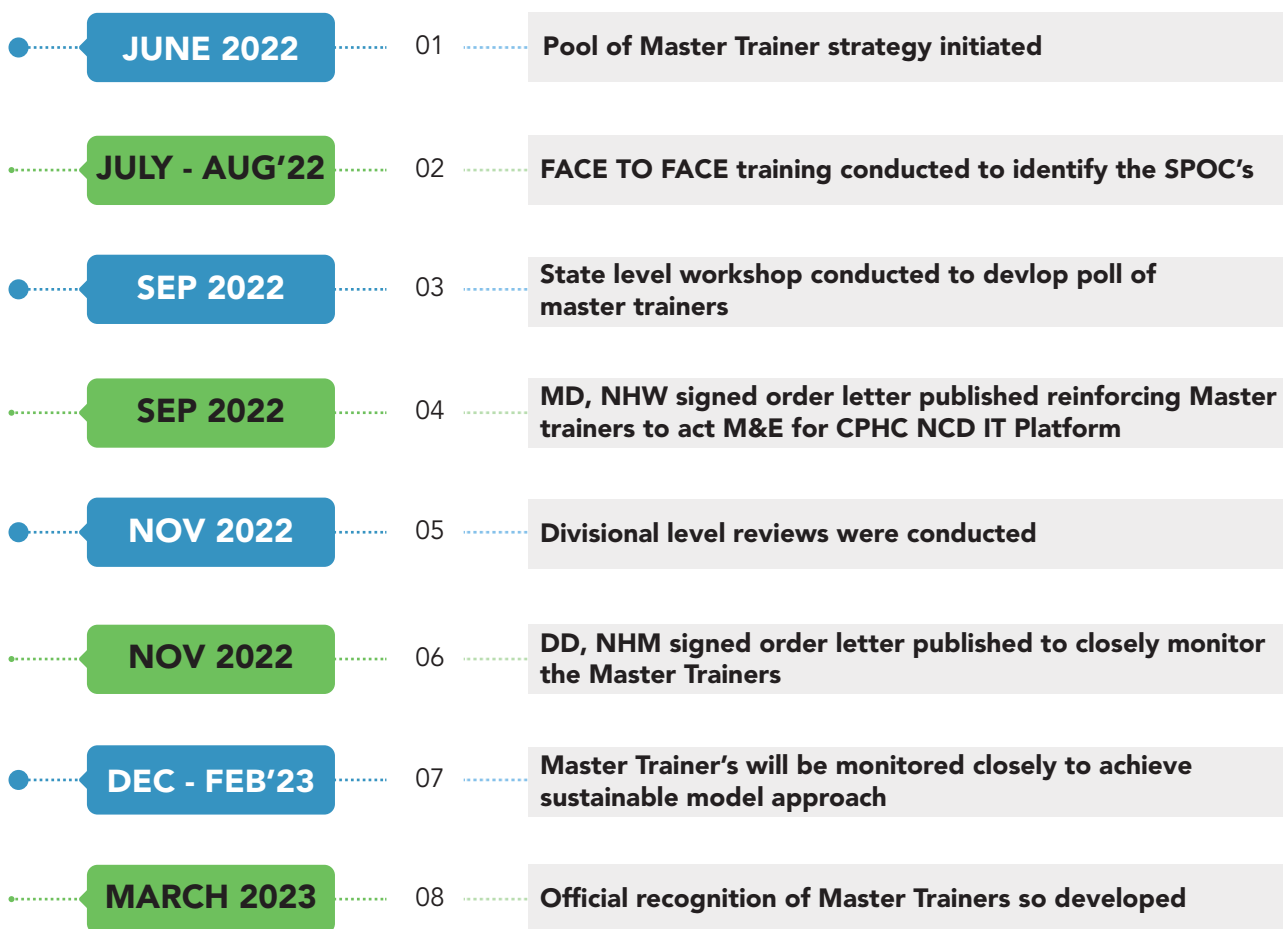
As a first step, we identified the SPOCs in every district with the help of the State NCD cell. Subsequently, they were made accountable for increasing the usage of CPHC NCD IT Platforms using Rationalization policy and issuing government letters. We also held workshops for their capacity building at the state level.



Further, we started communicating with them via order letters published by the State NCD cell & HWC cell time to time. This made sure that the pool of master trainers remain active for every activity relating to the CPHC NCD IT Platform. Slowly these master trainers were incorporated into every review meeting taking place at divisional and state levels.

