



a weekly publication from ICMR-NIRT Library

2022 | Vol.5 | Issue No.17

news **bulletin** *Library*



NEWS BULLETIN

25 April 2022 | Vol.5 | #17

A weekly publication from NIRT Library

THE HINDU

TB must be notified when diagnosed: DPH

CHENNAI APRIL 24, 2022 19:13 IST

'Officials must promptly report incidence of cases on daily basis'

The Director of Public Health has instructed all government and private healthcare institutions and laboratories to notify tuberculosis when it is diagnosed.

As per the Tamil Nadu Public Health Act, 1939, under Section 62, TB was declared a notified disease by the State on January 19, 1955. Thus all practitioners who diagnose or treat the disease must provide information "with the least practicable delay" to the concerned local health authority. Not doing so could invite penalty under Section 134 (1) of the Act, he said.

All deputy directors of health services, health officers in corporations and municipalities and city health officers, have been told to "promptly report incidence of cases on a daily basis from all healthcare providers, laboratories with diagnostic facilities for TB, pharmacies dispensing anti-TB drugs, government and private hospitals".

The directors of medical education and medical services have also been requested to issue suitable instructions to their subordinate officers in this regard.

The Indian EXPRESS

Cutting Edge: After Covid, can genome sequencing help identify gene responsible for drug-resistant TB?

Tuberculosis is the leading infectious disease killer in the world and was only recently overtaken by Covid-19. Scientists are keen on exploring whole genome sequencing (WGS) for TB investigation.

Written by [Anuradha Mascarenhas](#) | Pune
Updated: April 19, 2022 12:46:48 pm



The Mtb transmissibility may vary between lineages (or variants) and this may contribute to the slow decline of tuberculosis (TB) incidence," Dr Karyakarte explained.

The Mtb transmissibility may vary between lineages (or variants) and...

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Nagaland is coronavirus-free

KOHIMA APRIL 25, 2022 03:16 IST

Active case count hits zero for the first time since May 2020

Nagaland became a coronavirus-free State on Sunday with the lone active COVID patient from Dimapur district recovering from the infection, a senior health department official said.

The active case count hit zero for the first time in the northeastern State since the detection of three COVID patients on May 25, 2020, he said. The first three coronavirus patients in Nagaland were among returnees from Chennai.

The caseload remained at 35,488 as no fresh infection was reported in the last 24 hours, the official said. Altogether, 33,244 people have so far recovered from the disease.

The recovery rate was 93.68% cent. The death toll due to the infection stood at 760. Altogether 1,484 patients have migrated to other states, the official said.

Nagaland has so far tested 4,71,479 samples for the infection. Over 16.16 lakh doses of COVID-19 vaccines have been administered in the state till Saturday.

SII urges Centre to use 10 crore Covishield doses offered by GAVI

NEW DELHI APRIL 25, 2022 03:13 ISI

Amid surge in cases, manufacturer warns of wastage



A medic shows a fresh vial of Covishield | Photo Credit: SHIV KUMAR PUSHPAKAR

The Serum Institute of India has urged the Centre to use the available 10 crore doses of Covishield offered free of cost by GAVI under COVAX facility in view of rising COVID-19 cases in the country, an official source said.

The Pune-based firm has written to the Ministry of Health and Family Welfare (MoHF) that if these 10 crore free doses of Covishield are not taken by the Indian government timely, it will lead to wastage of the life saving vaccines amid the pandemic outbreak.

In a letter to the ministry, Prakash Kumar Singh, Director, Government and Regulatory Affairs at SII, is learnt to have stated that the firm has already supplied 14 crore doses of Covishield to the Government of India (GoI) through UNICEF under "COVAX" facility of GAVI free of cost.

Apart from these 14 crore doses, GAVI has also offered 10 crore doses of Covishield free of cost to GoI under COVAX facility, the source said.

"As Covid cases are rising again in our country, using this immediately available 10 crore free of cost Covishield vaccine doses by GAVI for our citizens at the earliest would be beneficial in controlling the upsurge of COVID-19. This will play a crucial role in taking forward the world's largest vaccination drive under visionary leadership of our Prime Minister Narendra Modi Ji towards its

successful completion," Mr. Singh is learnt to have stated.

The cumulative COVID-19 vaccine doses administered in the country has so far exceeded 187.67 crore.

India had on April 10 began administering precaution doses of COVID-19 vaccines to all aged above 18 years at private vaccination centres. All those above the age of 18 who have completed nine months after the administration of the second dose are eligible for the precaution dose.

The countrywide vaccination drive was rolled out on January 16 last year with healthcare workers getting inoculated in the first phase. Vaccination of frontline workers started from February 2 last year.

The next phase of COVID-19 vaccination commenced on March 1 last year for people over 60 years of age and those aged 45 and above with specified comorbid conditions. India launched vaccination for all people aged more than 45 years from April 1 last year. The government then decided to expand its vaccination drive by allowing everyone above 18 years of age to be inoculated against the viral disease from May 1 last year.

The next phase of vaccination commenced from January 3 for adolescents in the age group of 15-18 years.

India began administering precaution doses of vaccines to healthcare and frontline workers and those aged 60 and above with comorbidities from January 10. The country began inoculating children aged 12-14 years from March 16 and also removed the comorbidity clause, making all people aged above 60 eligible for the precaution dose of Covid vaccine.

