

THE SMART RESPONSES TO COVID-19

How Indian Cities are
Fighting through
Action and Innovation

Volume I



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EMERGENCY

Coronavirus disease (COVID- 19) outbreak

India takes preemptive action

The COVID-19 pandemic is undisputedly the greatest challenge we have faced since World War II. A pneumonia of unknown cause was first detected in Wuhan (China) in December 2019. Since its emergence the virus has rapidly spread across the globe.

Thermal screening of incoming international passengers from China and Hong Kong started in India on 18 January 2020. The World Health Organization (WHO) declared it a Public Health Emergency of International Concern on 30 January 2020 – the same day India detected its first case.

On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19.

Disclaimer: All inputs provided by the Smart Cities Mission, MoHUA, Government of India and compiled and processed in collaboration with WRI India.

Foreword

The COVID-19 crisis is a bolt from the blue. The first COVID-19 patient in India was diagnosed on March 1st in Kerala. Early on, the administration realized that an unprecedented challenge was brewing. From health concerns to associated socio-economic challenges, COVID-19 pushed India's civic administrations to innovate and act even as the pandemic ran its course.

Over the past three months, civic administrations have had to demonstrate adaptive leadership through times of uncertainty. They have had to employ new thinking and new tools, in a very short time, with scant leeway for trial and error. While responding to an unknown crisis of this scale, cities had to strive to maintain the delicate balance between *jaan* (life) and *jahaan* (economic well-being) as both meant one and the same thing — precious human lives had to be saved at all costs. There was no time to strategize and cities, being the worst hit, had to make innovative choices quickly and efficiently. Although problems faced by individual cities look similar at the macro level, there were crucial differences in how the crisis presented itself in each context.

India's smart cities have been at the forefront of this fight, from testing, isolation, treatment, monitoring, enforcing lockdown and using technological innovations for information processing to situation management, effective communication and predictive modelling.

The Smart Responses to COVID-19: How Indian Cities are Fighting through Action and Innovation (Volume I) compendium is an attempt to showcase how urban India has responded to the challenges posed by the pandemic. The first installment of a 2-part series, the compendium spotlights innovations at the city-level.

Key measures, taken by India's smart cities, have been captured so that those can be shared across other cities as new learnings for the new normal. However, the compendium must not be read as an exhaustive and comprehensive list of actions taken at the city-level. Instead, consider this as a curated selection of the best practices in technology enabled, people-centric responses to COVID-19.

Responding quickly and efficiently is not easy. Many at the forefront of this battle are working tirelessly, night and day, without recognition or expectations. I salute all our unsung warriors and I sincerely hope these learnings help us all in improving our resilience and shaping our country's future in the new normal.

I wish this document ignites hope and inspires confidence in the ability of our civic ecosystems and becomes a milestone in shaping our future engagements in the urban sector.



Kunal Kumar

*Joint Secretary & Mission Director
Smart Cities Mission, Ministry of Housing and Urban Affairs
(MoHUA), Government of India*

Introduction

Difficult times call for difficult measures. Our cities have the unenviable task of tackling a sudden pandemic of a global scale as never seen before. As part of this, Indian cities also had to manage one of the most stringent lockdowns in the world.

The unprecedented nature of the crisis threw most world governments off-kilter as cities scrambled to contain the virus without the luxury of time or the benefit of reflection, analysis, or consultation. India was no different, and our cities, with their high population density and cramped spaces, became hotbeds of infection. Indian cities had no option but to plunge headlong into grappling with this virulent virus.

We were thrust into the battlefield unprepared, and decisions had to be made quickly. Some of the actions taken were unorthodox. In hindsight, certain situations could have been handled differently, but time was of the essence, and the administration had to hit the ground running, learning along the way. Saving lives and reducing human casualties was the priority —everything else came later.

Even as I write this, the numbers are rising, and we have no way of knowing when these figures will taper. Amidst this unfolding scenario, **Smart Responses to COVID-19: How Indian Cities are Fighting through Action and Innovation (Volume I)** buoys hopes. It is representative of our very Indian indomitable spirit – to innovate, to learn, and to tap available resources to make the most of a challenging situation.

A compendium (in two parts) of the innovative practices adopted by cities; this publication offers a window into how 25 smart cities are working to counter the pandemic. The learnings and insights are staggered across five key categories of action — **Tracking & Monitoring, Diagnostics, Sanitization, Awareness & Capacity Building, and Citizen Support**. Many of the practices documented here have the potential for wider deployment and can serve as powerful tools in our arsenal —in our fight against COVID-19.

Tracking & Monitoring

Many smart cities deployed all-in-one mobile COVID-19 tracking apps and repurposed their existing smart city infrastructure such as the Integrated Command and Control Center (ICCC). The Bruhat Bengaluru Mahanagara Palike (BBMP) developed a **Coronavirus War Room**, in a record 24 hours. With academic insights and private partnership, the city was able to control the pandemic quite effectively. The 24X7 War Room maps all positive cases, the quarantined and health workers using GPS and geofencing, and draws up containment plans using heat mapping technology.

Diagnostics

Telemedicine, helplines, free tele-counselling, mobile clinics, and door-to-door surveys are some of the many ways in which cities are ensuring early-stage diagnostics reach its citizens. Telemedicine allowed the cities to avoid any contact with the patients and yet get their medical concerns addressed. Thane Municipal Corporation (TMC) in Maharashtra set up fever outpatient departments (OPD) and drive-through testing booths across Thane. Greater Chennai Corporation (GCC) smartly repurposed an app that was originally meant to crowd-source information on the state of existing civic infrastructure. During the lockdown, the app was converted into a **COVID Monitoring Application** with citizens able to voluntarily report their symptoms to help the administration map likely cases.

Sanitization

The Bharat Heavy Electricals Limited (BHEL) manufactured the **BHELMISTER** — a disinfectant sprayer — in four days. Many cities have adopted the BHELMISTER, which uses water mixed with a sanitizer, atomized through a spray nozzle, and converted into fine droplets. One BHELMISTER can pump out 2000 liters of disinfectant in two hours and can be mounted on a vehicle to access narrow lanes. Some cities have even opted for **drone sanitization** to disinfect areas where manual spraying is either difficult or dangerous. Varanasi *Nagar Nigam* uses drones to disinfectant hot spots, quarantined and containment areas in a bid to prevent unnecessary footfalls.

Awareness & Capacity Building

Cities are using various channels including public announcement systems (PAS) that are controlled and monitored from their War Room. Cities are also harnessing popular social media platforms, such as WhatsApp and Instagram, to raise awareness and dispel misinformation. Surat used creative thinking by carrying out innovate awareness exercises in slums through attractive wall paintings and rangoli art at all entry points. Surat also focused on **staff capacity building** with training being provided by nodal officers to all frontline responders — from medical officers and pharmacists to sanitary staff.

Citizen Support

During the lockdown many cities worked to ensure the needy received shelter, essentials and free food via community kitchens and state-run programs. **Surat's roti-canteens**

served thousands of *rotis* daily to those who needed food. During the lockdown, several cities also tied up with food delivery aggregators such as Zomato and Swiggy to ensure citizens received essential commodities at their doorstep. The Government of Rajasthan employed **GIS based mapping of food distribution points** to optimize allocation of resources. A web page was created to collect food distribution data, and monitor demand, quality and quantity of food being distributed by the government and various non-government organizations (NGOs). This ensured real-time, dynamic mapping of food requirements at distribution points and also captured the views of officers working in the field for real-time analysis.

The initiatives, captured in this publication, show that India cities are not leaving any stone unturned in their fight against the virus. Every single initiative is backed by a team, we will never know, working tirelessly behind the scenes.

Look around you and acknowledge that humble garbage collector, the tired delivery boy/girl bringing your order to your doorstep, or the government functionary rushing to work. As responsible citizens we can serve as the foot soldiers in this battle by following the basic precautions of handwashing, social distancing and wearing of masks. Our commitment to follow these norms is the only way we can break this cycle and get our cities to win this vicious fight.

While adjusting to the post-pandemic new normal, our cities will have to share best practices and learn from each other with a focus on becoming resilient and they need to plan for the residents, migrants and vulnerable communities. I hope this compendium serves as a resource to learn and share the best practices across cities in India.

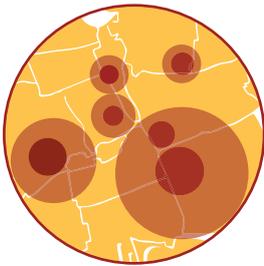
I wish you good health, stay safe.



Dr. OP Agarwal
CEO, WRI India

Tackling the Pandemic through Action and Innovation

How city governments are harnessing the power of technology to track, test, monitor, communicate and contain.



TRACKING & MONITORING

Many cities are utilizing their Smart Cities resources or deploying mobile apps and dashboards for rapid response.



DIAGNOSTICS

From drive-through testing to telemedicine, cities are testing different platforms to lessen the burden on hospitals.



SANITIZATION

All cities are conducting regular sanitization drives across the city and also work to sanitize vehicles for public use.



AWARENESS AND CAPACITY BUILDING

Social media, public address systems, mass media and apps are being used to convey facts along with capacity building modules for officials.



CITIZEN SUPPORT

Websites, helplines and ingenious apps that connect the vulnerable with help are some of the many ways cities are supporting citizens.

Agra



City: **Agra**
State: **Uttar Pradesh**
Category: **Tier 1**
Population: **1585704**
(2011 census)
Area: **87 sq.km.**

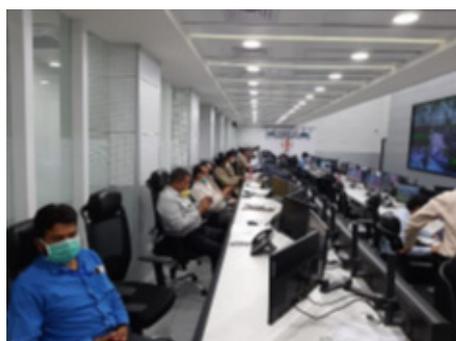
Agra is a city of historic importance and is also a centre of political, commercial and cultural activities. The principal economic driver of the city is tourism followed by crafts-based industries – both of which have been affected by the pandemic. The administration is leveraging its Smart City infrastructure to ensure effective tracking and monitoring of cases and hotspots and has created a GIS dashboard, an SOS portal (*Sarvam Setu* App) and a lockdown monitoring app among others in their bid to tackle the pandemic.



TRACKING & MONITORING

Smart City Integrated Command & Control Centre (ICCC) as a 24X7 COVID-19 War Room

A 25 member team works round the clock in the ICCC to integrate various functions of the district administration such as managing the district control room, the grocery help line, security and surveillance functions, traffic monitoring, monitoring of lockdown and live telecast of advisories through vendor management systems (VMS) and public address systems etc. Lockdown violations and crowding get reported to the police department and *e-challans* are issued to violators.



Agra COVID-19 Tracker

A GIS dashboard tracks hotspots, heat maps, positive cases, recovered cases etc. Updated daily, the dashboard <http://covid.sglgis.com/agra> is developed on the IGiS platform - an indigenous technology which brings GIS, Image Processing, Photogrammetry, and CAD together on a single platform. This platform can also cater to a multitude of solutions across industries from agriculture and defence to forestry, disaster management and urban planning.

Agra Lockdown Monitor App

The Agra Lockdown Monitoring App was made available to the administration and police personnel as required. The technology enabled video analytics that detected groups, crowds, and close proximity of people to raise an alert on field staff's mobile phones thus helping the police administration monitor the situation on ground.



SANITIZATION

Fogging and sanitization of all prominent places is being done regularly by the Agra Nagar Nigam – the process is thoroughly monitored through the GIS based dashboards and ICT based monitoring systems. All government offices and prominent public places are being cleaned and sanitised regularly.





AWARENESS AND CAPACITY BUILDING

The Smart Health Center works to spread awareness about COVID-19 with patients getting a briefing on the advisory and general consultation. The PA system, installed across 27 major junctions, broadcast COVID-19 advisories and are monitored through the ICCC. The advisory is also displayed on visual media systems installed at prominent places while 100 hoardings have been set up on unipoles to further spread awareness.



Webinar on Combating COVID-19 through Technology

As a part of the sharing of best practices, a webinar was conducted which was viewed by more than 80,000 citizens in which various information and communications technology (ICT) enabled initiatives were explained.

ZOOM WEBINAR
Date: April 6, 2020 | Time: 12:00pm - 12:45pm
TOPIC: AGRA SMART CITY COMBATS COVID-19 USING TECHNOLOGY

Key Speaker
ARUN PRAKASH IAS
Agra Smart City, India

About the Speaker
Arun Prakash IAS is currently serving as the 10th Deputy Commissioner of Agra District, Uttar Pradesh. He has worked in various capacities in the Government of India, including as an Assistant Commissioner, Deputy Commissioner, and District Collector. He is also a member of the Agra District Advisory Committee for Smart City.

Key Points

- Agra Smart City is a Smart City established under Smart City Mission by the Government of India.
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For further information please contact: Arun Prakash IAS | arun.prakash@agra-smartcity.gov.in

eGov Magazine was live.
6 Apr at 12:01

As many countries worldwide are fighting with the novel Coronavirus that has as of now has taken several thousands of deaths across the globe, Agra is... See more

Watch together with friends or with a group

54,478 views



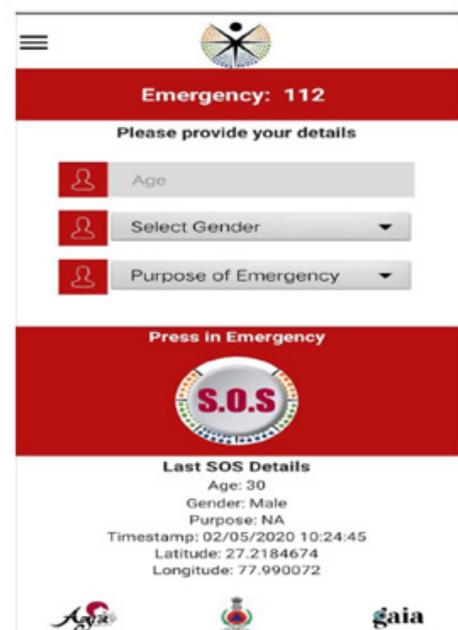
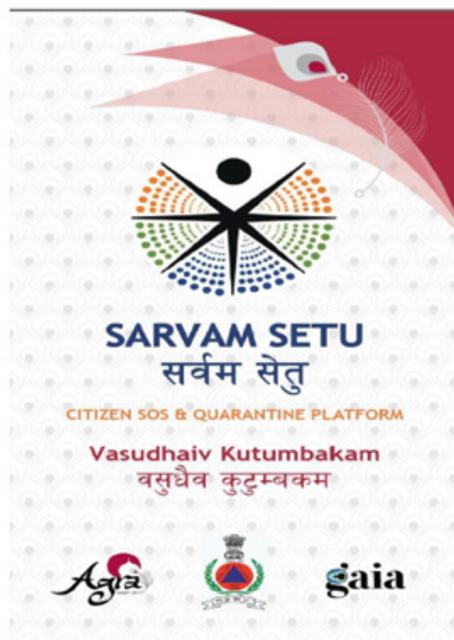
CITIZEN SUPPORT

Sarvam Setu App — SOS Portal for Citizens by Citizens

This AI driven hyper local SOS and emergency response management platform allows citizens to raise geo-tagged requests for emergency help across nine categories such as food, medicine, medical help, fumigation, case reporting etc. It also acts as a one-stop interface to access all emergency information, local alerts, nearest medical centres, and hyper local suppliers of essentials.

Citizens can select the category of help needed and press the SOS button. The alert will go to volunteers in a 300 mtrs radius and the registered personnel will receive, accept, and close incoming requests from their SmartCadre Sarvam Setu app.

The app platform consists of a multi-factor AI engine, which uses cognitive intelligence, automation and algorithms to match and allocate, within microseconds, the incoming requests to the best suited personnel based on proximity, availability, skills, task load, and other factors. The city tracks this real time data, analytics, and GIS dashboards of emergency requests and response management status.



E-Doctor Seva - Tele-Consultation Facility

This tele-video consultation facility, launched by Agra Smart City Ltd., can be accessed on <https://tinyurl.com/edoctorapp>. Supported by an app as well, doctors stationed at the Command Center conduct video appointments and give online prescriptions. On request, required medicines are also delivered home via the Smart Health Center-Pharmacy. The service also offers calls with distress counsellors.



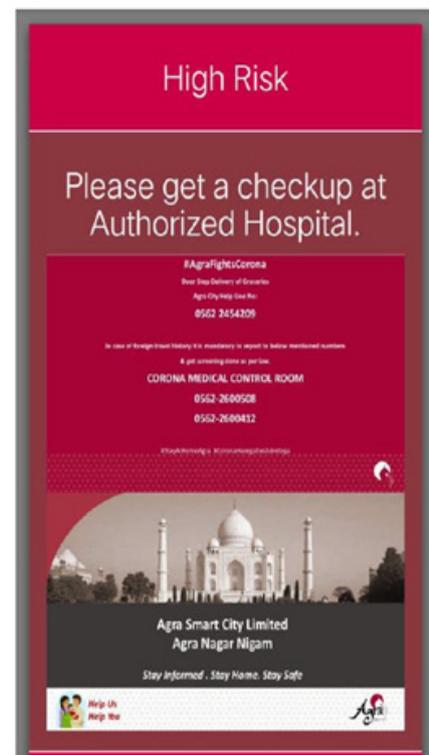
Delivery of Food & Essential Commodities

Bulk messages regarding *kirana* shops and vegetable vendors who deliver within 24 hours were sent ward-wise. Rates were fixed for various essential items to prevent hoarding and price rise. This was supplemented by a grocery helpline monitored by the War Room. The helpline guides citizens on doorstep delivery of essentials and a webpage allows people to search for nearby vendors by ward or locality or pin code. The Agra city administration & Smart City also tied up with Zomato and Big Bazaar for doorstep grocery delivery. Along with the administration's efforts, a cooked food bank has been established that collects cooked food packets from various NGOs to distribute it to the needy.



Citizen Covid-19 Self Registry platform

The Self Registry platform allows citizens to assess their health risk and create a PIN code based early risk assessment matrix that help authorities. This app, based on smart feedback SaaS platform, is powered by Microsoft Azure. This interactive web app is simple and interactive with inbuilt analytics and reports that enable authorities to see the daily picture of High, Medium, Low, or No Risk self-assessments, as well as detect trends that help in identifying early patterns of emerging hotspots. While the Azure infrastructure ensures that data is safe, secure, and encrypted, the SaaS platform can be easily scaled to include other cities. If a citizen registers a high-risk self-assessment, appropriate medical teams reach out to the individual while maintaining their privacy.

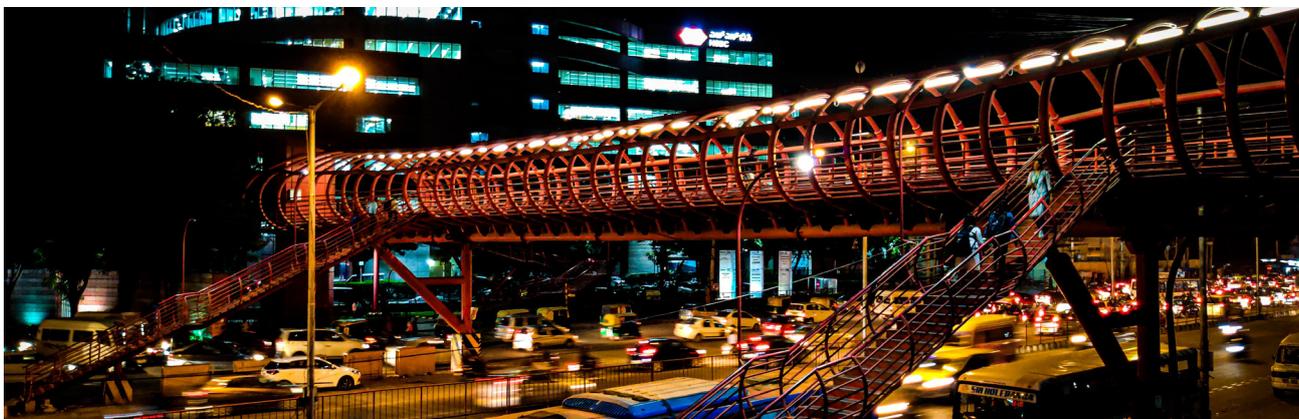


Other Services

Feeding Strays: Under the leadership of the chief veterinary officer a team has been constituted to give regular feeding to animals, dogs, monkeys etc.

Mask Distribution: A self-help group is making face covers and the same is being distributed to citizens at a cost of ₹10/-.

