World Health Organization
India

Maintaining essential health services during COVID-19

Select stories of resilience and innovations from

11 states

April–July 2020

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Disclaimer

Maintaining essential health services during COVID-19: This document has been developed to synthesize the situation on delivery of Essential health services during COVID-19 pandemic in 11 states of India. The document is based upon primary data collection in select districts of 11 states of India and captures both quantitative as well as qualitative data. The lessons and learnings from this assessment were widely shared with various stakeholders soon after the assessments and guided the scaling up of essential health services in India. There are valuable learnings and lessons in this document, which could be helpful for district and state level health officials in all states of India as well as, possibly, in other countries.

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Dedicated to
all the frontline workers for their
unwavering commitment and resilience
during the COVID-19 pandemic

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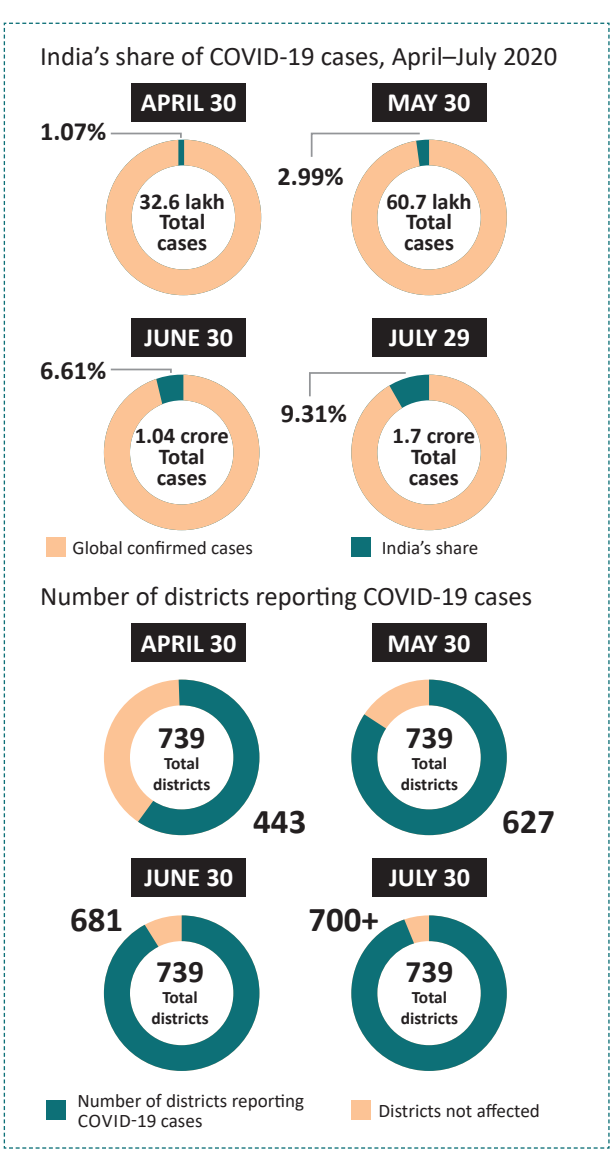
List of Acronyms

AFHC	Adolescent Friendly Health Clinics
ANC	Antenatal Care
ANM	Auxiliary Nursing Midwifery
ASHA	Accredited Social Health Activist
CBAC	Community Based Assessment Checklist
CCC	COVID Care Centre
CHC	Community Health Centre
CHO	Community Health Officer
CMO	Chief Medical Officer
CPHC	Comprehensive Primary Health Care
CVHO	Cardiovascular Health Officer
DCH	Dedicated COVID Hospital
DCHC	Dedicated COVID Health Centre
DH	District Hospital
DM	District Magistrate
DR	Drug Resistant
FLW	Frontline Health Workers
FP	Family Planning
GMC	Government Medical College
GOI	Government of India
HCW	Health & Wellness Centre
IAP	Indian Academy of Pediatrics
ICMR	Indian Council of Medical Research
IEC	Information, Education and Communication
IFA	Iron and Folic Acid
IHCI	India Hypertension Control Initiative
IHMI	Integrated Health Model Initiative
IMA	Indian Medical Association
IPD	In-Patient Department
JBSY	Janani Evam Bal Suraksha Yojana
JR	Junior Resident
MCH	Maternal and Child Health
MMM	May Measurement Month
MO	Medical Officer
NCD	Non-communicable Disease
NTEP	National Tuberculosis Elimination Programme
PAIUCD	Post Abortion Intra-Uterine Contraceptive Device
PBS—NCD	Population-Based Screening of Non-Communicable Disease
PHC	Primary Health Centre
PMJAY	Pradhan Mantri Jan Arogya Yojana
PNC	Postnatal Care
PPIUCD	Post Partum Intra-Uterine Contraceptive Device
SARI/ILI	Severe Acute Respiratory Illness/ Influenza-Like Illness
SARS—CoV—2	Severe Acute Respiratory Syndrome Coronavirus 2
SC—HWC	Sub-Centre Health & Wellness Centre
SR	Senior Resident
SRMNCAH	Sexual, Reproductive, Maternal, New-Born, Adolescent and Child Health
TMMU	Tribal Mobile Medical Unit
WHO	World Health Organization

COVID–19 situation

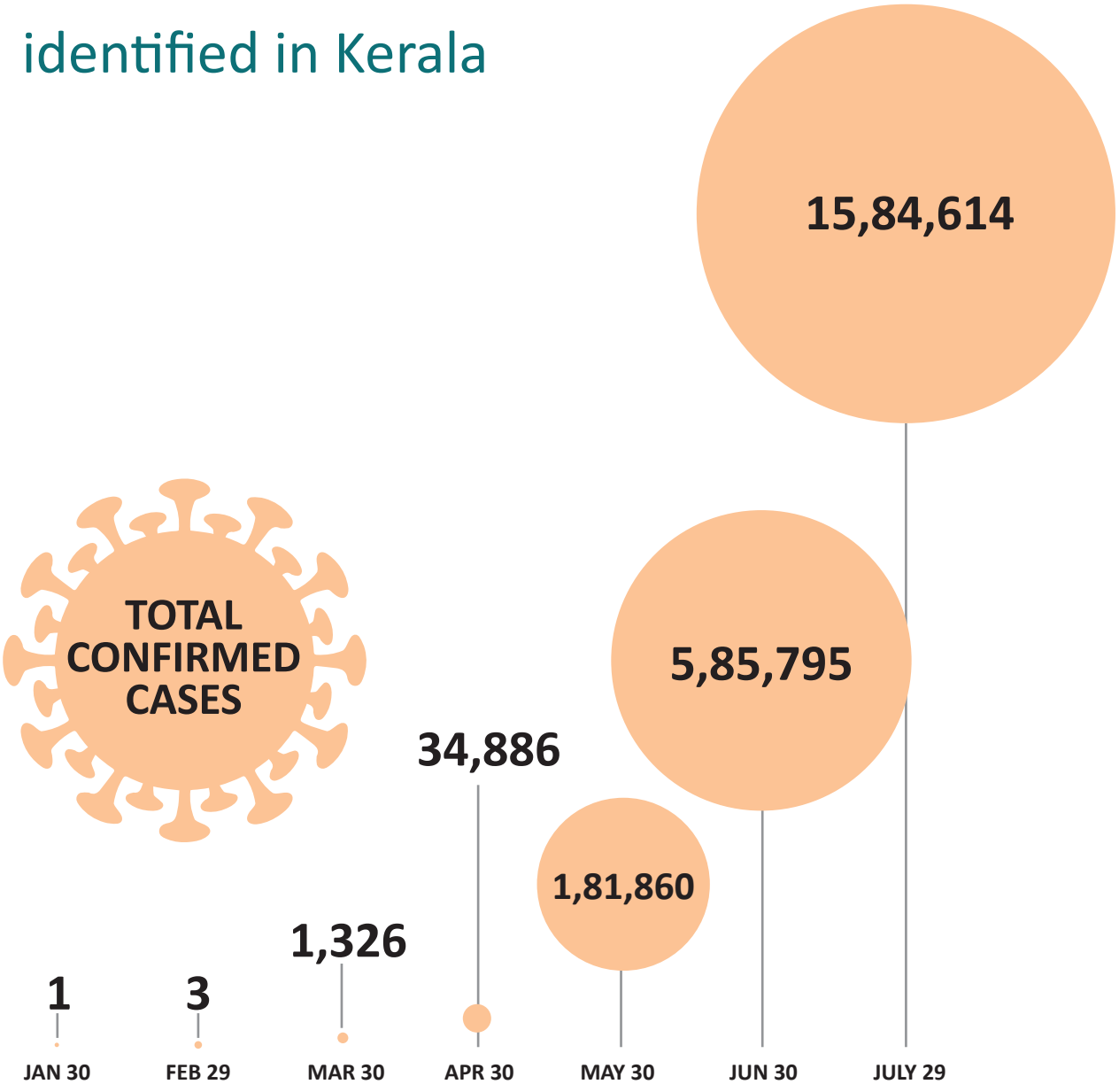
On January 25, a resident of Thrissur, Kerala, returned to India amidst fears of a mysterious new disease outbreak. She was studying medicine in Wuhan, and two days later, upon developing a sore throat, was quick to report her symptoms and get admitted to a government hospital. On January 30, exactly six months before this rapid review was done she became India's first COVID–19 case.

When India reported its first case on January 30, there were already over 8,000 cases worldwide, but just 1% cent of them, including the Kerala case, were outside China. For the first month, the only two other new cases India registered were among other students who had returned at the same time. Over the next month, 1000 new cases were reported with infections rising in Maharashtra, Delhi and Karnataka other states. On 23rd March 2020, the Government announced a nationwide lockdown. Despite this, cases grew exponentially in April, and the outbreak as we know had spread its tentacles across the country. Every month since January 30 until end of June when we did the review, India has accounted for a growing share of the world's cases. Now it makes up nearly 10% of the world's total burden, and roughly 20% of new cases each day.



Source: Ministry of Health and Family Welfare

On 30 January, India's first Coronavirus case was identified in Kerala



Growth in COVID-19 cases

30 January–29 July 2020

Source: Ministry of Health and Family Welfare

Introduction

On 25 March 2020, Prime Minister Narendra Modi announced a country-wide lockdown in an effort to break the chain of transmission of the COVID-19 virus. As India came to a standstill, the Ministry of Health and Family Welfare, Government of India, on 11 April 2020, issued a notification to all states for provision of essential health services (EHS). These services needed to function in a new paradigm where mobility was severely limited and infection prevention was of primary importance. Resources needed to be revisited to align with the priority of detection and care for COVID-19 cases and also to ensure availability at the point of need. A new normal was to be established in which the old ways of functioning made way for innovative approaches to ensure the continuum of essential health services.

Essential Non-COVID Services for all areas include sexual, reproductive, maternal, new born, child and adolescent health, prevention and management of communicable diseases, treatment for chronic diseases to avoid complications, and addressing emergencies. As the delivery of essential services was disrupted in the initial phase of the COVID-19 response, it became imperative to expeditiously respond to situations and to regain people's trust that the health system was geared to deliver essential health services in a safe, hygienic and effective manner. Such an unprecedented situation created opportunities to strengthen existing health systems so that they could continue to provide essential services in every corner of the country while ensuring the safety of health workers and clients.

Getting a perspective on EHS functioning

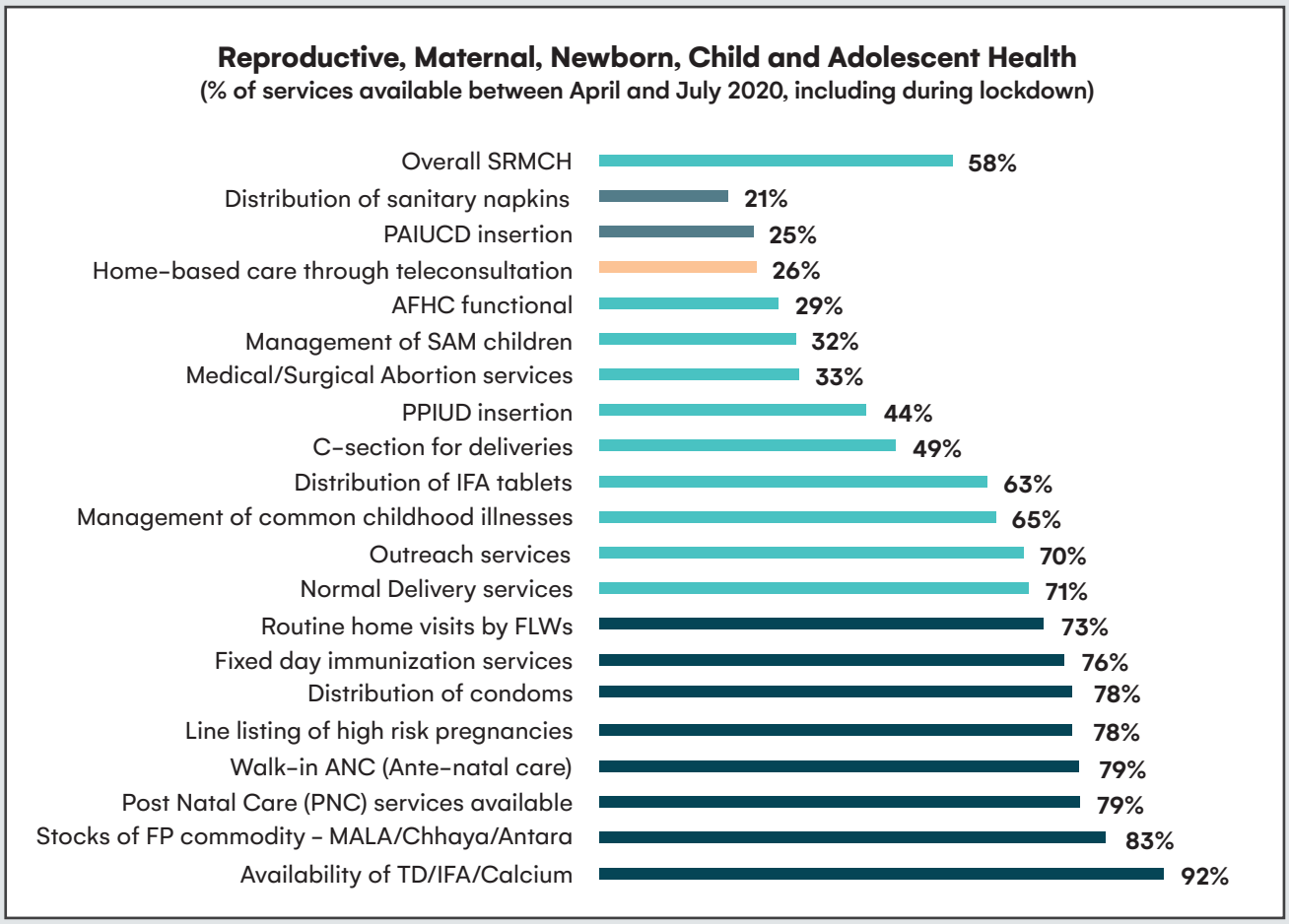
How did essential health services function during the lockdown? The answers to this question are many and varied, as almost every district dealt with challenges and found its own methods of overcoming them. The period saw a proliferation of local responses to unusual situations To get a glimpse of the reality on the ground, WHO Country Office for India conducted a rapid review of the availability of essential health services in 34 districts across 11 states during the period 25 March-30 June. The findings from this review are of relevance not only in the present crisis but also for the future as they provide insights on health system management in an unforeseen crisis. Therefore, documenting the health systems response to the COVID-19 pandemic is of great significance.

