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THE  HINDU

China sees new surge in COVID-19 cases despite 'zero tolerance' approach

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Residents wearing masks lineup for security check in the Tiananmen Area where the annual parliamentary meetings are held, on March 7, in Beijing. | Photo Credit: AP

Another 54 cases were reported in the Jilin province, more than 2,000km (1,200 miles) to the north and 46 in the eastern province Shandong

China is seeing a new surge in [COVID-19](#) cases across the country, despite its draconian "zero tolerance" approach to dealing with outbreaks. The mainland on Monday reported 214 new cases of infection over the previous 24 hours, with the most, 69, in the southern province of Guangdong bordering on

 **The Indian EXPRESS**

Can a person refuse COVID-19 vaccine? Supreme Court seeks Government view

Krishnadas Rajagopal

NEW DELHI MARCH 02, 2022 19:56 IST

Court was hearing plea that States making it mandatory

The Supreme Court on Wednesday asked the government to respond to advocate Prashant Bhushan's "important" argument that a person has an absolute right to refuse COVID vaccine and States cannot compel them to take the vaccine on the pain of denying them basic rights.

Appearing before a Bench of Justices L. Nageswara Rao and B.R. Gavai, Mr. Bhushan said though the Centre had made vaccination voluntary, several States had issued notification making vaccination mandatory by denying basic rights and services to people who are not inoculated against the virus. Even children were denied access to schools if they or their parents were...

Continued in page No.4

Hong Kong, which has been recording tens of thousands of cases per day.

Another 54 cases were reported in the Jilin province, more than 2,000km (1,200 miles) to the north and 46 in the eastern province Shandong.

In his annual report to the national legislature on Saturday, Premier Li Keqiang said China needs to “constantly refine epidemic containment” but gave no indication that Beijing might ease the highly touted “zero tolerance” strategy.

Li called for accelerating vaccine development and “strengthening epidemic controls” in cities where travellers and goods arrive from abroad.

“Zero tolerance” requires quarantines and lockdowns on entire communities and sometimes even cities when as few as a handful of cases have been detected. Chinese officials credit the approach — along with a vaccination rate of more than 80% — with helping prevent a major nationwide outbreak, but critics say it is taking a major toll on the economy and preventing the population from building up natural immunity.

No new cases were reported in Beijing and the city was largely back to normal, although masks continue to be worn in public places indoors. One area that continues to feel the effects of tight COVID-19 control is the religious sector. Three of Beijing's most famous Catholic churches, Buddhist temples and mosques stated on Sunday that they had been ordered closed in January with no date given on reopening.

Even before the pandemic, such institutions were under heavy pressure from the Communist authorities to follow through on demands from leader Xi Jinping that all religious centres be purged of outside influence, including the physical appearance of places of worship.

The latest daily case numbers mark some of the highest since the initial outbreak in the central

city of Wuhan in late 2019 that is believed to have sparked the pandemic.

They bring China's total to 1,11,195 with 4,636 deaths, according to the National Health Commission. At present, 3,837 people are receiving treatment for COVID-19, many of them infected with the omicron strain.

[Continued from page no.1](#)

Can a person refuse COVID-19 vaccine? Supreme Court seeks Government view

.....not vaccinated. He referred to reports that children, who have very little chance of contracting the virus, are showing symptoms of myocarditis after vaccination.

Mr. Bhushan, who is himself not vaccinated, said the decision whether or not to get inoculated solely concerns individual health and not public health as vaccinated people, like their unvaccinated counterparts, continue to get and transmit the virus. In fact, he argued, people armed with natural antibodies after surviving a COVID attack show better resilience.

'Individual health'

“For an unvaccinated person to be considered a health hazard, I must pose a clear and present danger to others. To eclipse my fundamental rights, there must be first a clear proof that I pose a public danger. Here, even vaccinated people transmit the virus. So, the only issue is my individual health,” he submitted.