Active COVID-19 cases in India rise to 16,522

NEW DELHI APRIL 25, 2022 09:53 IS

India reported 30 fresh fatalities, the data updated at 8 am on April 25, 2022, stated.

With 2,541 new [coronavirus](#) infections being reported in a day, India's total tally of COVID-19 cases rose to 4,30,60,086, while the active cases increased to 16,522, according to the Union Health Ministry data updated on Monday, April 25, 2022.

The death toll climbed to 5,22,223 with 30 fresh fatalities, the data updated at 8 am stated.

The active cases comprise 0.04 per cent of the total infections, while the national COVID-19 recovery rate was recorded as 98.75 per cent, the ministry said. An increase of 649 cases has been recorded in the active COVID-19 caseload in a span of 24 hours.

The daily positivity rate was recorded as 0.84 per cent and the weekly positivity rate as 0.54 per cent, according to the Ministry.

The number of people who have recuperated from the disease surged to 4,25,21,341, while the case fatality rate was 1.21 per cent.

Vaccinations

The cumulative doses administered in the country so far under the nationwide COVID-19 vaccination drive has exceeded 187.71 crore.

India's COVID-19 tally had crossed the 20-lakh mark on August 7, 2020, 30 lakh on August 23, 40 lakh on September 5 and 50 lakh on September 16. It went past 60 lakh on September 28, 70 lakh

on October 11, crossed 80 lakh on October 29, 90 lakh on November 20 and surpassed the one-crore mark on December 19.

The country crossed the grim milestone of two crore on May 4 and three crore on June 23 last year. The 30 new fatalities include 24 from Kerala, two each from Maharashtra and Uttar Pradesh and one each from Delhi and Mizoram.

A total of 5,22,223 deaths have been reported so far in the country including 1,47,834 from Maharashtra, 68,843 from Kerala, 40,057 from Karnataka, 38,025 from Tamil Nadu, 26,167 from Delhi, 23,505 from Uttar Pradesh and 21,201 from West Bengal.

The Ministry stressed that more than 70 per cent of the deaths occurred due to comorbidities.

"Our figures are being reconciled with the Indian Council of Medical Research," the ministry said on its website, adding that state-wise distribution of figures is subject to further verification and reconciliation.

THE HINDU

COVID-19 pandemic has taught Singapore valuable lessons, says PM Lee

SINGAPORE APRIL 25, 2022 08:09 IST

Public trust in the healthcare system is based on the competency of commitment of healthcare workers, he says.

Prime Minister Lee Hsien Loong said the [Covid-19](#) pandemic has taught Singapore valuable lessons "for which we have paid dearly", lessons that must not go to waste.

Speaking at an event on Sunday to mark 200 years since the establishment of Singapore General Hospital, Mr. Lee said Singapore "cannot thoughtlessly revert to the [status quo](#) ante" after the pandemic.

"We must make the most of the changes forced on us by the crisis to improve the way we do things," the Prime Minister said.

Mr. Lee credited Singapore's resilient healthcare system, an effective public health response and a high degree of public trust with making "a big difference" in weathering the pandemic.

But "while we count our blessings, [we must prepare seriously for the next pandemic](#)," said Mr. Lee.

'More lethal pandemic possible in future'

"It is entirely possible that within the next few decades, another novel pathogen more lethal and infectious than Covid-19 will sweep the world," the *Channel News Asia* quoted Mr. Lee as saying.

This means Singapore must keep its standards for medical excellence high, by investing in healthcare workers and good medical facilities and infrastructure, Mr. Lee said.

The country must also build up its scientific and biomedical capabilities to take advantage of the R&D expertise it has built up over the years, he added.

Singapore will also turn to developing public health expertise, which he described as "absolutely critical" in a pandemic.

"We need to be able to understand how a new disease is spreading, make sense of disease trends...and devise non-medical measures that can help bring the outbreak under control in our population," he said.

The government will also shift its focus from hospital-centric care to patient-centred, preventive care by “tackling illness at its root, before it progresses to the point of needing treatment”, Mr. Lee said.

This will address the pressing needs of the ageing population and the burden of chronic diseases on the healthcare system, Mr. Lee explained.

Public trust

However, the most critical factor in Singapore's pandemic response, Mr. Lee said, is trust. This high degree of trust —between Singaporeans and the government, and in one another — has been built up over the years, he said.

“It is the fundamental reason why Singaporeans were able to come together during the pandemic, instead of working against each other,” he said, pointing to how the population abided by “burdensome” safe management measures and went for vaccinations and booster jabs.

Public trust in the healthcare system is based on the competency of commitment of healthcare workers, said Mr. Lee.

The transparency of the healthcare system, even when things fail to go as planned, has also played a part, he added.

He cited the example of the Ministry of Health regularly reporting statistics on serious adverse events following Covid-19 vaccination and proactively investigating any errors, such as when someone received the wrong dose.

“Some may be tempted to think that it would have been easier to keep things quiet...but it would have been very unwise,” said the prime minister.

“Rumours will spread, people will gradually lose faith in the system and we will eventually pay a

high price — the loss of public trust.” An effective public health response also helped Singapore deal with the Covid-19 crisis, Mr. Lee said.

This refers to the use of public policies, including non-medical interventions, to manage the course of the pandemic and limit the spread of the virus.

Examples of such measures include isolating, contact tracing, safe management measures and cross-border restrictions.