Bengaluru



City: **Bengaluru**
State: **Karnataka**
Category: **IT City, Tier-1**
Population: **84,43,675**
(2011 Census)
Area: **709 sq. km.**

Bengaluru is India's fifth largest city and one of Asia's fastest growing metropolises. Labelled the IT Capital of India or India's Silicon Valley, the city tapped its technological expertise to combat the pandemic. Bengaluru made use of real-time data to track and monitor positive cases and the home quarantined and also displayed its humanitarian side by delivering free food to those most affected by the lockdown — migrants and daily laborers.



TRACKING, MONITORING & DIAGNOSTICS —

COVID-19 War Room

To effectively leverage the city's technology solutions, Bengaluru's Bruhat Bengaluru Mahanagara Palike (BBMP), along with Bengaluru Smart City and support from technology partners, set up a COVID-19 War Room. The War Room, assembled in 24 hours with help from Infosys and Microsoft engineers, focuses on using real-time data to track citizens who test positive, those under home quarantine, as well as primary and secondary contacts of all positive cases. Geographic Information System (GIS) data is used to map COVID-19 case and by early April Bengaluru became the first Indian city to put out data on new COVID-19 cases daily.

The War Room runs continuously, and uses dashboards to integrate data from police, hospitals, and the health department, among others. The strategy employed creates risk profiles of neighborhoods, monitors distribution of resources to the areas that need it the most, and monitors economic activity and movement in low-risk zones.

Movement in containment zones and home quarantine is tracked through mobility data from phones, GPS and social media while Wadhvani AI, a non-profit, was involved in developing "predictive models," to determine how to open the city's economy post lockdown. GPS systems are also used to track

the movement of healthcare workers and service vehicles. Citizens under quarantine receive regular calls from the War Room over a two-week period to check for COVID-19 symptoms.

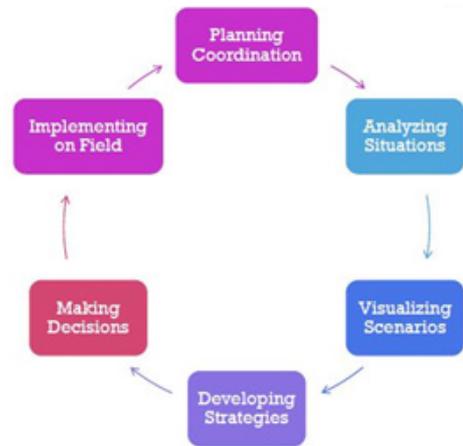
In addition, the War Room also tracks and manages contact tracing and building awareness around COVID-19. The BBMP War Room case study has been virtually demonstrated before a committee to serve as a model for other cities to replicate.

War Room Decision Support System

KEY QUADRANTS	STRATEGIES	APPROPRIATE TOOLS	MAJOR OUTCOMES
Information	Various Datasets and analysis	Dashboard	Situational analysis
Communication	Data Integration	Webpage	City to city timelines
Management	Data Visualization	GIS Mapping	Pace of progression
Integration	Source Reporting	Applications Sahaaya Sethuve , BBMP IQMS	Real-time Information
	Online Registration	Google Forms	Predictive modelling
	Simulation	Tele-Consultation	Strategic planning and decision making



War Room



Decision support system - information



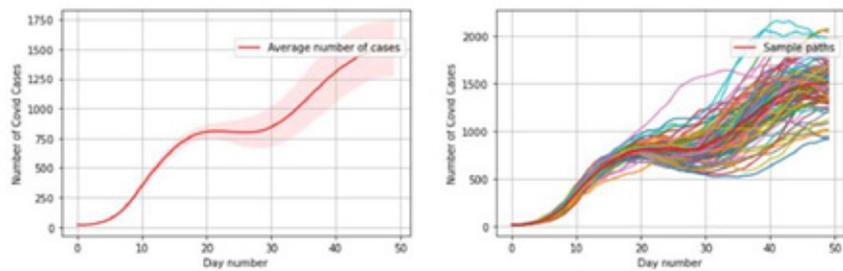
IEC sharing through all sources & media



Decision support system - management

CL-03 Time evolution – Unconventional patterns

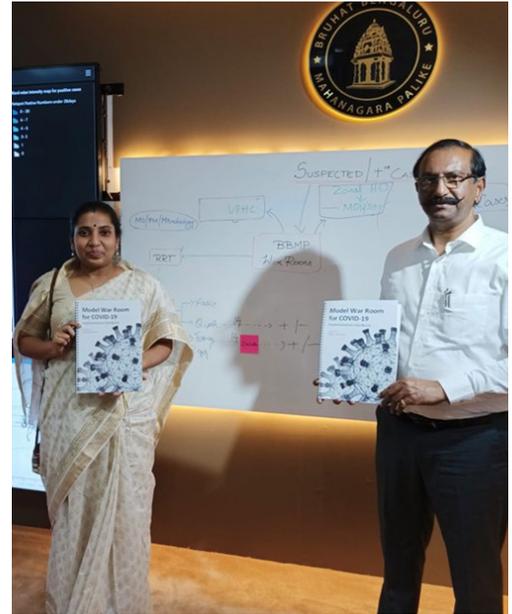
- Temporary plateaus in growth
- unlike homogenous population epidemic models



BMP COVID WAR ROOM / 21.05.2020 / Bengaluru Smart City / SmartCitiesMission / #BBMPfightsCOVID19

Predictive analysis & modelling

Bengaluru



Chennai



City: **Chennai**
State: **Tamil Nadu**
Category: **Tier-1**
Population: **4,646,000**
(2011 Census)
Area: **426 sq. km.**

Chennai, once known as Madras, is a major commercial, cultural, economic, and educational hub that is often seen as the 'Cultural Capital of South India'. In the wake of the pandemic, the Greater Chennai Corporation (GCC) established a bouquet of integrated services consisting of contact tracing, quarantine monitoring, symptomatic assessment, identifying suspected cases and offering psycho-social support through tele-counselling among others.



TRACKING & MONITORING

Greater Chennai Corporation (GCC) set up a Tele-Counselling Center on 26th March 2020 that works in three shifts round the clock. The Center was initially set up to track the health status of international travelers and others in self-quarantine. It has since expanded to contact tracing of patients, quarantine monitoring, symptomatic assessment and identifying suspected cases besides becoming the common link to various services. The Center is staffed with medical officers, social workers, psychologists and counsellors associated with Loyola College Chennai and further supported by 200+ volunteers working from home.



DIAGNOSTICS

Telemedicine

An app called 'GCC Vidmed' gives direct access to doctors 24X7 via video calls or telemedicine.

Psycho-Social Support

The GCC Center provides a variety of services based on WHO and IFRC

guidelines and handles both incoming and outgoing distress calls. When a call is received, basic details are captured, and the citizen is transferred to a counsellor or a medical officer basis their needs. If there is a suspicion of symptoms the patient is referred for examination, testing and follow-up.

Contact Tracing

The medical team ensures the hospitalization of COVID-19 positive patients during the contact tracing process. Contacts are traced by the memory recall method for a period of 28 days to identify the primary case, index case and the source of infection. The contacts with high-risk levels and with influenza-like illnesses (ILI) and severe acute respiratory infections (SARI) symptoms are referred to the Rapid Response Team (RRT) for further action.

Tracing Unlinked Cases

This is a unique set of persons who have tested positive but do not know how they got infected. Doctors and volunteers work together to find the missing link to these unlinked cases.



CAPACITY BUILDING

The Center provides contact tracing training and follow up call trainings to all associated personnel including volunteers. Trainings are also conducted for police officials and sanitary officers and inspectors.



CITIZEN SUPPORT

The GCC Center now acts as a common platform for medical, emergency services, social work, psychology, engineering, and public health officials to ensure quick coordination. The total time taken to respond to a person who needs support is not more than 6 hours on an average. If calls are received, that indicate a need for food or medicinal support, the same is communicated to the zonal officers immediately to ensure speedy delivery.

Jabalpur



City: **Jabalpur**
State: **Madhya Pradesh**
Category: **Administrative Centre, Tier-1**
Population: **10,55,525 (2011 Census)**
Area: **367 sq. km.**

Jabalpur city is the administrative headquarters of Jabalpur district. The first positive case in the state was registered in Jabalpur. Given this background, the city administration lost no time in acting, coordinating with various departments such as the police administration, health department etc. to establish a unified control room. Jabalpur Smart City Limited (JSCL) also developed a surveillance platform as well as a citizen centric online grocery solution among others.

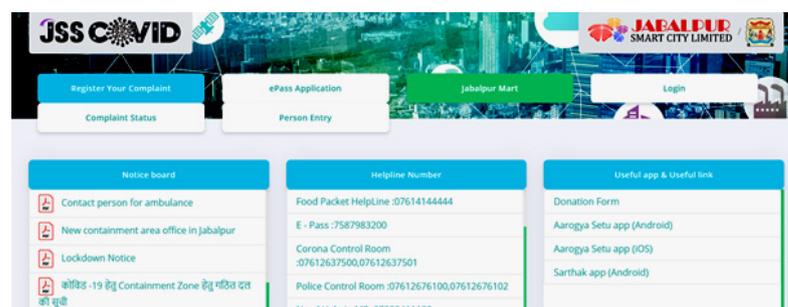


TRACKING & MONITORING

The Jabalpur Smart Surveillance COVID platform (JSS-COVID)

JSS-COVID is the one-stop solution for all activities of the control room, health, police, municipal corporation, district administration and citizens of Jabalpur.

JSS-COVID caters to a huge quantity of data including COVID-19 positive contacts, e-pass lists, entry-exit checkpoints, fever clinic information, details of symptomatic cases, data from the Arogya Setu app and call centre data. Daily calling and quarantine status checks are also made from the control room while symptomatic patients, from non-containment zones, have access to telemedicine video calls which are done by doctors from the control room. All the complaints received through social media platform are also resolved through this platform.



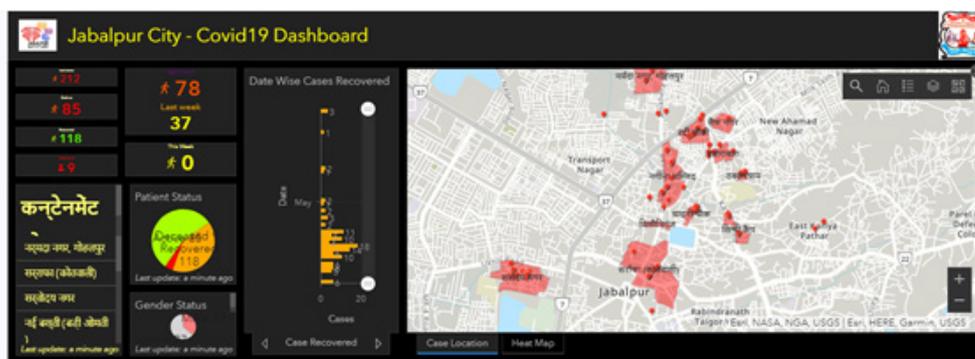
Important orders issued by the district magistrate office are displayed on this portal for the public's convenience. The e-pass system of MAP-IT, which is mandatory to travel from one district to another, is also available on this portal. Volunteer registration and charity -on- wheels are other highlights of this platform.

Contact Tracing Tree

Once a positive case is confirmed, a team of community medicine doctors visit his/her place of residence and identify high-risk and low-risk contacts. These citizens are also kept under quarantine and monitored via the JSS-COVID platform that creates a tree of all the contacts and co-relates this with previously identified positives.

GIS Platform

All COVID-19 positive patients, their location and containment zones are marked on a GIS map integrated on the JSS-COVID platform. The containment zones are mapped according to demography, topography, accessible route etc. This dashboard is integrated to the Jabalpur Smart Surveillance app. This dashboard also showcases positive cases — date-wise, ward-wise and age-wise. A similar parallel dashboard is also created to map all the samples taken from different containment zones. This dashboard also compares the samples taken vs positive cases clocked. Actual barricading points are also given as inputs to police teams and the municipal corporation.



Border Checkpoint Monitoring

Gram rozgar sahayaks are deployed at various border check posts with visitors geofenced and their attendance marked daily on an app version of JSS-COVID. People entering various check posts are quarantined for 14 days and tracked through this app and symptomatic among those are recommended for testing.

Rapid Response Team Attendance

Jabalpur district has 79 wards and the district collector has deployed a senior officer for resolution of complaints at the ward level. The officer coordinates with the incident commander (SDM), municipal corporation (zonal officer) and concerned town inspector of police. Every officer is geofenced in his ward and he/she marks attendance on this platform twice a day which is monitored by the incident commander and the district collector.



DIAGNOSTICS

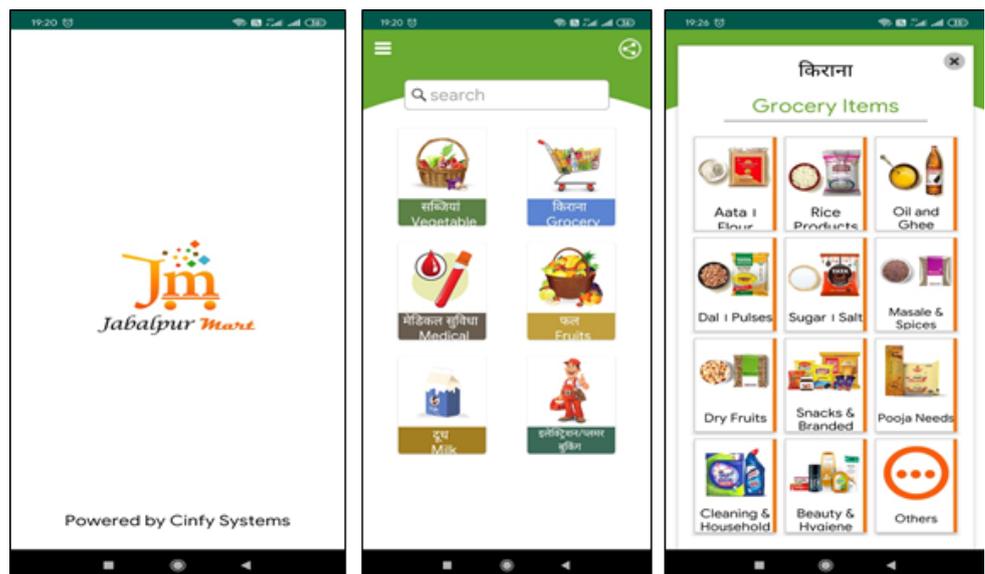
All the incoming calls and category B and C calls of the CM HELPLINE are given telemedicine facility and they are also recommended for testing. Check-in calls are also conducted to track a symptomatic person's status and testing is done accordingly by the health team.

Addressing Citizens' Grievances

All complaints are resolved through JSS-COVID. Complaints related to food packets and distribution of ration packets to poor and needy are also dealt with on the JSS-COVID platform. All junior supply officers and *nagar nigam* zonal officers are mapped according to their jurisdiction.

Delivery of Essential Commodities & Services

The Jabalpur Mart app covers door-to-door supply of essential items including vegetables and fruits. Residents can also request for home appliance repair services including electric, plumbing, RO repair, mobile repair, laptop repair, AC repair etc.



Jaipur



City: **Jaipur**
State: **Rajasthan**
Category: **Tourist and Trade, Tier-1**
Population: **3,046,163 (2011 Census)**
Area: **484.6 sq. km.**

Jaipur holds the distinction of being the first planned city of India. The principal economic driver for Jaipur is tourism followed by trade. The administration is using technology such as drones to monitor containment zones and has created the JSCL HELP- COVID-19 web page with information about helpline numbers and food distribution points. Online consultation for symptomatic citizens and the setting up of shelter homes for the needy are other citizen support services being provided.



TRACKING & MONITORING

Tracking

Jaipur Smart City Limited (JSCL) has set up a 24x7 War Room and helpline for COVID-19 queries and lockdown support. Given the congested wall city areas, containment zones are under drone surveillance that gets monitored from the Abhay Command and Control Centre. Lockdown implementation was also undertaken using drones supplemented with the city's CCTV cameras with the entire surveillance being monitored from the control center.

Monitoring

Monitoring of citizens in quarantine is done through GIS using the COVID Info mobile app. If someone moves away beyond the prescribed limits an alert is generated at the monitoring authorities' end and action is accordingly taken. Monitoring of migrant workers is also done and their health report is captured through the RAJNET app.



DIAGNOSTICS

Symptomatic patients and those with any other medical conditions can access online consultation with doctors through the *Sehath Sathi* App and receive prescriptions. A free follow-up for seven days is conducted by the doctor.

Through the app, patients can also receive free home delivery of medicines from registered medical stores. In addition, movement passes could also be applied for, through the app with the user intimated if his/her pass is approved or rejected. To curtail spread, thermal sensors are being used to check people entering offices.



SANITIZATION

All societies across the city are sanitized periodically. Fire tenders are being used to spray sodium hypochlorite solution to ensure comprehensive surface disinfection.



AWARENESS

The JSCL HELP- COVID-19 web page lists helpline numbers, concerned officers' details, food distribution points etc. Donation to CM relief fund or donation of food/ essential items can also be done through this interface.



CITIZEN SUPPORT

E-Bazaar COVID-19 App

The Department of Information Technology & Communication (DOIT), Rajasthan, along with Dealshare has made an E-bazaar app to link *kirana* stores, wholesalers and distributors. This app enables citizens to purchase essential items online by locating the nearest retailers while retailers can locate the nearest wholesalers.

Helpline

A COVID-19 helpline was set up for citizens that answers queries around the pandemic and the lockdown.

Food Distribution

GIS based mapping of food distribution points was done to optimize allocation of resources. The Government of Rajasthan provided food at the doorstep of needy persons. A web page was created to collect food distribution data, and monitor demand, quality and quantity of food being distributed by the government and various non-government organizations (NGOs). This ensured real-time, dynamic mapping of food requirements at distribution points along with capturing the views of officers working in the field.

Social Distancing and Care

Social distancing is being maintained at all public places with proper demarcation and officials have been nominated in each zone for strict implementation and reporting. Shelter homes for migrants and the homeless have been set up with proper facilities, sanitization and food.

Kota



City: **Kota**
State: **Rajasthan**
Category: **Education**
City, Tier-1
Population: **10,01,694**
(2011 Census)
Area: **527 sq.km.**

Kota is the 25th largest district in Rajasthan and is known for its coaching institutes that prepare students for competitive exams. About 2 lakh students, between 15-19 years, flock to Kota every year. The COVID-19 pandemic saw Kota Smart City Limited (KSCL) tying up with healthcare platform MedCords to tackle the situation. The city focused on ensuring the needs of the student community were met along with the repatriation of coaching students during the lockdown period.



DIAGNOSTICS

Aayu App: Home Consultations

The Aayu App offers citizens secure free consultations with specialist doctors. Callers can also instantly share their prescription with nearby medical stores to order medicines. Kota city is also enabling this app in corresponding smart cities and tapping the hyper local digital health ecosystem to improve the experience.

Sehat Sathi App: Connecting for Medical Help

Geared towards non-smartphone users, the *Sehat Sathi* app connects all medical stores, *e-mitra* centres and other customer service points to extend Aayu healthcare services. This app also connects citizens for consultations with specialists and registered doctors. Users without smartphones also have access to the National Healthcare Helpline: 7816811111.

Free Doctor Portal: Consulting Verified Professionals

A free patient-doctor portal for registered practitioners has been created — practitioners are verified by their degrees and experience certificates.

Thermal Screening: While Boarding Buses and Trains

Medical screening of students heading out of the city was done by deploying medical teams from the Chief Medical and Health Officer (CMHO) who used thermal guns for screening. One team was deployed for every three buses and twenty medical teams were on standby for every train.



SANITIZATION

Kota *Nagar Nigam* ensured proper sanitization and disinfection of buses and trains with sodium hypochlorite before students began the boarding process.



CITIZEN SUPPORT

Student Helpline and Counselling

Dedicated student helplines were set up to address students' queries. Student counsellors were deputed for every 50-100 students to ensure their psychological care and well-being.

Supplying Food to Students

Dedicated teams were set up to ensure students residing in Kota's numerous hostels received adequate food. Provision of food, water and masks were made for all students boarding buses/trains for their hometowns.

Facilitating Movement of Students

An online form gathered information about students seeking to go back to their hometown. The form was publicized in newspapers, prominent social media channels, by various local personalities and by coaching institutes. Students received SMS alerts regarding boarding times and social distancing was followed with 25-30 students in a 50-seater bus once the coaching ID-card, SMS and address were verified. Volunteers and civil defense members assisted students in the boarding procedure and in luggage storage.

A total of 1048 buses and 16 trains were used, to send 28,491 and 18,196 students, respectively. Every student was medically screened at the time of departure and a line list was prepared. Kota city united a total of 46,687 students with their families using state-sponsored trains and buses.



