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Hard knocks and tough lessons: How Mumbai's health infra coped with Covid

Mumbai is no stranger to pandemics and its authorities have faced a steep learning curve each time. In fact, much of the city as we know it today is a result of a planning body that was created in the wake of the bubonic plague which first hit the city in 1896

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Senior citizens queue up to get vaccinated against Covid-19 outside BKC vaccination centre in Mumbai on Tuesday, March 2. (Pratik Chorge/HT Photo)

Sunita Patil, a 33-year-old woman with a severe kidney ailment arrived at Mumbai's King Edward Memorial (KEM) Hospital shortly after noon on April 10, 2020. She had a 101-degree fever and needed dialysis. Two of the three Brihanmumbai Municipal Corporation (BMC)-run Covid-designated hospitals with dialysis centres were out of beds. Patil and her husband, Sudhir, were forced to spend the day outside KEM, the city's largest public hospital managed by BMC, before she could be admitted, tested for Covid, and then treated. It was only around 2 am the following day that Patil was admitted. Her treatment began on a stretcher because no bed was available.

"The whole ward was full. Not a single bed was vacant. There were patients lying on the floor. I was on a stretcher, and I did not even have a bedsheet to cover myself. I was scared and I felt

alone. My husband was not allowed inside the Covid ward," Patil, who spent two weeks in the hospital, said. "I still have nightmares about that night."

Maharashtra recorded its first set of Covid-19 cases on March 9 when a Pune-bound couple landed in Mumbai's Chhatrapati Shivaji International airport from Dubai. The couple took a taxi from the airport to Pune, where they were tested. The taxi driver and the couple's daughter also tested positive for the virus.

Exactly a month later, around the time Patil went to the hospital, Mumbai had 1182 active cases. But the city had only 200 Intensive Care Unit (ICU) beds and 50 ventilators in the six Covid-designated public hospitals for the more serious patients who required hospitalisation. Mumbai had the highest number of cases among all major Indian cities.

Things were only about to get worse.

Mumbai has a population of more than 20 million people. Of them, 12 million live in slums, where the population density and lack of sanitation facilities — a neighbourhood comprising close to 200 families usually share one toilet complex — meant that conditions were for any pandemic to spread. Dharavi, the country's largest slum, is home to 650,000 people in a 2.4-km sq area. Its population density is 10 times that of Manhattan in New York City, where the pandemic had created havoc through March.

The comparison between Mumbai and New York was inevitable. Around the time that Patil went to KEM hospital, New York had more confirmed cases than any country outside the US. Nearly half of the cases in the US were in New York. Dozens of people were dying every day. The hospitals were simply unable to cope in New York. This was feared to become Mumbai's fate too. By May 21, the number of cases in Mumbai surpassed the caseload of 158 countries, including the UAE, Indonesia and Ireland.

"Mumbai is not like other cities. It has unique geographical and sociological characteristics. It is home to the largest slum, Dharavi, which acts as a ticking bomb in any epidemic outbreak. So, when the first case was reported in India in January, the civic body should have been more cautious and started testing all domestic and international passengers. But it was not done until mid-March," said Dr Abhijit More, the co-convenor of Jan Arogya Abhiyaan, a non-governmental organisation.

That was not the only thing Mumbai was unprepared for.

By April, Mumbai's positivity rate (the percentage of people whose test results returned positive for the coronavirus among the total number) was 8%. It shot up to 18% in May and

21.2% in July. Even with BMC's decision to use 80% of the beds of all private hospitals in the city, there was one isolation bed per 5,246 residents.

Soon, people began to be sent away from hospitals for the lack of beds. On May 1, a family from Chembur visited five hospitals to get a 62-year-old woman admitted but could not. Four days later, the woman succumbed to the infection without treatment. "I had never felt so helpless as I did when I could not save my mother. I was ready to put in all my savings, but no hospital was ready to admit and treat her," said her daughter.

On May 13, a 35-year-old bank loan agent took a test to confirm whether his symptoms were Covid-related. His results returned positive two days later. Following this, four different hospitals turned him away for lack of ICU beds, though his condition was steadily deteriorating. Finally, he was admitted to a hospital in Jogeshwari, but died a night later. "If he got treatment on time, I could have saved him," his brother said.