Vaccination

Singapore's national vaccination programme also required many public health decisions, Mr. Lee noted.

For example, decisions were made about which groups to vaccinate first, how soon to administer booster shots, and how to differentiate between the vaccinated and unvaccinated.

“Effectively integrating these public health tools and considerations with our resilient healthcare system made all the difference in this pandemic,” said Mr. Lee.

Singapore is approaching its goal of living with Covid-19, Mr. Lee said, in a speech that came two days after Singapore announced rolling back coronavirus restrictions.

“You can feel the city coming back to life,” he said. “We are quietly confident of dealing with whatever may come, and continuing to progress towards the new normal.” Mr. Lee credited Singapore's “strong and resilient” healthcare system with helping the country weather Covid-19.

Describing how Singapore has invested heavily in healthcare infrastructure, Mr. Lee pointed to the construction and expansion of eight hospitals since 2010. The number of polyclinics

has also increased from 18 to 23 in the past five years.

When Covid-19 hit Singapore, hospitals built up stockpiles of essential medical supplies, ramped up intensive care unit capacity and reorganised and mobilised resources to support the emergency departments and Covid-19 wards, Mr. Lee noted.

"Most of all, our healthcare workers displayed professionalism and commitment, kept our healthcare system strong and resilient, and enabled Singapore to maintain a degree of normalcy in extraordinary times," he added, thanking healthcare workers for their "courage, perseverance, and commitment to the cause".

"Singapore is deeply grateful to all of you," the channel had Mr. Lee as saying.

THE HINDU

Need of the hour to encourage Ayurvedic institutes: Delhi HC

APRIL 24, 2022 21:30 ISI
NEW DELHI

Ayurvedic institutes must contribute towards strengthening India's health infrastructure, the Delhi High Court remarked while permitting Sumandeep Vidyapeeth, a private deemed-to-be university in Gujarat, to establish an Ayurvedic Medical College with 80 seats in Bachelor of Ayurveda Medicine and Surgery (BAMS).

India has, after the outbreak of COVID-19, been staunchly promoting the Ayurvedic system of medicine, Justice Palli said, adding that it would be against the public interest to deny permission to Sumandeep Vidyapeeth and let these 80 "precious seats in BAMS go to waste".

Sumandeep Vidyapeeth was denied permission to establish a new Ayurvedic Medical College after various deficiencies in its college were found by the Medical Assessment and Rating Board of the Indian System of Medicine (MARBISM).

The MARBISM had noted that only 50% teaching staff was available at Sumandeep Vidyapeeth, against the minimum requirement of 90%. It verified 13 teachers out of which 6 teachers were not considered as they were engaged with other institutes for this academic session.

Sumandeep Vidyapeeth, however, said that those six teachers had resigned from their earlier institutes, and had joined it as full-time salaried teachers. The High Court had found merit in Sumandeep Vidyapeeth's submission.

On the other deficiency raised by MARBISM - of Sumandeep Vidyapeeth not properly maintaining the OPD and IPD records, and their staff duty roster, the court said these grounds were "extremely vague".

The High Court said that the conclusion arrived at by MARBISM regarding the purported deficiencies was "wholly perverse" and it would be against the interest of justice of the students as well as the general public to deny permission to Sumandeep Vidyapeeth to establish the Ayurvedic Medical College with 80 seats.



கோவிட்-19 | சுகாதார பணியாளர்களுக்கான காப்பீட்டுத் திட்டம் மேலும் 180 நாட்களுக்கு நீட்டிப்பு

Last Updated : 20 Apr, 2022 12:01 AM



"பிரதமரின் ஏழைகள் நலத் தொகுப்பு: கொவிட்-19-ஐ எதிர்த்துப் போராடும் சுகாதார பணியாளர்களுக்கான காப்பீட்டு திட்டம்" 2022 ஏப்ரல் 19 முதல் மேலும் 180 நாட்களுக்கு நீட்டிக்கப்பட்டுள்ளது. கரோனா நோயாளிகளின் சிகிச்சை மற்றும் பராமரிப்பில் ஈடுபட்டுள்ள சுகாதாரப் பணியாளர்களை சார்ந்தவர்களுக்கு பாதுகாப்பை வழங்கும் நோக்கில் இந்த திட்டத்தை தொடர்வதற்கு முடிவெடுக்கப்பட்டுள்ளதாக மத்திய அரசு தெரிவித்துள்ளது.

இதுகுறித்து தங்களது மாநிலங்கள் மற்றும் யூனியன் பிரதேசங்களில் உள்ள சுகாதாரப் பணியாளர்கள் இடையே விரிவான விழிப்புணர்வை ஏற்படுத்துமாறு அனைத்து மாநிலங்கள் மற்றும் யூனியன் பிரதேசங்களின் சுகாதாரத் துறை கூடுதல் தலைமை செயலர்கள்/முதன்மை செயலாளர்கள் மற்றும் செயலாளர்களுக்கு 2022 ஏப்ரல் 19 தேதியிட்ட கடிதத்தில் தெரிவிக்கப்பட்டுள்ளது.

