



a weekly publication from ICMR-NIRT Library

2021 | Vol.4 | Issue No.29



# news **bulletin** Library



# NEWS BULLETIN

19 July 2021 | Vol.4 | #29

A weekly publication from NIRT Library

The Indian EXPRESS

## Covid can make one more susceptible to developing active tuberculosis: Health Ministry

The ministry said notification of tuberculosis cases had decreased by about 25 per cent in 2020 due to Covid-related restrictions and special efforts are being made to mitigate this impact through intensified case findings.

By: [PTI](#) | New Delhi |  
July 17, 2021 9:36:48 pm



The ministry said SARS-CoV-2 infection can make an individual more susceptible to developing active TB disease, as it is an "opportunistic infection like black fungus".

[Covid-19](#) can make a person more susceptible to developing active tuberculosis as it is an "opportunistic" infection like [black fungus](#) but currently there is not enough evidence to

The Indian EXPRESS

## New Union health minister Mandaviya dynamic: ICMR chief

NITI Aayog member VK Paul emphasised that the solution for pandemic response, whether in the present or in the future, lies in science, imploring for greater investment in science.

Written by [Sohini Ghosh](#) | Ahmedabad |  
Updated: July 18, 2021 7:30:06 am



Welcoming the recent Cabinet shuffle where

Mansukh Mandaviya was made the Union health minister, ICMR director general Dr Balram Bhargava praised him as "dynamic" adding that until now the health sector had been "facing a bipolar focus".

NITI Aayog member VK Paul emphasised that the solution for [pandemic](#) response, whether in the present or in the future, lies in .....

**Continued in page no.2**

suggest TB cases have risen due to the viral disease, the Union Health Ministry said on Saturday

The ministry said notification of tuberculosis cases had decreased by about 25 per cent in 2020 due to Covid-related restrictions and special efforts are being made to mitigate this impact through intensified case findings.

In a statement, the Health Ministry said there have been some news reports alleging that a sudden rise in TB cases have been noticed among patients infected with Covid-19 recently, leaving doctors, who have been receiving around a dozen similar cases every day, worried.

"It is clarified that tuberculosis screening for all Covid-19 patients and Covid-19 screening for all diagnosed TB patients has been recommended by Ministry of Health and Family Welfare," it said.

The ministry said SARS-CoV-2 infection can make an individual more susceptible to developing active TB disease, as it is an "opportunistic infection like black fungus".

There is not enough evidence currently to suggest that there has been an increase in TB cases due to Covid-19 or due to increased case finding efforts, it said, adding states and Union Territories have been asked for convergence in efforts for better surveillance and finding of TB and Covid-19 cases as early as August 2020.

Also, the health ministry has issued multiple advisories and guidance reiterating the need for bi-directional screening of TB-Covid and TB-ILI/SARI.

"Due to the impact of Covid-related restrictions, case notifications for TB had decreased by about 25 per cent in 2020 but special efforts are being made to mitigate this impact through intensified case finding in OPD settings as well as through active case finding campaigns in the community by all states."

The dual morbidity of tuberculosis and Covid-19 can be further highlighted through the fact that both diseases are known to be infectious and primarily attack the lungs, presenting similar symptoms of cough, fever and difficulty in breathing. But TB has a longer incubation period and a slower onset of disease, the health ministry said.

"Furthermore, TB bacilli can be present in humans in a dormant state and has the potential to start multiplying when the individual's immunity is compromised for any reason.

"The same is applicable in a post-Covid scenario when an individual may develop decreased immunity due to the virus itself or due to the treatment, especially immune-suppressants like steroids," the Health Ministry said.

[Continued from page no.1](#)

## **New Union health minister Mandaviya dynamic: ICMR chief**

.... science, imploring for greater investment in science.

The two were speaking at a plenary session on 'Future directive for Covid in India: Public Health Policy' at a one-day virtual international conference on 'Covid and Beyond', organised by Collaboration to Eliminate Tuberculosis among Indians and Indian Institute of Public Health Gandhingar

NITI Aayog member VK Paul emphasised that the solution for [pandemic](#) response, whether in the present or in the future, lies in science, imploring for greater investment in science.

The two were speaking at a plenary session on 'Future directive for Covid in India: Public Health

Policy' at a one-day virtual international conference on 'Covid and Beyond', organised by Collaboration to Eliminate Tuberculosis among Indians and Indian Institute of Public Health Gandhingar.

Emphasising that because of the pandemic, "health has become an important agenda," Bhargava said, "We have started realising what is quality health... and we have a dynamic health minister who has already met with all of us and has a very strong vision about how the health sector has to be taken forward because until now it has been facing a bipolar focus as to whether it has to be more government or more private or government... in the sense, both have to exist but we need to realise the pyramid of healthcare...."

Paul also added that there is a consensus that "investment in health, public health system, science and technology, health products such as vaccines and biomedical products and medicines is very critical."

Highlighting that viral infections are slowly becoming a frequent occurrence — with [Zika](#), MERS, SARS, Nipah outbreaks — Bhargava cautioned that [Covid-19](#) is a "wake up call for all of us". The probable reasons for such outbreaks can possibly be attributed to the world being "at a critical point where we have been playing with the environment, the ecosystem, ecology, there has been rapid urbanisation, rapid connectivity with people traveling, but public health remains neglected and there is inadequate spending on public health across the world."



## Possible third wave of Covid-19 Boost vaccination coverage,

## step up vigilance of surge indicators: Experts

Naveen Thacker, president-elect at the International Pediatric Association (IPA), highlighted that to better vaccination coverage, it is important to address concerns around vaccines.