Reports of infected patients sharing beds in BYL Nair, Dr RN Cooper and Lokmanya Tilak General (Sion) hospitals emerged, and videos of patients lying close to bodies wrapped in black polythene bags in Covid-19 hospital wards began to circulate on social media. By mid-June, half the state's death toll was being recorded from Mumbai. All 11 electric crematoria in the city worked overtime as grief-stricken families formed serpentine queues, often waiting for seven to 10 hours to lay their loved ones to rest.

Pandemic central

Mumbai is no stranger to pandemics and its authorities have faced a steep learning curve each time. In fact, much of the city as we know it today is a result of a planning body that was created in the wake of the bubonic plague which first hit the city in 1896. The following year, the city's first and only infectious diseases hospital — now called Kasturba hospital — was set up. By 1918, the plague epidemic claimed 160,000 lives in the city alone. The same year, the Influenza epidemic hit the city claiming several thousand more lives over the course of two years. But when the Covid-19 pandemic hit Mumbai in March 2020, Kasturba hospital had only 150 beds (including ICU beds) where suspected and confirmed infected patients could be quarantined.

The problem facing the health infrastructure was two-fold: a severe shortage of beds and ventilators across primary, secondary and tertiary hospitals; two, doctors, nurses and other health care providers falling prey to Covid-19, which meant that the already immense strain on health centres was getting worse.

The state appointed a nine-member task force, comprising doctors, to guide policy decisions. One of the first recommendations it made was to ask the BMC to consider taking over all

hospitals in the city, and reserve around 70% of it for Covid-19 patients. This advice eventually came in handy, as the BMC began to direct officials to acquire beds as well as ICU wards from private nursing homes and smaller hospitals spread across all 24 wards of the city, as cases began to rocket.

By May, the BMC had acquired an additional 2,400 beds in this way. But it would still prove to be not nearly enough.

Within a month of the outbreak, more than 100 medical staffers from nine major private hospitals including Jaslok, Saifee, Breach Candy, Nanavati and Hinduja (Khar) tested positive for the virus, leading to a partial shutdown of their emergency and OPD wards. By mid-July, more than 1,000 doctors and nurses had already contracted the infection in the city.

To avoid getting infected, doctors would work entire shifts in PPE kits, dehydration, and menstrual cycle notwithstanding. "When the pandemic started, we were given cheap quality donated PPEs which were not even safe to use. Due to fear, we stopped visiting our families and were quarantined in lodges and hotels," said a resident doctor from KEM.

According to the Indian Medical Association, more than 40 private practitioners have succumbed to the infection.

Steep learning curve

"Since the virus was new, we did not have any knowledge of its epidemiological characteristics. Therefore, just like the rest of the world, we had to learn through trial and error," said Suresh Kakani, additional municipal commissioner, BMC.

In April, BMC's 24x7 disaster helpline number, 1916, began to field calls for Covid-related queries. Anyone seeking a bed in a hospital had to call this helpline to get registered and the bed, when available, would be allotted. Soon, volunteers were busy round the clock, fielding up to 4,000 calls a day on average. Over 22,000 calls were recorded till February 2021 and almost 60% of them were enquiries about hospital beds.

It was only towards the end of May that volunteers could provide real-time information to the callers on the availability of beds in Covid-designated hospitals, when the BMC came out with a live dashboard. At the time, according to a press release by the municipal body, 96% of the city's Covid ICU beds, 63% of the Oxygen support beds and 66% of the ventilators had already been used up.

The BMC also came out with a standard operating procedure (SOP) in the second week of April to treat patients depending on the severity of the condition. The civic body opened Covid Care Centres (CCC-1 and 2) — the first for high-risk contacts of positive persons and the second for asymptomatic and mildly symptomatic patients — in makeshift facilities such as lodges, stadiums, schools, hotels and hostels. Dedicated Covid Health Centres (DCHC) were

opened for symptomatic patients, moderately ill patients and some patients with comorbidities. Dedicated Covid Hospitals (DCH) were opened for patients showing prolonged symptoms of fever, cough, and breathlessness, senior citizens, as well as severely ill and critical patients who needed ICUs.

Covid jumbo facilities were opened across the city in Mulund, Dahisar, Mahalaxmi, Race Course, Goregaon and Bandra Kurla Complex, which helped increase the bed capacity. The Mumbai Cricket Association temporarily handed over the possession of Wankhede Stadium for use by emergency staff of BMC and to quarantine Covid-19 positive but asymptomatic patients. So did the privately-run National Sports Club of India, which gave the BMC space within its complex to set up a Jumbo centre.