Mr. Bhushan, appearing for Dr. Jacob Puliyel, a former member of the National Technical Advisory Group on Immunisation, said the government had neglected to get an informed consent from people about vaccination by being opaque about vaccine trials and by not

putting the entire data and inconsistencies up for public and independent scientific scrutiny.

“Vaccines are creating more variants of COVID-19 virus. Mass vaccination creates more variants when the virus tries to escape the effects of the vaccine. Over 90% of the population have already got COVID after the Omicron wave. They now enjoy superior and more robust protection from those who are vaccinated. So why insist on vaccination? I have an absolute right to refuse to take any medicine which I, after study, feel would do me more harm,” Mr. Bhushan argued.

He contended that though “vaccine does prevent, to some extent, people from becoming ill, people who are healthy hardly have any chance to suffer COVID, and nobody knows the long term effect of the vaccine. If vaccine does not anyway prevent the transmission of the disease, there is no point mandating vaccine as a precondition to access basic rights and services”.

‘No significance’

Countering for the government, Additional Solicitor General Aishwarya Bhati said 96.8% of the population had already taken their first dose and 80% their second dose. Mr. Bhushan’s contentions were of no significance at this stage. Ms. Bhati said Mr. Bhushan’s “tall claim” about children showing symptoms of myocarditis had no relevance as the vaccine administered to them in India was Covaxin which contained dead or inactive virus.

Justice Rao, addressing Mr. Bhushan, said that he might be taking the court into the “deep realms of science” and judges were not scientists. “Science is a matter of opinion... Your opinions on vaccination may not be shared by others,” Justice Rao told Mr. Bhushan.

“We do not have basic knowledge about this... As far as we have heard there is an opinion that

protection from natural antibodies is very high. Another opinion is that after the vaccine shots, the effectiveness of antibodies goes up 50 times... So, it is a matter of opinion,” Justice Gavai said.

Justice Rao said many suffer from co-morbidities, and vaccines help.

However, the court said it was ready to go in for a “limited enquiry” into the question whether the decision taken by the States to make vaccination mandatory was based on relevant data or executed arbitrarily.

“What you are saying is that the Union is stating that vaccination is not mandatory. On the other hand, States are indirectly mandating it. That is what you are saying?” Justice Rao asked Mr. Bhushan.

“Yes, can there be vaccine mandates. Where is the informed consent taken from people? Where is the data?” Mr. Bhushan asked in return.

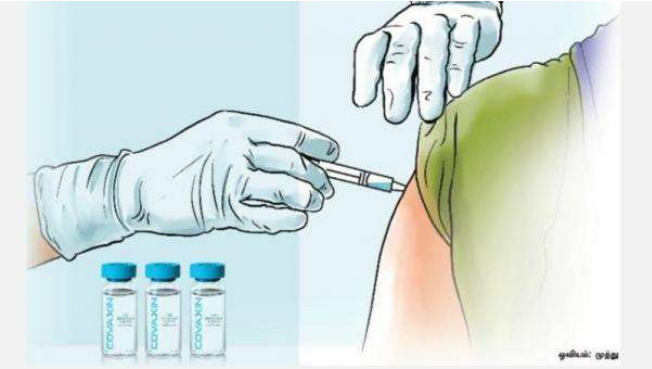
The senior lawyer said his arguments were based not on opinions but scientific data and rulings of the courts in other countries like New Zealand.

“Before I take medicine, I have to give consent. Consent should be informed. For it to be informed, I need to have all the data placed before me. Trial data has to be released in order to be studied. Otherwise, trials are conducted by the pharmaceutical companies. They will hide inconsistencies. Data need to be released to be studied by independent scientists,” Mr. Bhushan argued.

The court asked the government to place its response in an affidavit by Saturday and posted the case for March 8.