Maintaining essential health services during COVID-19 is an attempt to capture local solutions, innovations or 'good practices' that include initiatives in terms of technology usage, reorganization of service delivery, capacity building, deployment of human resources and exploring alternate models of outreach services at national, regional and local

level. It tells the story of the work done at the field level and highlights the importance of a motivated and professionally sound cadre of health workers at every level of the system. The good practices stories were captured with the help of WHO field staff from the districts across 11 states that were earlier reviewed objectively to assess the situation of essential health services in the aftermath of the lockdown. A total of 26 good practices stories were documented with the assistance of CVHOs (IHCI) and Health Systems Team.

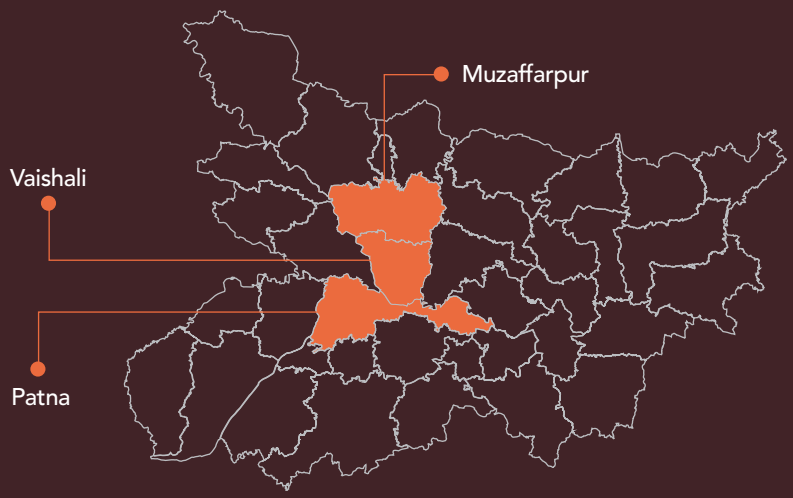
The document presents the good practices across four key domains — sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH), communicable diseases, non-communicable diseases (NCDs) and reorganization of service delivery. In addition to the good practice story is a briefing sheet for the district from which the story is drawn. It presents certain key information about the district, the challenges and innovative solutions that emerged along with a snapshot of the facilities reviewed. Voices from the field are reflected in the quotations shared by the people involved in the efforts and each story speaks of the determination of the health staff to deliver services and ensure that essential health needs of the people are met, regardless of the challenges in doing so.

1 Reproductive, Maternal, Newborn, Child and Adolescent Health



Source: *WHO India Country Office, EHS Review of the Public Health System, April—July 2020*

Bihar



Innovations

104 — A 24x7 helpdesk used for COVID. Centralized, block and district level assistance provided

Food distribution in isolated centres by hotel staff volunteers

Challenges	Solutions
Drivers servicing care and referral pathways feared infection	Counseled and motivated by authorities PPE kit and sanitizer provided
Provision of medication	Home delivery of HIV drugs, PEs and ORWs through NGO partners
Deployment of HR for COVID work	Roster made available Extra working hours
Effective grievance redressal for continuity of services, etc.	Phone numbers of concerned officials displayed Complaint boxes set-up and opened weekly in front of the officials

Infection control measures during service delivery

On 26 May 2020, Mrs Seema, the Health Manager at SDH Danapur received a call from the Mobile Medical Team at Danapur Railway Station. Rukhsar Khatoon, the 22-year-old wife of a migrant labourer from Ahmedabad, was going into labour and needed urgent intervention.

Preparing for a safe institutional delivery

A separate room with an attached personal washroom was converted into a make-shift labour room so as to reduce the risk of COVID-19 transmission from shared spaces. This arrangement ensured the safety of the pregnant woman and the caregivers, who were initially reluctant to perform an institutional delivery. However, a counselling session motivated them and two nurses, along with other staff, were designated to conduct the delivery. All necessary safety measures were in place. A gynaecologist was also summoned to deal with any possible birth or postpartum complications. The woman delivered a healthy male child and breastfeeding was initiated within 30 minutes after birth.

Streamlining postpartum care

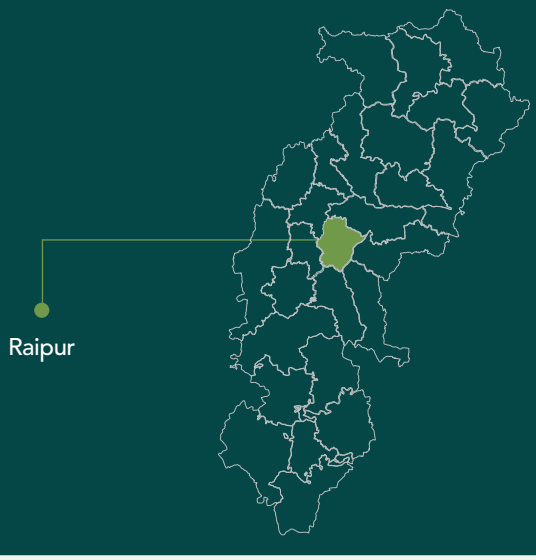
The mother and the newborn were subsequently shifted to an isolated ward and a roster was made for the caregivers to monitor both mother and child. The newborn was vaccinated the following day. To ensure safety of the mother and infant, their family was tested for COVID-19 and found to be negative before they were permitted to visit. The mother and her family members were counselled and discharged three days after delivery. The parents were handed over the infant's birth certificate, and they returned home in a sanitized 102 ambulance. The Health Manager was provided the mother's bank details to facilitate her Janani Evam Bal Suraksha Yojana (JBSY) incentive.

Creating confidence

The combination of strictly adhered to safety measures and counselling to allay the health staff's concerns proved to be effective in ensuring continuity of services. In fact, this incident encouraged, motivated and prepared Mrs. Seema and her team to make safe maternal and newborn care provisions during the COVID-19 pandemic.

— By *Dr Ranvir Choudhary*
CVHO Bihar

» Raipur, Chhattisgarh



Innovations

- NCD medicines distributed from HWC
- Local level flex banners used for BCC on COVID-19, tobacco use and jaundice

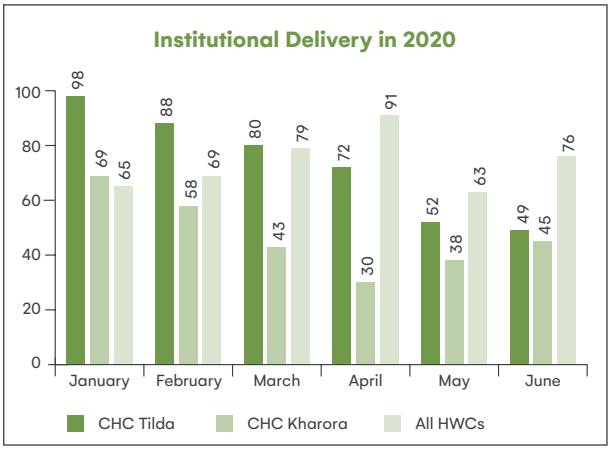
Challenges	Solutions
Conversion of health facilities into COVID facilities	Staff and routine activities separated and shifted to a non-COVID facility
Disruption of care and referral pathways due to vehicle use for COVID-19 IEC activities	Vehicles segregated and dedicated for COVID and non-COVID emergencies
Fear of COVID-19 among private medical practitioners	State-level interactions with private practitioners to muster support Regular reporting of SARI/ILI cases Few private health facilitie on-board for sample collection of suspected COVID-19 patients
Direct contact with COVID-19 infected patients in fever clinics	Partition/separator sheet provided to all health facilities
COVID-19 sampling	KIOSK developed for safe COVID-19 sample collection Vehicle modified to minimize direct contact

Introducing institutional deliveries at Health and Wellness Centres

Data collected from January—June 2020 indicated a rise of institutional deliveries at HCWs of block Tilda Neora, Raipur

Providing access to maternal and child care

Initially, families in the Tilda Neora Block of Raipur, Chhattisgarh, were reluctant to access maternal and child health (MCH) services due to fears of COVID-19 infection. Travelling long distances to the Primary Health Centres (PHC) or community health centres (CHCs) seemed unsafe. This was when the Health and Wellness Centres (HCWs) in the area were repurposed to offer safe MCH services to families in the area during the pandemic.



HCWs were equipped to offer delivery services to pregnant women without complications. Mitanin and CHOs were made available to help out as needed. Data collected from January—June 2020 indicates that institutional deliveries gradually declined at CHC Tilda and CHC Kharora while gradually increasing at HWCs of block Tilda Neora, Raipur.

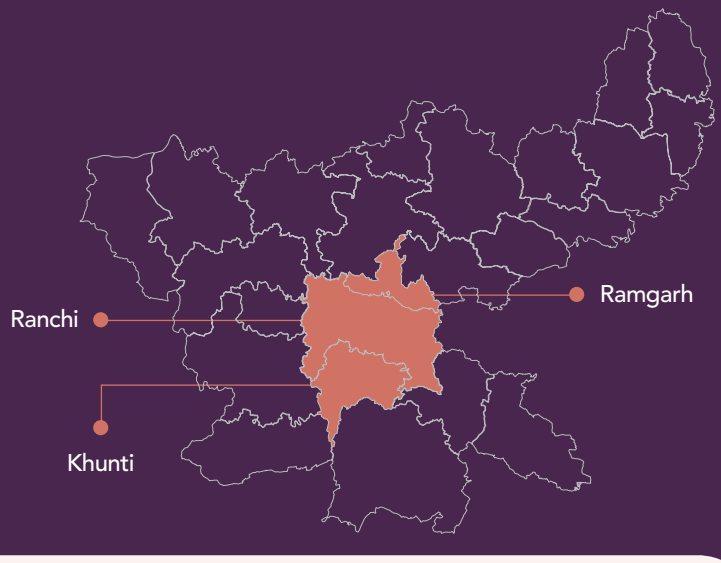
Providing services at field level

The health staff at the HWCs in Raipur district is very enthusiastic and dedicated to providing the best care for not only maternal and newborn care but also sustainable medical attention to patients with hypertension and diabetes during the ongoing pandemic.

> ***"In the future the district is planning to start telemedicine at HWC level, to train the staff, as well as to provide medicines for other ailments through online consultation by CHO with the designated doctor of higher health facility. On a positive note, COVID-19 has helped to improve the utilization of HWCs at field level."***
>
> – Dr Meera Baghel
> CMO Raipur

— By *Dr Urvin Shah*
CVHO Raipur, Chattisgarh

Jharkhand



Innovations

- Dedicated ANC OPD set-up
- Dedicated IFA and calcium counters at ANC registration
- Shipping containers converted into ICUs with the help of CSR funding

Challenges	Solutions
Increase in ANC patients referred by other clinics	Deliveries conducted using PPE by medical and paramedical staffs
Availability of medicines	Patients informed on phone regarding availability of medicines Medicines provided at doorsteps by STS, as needed
Awareness of COVID and non-COVID facilities	Local media platforms used for information regarding COVID and non-COVID hospitals

Keeping family planning services accessible

During the month of April and May, 17 females opted for post-partum sterilization and 90 adopted post-partum IUCD services

A mother's dilemma

During the lockdown, the CHCs and DHs were providing essential services, mainly maternal health and perinatal services. Roshni Devi, a pregnant woman from a remote village of Ramgarh district of Jharkhand was expecting her labour to start at any time and she and her husband, Sujit, were worried about accessing proper healthcare. Roshni was not only determined to deliver her second child safely but also wanted to make decisions about family planning methods.

Accessing family planning services during COVID-19

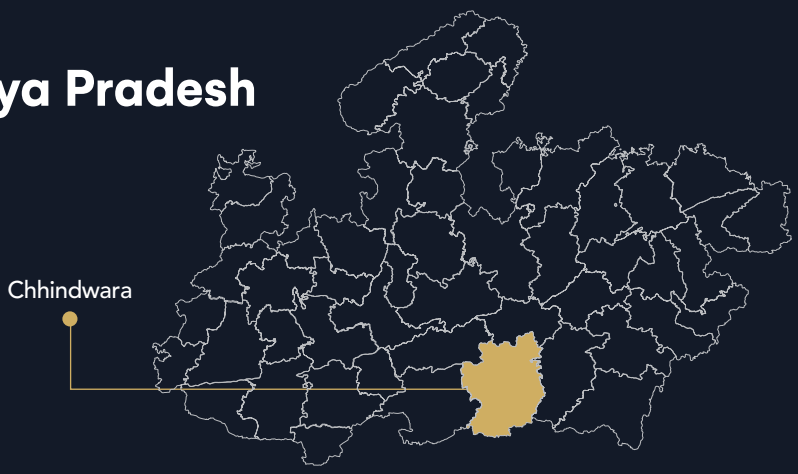
Roshni was admitted to the Antenatal ward in District Hospital Ramgarh, where she gave birth to a female child. Rupa Gupta, a family planning counsellor met the couple and discussed family planning options and the effect of family planning on the health of the mother and child. They were counselled about the importance of adopting post-partum family planning methods, such as female sterilization. The couple was worried about the operative procedure due to the COVID-19 situation. However, when they were told about the safety measures that were in place, they gained the confidence to go ahead with the sterilization procedure.

> ***"Post-partum is the best time for adopting FP methods to avoid unplanned pregnancies while being an essential service for mother and child."***
>
> **– Rupa Gupta**
> Family Planning Counsellor, DH Ramgarh

The efforts of Rupa Gupta assured many families to opt for long term family planning to prioritize family health, especially that of the mother, during this crucial time. During April and May, 17 females opted for post-partum sterilization and 90 adopted post-partum IUCD services. A total of 400 strips of Centchroman pills and 90 cycles of combined contraceptive pills, such as Mala-N were distributed.

— By *Dr Madhur Raimule*
CVHO, Jharkhand

» Chhindwara, Madhya Pradesh



Innovations

Daily local language, announcements and media briefings

AWWs acted as depot holders for delivering adolescent health services

Challenges	Solutions
Migration of population from hotspot districts	FLWs deputed for screening of migrants Temporary quarantine facilities established Ambulance reserved for patient transportation AYUSH MOs involved for screening and initial treatment Grampanchayats and Sarpanch sensitized and involved
Delivery of essential health services affected by total lockdown	Essential services decentralized Extra days of ANC and Immunization services conducted by CHOs, ANMs and other FLWs
Shortage of staff members	Recruitment of contractual staff Re-recruitment of retired health staff
Adverse effects on services due to COVID survey-related work	Number of Immunization and VHND sessions increased Local leaders involved Separate wing with separate entrance set up for all ANC services in SDH Sausar Separate staff assigned Private doctors involved for emergency ANC services ANC services strengthened by home visits, conducted by CHOs

Involving community leaders at Bisapur HWC

In Bisapur, out of 65 child beneficiaries, 55 attended the immunization session

The fear barrier

Due to fear of transmission, the local community in Bisapur was reluctant to bring their children to health clinics for immunization even after the relaxation of lockdown in April 2020.