Written by [Sohini Ghosh](#) | Ahmedabad | July 19, 2021 2:46:37 am



*Director of Tata Institute for Genetics and Society in Bengaluru, Rakesh Mishra, stressed on the necessity of genome sequencing to follow the virus and how it is spreading from "which country and correlate it with clinical aspects of the variant".*

Experts and doctors have cautioned that to avert the worst impact of a possible third wave, vaccination coverage needs to be better and extreme vigilance must be maintained of multiple markers indicating a surge in cases and emerging variants.

Speaking at a day-long virtual international conference on 'Covid and beyond', organised by Collaboration to Eliminate Tuberculosis among Indians (CETI) and Indian Institute of Public Health Gandhinagar (IIPHG) on Saturday, professor at IIPH Bengaluru and epidemiologist Girdhara R Babu said, "Given the current pace of vaccination, the third wave is imminent. The peak of the third wave depends on how fast we are going to vaccinate and how many people

we are going to cover... Covid appropriate behaviour has to be at the same level as it was during the first wave. If not, the peak will be higher and probably earlier." Babu estimated the next wave hitting by end of October.

Dr DJ Christopher, professor at Department of Pulmonary Medicine, CMC Vellore, said that while non-pharmacological interventions such as [social distancing](#) reduce incidences of influenza, it increases the infection-susceptible population. Echoing Babu's assessment, president of Public Health Foundation of India (PHFI) professor K Srinath Reddy, stressed that vaccine hesitancy needs to be countered.

Naveen Thacker, president-elect at the International Pediatric Association (IPA), however, highlighted that to better vaccination coverage, it is important to address concerns around vaccines.

"We do not have widespread anti-vax movement like in the US and Europe... we have concerns among people on safety, efficacy and AEFI, which can be addressed... There are issues of accessibility, non-availability of vaccine, digital divide," said Dr Thacker, stressing that there should be focus on communication. Reddy also highlighted that herd immunity, which is a population-level attribute and not an individual level attribute, goes out as a "very wrong public health message".

"There were many assumptions of herd immunity which were not applicable in [Covid-19](#). First one was assuming a uniform [R0](#) (reproductive number) ... It is not realistic as it differs with area, population density, age structure, culture, etc... the virus is changing and therefore, only vaccines and not infection (can protect)..." explained Babu.

"We ought to promote that herd immunity is best acquired through vaccination, which is an individual attribute," said Reddy.

Reflecting on the key drivers for the first two waves of Covid-19 in India, Babu said, apart from emergence of more infectious variants during the second wave, insufficient ramp-up of testing capacity could be attributed as reasons for a fatal second wave.

"Where we missed (picking up the early signs of an emerging second wave) was in March and April this year when cases were rising and we missed interpreting that," said Babu. He, however, added that without a lockdown during the first wave, India might have seen outcomes worse than the second wave.

Providing a contrarian view, pediatrician and virologist professor T Jacob John estimates that with an approximate 216 million people who are assumed to have not been affected by Covid-19 in India till now, "it is not sufficient for a real third wave". His calculation was based on the three national serosurveys and estimated population affected during the second wave. John, however, cautioned that "vigilance is essential" to monitor variants.

However, highlighting that India is "not a homogenous country" and the serosurveys were national surveys, Reddy indicated that the data is not sufficient to dismiss the possibility of a third wave. "There are parts of the country where even 20 per cent of the population do not have antibodies," added Reddy. Gujarat-based microbiologist Dr Nidhi Sood, who is also officer on special duty for diagnostic services at Gujarat Medical Services Corporation Limited (GMSCL), too, cautioned that with variants of concern in circulation, "we have to be very very vigilant...we have to be careful of introduction of variants in our country", and also advocated the need to establish policy to keep strict vigilance on detection of variants.

Director of Tata Institute for Genetics and Society in Bengaluru, Rakesh Mishra, stressed on the necessity of genome sequencing to follow the



virus and how it is spreading from “which country and correlate it with clinical aspects of the variant”

“There will be more efficient variant that will emerge... it will probably have less symptomatic manifestation... and some of the mutants can escape the protection we have acquired...” said Mish



**கடந்த ஜனவரி மாதம் தொடங்கி இதுவரை 40 கோடி பேருக்கு தடுப்பூசி: மத்திய சுகாதாரத் துறை தகவல்**

Published : 19 Jul 2021 03:12 am

இந்தியாவில் பெருந்தொற்றின் **மூன்றாம் அலை** வந்துவிடக் கூடாது என்பதில் மத்திய, மாநிலஅரசுகள் தீவிர கவனம் செலுத்திவருகின்றன. இதன் ஒருபகுதியாக, கரோனா தடுப்பூசி செலுத்தும் நடவடிக்கைகள் தீவிரப்படுத்தப்பட்டுள்ளன.

இந்நிலையில், நேற்று முன்தினம் ஒரே நாளில் 46.38 லட்சம் பேருக்கு தடுப்பூசி போடப்பட்டுள்ளது. இதன் மூலம் நாடு முழுவதும் கடந்த ஜனவரி மாதம் முதல் இதுவரை தடுப்பூசி செலுத்திக் கொண்டோரின் எண்ணிக்கை 40.44 கோடியாக அதிகரித்துள்ளதாக **மத்திய சுகாதாரத் துறை** தெரிவித்துள்ளது.