கரோனா 3-வது அலை மரணம்; 92% பேர் தடுப்பூசி போடாதவர்கள்: ஐசிஎம்ஆர் தகவல்

Published : 04 Mar 2022 13:44 pm



புதுடெல்லி: கரோனா 3-வது அலையில் உயிரிழந்தவர்களில் ஏறக்குறைய 92 சதவீதம் பேர் தடுப்பூசி போட்டுக் கொள்ளாதவர்களே என ஐசிஎம்ஆர் எனப்படும் இந்திய மருத்துவ ஆராய்ச்சி கவுன்சில் தெரிவித்துள்ளது.

கடந்த 2020-ம் ஆண்டு பிப்ரவரி இறுதியில் இந்தியாவில் கரோனா வைரஸ் பரவத் தொடங்கியது. மே, ஜூன் மாதங்களில் இதன் தாக்கம் அதிகரித்து நவம்பர் மாதத்தில் குறையத் தொடங்கியது. ஆனாலும் இந்தாண்டு பிப்ரவரியில் கரோனா 2-வது அலை பரவத் தொடங்கி அதிக அளவில் பாதிப்பு ஏற்பட்டது.

இதனால் நாட்டில் லட்சக் கணக்கானோர் பாதிக்கப்பட்டனர். அதிக அளவில் உயிரிழப்பும் ஏற்பட்டது. கடந்த ஆண்டு அக்டோபர் மாத நிலவரப்படி 4.5 லட்சத்துக்கும் மேற்பட்டோர் உயிரிழந்தனர். பின்னர் 2-வது அலையின்

பாதிப்பு வெகுவாகக் குறைந்த நிலையில் கடந்த ஆண்டு இறுதியில் 3-வது அலை தொடங்கியது. இதில் பாதிப்பு அதிக அளவில்

இருந்தபோதிலும் மரணம் குறைவாகவே இருந்தது. பரவிய வேகத்தில் 3-வது அலையும் தற்போது வெகுவாக குறைந்து வருகிறது.

இந்தநிலையில் கரோனா 3-வது அலையில் நேரிட்ட இறப்புகளில் கிட்டத்தட்ட 92% தடுப்பூசி போடப்படாதவர்களே காரணம் என்று ஐசிஎம்ஆர் எனப்படும் இந்திய மருத்துவ ஆராய்ச்சி கவுன்சில் தெரிவித்துள்ளது.

இதுகுறித்து ஐசிஎம்ஆர் இயக்குநர் ஜெனரல் பல்ராம் பார்க்வா கூறியதாவது:

முழுமையாக தடுப்பூசி போடப்பட்டவர்களில், 10.2 சதவீதம் பேர் மட்டுமே கோவிட்-19-க்கு பலியாகியுள்ளனர். முழுமையாக தடுப்பூசி போடப்பட்டு இறந்தவர்களில் 91 சதவீதம் பேர் இணை நோயுற்றவர்களாக இருந்துள்ளனர்.

இறந்தவர்களில் 21.8 சதவீதம் பேர் பகுதியளவு தடுப்பூசி போடப்பட்டவர்கள். அவர்களில் 83 சதவீதம் பேர் நோய்த்தொற்றுக்கு ஆளாகியவர்கள் ஆவர்.

ஓமைக்ரான் பாதிக்கப்பட்ட கோவிட் -19 தொற்று எண்ணிக்கையில் பல நாடுகள் இன்னும் தத்தளித்துக்கொண்டிருக்கும் வேளையில், இந்தியாவில் கோவிட் மேலாண்மைக்கு தடுப்பூசி உதவியுள்ளது. ஓமைக்ரான் மாறுபாட்டால் ஏற்பட்ட 3-வது அலையில் இறப்புகள் கணிசமாகக் குறைந்துள்ளது.

இரண்டாவது அலையில் (மார்ச் 21 முதல் ஜூலை 14, 2021 வரை) 1.29 சதவீதமாக

இருந்த இறப்பு விகித அளவு 3-வது அலையில் (ஜனவரி 4 முதல் பிப்ரவரி 14, 2022 வரை) 0.35 சதவீதம் ஆகக் குறைந்தது. இதற்கு **தடுப்பூசி** மிக முக்கிய பங்காற்றியுள்ளது.