Overcoming the barrier

CHO Abhilasha initiated a dialogue between the Bisapur Sarpanch, Patwari and Village Council secretary, who were motivated to use their influence to mobilize the community. Based on this, the CHO then planned an immunization session at HWC Bisapur.

"It was necessary to conduct tikakaran abhiyaan even during the lockdown. So we made a team, we went house to house and explained the importance of timely ANC check up and immunization. The outcome of the abhiyaan was satisfactory and well-implemented."

– Mahesh Banwari
Gram Sarpanch

Delivering safe immunization and ANC services

Subsequently two sessions were conducted successfully where 22 children below 5 years were provided routine immunization services and 20 pregnant women were provided tetanus toxoid innoculation while following all COVID-19 precautions. **In Bisapur, out of 65 children beneficiaries, 55 attended the immunization session.** All 25 ANCs were present for routine check-ups.

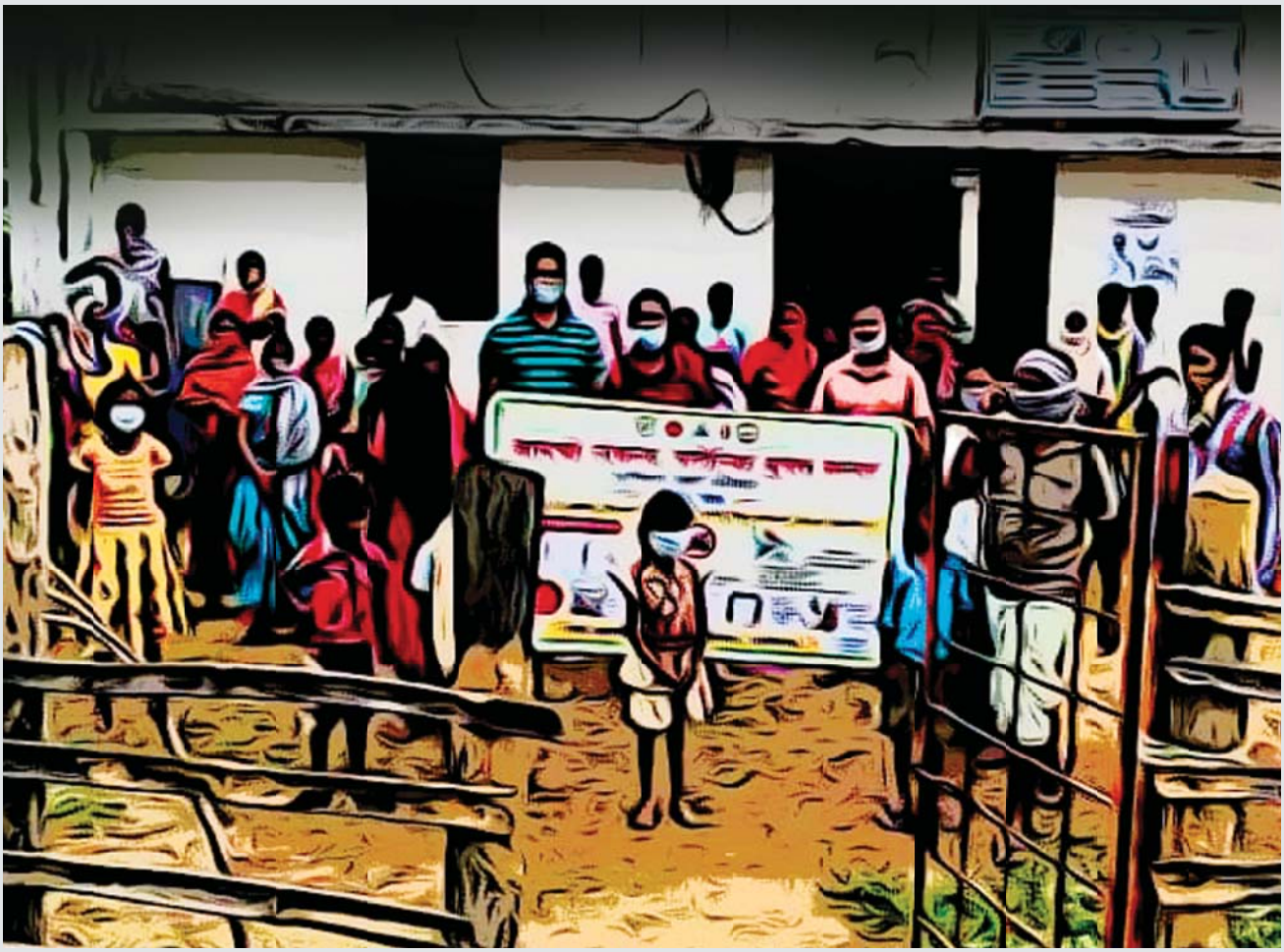
A confident CHO Abhilasha has further initiated and implemented the process in HWCs in 5 more villages for which she is responsible. Other essential health services such as providing follow-up treatment for hypertension and diabetes along with OPD services have also gradually picked up in her area. After learning of her success, many of her colleagues have replicated similar initiatives in their health and wellness centres.

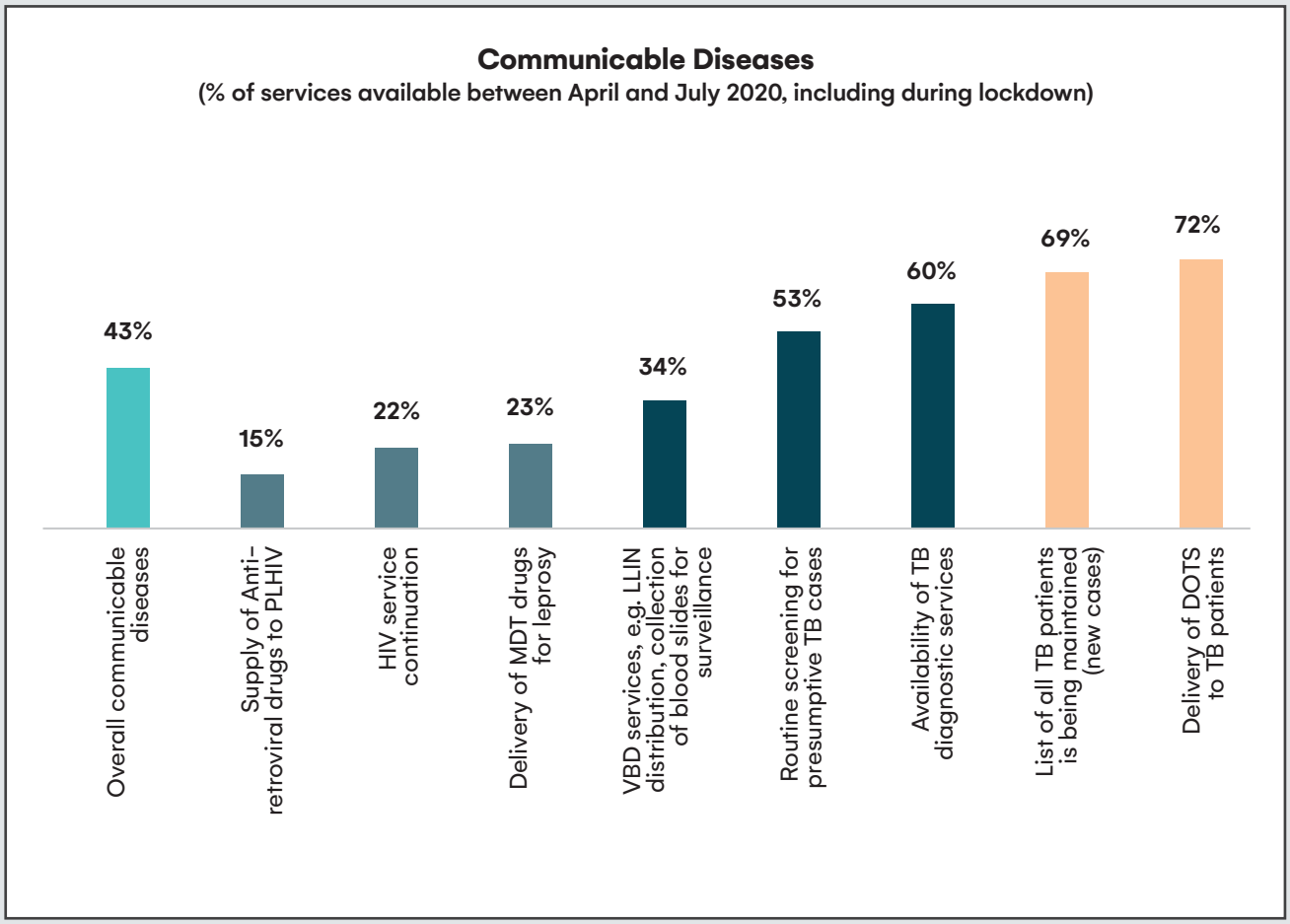
"Delivering essential health services, such as immunization and ANC, during the initial days of the pandemic became difficult. The health staff at Bisapur managed to conduct VHND sessions successfully while maintaining the physical distancing protocol. I appreciate the support of local leaders and dedication of our staff."

– Dr G.C. Chaurasiya
CMHO

— By *Dr Rupali Bharadwaj*
CVHO Chindwara, Madhya Pradesh

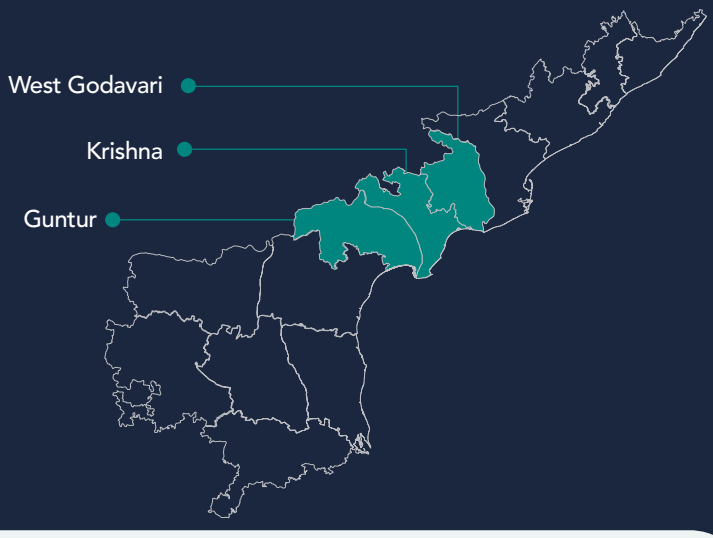
2 Communicable Diseases





Source: *WHO India Country Office, EHS Review of the Public Health System, April—July 2020*

Andhra Pradesh



Innovations

- Fever Survey in villages by ASHA and ANMs
- Sample collection through RRT teams
- Pharmacy app developed and all pharmacy stores registered so any person taking drugs for fever and common cold could be identified and contacted and evaluated for COVID by MO

Challenges	Solutions
Low awareness on COVID centre locations	All suspected cases informed about COVID services during sampling
Delay in registration of non-COVID facilities in PMJAY	Alternate duty roster prepared for HR to complete registration process
Prevention of COVID infection spread at health facilities	Triage followed with separate ingress and egress for suspected COVID cases at secondary and tertiary care hospitals Separate building for COVID at DH Social distancing at the PHC and Sub centre level
Deficit in people reporting to OPDs	Telemedicine delivered via enrolled private and govt doctors Free of cost drug distribution by ASHAs, ANMs and volunteers
Maintenance of scheduled treatments/ services	Line lists of ongoing MCH, dialysis, cancer and blood transfusion patients shared with ambulance (108) for transportation and on time treatment

Sustaining tuberculosis services

Keeping essential TB Services alive

Andhra Pradesh is the only state in India where presumptive TB tests were done using molecular diagnostic technology for up to 75% of the patients. Two hundred and forty TrueNat machines and 46 CBNAAT machines were used for diagnostic tests and microscopy. With the advent of COVID, on 17 March 2020, all the TrueNat devices were seconded from the periphery to the district headquarter and major towns to ramp up the Covid diagnosis. This greatly enhanced the COVID testing capacity in the state, which increased from 3000 per day to 7000 per day from mid April to May, but it also led to a drop of about 75% in TB diagnosis. The cause for this reduction was two-fold: transportation of samples was a challenge during the lockdown as was the lack of devices.

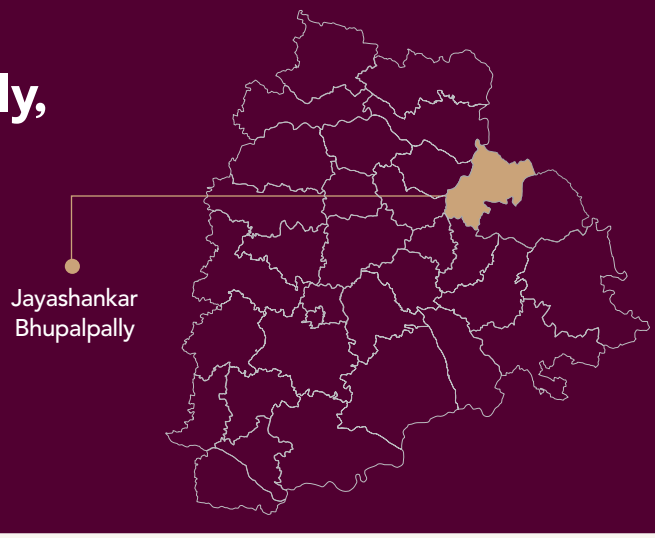
Restoration of TB diagnostic services: With the opening up of movement of people in Green zones in the state, demand for TB diagnosis showed an increase. To meet this demand, the State TB Cell convinced the Commissioner Health to return three TrueNat devices to each district and by mid of May, some microscopy centers which were previously dormant had re-started diagnosis of TB patient. The mechanism for transportation of samples also improved. In places where no transport was available, the NTEP staff themselves carried the samples for diagnosis. From a drop of 75% in diagnosis, the gap improved by 50% by the end of May and June.

DR TB Services: During the lockdown, specific care was taken to help drug resistant (DR) TB patients. DR TB diagnosis was followed-up by regular monitoring. Each diagnosed DR TB patient was contacted over the phone and counselled. Although DR TB wards in some centers were taken over for COVID, alternate beds were arranged for DR TB patients to ensure that the services were not disrupted. In addition, transportation costs, even if private transport was used, were paid to patients who had to reach their DR TB centre for treatment and follow-ups. Pre-treatment evaluations for newly diagnosed DR TB patients was done at the nearest available facility and some tests which were done in the private sector also were reimbursed to patients. Direct benefit transfer of the Nikshay Poshan Yojana has been improved in most districts during the lockdown. Digital signature certificate also helped in motivating TB patients to adhere to treatment by assuring smooth implementation of services.

Drug Supply: First- and second-line drug supply chain was kept alive by sending drugs to the district through special cargo vehicles from APSRTC twice during the lockdown. This was done to prevent any stock out and so that patients could be ensured regular supply of medicines with no default.