2022 மார்ச் 30 அன்று தொடங்கப்பட்ட இந்த திட்டம் கரோனா நோயாளிகளை கையாளும் மற்றும் நோய் தொற்று ஏற்படக்கூடிய ஆபத்துள்ள சமுதாய சுகாதார பணியாளர்கள் மற்றும் தனியார் சுகாதாரப் பணியாளர்கள் உள்ளிட்ட 22.12 லட்சம் சுகாதார சேவை வழங்குனர்களுக்கு ரூபாய் 50 லட்சம் விரிவான தனிநபர் விபத்து காப்பீடு வழங்கும் நோக்கில் அறிமுகப்படுத்தப்பட்டது.

மேலும், எதிர்பாராத நிலைமையை கருத்தில் கொண்டு, மத்திய/மாநில மருத்துவமனைகள், தன்னாட்சி பெற்ற மருத்துவமனைகள், எய்ம்ஸ் மற்றும் தேசிய முக்கியத்துவம் பெற்ற மருத்துவமனைகள் உள்ளிட்டவற்றில் கரோனா சேவைப் பிரிவில் பணியமர்த்தப்பட்டுள்ள தனியார் மருத்துவமனை ஊழியர்கள், ஓய்வு

பெற்றவர்கள், தன்னார்வலர்கள், உள்ளாட்சி அமைப்புகளின் பணியாளர்கள், ஒப்பந்த பணியாளர்கள், தினக்கூலி பெறுவோர் உள்ளிட்டவர்களும் இத்திட்டத்தின் கீழ் கொண்டு வரப்பட்டனர்.

இந்த திட்டம் தொடங்கப்பட்டதில் இருந்து இதுவரை கொவிட் பாதிப்பால் உயிரிழந்த சுகாதாரப் பணியாளர்கள் குறித்த 1905 கோரிக்கைகளுக்கு காப்பீட்டு தொகை வழங்கப்பட்டுள்ளது என்று மத்திய சுகாதாரத் துறை அமைச்சகம் தெரிவித்துள்ளது.

 **The Indian EXPRESS**

Must ensure traditional Indian medicine meets global standards: PM Modi

Modi said the GCTM should establish a "global repository" of traditional medicine practices across the world. This, he said, will aid the "coming generations".

Written by [Sohini Ghosh](#) | Jamnagar |
Updated: April 20, 2022 7:16:21 am



PM Narendra Modi with Mauritius PM Pravind Jugnauth and WHO DG Tedros Ghebreyesus in Jamnagar. Chirag Chotaliya

Noting the rising demand for Ayurveda, Siddha, Unani formulations globally since many countries

are turning to traditional medicine to deal with the pandemic, Prime Minister Narendra Modi Tuesday said testing and certification of traditional medicine at the WHO Global Centre for Traditional Medicine (GCTM) in Jamnagar must conform to international standards.

The Prime Minister, speaking at the ground breaking ceremony of the GCTM in the presence of Mauritius Prime Minister Pravind Kumar Jugnauth and WHO Director-General Dr Tedros Ghebreyesus, said that in the next 25 years, by the 100th year of India's independence, "every household will rely" on traditional medicine.

He said the GCTM should establish a "global repository" of traditional medicine practices across the world. This, he said, will aid the "coming generations".

"The WHO has established a new partnership with this centre of traditional medicine, which respects India's potential and contribution. India is taking this as a huge responsibility and will aid in giving better medical solutions to people of the world."

"For testing and certification of traditional medicine, GCTM must conform to international standards... This way the trust on TM drugs will also increase. We see many TM drugs and products of India finding influence among foreigners. But due to lack of international standards (of quality testing and certification), regular trade (of such drugs and products) remains restricted," he said.

Emphasising that overall well-being has a "direct relationship" with balanced diet and that wellness should be the "ultimate goal" — it's finding resonance following the [Covid-19](#) pandemic with the world searching for "new healthcare delivery systems" — Modi said: "Jamnagar will reach new heights in the wellness sector with this centre".

Stating that India's practice of traditional medicine has not been limited only to treatment but is about life's holistic science, he said: "Apart from treatment and relief, there are other aspects that include social health, mental health, happiness, environmental health, sympathy, empathy etc which are part of holistic well-being. Ayurveda is known as the fifth Veda."

"The new diseases we are seeing now, our TM knowledge is very important. Good health has a direct relationship with a balanced diet... Our knowledge system and experience of several hundreds of years tells us what should be eaten when. At one time, our elders would emphasise use of millets. Over time, its utilisation reduced but now we are seeing encouragement for its use again. The year 2021 was declared International Millet Year... The National Nutrition Mission has kept in mind India's ancient teachings. Even during Covid-19, we used knowledge of Ayurveda, and the Ayush Kada became very popular. These formulations were in demand globally. Today, to save (themselves) from the pandemic, several countries are emphasising on TM. For many diseases such as diabetes, obesity, depression, India's yoga has played an important role and is helping people worldwide to reduce mental stress and establish balance," he said.

The Prime Minister laid down five goals for the new centre. First, to create a database of traditional knowledge systems using technology; second, GCTM can create international standards for testing and certification of traditional medicines so that confidence in these medicines improves. Third, GCTM should evolve as a platform where global experts of traditional medicines come together and share experiences. He also asked the centre to explore the possibility of an annual traditional medicine festival. Fourth, GCTM should mobilise funding for research in the field of traditional medicines. Finally, GCTM should develop protocols for holistic treatment of specific diseases so that

patients could benefit from both traditional and modern medicine.

WHO Director General Ghebreyesus said the centre's five main areas will be research and leadership, evidence and learning, data and analytics, sustainability and equity and innovation and technology.