2021 ஆம் ஆண்டின் இரண்டாவது அலையின்போது தகுதியுள்ளவர்களில் 10.1 சதவீதம் பேர் மட்டுமே பகுதியளவு **தடுப்பூசி** போடப்பட்டு இருந்தனர். 2.1 சதவீதம் பேர் இரண்டு டோஸ்களுடன் முழுமையாக **தடுப்பூசி** பெற்றவர்கள் ஆவர். மறுபுறம் மூன்றாவது அலையின்போது 90.83% பெரியவர்களுக்கு முதல் டோஸ் **தடுப்பூசி** போடப்பட்டது. 65.4 சதவீதம் பேருக்கு 2 டோஸ் **தடுப்பூசி** போடப்பட்டது.



நாம் கரோனா குறைந்த காலக் கட்டத்தில் இருக்கிறோம். அதனால்தான் பள்ளிகள் மற்றும் வணிகங்களையும் திறந்து விட்டுள்ளோம். எனினும் கண்காணிப்பும் தொடர்கிறது. 3-வது அலையின் தாக்கம் கணிசமாக குறைந்து விட்டபோதிலும் முகவசம் அணிவதும், சமூக இடைவெளியை பின்பற்றுவதும் அவசியமான ஒன்றாகும்.

இரண்டாவது அலை 117 நாட்கள் நீடித்தது. அதாவது கடந்த ஆண்டு மார்ச் 21 முதல் கடந்த ஆண்டு ஜூலை 14 வரை நாட்டில் மொத்தம் 1.94 கோடி தொற்று

எண்ணிக்கையும், 2.52 லட்சம் இறப்புகளும் ஏற்பட்டன. அப்போதைய தொற்று பரவல் விகிதம் 1.29 சதவீதம் ஆக இருந்தது.

41 நாட்கள் நீடித்த மூன்றாவது அலையின் போது கடந்த ஜனவரி 4 முதல் பிப்ரவரி 14 வரை இந்தியாவில் 77.42 லட்சம் தொற்று மற்றும் 27,118 இறப்புகள் பதிவாகியுள்ளன. தொற்று பரவல் விகிதம் 0.35 சதவீதம் ஆகும்.

இவ்வாறு அவர் கூறினார்.

மத்திய சுகாதார அமைச்சகத்தின் இணைச் செயலாளர் லால் அகர்வால் இதுகுறித்து கூறுகையில், “சுகாதாரப் பாதுகாப்பு, முன்களப் பணியாளர்களின் இடைவிடாத முயற்சி, **தடுப்பூசி** ஆகியவற்றால் 3-அலையில் பாதிப்பை கணிசமாக நாம் குறைத்துள்ளோம்” எனக் கூறினார்.

The Indian EXPRESS

Mental health in India: Community-based interventions as the answer to India's mental health burden

As a community comes together to address the unique stressors they experience, in conjunction with linkages and referrals to public health and welfare systems - these provide context based, accessible care.

Written by Dr Dalbir Singh, [Virander S Chauhan](#), Priti Sridhar | New Delhi | March 4, 2022 10:50:39 am



An efficient and robust community-integrated model will have the ability to build a response system of cadres of community volunteers and leaders to create 'safe spaces'. (Photo: Getty Images/istock)

Addressing healthcare challenges in a country as diverse and vast as India is a difficult feat as it is, leaving aside the stigma, and social and structural barriers that prevent people experiencing mental health problems from seeking care. The [National Mental Health Survey \(2015-16\)](#) estimated that close to 150 million Indians require [mental health interventions](#) and there exists a treatment gap of 70 to 92%. Considering that the overall impact is not just on the person, but also on those around them (hidden burden), the actual affected population may be much higher. This burden has been aggravated by the [Covid-19 pandemic due to the rise in uncertainty and anxiety](#), and is now becoming increasingly critical to address

India has only 0.75 psychiatrists per lakh population largely concentrated in urban areas even though nearly 70% of the country's [population resides in rural areas](#), against the desirable 3 per lakh population- a deficit that would take at least 42 years to meet given the current pace of [psychiatric education in the country](#). Despite this reality, most conversations on mental health either look at breaking the stigma (which will increase the demand for services) or improving quality service delivery through psychiatrists (who are in limited numbers). This article therefore looks at bridging the care gap with the use of psychosocial interventions, through community-led models, to

leverage non-formal caregivers and para-professionals, rather than relying only on qualified mental health professionals.