— By *Dr Raghavendra Chittimella*
CVHO, Andhra Pradesh

» Jayashankar Bhupalpally, Telangana



Innovations

Two district helplines — a COVID control room and another at the health department

Challenges

Availability and management of human resources and equipment

Risk of COVID-19 infection in health facilities

Solutions

Beds obtained from CHC Chityal at the newly-constructed DH

COVID-19 services supported by AYUSH doctors and RBSK team, including pharmacists

Out patient rooms closed. Corridor kept well ventilated

Ground marked for physical distancing

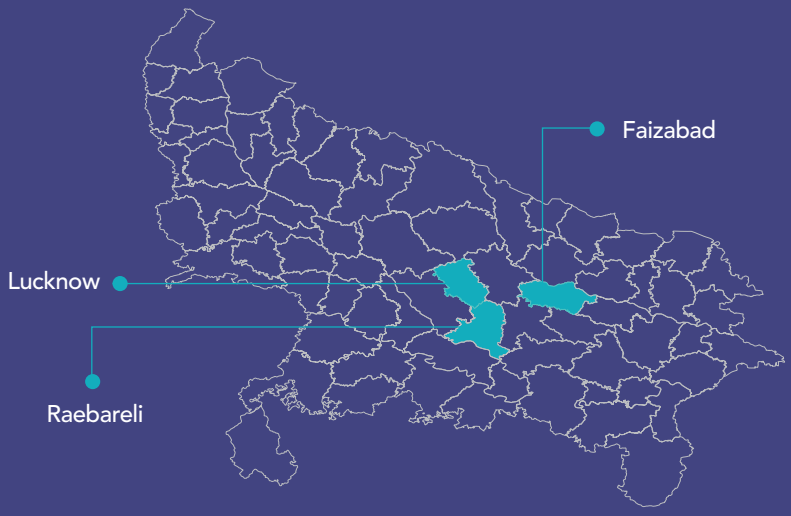
Sanitizers at the entrance to OPD

Continuation of TB services as per NTEP

The COVID-19 pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has the potential to cause disruptions to health services in many ways. Firstly, the health system risks being overwhelmed with COVID-19 patients; secondly, interventions to slow transmission of COVID-19, like the lockdown, can inhibit or limit access to health services as well as lead to disruption in supplies of medicines and diagnostics. Tuberculosis has been a persistent public health problem in India. Continuation of screening for TB among diabetes mellitus patients is a very important essential health service that could not be compromised during the pandemic. People with a weak immune system, because of chronic diseases such as diabetes, are at a higher risk of progressing from latent to active TB. Hence, people with diabetes have a two to three times higher risk of TB as compared to people without diabetes. During the COVID-19 lockdown, J Bhupalapally managed to screen 5000 diabetes patients for pulmonary tuberculosis. Four-symptom complex screening for active TB in diabetes patients was done. As patients were unable to visit the health facilities at a distance from their homes, screening was carried out at subcenters at the village level. Diabetic patients were screened for four-symptom complex, i.e., cough of any duration, fever, weight loss, night sweats. Three hundred and sixty-four diabetic patients were found to have these symptoms. One spot sputum sample was collected and the patients were instructed to provide an early morning sputum sample on the next day. This was collected by the frontline workers and transported to PHCs and from there to the CBNAAT Center by a senior TB laboratory supervisor (STLS). The results showed 20 diabetic patients to be suffering with active tuberculosis. As per the NTEP operational guidelines, people with diabetes who are diagnosed with TB have a higher risk of death during TB treatment and a higher risk of TB relapse after completing treatment, hence, extra care has to be taken to ensure timely intervention. Newly diagnosed patients were put on treatment and regularly followed up. Throughout the process, at each step such as the initial village level screening, spot sample collection, sample transportation, etc., all the infection prevention measures related to COVID-19 and tuberculosis were strictly followed by the health workers. The community was also instructed to abide by the instructions regarding usage of face masks, to follow the social distancing measures and maintain hand hygiene practices.

— By *Dr Abdul Wassey*
CVHO Jayashankar Bhupalapally, Telangana

Uttar Pradesh



Innovations

108 and 102 — Helpline numbers for non-COVID related grievances. Dedicated helpline for COVID

Challenges	Solutions
Closure of hospitals during lockdown	Telephonic or video consultations provided by a few hospitals
Communication with COVID and non-COVID facilities	Communication made regularly by CMO Office through mobile groups and emails
Transportation of non-COVID patients during lockdown	Locally available private vehicles used by patients for transportation
Lack of adolescent health services during lockdown	District telemedicine helpline used for adolescent health issues consultations
Availability of services for suspected COVID cases	Fever clinics, screening and triage areas established in all health facilities

Continuing vector control activities

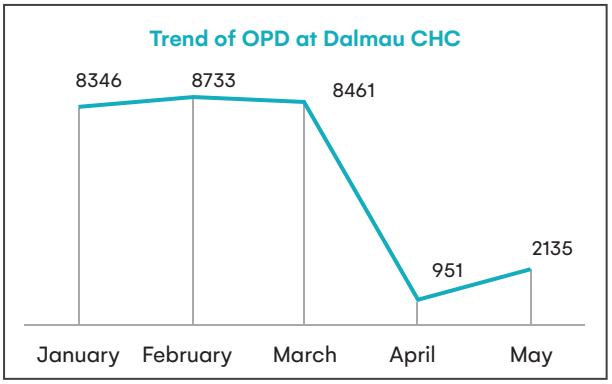
There were no confirmed cases of vector diseases in the block report this year

Mapping the problem area

Narendrapur is a village situated in Dalmau block of Raebareli district, with 360 houses, a population of 2,000 and a female population of 49.3%. The village has an open drainage system. Stagnant water breeds mosquitoes, increasing the possibilities of vector borne diseases like malaria, filaria, dengue, etc.

Vector control amidst COVID-19

During the lockdown, vector control activities and diagnostic services were also affected. OPDs located in the nearest health centre were closed, making treatment availability a challenge. The viable solution was to control the breeding of mosquitoes by and encourage self-protection measures against mosquito bites by spreading awareness.



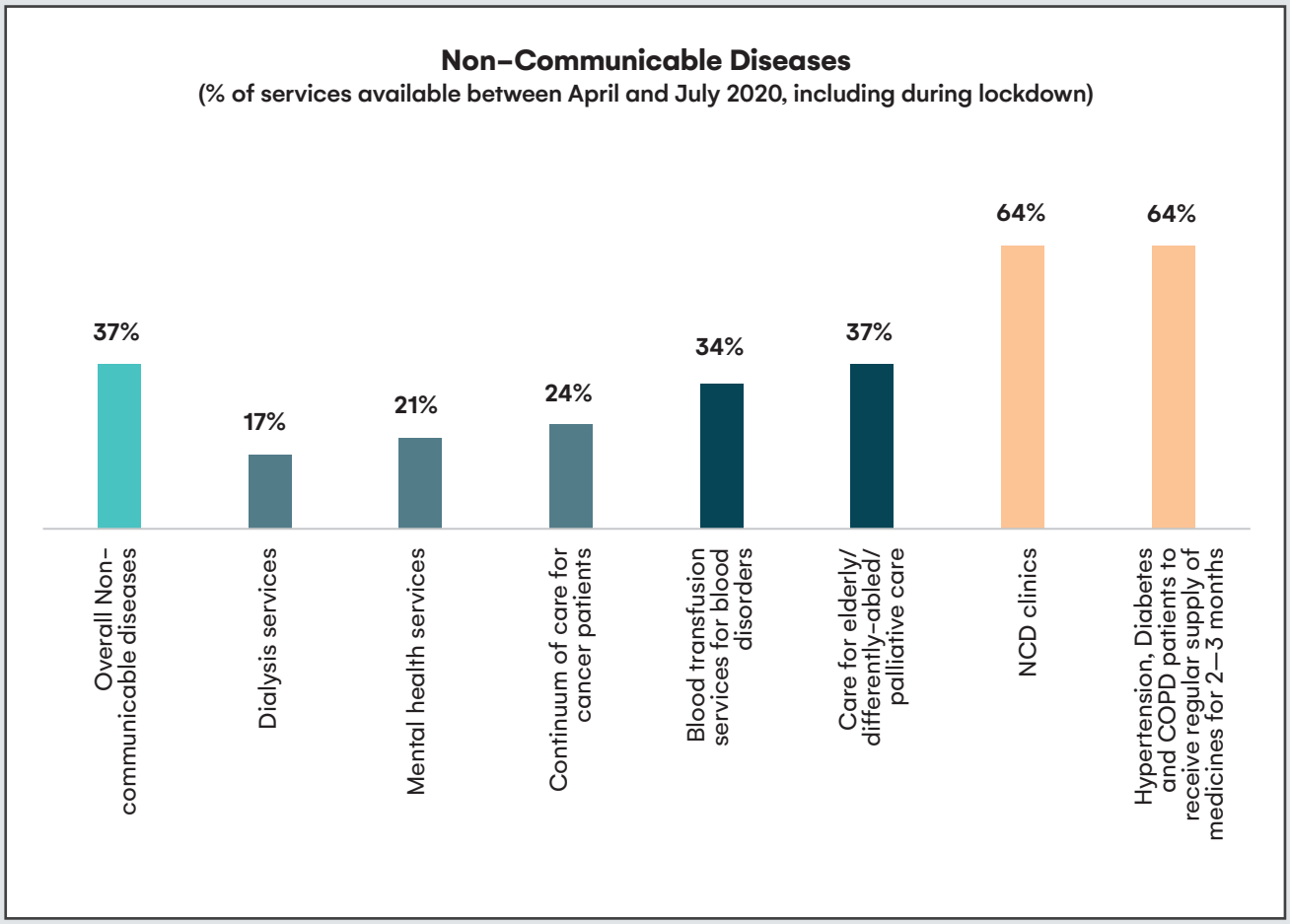
Preventing vector diseases by behaviour change

A team of ASHA workers and AWWs, under the guidance of the Block Health Education Officer took the initiative of painting awareness messages on walls in the most frequented places of the village. The wall paintings communicated catchy and multifaceted messages for mosquito control and self-protection measures. Health workers used personal protection measures throughout. Subsequently, the Gram Pradhan along with community members led a cleanliness drive in the village and also cleared stagnant water in some areas. The ASHA facilitators and ASHA workers also conducted frequently awareness drives around the village. Any suspected cases from the village were referred to the Dalmau CHC for lab testing and treatment. However, there were no confirmed cases reported in the block this year.

> ***"As per the state directives, Essential Health Services are being provided to the beneficiaries. For vector control activities, our field functionaries like ANMs and ASHAs are going beyond the call of duty."***
>
> **– Chief Medical Officer, Community Health Centre, Dalmau**

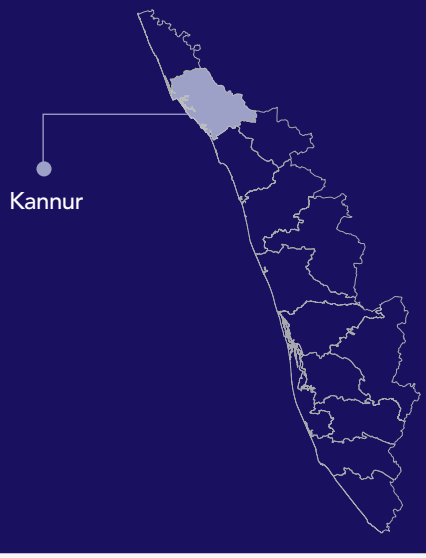
— By *Dr Abhinav Kadia*
CVHO, Uttar Pradesh

3 Non–Communicable Diseases



Source: *WHO India Country Office, EHS Review of the Public Health System, April—July 2020*

» Kannur, Kerala



Innovations

Dedicated helpline for psychosocial support available at the district level

Challenges	Solutions
Information sharing about care and referral pathways	District team provided information to all facilities and designated hospitals
Health facilities closed due to lockdown	Training conducted online for all healthcare providers
Reduction of elective cases	Patients referred to other institutions and provided free of cost care
Social distancing at OPDs, laboratories and the pharmacies	Social distancing circles drawn at OPDs and token system followed at laboratories
Transportation of patients	108 Ambulance service used to transport patients to higher facilities
Screening and triage of suspected COVID-19 cases	Video conference training of HCWs for screening and triage of suspected COVID-19 patients
Training of Staff Nurses and Human Resourses Management	70 staff nurses from PHCs posted weekly in medical colleges to manage COVID-19 patients COVID training given to all staff Zoom meetings/training conducted including with private hospitals involved in COVID-19 management

Doorstep delivery of NCD drugs

25094 hypertension and 4039 diabetes patients received medicines through the doorstep delivery system

Challenges faced to make NCD drugs accessible to the elderly

During the lockdown, people above 60 years of age, especially those with diabetes and hypertension, were advised not to visit health care facilities for drug collection. In Kannur district, around 69 000 hypertension and 14 000 diabetes patients have been registered under the Integrated Health Model Initiative (IHMI) and NCD programme. Maintaining healthcare services and uninterrupted drug supply for them was a challenge.

Streamlining NCD drug distribution through frontline workers

A doorstep delivery system was introduced to ensure availability of NCD medicines to patients who were unable to visit health facilities. Other patients collected the medicines themselves or through family members. A list with NCD patients' data was shared with field staff like ASHAs and AWWs, who collected the NCD passbook from the patients in their area and collected and distributed medicines to them. Many shining examples of dedication to ensuring uninterrupted care emerged at this time. For example, Subhadra, an ASHA worker associated with PHC Udayagiri, ensured timely doorstep delivery of NCD drugs from the health department to those on her list, despite the hilly terrain around her village and lack of transport.

Removing barriers for high-risk NCD patients

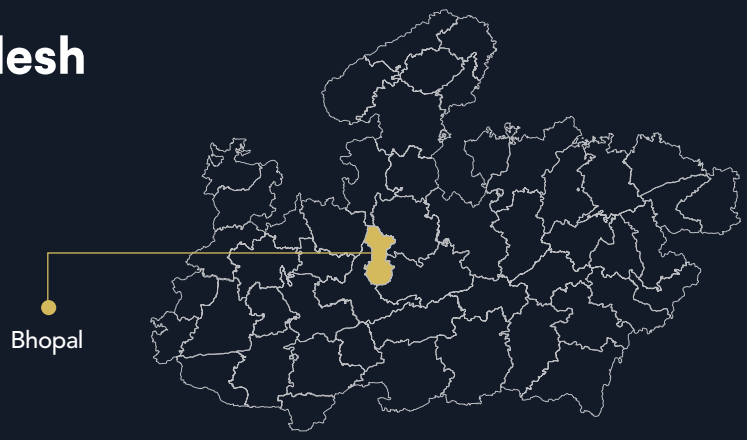
Out of 70 092 registered hypertension patients and 15 439 diabetes patients, 25 094 and 4039 patients received medicines through the doorstep delivery system, respectively. In some villages, doorstep delivery was done by COVID-19 volunteers. There are nearly 200 COVID volunteers for each panchayat registered in the COVID helpline portal developed by the Government of Kerala.