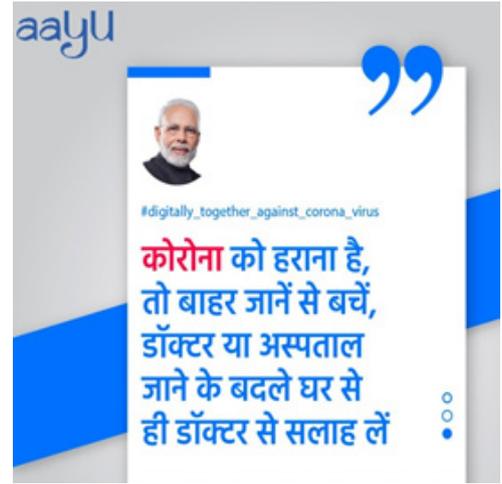
Screening of students before boarding



Students waiting, flagging off train to Bihar



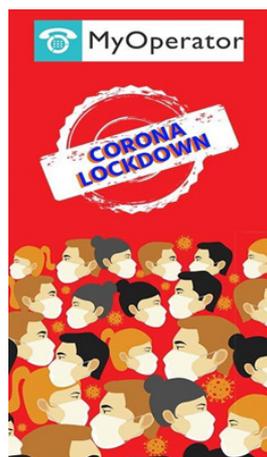
Medical screening, social distancing while boarding, seating



Leaflets distributed to every household.



Media coverage



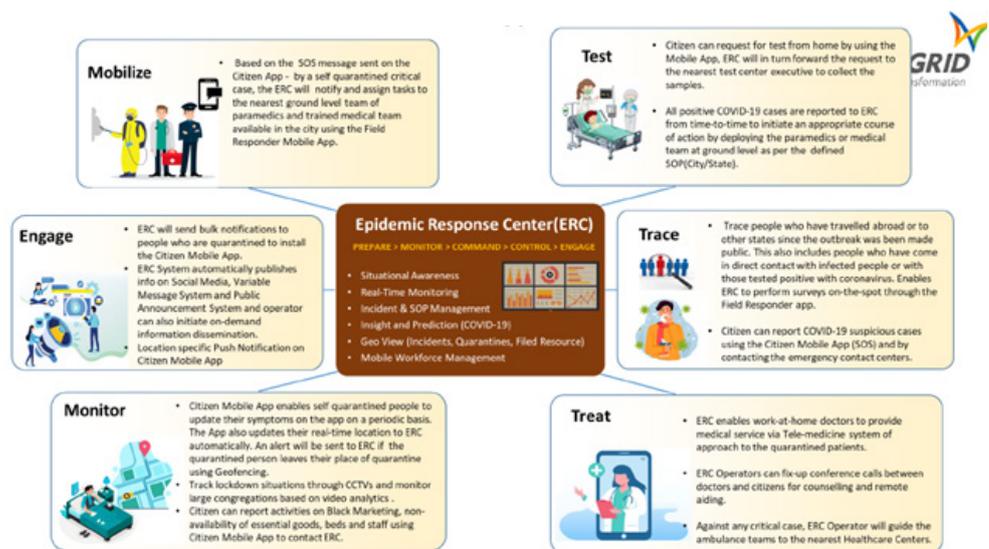
Accurate live information for users

Lucknow



City: **Lucknow**
 State: **Uttar Pradesh**
 Category: **Tier-1**
 Population: **28,17,105**
 (2011 Census)
 Area: **349 sq.km.**

Lucknow is a multi-cultural city famed for its beautiful gardens, poetry, and fine cuisine. Lucknow Smart City Limited (LSCL) has adopted various measures to fight COVID-19. LSCL is using the 3T MEM approach of Test, Trace and Treat followed by Monitor, Engage and Mobilize. The city has incorporated the Integrated Command and Control Centre (ICCC) dashboard metrics to create a platform that offers real-time updates of COVID-19 cases. Creation of the Lucknow One mobile app for citizens, a Field Responder mobile app for staff and free telemedicine are a few of the technological solutions being deployed.



3TMEM Approach

CITIZEN FACING		ADMINISTRATIVE FACING	
1.	Self-quarantine registration and health status updates through the Lucknow-One mobile app and citizen portal.	1.	The ICCC COVID-19 dashboard provides a Common Operating Picture (COP) to enable timely decision and action support by city authorities.
2.	SOS-based incident reporting through Lucknow-One mobile app and helpline for emergencies, test requests etc.	2.	Field Responder mobile app for handling sanitization, isolation, survey of effected areas etc. on a real-time basis for immediate action.
3.	Citizen can report civic issues through the Lucknow-One mobile app such as non-availability of essential goods, unavailability of beds and staff in hospital etc.	3.	ICCC spatial view for hotspot related activities through monitoring activities, sanitization, isolation and surveys. ICC also uses prediction forecasting for the upcoming 14 days for decision-based actions.
4.	Notifications and announcements on the Lucknow-One mobile app, visual media displays, social media etc.	4.	Automatic classification of self-quarantine citizens as mild, moderate and critical. Accordingly arranging conference calls between doctors and citizens for counselling and remote aiding.
5.	Hello Doctor helpline enables citizen to consult doctors online for free.	5.	ICCC dashboard shows the doctor availability based on the online consent taken from the doctor.



TRACKING & MONITORING

Integrated Command and Control Centre (ICCC): Common Operating Picture

The COVID-19 dashboard provides a Common Operating Picture (COP) to enable timely decision and action support. The COP covers key data points such as active, confirmed and recovered COVID-19 cases, the deceased and quarantined trends, age, gender and location-wise distribution of positive cases and real-time classification of quarantined citizens' health status along with notifications of zone-wise citizen grievances such as improper food supply, black marketeering of essentials etc.

The COVID-19 dashboard also highlights the number of COVID-19 tests being conducted with a breakdown of positive, negative, discharged and awaited cases. The monitoring of isolation wards, COVID-19 hospitals and hotspots (covering information such population, number of households, positive cases in that area) are also done from the ICCC.

The ICCC platform triggers a standard operating procedure (SOP), against any incident, automatically notifying the nearest health, sanitation or police team. The field staff have access to a Field Responder mobile app that gives them real-time task updates to ensure quick action.

Standard Operating Procedures (SOPs) for Emergency and Civic Incidents

Lucknow Smart City Limited (LSCL) has set SOPs that are being adhered to for the following situations: COVID -19 positive cases, hotspot isolation, medical emergencies, COVID-19 suspect cases, self-quarantine cases, test requests, medical staff being attacked, improper food supply and gatherings that flout social distancing.

COVID-19 Prediction Model

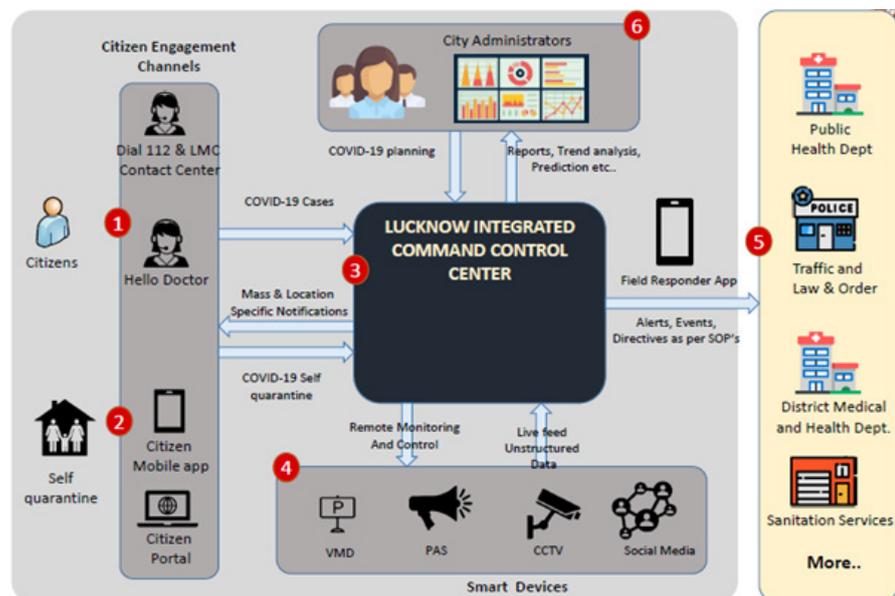
The ICCC dashboard enables real-time prediction or forecasting for 14 days by considering city-level historical data. This enables Lucknow city authorities to plan ahead, and make decisions regarding testing and provision of beds and ventilators along with ensuring required inventory is put in place.

Monitoring Self-Quarantined Citizens

LSCL's Lucknow One citizen mobile app and portal enables self-quarantined citizens to submit their symptoms on a periodic basis and the same is updated real-time on the ICCC dashboard by tracking the user's GPS coordinates. The ICC platform also triggers an alert if a self-quarantined person moves beyond the prescribed geofence. The dashboard visualizes real-time geo-tagging data of self-quarantined persons such as their location and their health condition with appropriate classifications of mild, moderate and critical markers on a map. Authorities can drill down further to know more about the quarantined person such as their name, mobile number and exact symptoms that includes a one-click provision to call the person as well.

Action Taken Reporting (ATR): Medical, Police and Sanitation

Police, medical and sanitation staff use the Field Responder mobile app to take an audio/video recording or an image of the response undertaken along with appropriate remarks. The areas covered for ATR include hotspot containment, sanitization, crowd control at hotspots etc. Hotspot areas are clearly marked up to a distance of 1 km and entry/exit points have barred gates. Furthermore, all citizens in the area are examined for COVID-19 symptoms.



Lucknow ICCC Map view

Monitor Hotspots

Monitor the situation across a given territory to tag and link all positive cases and suspects, identify clusters and hotspots, analyses trends, patterns and factors affecting the same, attend to citizen grievances and monitor KPIs that help assess the current stage of the epidemic to trigger relevant SOPs

Mobilize Resources

Mobilize medical and field staff to attend to emergencies, test suspects, move patients and suspects to isolation/quarantine centers, ensure availability of medical supplies, ensure food and other essential supplies during lockdown and so on.

COVID-19 NETWORK ANALYSIS

PLAYBACK COVID-19 NETWORK ANALYSIS

Hotspots Confirmed Recovered

Lucknow ICCC Heat map

Heat map and Playback of COVID-19 outbreak spread by ward wise on the Active, Confirmed, Recovered, Deceased, Quarantined COVID-19 cases.

COVID-19 NETWORK

Hotspots Confirmed Cases Self Quarantine

Lucknow ICCC network analysis of COVID-19

Hotspot, Positive and Quarantine cases



Lucknow ICCC Covid-19 Prediction Model

Citizen Grievance Status Report - Zone Level
 From: 1-1-2020 To: 23-4-2020 11:58:59 PM

Top 5 Citizen Grievances

Zone	Complaints
Zone 1	276
Zone 2	150
Zone 3	100
Zone 4	80
Zone 5	60

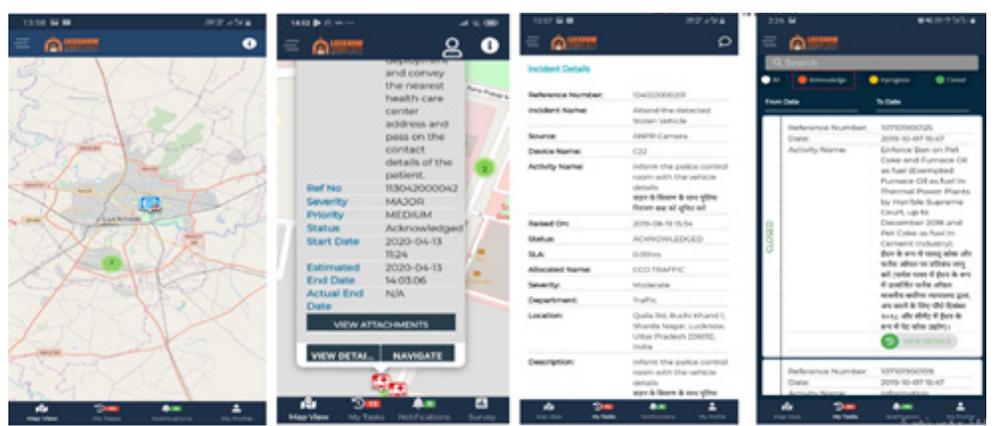
Zone	Complaints	Resolved	Not Resolved	Under Review	On Hold	Escalated
Zone 1	276	150	100	20	10	5
Zone 2	150	80	60	10	5	5
Zone 3	100	50	50	5	5	5
Zone 4	80	40	40	5	5	5
Zone 5	60	30	30	5	5	5

From Date	To Date	Open Incidents	Pending Incidents	Closed Incidents
1-4-2020	24-4-2020	1	2	0
1-4-2020	24-4-2020	2	3	0

Lucknow ICCC Covid-19 Reports

Lucknow One Citizen App

- COVID-19 Self Quarantine Registration
- SOS (Report Critical & Suspicious COVID-19 Cases)
- Excessive Pricing of Essential Commodities (Vegetables, Groceries & Pharmacies)
- Improper Sanitization & Request for Sanitization

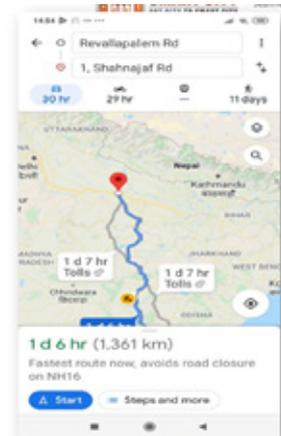
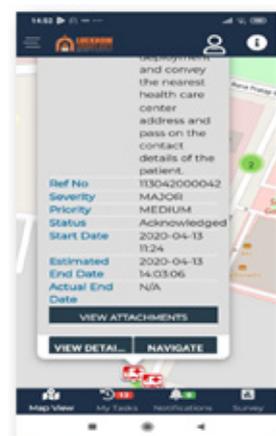


View new incidents & Task details

Lucknow



Incidents related Tasks to field team inline with SOP



Navigation option provided to reach the incident location



Hotspot Sanitization Activity update on Lucknow ICCC



DIAGNOSTICS

Actelligence COVID 19 Survey Form

Public health ground level team undertake risk assessment surveys within a 3-kilometer radius of a hotspot. The data collected is matched against possible contacts using the Field Responder mobile app or the ICCC dashboard platform.

Hello Doctor Program

Connecting top doctors from the city’s most trusted hospitals, LSCL’s Hello Doctor program is a free of cost service for non-emergency medical care. This special telemedicine facility is a single number multi-channel IVR system that offers consultations from 150 doctors across 22+ specialties via chat, audio and video call. The program also offering dedicated psychological care and consultation and citizens are urged to call the toll-free number 0522-3515700. The number also offers home delivery of medicines by connecting users with their nearest pharmacies. Citizens can also book a consultation online by logging onto LSCL’s official website - www.lucknowsmartcity.com

Online Doctor

COVID-19 Hello Doctor

To Avail the Service Please call:
0522-3515700

E-OPD Seva
<https://tinyurl.com/HelloDoctorLSCL>

Lucknow Smart City

COVID-19 UPDATES PHOTOS & VIDEOS +91 63893 00367 HELPLINE NUMBER : 0522 351 5700

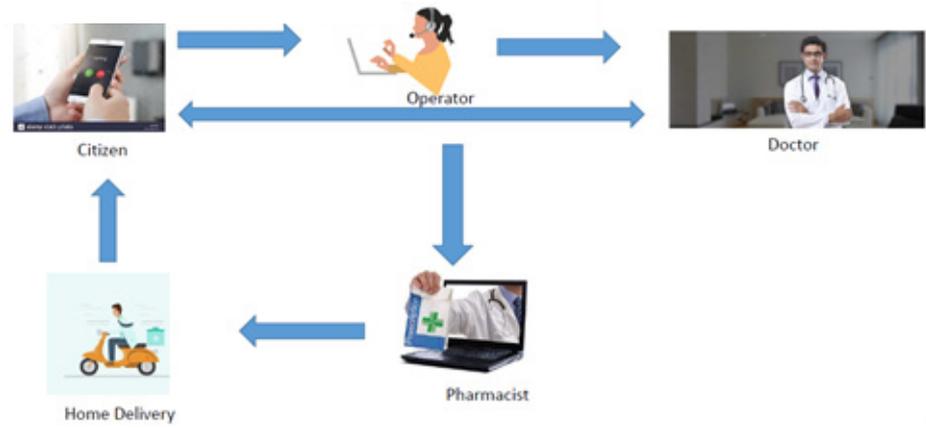
DON'T PANIC. WE ARE WITH YOU

HOME DELIVERY OF MEDICINES FREE TELE-CONSULTATION PATOLOGY DIAGNOSTICS

TELE-CONSULTATION AVAILABLE FROM 10AM TO 5PM (MONDAY TO SATURDAY)

A SPECIAL FACILITY OFFERED BY LUCKNOW SMART CITY COVID-19 CONTROL & COMMAND CENTRE

Hello Doctor - Web Page



Hello Doctor - Web Page

HAPPY CITIZENS

I had this acute pain in stomach and I am thankful to Hello doctor service, they resolved and gave me a home remedy which in turn gave me relief in just 30 min.

SURAJ SINGH
Ashiyana, Lucknow

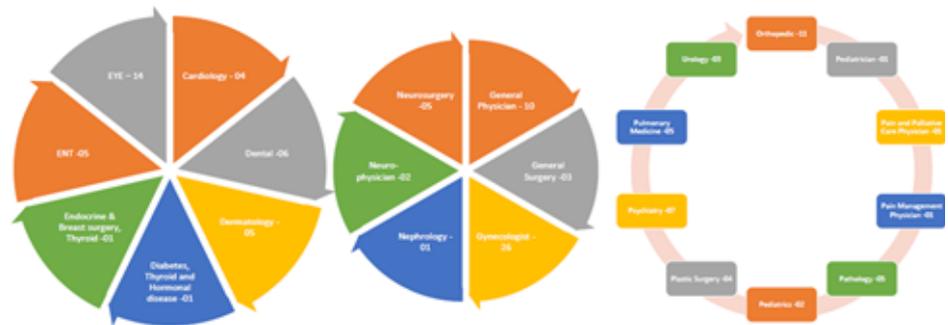
I recommend this service. Very useful and essential service.

MOHD. AYAAN KHAN
Gomti Nagar, Lucknow

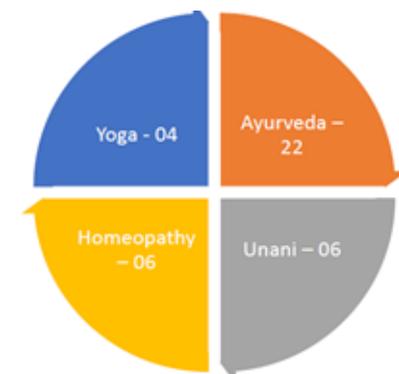
"I was very satisfied after calling Hello Doctor Service number as offered by Lucknow Smart City Ltd. The operator was very quick in understanding my problem and connected me to the right Doctor on the same call. The doctor was also very experienced. I have recommended this service to many of my family and friends."

HARSHIT GUPTA
Aliganj, Lucknow

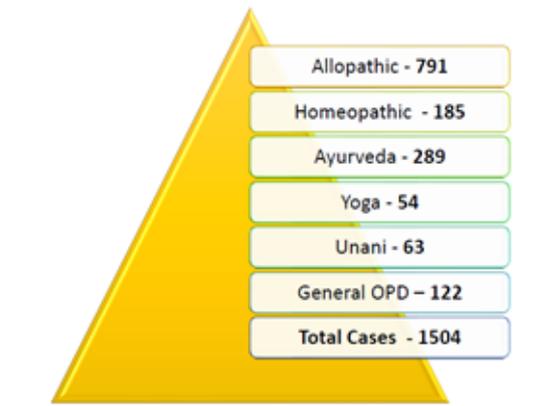
Hello Doctor - Web Page



Hello Doctor - Web Page



Doctors availability in other Disciplines



Specialty wise Citizens call detail



AWARENESS

LSCL regularly updates their social media channels and uses the ICCC to tap public announcement systems for on-demand information dissemination.

Target KPIs	Target	Achieved		
Overall Reach	15,00,000	Facebook + Instagram	16,13,316	32,52,352
		Twitter	4,78,182	
		App Promotion	9,30,076	
		YouTube	2,30,778	
Overall Impressions	20,00,000	Facebook + Instagram	20,83,024	37,22,060
		Twitter	4,78,182	
		App Promotion	9,30,076	
		YouTube	2,30,778	
Overall Engagement	1,50,000	Facebook + Instagram	2,51,048	3,81,138
		Twitter	52,415	
		App Promotion	21,218	
		YouTube	56,457	
Video Views	50,000	YouTube (Skippable Ads)	56,457	2,85,111
		Facebook + Instagram (3- Seconds Ads)	2,28,654	
Social Media Creatives per Month	150	Total Social Media Creative Published	250+	
Total Video Ads in 90 Days	24	Total Video Ads Published	5 Published	19 Remaining
App Installs	Maximum	Total Confirmed App Installs	1,646	

Fluentgrid Limited

Social Media campaign overview 13th April- 12th May 2020

Madurai



City: **Madurai**
State: **Tamil Nadu**
Category: **Temple City, Tier-1**
Population: **14,65,625 (2011 Census)**
Area: **148 sq. km.**

Madurai City is synonymous with the Meenakshi Sundareswarar twin temple — the pivot around which the city has evolved. The administrative headquarters of the district, the city administration of Madurai, in its fight against COVID-19, has barricaded all the entry points of containment zones. Vehicles are arranged to supply vegetables and proper sanitization and medicine distribution is being done throughout the city.