This paradigm shift would cultivate a rights-based approach to [mental healthcare which is accessible](#), affordable, inclusive, and fosters help-seeking behavior at the community level. As a community comes together to address the unique stressors they experience, in conjunction with linkages and referrals to public health and welfare systems – these provide context based, accessible care. This may prevent deterioration of the individual's mental wellbeing thereby reducing the medical intervention required. Community based care would enable early [screening for mental health issues](#), along with better uptake of a range of services. Being from the same community, having the cultural understanding a more contextual intervention can also be undertaken by community volunteers, to address the specific needs of different individuals. These may include trauma resulting from gender-based violence or caste-based discrimination, anxiety and substance dependency faced by adolescents, particularly due to the [pandemic and social media](#).



Considering that the overall impact is not just on the person, but also on those around them (hidden burden), the actual affected population may be much higher. (Photo: Getty Images)

Following the 'Look-Listen-Link' (3L) Model, this care community could undertake need-based interventions that allow non-formal, trained community workers to look into the

particular [mental health challenges](#) of the community. The trained workers could listen to what they say, identify if they have symptoms of any common medical disorders ('CMD') such as [depression](#), anxiety and [suicide ideation](#) — that can be addressed at the community level, provide basic counselling and link them to referral institutes where necessary.

An efficient and robust community-integrated model will have the ability to build a response system of cadres of community volunteers and leaders to [create 'safe spaces'](#). They would build upon locally established peer support networks such as Self-Help Groups ('SHGs'), activity-based groups, and civil society organizations to provide care. It is important that any community-based [mental health](#) program provides access to institutional social care benefits by building strategic partnerships with the local governments, panchayats, educational institutions and other stakeholders to enable referrals and access to existing social benefit schemes.



Mental health burden has been aggravated by the [Covid-19](#) pandemic due to the rise in uncertainty and anxiety, and is now becoming increasingly critical to address. (Photo: Getty Images)

The success of the 'Atmiyata Project' run by the Centre for Mental Health Law and Policy in Mehsana, Gujarat and funded by the Mariwala Health Initiative ('MHI') is noteworthy in this regard. The program is led by [community volunteers](#) who identify persons in distress, and who can benefit from informal care. The

HELP IS A CALL AWAY

MENTAL HEALTH HELPLINE NUMBERS

AASRA
Contact: 9820466726
Email: aasrahelpline@yahoo.com
Timings: 24x7
Languages: English, Hindi

Snehi
Contact: 9582208181
Email: snehi.india@gmail.com
Timings: 10am - 10pm, all days
Languages: English, Hindi, Marathi

Fortis MentalHealth
Contact: 8376804102
Timings: 24x7; All days
Languages: Achiku, Assamese, Bengali, Dogri, English, Gujarati, Hindi, Kannada, Konkani, Malayalam, Marathi, Punjabi, Rajasthani, Tamil, Telugu, Urdu

Connecting NGO
Contact: 9922004305, 9922001122
Email: distressmailsconnecting@gmail.com
Timings: 12pm - 8pm; All days
Languages: English, Hindi, Marathi

Vandrevala Foundation
Contact: 18602662345
Email: help@vandrevalafoundation.com
Timings: 24x7
Languages: Hindi, Marathi, Gujarati and English

volunteers provide them with [counseling sessions](#). It also addresses barriers of language, age and disability, by making use of videos to generate awareness about mental health. Two other partner organisations of MHI must also be mentioned in this regard. The 'Janamanas' program run by Anjali, a NGO based in Kolkata, focuses specifically on addressing the differential mental health concerns of women, by creating safe community spaces for other women, in the

community to come, assess and discuss their issues. Likewise, the SEHER program by Bapu Trust works in the urban bastis in Pune, and initiates [conversations on mental health](#) at street corners.