We also designed a separate monthly reporting format with indicators developed to gauge the progress on continuum of care for NCDs and the training/reviews conducted by them at the field level. The strategy is to monitor them for 3 consecutive months and handhold them as per the need. Once they are capable enough, we will recognize them as Master Trainers with the help of the State NCD cell/ NHM. This will help in the long-term sustainability of the program.

The overall milestones depicting the journey of developing master trainers are given below:



Challenges faced:

- Initially the Pool of Master trainers were not ready to take accountability of Work
- Issue resolution takes time due to poor channel of communication within the system
- Unavailability of timely reports from Dashboard or backend hampers their work

Work done to overcome the challenges:

- They were made accountable to work for CPHC NCD IT Platforms using rationalization policy and a letter issued by MD, NHM in this regard
- Issue resolution pyramid framework established for better communication raised issues
- We have supported State NCD cell to raise the feature requests to GOI & Dell team issuing government letters in this regard

Way forward:

- For three consecutive months Master trainers will be closely monitored for their progress
- As per the need Master Trainers will receive refresher training in the month of March 2023
- Master trainers will assist in developing a sustainable model for CPHC NCD IT platforms

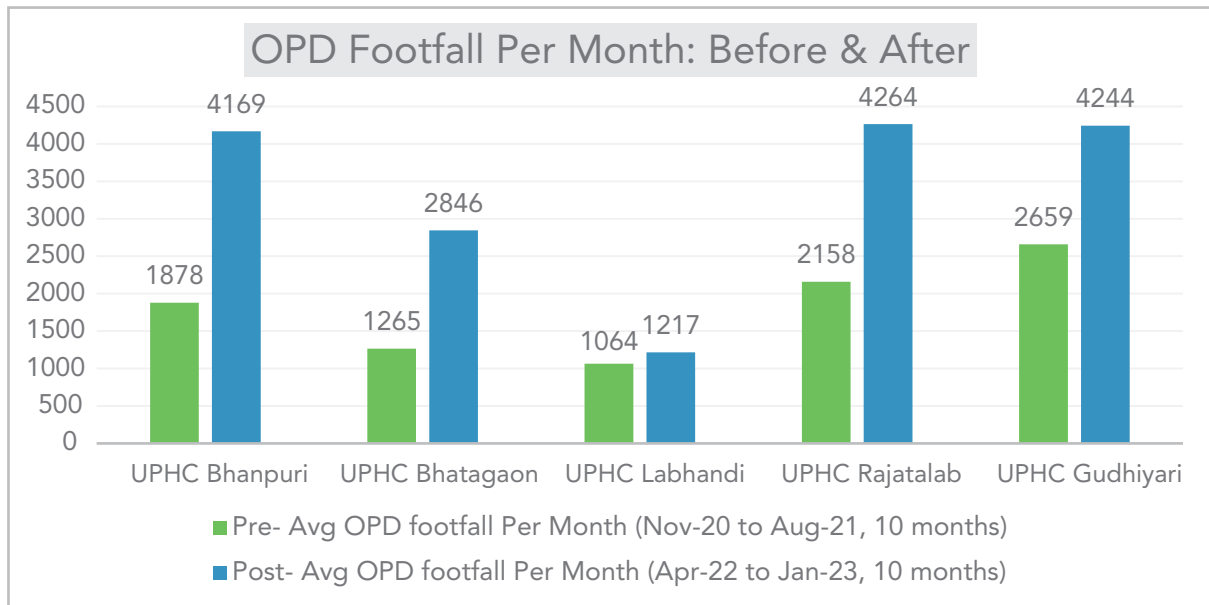


NCD Master Trainer Workshop

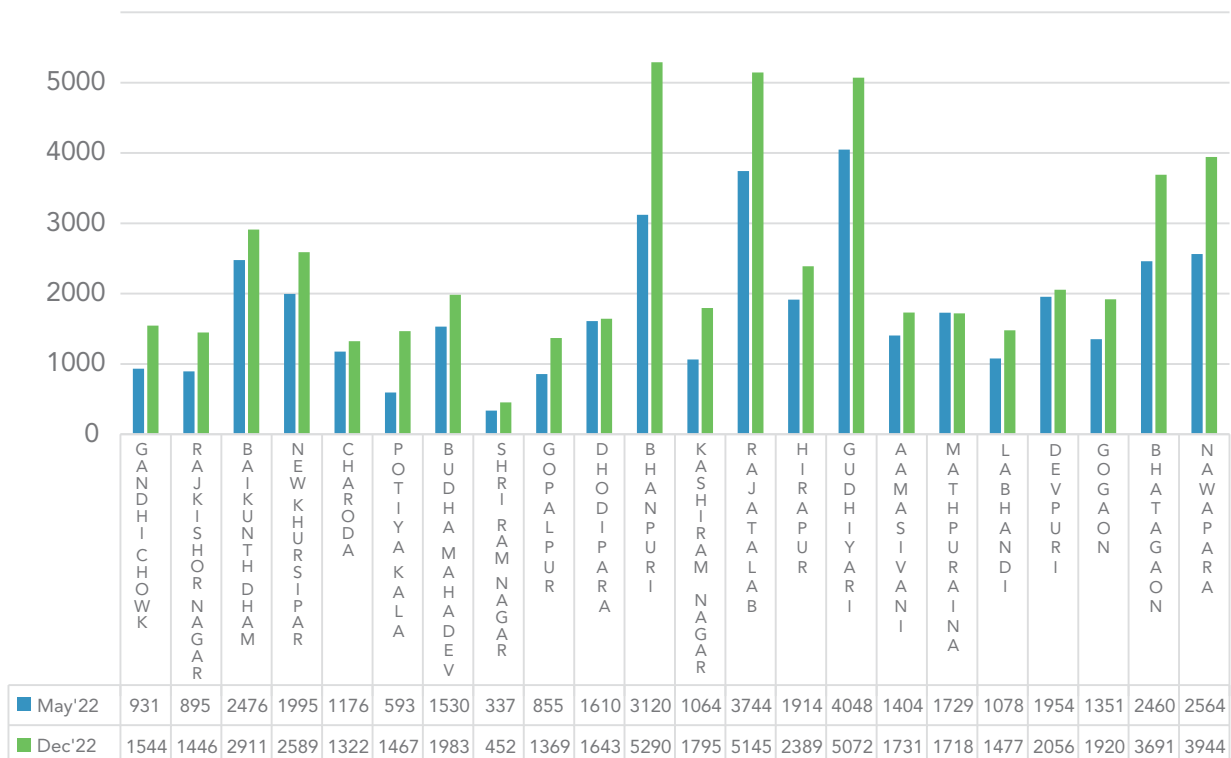
KEY ACHIEVEMENTS

I. Sustained increase in OPD footfall at the UPHCs

There has been a consistent rise in the OPD footfall across the intervention facilities. The 5 phase-I facilities were supported during the last 3 years and are showing a remarkable increase in OPD footfall.



Similarly, the 15 Phase-II facilities being supported Apr'22 onwards are showing an upward trend in OPD footfall when compared to the data of May'22 and that of Dec'22.



II. Certification of facilities for National Quality Assurance Standards

Out of 23 UPHCs supported with handhold visits and quality training, 13 have successfully achieved the NQAS certification to date. The rest are also scheduled for NQAS assessment in the upcoming months. The list of NQAS-certified UPHCs is given below.

Name of the NQAS Certified UPHC	Location
1. UPHC Bhanpuri	Raipur
2. UPHC Bhatagaon	Raipur
3. UPHC Rajatalab	Raipur
4. UPHC Amaseoni	Raipur
5. UPHC Mathpuraina	Raipur
6. UPHC Hirapur	Raipur
7. UPHC Charoda	Bhilai
8. UPHC Budha Mahadev	Kabeerdham
9. UPHC Gandhi Chowk	Bilaspur
10. UPHC Rajkishore Nagar	Bilaspur
11. UPHC Nawapara	Ambikapur
12. UPHC Dhodipara	Korba
13. UPHC Gopalpur	Korba
14. UPHC Sri Ram Nagar	Kanker

Glimpse of NQAS assessment supported by CInI consultants:



UPHC Ramnagar, Kanker



UPHC Budha Mahadev, Kawardha



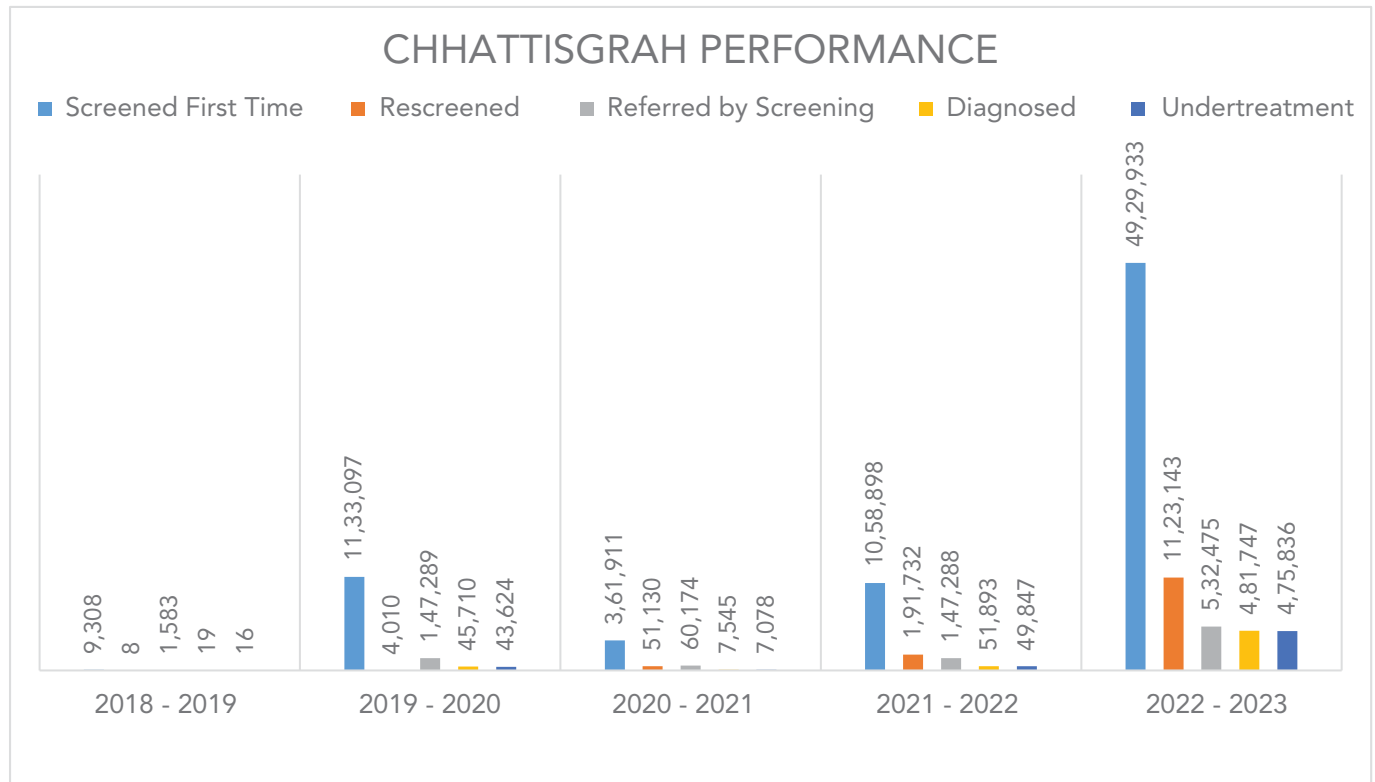
UPHC Aama Seoni, Raipur



UPHC Mathpuraina, Raipur

III. Steady Progress for a continuum of care Model of NCDs

From 2018 till Dec'22 there is a steady rise in enrollment, screening, diagnosis and treatment of patients for NCDs using CPHC NCD IT platforms. The state has also achieved accolades for creating the largest number of Health IDs during the "Azadi Ka Amrit Mahotsav".



Chhattisgarh	Screened First Time	Re-Screened	Referred By Screening	Diagnosed	Under Treatment
2018-2019	9,308	8	1,583	19	16
2019-2020	1,133,097	4,010	147,289	45,710	43,624
2020-2021	361,911	51,130	60,174	7,545	7,078
2021-2022	1,058,898	191,732	147,288	51,893	49,874
2022-2023	4,929,933	1,123,143	532,475	481,747	475,836

IV. Urban Review Mechanism

A review mechanism has been initiated as part of which the CPM's and the staff of respective UPHC's will be virtually connected with the NUHM state office and give the progress updates.

In these reviews the UPHC's itself will present their facility data as a part of M and E framework the template for which is already provided to them.

The frequency of these reviews is Bi-monthly.



Felicitation ceremony of the best performing districts/blocks/facilities under National NCD portal



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