TRACKING & MONITORING

A 24X7 control room has been established for COVID-19 monitoring with containment areas being under constant surveillance. Minute-by-minute updates and follow-up of activities are done through the control room by staff exclusively deputed by Madurai Corporation. An Android application called *Namma Madurai* has also been developed to serve people in all aspects. All containment zones are being barricaded using metal sheets to restrict movement and curtail spread.



DIAGNOSTICS

Citizens in containment zones are tested daily for respiratory infections such as influenza-like illness (ILI) and severe acute respiratory infections (SARI). Kapasura kudineer, zinc 150 mg, vitamin C 500 mg and arsenic album tablets are being distributed to the public and staff working in containment zones. Medical checkup for all sanitary workers is being done twice in the week while special vehicles are deployed to ensure sanitary workers can commute to their place of work without any trouble.

In the non-containment areas, mobile clinics have been formed for the screening of influenza-like symptoms. Treatment of minor ailments and free of cost distribution of drugs for hypertension and diabetes mellitus is also being done. A dedicated mobile sample collection vehicle is used in the field for lifting ILI samples from containment zones and other areas.

To counter the stigma around COVID-19, patients' family members are being counselled by trained counselors and doctors. Psychiatric counseling is also being given to all who have been treated and discharged. Furthermore, a helpdesk has been set up in every containment zone.



SANITIZATION & WASTE MANAGEMENT

Disinfection is carried out in three shifts in containment zones using spraying machinery. Separate solid waste management (SWM) vehicles are being used in containment zones for collection of biowaste garbage with proper precautions. Yellow bags are being used for collection of used gloves and masks. Sanitary workers in containment zones have been given safety equipment such as masks, gloves, gumboots etc. and are screened daily with a thermal scanner. Disinfection teams have also been provided with PPE kits consisting of full cover, safety glasses, masks, shoes and gloves.



AWARENESS

Hand washing awareness stickers with the telephone number of the control room and contact details of medical teams have been pasted in all houses. Public addressal systems have been fitted in 100 Madurai Corporation vehicles and these are used to raise awareness continuously in the morning and in the evening. Flex banners, posters and notices have been posted in key areas to create awareness on COVID-19. Best hand washing practices are being explained at many public locations in collaboration with volunteers.



CITIZEN SUPPORT

Supply of Essential Commodities

A fleet of light commercial vehicles have been engaged to supply vegetables and fruits in all the wards — thus avoiding congestion in the market and on the roads. Groceries, RO water, milk and medicines are also being supplied door-to-door to all households in containment zones.

Food Distribution & Community Kitchens

Community kitchens have been established in corporation schools and laborers are being given shelters in the schools' classrooms. Hot and hygienic food is provided free of cost to all sanitary workers, migrant laborers and the needy,

thrice a day through the food program *Amma Unavagam*. Hand washing and social distancing is ensured at all *Amma Unavagam* locations.

Social Distancing Practices

The city vegetable market has been temporarily shifted to 18 different locations. Proper barricading has been set up and a social distance of 1 meter is being maintained. People can enter the market only after washing their hands with soap/ sanitizer. The entry points of all departmental stores, Banks, ATM centers and *Amma Unavagams* have been marked with white circles to ensure adequate social distancing.

Patna



City: **Bihar**
State: **Patna**
Category: **Administration & Education, Tier-1**
Population: **16,84,222**
(2011 Census)
Area: **136 sq.km.**

Patna is the capital of Bihar and is the largest town and headquarters of Patna district, Patna division and Bihar state. In the ongoing pandemic, the city's prime focus has been to cater to the most vulnerable population – i.e. the poorest of the poor in slums. A joint initiative of Patna Smart City Limited (PSCL) and Patna Municipal Corporation (PMC) 'WeCare' helped enforce an effective lockdown and offers essential services to the needy.



TRACKING & MONITORING

A joint initiative of Patna Smart City Limited and Patna Municipal Corporation (PMC) the dedicated combat cell 'WeCare' was set up with technical support from the United Nations Population Fund (UNFPA) to ensure lockdown norms were followed and to offer 24X7 services including delivery of essentials to the needy. This platform also acted as a transport service referral to the vulnerable population residing in slums with a focus on ill, pregnant and elderly citizens.



DIAGNOSTICS

Identification of vulnerable households was done through door-to-door visits with a focus on expectant mothers, ultra-poor households, the differently abled, the seriously ill and sanitation workers.



SANITIZATION & WASTE MANAGEMENT

Sanitization

PMC regularly undertakes sanitization in slums.

Segregation of Used Masks & Gloves

At source collection and disposal at the household level has been initiated with the installation of yellow bags in all door-to-door PMC garbage collection vehicles. The segregated used masks and gloves collected are incinerated as biomedical waste.

Training and Sensitization of Sanitation Workers

Community trainers have been appointed by UNFPA and PMC for all six circles. These trainers visit all six circles daily to teach mandatory prevention measures to sanitation workers such as the use of gloves, masks and the need for frequent handwashing.



AWARENESS

Door-to-Door Awareness

The dedicated response work team ensures that sanitation workers, while collecting door-to-door garbage, convey how used masks and gloves should be separated and correctly bagged.

Awareness in Slums

The community trainers of UNFPA and PMC visit slums within the allocated circles to generate awareness on COVID-19 symptoms and prevention with a focus on precautionary measures.



CITIZEN SUPPORT

Tele-Counseling

Counselors identified by UNFPA and PMC reach out to identified vulnerable communities to provide psychological counseling.

Counseling to Pregnant Women

Expectant mothers are counselled for birth preparedness. Identification of high-risk pregnancies, family planning and institutional deliveries are linked to the combat cell of PMC or to doctors as needed.

Support Calls for Elderly Citizens

During the lockdown phase, counselors called the elderly population daily to identify needs and ensure facilities were made available to them.

Counselling for Family Planning Commodities

Counselors also connected with people in the reproductive age group to discuss family planning and home deliver commodities based on identified needs.

Pimpri Chinchwad



City: **Pimpri-Chinchwad**
State: **Maharashtra**
Category: **Industrial City, Tier-1**
Population: **17,27,692 (2011 Census)**
Area: **181 sq.km.**

Pimpri Chinchwad is often called the Detroit of the East on account of the many national and multi-national automobile companies based in the district. With the pandemic hitting industries, Pimpri Chinchwad Municipal Corporation (PCMC) set up a 'COVID-19 War Room' to collate, analyse and act upon COVID-19 related data. The War room takes a multi-pronged approach, covering all the aspects of COVID-19 management from healthcare and lockdown to assisting citizens through helplines and a handy mobile application.



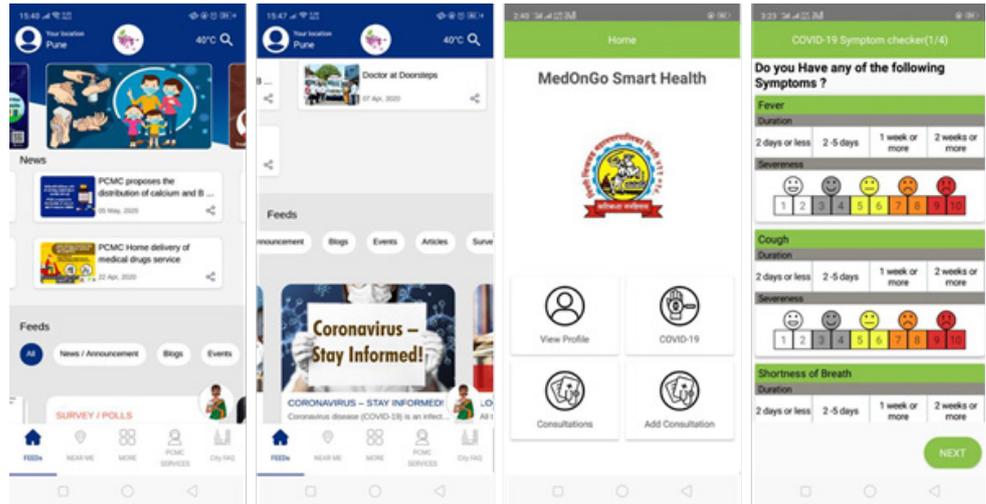
TRACKING & MONITORING

Integrated Command and Control Center (ICCC)

Pimpri Chinchwad Municipal Corporation (PCMC) has set up an 'Integrated Command and Control Center' (ICCC) as the 'COVID-19 War Room' to aid in decision making. The ICCC is being used as the central control room for collection, collation, analysis and dissemination of COVID-19 related data. This has led to a significant reduction in coordination time helping PCMC take prompt decisions based on the most recent data points. The COVID-19 War Room uses a multi-pronged approach covering all the aspects of COVID-19 management from lockdown management to healthcare management, tracking and assisting citizens the *Sarathi* helpline and PCMC Smart *Sarathi* mobile app.

Healthcare and Patient Tracking Dashboard

PCMC constituted a core team comprising of in-house doctors and IT team members to conceptualize and set up the COVID-19 Dashboard. Doctors brought in useful functional knowledge of workflow systems at hospitals and COVID-19 treatment processes, which assisted the IT Team in preparing the architecture. The dashboard, prepared in just two days, provides real-time information on COVID-19 related cases, testing and healthcare arrangements. The key features of the dashboard are real-time tracking of patients as details



PCMC is also currently beta testing stage a telemedicine feature which will be integrated with the Smart *Sarathi* mobile application. This will enable free video consultations between patients and doctors with the prescription being sent over WhatsApp.



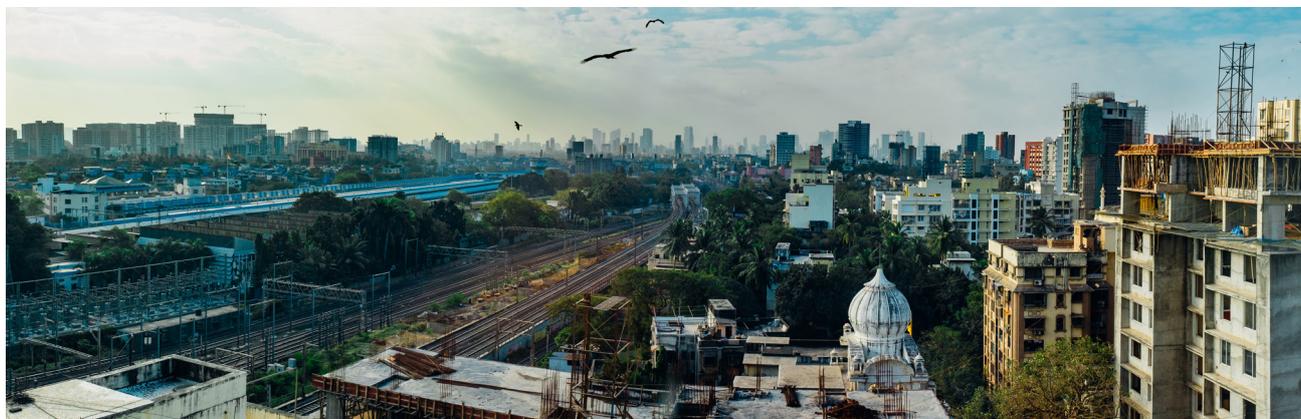
CITIZEN SUPPORT

Sarathi Helpline

The dedicated helpline platform *SARATHI* (System of Assisting Residents and Tourist Through Helpline Information) offers citizens assistance with service delivery and COVID-19 related queries. All calls received through the helpline are saved, documented, and tagged with the responsible department, zone, status of closure of request etc. The dashboard ensures optimal allocation of resources and zone-wise requests/complaints indicate which areas need the most urgent help.



Thane



City: **Thane**
State: **Maharashtra**
Category: **Tier-1**
Population: **18,41,488**
(2011 Census)
Area: **147 sq.km.**

Thane is one of the most industrially advanced districts in the state of Maharashtra. Third in the state in terms of population, Thane harnessed technology to its benefit, in its fight against COVID-19, by deploying a mobile app, monitoring traffic control and using its existing DigiThane platform to reach out to citizens. Free online medical consultations, easy visibility of home delivery service providers and drive-through testings were some of the measures that helped citizens during the lockdown.



TRACKING & MONITORING

COVIGUARD Mobile App

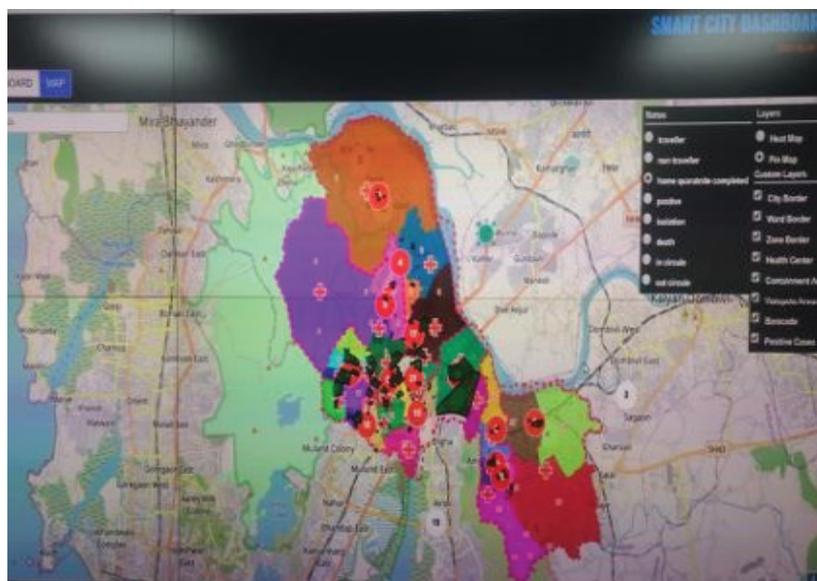
The COVIGUARD mobile app has been developed to track the number of COVID-19 confirmed cases, active cases, recovered cases and fatalities. It also tracks home quarantine suspects, number of symptomatic & asymptomatic patients, number of patients on ICU & ventilators and availability of beds across Thane's hospitals.

Integrated City Data Centre & Command Control and Room Facility (ICDCF) War Room

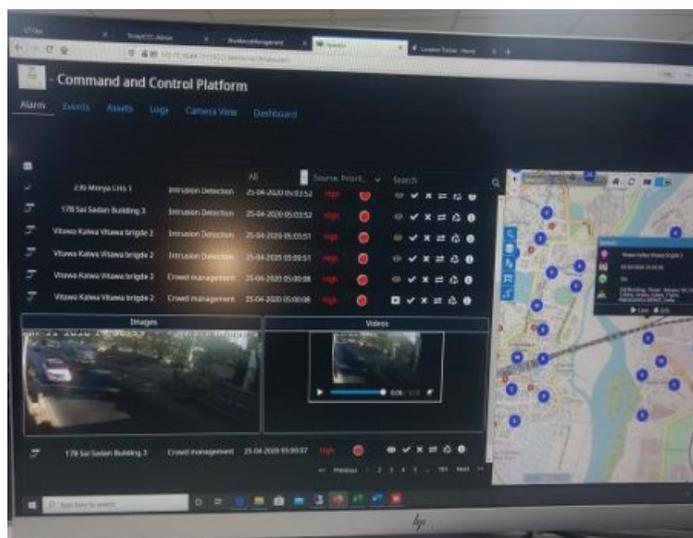
Thane's ICDCF War Room helped the Thane Municipal Corporation (TMC) monitor lockdown measures by tracking measures taken for public spaces, crowd management and traffic movement.



Video Wall in ICDCF War Room



Thane City Map with Dynamic Information tracking in War Room



CCTV Alarm for Crowd & Movement Monitoring



DIAGNOSTICS

Through the DigiThane COVID-19 Dashboard, there is consistent analysis, identification and depiction of hotspot and containment areas. Based on this information Thane Municipal Corporation (TMC) officials are deployed. Fever outpatient department (OPD) clinics have been set up across Thane, along with drive-through testing booths.

Thane's existing DigiThane digital platform hosts an online COVID-19 self-assessment test and offers free online tele-consulting/video-consulting by 40+ doctors in association with the Indian Medical Council.



SANITIZATION

Regular sanitization of the roads, colonies and public spaces is being conducted. 82,000 liters of disinfectant is sprayed everyday using fire brigade tankers, fabricated vehicles, small tractors and handpumps.



AWARENESS AND CAPACITY BUILDING

TMC has set up a dedicated COVID-19 toll-free number that addresses COVID-19 queries while DigiThane's social media platforms often showcase experts sharing their views on the current situation. The social media platforms also give the latest COVID-19 information, rules, and regulations of the municipality, state government and central government. The reach of social media was extensive. For example, when there was a blood requirement, the DigiThane platform was tapped and there were 150+ donors within 20 minutes.



CITIZEN SUPPORT

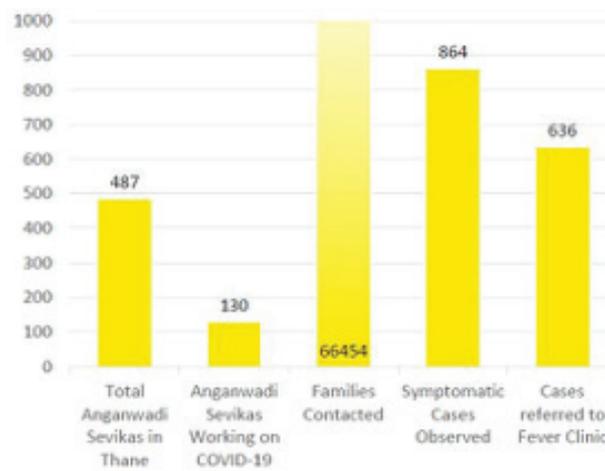
TMC's COVID-19 toll-free number and email id addresses ration allotment, grievance redressal, pandemic related queries, and helping senior citizens and persons with disabilities.

During the lockdown, TMC tied up with Zomato as a home delivery partner for essential products and Wellness Forever as the home delivery partner for medicines. Residents could also access the public dashboard on the DigiThane platform to look up other home delivery essential products vendors.

In addition, the DigiThane platform also features regular live webinars for the benefit of homebound citizens with classes on zumba, yoga, health, wellness, hair care, hobbies etc.



Fever OPDs and Drive-through Testing



Anganwadi Workers

रेसन (PDS) वितरणातील तक्रारी नोंदविले/संशुद्धी यंत्रणे विचरिल्यासाठी हेल्पलाईन महत्त्व

राज्य हेल्पलाईन

संकेत : सकाळी १० ते सायंकाळी ६, सत्रेसह

हेल्पलाईन क्रमांक: १८००-११-१८१० / १९६७ (ऑफिस)

अन्य हेल्पलाईन क्रमांक: ०२२-२३७२००६३ / २३७२०००० / २३७२३४६३

ईमेल: helpline.maharashtra@gov.in

ऑनलाईन तक्रार नोंदविले: maharashtra.gov.in

या हेल्पलाईनवर कोणत्याही प्रकारचा धमक्या किंवा अपमान होऊ नये.

मुंबई-ठाणे शिधावितरण क्षेत्र नियंत्रण कक्ष

संकेत : सकाळी ८ ते रात्री ८ सत्रेसह

हेल्पलाईन क्रमांक: ०२२-२२८१२०१४

ईमेल: thanehelpline@maharashtra.gov.in

- Queries regarding COVID-19, ration distribution, donations, grievances:**
1. Active PDS for ration allocation and distribution (Helpline and email responsive from 8am till 8pm)
 2. Grievance Redressal system active from 10am till 6pm
 3. Dedicated COVID Helpline (Toll free and email)

Toll Free Number for Senior Citizens and Persons with Disability

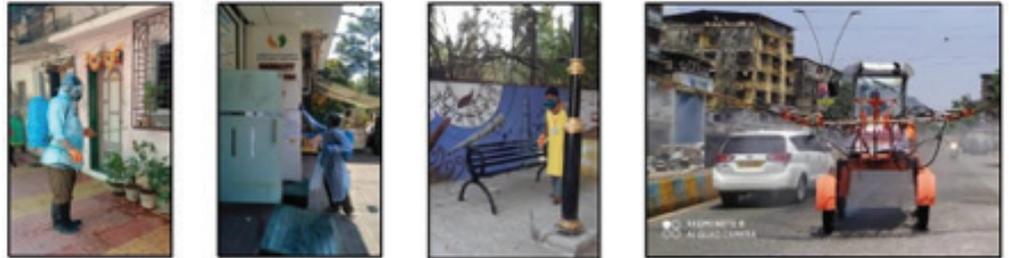
Calls Received Today	Total Calls Received	Total Calls Addressed
11	269	269



COVID/Ration Helpline

Thane

Type of Equipment/Vehicle	Capacity (l/trip)	Quantity	Disinfectant Sprayed per day (ltr.)
Fire Brigade Tankers	5,000	10	50,000
Small Tractors	500	10	5,000
Fabricated Vehicles	1,000	15	15,000
Handpumps	100	120	12,000
Total			82,000



Community Sanitization

Varanasi



City: **Varanasi**
State: **Uttar Pradesh**
Category: **Pilgrim City, Tier-1**
Population: **11,98,491 (2011 Census)**
Area: **112.1 sq.km.**

Varanasi or Benaras (also known as Kashi) is one of the oldest living cities in the world and is considered the ultimate pilgrimage spot for Hindus. To counter the pandemic Varanasi Smart City quickly converted its Kashi Integrated Command and Control Centre (KICCC) to a COVID-19 War Room to bring all emergency services and activities under one roof. Software tracking vehicles, video call facilities, video analytic software systems, and information security and surveillance systems were some of the measures deployed.