The triumph of community participation in other public health challenges such as [tuberculosis](#) where 'TB Champions' who are survivors of the disease as well as 'ASHAs' who assist in the last mile connectivity of maternal and child health in the country, must also be paid heed. These programs reduced the [stigma associated with seeking help](#), enabled access at the village level, and established outreach and support chains that are functioning even in the midst of the pandemic.

To conclude, a diverse collaboration with the community can humanize the existing public health institutions by reducing hesitancy and building [awareness about mental health](#). It also allows for early screening, assistance mechanisms and preventive measures to be built and decentralize the delivery of mental health services to make way for personalized solutions that are contextual thereby bridging the healthcare gap and making a significant contribution towards the amelioration of mental health.

(Dr Dalbir Singh, President, Global Coalition Against TB and Policymaker's Forum for Mental Health); (Dr Virander Singh Chauhan, Emeritus Professor, ICGEB and Founder ETI); (Priti Sridhar, CEO, Mariwala Health Initiative)



The growing scourge of anti-microbial resistance needs urgent attention

Kamini Walia writes: With no new drugs in the pipeline for drug-resistant infections, time is running out for patients.

Written by [Kamini Walia](#) |

Updated: March 3, 2022 9:18:23 am



At a Covid-19 ward in Gujarat amid the Omicron wave. (Express Photo: Nirmal Harindran, File)

Ever since the pandemic struck, concerns have been raised about the improper use of antimicrobials amongst [Covid-19](#) patients. The worry is that unnecessary prescription of antimicrobials will lead to a further increase in the already high levels of drug resistance in most parts of the world. In the past few years, alarmingly high resistance rates in pathogens of public health importance have been reported from Indian hospitals. Unfortunately, the resistance rates reported by the hospitals and laboratories do not automatically translate to disease burden unless each resistant isolate is correlated with the clinical outcomes in the patients from whom they were isolated. This has to do with inadequate hospital information systems in most public sector funded healthcare facilities in India and many low-middle income countries.

In 2014, economist Jim O' Neill estimated that 10 million annual deaths from AMR could occur by 2050. Studies such as the ones conducted by him paved the way for the consolidation of the Global Action Plan in 2015 and the UN Resolution on AMR in 2016. However, nothing changed on the ground. National Action Plans against AMR,

including the one in India, have not been translated into coherent action. The major impediment to AMR containment is that the most affected countries have the least data on the burden posed by this malaise.

The “Global burden of bacterial antimicrobial resistance in 204 countries and territories in 2019 (GRAM)” report, released last month, provides the most comprehensive estimate of the global impact of antibiotic resistance to date. According to the report, 4.95 million people died from drug-resistant bacterial infections in 2019, with 3,89,000 deaths in South Asia alone. AMR directly caused at least 1.27 million of those deaths. Lower respiratory infections accounted for more than 1.5 million deaths associated with resistance in 2019, making it the most burdensome infectious syndrome. Amongst pathogens, E coli was responsible for the most deaths in 2019, followed by K pneumoniae, S aureus, A baumannii, S pneumoniae, and M tuberculosis. As per the yearly trends reported by the Indian Council of Medical Research since 2015, India reports a high level of resistance in all these pathogens, especially E coli and K pneumoniae.

However, only a fraction of the Indian data, available through the WHO-GLASS portal, has been included in the GRAM report. India has been reporting high levels of resistance to fluoroquinolones, cephalosporins and carbapenems across the Gram-negative pathogens that cause almost 70 per cent of infections in communities and hospitals. Therefore, the Indian data on the AMR burden may not look very different from the estimates published in the report. Now that we know that AMR's burden surpasses that of TB and HIV, a sense of urgency in containing such resistance is called for. With no new drugs in the pipeline for drug-resistant infections, time is running out for patients.

