World Health Organization India

ACCELERATED SURVEILLANCE FOR COVID-19

LEARNINGS FROM UTTAR PRADESH

BACKGROUND

With at least 230, 000, 000 citizens, Uttar Pradesh (U.P.), one of the most densely populated states in India has risen to its unique challenges to overcome the COVID-19 situation which has gripped the nation and the world today. The state has demonstrated strong leadership, effective governance, and commitment, throughout this pandemic, and led by example.

U.P. was faced with a fragile health system even before the pandemic and had to tackle an overburdened one during the outbreak. This led the government to ramp up its health facilities and testing capacities early on. During the first phase of the lockdown, hospitals across the state were assessed and received additional ICU beds and ventilators to respond to the potential surge. Testing services were accelerated with the government increasing its capacity from 60 tests per day in January to 5,000 tests a day in April (Source: State Bulletin and media reports). U.P., was the first state in India, to achieve the target of providing 100,000 beds in health facilities for COVID-19 patients.

> **"At present, we do not have a single district that has less than 100 beds and we have drawn up a plan to have 52,000 beds by next week"**
>
> Rajendra Kumar Tiwari, Chief Secretary, Government of Uttar Pradesh (at a media briefing on April 30)

Importantly, the state government prioritized active surveillance while simultaneously building the health system capacity. It tapped into real-time information for early identification, breaking the disease transmission, and training public health authorities to undertake effective contact tracing. The state conducted house-to-house surveillance to detect all influenza like illness (ILI), tracked migrants consistently, and introduced pooled sampling, amongst other critical measures to strengthen the WHO-recommended 'test-track-isolate' strategy.

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Prime Minister Narendra Modi launches the Atma Nirbhar Uttar Pradesh Rojgar Abhiyaan, through video-conference in the presence of Chief Minister Yogi Adityanath. (PTI)

HARD WORK OF UP GOVT SAVED 85,000 LIVES DURING COVID-19: PM NARENDRA MODI

Even as the situation continues to evolve in India, it is critical to assimilate key learnings from U.P., a state that has been able to stay vigilant by using innovative strategies and technologies, and thereby mitigate the impact of the outbreak.

UP's Covid 19 recovery rate at 68% against national average of 58.5%, 606 new cases on Sunday

Uttar Pradesh is among the top 10 worst-affected Indian states and is also among the top states with highest recovery rates.

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KEY INTERVENTIONS

Vishesh Surveillance Abhiyaan Initiative (VSAI)

Drawing on the learnings from the successful polio campaigns, the state government launched VSAI, a house-to-house surveillance and community-sensitization initiative, aimed to track the outbreak and detect ILI and severe acute respiratory infections (SARI) cases at the household level.

This campaign was first launched on 2 July for a period of 10 days, in Meerut division, where six districts were faced with an increasing number of cases, especially those surrounding the National Capital Region (NCR). Next, the campaign was expanded across the state for another 10 days between 5 - 15 July. Routine contact tracing and surveillance activities accompanied the initiative.

For VSAI, a two-member team visited households, communicating best practices on infection prevention and control, identifying individuals displaying ILI/SARI and co-morbidities. If the team found people demonstrating ILI/SARI symptoms, their cases were sent for sampling. The team also put up notification stickers including contact information for helplines and ensured community awareness on basic COVID-19 prevention measures during the visits.

Outcomes in numbers



6,72,768 teams covered



3,92,91,508 households



1,25,756 suspected ILI/SARI cases identified

WHO-NPSP monitored



30,606 teams and 60,627 houses.



found 2101 symptomatic suspects in



10,15,606 population tracked during monitoring

Team supervisors compiled the findings daily, collating household-level data, and reviewed it at block level meetings. Samples were collected from all symptomatic cases at block and district levels, with the help of mobile medical units (MMUs). Sample collection centers were also established at the sub district level. The health department arranged additional vehicles and ambulances for transporting symptomatic cases for testing.

WHO-NPSP teams at the district level supplemented daily COVID-19 monitoring exercises and tracked samples of symptomatic cases at the block, district, and state levels. Through this process, an additional of 177,267 suspected cases were identfied in a span of just 10 days.

Accelerated Surveillance for COVID-19 | Uttar Pradesh



The sheer expanse of VSAI is demonstrated by the resources employed. At least 1,38,000 team members and 27,600 supervisors that constituted 69,000 teams, conducted door-to-door surveys. State officials were supported with logistics and essential, preventive equipment – masks, sanitizers, tally sheets, infrared thermometers, pulse oximeters etc.,

The state leadership exhibited high-level commitment to this initiative, with the Additional Chief Secretary holding regular briefing sessions with DMs and other health officials. The DMs went on to chair meetings with district officials from related departments. Trainings by master-trainers followed through a cascade model during which supervisors and frontline workers at the block level were equipped on the nuances of the initiatives. Thus, the state was not only able to consolidate data from amongst millions of citizens, but also prevent any delays in taking decisions.

Migrants Tracking

Once cities across the country were under lock down, migrant labourers, many originally from U.P. started returning to their home state, undertaking arduous journeys and thereby, running high risks of contracting the virus. This influx posed a massive challenge to the state in curbing the transmission of the virus and staying ahead of the curve.

All migrants were screened as they deboarded trains, upon arrival in their districts. Screening and triage were conducted using vigorous symptomatic screening and with the help of pulse-oximeters.

Those with any symptoms and/or those traveling from high-risk areas were sent to an institutional quarantine facility (present in each of the 75 districts) where tests were done.