இதனிடையே, கரோனா நோயாளிகளுக்கு **காசநோய்**

**பாதிப்பு** ஏற்படுவதாக தகவல்கள் பரவி வந்தன. இதுகுறித்து **மத்திய சுகாதாரத் துறை** உயரதிகாரிகள் கூறுகையில், “கரோனா தொற்றால் பாதிக்கப்பட்டவர்களுக்கு எதிர்ப்பு சக்தி குறைவதால் அவர்களை **கருப்பு பூஞ்சை** தாக்குவதை போலவே, **காசநோய் பாதிப்பு** ஏற்படுவதற்கும் அதிக வாய்ப்புகள் உள்ளன. ஆனால், கரோனா நோயாளிகள் காச நோயால் பாதிக்கப்படுகின்றனர் என்பதற்கு இதுவரை எந்த ஆதாரமும் இல்லை” என்றனர்.

இதற்கிடையில், கடந்த 24 மணி நேரத்தில் நாடு முழுவதும் 41,157 பேர் தொற்றால் பாதிக்கப்பட்டுள்ளனர். உயிரிழப்பு 517 ஆக குறைந்துள்ளது என்று மத்திய சுகாதாரத் துறை தெரிவித்துள்ளது. - பிடிஐ



**கோவிட் தடுப்பூசி; கர்ப்பிணிகள், பாலூட்டும் பெண்கள் வரிசையில் காத்திருக்க வேண்டாம்: சென்னை மாநகராட்சி**

பெருநகர சென்னை மாநகராட்சிக்குட்பட்ட பகுதிகளில் உள்ள கர்ப்பிணி தாய்மார்கள், பாலூட்டும் தாய்மார்கள், மற்றும் காசநோய் பாதித்த நபர்களுக்கு மாநகராட்சி தடுப்பூசி மையங்களில் முன்னுரிமை அடிப்படையில் **கோவிட் தடுப்பூசி** செலுத்தப்படும் என **சென்னை மாநகராட்சி** தெரிவித்துள்ளது.

இது தொடர்பாக, [சென்னை மாநகராட்சி](#) நேற்று (ஜூலை 17) வெளியிட்ட செய்திக்குறிப்பு:

"பெருநகர சென்னை மாநகராட்சிக்குட்பட்ட பகுதிகளில் அரசின் வழிகாட்டுதல்களைப் பின்பற்றி கரோனா வைரஸ் தொற்றில் இருந்து பொதுமக்களை பாதுகாக்கும் வகையில் தடுப்பூசி முகாம்கள் ஏற்படுத்தப்பட்டு [கோவிட் தடுப்பூசி](#) செலுத்தப்பட்டு வருகிறது.

தமிழக அரசின் வழிகாட்டுதலின்படி முதற்கட்டமாக 60 வயதுக்கு மேற்பட்ட மூத்த குடிமக்களுக்கும், பின்னர் 45 வயதுக்கு மேற்பட்ட இணை நோயுள்ள நபர்களுக்கும், அதனைத் தொடர்ந்து 45 வயதுக்கு மேற்பட்ட அனைவருக்கும், பின்னர் 18 வயதுக்கு மேற்பட்ட நபர்களுக்கும் விலையில்லாமல் தடுப்பூசி செலுத்தப்பட்டது. இத்துடன் மருத்துவப் பணியாளர்கள், முன்களப் பணியாளர்கள், தேர்தல் பணியில் ஈடுபட்ட பணியாளர்கள் மற்றும் மாற்றுத்திறனாளிகள் ஆகியோருக்கு முன்னுரிமை அளிக்கப்பட்டு அவர்களுக்கும் தடுப்பூசி செலுத்தப்பட்டு வருகின்றன.

அதன்படி, பெருநகர சென்னை மாநகராட்சிக்குட்பட்ட பகுதிகளில் இதுநாள்வரை 20,54,363 நபர்களுக்கு முதல் தவணை தடுப்பூசியும், 7,62,200 நபர்களுக்கு இரண்டாம் தவணை தடுப்பூசியும் என, மொத்தம் 28,16,563 தடுப்பூசிகள் செலுத்தப்பட்டுள்ளன.

தற்போது கோவிட் தொற்றிலிருந்து கர்ப்பிணி தாய்மார்கள், [பாலூட்டும் பெண்கள்](#) மற்றும் காசநோய் பாதித்த நபர்களை பாதுகாக்கும் வகையில், மாநகராட்சியின் சார்பில் சிறப்பு கவனம் செலுத்தப்பட்டு அரசின் வழிகாட்டு நெறிமுறைகளை பின்பற்றி தடுப்பூசி செலுத்தப்பட்டு வருகிறது. இதுவரை, மாநகராட்சி பகுதிகளில் கர்ப்பிணி தாய்மார்களுக்கு 733 தடுப்பூசிகளும், பாலூட்டும் தாய்மார்களுக்கு 2,328 தடுப்பூசிகளும் மற்றும் காசநோய் பாதித்த நபர்களுக்கு 143 தடுப்பூசிகளும் செலுத்தப்பட்டுள்ளது.

கோவிட் தொற்று பாதிப்பிலிருந்து கர்ப்பிணி தாய்மார்கள், பாலூட்டும் தாய்மார்கள் மற்றும் காசநோய் பாதித்த நபர்களை பாதுகாக்கும் வகையில், மாநகராட்சியின் சார்பில் அனைத்து தடுப்பூசி மையங்களிலும் வரிசையில் காத்திருக்காமல் முன்னுரிமை அடிப்படையில் தடுப்பூசி செலுத்த நடவடிக்கை எடுக்கப்பட்டுள்ளது.