Union Ayush Minister Sarbananda Sonowal said the present turnover of the Indian Ayush industry is \$18.1 billion, up from \$3 billion in 2014, and "it is of prime importance for member states to walk together to integrate modern science with the codified system of traditional medicine". This, he said, will help the scientific community address "challenges such as antimicrobial resistance (AMR), growing incidence of age-related disorders, non-communicable diseases as well as to achieve the objective of a tuberculosis-free world".

Continued from page no.1

Cutting Edge: After Covid, can genome sequencing help identify gene responsible for drug-resistant TB?

.....this may contribute to the slow decline of tuberculosis (TB) incidence," Dr Karyakarte explained.

In the past two years, genome sequencing enabled scientists to rapidly identify the SARS-CoV-2 virus and its variants. Now, can the gains made during the [Covid-19](#) pandemic be expanded to more uses and help frame public health responses for other infectious diseases such as tuberculosis — which India hopes to end by 2025? Taking a lead in this direction is the Pune-based B J Medical College and Sassoon General Hospital, which plans to utilise their year-

old genome sequencing facility to identify genes responsible for drug-resistant TB.

Tuberculosis is the leading infectious disease killer in the world and was only recently overtaken by Covid-19. Compared to 2019, tuberculosis cases in 2020 reduced by 18% globally (from 7.1 million to 5.8 million cases) and by up to 24% in the ten worst-affected countries with high tuberculosis burden, as per the new Lancet Respiratory Medicine series published on March 23 this year.

Scientists are keen on exploring whole genome sequencing (WGS) for TB investigation and this concept further got a fillip when a joint study by BJMC with Johns Hopkins University School of Baltimore, USA, and others, highlighted the need for increased surveillance of TB antibiotic resistance in India. Findings of their study that compared transmissibility across four major lineages (L1-4) of Mycobacterium tuberculosis (Mtb) has shown that there are inherent differences between the lineages with implications for TB control, surveillance, and monitoring.

Published recently on medRxiv, the pre-print server for health sciences, the study showed that modern Mtb lineages (L2 and L4) were more recently introduced in Western India, compared to older lineages (L1 and L3). L2 shows a higher frequency of drug-resistance as well as higher transmissibility.

"Our findings highlight the need for contact tracing around cases of TB due to L2, and heightened surveillance of TB antibiotic resistance in India," said Dr Rajesh Karyakarte, coordinator of Maharashtra's genome sequencing project and head of the department of microbiology at B J Medical College and Sassoon General Hospital, the largest government hospital in Maharashtra

"While there is geographic variation in the lineage prevalence, L1 comprises approximately two thirds (67%) of the Mtb isolates in the country.

However, all four major lineages are found in circulation. The Mtb transmissibility may vary between lineages (or variants) and this may contribute to the slow decline of tuberculosis (TB) incidence," Dr Karyakarte explained.

"As modern and more drug-resistant lineages take further hold in India, the proportion of TB with drug resistance may continue to rise, along with the number of possible new resistance associated variants. To achieve control, resources will need to be directed towards interrupting transmission by increasing efforts towards active case finding, contact tracing, early diagnosis, and treatment. The wider adoption of WGS can assist these efforts allowing clinicians to tailor therapy sooner and in turn help decrease transmission. Hence an improved understanding of these characteristics is important to improve the ability to control TB transmission," he said.

Whole Genome Sequencing (WGS) can be used to assist efforts in providing quicker genotype-based drug susceptibility testing ([DST](#)) results of Mycobacterium tuberculosis, and with the genome sequencing facility set up at BJMC a year ago, Dr Karyakarte and his team have been assured funding from Maharashtra government, and are set to embark on the exercise soon.

The molecular laboratory at BJMC has been extremely busy in the last two years of the Covid pandemic. From using molecular scissors to prepare DNA for sequencing machines to studying changes in the genetic structure of SARS-CoV2 virus and identifying variants, scientists were able to sequence 3,000 samples at the college itself.

As part of a memorandum of understanding with IISER, NCL and Pune Knowledge Cluster, they sequenced more than 10,000 samples. Every month, the BJMC coordinated the collection of 100 samples from each of Maharashtra's 36 districts and sent it to the Council of Scientific

and Industrial Research-Institute of Genomics and Integrative Biology as part of a state project for genome sequencing.

Analysing results and reporting it to the state government, the National Centre for Disease Control and Indian SARS-CoV-2 Genomics Consortium soon became a norm, and it was through the genome sequencing project at BJMC that it was confirmed that the [Omicron](#) variant had arrived in the country in December and not November 2021.

"We are ready to use this methodology to detect more genes responsible for drug resistant TB," Dr Karyakarte said. Scientists at the laboratory also suggest that just as Indian companies (aided by the Department of Biotechnology, Government of India) devised probe and primer sets for Covid, the same could be done for rapid identification of TB. "The government can procure them in mission mode and distribute them to 877 Indian Council of Medical Research approved laboratories across India for diagnosis of TB," he said.

India, Indonesia, the Philippines, and China have together seen a reduction of 1.3 million cases (93%) in tuberculosis; and major reductions in notified cases have been seen in the Philippines (37%), Indonesia (31%), South Africa (26%), and India (25%). In 2019, India notified 2 1,76, 677 cases of TB to the World Health Organisation, while in 2020 the drop was significant — only 16,29,301 cases of TB were notified.