All COVID positive patients were admitted in isolation wards of designated COVID-19 hospitals (established across all districts).



All COVID negative individuals were segregated and sent home after a 14-day institutional quarantine.

Those who were found to be healthy and did not exhibit any symptoms, on screening, were sent to their respective villages for a 21-day quarantine, via state-arranged transportation. They were provided with ration for a month. For those, who did not have the facilities to quarantine at home, institutional quarantine was ensured.

Grameen Samitis (village committees) were formed in all 97941 populated villages which were led by Gram Pradhans (village-chiefs) and panchayats in each village. Local leaders ensured that quarantine norms were followed at home.

To reach the last mile, the state engaged hundreds of thousands of Accredited Social Health Activists (ASHAs) to track, conduct contact tracing, and monitor migrants in a structured manner once they were home. ASHAs supported the state government with surveillance in two phases – tracking people, identifying symptoms, and regularly following up with them at the community level once they were home. Symptomatic cases identified by ASHAs were shared at block and district levels. A rapid response team (RRT) visited and screened those with symptoms, following which, samples were collected for tests with the help of on-ground lab teams and MMUs, as needed.

> **"We are tracking migrant labourers returning to the state with the help of ASHA workers. 11,47,872 labourers have been tracked till now, out of which 1,027 are symptomatic. Their samples have been collected for test "**
>
> Amit Mohan Prasad, State Principal Secretary (Health),
> at a media briefing on June 1

The ASHA workers were alert, motivated, and committed to supporting the community and sensitizing the people about the importance of preventive measures such as hand-washing and physical distancing. Acting as a critical bridge for people, they stayed connected with vigilance committees and volunteers in villages. They also communicated the different nuances of essential and non-essential healthcare services and ensured that people had access to the services they needed.

To strengthen data collection, a data base of migrants was developed with addresses, phone numbers, and Aadhaar numbers, which was shared with the state relief commissioner. By early June the state government also successfully completed mapping the skills of migrants who had returned post-lockdown. This helped identify and map core skills of the labourers and ensure that they are employed in the future, by connecting them with micro, small and medium enterprises (MSME) sector by the Rahat Department (Relief Unit).

Pooled Sampling

Significantly, U.P. was the first state in the country to start testing suspected cases by pooling samples. One the methodology was standardized the strategy was implemented in low prevalence settings. Pooled samples were subjected to Nucleic Acid Amplification Technique (NAAT) tests to detect SARS-CoV2. In this method, in case of a negative result, all included samples are reported as negative. If a pool indicates a positive result, individual testing is then initiated.

> **"Pooled testing will save resources and speed up the testing process"**
>
> Amit Mohan Prasad, Principal Secretary (Health)
> at a media briefing on April 14

By pooling samples, U.P. was able to stay a step ahead of the rapidly transmitting virus. Five samples were pooled in low prevalent areas, from districts with fewer notifications thereby, ensuring wide coverage. By proactively testing samples from the most vulnerable - vendors in markets, migrants who had returned, their neighbors, etc., - officials were even able to understand the epidemiological factors propelling the infection and thereby, develop targeted responses. In June, accounting for vulnerable groups, the state developed a calendar and a systemic roster for pool sampling in target districts.

By adopting this method, U.P. was able to better support workers on the ground. Infected people/ groups were easily identified, and resources were distributed more evenly amongst those who needed them the most - healthcare providers, police staff, Safai Karamcharis[1] and others. The government was also able to formulate new and specific guidelines and instructions in containment zones more effectively based on the findings consolidated. The state of U.P. stands to continue pool sampling amongst vulnerable groups, given its success.

[1]'Safai Karamchari' refers to a person engaged in or employed for any sanitation work and includes his/her dependents. Available here

Enhanced Testing

Tremendous efforts were made by the Hon'ble CM to increase testing. Notably, in March, the state had only two designated laboratories for COVID-19 tests which has increased exponentially – as on 5th August, this number stood at 23 government labs. Further TrueNat machines have been made available in district hospitals as well as medical colleges across the state. Following guidelines issued by the Indian Council of Medical Research (ICMR), antigen kits have also been included as a testing method. As a result, while the four months between March to June saw 6 lakh tests being conducted, in July more than 7 lakh tests were achieved.

On 05th August itself, 8,70,79 tests were conducted, the highest such number in the country. TrueNat machines were airlifted urgently from Goa to decentralize COVID-19 testing to districts and primary health care settings. The state has also planned its daily testing meticulously - with ~ 35,000 RT-PCR tests, around 50,000 rapid antigen tests and around 2500 TrueNat tests (in the 75 districts where they are available) being conducted.

As of 05th August a total of 2.71 million tests have been conducted in U.P. and currently the state has a testing rate of 12047, per million population. As of this date, U.P. has 41973 active COVID-19 cases, despite having a larger and denser population than several other states in India. Even as the state continues to fight its own, unique challenges, the government has continued to monitor the disease relentlessly, taking life-saving decisions and introducing new interventions quickly, which have helped build a success story for the nation.

WAY FORWARD

By applying a synchronized and systematic approach rooted in the 'test-track-isolate-treat' strategy, uniformly across populations, U.P. has demonstrated how surge capacity can be boosted even in the most fragile health systems. The state government's measures have simultaneously strengthened the health infrastructure and medical response. It was able to provide relief to various sections including migrants from U.P. in other states and pre-emptively address gaps in the supply of essential goods and services. Through the last few months, the government has been invested in building the health system. Community participation, WHO's technical support, a 'whole of government and whole of society' approach has delivered evident results.



[2]Ministry of Health and Family Welfare. Available here