எனவே, கர்ப்பிணி தாய்மார்கள், பாலூட்டும் தாய்மார்கள் மற்றும் காசநோய் பாதித்த நபர்கள் மாநகராட்சி தடுப்பூசி மையங்களில் கோவிட் தடுப்பூசியினை செலுத்திக்கொண்டு தொற்றிலிருந்து தங்களை பாதுகாத்துக் கொள்ள வேண்டுமென தெரிவித்துக்கொள்ளப்படுகிறது".

இவ்வாறு அதில் தெரிவிக்கப்பட்டுள்ளது.

## THE TIMES OF INDIA

### Reducing infant & maternal mortality rates, elimination of TB and fight against non-communicable diseases our priority:

Dhan Singh Rawat

TNN | Jul 19, 2021, 04.02 AM IST

Earlier this month, Dhan Singh Rawat took charge as Uttarakhand's first dedicated health minister in four years. In a conversation with Shivani Azad, Rawat spoke extensively on his priorities, action plan for the likely third Covid-19 wave and more. Excerpts:- What are your priorities for the health sector in Uttarakhand? Uttarakhand is a state with a sparse population, difficult terrain and disaster-

prone areas. Hence, taking primary, preventive and promotive health services in outreach regions is our priority. We will ensure that people get 24x7 treatment for small injuries and the facility for screening of non-critical diseases at their nearest health facility. To provide primary care, we are strengthening health & wellness centres. Last year, our government recruited a large number of doctors. Today, 2,235 positions are filled against the 2,735 sanctioned posts of doctors.

Malnutrition and anemia also remain areas of concern. We are committed to reducing out-of-pocket health expenditure by making health services accessible and affordable to the people of Uttarakhand. What do you think are the top three illnesses prevailing in Uttarakhand. How do you plan to tackle them?

Preventing fatalities of new mothers and newborns is a core issue for us. In Uttarakhand, 70% of institutional deliveries take place in government health facilities and 30% of deliveries are conducted at home by unskilled birth attendants (dai). We have found out that most of the fatalities occur due to the negligence and ignorance of pregnant women and their spouses.

In a bid to reduce the infant mortality rate (IMR) and the maternal mortality rate (MMR), we will adhere to the strategy of increasing institutional deliveries. To this end, we are strengthening women hospitals, first referral units & delivery points in the state. Also, several local medical officers and additional ANMs will be recruited in the coming months.

The elimination of tuberculosis is also our priority as it is a major public health issue in the rural and urban slums of Uttarakhand. Our third priority is to fight against non-communicable diseases like cancer, hypertension, diabetes and cardiovascular ailments. We are also in the process of establishing an advanced research centre and cancer institute in Uttarakhand. After this facility becomes functional, patients will not

need to go outside the state to access treatment services. Similarly, we are planning to develop a dedicated institution for the treatment of cardiovascular diseases.

What is the action plan for the likely third Covid-19 wave?

At present, we are focussing on providing free Covid-19 vaccination to all adults. Considering the possibility of the third wave of Covid-19, we are making efforts to boost the immunity of our children by providing them with micronutrients.

We are prepared for the likely third wave and all necessary arrangements have been made. In my very first meeting as the state health minister, the preparedness of the likely third wave was discussed with senior officers. Necessary guidelines, standard treatment methods and referral protocols have been finalised; doctors, paramedics and other staff have been trained, and beds, paediatric ICUs, NICUs, oxygen supply, oxygen beds and ambulances have been arranged. How do you plan to take health services to the remote and far-flung areas?

We are in the process of re-organising our health infrastructure as per Indian Public Health Standards (IPHS) norms. We will upgrade nearly 322 state allopathic dispensaries to Primary Health Centre Type-A. This exercise will facilitate the uniform posting of doctors, paramedical staff, ambulance services and help in uniform supply of drugs, equipment and other logistic arrangements. Additional funds and uniform resource allocation from central and state governments under IPHS will certainly improve the health services in far-flung hills.

The helicopter ambulance services have not taken off very well in Uttarakhand. How do you plan to bring the service on track?

There is no big hurdle in regard to helicopter ambulance services. The state government has twice initiated the procurement process for



helicopter ambulances through the National Health Mission (NHM). However, there were certain technical issues raised by the prospective bidders regarding the utilisation of unused hours of flying. Certainly, no government can afford to pay for services of zero utility; thus, the tender deal could not be finalised. Anyway, we are again hiring the services of helicopter ambulances. NHM has already developed the proposal and the procurement process will start soon. Pregnant women are still taken to medical facilities in cots and chairs in the hills. This often leads to the death of the mother and the child. Is there a way out to overcome this challenge?

It is upsetting that pregnant women are not going for early registration at their nearest health facilities to avail the benefits of our free delivery scheme. Ignorance of to-be parents is a big challenge.

We plan to conduct a regular maternal death audit in each such case so that the factual reasons are flagged and a strategy can be framed. So far, the NHM has provided 2,983 doli/palki (palanquins) in the hill districts to ferry pregnant women from their homes to motorable roads or nearest health facilities.

Besides, a lack of information about the expected delivery date and disconnect with ASHA and ANM during pregnancy are some of the overlooked reasons which need to be resolved in consultation with block-level health functionaries.

Why has the state government not removed Haridwar district health officials to ensure a fair probe in the alleged Kumbh testing scam?