Data from Maharashtra — among the states with a high burden of TB — shows that over 2.27 lakh new cases were notified in 2019. There was a significant drop in 2020 (1.6 lakh new cases of TB) owing to the Covid pandemic. The figure rose to 2 lakh in 2021 as efforts to detect active TB cases intensified. Last year, Maharashtra reported 9,445 multi-drug resistant TB cases and 254 Extremely drug resistant (XDR) TB cases.

தமிழகத்தில் கொரோனா 4வது அலை? - தமிழக அரசு பரபரப்பு தகவல்!

Velayuthan Murali | Samayam TamilUpdated: 24 Apr 2022, 3:58 pm



தமிழக மக்கள் அனைவரும் முகக்கவசம் அணிய வேண்டும் என மக்கள் நல்வாழ்வுத் துறை அமைச்சர் மா.சுப்பிரமணியன் தெரிவித்து உள்ளார்.

தமிழக மக்கள் அனைவரும் முகக்கவசம் அணிய வேண்டும் என மக்கள் நல்வாழ்வுத் துறை அமைச்சர் [மா.சுப்பிரமணியன்](#) தெரிவித்து உள்ளார்.

சென்னை கிண்டியில் உள்ள ஐஐடி வளாகத்தில் மாணவர்கள் மற்றும் பணியாளர்கள் என மொத்தம் 55 பேருக்கு கொரோனா நோய் தொற்று ஏற்பட்டுள்ள நிலையில், மக்கள் நல்வாழ்வுத் துறை அமைச்சர் மா.சுப்பிரமணியன் மற்றும் சுகாதாரத் துறை செயலாளர் ராதாகிருஷ்ணன் மற்றும் சுகாதாரத் துறை அதிகாரிகள் ஆகியோர் ஐஐடி வளாகத்தில் ஆய்வு மேற்கொண்டனர்.

ஆய்விற்குப் பிறகு செய்தியாளர்களை சந்தித்த மக்கள் நல்வாழ்வுத் துறை அமைச்சர் மா. சுப்பிரமணியன் பேசியதாவது: தற்போது கொரோனா பாதிப்பு உலக அளவில் அச்சுறுத்தி வருகிறது. அனைத்து அலைகளும் முடிவுக்கு வந்த நிலையில் தற்போது ஒரு வார காலத்தில் தொற்று பாதிப்பு மீண்டும் அதிகரித்து

வருகிறது. இந்தியாவில் டெல்லி, ஹரியானா உள்ளிட்ட மாநிலங்களில் தொற்று அதிகரித்து வருகிறது. சென்னை ஐஐடியில் இதுவரை 2,015 பேருக்கு பரிசோதனை மேற்கொள்ளப்பட்டு உள்ளது. அதில் 60 பேருக்கு தொற்று உறுதி செய்யப்பட்டுள்ளது.

மே 8 ஆம் தேதி 1 லட்சம் இடங்களில் சிறப்பு மெகா தடுப்பூசி முகாம் நடைபெற உள்ளது. கடந்த ஒரு வாரமாக நாள் ஒன்றுக்கு ஒரு லட்சம் தடுப்பு ஊசி செலுத்தப்பட்டு வருகிறது. 18 வயதிற்கு மேற்பட்டவர்களுக்கு அரசு மருத்துவமனையில் இலவசமாக பூஸ்டர் டோஸ் தடுப்பூசி செலுத்த நடவடிக்கை எடுக்கப்படும். [நான்காவது அலை](#) இன்னும் தொடங்கவில்லை. மக்கள் அச்சப்பட தேவை இல்லை. நாளை காலை மாவட்ட ஆட்சியர்களுடன் முதல்வர் ஆலோசனை நடத்த உள்ளார்.

ஐஐடியில் வளாகத்தில் அனைவரும் முகக்கவசம் அணிந்து இருக்கிறார்கள். ஐஐடி வளாகத்தில் இருக்கும் அனைவரும் பரிசோதனை எடுக்க வேண்டிய அவசியம் இல்லை. அறிகுறிகள் இருப்பவர்களுக்கு மட்டுமே பரிசோதனை மேற்கொண்டு வருகிறோம். ஐஐடியில் மாணவர்கள் அனைவரும் ஒன்றாக அமர்ந்து உணவு அருந்தி வரும் நிலையில் தற்போது தொற்று பாதிப்பு அதிகரித்து வருவதால் உணவை பாரச்சல் செய்து மாணவர்களுக்கு வழங்கப்பட்டு வருகிறது. தமிழக மக்கள் ஐஐடியில் உள்ளவர்களை முன்மாதிரியாக கொண்டு அனைவரும் முகக்கவசம் அணிய வேண்டும். கொரோனா வழிகாட்டு நெறிமுறைகளை பின்பற்றாமல் இருப்பவர்களிடம் 114 கோடி ரூபாய் தற்போது வரை அபராதம் வசூலிக்கப்பட்டுள்ளது. இவ்வாறு அவர் தெரிவித்தார்.