TRACKING & MONITORING

Kashi Integrated Command and Control Centre (KICCC) turns into a War Room

Rising to the occasion, Varanasi Smart City quickly converted its KICCC into a COVID-19 War Room to ensure all actions are handled and monitored effectively by the district administration. The War Room controls surveillance cameras (40 junctions/100 locations), public address systems (55 locations) and variable messaging systems. It also tracks deployed vehicles using GPS. The CCTV cameras were actively used for enforcing the lockdown and to monitor violations. The police control room which was earlier operating from Police Lines now operates from within the War Room handling general law and order issues as well as COVID-19 related complaints and compliance issues.





Centralized City Surveillance



Police Control Room

GIS Mapping and Analytics

All services running in Varanasi Smart City have already been integrated with the Geographic Information System (GIS) base map. COVID-19 cases, as received from the Chief Medical Officer (CMO) and other departments, have also been mapped in GIS. These maps are used for various analytics and to provide real-time feedback to the concerned officials. For example, in the case of home delivery of medicines, the spatial analysis can show the areas currently not covered by the delivery system which is then conveyed to the respective zonal officers for them to take corrective action.

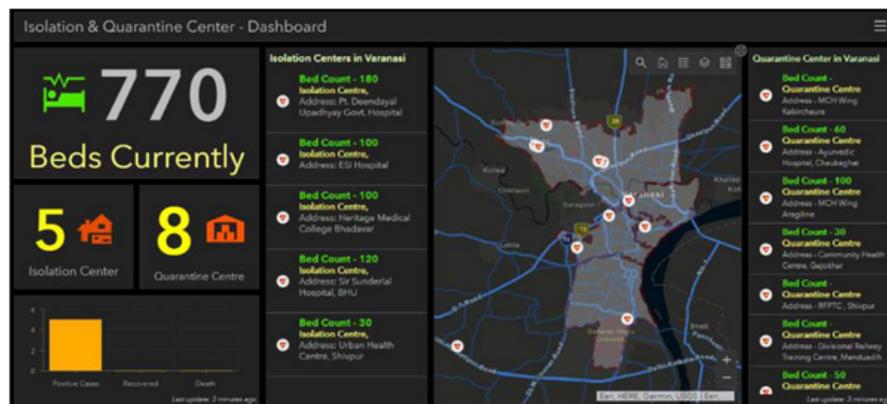


Map showing the COVID-19 affected Persons and Home Quarantined persons

Varanasi



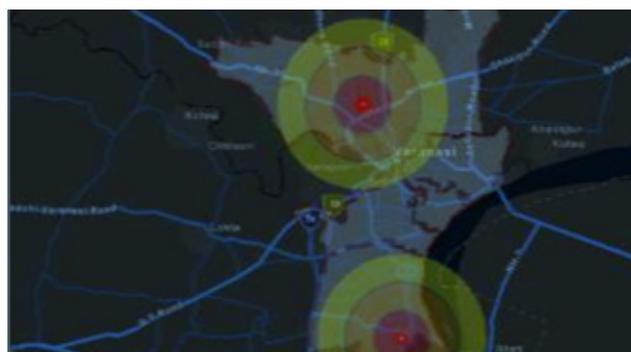
Map showing the locations of Home Shelters in Varanasi City



Map showing locations where the suspected patients are Quarantined/kept Isolated



Heat Map of Affected Areas



Map with Buffer Zones around

COVID-19 Safe Kashi Mobile App

Varanasi Smart City Limited has developed an android based mobile app for citizens. Features of the app include health advisories, a COVID-19 cumulative case tracker, incident reporting, details for home delivery of essentials, e-pass for movement, facility for medical consultations and options to volunteer. While citizens do not need to register to use the app, authorities can log in at the backend to access the data.



DIAGNOSTICS

Doctors in the War Room are addressing the health concerns of citizens. Doctors also take the patients on video calls and when required evaluate, diagnose and treat patients at a distance via telemedicine.





SANITIZATION

The COVID-19 War Room coordinates with Varanasi Nagar Nigam's Quick Response Team (QRT) to carry out on-ground sanitization drives in identified areas. Drones are used to spray disinfectant in hot spots, quarantined and containment areas. Spraying by drones is also done in isolation wards, shelter homes and other places where manual spraying is difficult.

The drone team surveys the area to chalk out a safe flight path. The drones are then filled with a chemical solution consisting of 1% Sodium Hypochlorite, [NaOCl] and are carefully calibrated for the flight path. The entire operation is centrally monitored from the COVID-19 War Room.



Drone in action in a narrow street



Dedicated Vehicles for Drone Operations



Crew preparing the Drone for Flight



अर्ध-केंद्रीय - आवागमन - आधुनिक



AWARENESS

Public Address Systems for Quick Communication

Public Address System (PAS) are installed in 55 locations throughout the city and are centrally controlled from the War Room. Besides public messaging and health advisories, PA systems are also used to communicate mobile app downloads and instructions to police personnel, health and sanitation workers.

Variable Messaging System (LED Signs) at Prominent Locations

LED signboards at 10 locations across the city are controlled from the War Room. These act as visual advisories conveying key COVID-19 related messages and warnings. These are also used to disseminate emergency messaging to police personnel, health or sanitation workers who can then rush to specified spots.



CITIZEN SUPPORT

Food Distribution

Based on requests received from the War Room, cooked food is distributed among the needy, destitute and migrant workers by a team of Varanasi Nagar Nigam officials and NGOs. Two community kitchens have been set up from where packed food is distributed across the city and in various shelter homes.



Quarantine Centres

Migrant workers returning from metropolitan cities, unemployed migrant families and other destitute people have all been accommodated in shelter homes for the purpose of quarantine and isolation. The location of the shelter homes is plotted on the Geographic Information System (GIS) map and some critical locations are monitored through CCTV cameras as well. Through the United Nations Children’s Fund (UNICEF), a team of psychologists visit these shelter homes and provide counselling to the mentally depressed inmates to boost their morale.



Visakhapatnam



City: **Visakhapatnam**
State: **Andhra Pradesh**
Category: **Port & Industrial City, Tier-1**
Population: **17,28,128 (2011 Census)**
Area: **698 sq. km.**

Visakhapatnam is a picturesque coastal port city that is often called 'The Jewel of the East Coast'. Visakhapatnam or Vizag is the administrative headquarters of Visakhapatnam District and home to the Eastern Naval Command of the Indian Navy. To support the district administration in COVID-19 related measures, Visakhapatnam Smart City (VSC) is one of the four smart cities of Andhra Pradesh that is functioning 24x7 — repurposing its tech-infrastructure to counter the pandemic.



TRACKING & MONITORING

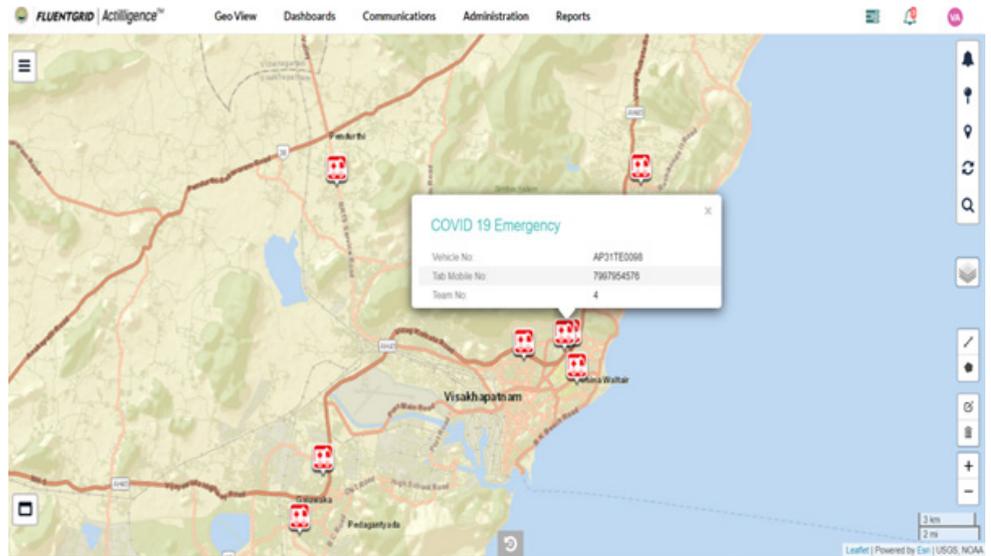
The City Operation Centre (COC)

The COC geo view is enabled with COVID-19 hotspots at the city-level and the same are regularly published in social media by the COC team to ensure citizens are aware of the situation. The geo view is also enabled with foreign returnees and self-quarantine citizens' details corresponding to a COVID-19 dashboard.

The COC team monitors their condition after duly verifying their symptoms. Post validating incidents, actions are floated as per set standard operating procedures (SOPs). SOPs for COVID-19 have been prepared for Preparedness, Responsiveness & Relief, Mild & Moderate Symptomatic cases, Critical Symptoms and Suspected Cases.

The COC team trains the staff team and the Rapid Response Team (RRT) of doctors on how to use the COVID-19 app and interacts with migrant labours to identify their requirements and share action points. The COC platform tracks ambulances in geo view and the same is conveyed real-time to the RRT to ensure speedy action.

Visakhapatnam



COVID - 19 Foreign Returnees

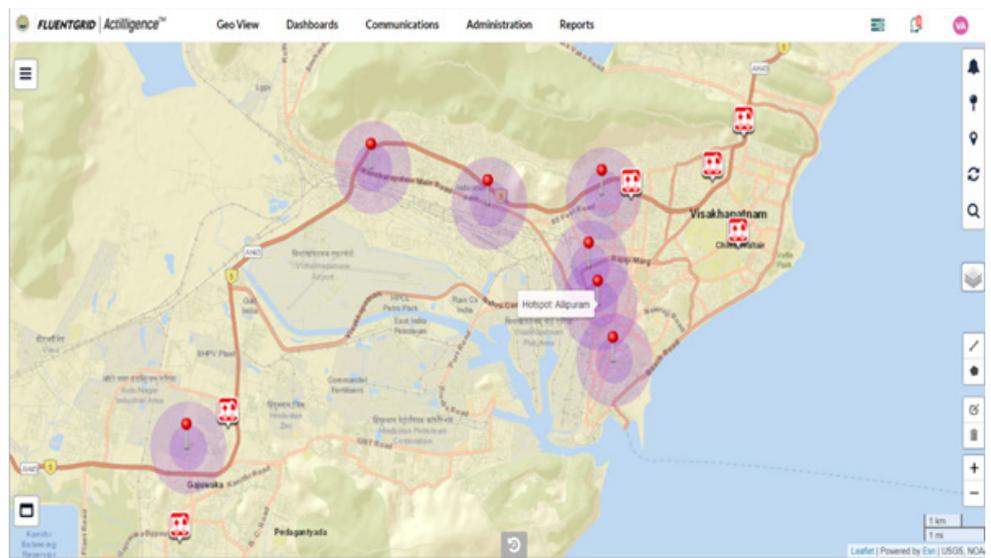
Info		Action	Health Condition
Citizen Name	Danda sudha	Phone Message	MILD
Gender	female		
Age	56		
Mobile Number	7396739945		

Symptoms (Marked as Identified)

- Fever Dry Cough
- Head Ache Body Ache
- Diarrhea Fatigue
- Throat Pain Breathing Difficulty

Received Date : 07-04-2020 14:12:29

Ambulance Tracking in Geo View



COVID-19 Hotspots



COVID-19 Dashboard



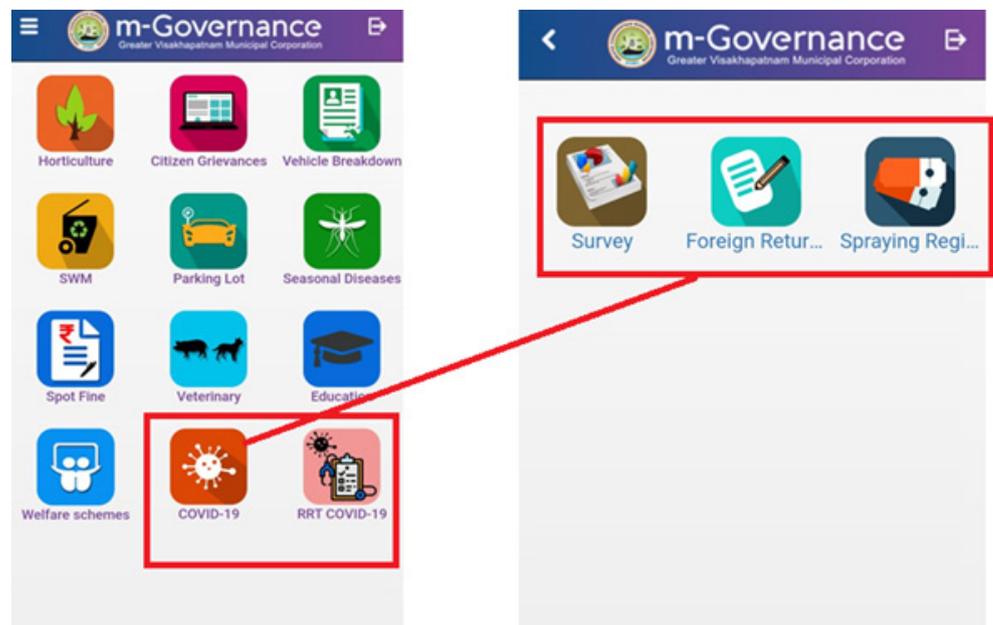
Lockdown Surveillance

As part of the Visakhapatnam Smart City (VSC) infrastructure, 500 CCTVs have been set up at important locations and key junctions. During the lockdown, surveillance video analytics triggered overcrowding alerts that were immediately conveyed to the concerned police officials of the area.

Alert Name	Type	Severity	Category	Source	Date
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr
OverCrowdin...	Alert	Major	Surveillance	Fixed Camera	23-Apr

M Governance App

Accessed by the field staff, this mobile app collects data from surveys conducted in containment areas along with data captured from foreign/out of state returnees. The app also covers the spraying activities being conducted by the Greater Visakhapatnam Municipal Corporation (GVMC) and connects the field team to the Rapid Response Team (RRT) of doctors who attend to emergency cases.





DIAGNOSTICS

Rapid Response Teams (RRTs)

As many as 20 RRTs have been deployed in Visakhapatnam. These teams are accessible via mobile tabs fixed in their ambulances. An RRT application has been developed wherein doctors of each team upload data of possible cases from the field directly. This is monitored in real-time by the concerned authorities. Four mobile teams are also formed for sample collection from symptomatic citizens. The teams are monitored through a mobile tab-based tracking platform.

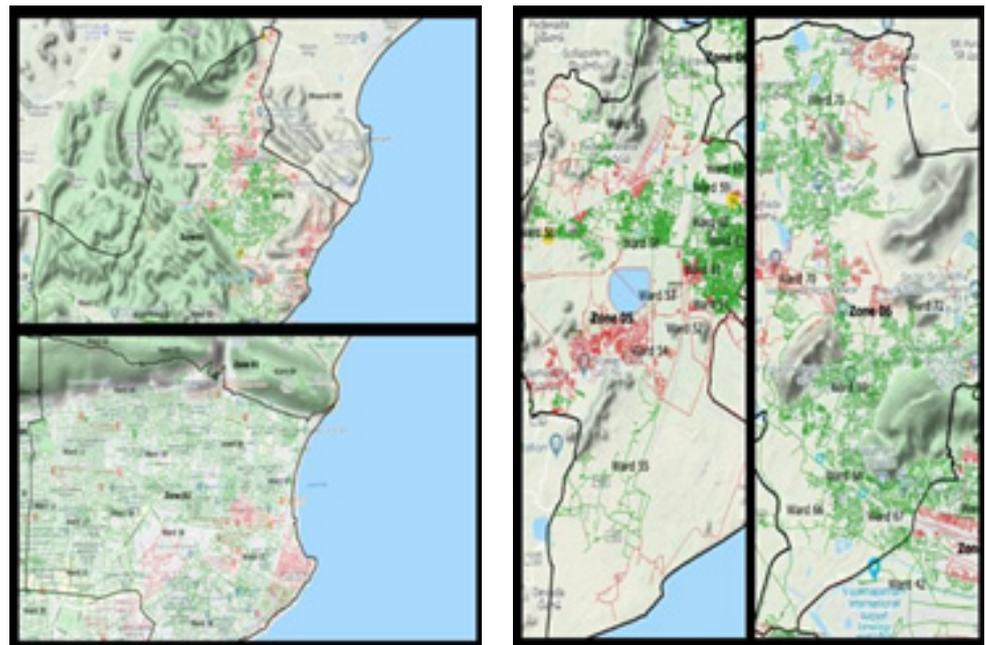
Mobile App with Home Quarantining Features

A mobile app for citizens has been created that integrates the COVID-19 home quarantine feature. Users can take a self-assessment test and the results and GPS location details are monitored with symptomatic cases being geofenced to curtail movement and transmission. Citizens need to submit their condition every few hours during the day when in the quarantine period. Citizens can also use the inbuilt SOS feature to report possible cases or get emergency help.



SANITIZATION

The City Operation Centre's Geographic Information Systems (GIS) layers are enabled with spraying activity status. This provides real-time inputs to authorities on the areas which are, yet to be sanitized.



COVID 19 Spraying Activity in Geo View



AWARENESS

Public announcement systems have been deployed at 90 locations to disseminate COVID-19 related information. Digital signboards/variable message display boards have also been installed at 10 key locations across the city for communication purposes and for monitoring the situation across the city.



CITIZEN SUPPORT

The COVID-19 helpdesk and contact center (0866-2410978, 08645-247185/246600) functions round the clock to coordinate with the public health department and district level officers. The center traces and monitors people with foreign travel history. Public grievances are also registered here.

Amritsar



City: **Amritsar**

State: **Punjab**

Category: **Religious City, Tier-2**

Population: **9,66,862 (2011 Census)**

Area: **250 sq.km.**

Amritsar is an important seat of Sikh history and culture deriving its name from the *Amrit Sarovar* (pool of nectar) in which stands the Golden Temple, the most sacred of Sikh shrines. Footfalls to the city have greatly reduced during the pandemic and the city administration is ensuring citizens find help at hand through web-based solutions including a portal that allows migrants to register for train transport back to their hometowns.



DIAGNOSIS

Amritsar Smart City Limited (ASCL) has sent up a portal www.asrcovid19helpline.in that serves as a one-stop for all COVID-19 related queries and reporting. The website features a doctor's interface that captures medical data on cases with influenza-like illness (ILI) and severe acute respiratory infections (SARI) that help in active tracking. Suspected cases can self-report their symptoms here on the site and can also use the portal to report cases in their locality. This information can be filled in the vernacular as well.