The Kumbh testing scam was unearthed by CMO Haridwar and district officials themselves. They were the ones who complained against the labs/culprits in question. Meanwhile, the state government has constituted an SIT to probe the matter. In these circumstances, there is no point removing the district officials.

Do you intend to revise the stipend of MBBS interns? They have been protesting for quite some time now.

The stipend of the MBBS interns in state medical colleges has been increased from Rs 7,500 to Rs 17,000. Chief minister Pushkar Singh Dhama has approved the increase. We appreciate the contribution of medical practitioners in the fight against Covid-19.

**THE TIMES OF INDIA**

## **Screen Covid patients for TB & vice versa: Centre to states**

TNN | Jul 18, 2021, 05.33 AM IST

NEW DELHI: The health ministry reiterated its recommendations on tuberculosis screening for all Covid-19 positive patients and vice versa amid reports of a surge in TB cases amid the pandemic. However, the government clarified that there is not enough evidence to suggest that there has been an increase in TB cases due to Covid-19. States and UTs have also been asked for convergence in efforts for better surveillance and case finding of TB and Covid-19. Besides, the Centre had already issued multiple advisories and guidance emphasising on the need for bi-directional screening of TBCOVID and TBILI/SARI, the government said.

"Due to the impact of Covid-19 related restrictions, case notifications for TB had decreased by about 25% in 2020 but special efforts are being made to mitigate this impact through intensified case finding in OPD settings as well as through active case finding campaigns in the community by all states," the government said

Moreover, there is not enough evidence currently to suggest that there has been an increase in TB cases due to Covid-19 or due to increased case finding efforts, it added. Highlighting the dual morbidity of Tuberculosis (TB) and Covid-19, the health ministry said both the diseases are known to be infectious and primarily attack the lungs, presenting similar symptoms of cough, fever and difficulty in breathing. However, TB has a longer incubation period and a slower onset of disease, it said.

In a warning against post Covid diseases such as black fungus, the ministry said SARS-CoV-2 infection could make an individual more susceptible to developing TB disease, as TB is an opportunistic infection like black fungus. Drawing parallels between decreased immunity in both tuberculosis and Covid-19 patients, the ministry said TB bacilli can be present in humans in a dormant state and has the potential to start multiplying when the individual's immunity is compromised for any reason. The same is applicable in the post-Covid scenario, when an individual may develop decreased immunity due to the virus itself or due to the treatment, especially immune-suppressants like steroids.



## **Union health ministry recommends Tuberculosis screening for all Covid-19 positive patients**

TIMESOFINDIA.COM | Jul 17, 2021, 07.54 PM IST

NEW DELHI: The Union health ministry on Saturday recommended Tuberculosis (TB) screening for all Covid-19 positive patients and Covid-19 screening

for all diagnosed TB patients. According to the ministry, there have been some media reports alleging that a sudden rise in cases of Tuberculosis (TB) has been noticed among patients who were infected with Covid-19 recently, leaving the doctors worried on receiving around a dozen similar cases every day. States/UTs have been asked for convergence in efforts for better surveillance and case finding of TB and Covid-19, as early as August 2020.

"Apart from this, multiple advisories and guidance have also been issued by MoHFW to reiterate the need for bi-directional screening of TB-Covid and TB-ILI/SARI. The States/ UTs have been implementing the same," read the release. "Due to the impact of Covid-19 related restrictions, case notifications for TB had decreased by about 25 per cent in 2020 but special efforts are being made to mitigate this impact through intensified case finding in OPD settings as well as through active case finding campaigns in the community by all States," it said.

Moreover, there is not enough evidence currently to suggest that there has been an increase in TB cases due to Covid-19 or due to increased case finding efforts. The dual morbidity of Tuberculosis (TB) and Covid-19 can be further highlighted through the fact that both the diseases are known to be infectious and primarily attack the lungs, presenting similar symptoms of cough, fever and difficulty in breathing, although TB has a longer incubation period and a slower onset of disease, the Union Health Ministry said.

"Furthermore, TB bacilli can be present in humans in a dormant state and has the potential to start multiplying when the individual's immunity is compromised for any reason. The same is applicable in post Covid scenarios, when an individual may develop decreased immunity due to the virus itself or due to the treatment, especially immune-suppressants like steroids," the release said.

"SARS-CoV-2 infection can make an individual more susceptible to developing active TB disease, as TB is an opportunistic infection like black fungus," it added.

**THE TIMES OF INDIA**

## **Hyderabad: New device developed by BITS Pilani reduces PCR test time**

TNN | Jul 15, 2021, 04.30 AM IST

HYDERABAD: A portable device developed by researchers at BITS Pilani, Hyderabad will help reduce the time taken for DNA amplification or polymerase chain reaction (PCR) test to 15-30 minutes and make it accessible to even those living in remote areas. The device was developed by research scholars Madhusudan B Kulkarni, Srashti Goyal, professors Arti Dhar, D Sriram, and Sanket Goel as part of the project funded by the institute's Center for Human Disease. The research has been published in Institute of Electrical & Electronics Engineers (IEEE) Xplore. "For 30 cycles, it is taking about 26 minutes to get the result using the device we developed," said Goel, associate professor, electrical and electronics engineering at the institute. While the conventional PCR machines are bulky and cost about Rs 4 lakh to Rs 5 lakh, the device developed by the researchers is compact and costs hardly Rs 2,000.

"The device will fit in a palm and can be used anywhere as it is just plug and play. It is a miniaturised version. Further research has brought down cost by 50%, time taken to give a result to 20 minutes," said Madhusudan, adding that in conventional PCR, it takes at least about 90 minutes to get a result.