> ***"Happy and proud of the meticulous planning and continued efforts of the frontline workers for ensuring uninterrupted drug supply. Their efforts prevented high-risk NCD patients from defaulting on the drugs and becoming more susceptible to COVID-19 infection."***
>
> **– District Nodal Officer-NCD**

> ***"Unified teamwork made doorstep delivery successful at this crucial time."***
>
> **– DMO**

— By *Deendayalan*
CVHO Kannur, Kerala

» Bhopal, Madhya Pradesh



Innovations

- PPE and other logistics purchased using CSR funds and MPs/MLAs contributions
- Coninuity of services maintained using door to door distribution of medicines for NCD, TB, HRP and ANC
- HEM-lite started by the State Government to deal with the issue of patient mobility due to lockdown and to increase the reach of PMJAY's benefits

Challenges	Solutions
Commute to work place during lock down for COVID as well as non-COVID activities	RBSK vehicle used
Drastic reduction in OPD cases due to fear of COVID-19 infection	OPD resumed with PPE kits and other precautions
Reduction in patient load for ANC services	Patients called zone-wise for ANC to prevent crowding
Infection prevention at PHC meetings	Zone-wise meetings conducted to maintain communication and share the latest guidelines about all the programmes
Hesitation by private medical practioners to treat regular patients due to fear of infection	Hordings, press releases, CM's video bites on digital platforms, etc. used by state and district level for information dissemination

Peer-to-peer mobilization

95% of the total registered hypertension cases till December 2019 were followed up by March 2020

Dependable and regular health care for NCDs

In PHC Tumda, the IHCI programme started in June 2018. Hypertension screening was mandatory for all clients above 18 years who visited the PHC due to any illness. Raising awareness about NCDs and ensuring accessibility of essential medicines were prioritized. Peer-to-peer mobilization was started in PHC Tumda by Dr Indoria (MBBS MO) and Dr Asha (AYUSH MO) in February 2020 to enhance the IHCI programme.

Adding milestones for the IHCI programme

Till December 2019, 398 hypertension patients were registered in PHC Tumda through opportunistic screening. Of these, 89 registered cases were from Sehore district. All the patients were on regular medication for hypertension. To maintain the continuity of patients coming for treatment, both MOs started preparing a due list. Initially one patient from Torniya village (Sehore), was provided the due list of 11 registered hypertension patients for mobilization. Within the next 7 days, 10 out of the 11 registered patients from Torniya returned for follow up.

Community participation and innovative mobilization

Looking at the positive results, a similar concept was designed for all hypertension patients registered at PHC Tumda, Bhopal. As per the village-wise due list, of the total registered hypertension patients, approximately 120 patients had not visited till the end of January 2020. Of these, 60 patients were from Sehore district. 95% of the total registered hypertension cases till December 2019 were followed up by March 2020.

Later the concept was expanded, and the village-wise due list was also handed over to 'a post man of the village', vegetable/fruit vender, and others, in addition to the ASHA. As a result of peer-to-peer mobilization, 209 patients returned for follow up.

— By *Dr Jatin Thakkar*
CVHO Bhopal, Madhya Pradesh

Wardha, Maharashtra

Innovations

Contact numbers of MOs, in charge of all facilities, displayed on site to improve availability of dedicated helplines

Challenges	Solutions
Awareness of specifuc helplines for grievance redressal	Guidance letter circulated to all facilities and discussed over Zoom Meeting
Engagement of Private sector	Guidelines circulated through IMA and AYUSH organizations
Continuum of care for chronic illnesses during lockdown	Services expanded to HWC level and medicines distributed at village level through ASHA
Lack of empanelment of sufficient non-COVID facilities	Both the Medical colleges in the district empaneled

Taking precautions for hypertension and diabetes patients

India Hypertension Control Initiative (IHCI) is a joint collaborative programme launched in India in 2017 by WHO, ICMR, GOI, GOM and Resolve to Save Lives. It aims to significantly decrease the burden of hypertension and associated morbidities prevailing in the community.

Bhandara and Wardha districts of Maharashtra have been implementing the IHCI program since November 2018 and it was further expanded to Gadchiroli district in January 2020. By February 2020, over 100 000 persons with hypertension were registered in these three districts and given treatment as per the Standardized Treatment Protocol1. Digital data were recorded in the Simple App2 tool specifically designed for the IHCI project.

By the second half of March, it was evident that the Covid-19 virus epidemic would impact health services significantly resulting in discontinuity of healthcare, especially for chronic illnesses such as hypertension3. Furthermore, data were available from Covid-19 affected countries that the virus disproportionately affected persons with hypertension, diabetes and heart disease resulting in severe illness and death4.

On 20 March 2020, the Divisional Commissioner, IHCI Consultant and District Health Officials divised a strategy and guidelines were issued to the district magistrates (DMs) of six districts to issue a supply of 2-3 months medicines for hypertension and diabetes through ASHAs, ANMs, MPWs and other available frontline health workers. Dr Sanjeev Kumar, Divisional Commissioner, said, "The strategy of doorstep delivery of medicines for chronic diseases will continue till the threat of Covid-19 exists in community".

In the next three months, 85 106 hypertension and 27 016 diabetes patients were provided medicines for 60 days at their doorstep in 1698 villages. As a result, footfalls for refilling the medicine prescriptions at health facilities reduced by over 75% and the risk of exposure to Covid-19 virus decreased significantly.

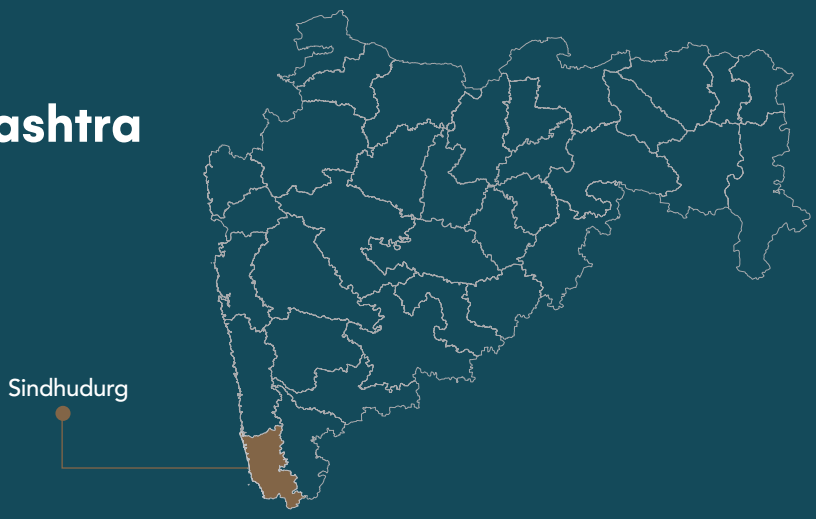
District	Hypertension patients given 2 months medications at doorstep	Diabetes patients given 2 months medications at doorstep	Number of Villages involved in project
Bhandara	42560	9954	772
Wardha	24789	9662	498
Gadchiroli	17757	7400	428
Total	85106	27016	1698

Dipanjali Vasant Gore, aged 45 of Jam village in Wardha district has been taking hypertension medications for the past two years. She was unaware of the increased risk of severe Covid-19 illness until Dr Neeta Channe, Community Health Officer of Jam Health and Wellness Centre, along with ASHA Shamala and ANM Rekha, visited her home, counselled her and gave her two months medicines for her blood pressure. Dr Neeta has planned to distribute medicines through ASHA and ANM to all hypertension and diabetes patients registered at her HWC. Through persistent efforts she and her team are rapidly achieveing this target. Dr Neeta said, "Earlier I used to see 30-40 patients with hypertension and diabetes every week. Now I see them occasionally, that too with appointment and due precautions." Her patients expressed relief at being well informed about the impact of Covid-19 as well as at receiving an uninterrupted supply of essential drugs.

— By *Dr Vishwajit Bharadwaj,*
CVHO Bandara, Maharashtra, WHO-IHCI

[1] National report phase 1 May 2020 of IHCI Program.
[2] www.simple.org
[3] https://www.cnbc.com/2020/03/20/coronavirus-who-says-health-systems-collapsing-this-isnt-just-a-bad-flu-season.html
[4] https://www.icmr.gov.in/pdf/covid/faqs/FAQs_English.pdf

» Sindhudurg, Maharashtra



Innovations

Medicines distributed door to door by ASHA health care workers

IMA and IAP workshops conducted for SARI Survelliance, non-COVID care and involvement of specialists in COVID care

EDD ANCs identified for the next 3 months from high risk areas and called to PHCs before hand for delivery

Challenges	Solutions
COVID Services at SDHs not allowed to start due to locals residing nearby	Patients shifted to DH and CCC at the District headquarter
Delivery of services to cancer patients and others taking treatment from other districts	Listed patients contacted by respective block staff and directed to district facilites where these services are available
Availability of sanitary napkins for adolescent girls	Sanitary napkin stocks provided to sub center HCW to give to ASHAs
Decrease in number of follow-up patients visiting health facilities	List of patients prepared PHC-wise Drugs given to respective PHCs 324 patients received medicine through SC HCWs

Using technology to manage chronic diseases

Accessing follow-up care

IHCI aims to achieve protocol-based treatment and regular follow ups at PHCs or hospitals for 24 000 hypertension patients registered in Sindhudurg district in Maharashtra. After the lockdown, such patients were provided follow-up care and medicines from HWCs and SCs through CHOs and health care workers. HWC Talawade in Sindhudurg is manned by one CHO, two ANMs and one MPW and caters to a population of 2760, of which 1665 persons are above 30 years of age. A list of 33 patients who were registered at PHC Nirawade was given by the NCD staff nurse to HWC Talawade.

> ***"We can measure BP of overdue patients during field visits, get them back on treatment, and contact our Medical Officer through telemedicine if necessary. Medicine details and previous hypertension reading are also easily available."***
>
> **– ANM**
> SC Kas

Telemedicine through Simple app

CHOs were unable to titrate dosages of antihypertensives and antidiabetics for patients with uncontrolled hypertension and diabetes. As a result, telemedicine through Simple app was introduced in June for managing high-risk patients who were unable to reach their registration facilities by contacting the designated MOs. The CHOs, ANMs and MPWs were trained by CVHO-WHO and CVH-STS.

Empowering field health care workers through telemedicine

The CHO at HWC Talawade was able to manage about 48 high-risk patients. Telemedicine helped such patients to reduce unnecessary exposure to COVID-19 at crowded health facilities. It also reduced travel costs for patients. This initiative was implemented with limited resources and a decent internet connection.

"I was taking medicines from private hospital sometimes I used to buy medicines from medical store , now I can get my BP checked here in Talwade upkendra (Talawade HWC) and get free medicines."

– **Chandrakant** (72 years old)
Hypertension patient

"Since March month I didn't go to PHC Banda to receive my sugar and pressure medicines from Davakhana at Banda (PHC Banda), staff here delivered it to me at my home , and now since last two months I visit this Kendra (Health Sub centre) to get my BP and sugar checked , they give me my medicines too."

– **Mangala,** (61 years old)
Takes treatment from a local PHC

"In Sindhudurg, many of our NCD patients were facing difficulty to reach PHCs due to non availability of transport, our health staff at HWCs and SC now can give follow up care to such needy patients especially one with uncontrolled BP values by contacting their medical officers through simple app."

– **Dr Mahesh Khalipe**
District Health Officer Sindhudurg

"Confidence among field health care workers to continue antihypertensives for patients in their area with a basic training of BP measurement and consulting MOs, will lead to better treatment adherence and hypertension control."

– **Dr Tejpal**
CVHO Sindhudurg

— By *Dr Tejpal*
CVHO Sindhudurg, Maharashtra

Decentralization of dialysis services

Down referrals to decentralize dialysis services

Decentralization of health services aims to reduce the burden on existing health system by down referral to provide accessible and affordable services to patients. During the lockdown, decentralization has played crucial role in continuing care to patients especially for chronic diseases. Sindhudurg District Hospital has a Dialysis Unit catering to patients from all over the district. The facility was converted into a Dedicated COVID Hospital (DCH) which made it necessary to decentralize dialysis services to peripheral health centres to avoid unnecessary exposure of such patients to COVID-19.

Line listing to track referrals

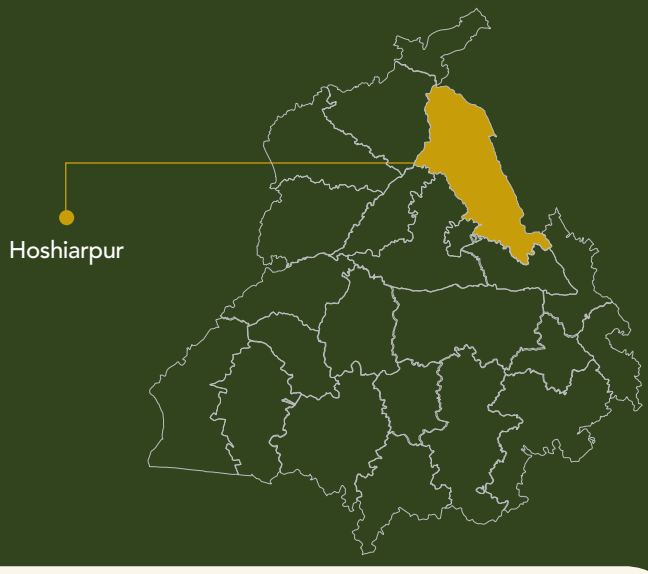
The Civil Surgeon, Additional Civil Surgeon and the team at the Dialysis Unit decided to shift their services to sub district hospitals and rural hospitals. A block-wise list of patients who visited the District Hospital regularly was prepared. Most of these patients were contacted individually by the DH staff. They were notified about the availability of dialysis services at Sub-District Hospital Kankawali and SDH Sawantwadi. SDH Kankawali was visited for Essential Services Assessment on 6 June 2020. Out of eight blocks in the district, patients from Kanakawali, Devgad and Vaibhavavadi blocks started going to SDH Kankalwali for dialysis.

Increasing trend of dialysis at SDH Kankawali

Name of facility	Jan 2020	Feb 2020	March 2020	April 2020	May 2020
District Hospital	224	191	180	161	145
Sub District Hospital, Kankawali	0	29	78	109	114

— By *Dr Tejpal*
CVHO Sindhudurg, Maharashtra

» Hoshiarpur, Punjab



Innovations

104 24/7

104 — A 24x7 helpdesk used for COVID

IEC material on flu corners used to facilitate care and referral pathways

Challenges	Solutions
Normal functioning of non-COVID facilities hampered due to insufficient human resources	Isolation ward being prepared, to be used in future if situation demands
Risk of cross infection	Covid and non-COVID patients separated Usage of masks and social-distancing Screening and sampling done Isolation ward set up
Effective grievance redressal for continuity of services etc.	Control room established in the CS' office

Overcoming supply chain challenges

Antihypertensive supply dilemma

During the COVID-19 outbreak, the Government's guidance note on "Enabling delivery of essential health services during the COVID-19 outbreak" of 13 April 2020 included treatment for chronic diseases such as NCDs. The Chief Pharmacist of the district store was designated to issue a particular quantity of antihypertensives to the block health facilities as per the IHCI protocol. An assessment of the need was done at HWCs in May—June 2020 by interviewing CHOs, ANMs, AWWs, ASHA workers.