THE TIMES OF INDIA

Fight against tuberculosis: Measures of BMC in national guidelines

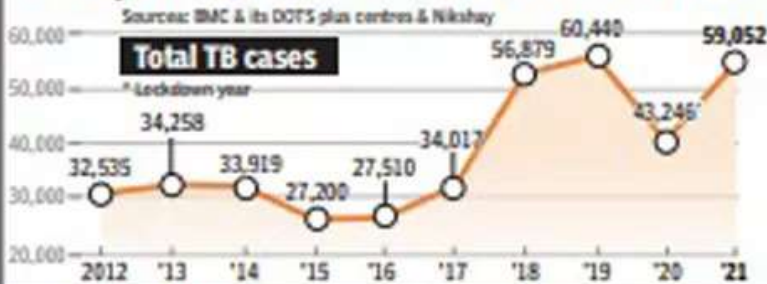
[Malathy Iyer](#) / TNN / Updated: Mar 24, 2022, 08:55 IST

10 YRS MORE DETECTIONS & CARE

At first glance, Mumbai's TB statistics look scarier than they did a decade back: Detections have more than doubled in the last decade, deaths increased by 40% in the same period & drug-resistant TB cases increased 10 times. But it's actually a reflection of increased infrastructure leading to more detections and better access to free TB care in Mumbai, reports Malathy Iyer



Yearly rise of TB cases in the last decade



WHY MUMBAI STANDS OUT

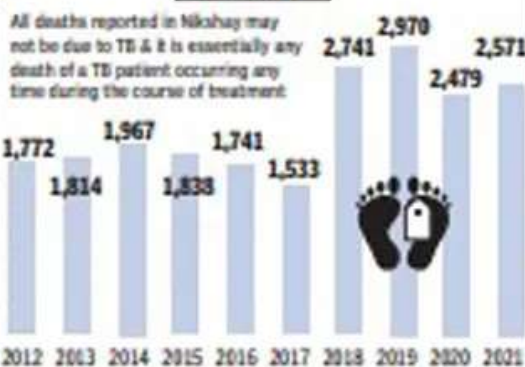
BMC/Mumbai has had many firsts to its credit. Many steps are now included in the national TB programme

- > Having a TB officer in each ward
- > Putting up genome testing for drug-resistant TB that gives results in 2 hours
- > Providing free diagnostics for patients under care of private doctors. Setting up specialised laboratories
- > Roping in NGOs to ensure patients don't drop out. Training former patients as peer educators

Drug-resistant TB

2012	438
2013	864
2014	998
2015	1,277
2016	1,220
2017	1,321
2018	1,387
2019	1,255
2020	752
2021	6,635

Deaths



> In January 2012, doctors from Hinduja Hospital, Mahim, reported 12 patients with totally drug-resistant TB who were not responding to any known TB drugs and were being treated using off-label medicines (for eg, a

WHAT PROMPTED CHANGE

(leprosy drug)
> The union health ministry & World Health Organisation teams flew down to Mumbai to assess the situation, setting off one of the biggest changes in TB care

- > First to start patients on newer drugs (bedaquiline, delamanid)
- > First to give bedaquiline as an OPD drug

MUMBAI: The BMC's public health department has won numerous kudos in the last decade for the measures it has taken in the fight against TB — like setting up the highest number of quick TB diagnostic facilities to providing free scans even to patients of private doctors.

Some of BMC's measures — such as enrolling successfully treated patients to act as peer counsellors to check dropout rates among patients and devising protocols for infection control measures in healthcare settings — have been included in the national guidelines. The city's increased TB patient pool — from 32,535 in 2012 to 59,052 last year — is actually a testimony of how the TB control mechanism here works. The same time, reporting of deaths increased by 40% and drug-resistant TB cases increased 10 times. “These increased numbers are not an actual increase. They are a reflection of better facilities that help us identify patients

who were previously not being found," said Dr Vikas Oswal, a private pulmonologist who works closely with the BMC. "If other cities say they don't have drug-resistant TB, it only means that they don't have the means to detect them," he said.

In January 2012, Hinduja Hospital's team led by pulmonologist Dr Zarir Udadia and microbiologist Dr Camilla Rodrigues published a letter in a medical journal about handling a dozen TB patients who were resistant to all known drugs of TB. The central team visiting the city allowed special status for the city, with patients getting faster access to tests and medicines. Funds started flowing in, not only from the centre but also from corporates that funded Gene-Xpert machines (to detect drug-resistant strains in two hours) to meal packages for poor patients.

"There is better awareness about tuberculosis in the city. There are multiple avenues for early detection and treatment facilities. A well-established treatment protocol is now in place," said pulmonologist Dr Salil Bendre who consults at Nanavati Hospital, Juhu. A senior BMC official said that the civic health setup increased TB beds (in Sewri TB Hospital), created a new post of TB officer in every ward and set up hi-tech laboratories for advanced TB testing

"We were the first to start a tie-up between the public, the private and the NGO sectors. The private sector started notifying every TB case as the BMC started providing free treatment and diagnostic tests for their patients too. The NGO sector helped in motivating patients and creating access," the officer said. Other measures include training healthcare workers to tackle the mental health problems associated with TB. However, a senior doctor said that while BMC has improved the infrastructure for TB, there can be no room for complacency. "The TB bacterium has always stayed ahead of mankind. It has bounced back often. So, we need to

evolve further strategies to ensure TB transmission in the community is checked," he said.



Bovine tuberculosis (TB) is an infectious disease that is caused by the bacteria *Mycobacterium bovis* (*M. bovis*).

Bovine TB primarily affects cattle, however, other animals may become infected.

When *M. bovis* infects a human, it is often referred to as "Zoonotic TB", reflecting its ability to infect both animals and humans.