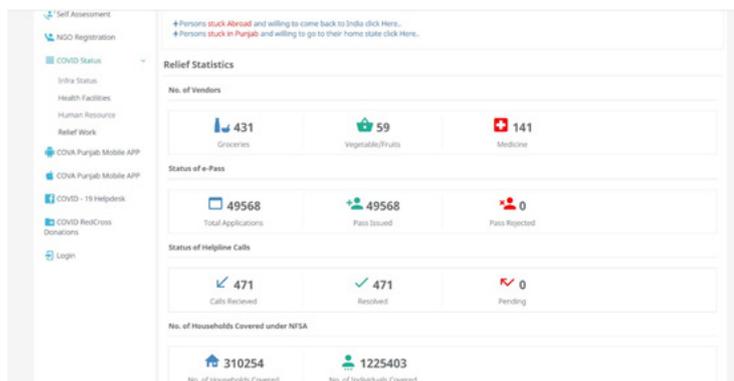
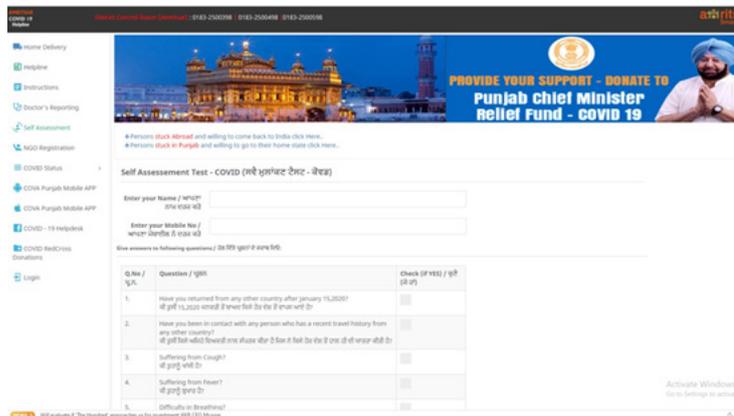
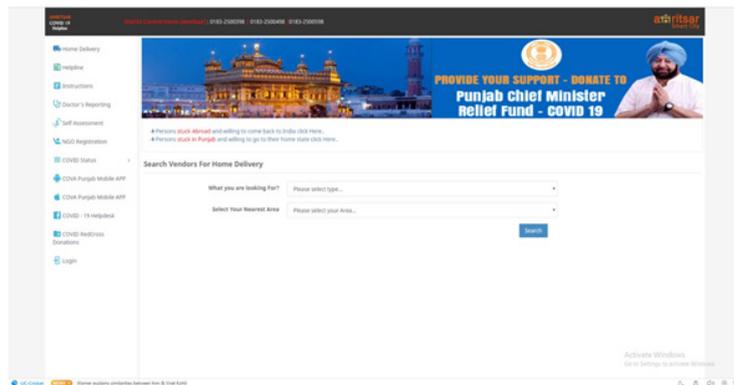
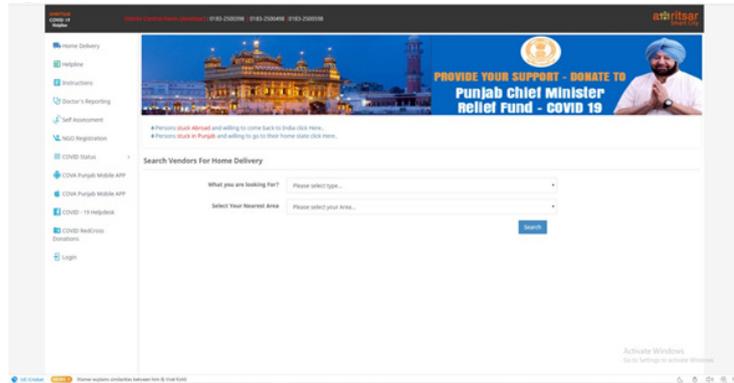


CITIZEN SUPPORT

The website www.asrcovid19helpline.in was created and launched in about 24 hours. Citizens can search for grocery, fruits & vegetable and medicine vendors who service their area, take a COVID-19 self-assessment test and access helpline numbers.

Citizens stuck abroad and wanting to come back can register on the site which is linked to the state-level database. Likewise, people, chiefly migrant laborers, seeking to go back to their home states, can also register on the portal. Trains to transport migrants were booked accordingly, based on the information received.

ASCL is focusing on collecting and disseminating information related to COVID-19 for quick analytics and swift decision making. Accordingly, the portal hosts the latest COVID-19 updates with details of infrastructure, health facilities, available human resources, and relief work.



Bhubaneswar



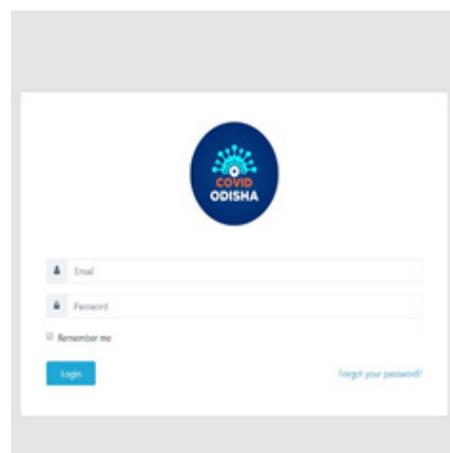
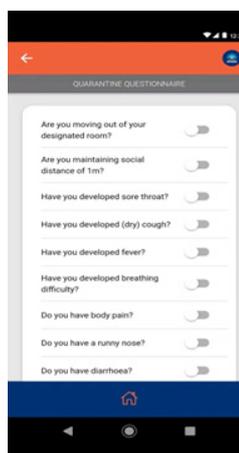
City: **Bhubaneswar**
State: **Odisha**
Category: **IT Hub and Education City, Tier-2**
Population: **8,37,737 (2011 Census)**
Area: **422 sq.km.**

Bhubaneswar is the largest city of Odisha state. A robust IT industry, premier higher education institutes and institutions of advanced medical care, coupled with the boom in the metals and metal processing industries, has made Bhubaneswar one of the fastest developing cities of India. The Bhubaneswar Smart City Limited (BSCL) has tapped its technological expertise to roll out various apps such as the TickMe Mobile App for citizen services and the COVID Odisha app to monitor the home quarantined. Sanitization by drones, regular disinfection, door-to-door garbage collection and social media outreach campaigns are other methods being employed to ensure hygiene and awareness.



TRACKING & MONITORING

The COVID Odisha application is being used to monitor the home quarantined. The app is designed to alert authorities if there are violations or if there is a critical health situation so that the necessary steps can be taken. The application, which includes a self-assessment test, is hosted on two platforms – a mobile application that can be downloaded by citizens and as a portal which offers municipal authorities monitoring rights and access to data.





SANITIZATION

Bhubaneswar Municipal Corporation (BMC) has been using drones to spray sodium hypochlorite solution to sanitize and disinfect the city quickly and effectively. Bhubaneswar Smart City Limited (BSCL) monitors the activity that is regularly carried out in different parts of the city. Sanitization is done at night as is mechanical sweeping while in the morning, road sweeping, door-to-door garbage collection, drain desilting etc. continues to be undertaken by BMC to keep the city clean and green.



CITIZEN SUPPORT

TickMe App: The Neighborhood Store Aggregator

TickMe is an innovative app promoted by BMC and BSCL to prevent crowding and ensure social distancing. Through this app, citizens can place online orders for groceries, medicines, and other essentials from stores in their neighborhood and choose a convenient pick-up time. Upon confirmation from the store, the citizen can go across for their order.



24X7 Toll-Free Helpline

Bhubaneswar Helpline 1929 has been enabled to offer citizens guidance, support and information related to essential services, medicines, communication, transport facilities and COVID-19 related issues. The helpline is being managed by BSCL as well as the health department/ National Urban Health Mission (NUHM). BMC has tied up with local vendors and pharmacies and through the helpline ensures the delivery of essential items in containment zones. The helpline also addresses queries and guides people on the various provisions made by the state for out-of-station laborers arriving from different states.

The helpline links service and facilities and is the common interface between different departments such as the Bhubaneswar Municipality, the police, National Urban Health Mission (NUHM) and Housing and Urban Development (H&UD) among others.

The city has also revamped its existing grievance redressal app and integrated it with its GIS map (Bhubaneswar.me) for easy tracking and closure.



Citizen Engagement: Keeping Spirits Up

The hashtag #MyCityBhubaneswar on Twitter has become a popular trend with citizens during the lockdown. Various online activities and games such as #PicturePuzzle, #GuessThePark, #SpotIs etc. has helped relieve lockdown stress and kept citizens engaged and entertained during trying times.



Chandigarh



City: **Chandigarh**

State: **Punjab**

Category: **Administrative City, Tier-2**

Population: **9,61,587 (2011 Census)**

Area: **114 sq.km.**

Chandigarh, the dream city of India's first Prime Minister, Shri Jawahar Lal Nehru, was planned by the famous French architect Le Corbusier. Chandigarh rose to tackle COVID-19 as soon as the first COVID-19 positive case was reported in the city. A mobile application (CVD Tracker App) to monitor the quarantined, arrangements for delivery of essential items, sanitization by drones, waste management and tracking of delivery vehicles and vendors were some of the initiatives rolled out on an immediate basis.



TRACKING & MONITORING

As soon as the first COVID positive case was reported in Chandigarh, the city started quarantining all contacts. The quarantined citizens are monitored through the CVD Tracker App and special provisions are made to ensure quarantined families receive food and other essentials.

The Municipal Corporation of Chandigarh (MCC) uses a mobile app for real-time tracking of delivery vehicles to ensure effective utilization of resources. This app also enables better planning of trips and offers real-time information to the driver about emergency needs. Integration with the MCC Portal allows citizens to view the location of delivery vehicles.



SANITIZATION & WASTE MANAGEMENT

Waste Collection

Quarantined households are divided into four zones and supervised by one supervisor each. All vehicle drivers and helpers, deputed for collection and transportation of waste from quarantined households, are equipped with

PPE kits. The drivers also wear GPS enabled smart watches powered by the E-Human Resource Tracking Project (E-HRTS). The movement of the vehicles is tracked through these smart watches and displayed on a dashboard to ensure no quarantined household gets left out.

Sanitization

Public places are being sanitized regularly. Sanitization of dense areas such as slums and *mandis* is being carried out using drones.



CITIZEN SUPPORT

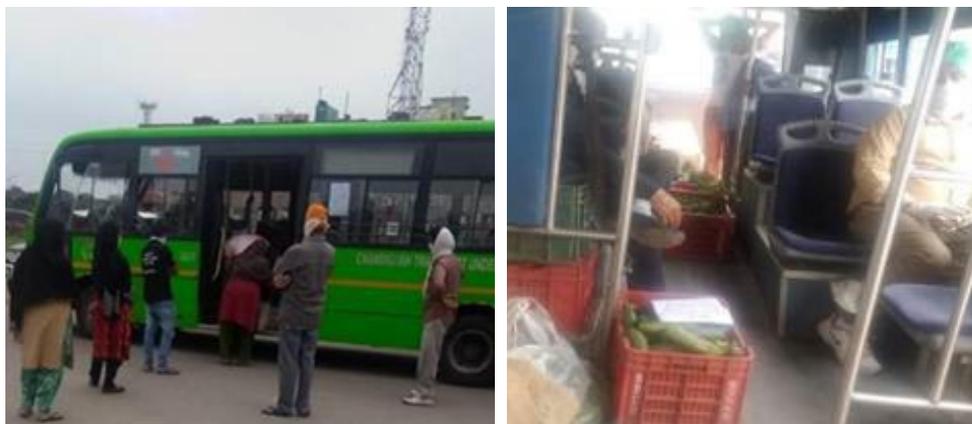
Services for the Urban Poor

Migrant worker shelters have been set up in village Maloya where pre-cooked food is being served to the workers. The Chandigarh city government has tied up with civil society groups, the private sector, restaurants and various other donors for distribution of food, ration and other essentials to the needy — through the National Urban Livelihoods Mission (NULM) and vendor cell network. Personal hygiene kits (masks, sanitizers, soap and disinfectants), ready-to-eat oatmeal, pre-cooked food, 14 days dry ration and sanitary napkins are some of the items being made available.

Food and Essentials

The Municipal Corporation of Chandigarh (MCC) uses Google Forms to identify the requirement of shopkeepers and making the same available to distributors. The Chandigarh administration also tied up with various app-based vendors and stores across categories and circulated the numbers in wider public interest. The details of home delivery vendors, for each sector, was made available through social media channels.

MCC in collaboration with Chandigarh Transport Undertaking also delivers fruits and vegetables at the neighborhood level on a regular basis and the service is utilized across the city by more than 1.5 lakh households.



Fruit & Vegetables delivered to citizens

Dehradun



City: **Dehradun**
State: **Uttarakhand**
Category: **Tourist City, Tier-2**
Population: **5,69,578 (2011 Census)**
Area: **64.6 sq.km.**

Dehradun is the state capital and district headquarters. One of the most developed cities in the Sivalik foothills, Dehradun is the only corporation city in Uttarakhand and acts as the gateway to the far-flung hill areas of Uttaranchal. With tourism on the backfoot, Dehradun Smart City Limited (DSCL) is monitoring the situation through their Integrated Command and Control Centre (ICCC) and ensuring citizens are duly notified of developments.



TRACKING & MONITORING

Dehradun Smart City Limited (DSCL) monitors isolation wards and quarantined persons movement via its Integrated Command and Control Centre (ICCC) named Sadaiv Doon. CCTVs have been set up at different hospitals and quarantine wards across the city and the video feed uses AI based facial recognition to monitor movement.

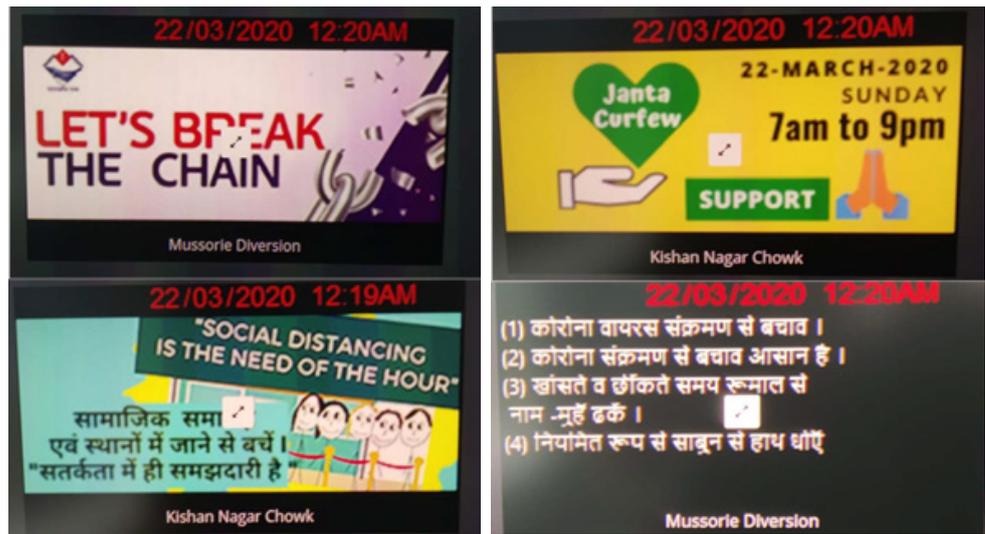




AWARENESS

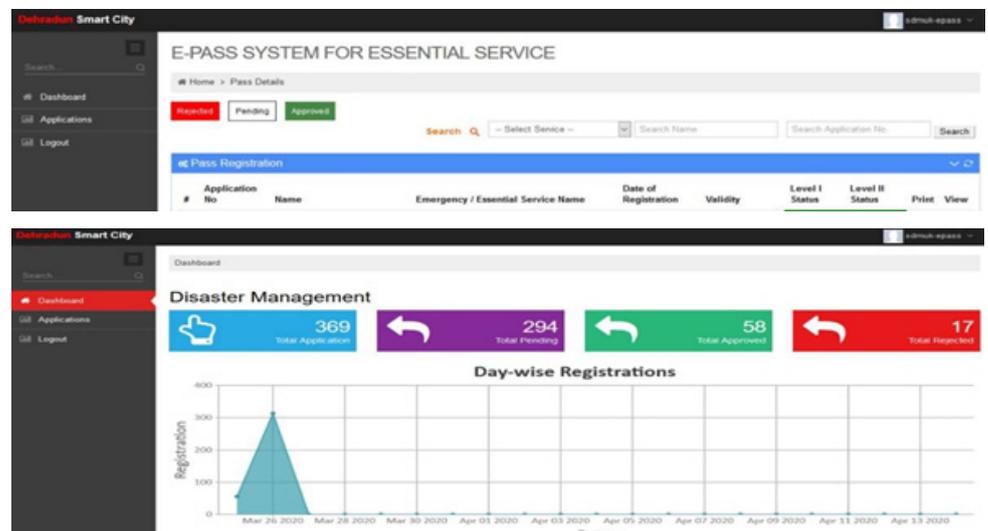
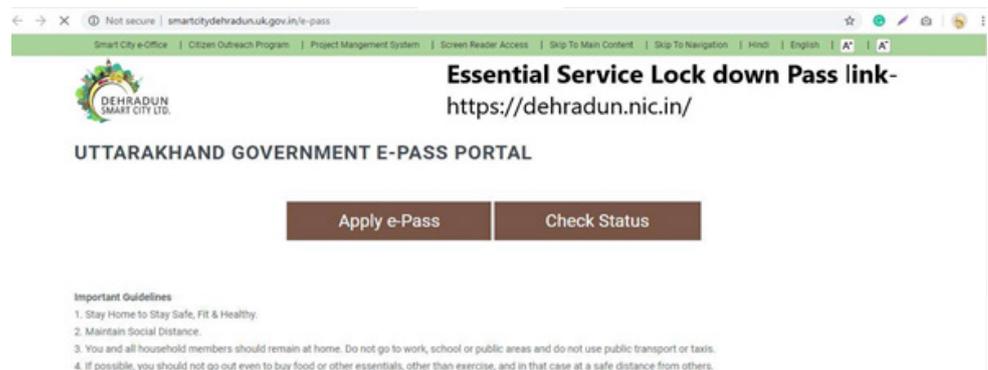
DSCL is tapping its social media platforms ranging from Facebook and Instagram to Twitter and WhatsApp to spread awareness about the lockdown, the virus and available government services. COVID-19 awareness messaging is also being published on virtual media displays at critical junctions of the city along with prominently displaying helpline numbers and other emergency numbers.





CITIZEN SUPPORT

During the lockdown DSCL set up a portal for emergency lockdown passes. Citizens could visit the link to apply and the same was approved for senior citizen care, funerals, medical services, grocery service providers, home delivery service providers, IT and Telcom service and other utilities and administrative staff.



Moradabad



City: **Moradabad**
State: **Uttar Pradesh**
Category: **Brass City, Tier-2**
Population: **8,89,810 (2011 Census)**
Area: **149 sq.km.**

Moradabad is famous for its traditional brass handicrafts industry earning it the moniker *Pital Nagri* or Brass City. Like other Indian cities, businesses have taken a hit in Moradabad too and artisans have lost jobs. To counter the same, Moradabad is ensuring that the neediest are not deprived of household essentials or health intervention. A 24-hour helpline, a complaint redressal system and a WhatsApp helpdesk are some of the ways the city is reaching out to citizens in their hour of need.



TRACKING & MONITORING

A COVID-19 War Room has been set up that is equipped with a 24X7 helpline. Hotspot management, grocery-vegetable helplines, home isolation and institutional quarantine of COVID-19 positive cases and suspect cases, water supply, sanitation and sanitization are all being managed from here. With the help of software team experts, the Google map view of Moradabad city is regularly updated to display hotspots, containment areas and red zones etc.



CITIZEN SUPPORT

24X7 Support

Telemedicine, food for the needy, community kitchen management, and animal welfare has been part of the overall management and is available round the clock.

Complaint Redressal System

One can lodge any complaint on the website of *Nagar Nigam* Moradabad to receive a status check token. Officials address complaints within 24 hours.

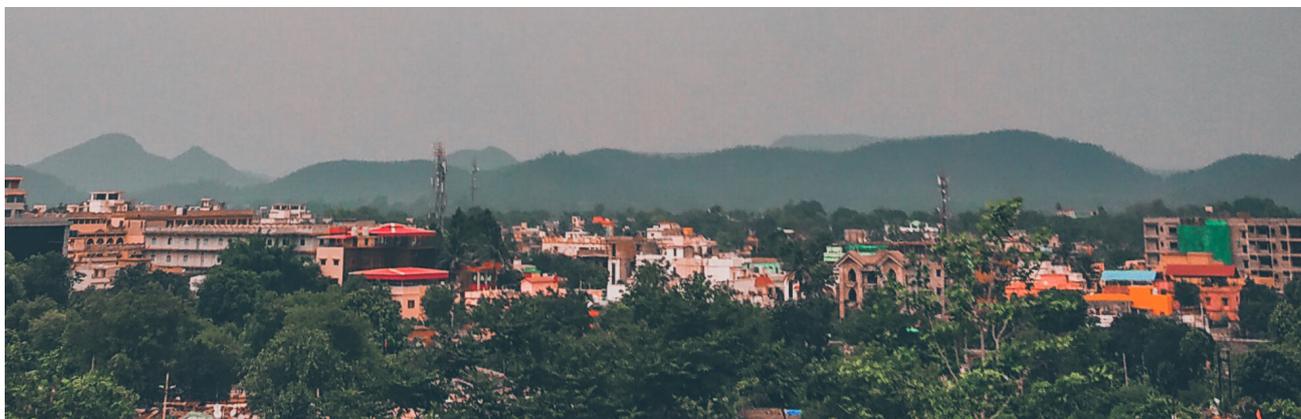
WhatsApp Helpdesk

Moradabad city tapped the most common social media platform WhatsApp to convey useful information. The WhatsApp number is being advertised on social media platforms and in newspapers with citizens able to choose their language option (Hindi or English) to get their needs addressed. This platform has been developed for a larger reach and includes options such as checking for COVID-19 symptoms, telemedicine, free food, ration, home delivery providers etc. For example, if a user selects 03, he/she can get information on the availability of free food and community kitchens near them.