Streamlining distribution for follow-up patients

"The IHCI team observed that medicines for hypertension were supplied to HCWs to newly registered cases whereas their role was to also provide medicines to follow-up patients who are already registered at the district hospital/other big facility. The new tool solved this problem by combining newly registered cases with the follow-up numbers to calculate the total patient load."

– Dr Jasbir Singh
Civil surgeon, Hoshiarpur

With the support of the IHCI team, the block headquarters streamlined distribution to smaller facilities through a consolidated block-wise list.

"Monthly report gives the stock position of IHCI drugs based on the cumulative new registrations, be it a district hospital/other big facilities and even HWCs. The CVHO — after realizing the main role of HWCs was to monitor follow-up patients — shared the distribution plan with the Chief Pharmacy Officer, streamlining the supply of antihypertensives."

– Dr Rajinder Raj
District Nodal Officer for IHCI

Sustaining health of hypertensive patients

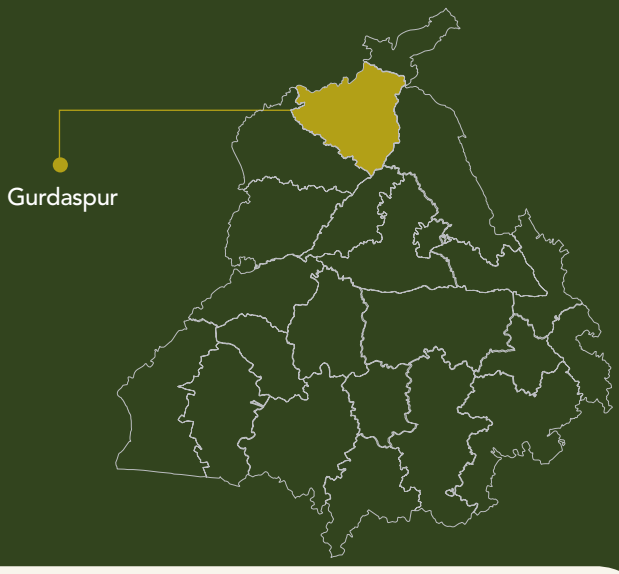
HWCs after receiving adequate supply of medicines facilitated distribution to known registered patients of the nearby villages through the ASHA network. Out of 87 HWCs, 83 HWCs are implementing IHCI for beneficiaries.

"The new tool developed by IHCI team made my job of tedious calculations and catering to numerous facilities easier to manage."

– Parminder Singh
Chief Pharmacy Officer, District drug store, Hoshiarpur

— By *Dr Sunil Kumar Dar*
CVHO Hoshiarpur, Punjab

» Gurdaspur, Punjab



Innovations

104 24/7

104 — A 24x7 helpdesk used for COVID

Challenges	Solutions
Staff shortage	CHO, SN and rural medical officers (AYUSH doctors) deployed to COVID facilties
Shortage of specialists (no anaesthetist)	DH, SDH and all CHCs are empaneled
Low immunization services	ASHA home visits increased to provide immunization services
Meal and transportation for patients at facility/district level	NGO(s) support for meals and transportation for patients at facility/district level

Launching the May Measurement Month Campaign

Due to the lockdown, NCD patients were unable to visit CHC Kalanaur for follow up and treatment. Senior Medical Officer, Dr Lakhwinder Singh initiated the May Measurement Month (MMM) Campaign on World Hypertension Day in Kalanaur block, Gurdaspur. Dr Vijay Kumar, IHCI-CVHO, provided technical inputs and prepared a micro plan along with the CHC staff.

The main objectives of the campaign were:

1. Detection and management of new cases of NCDs including hypertension
2. Drug dispensing and follow up of registered patients using the IHCI-Simple app line list
3. Health education on prevention and control, including regular BP checking and life-style changes

Timely diagnosis and follow-up care for new hypertension patients

As per plan, nine teams of ANMs, ASHA workers and volunteers were formed. Each team was headed by a CHO and mandated to work in the villages covered by the nine HWCs. Five villages were covered under each HWC, so a total of 45 villages were covered. IHCI-CVHO and STS provided village-wise overdue list to all nine teams. They conducted house-to-house visits in the villages. All the logistics of BP screening, medicine requirement and other patient details were line listed in Simple app and patients were treated after teleconsulting with the Senior Medical Officer. Along with hypertension, they also screened for other NCDs like diabetes, cancer and health education on NCDs. The target group of this screening was individuals above the age of 30.

Sustaining NCD health services during COVID-19

During this campaign, around 2500 households were screened, 493 new patients were put on treatment and 1895 follow ups conducted for overdue patients. Two hundred and four new diabetic patients were registered and 12 suspected cancer patients identified.

> ***"I am very happy that in May, we were able to diagnose close to 500 new hypertension patients and now regular follow up is being done for them at their respective HCWs by CHOs."***
>
> **– Dr Lakhwinder Singh**
> Senior Medical Officer, Gurdaspur

— By *Dr Vijay*
CVHO Gurdaspur, Punjab

» Bathinda, Punjab

Innovations

104 24/7

104 — A 24x7 helpdesk used for COVID

Challenges	Solutions
Care for COVID-positive and quarantined patients	Food organised by the District administration with the help of NGOs Ventilators and PPE kits donated by oil refineries
Infection prevenition at facility/ district level	100 bedded Isolation wards set up at DH and SDH level Delivery of COVID positive women at isolation hospitals arranged Approximate 120 HCWs outsourced by the district administration 2 ambulances from MPLAD fund New testing machine donated by the District administration 300 bedded Covid Care Center, flu corners established and RR teams formed at block and SC level

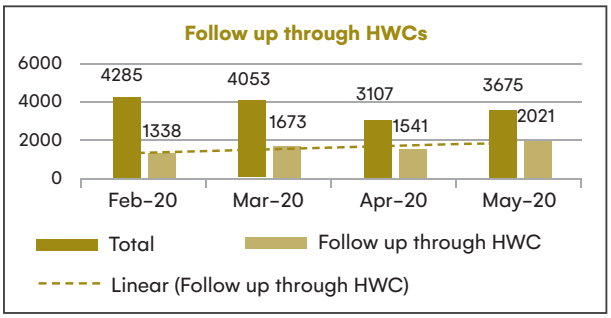
Essential care for hypertensive patients

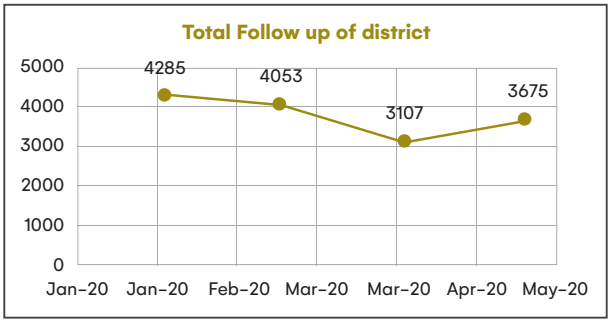
Challenges faced in continuing services for NCD patients

Bhatinda district in Punjab managed to keep most of its essential services, including health services functional through the use of alternative strategies. Due to the lockdown, transport facilities were unavailable and many facilities were converted into isolation/quarantine centres leading to a lack of manpower for follow-up with patients of hypertension and other NCDs. Since NCDs increase the risk of COVID-related mortality and morbidity, regular monitoring and management of NCDs was a priority for the district during this critical time. IHCI programme also acted towards minimising any transmission risks to hypertensive patients.

Removing barriers through field health care facilities

To overcome the challenges of the lockdown, the district utilized grassroot level facilities,





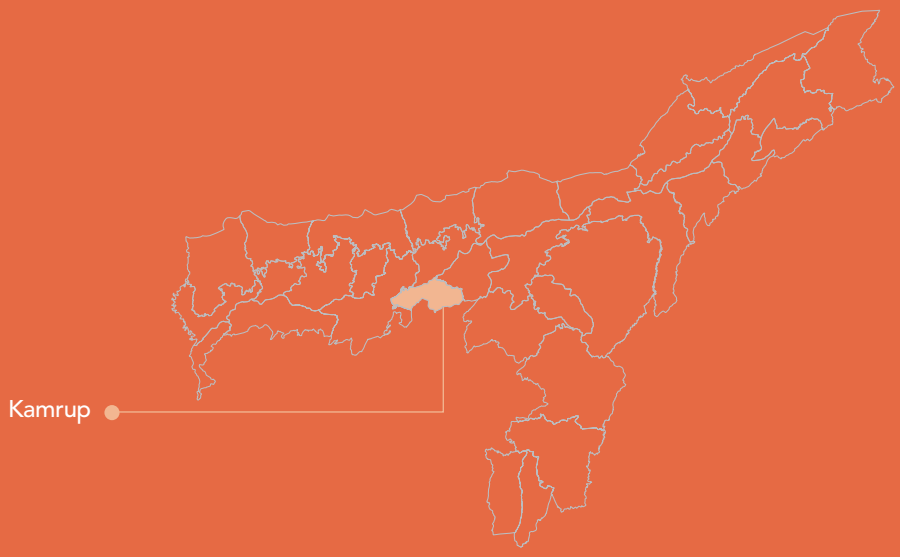
such as HWCs, in the IHCI programme. Through decentralization, a list of patients registered at higher facilities was provided to the CHOs and STSs for follow up and to facilitate collection of medicines at facilities that are closer to their homes. For a few acutely ill or older patients, doorstep delivery of medicines is done by ASHA workers.

Decentralizing NCD care

Dr Usha Rani, CHO at HCW Pitho managed to maintain follow up and medicine distribution for 98—99% hypertension patients. In the district, at least 80% of the follow up of the pre-lockdown phase were maintained despite the setback in the functioning of bigger hospitals and lack of transport. An increase of follow up through HWCs than its higher level was also observed. Long term medicine was also given to some patients.

— By *Dr Bidisha Das*
CVHO Bathinda, Punjab

» Kamrup, Assam



Innovations

- NCD Micro Plan maintained and CPHC staff introduced by the UPHC
- Tickler Box made available to track immunization

Challenges	Solutions
Concerned ANC mothers during lockdown	Visitation done by the ANMs to the houses of the ANC mothers to encourage them
Less cooperative home-quarantined people	Visitations of the community done by ANMs to make people aware of the need for a strict home quarantine
Availability of immunization services	Immunization services resumed since early April 2020, and supply of pentavalent and IFA vaccines made available
Staff shortage	All services given by the available staff members taking on extra responsibilities
Lack of general services at the DH in Sonapur	General services provided at the CHC in Khetri

Micro Planning for quality NCD screening and effective follow up

Micro planning for extensive NCD screening

Population-based screening of non-communicable diseases (PBS-NCD), targetted screening all individuals 30 years and above at Sub-Centre Health & Wellness Centrs (SC-HWCs) through effective micro planning. An ASHA was designated to visit each household to conduct community-based assessment checklists (CBAC). From the state level, orientation was given to the district NCD programme management staff on NCD roll out and innovation. State NCD Cell staff and development partners facilitated the training. The ANMs under the leadership of the CHO prepared the NCD micro plan to ensure quality NCD screening of the targeted population.

NCD risk score for diagnostics and referrals

Prioritization in screening was based on the NCD risk score of the individual revealed during the CBAC. Screening at the SC-HWC was done by the CHO.

Based on the screening outcome for hypertension, diabetes, oral cancer (for both males and females) and breast cancer (for female only), individuals were assessed as either being free from NCDs or were referred to the link SC-HWC facility f or to the appropriate health centre for further screening, confirmation and treatment, if necessary.

Strengthening field functionaries by micro planning

For managing the screening at SC-HWC, it was seen that the Sarabbati UPHC under Kamrup Metro, Assam effectively implemented the NCD micro plan. The WHO consultant provided all technical assistance for designing and strengthening NCD rollout in Assam. ANMs and ASHAs mobilized beneficiaries for screening as per the schedule and worked very closely to extend healthcare services to the local community. They jointly rendered basic services, including immunization, to the beneficiaries of the areas designated to the ANMs deputed on COVID duty. A Medical Officer reviewed individual performances and mentored the weak performers.

Streamlining population-based NCD screening

Community-based assessment checklist

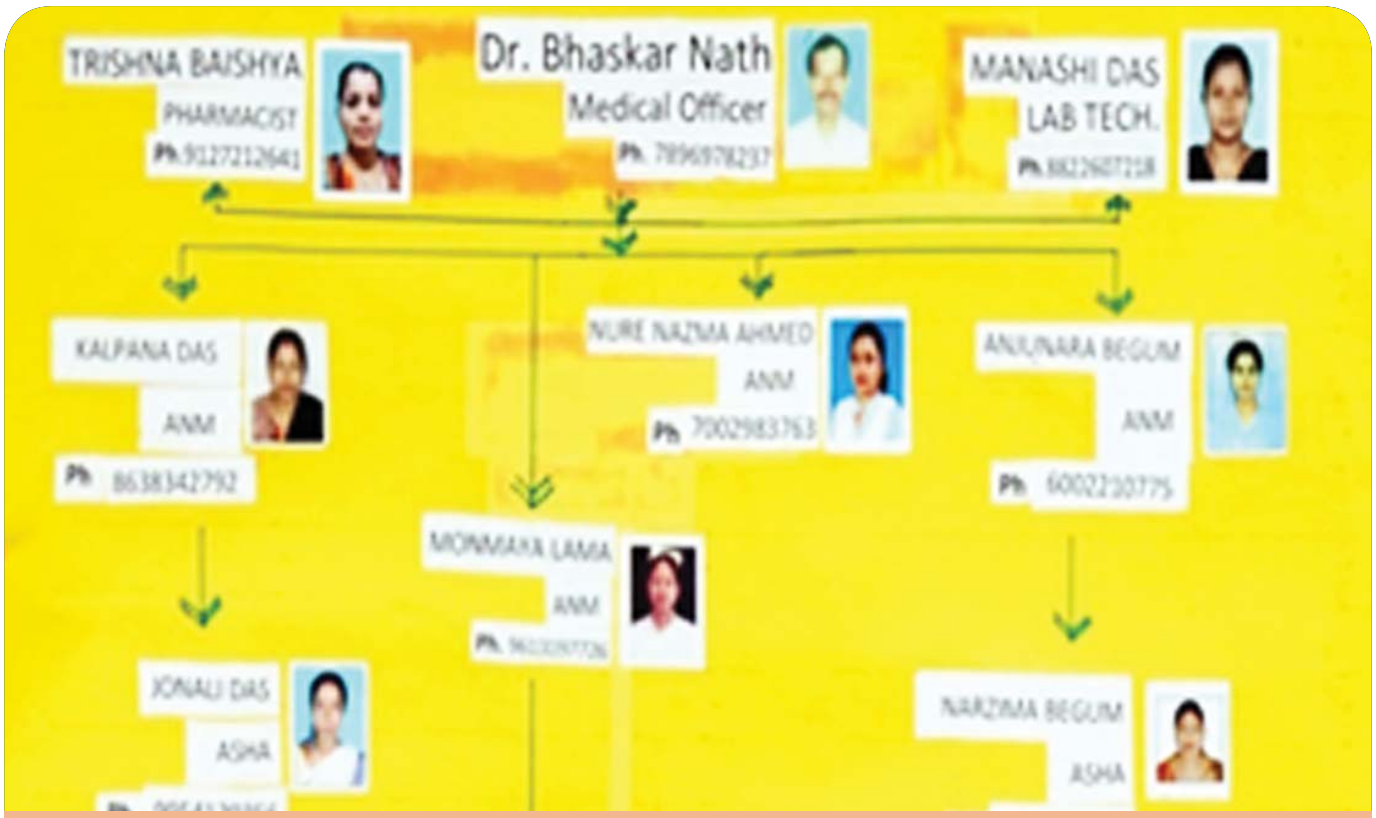
CBAC is filled up by ASHA during household visit. Its systematic use can make the population-based screening programme successful. Under opportunistic screening, a person's presence in the health centre for an unrelated medical intervention is utilized as an opportunity to perform NCD screening and referrals/treatment. Unlike in population-based screening, health centres are not mandated to cover entire target group population in opportunistic screening.