While the researchers had conducted their study to test tuberculosis, they said the same can be used to test Covid-19 and other diseases. "It can be used at room temperature. It has inbuilt heaters and can easily attain a maximum temperature of 300°C," said Goel adding that IoT and bluetooth modules provide access to real-time temperature values that can be stored on a smartphone, making the device suitable for point-of care applications. The device has been designed using a carbon dioxide laser for PCR.

**THE TIMES OF INDIA**

## **Not enough evidence to link Covid with increase in TB, says health ministry**

**Both tuberculosis and Covid-19 impact the lungs but increase in TB cases, if any, can not yet be attributed to Covid-19, the ministry said.**

By [hindustantimes.com](https://www.hindustantimes.com) | Written by Poulomi Ghosh

UPDATED ON JUL 17, 2021 05:56 PM IST

Refuting reports that there has been a sudden uptick in the number of tuberculosis cases among patients recovering from Covid-19 infection, the Union health ministry on Sunday said there is not enough scientific evidence to link the two. Both the diseases are contagious and primarily attack the lungs, but it will not be right to link the two as yet, the government said. A few reports claimed that Madhya Pradesh doctors have found the number of TB patients suddenly increasing and what links all of them is Covid.



The health ministry said it had recommended TB screening for Covid-19 patients in August 2020. (PTI)

Then why are TB cases increasing? Or, are TB cases in India actually on the rise? The government has said that TB case notifications in India decreased by about 25 per cent owing to "the impact of Covid-19-related restrictions" in 2020. "But special efforts are being made to mitigate this impact through intensified case finding in OPD settings as well as through active case finding campaigns in the community by all states," the ministry said.

Like other post-covid infections, which are not new but are preying on the weakened immunity, TB can infect a person recovering from Covid as his or her immunity is weak at that time. "TB bacilli can be present in humans in a dormant state and has the potential to start multiplying when the individual's immunity is compromised for any reason. The same is applicable in post-Covid scenario, when an individual may develop decreased immunity due to the virus itself or due to the treatment, especially immune-suppressants like steroids," the ministry said.

The ministry also said that in 2020 only, it had recommended TB screening among Covid-19 patients as early as August 2020 and multiple such advisories have been issued.

"The dual morbidity of TB and Covid-19 can be further highlighted through the facts that both the diseases are known to be infectious and primarily attack the lungs, presenting similar symptoms of cough, fever and difficulty in breathing, although

TB has a longer incubation period and a slower onset of disease," the ministry said.

### **Covid and TB**

Both the diseases primarily attack the lungs and have similar symptoms like cough, fever, breathing difficulty etc. However, TB has a longer incubation period than Covid.

Earlier, the health ministry had said all Covid-19 cases should be screened for TB symptoms using the 4-symptom complex (Cough for > 2 weeks, persistent fever for > 2 weeks, significant weight loss, night sweats), history of contact with TB case, history of TB and those symptomatic should be offered Chest X-ray and upfront Nuclear Acid Amplification Test (NAAT) – CBNAAT/TrueNat) for diagnosis of Tuberculosis.

## **THE TIMES OF INDIA**

### **467K patients with Covid-19, respiratory infections screened for TB in Maharashtra**

By Rupsa Chakraborty

UPDATED ON MAY 28, 2021 12:43 AM IST

**As tuberculosis (TB) and Covid-19 share similar symptoms, the state health department between October 2020 and April 2021 screened as many as 467,032 patients with novel coronavirus, influenza-like illness (ILI) and severe acute respiratory infections (SARI) for TB. Of these, 5,264 patients were diagnosed with TB, and 96% of them were put on treatment.**

During the same period, 58,554 TB patients were tested for Covid-19, of which 571 (1%) of were diagnosed with Covid-19.

As per the World Health Organization (WHO), TB and Covid-19 are both infectious diseases that primarily attack the lungs and have similar symptoms such as cough, fever and difficulty in breathing.

Last October, the central health department issued guidelines on 'Bi-directional TB-Covid-19 screening and screening of TB among ILI and SARI cases'. Following this, all hospitals were instructed to test symptomatic patients with ILI, SARI and Covid-19 for TB.

"Since the beginning of the pandemic, the number of TB cases has gone down. In order to overrule any possibility of misdiagnosis or underreporting of TB cases, the Central government gave the instruction. If any patient goes unreported, they can spread the bacteria to many others," said Dr Shilpa Jichkar, TB officer, Nagpur Municipal Corporation (NMC).

According to the guidelines issued by the Centre, Covid-19 patients are instructed to be tested for TB if they have some specific symptoms — cough and persistent fever for more than two weeks, significant weight loss and night sweats.

Other than running sputum tests, hospitals can conduct X-rays and cartridge-based nucleic acid amplification test (CBNAAT).

"Most of these co-infection cases have been identified in new TB patients. They approached hospitals considering they have Covid-19. But when their CT scan report showed different forms of clouding in lungs, their sputum culture confirmed that they were also carrying the bacteria of TB," said Dr Lalit Anande, a TB specialist.

Both these infections affect people with lower immunity," he added.

## Genetic flashpoints: Why Covid-19 hits some people harder than others

Last Updated: Jul 10, 2021, 10:54 AM IST

**Synopsis** The Nature report summarizes information from 46 studies and three meta-analyses investigating the role of human genetics in Sars-CoV2 infections and Covid-19 severity.

Throughout the pandemic, one crucial question has perplexed scientists worldwide: Why do some people become so sick from Covid-19 while others show no symptoms at all?