Mohalla Nigrani Samiti for Migrants

Nagar Nigam Moradabad has also set up facilities for migrants who have come from other places. Chaired by the local councilor, the *Mohalla Nigrani Samiti* includes a sanitary inspector and a sanitary supervisor. This platform helps all migrants with food, quarantine advisories etc.

Rourkela



City: **Rourkela**

State: **Odisha**

Category: **Industrial City, Tier-2**

Population: **5,52,734 (2011 Census)**

Area: **200 sq.km.**

Rourkela is an important commercial center of the state and has a huge iron and steel manufacturing base. Rourkela Smart City Limited (RSCL) along with the Rourkela Municipal Corporation (RMC), is following a multi-pronged approach to tackle the pandemic. Localized sanitization, contact-less delivery of essentials to patients, free cooked food distribution to the needy, setting up of quarantine facilities and 24-hour surveillance and tracking are some of the emergency and safety measures the city has deployed to contain and manage the spread of the virus.



TRACKING & MONITORING

Central Dashboard for Real-Time Monitoring

Rourkela Smart City Limited (RSCL) is implementing a technology-based solution to contain the pandemic by deploying a central dashboard supported with mobile applications for field officers and citizens. The central dashboard shows real-time city-specific COVID-19 updates to enable the administration to take necessary actions. The dashboard reflects reported, recovered, active cases and COVID-19 deaths along with highlighting zones, zone-wise cases, hospitals, and fever clinics. The dashboard also shows updates on the quarantined, status of PPEs, hospital/clinic beds, ICUs, ventilators etc.

Door-to-Door Surveillance

Door-to-door monitoring and surveillance of areas where positive cases have been diagnosed are being carried out, complete with thermal screening and detailed surveys.

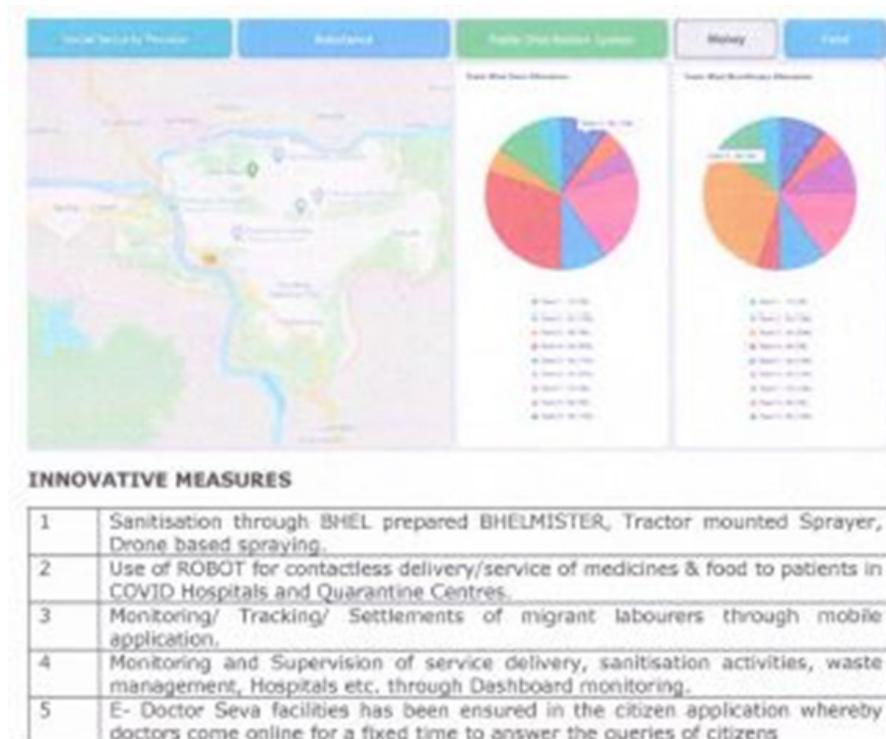
Tracking Returnees

Rourkela Municipal Corporation (RMC) has formulated teams to trace all overseas or interstate returnees. The travelers are required to home quarantine

for 14 days which is tracked by the administration. Prominent message signboards indicate which house is under self-quarantine to ensure other citizens take the necessary precautions.

Dashboard Monitoring of Essential Services

RMC is also tracking and monitoring the delivery of select essential services such as social security pension, public distribution system, sanitation activities, assistance to migrant laborers etc. As part of this solution, the RSCL central dashboard provides real-time location updates and contact information of all field officers along with a graphical representation of their status of disbursement of essential services. This includes disbursement within due date, pending disbursements and alerts for deviations and leverages data analytics to display graphs, charts etc. To enable real-time updates on the dashboard, the field officers update the status of the services provided through their mobile application along with capturing a snapshot/video of themselves disbursing the services.



DIAGNOSTICS

Quarantine and Temporary Medical Center (TMC)

RSCL along with RMC has set up a TMC center at the Biju Patnaik University of Technology (BPUT) campus, a COVID-19 hospital including isolation wards at the Hi-Tech Medical College and 17 quarantine centers or isolation wards across the city. Periodic health checkups and counselling is conducted at all quarantine centers.



SANITIZATION

Mass Sanitization using BHELMISTER Sprayers

Sanitization is being done through tractor mounted BHELMISTER sprayers and drones with a special focus on containment zones. RSCL proposes to install disinfectant sprayers at strategic locations such as marketplaces, parking spaces, government offices etc. to ensure all entering the premises are properly sanitized to curtail spread.

Mass Sanitization using Drones

Drone-based spraying is being done to prevent unnecessary human activity in containment and buffer zones. The same is employed for the more constricted parts of the city as well where manual outreach is difficult. Before starting sanitization, the drone team conducts a visual survey of the buildings, the terrain, and surrounding areas. This helps them in chalking out a flight path for the drone. The path is controlled and recorded in a handheld device with GIS Maps at the backend which is plugged to the remote controller.



AWARENESS

COVID-19 symptoms and safety measures are being broadcast/displayed in English and Odia at various strategic locations across the city. Door-to-door leaflet distribution, posters in slums and jingles on vehicle mounted public addressing systems are some of the ways RMC is raising awareness across the city. Accredited Social Health Activists (ASHA) and the local *Mahila Arogya Samiti* (MAS) are conducting sanitation and hygiene awareness programs across slums along with distribution of masks, soaps and other essentials.



CITIZEN SUPPORT

Contact-less Delivery using Robots

Use of robots to deliver food and medicine to patients in hospitals and quarantine centers to minimize the risk of transmission.

Free Cooked Food Distribution

The destitute, homeless and beggars are receiving hot, cooked food to ensure they meet their nutritional requirements during the lockdown.

Social Security Schemes: Financial Assistance

The beneficiaries of various government schemes such as old age/widow pension programs, social assistance programs etc. received financial assistance at their doorstep. The financial district disbursement team travelled by GPS tagged vehicles and the disbursement was accordingly monitored and tracked.

Financial Assistance to Building and Construction Workers

With daily wage workers being the hardest hit, the Rourkela administration ensured construction workers were provided financial assistance by checking their labor cards.

Financial Assistance to Street Vendors through Direct Bank Transfer

Delhi based M/S NF Infratech Services Pvt. Ltd. had earlier carried out a GPS survey of urban street vendors under the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY - NULM) scheme. RMC and RSCL utilized the same survey data to provide financial assistance to vendors – giving them ₹ 3000/- each through direct bank transfers.

Citizen Mobile Application

A Rourkela citizen mobile application offers real-time COVID-19 updates, listing of hospitals and testing centers and key helpline numbers. The app also disseminates health information and precautions, hosts a COVID-19 self-assessment test and highlights the containment and buffer zones where public movement is restricted.



Salem



City: **Salem**
State: **Tamil Nadu**
Category: **Textile and Industrial City, Tier-2**
Population: **8,31,038 (2011 Census)**
Area: **124 sq.km.**

Salem is the fifth largest urban agglomeration in Tamil Nadu and is rich in magnesite, bauxite and mineral reserves. An important textile center, industries form the backbone of the city. The first COVID-19 positive case was reported on 26th March 2020 and the city administration immediately swung into action, ensuring regular sanitization of roads and communities, decongesting of marketplaces, increasing vigilance and tracking of the COVID-19 positive and their contacts.



TRACKING & MONITORING

Ward Vigilance Committees

Ward Vigilance Committee teams have been formed at the ward-level of Salem Municipal Corporation (SMC) and team members are actively taking down the details of those with a travel history and tracking secondary contacts of COVID-19 positive cases who then undergo swab testing.



24X7 Surveillance at Check posts

Entry points to Salem city are under constant 24-hour surveillance and are staffed with a medical team and a police team. The teams are always under high alert and are successfully able to prevent COVID-19 positive cases from venturing within the city.

All who enter the city are taken directly to the quarantine facility for testing and then quarantined according to norms. A total of 11 college hostels are being used as quarantine facilities.



Vee Trace App

Developed by Sona College of Tech and Engineers of Vee Technologies, the Vee Trace app tracks COVID-19 positive individuals and alerts citizens who are within a 1km to a 100 metres radius of a COVID-19 positive citizen.



Launch of Vee Trace



SANITIZATION

SMC has procured four BHELMISTERS for disinfection activity across the city, with each having the capacity to pump out 2000 litres of disinfect in an hour. All houses in containment zones are disinfected thrice a day using the misters that are mounted on goods vehicles.



AWARENESS

Information about the importance of hand washing, wearing of face masks and maintaining proper social distance are regularly broadcast through public address systems at vegetable markets.



CITIZEN SUPPORT

Decongesting Vegetable Markets

The vegetable markets and *Ulavar Sandhai* (farmers' markets) were divided and established at twelve different places in the city. Spacious bus bays and platforms, temple grounds, state government grounds and private parties' vacant lands are being used to ensure social distancing and to avoid overcrowding whilst shopping. Hand sanitizers are installed at the entry to the markets while SMC field staff are always at hand to check if compliance norms are being followed.



Delivery of Essentials

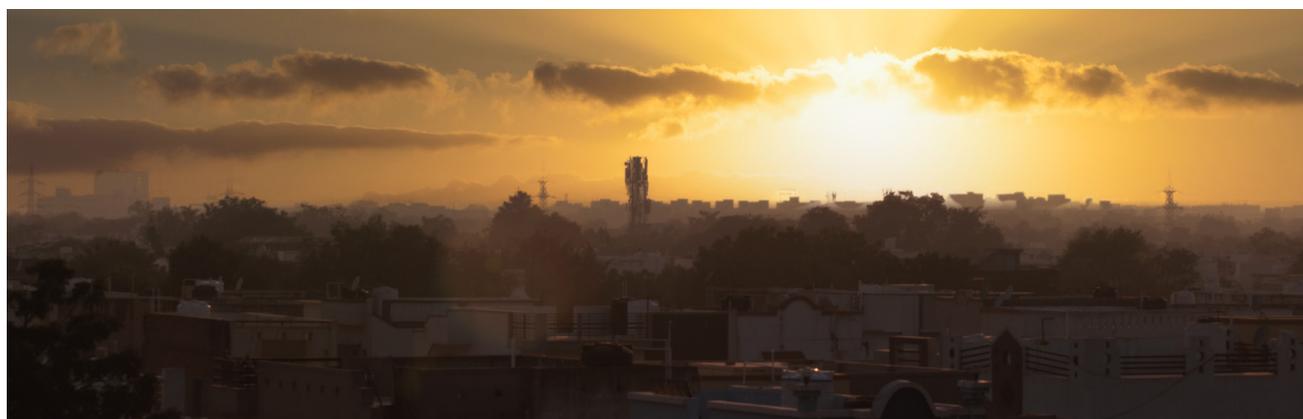
SMC has arranged for 30 vehicles to service containment areas. These provide groceries and daily essentials to people within hotspots.

Free Food for the Needy

During the lockdown period the needy were provided free food from seven community kitchens and 11 *Amma Unavagam* – the food subsidisation program run by the Government of Tamil Nadu. Food was also home delivered to the poor living in containment areas.



Surat



City: **Surat**

State: **Gujarat**

Category: **Diamond City, Tier-2**

Population: **44,67,797 (2011 Census)**

Area: **326.5 sq.km.**

Surat is the 8th largest city of India in terms of population. Hub to a booming diamond and textile industry, the city accounts for nearly 90% of the world's total rough diamond cutting and polishing. With the pandemic hitting industries hard, Surat Municipal Corporation (SMC) and Surat Smart City Development Limited (SSCDL) have deployed a series of measures for its residents. The city has adopted the rigorous TTT-IQ Strategy of Track, Test, Treat, Isolate and Quarantine. This is supplemented with IT interventions such as the SMC COVID-19 tracker app and active and passive surveillance along with extensive sanitation & disinfection measures and ensuring food for all.



TRACKING & MONITORING

COVID-19 Quarantine Reporting App

Surat Municipal Corporation (SMC) has launched a quarantining app that has to be downloaded by all international and inter-state returnees, COVID-19 positive contacts and those reporting ARI symptoms. The citizens' health condition is monitored through their quarantine period and necessary health care support is extended as needed. On completion of the quarantine period, healthy individuals receive an SMS to discontinue app usage and reporting.

Smart City Command & Control Center (ICCC) - COVID-19 War Room

The home quarantine adherence is monitored from the ICCC. The system generates an alert on violation. A strict warning, followed by punitive action, is initiated for home quarantine violations. The health of quarantined individuals is monitored based on their daily health reporting. Citizens with acute respiratory infections are identified through active and passive surveillance (through private clinic, hospitals etc.) and are home quarantined if needed. Their daily health status is then tracked and monitored via the COVID-19 Quarantine Reporting app and the War Room.



Active Surveillance by Health Workers

Surat Municipal Corporation (SMC) is undertaking active surveillance through a network of Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activists (ASHAs) and other primary health workers. These teams carry out house-to-house visits and identify individuals with Acute Respiratory Infection (ARI), reporting the same using the SMC Employee Connect app. The team also disseminates information about hand hygiene, wearing of masks, social distancing and ways to increase immunity. The door-to-door survey is also conducted across slums with a focus on high risk patients and those with co-morbidities.

Furthermore, random sampling is also carried out for ARI patients in slums. Considering the rising number of Coronavirus cases in crowded slum localities, around 20 Mobile Fever Clinics (MFCs) have been set up, staffed with a doctor and health staff. The health staff is equipped with a thermal temperature gun and samples are collected for COVID-19 testing.



Passive Surveillance: Common Platform for Reporting

All COVID-19 and ARI reports across the city are being shared on a common web-based platform. All private hospitals and practitioners have been notified to report all cases with Influenza-Like Symptoms (IIS) or Severe Acute Respiratory Syndrome (SARI) etc. The follow-up of these cases is done from the War Room and COVID-19 testing is then deployed as needed.

Surveillance in Slums

Barricades were set up in crowded slum areas to ensure there is no unchecked and unnecessary outward movement of people during the lockdown. Details of people moving out were recorded in the movement register maintained by SMC staff/local leaders deployed for surveillance.



DIAGNOSTICS

Tracking Acute Respiratory Infection Cases

Follow up visits of all ARI cases is done by Rashtriya Bal Swasthya Karyakram (RBSK) doctors. Intern doctors from Surat Municipal Institute of Medical Education and Research (SMIMER) are also appointed for regular telephonic follow-up of ARI patients. They also provide counseling facilities and share information related to social distancing and respiratory etiquette.

Augmentation of Health Care Facilities

SMC has augmented the existing bed facilities of SMIMER hospital with additional beds including COVID-19 isolation and ICU wards. They have also converted a 4-story parking facility of SMIMER Hospital, into a massive isolation ward spread over 2 lakh square feet, in just a few days.



SANITIZATION & SOLID WASTE MANAGEMENT

Sanitization and Disinfection

SMC regularly undertakes disinfection and sanitization of all government offices, public places, roads and cluster and hotspot areas. Disinfection is also carried out at all hospitals, health centers, vegetable markets, fish/meat houses, slaughterhouses, food distribution centers, cemeteries etc. Residential areas of confirmed cases are disinfected as soon as a case is identified. Considering the case as an epicenter, mapping of the area, as a contaminant zone of up to 3 kms and a buffer zone, is carried out. SMC is also taking steps to disinfect people visiting hospitals.

Solid Waste Management

With respect to the guidelines issued by the Central Pollution Control Board for 'Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/Quarantine of COVID-19 patients' SMC is ensuring biowaste from hospital and isolation wards is segregated and placed in yellow colored bags. These are then collected by authorized biowaste haulers who then ensure it is incinerated at common biomedical waste treatment facilities.



AWARENESS AND CAPACITY BUILDING

Capacity Building of Frontline Staff

Due emphasis is being given to increase the capacity building of all staff involved in COVID-19 activities. Taskforce teams have been identified, with nodal officers at the helm, and training is being provided for all healthcare providers including medical officers, specialists, pharmacists, sanitary staffs etc. A grievances redressal system has also been implemented to ensure speedy resolution of complaints.

Information Education and Communication (IEC)

SMC is using both conventional and modern IEC media for raising awareness. SMC is extensively using popular social media channels such as WhatsApp and Instagram etc. to educate citizens. Some of the other activities include pamphlet distribution, messaging on mass media (TV, radio, newspapers), door-to-door information dissemination by healthcare providers and bulk SMS alerts regarding confirmed cases in the neighborhood. Furthermore, an audio briefing is released by the Surat Municipal Commissioner, every day at 5:30 pm, highlighting the current situation.

Raising Awareness in Slums

Various awareness campaigns (IEC activities) are regularly carried out through inter-personal communication, mass communication by loudspeakers, distribution of awareness pamphlets, banners etc. SMC has also carried out awareness exercises in slums through paintings on walls and *rangoli* art at entry points.



CITIZEN SUPPORT CITIZEN SUPPORT

Toll Free Helpline

A toll-free number 1800-123-8000 has been set up to report inter-state and international returnees and to answer COVID-19 related queries.

Samvedna Surat – Ensuring Food and Shelter

16 community kitchens, 91 major food distribution centers and 90+ distribution points provide food to the needy. SMC has also tied up with various donors and

NGOs such as the Akshyaptra Foundation among others. Relief centers have been created to accommodate migrants and the homeless, and ration kits are being distributed to poor households.

SMC is also distributing food packets and dry rations in slums so that there is no unwanted movement of people. To enhance the body's natural defense system (I.e. building immunity) SMC also distributes ayurvedic drinks and homeopathy medicines to slum dwellers.

Distribution of Essentials

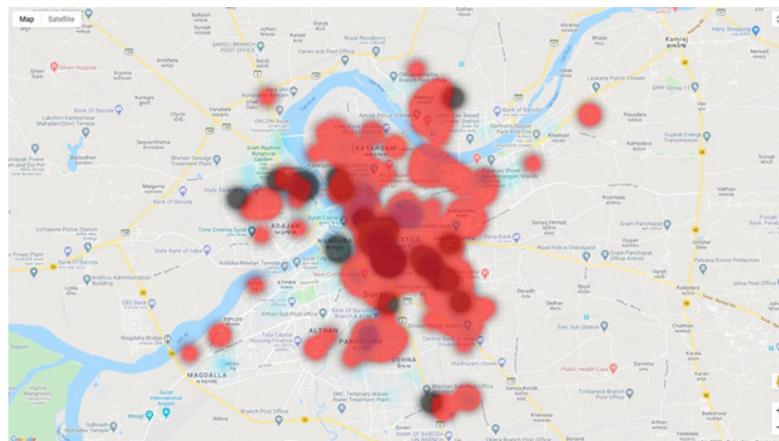
SMC has tied up with the Agricultural Produce Market Committee (APMC) for home delivery of groceries, vegetables and fruits. Vegetables carts are being allowed and facilitated in societies along with a home delivery system that is integrated with courier services.

Making of Masks

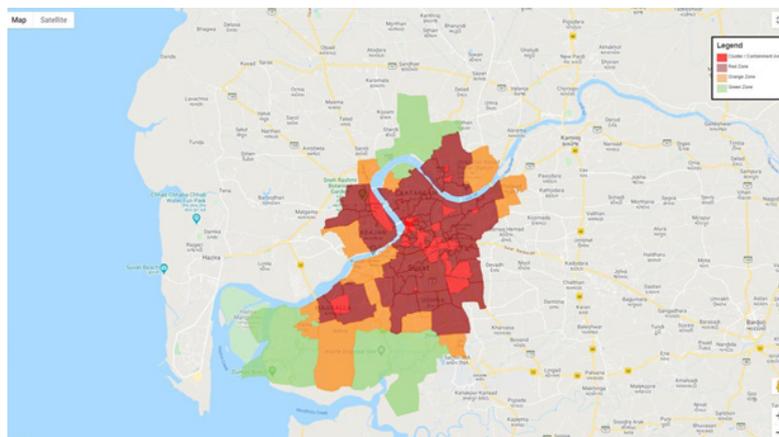
SMC is employing Self-Help Groups (SHGs) to make masks with nearly 30,000 masks being made daily. This also ensures SHGs of a steady income.