Streamlining beneficiaries for NSD screenings

In Assam, CBAC were categorized according to ASHA, family and village to easily track beneficiaries and to keep the forms in order. After screening, the CHO signed on the CBAC form with annual NPCDCS registration number. This indicates the attendees of the NCD screening. If the CBAC does not have the CHOs signature, the latter can ask the designated ASHA to mobilize the listed person to attend on the planned screening day at SC-HWC. Earlier, uncategorised and randomly placed CBAC made it impossible to determine the status of screening.

Mapping and incentivizing ASHAs for NSD implementation

By using this system, beneficiary mobilization by ASHAs was reviewed by the CHO and the poor performers were mentored to improve their performances. This innovation has streamlined ASHA CBAC incentive payment. In UPHC Gotanagar of Kamrup-Metro district, the staff followed this practice to strengthen NCD implementation. The WHO consultant conceptualized this innovation and thereafter the district officials were trained at the state level, where they were oriented on the innovation of streamlining and using CBAC forms.



Community demand enhancement

Increasing community awareness about CPHC

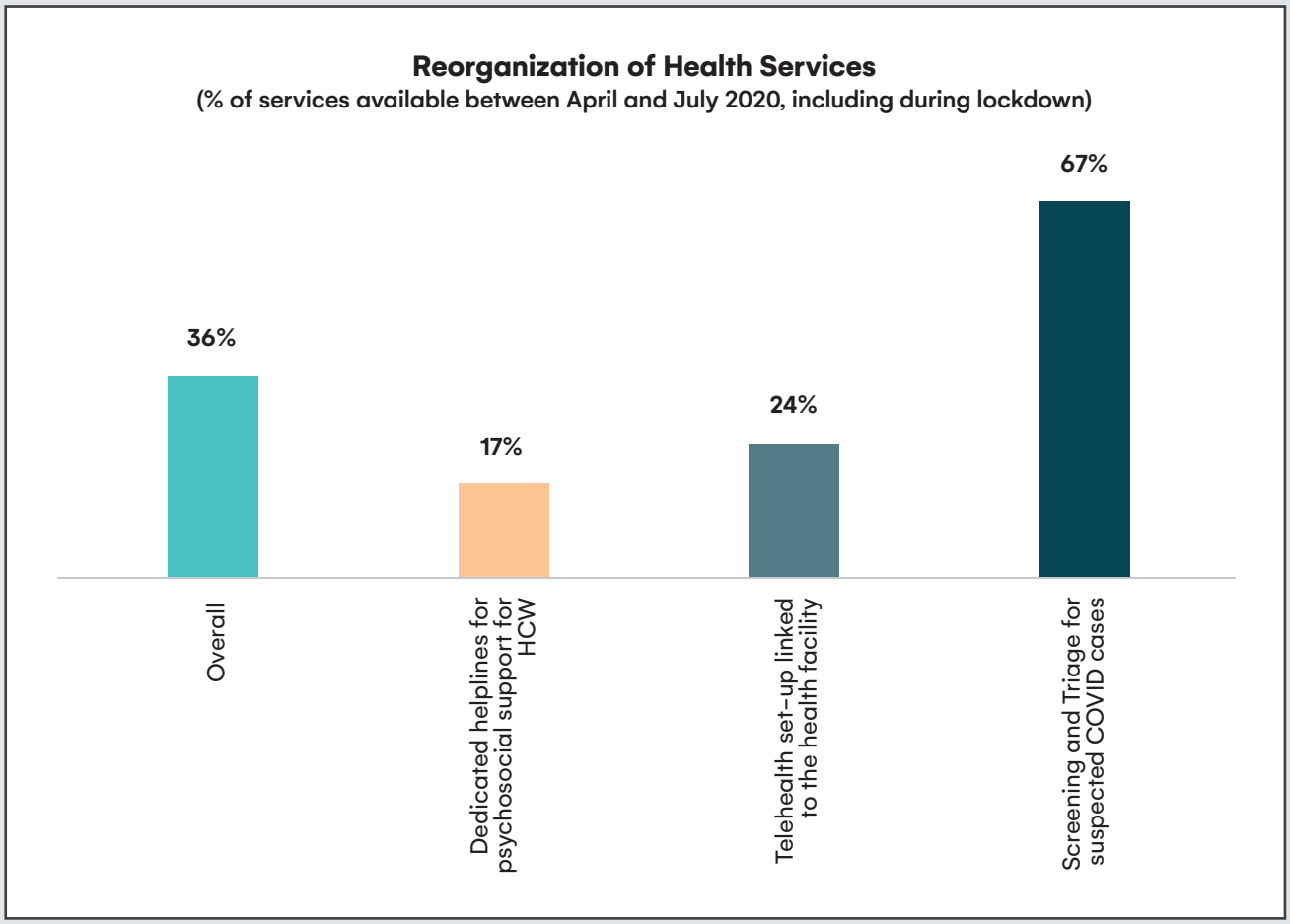
Comprehensive Primary Health Care (CPHC) implementation requires adequate community knowledge for optimal usage of sub-centre and PHC HWCs expanded range of services. Earlier SCs only provided immunization and mother and child health (MCH) but with the introduction of CPHC, more services were added and a prime focus was given to NCDs. To generate awareness and community demand at Gotanagar and Sarabbati UPHCs, a list of CPHC team members with details such as designation, phone number, etc. was displayed in the most frequented spaces. This helped community members to locate their designated CPHC team member/service provider from their village and easily contact them in case of any emergency. The WHO consultant was instrumental in conceptualizing such a plan for introducing CPHC team members to the community for better demand generation. District officials were trained at state level, where the WHO consultant participated as a resource person.

Removing barriers for CPCH accessibility

The footfall at the SC-HWC was increasing over time. Although during late March and April 2020 it dropped due to strict implementation of the lockdown and fear of COVID-19 infection among the people, since May 2020 it again increased. This was the result of the outreach activities and mobilization of people by the health staff which gave them much-needed confidence. The local community started frequenting SC-HWC and PHCs by adhering to preventive safety measures — using masks, handwashing (facility is available at HWC) and maintaining social distancing.

— By *Dr Biraj Shome*
HSS Consultant, Kamrup, Assam

4 Reorganization of Health Services



Source: *WHO India Country Office, EHS Review of the Public Health System, April—July 2020*

» Dantewada, Chhattisgarh

Innovations

- Home Isolation Management System — an online portal developed to help home-quarantined people
- Automated telephonic calls made available to monitor the quality of health services in COVID facilities

Challenges	Solutions
Management of dedicated COVID health centres	COVID care centres divided into three section — one for mild or pre-symptomatic cases, second for moderate cases and third for severe cases
Availability of precautionary equipments in non-COVID facilities	PPE suits and IPC measures provided even in non-COVID facilities
COVID-19 testing capacity	Testing capacity inceased and closely tracked
Containment of the spread of COVID-19	House-to-house survey to limit the spread through early detection, isolation and treatment

Revitalizing primary health care with local support

The improved and expanded SHC caters to approximately 3106 people living across four villages

Community role in implementation of health services

Established in 2000, the SHC in village Hiroli, Dantewada district, was located in one room of the Indian Postal Service office. It was also used as an emergency labour room. Due to financial limitations, limited supervision and lack of resources, health workers were giving medicines to patients residing nearby or assisting in childbirth in case of emergency.

Providing primary health services in SHC Hiroli

Collaboration between the district administration, technical support of WHO HS team, Village Health Sanitation and Nutrition Committee, Gram Sarpanch and ANMs, MPWs and ASHAs workers fulfilled the collective demand for expansion of health services at the SHC. A new location was identified and renovated to accommodate essential drugs, In-Patient Department (IPD), a fully functional labour room for institutional delivery, a small laboratory providing haemoglobin, malaria, blood sugar and other primary tests.

Accessible health services in field health facilities

The SHC caters to approximately 3106 people living across four villages.

"Primary health services at SHC, Hiroli have made the life easy for the local tribal community from this village and surrounding areas. This is a beginning towards a future with more health services for the community well-being."

– Joga Kunjam
Gram Sarpanch, Hiroli

"The local community now does not have to travel 8 km to access basic health needs. It is building people's trust in public health system and motivating health care workers."

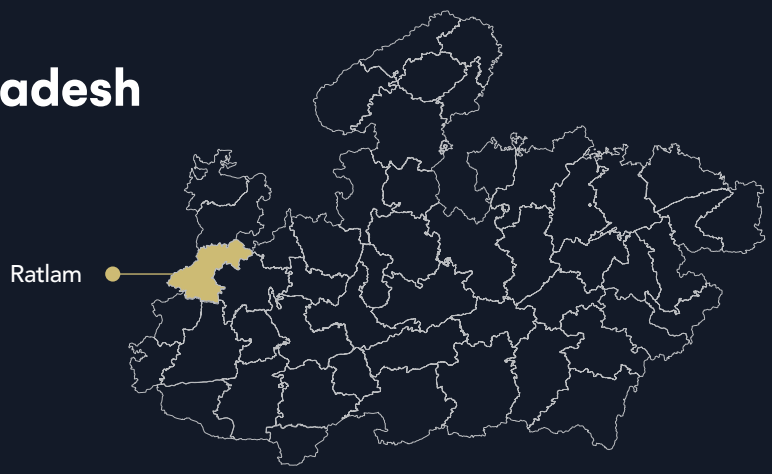
– Rajesh
MPW, SHC Hiroli

"Health care is the basic human right for any local communities. I am happy that with our strategic collaboration, the people in Hiroli and surrounding villages have access to primary health services."

– Dr Aman Mohan Mishra
DHC-HS (WHO)

— By *Dr Aman Mishra*
HSS Consultant, Dantewada, Chhattisgarh

» Ratlam, Madhya Pradesh



Innovations

- Delivery of medication through ASHAs, PHCs, and HWCs
- AYUSH doctors deployed to attend to dedicated helplines
- Dedicated COVID hospital established at newly constructed medical college hospital building

Challenges	Solutions
Staff shortage due to COVID-related duties	Contractual staff appointed at district level
Nonfunctional ambulance services with advanced life support	An MOU established with an NGO to provide ambulance with advanced life support
Transportation of suspected patients from rural areas to COVID facilities in urban areas	Ambulance from NGO and other organization used for transportation

Reassigning resident doctors to district health facilities

15 health facilities across the district had a functional Flu OPD

Challenges for continuing essential health services

During the pandemic, health staff was utilized for screening people at district borders, conducting house-to-house surveys for flu-like illness, etc. Yet, it was also essential to continue routine functioning of primary, secondary and tertiary care government institutions for all health and medical services. Moreover, guidelines recommended having a separate OPD at all PHCs, CHCs, SDH and DH for patients with flu like illness which was named as the "Fever OPD".

Intervention for functional OPDs in health facilities

The hospital and clinical services at Government Medical College (GMC), Ratlam were not yet functional when the college staff was providing health services at the District Hospital before the lockdown. Junior Residents (JRs)/ Senior Residents (SRs) from GMC were deputed to run the Fever OPD and/or regular OPD at PHCs, CHCs and SDH of Ratlam in April and May 2020. This arrangement continued for about 1.5 months.

Sustaining public health services

Dr Shailendra Labana, JR, Department of Pediatrics at GMC, started managing the Flu OPD at PHC Shivgadh from 3 April 2020. On an average, he checked 8—10 patients for flu-like symptoms every day.

> ***This is my first time working at a peripheral institute. It has been a learning experience providing my services here at a crucial time such as this ongoing pandemic.***
>
> **– Dr Shailendra Labana**

The Flu OPD was functional at 15 health facilities. The deployment of JR/SR to district health facilities by GMC, Ratlam helped in maintaining the continuity of services at public health institutions across district.

— By *Dr Chakshu Joshi*
CVHO Ratlam, Madhya Pradesh

» Warangal Urban, Telangana

Innovations

Telemedicine center — Various specialities participated and prescribed drugs to the callers through phone

Challenges	Solutions
Usage of regular ambulances for COVID-related activities	Extra ambulances hired at district level
Lack of transport for pregnant women to travel to PHC for regular ANC or Immunization	ANC services decentralized to sub centres Vehicles arranged for pregnant women who need referral to higher centers
Lack of access to health facilities for NCD patients	Doorstep drug distribution for all patients by FLWs Separate vehicles arranged for patients needing dialysis
Lack of space in some health facilities for a separate OPD for ILI cases	ILI cases identified during door-to-door survey by FLWs given advice through telemedicine

"Healing at a distance" through telemedicine

The telemedicine centre has advised 3050 patients till date

Removing barriers for health services with a multifaceted team

Imposition of strict lockdown in containment zones disrupted the transport system and closing of private clinics made essential health services inaccessible to many people. On 7 April 2020, a telemedicine centre was established in the District Medical and Health Office, Warangal to telephonically provide health services to people with minor ailments. Doctors of various specialties like gynaecology, general medicine, psychiatry, pulmonary medicine, dermatology were made available for the callers. The call transfer system also enabled consultations with specialists like cardiologist and nephrologists. Prescriptions were sent through WhatsApp or telephonically prescribed. Apart from routine care and medication, pregnant women were guided to reach AMMA LALANA (a dedicated helpline) in case of a medical emergency. Thereafter, a vehicle was arranged to shift the women to the nearest government maternity hospital. Medical advice for NCDs, renal colic, UTI, skin problems, etc. was also provided. After observing the success and efficiency of this centre, the neighbouring district (Warangal Rural) also established a telemedicine centre at CHC Parkal.

Prioritizing mental health as an essential health service

The telemedicine centre advised 3050 patients till date. The centre was functional up to 15 June 2020 and then restarted in August 2020. A psychiatrist was available through conference calls.