Now, a peek deep into the human genome by a global initiative with more than 3,000 researchers from 25 countries is providing some answers. There are 13 locations in the genome strongly linked to either susceptibility to the virus or severe cases, the researchers reported Thursday in the journal Nature.

The research began in March 2020 as scientists struggled to understand how the virus operates. It culminated in the largest genome-wide association study ever conducted, with researchers sifting through the genetic material of almost 50,000 infected people and two million uninfected. The goal: Identify which bits of human DNA correlate with people getting very sick from the virus.

The results may help pinpoint "some clear biological markers that could be used to repurpose existing drugs or drugs in the pipeline," said Mark Daly, a study co-author who is the director of the Institute for Molecular Medicine Finland at the University of Helsinki and a geneticist at Harvard University.



The Nature report summarizes information from 46 studies and three meta-analyses investigating the role of human genetics in Sars-CoV-2 infections and Covid-19 severity.

Such studies are a little akin to panning for gold. We know our genetic makeup contributes to why some people are more susceptible to viral infections. By sifting through the DNA of enough people, researchers hope to discover a eureka moment explaining why.

Treating sick Covid patients more efficiently could also take the pressure off of hospital systems, sending patients home sooner, especially in countries still battling significant outbreaks. The results of genetic studies like this can offer drugmakers a starting point to develop new therapies in addition to identifying potential treatments already on the market.

Several of the 13 significant genetic locations identified in the research had previously been linked to other illnesses, including lung cancer and autoimmune diseases.

### **TYK2 Gene**

One gene that appears strongly connected to disease severity with Covid-19 is known as TYK2. In healthy people, it helps control the body's pathways for immune signaling and inflammatory signaling.

Previously, a variant of the TYK2 gene linked by the researchers to Covid-19 was found to be associated with a reduced risk for autoimmune diseases but an increased risk of tuberculosis. Researchers suggested that since the variant has previously been shown to reduce the function of the gene, the same mechanism may be interfering with the body's ability to effectively fight Covid.

Another gene the study identified, FOXP4, is linked to lung cancer. The FOXP4 variant increases that gene's expression, suggesting that

inhibiting the gene might be a strategy for treating Covid.

Not every genetic location of interest that the researchers identified had a link that clearly explained its association with Covid. Far more study will be needed to untangle all the complexities between the virus and human DNA.

### **Diversity Importance**

Of the genetic locations identified so far by the researchers, two had higher frequencies among patients of Asian ancestry than in those of European ancestry, underscoring how crucial diversity is in genetic research.

Genetics has long offered the promise of personalized insights that could explain who gets sick and how to treat them. The pandemic has only heightened interest in that promise. Last year, the consumer genomics firm 23andMe published research bolstering evidence that blood type can affect a person's susceptibility to Covid-19 by looking at a gene that influences blood type.

## **THE ECONOMIC TIMES | Industry**

### **Pfizer, AstraZeneca ... or both? A mixed approach may hold promise against Covid**

19 July, 2021, 04:51 PM IST

**Synopsis** Because of unpredictable supply and some concerns about an exceedingly rare but serious clotting risk from the AstraZeneca vaccine, officials have recently issued new guidance on mixing and matching different Covid vaccines.

At the start of the Covid-19 pandemic, it was unclear whether researchers would be able to create a single working vaccine, which makes it all the more surprising that the latest immunization dilemma arises from having multiple vaccine options.



Because of unpredictable supply and some concerns about an exceedingly rare but serious clotting risk from the NSE -0.53 % vaccine, public health officials in some parts of the world that have relied heavily on that shot have recently issued new guidance on mixing and matching different Covid-19 vaccines.

Recently, for example, Canada's National Advisory Committee on Immunization updated its guidance to say that people who received the AstraZeneca vaccine as their first dose can receive that same vaccine as their second dose or get a follow-up shot of Pfizer-BioNTech or Moderna instead. The committee also said that it was possible to receive the PfizerBioNTech and Moderna vaccines interchangeably as first and second doses. Countries ranging from France to Finland to China to Bahrain have also outlined possible scenarios for combining different vaccines. Even the Centers for Disease Control and Prevention has interim guidance saying this is acceptable in "exceptional situations," such as if the same vaccine is not available.

While this guidance may seem confusing, especially when the initial vaccine guidance told people to get the same shot for both doses, it does provide an opportunity to understand the safety of using mismatched vaccines, and to measure whether mismatched vaccines offer any advantage.

One recent small and not yet peer-reviewed study of 26 people who received the AstraZeneca shot followed by one from Pfizer-BioNTech suggested, based on blood tests, that those with mismatched vaccines had at least as strong an immune response as people who got both Pfizer shots. The National Institutes of Health recently began a clinical trial that will examine the effects of different combinations of Covid-19 vaccines.

In Britain, a trial of this kind is already underway for the AstraZeneca and Pfizer-BioNTech vaccines, and the scientists behind it have released early data on side effects. They found more reports of feverishness, chills, fatigue and headache among people who received a dose that was different from their original shot compared with people who received identical shots. Scientists want to know whether that indicates that the immune system was more stimulated by the different vaccine, and could develop added protection. It's still too soon to say, but more results from the trial are expected this month.

This is not the first time scientists have investigated what seems like an unconventional way of vaccine dosing, and it's not necessarily something to fear. It may be our best hope against certain pathogens.