[Human TB](#) is mostly caused by infection with the organism *Mycobacterium tuberculosis*.

Prior to the widespread practice of milk pasteurization, *M. bovis* was also a common cause of tuberculosis in people in the Western world.

M. bovis remains an important cause of human TB in the developing world, where people often live in close contact with their animals and consume products from them that are not first pasteurized.

Bovine TB in animals and humans may infect the lungs, but may also infect the intestines and other parts of the body.

In Michigan, *M. bovis* infection can be found in free-ranging deer and cattle in certain parts of the state.

About Bovine Tuberculosis

What is *Mycobacterium bovis* (*M. bovis*)?

- In the U.S., most people with tuberculosis (TB) are infected with *Mycobacterium tuberculosis*.
- *M. bovis* is another mycobacterium that can cause TB in people.
- *M. bovis* is most commonly found in cattle and other animals such as deer, elk and bison.
- It can infect the lungs, lymph nodes and other parts of the body.

How common is human disease from *M. bovis*?

- Fewer than 2% of human cases of TB in the U.S. are due to *M. bovis* infection, and most are related to exposure to *M. bovis* in a country where the disease is common in animals.
- Human TB due to *M. bovis* was once common in the U.S., but was greatly reduced by efforts to control the disease in cattle and routine pasteurization of cow's milk.

Signs and Symptoms

- For all species, the signs and symptoms of TB disease depend on where in the body the TB bacteria are growing.
- Symptoms of TB disease will vary depending on the part of the body that is affected.
- People and animals can be infected with TB bacteria and not have any symptoms (called latent TB).

Human Signs & Symptoms

- When the lungs are infected, symptoms can include:

- A bad cough that lasts for 3 weeks or longer
- Pain in the chest
- Coughing up blood or phlegm from deep inside the lungs
- Other symptoms can include:
 - Weakness or fatigue
 - Weight loss
 - Loss of appetite
 - Chills
 - Fever
 - Sweating at night

Livestock Signs and Symptoms

Center for Food Security & Public Health: [Bovine Tuberculosis Fact Sheet](#)

Wild and Captive Deer and Elk Signs and Symptoms

Michigan Department of Natural Resources Wildlife Disease Manual-[Bovine TB Topic](#)

Testing and Diagnosis

- Human Testing & Diagnosis
- There are two kinds of [tests to detect TB](#) bacteria in humans:
 - TB skin test (TST)
 - TB blood test
- A positive skin test or blood only indicates a person has been infected with TB bacteria.
- A [Latent TB infection](#) (LTBI) is when a person has been exposed to TB but is not experiencing illness.

- Active TB is when a person has been exposed to TB and is experiencing [TB disease](#).
- Following a positive skin or blood test, additional tests, such as a chest x-ray and sample of sputum are needed to [determine if the person has TB disease](#).
- Livestock Testing & Diagnosis
- United States Department of Agriculture [TB Control and Eradication Program](#)
- Michigan Department of Agriculture and Rural Development - [Bovine TB Program](#)
- Wildlife Testing & Diagnosis in Michigan
- The heads and/or lungs of deer are examined by [Michigan Department of Natural Resources Wildlife Disease Laboratory](#) biologists.
- If lesions suspicious for Bovine TB are seen in selected lymph nodes or other organs, tissues are collected for further testing.
- Microscopic examination of tissues using special stains to detect *Mycobacterium* organisms is done at Michigan State University [Veterinary Diagnostic Laboratory](#).
- Suspect tissues are also submitted to the [Michigan Department of Health and Human Services Bureau of Laboratories](#) for mycobacterial culture and identification.
- Bovine TB positive samples from deer are then submitted to the [United States Department of Agriculture's National Veterinary Services Laboratory](#) for genetic analysis.
- Treatment and Control
- Prevention/Control Methods for People
- TB can spread through the air when a person with TB disease of the lungs coughs, speaks, or sings. People nearby may breathe in the bacteria and become infected.
- [People who are potentially exposed to TB](#) can be skin-tested to determine if they are infected with TB.
- These tests can be done at either the local health department or a private physician's office.
- A positive skin test, however, does not identify the type or source of the infection.
- People who test positive must undergo additional evaluation to determine if they have latent TB or TB disease. Both types of TB require treatment with special medications for weeks to months.
- Remember, most people get the infection from other people.
 - In Michigan, people who work with livestock or wild deer in certain areas of the state (Northeastern Lower Peninsula) are at higher risk for exposure to Bovine TB.
 - People who work with animals at high risk for Bovine TB should take appropriate precautions including wearing gloves when field dressing deer or handling deer carcasses.
- Prevention/Control in Livestock
- In the early 1900's, the federal government instituted an eradication program for bovine TB.
- This program includes testing of livestock on farms and monitoring of animals sent to slaughter or transported across state lines.

- As a result of this program, bovine TB been greatly reduced in cattle in the U.S.
- In Michigan, there is an ongoing effort to eliminate Bovine TB in both [wildlife](#) and livestock.
- Prevention/Control in Wild Deer
- There are no effective vaccines for disease prevention and no effective medications for treatment of bovine TB in wild deer.
- A combination of wildlife disease surveys and deer management strategies are being used to eliminate the disease in wild deer.

The wildlife surveys monitor the spread and occurrence of the disease

SO:

<https://www.michigan.gov/emergingdiseases/home/bovine-tuberculosis>

our other publications...



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