> ***"Through telemedicine centres, the symptoms of COVID-19 were clarified and advise given on preventive measures to remove the local community's apprehensions. To mitigate fear, panic and provide counseling to people facing psychiatric disorders, an overwhelming response was received on the number 1182 from other districts and states as well."***
>
> – Nodal Officer for Telemedicine

— By *Dr Sravan Reddy*
CVHO Warangal, Telangana

» Karimnagar, Telangana

Innovations

Cheyuta helpline set up for psyhiatric/ psychological counselling services

Challenges	Solutions
Low availability of psychiatrists for dedicated helplines	Six psychiatrists from private hospitals voluntarily manned the Cheyuta helpline
Insufficient staff to conduct surveys and maintain helplines	100 (50%) private doctor volunteers from IMA participated on-need basis for community level screening in containment zones Telemedicine manned in shifts by doctors from public and private hospitals
Dedicated helplines	Dedicated helplines for Telemedicine and psychiatry/ Psychological counselling services made available
Engagement of private sector	Involvement of private sector organisations like IMA, TANA, FOXI and private Psychiatric associations

Counselling helpline

43 calls were received and duly addressed through the helpline

Addressing fear and stress during COVID-19

COVID-19 impacted health care workers due to work stress, increased working hours and risk of infection to themselves and their family members. People who were in home quarantine/government quarantine centres/isolation centres were also under considerable psychological stress and fear. Many people could not access the treatment that was helping them before the lockdown. To provide support in a public private partnership, a counselling helpline — *Cheyutha* was started in the district of Karimnagar.

Streamlining resources for round-the-clock mental health services

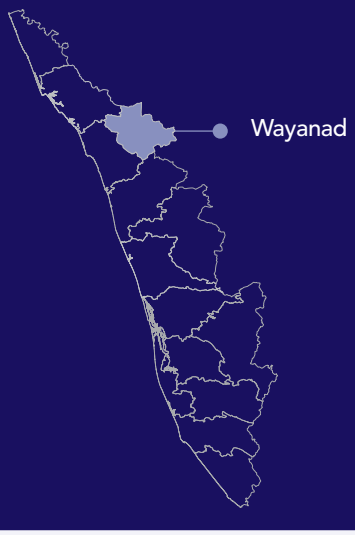
To support the only psychiatrist available in the government set up, four private psychiatrists volunteered as additional resources after a discussion between the district officials, Karimnagar Psychiatric Association and IMA. A roster was prepared based on the availability of the doctors, a free helpline number was created and widely advertised in the district newspapers and other social media. Counsellors were posted in shifts to attend all the incoming calls on the helpline, note down details and transfer the said calls to the available psychiatrist for further assistance. Details of the call, issues mentioned and resolved and other information were reported regularly to the district health officials and District Collector.

Sustaining mental health at a crucial time

A total of 43 calls were received in the month of April, which were duly addressed. This helpline proved useful in providing support to both the health care workers who were under tremendous work-related stress as well as the general public facing lockdown and quarantine related stress. The initiative started in April and functioned for two months. After relaxation in lockdown, it was stopped due to decreased demand.

— By *Dr Sreedhar*
CVHO Karimnagar, Telangana

» Wayanad, Kerala



Innovations

"Break the Chain" Campaign — for Hand washing, Sanitizing and Physical Distancing — followed and supervised by community police using drones

Challenges	Solutions
Poor internet connection in orographic areas	Internet bandwidth and connectivity expanded to internet shadow areas
Availability of dedicated helplines	Four dedicated helplines set up in the District Control Room and advertised widely Counsellors appointed Daily registers maintained on the number of calls and issues discussed
Effective advertisement of grievance redressal helpline for public awareness	State and local media assigned to make periodic announcement and post advertisements Police personnel used to monitor information availability and post photos of places where advertisements were not displayed in the district COVID WhatsApp group
Requirement of exra hands in health facilities	Tie-ups with surrounding tea estate hospitals and dispensaries Volunteers from private colleges, schools, and private medical college
Maintanence of physical distancing in health facilities	Registration counter shifted outside the hospital with crowd control barricades around it Patient entry into hospital rooms regulated to maintain distance between them and the health staffs
Access to health care services	Certain services delivered at doorsteps by young (including adolescent) volunteers

Beyond the last check–post: Tribal takeaways from COVID–19

Among the Wayanad tribes, the prevalence of wasting and stunting is 54% and 28%, respectively

Mapping Meenkolly during COVID–19

In Wayanad, most members of the tribal community cross the state border to work in Karnataka, where infection rates are considerably higher. The influx of people returning to their villages increased transmission risks and the community decided to strictly practice social distancing. Any individual displaying signs of COVID–19 was shifted to the facility in Mananthavady.

> ***Despite the circumstances, we get our food and provisions from the Government, as before. However, food is not everything. My folk want to work and earn.***
>
> **– Community Chief**
> Meenkolly tribal settlement

Understanding the Tribal Health Programme

In every colony, an anganwadi teacher, facilitator, animator, two promoters, a social worker and the colony chieftan work with representatives of the local self government department and field health staff to implement the government nutrition, health, education and welfare schemes. Under the programme, services are provided for dengue, typhoid, malaria during monsoons, monkey fever and Nipah Virus in summer as well as for natural calamities like landslides or forest fires.

> ***The Tribal Mobile Medical Units (TMMU) cater to the health needs of the colonies that are distant from the health centres. Thus, we only had to strengthen doorstep delivery of services during the pandemic this year, when the footfalls in the hospitals reduced during the lockdown.***
>
> **– DMO**
> Wayanad

Delivering health and nutrition to tribal communities

The remoteness of the district makes it inaccessible. However, with the outflow of the community into mainstream society and improved demand and uptake of health services would improve and decrease dependency on doorstep delivery. The ongoing pandemic has stopped all work and taken away sources of income. However, the Tribal Health Programme and TMMU ensure doorstep delivery of food and essential health services.

— By *Dr Mohamed Essa Rafique*
CVHO Wayanad, Kerala

Conclusion

The COVID-19 pandemic acted as a disrupter, demanding innovation and out-of-the box thinking at all levels of the health system. It threw up challenges, creating an ecosystem where the old ways of working needed adaptation and continuous improvement to ensure that people across the country continued to receive the services they required in ways that were safe and efficient. Infection prevention became a key concern in the process. Across domains, the system received a reboot in which health staff at all levels worked to revitalize a system that could have suffered a breakdown causing harm to countless people, but for their intervention. It is worth noting some key endeavors that stand out as good practices worthy of wide adoption.

Strengthening capacities of health care facilities: With travel becoming an infection hazard and some facilities being requisitioned as COVID hospitals, a process of decentralization of services took place to facilitate easy to access care for the beneficiaries. For example, dialysis services were made available at some SDHs and CHCs while sub-centres and HWCs were strengthened to provide TB and diabetes screening, delivery of babies in cases where there were no complications and sample collection for certain types of tests. Taking this a step further, doorstep delivery of services also took place, with teams of FLWs, headed by a CHO going from door to door, screening of NCDs. While strengthening of lower-level facilities was a significant step in ensuring the continuity of services,it also served to take the pressure off higher level facilities that could be repurposed to focus on dealing with the pandemic.

FLWs at the forefront of the efforts: Capacities of FLWs were also strengthened as they took on additional tasks related to monitoring NCDs at HWCs and sub-centres. ASHAs were instrumental in using community-based assessment checklists to conduct house to house screening for NCDs and developed line lists based on risk assessment for further diagnostics and management. The CBAC too was adequately managed to make it relevant and easy to follow-up in case a beneficiary defaulted in attending a designated clinic.

FLWs were deployed for fever screening, management of returning migrants, awareness generation and mobilization of community and counselling to ensure continuity of immunization, ANC and FP services.

Timely issuance of guidelines: With the second largest global population, the growing epidemic required that special efforts were made to continue the essential routine services particularly RMNCAH+N services. With more than 2.5 crore pregnancies annually, it was important to ensure the availability of services during this period as even the slightest

denial of services could have had serious impact on maternal and new-born mortalities, morbidities as well as the health care costs. Family planning and comprehensive abortion care services were prioritized with enhanced provision of safe abortion services besides post-partum and post abortion contraception. With extended periods of lockdown, it was imperative that clear guidelines were issued by the centre and that seemed to work. States and districts adapted these guidelines which ensured an increase in services coverage for SRMNACH as seen in our findings.

Using technology for service delivery: Innovative ways of delivering varied services evolved. Key among these were the effective use of telemedicine services for managing chronic conditions like hypertension and providing mental health counselling through "healing at a distance". Some telemedicine facilities also provided clients with linkages to specialists through a call forwarding system. 24x7 helplines proved to be a boon, especially for those suffering from mental health conditions during the pandemic.

Maintaining drug-supplies and preventing stock outs: Ensuring that drugs were available to health care facilities was a crucial task during the lockdown. A tool was developed whereby consolidated block-wise lists facilitated delivery of drugs to smaller facilities. At the same time, medicines were also provided to chronic patients for longer durations of time to prevent the necessity of frequent refills. To prevent unnecessary travel for drug collection, adequate transport facilities were provided and detailed listing done based on due lists from the facilities.

Managing resources: Increased demand for diagnostic equipment for COVID-19 required a reshuffling of machines to ensure that the equipment was available for diagnosis of COVID-19 but at the same time was also available for the presumptive TB testing. The finite number of machines available led to the clubbing of diagnostics in a few centres per district through securing of sample collection and transportation systems. Additionally, dormant microscopy centres were revitalized to ensure that TB testing was not disrupted. Flexibility of reimbursement for essential travel, including use of private vehicles, and other measures for securing continuity of treatment for TB patients were put in place. Transportation played a key role in keeping services functional. From transportation of samples and patients to movement of service providers required careful management of transport facilities.

Infection prevention and control: Infection prevention and control were carefully managed through innovative ways of maintaining social distancing at health centres. The no dot no spot message as well as the simple process of tying

alternate chairs with string so as to ensure adequate space was maintained between people visiting health centres proved to be cost effective, locally managed methods of enforcing the discipline of social distancing. At larger facilities, separate entrances and exits as well as segregated rooms were used as labour rooms and wards for the mother and newborn. Family members attending the newborn and mother were tested to ensure they were COVID-free before they entered the health facility. Knowledge that proper infection prevention measures were in place at health centres encouraged the uptake of institutional delivery and post-partum adoption of family planning measures during the pandemic.

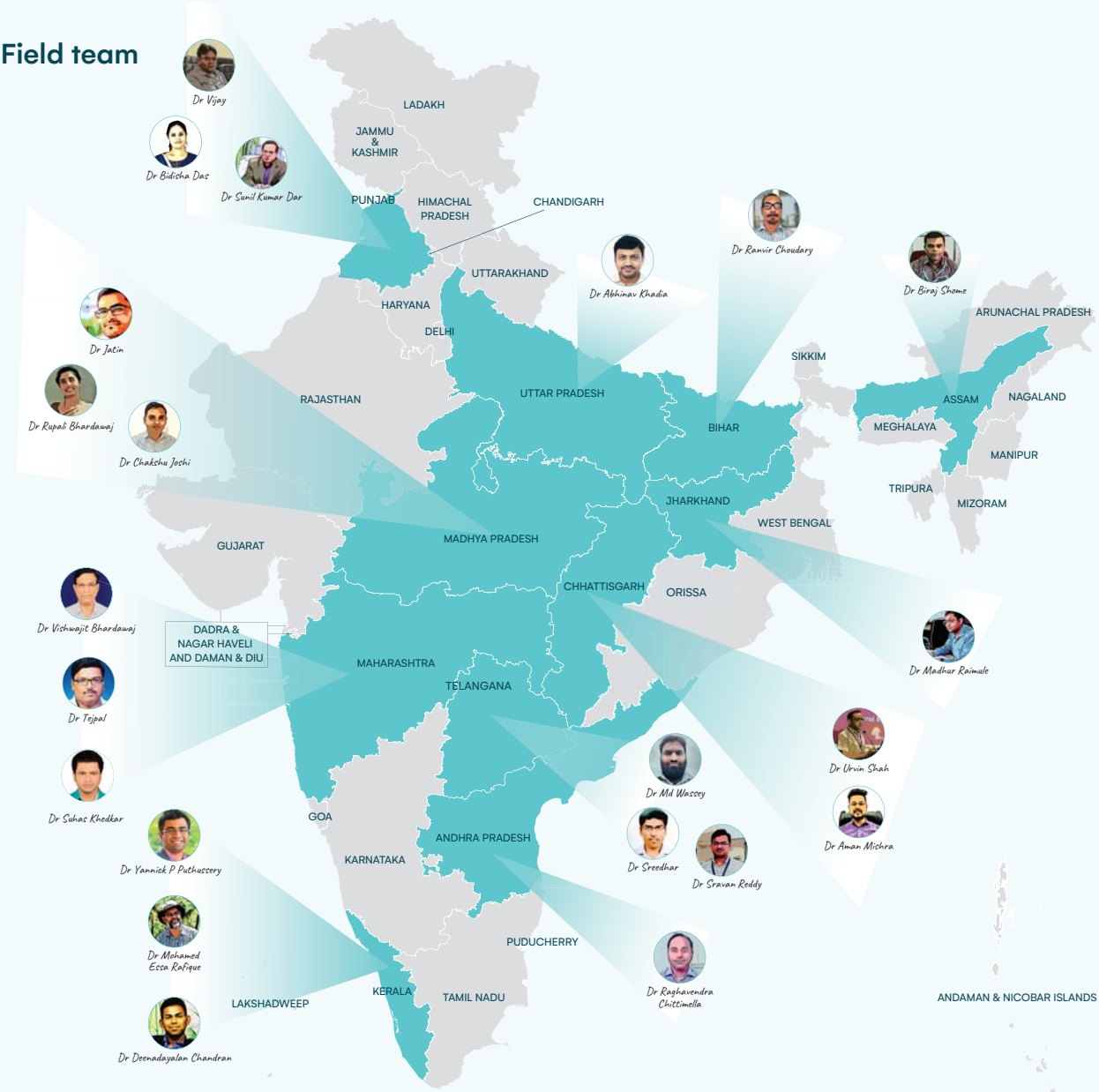
Outreach: Spreading awareness about precautions was an essential activity undertaken by ASHAs and ANMs through one-on one counselling, by painting awareness generation messages on walls. In addition, health staff worked with community leaders to encourage access of health services during the pandemic. Creating awareness of CPHCs was also undertaken. An important outreach function involved doorstep delivery of medicines and certain health services which served as an important method of ensuring continuity of services. Community leaders who have the confidence of the communities to which they belong played a significant role in mobilizing people to continue with the uptake of essential health services such as immunization and ANC as well as in encouraging hygienic practices for prevention of vector borne diseases like malaria.

Convergence: Administration, health system and the community worked together in a number of cases to work through bottlenecks and ensure continuity of services. Community level initiatives were taken and lower levels of health facilities were strengthened. A shining example of this is the setting up of a facility in Dantewada.

Documenting these local initiatives and practices is an effort at preserving the learnings from the pandemic and ensuring that they can be widely adopted and built upon in the future.

Our team

Field team



Headquarter team

Left to right: Dr Hilde De Graeve, Dr Chandrakant Lahariya, Dr Anis Rehman, Dr Priya Karna, Dr Abhishek Kunwar, Ms Sophia Lonappan, Dr Kiran Durgad

Maps in this document are for design purposes only and not reflective of accurate territorial boundaries.

World Health Organization

India