In July, when Mumbai hit its peak, it had 16,859 beds in all dedicated Covid hospitals. By October, the city had nearly 70,000 beds across all CCC1 and 2 facilities, which also included seven jumbo Covid centres that could cumulatively handle 5,000 patients. As the number of cases began to flatten out, hospitals began to reduce the number of beds for Covid patients. In December, there were 13,898 beds in hospitals, and almost 80% of the CCC-1 beds were unoccupied.

An aggressive trace, test and quarantine system was also put in place by the BMC. High-risk contacts of infected patients were made to stay in CCC-1, and those above 60 years with comorbidities were isolated. In May, a home isolation protocol came into place: if the symptoms did not warrant hospitalization, people were asked to stay home and isolate if possible.

"Following the instructions of the Indian Council of Medical Research (ICMR), we started quarantining all asymptomatic and mild/moderate patients in their houses. In slums, we isolated the high-risk contacts like senior citizens and people with comorbidities in CCC-1," said Daksha Shah, executive health officer, BMC.

Till February 25, 2021, the city's municipal body had traced over 4.5 million close contacts including 2 million high-risk, and 4.4 million people had been quarantined at home. The civic body also started door-to-door screening where people were checked for fever, cold, oxygen saturation levels and other Covid-19 symptoms.

"Though the lockdown had impacted people's lives adversely, it gave us breathing time to chalk out our plan. Good decision making and sincere implementation helped us stop the spread," said Kiran Dighavkar, assistant municipal commissioner, G-North that covers Dharavi, Dadar and Mahim.

Lessons learnt

“The outbreak has got the civic body to realise the importance of having a robust health care system, one that is fully equipped and battle-ready. If Mumbai residents have to live with the virus and other similar deadly infections in today’s increasingly interconnected and interdependent world, they have to focus on filling up the cracks in the health infrastructure,” said Dr Avinash Supe, a member of the civic body’s death committee.

It is almost a year since the outbreak of the pandemic that brought Mumbai to a standstill. The positivity rate came down to 10% in January. But in February, the daily cases have seen a sharp hike.

New strains of the virus, first detected in the UK, South Africa and Brazil have also been seen in India, including in Maharashtra, and while there is no link found between the new strains and the rise in cases, it is clear that the pandemic is not over.

“The battle against Sars-CoV-2 is far from over. After staying in the house for months, people have become fatigued. Their guards are down. Wedding ceremonies and family functions have become super spreader events. We need to tighten our grip and follow all precautionary measures,” Supe said.

Spotlight has also fallen on the hard lessons that the municipal body — the richest in the country — has learnt in the past year. An analysis of BMC’s three-year budget shows that only 13% of its revenue is invested in the health sector which health experts have called “inadequate”.

This year, the allocation for health care in BMC’s budget is ₹4,728.53 crore, of which a capital expenditure of ₹1,206.14 crore has been earmarked.

“The BMC has proposed to improve the infrastructure of health care institutes, carry out major structural repairs at 29 hospitals, 287 health posts and/or dispensaries and 28 maternity homes for which ₹822 crore has been allocated,” said Iqbal Singh Chahal, BMC commissioner, while presenting this year’s budget.

A report by independent public-policy think tank IDFC pointed out the focus on expenditure has always been on secondary and tertiary care, rather than primary care. “While expenditure on hospitals was 74% of Mumbai’s health budget, only 26% was spent on dispensaries,” it read. Primary care centres offer the first line of defence; if they continue to remain ill-equipped and under-staffed, the effects are felt throughout the health care infrastructure, as the past year has shown.

“We will be focusing on developing the 19 peripheral hospitals. Also, we have plans to construct a building inside Kasturba Hospital for patients with infectious diseases. We want to

make both horizontal and vertical growth in the health sector," Suresh Kakani, additional commissioner, BMC, said.

A September 2020 report by Praja Foundation, an NGO working for accountable governance, also pointed out that the overall vacancy of medical personnel in civic medical institutions was 27% in 2015 which increased to 47% in 2019.

"It is time for the civic body to introspect if they meet the required standards mentioned laid by the union health ministry. The pandemic has been an eye-opener," said Nitai Mehta, founder and managing trustee, Praja Foundation.

Link:- https://www.hindustantimes.com/cities/mumbai-news/hard-knocks-and-tough-lessons-how-mumbai-s-health-infra-coped-with-covid19-101614753091784-amp.html