In the last two decades, as new vaccine technologies have emerged, the idea of using different kinds of vaccines against the same pathogen has gained momentum. The approach — known among scientists as "heterologous prime-boost" — has been

explored in rodent experiments to develop vaccines against Ebola (now authorized for use by European regulators), tuberculosis and even cancers associated with the Epstein-Barr virus. Mouse experiments of this approach have even been tested for other coronaviruses in the past, such as the original SARS virus and the coronavirus that causes Middle East Respiratory Syndrome.

More recently, in March 2021, scientists in China published a study in mice that looked at different combinations of four different kinds of Covid-19 vaccines, including one made from mRNA and one viral vector vaccine, which — like the AstraZeneca and Johnson & Johnson coronavirus vaccines — uses an inactivated cold virus to trigger an immune response to Covid.

Why mix-and-match at all? Part of the thinking among scientists is that by administering different vaccines that expose the immune system to different parts of a pathogen, one after the other, the body becomes trained to recognize different parts of the invader and becomes more effective at defending against it.

Another line of reasoning is that using different kinds of vaccines jump-starts different elements of the immune system. Viral vector vaccines, for example, are well-equipped to stimulate a part of the immune response that helps generate an army of what are called “killer T cells” to protect the body against an invading virus. Other kinds of vaccines are thought to skew more heavily toward prompting the creation of antibodies to combat the virus. Both immune system responses are helpful, and scientists’ theory is that combining them could be more potent than either of them alone.

One area where the mix-and-match approach stirs the most hope is in the fight against H.I.V., where vaccine researchers have been investigating it for decades. In what might have been the first human trial of this method, the

immunologist Dr. Daniel Zagury of the Pierre and Marie Curie University in Paris received two different experimental H.I.V. shots in 1987. First, a version of a virus that was engineered to produce an H.I.V. protein in the body, and later booster shots of the protein directly (rather than the engineered virus). Dr. Zagury and his colleagues reported that his immune system showed signs of responding, including producing antibodies.

Although attempts at making a successful H.I.V. vaccine have faltered since then, there is still enthusiasm for the mix and-match approach. A trial called RV144, done more than a decade ago, followed the mix-and-match approach and was the only H.I.V. vaccine trial to ever show protection against the virus among a handful of other experimental H.I.V. vaccines. More trials of this kind are underway, and the hope is that finding the right pairing of vaccines will prove successful.

It’s clear that many Covid-19 vaccines are mightily effective on their own and don’t need to be paired with other versions. But scientists should keep a close eye on the results of the mix-and-match trials underway to see if large, well-controlled studies show any signal of better protection.

The findings could inform vaccine development for other pathogens. This is especially true for viruses that mutate even more rapidly than SARS-CoV-2, like H.I.V. In an era of multiplying vaccine technologies, it might be the case that vaccines, like people, prove more effective when they work together.

## Covid Can Make One More Susceptible To Active Tuberculosis: Health Ministry

The ministry said notification of tuberculosis cases had decreased by about 25 per cent in 2020 due to Covid-related restrictions

Updated: July 17, 2021 9:28 pm IST



The Centre said there isn't enough evidence to suggest that there has been an increase in TB cases (File)

COVID-19 can make a person more susceptible to developing active tuberculosis as it is an "opportunistic" infection like Black Fungus but currently there is not enough evidence to suggest TB cases have risen due to the viral disease, the Union Health Ministry said on Saturday.

The ministry said notification of tuberculosis cases had decreased by about 25 per cent in 2020 due to Covid-related restrictions and special efforts are being made to mitigate this impact through intensified case findings.

In a statement, the Health Ministry said there have been some news reports alleging that a sudden rise in TB cases have been noticed

among patients infected with COVID-19 recently, leaving doctors, who have been receiving around a dozen similar cases every day, worried.

"It is clarified that tuberculosis screening for all COVID-19 patients and COVID-19 screening for all diagnosed TB patients has been recommended by the Ministry of Health and Family Welfare," it said.

The ministry said SARS-CoV-2 infection can make an individual more susceptible to developing active TB disease, as it is an "opportunistic infection like black fungus".

There is not enough evidence currently to suggest that there has been an increase in TB cases due to COVID-19 or due to increased case finding efforts, it said, adding states and Union Territories have been asked for convergence in efforts for better surveillance and finding of TB and COVID-19 cases as early as August 2020.

Also, the health ministry has issued multiple advisories and guidance reiterating the need for bi-directional screening of TB-COVID and TB-ILI/SARI.

"Due to the impact of COVID-related restrictions, case notifications for TB had decreased by about 25 per cent in 2020 but special efforts are being made to mitigate this impact through intensified case finding in OPD settings as well as through active case finding campaigns in the community by all states."

The dual morbidity of tuberculosis and COVID-19 can be further highlighted through the fact that both diseases are known to be infectious and primarily attack the lungs, presenting similar symptoms of cough, fever and difficulty in breathing. But TB has a longer incubation period and a slower onset of disease, the health ministry said.

"Furthermore, TB bacilli can be present in humans in a dormant state and has the potential to start multiplying when the individual's immunity is compromised for any reason.

"The same is applicable in a post-Covid scenario when an individual may develop decreased immunity due to the virus itself or due to the treatment, especially immune-suppressants like steroids," the Health Ministry said.



# *our other publications...*



NIRT Library  
National Institute for Research in Tuberculosis  
(Indian Council of Medical Research)  
1, Mayor Sathyamoorthy Road  
Chetpet, Chennai 600031  
Tel: 91 44 28369637 | Fax: 91 44 28362525  
Email: nirtlibrary@nirt.res.in

*Information is power*