Hands-Free Handwashing Facilities in Slums

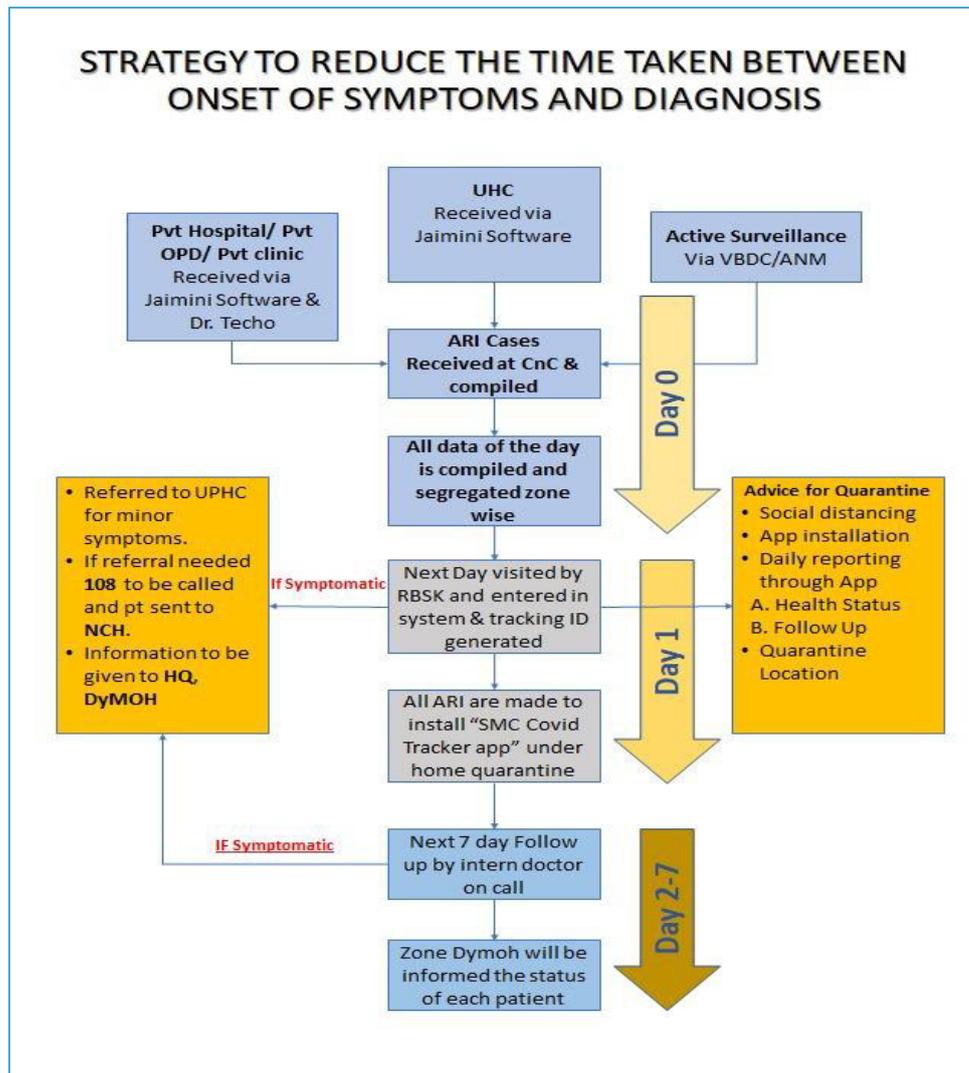
Over 150 foot press handwashing facilities have been installed along with the formation of a Corona Warrior Committee at the slum-level to monitor the local situation.



Heat Map of Positive Cases of Surat



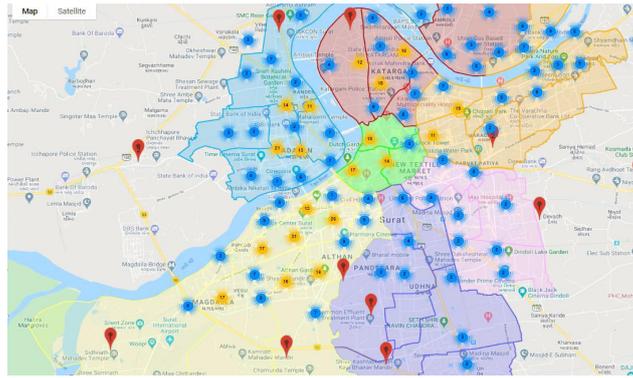
System Driven SOP based Red, Orange and Green Zones



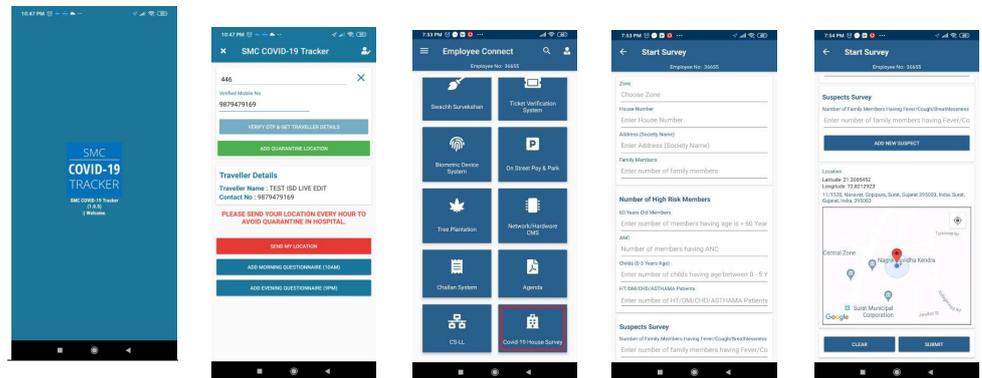
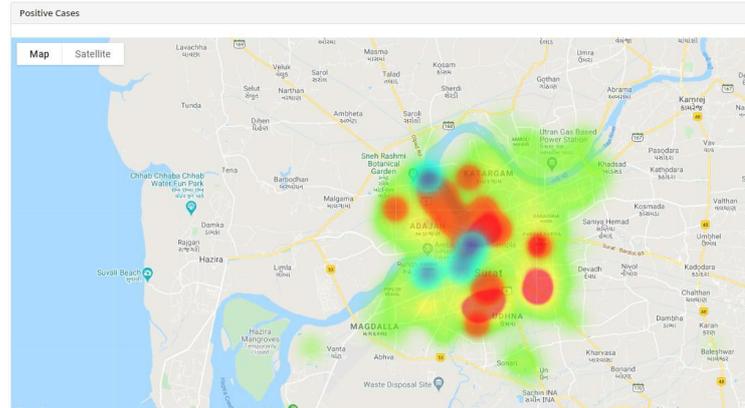
Augmentation of health care facility and capacity building



Surat

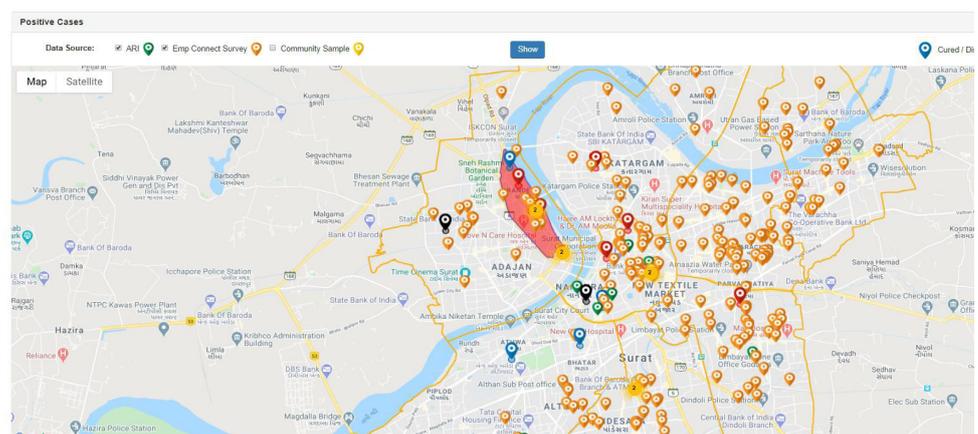


SMC COVID-19 Tracking System



Mobile App used by Citizens Screenshots

SMC COVID-19 Tracking System



Mapping of Positive Cases with ARI and Door to Door Surveillance

Tiruchirappalli



City: **Tiruchirappalli**
State: **Tamil Nadu**
Category: **Temple Town, Tier-2**
Population: **8,47,387**
(2011 Census)
Area: **167.23 sq.km.**

Tiruchirappalli or Trichy is the fourth largest city of Tamil and is famous for its temples and historic monuments. The Tiruchirappalli City Corporation has taken two main steps towards combating COVID-19. It quickly de-centralized busy vegetable markets to prevent overcrowding and converted all fingerprint-based biometric attendance at corporation offices to face-reader systems.



CITIZEN SUPPORT

Servicing the Needy

The city offers medical check-up facilities and free food to the homeless, beggars and waste pickers.

Transportation and Movement

During the lockdown, urban primary health centers were provided with transportation so that medical officers and nurses could attend to COVID-19 patients, the aged and expectant mothers without any hassle. A colour coding card pass system was also initiated and the same was distributed to the public on a ward basis.

Ensuring Social Distancing

The popular Gandhi Market vegetable mandi was closed and the markets were decentralized to eight different locations across the city. The wholesale vegetable market was shifted to the spacious G-Corner railway ground to ensure social distancing. Tiruchirappalli City Corporation also purchased vegetables on wholesale rates and distributed it for ₹ 100/- across the city on a non-profit basis using staff or hired vehicles.

Ensuring Social Distancing

The fingerprint biometric attendance at Tiruchirappalli City Corporation offices

Tiruchirappalli

was converted into a face-reader attendance system. A total of 125 face reader attendance machines have been installed in the corporation's main office, zonal offices, ward offices etc.



Tracking of individual in home quarantine in Surat



G-Corner Railway ground Wholesale Vegetable Market

Tiruppur



City: **Tiruppur**
State: **Tamil Nadu**
Category: **Textile City, Tier-2**
Population: **8,77,778 (2011 Census)**
Area: **159.35 sq. km.**

Tiruppur is the administrative headquarters of Tiruppur district and a major textile and knit wear hub. The city contributes to nearly 90% of India's total cotton knit wear exports. Like other cities, industries here too ground to a halt, during the pandemic, affecting lives and livelihoods. To combat COVID-19, Tiruppur took several measures including active surveillance of containment zones, regular disinfection activities, social distancing in marketplaces, mobile clinics in non-containment zones, food distribution for the needy and setting up of a mask vending machine.



TRACKING & MONITORING

Sector-Wise Surveillance by Medical Teams

Each containment zone is divided into sectors, comprising of 50 houses in each sector. Anganwadi workers, domestic breeding checkers, volunteers etc. are allotted to each sector for conducting active surveillance in containment zones.

A paramedical team visits each house to check for influenza symptoms and the same is carefully recorded. They also record information about senior citizens and persons with co-morbid conditions such as hypertension as well as details about expectant mothers. Influenza-like symptoms are referred to the associated medical officer for COVID-19 testing and treatment.



DIAGNOSTICS

Free Tele-Counselling

A tele-counseling wing is operating out of the Tiruppur Corporation main office. The center is staffed with a doctor, staff nurse and an Integrated Counselling & Testing Center (ICTC) counselor all of whom attend calls and answer queries.

Mobile Clinics

Free of cost mobile clinics operate in non-containment zones for the screening of influenza-like symptoms, treatment of minor ailments and distribution of drugs for hypertension etc. These mobile clinics have been arranged by Tiruppur Corporation in collaboration with private hospitals and NGOs.



SANITIZATION

BHELMISTERS (3000L) mounted on heavy vehicles, tractor trailer mounted jet sprayers, tractor mounted turbo sprayers and light commercial vehicle mounted power sprayers are being used to disinfect containment zone streets twice a day. A disinfectant solution of hypochlorite 1% is being utilized as per guidelines. Internal spraying is being carried out in all houses within a containment area using hand/power sprayers and a disinfectant such as Lysol. The sanitization team wears a full body cover, gloves, shoes, masks and glasses.



AWARENESS

Handwashing awareness stickers, along with Control Room/Community Health Officer (CHO) details, are pasted in all houses in Tiruppur Corporation. Public addressing systems have been fitted in vehicles and announcements are made to raise awareness and share vital information about solid waste management activities being carried out in the locality.

Flex banners, posters and notices are pasted across key locations to raise awareness while handwashing best practices are explained across the city in conjunction with SBM Animations and voluntary organisations such as Lions Club and NGOs. The public is continuously apprised about activities being undertaken by the corporation.

Handwashing is strictly followed as per guidelines at the entry points of bus stands, the Collectorate, *Amma Unavagam* centers, the corporation office, hospitals, medical shops etc.



CITIZEN SUPPORT

Mask Vending Machine

Tiruppur Corporation has installed a mask vending machine at their main office to ensure availability of masks at a nominal price.



Social Distancing in Vegetable Markets

The main city vegetable market has been shifted to the spacious central bus stand while other vegetable markets have also been shifted to more spacious areas such as college and school grounds. At every marketplace proper barricading, social distance markings and hand washing facilities are being maintained. People can enter the market only after they wash their hands with soap.



Amma Unavagam - The Government Food Subsidisation Program

The city's 10 Amma Unavagam centers have been upgraded to provide hot and hygienic food, thrice a day, to over 10,000 people daily. Additionally, food is being given to sanitary workers, migrant laborers, and senior citizens free of cost. Handwashing and social distancing are ensured, and disinfection work is done frequently through the day. The administration makes periodical inspections to check hygiene standards and other COVID-19 precautionary measures.



Social Distancing Alerts and Announcements

The Tiruppur Corporation has installed a Social Distancing Alert Device (SDAD) at the front of the Corporation's main office. At regular intervals, the device captures images and calculates the number of people gathered in the vicinity. When social distancing norms are flouted, an instant alert is triggered for the administrators to act on. The public address systems are also used to issue warnings in English and Tamil.



Ujjain



City: **Ujjain**
State: **Madhya Pradesh**
Category: **Commercial City, Tier-2**
Population: **5,15,215 (2011 Census)**
Area: **157 sq.km.**

Ujjain serves as the headquarters of both Ujjain District and Ujjain Division and exerts a significant impact upon commerce, finance, media, art, research, technology and education, in the region. Ujjain Smart City's Integrated Command and Control Center (ICCC) has come to the fore, during the ongoing pandemic, coordinating services and spearheading site monitoring, telemedicine services and critical call center management, along with acting as a one-stop management information system (MIS).



TRACKING & MONITORING

COVID-19 War Room

The district administration of Ujjain has established its War Room Command Center in Ujjain Smart City's Integrated Command and Control Center (ICCC) facility. The ICCC is playing a pivotal role in data collection and collation that is then used to make strategic decisions.

The War Room monitors the city's entry-exit points and traffic junctions, deploys Rapid Response Teams (RRTs) and Mobile Medical Units (MMUs), analyzes the COVID-19 growth trend, patient recovery and hospital bed occupancy, and offers telemedicine support and other citizen services. Suspect tracing of contacts, monitoring of containment zones in collaboration with Madhya Pradesh Agency for Promotion of Information Technology (MAP_IT) and Department of Telecommunications (DoT) and geotagging of positive cases is also monitored from here.

Monitoring Public Spaces and Entry-Exit Points

Ujjain District has been flagged as a red zone and the district administration closely monitors the city's entry and exit points. Vehicle plates are being captured by Automatic Number Plate Reader (ANPR) cameras and speed

detection cameras to curtail movement and ensure supply of essentials in the city.

A dedicated team has been assigned to monitor all city junctions. This is done through CCTV cameras with the ICCC team coordinating closely with the ground monitoring team to ensure compliance. All containment areas have dedicated CCTV cameras as well and are being monitored by on-site police teams as well as from the ICCC. A loudspeaker is also installed, along with the camera, enabling police personnel to provide voice instructions to people in containment areas.

Monitoring App for Citizens

Ujjain Smart City Limited (USCL) has created an app to ensure public awareness and to monitor containment zones. The app marks COVID-19 positive cases and containment areas so that citizens can avoid travel to those areas of the city. This platform also helps in identifying the risk sensitivity of areas that are near containment zones.





DIAGNOSTICS

Telemedicine Services

Ujjain Smart City Limited (USCL) has implemented a telemedicine facility at ICCC in coordination with the Chief Medical and Health Officer of Ujjain. More than 20 doctors, many of whom are specialists, have been onboarded for consultation purposes.

Rapid Response Teams (RRTs) and Mobile Medical Units (MMUs)

14 RRTs and MMUs have been established, with ICCC assets and personnel providing the necessary coordination support. Data collation, data entry and MIS services are done at the ICCC so that the doctors can focus on diagnosis and medical care. Administrative units have also been formed to support the RRTs.



CITIZEN SUPPORT

Dedicated Call Centers

Three dedicated call centers have been set up, using the ICCC infrastructure, to monitor the health and nutrition/food status of citizens. 14/28-day quarantine calls are also placed through the call center to check on the health of recent travelers.

Food Distribution

The administration has onboarded vendors to deliver vegetables and fruits to all 54 wards of the city. 12 NGOs have been enlisted to distribute 20,000+ food packets to needy people daily.

Vellore



City: **Vellore**

State: **Tamil Nadu**

Category: **Educational & Business Center, Tier-2**

Population: **1,85,803 (2011 Census)**

Area: **87.915 sq. km.**

Vellore is the main city and the administrative headquarter of Vellore district. Vellore boasts of some of the most prestigious educational and medical institutions in the state and the city's medical fraternity has been involved with fighting the virus right from the start. Along with providing due care to patients, primary and secondary contact tracing is being done while door-to-door surveys are being carried out as well. Decongestion of marketplaces, public awareness announcements and free food distribution to the needy are other measures being employed to support citizens.



TRACKING & MONITORING

Ward Vigilance & Surveillance Committee

A team of sanitary supervisors, domestic breeder checkers, paramedical staff, police and revenue department members have been formed, in each ward of Vellore Corporation.

The team tracks all who enter Vellore City from other states and districts and work towards tracing secondary contacts of COVID-19 positive cases. They also oversee disinfection activities, social distancing, and other surveillance activities.

24X7 Surveillance of Entry/Exit Checkpoints

All checkpoints of Vellore city are under constant surveillance by medical and police teams. All people entering the city are taken directly to the quarantine facility for testing and are then quarantined according to norms.



SANITIZATION

Vellore Municipal Corporation uses a BHELMISTER, mounted on a vehicle, to disinfect houses, main roads and streets quickly and efficiently. All the houses in containment zones are disinfected five times during the day.



VELLORE CORPORATION



வேலூர் மாநகராட்சி



AWARENESS

Public Address Systems (PAS) at all vegetable markets broadcast the importance of handwashing, wearing of facemasks and the need to maintain proper social distance while shopping. PAS across the city, with a focus on containment zones, are used to popularize the Vellore Helpline numbers (Hello Vellore) and the *Aarogya Setu* app.



CITIZEN SUPPORT

Hello Vellore Helpline

The 'Hello Vellore' helpline (0416-2251641, 0416-2255383), managed through the control room, offers 24X7 medical care and ensures delivery of essential commodities to affected areas.

Food for the Needy

During the lockdown period the needy were provided food at a community kitchen, a central kitchen and 10 *Amma Unavagam* (Tamil Nadu's food subsidisation program) outlets. Food was provided to all migrants stranded in the Vellore Corporation area and poor people in containment zones received free food at their doorstep.



Supply of Essential Commodities

All streets to containment areas are barricaded and citizen movement is greatly restricted. The Vellore Municipal Corporation has deployed vehicles to provide essential commodities and medicines to people in containment zones. People are also urged to reach out to the Hello Vellore helpline for specific requests or help.

Decongestion of Vegetable Markets

The first COVID-19 case in Vellore was detected towards the end of March and within the first week of April itself Vellore Municipal Corporation took steps to decongest vegetable markets & *Ulavar Sandhai* (farmers' markets) as a precautionary measure. Nethaji Market was shut down and temporary markets were opened, in spacious grounds, across the city. Vellore Corporation field staff monitor markets and handwashing facilities have also been provided at all entry points to each market.

Helping Migrants and Tourists

Special train arrangements were made, in coordination with the district administration, to ensure migrant laborers and tourists were sent to their native place post checkups.