Addressing AMR requires a multipronged and multisectoral approach. The urgency to develop new drugs should not discourage us from instituting measures to use the existing antimicrobials judiciously. Improved infection control in communities and hospitals, availability and utilisation of quality diagnostics and laboratories and educating people about antimicrobials have proved effective in reducing antimicrobial pressure — a precursor to resistance. All this requires a comprehensive plan, driven by a designated coordinating agency backed with suitable funding.

The National Action Plan for AMR, approved in 2017, completes its official duration this year. The progress under the plan has been far from satisfactory. Too many players, missing governance mechanisms and absence of funding have been recognised as key impediments to the effective rollout of action plans in other countries as well. However, there are also examples of countries launching effective AMR containment plans by fixing responsibility and monitoring progress at the highest levels.



Long Covid: The science shows how little we know

Two years into the pandemic, researchers are still working out what causes long COVID, why some get it and some don't and what to do about it.

By: [Deutsche Welle](#) |
March 6, 2022 3:15:37 pm



You're more likely to get long COVID after a severe infection, but it can develop after mild cases as well. (Kyodo/picture alliance)

It wasn't long ago that people with persisting [COVID-19 symptoms](#) said they felt their doctors didn't take them seriously. Now, two or more years into the pandemic, things are changing.

We know more about the condition that's called long COVID. We know that millions of people have it worldwide. We have a better idea about what causes it, but that research is ongoing. And we won't know the long-term effects of long COVID for years.

What is long COVID?

When people get [long COVID](#), the debilitating symptoms of an SARS-CoV-2 infection don't stop after the virus has left their bodies. Breathing difficulties, extreme fatigue and chest pain can persist for months after infection. It can make daily life — getting back to normal — challenging.

Some studies suggest that between 14-30% of COVID patients get at least one symptom of long COVID within 90 days after recovery from infection.

That means that with 395 million COVID cases worldwide (at time of writing), between 55 and 120 million people are suffering, or have suffered, with long COVID.

There is little data on the long-term effects of long COVID on individuals and society as a whole. It will take years before we have reliable data on that.

Researchers have identified a number of risk factors, but they are still trying to work out what exactly causes long COVID. It's not the same for everyone. And it is still a mystery why some people develop long COVID and why others do not.

Is long COVID less severe with [omicron](#)?

Omicron is currently the dominant variant of the [coronavirus](#), SARS-CoV-2. And a lot of the data suggests that it causes milder infections in the majority of cases.

It's also one of the most infectious forms of [COVID-19](#), and there are concerns that the sheer number of omicron cases could lead to a rise in cases of long COVID.

The chances of developing long COVID are higher following a severe infection, but you can get long COVID regardless of whether you have had a severe or mild infection.

What causes long COVID?

Long COVID is defined as a heterogenous syndrome — it can be caused by different factors or a mix of factors. And that means there is more than one kind of long COVID.

"There are at least two different types: One occurs in COVID-19 patients [whose infections were so severe] that they were treated in an intensive care unit with a life-threatening condition. And another can occur in individuals who had mild to moderate symptoms," said Joachim Schultze at the German brain research institute, DZNE.

The more severe form of long COVID is caused by damage to multiple organs.

To get a better diagnosis

Doctors need to understand [how long COVID works](#) — its “mechanism” — for them to properly diagnose and treat it in patients. And researchers are making progress.

Ophthalmologists in Germany, for instance, have investigated small blood vessels, known as capillaries, in the eyes of long COVID patients.

Researchers say long COVID seems to effect the shape of some blood vessels and that that can affect the blood's ability to flow through the body.

A study published in January found four major risk factors:

A high level of SARS-CoV-2 RNA in blood samples
The presence of autoantibodies, which attack the body's own tissues
Type 2 diabetes
Reactivation of a previous Epstein-Barr virus infection

Researchers have also found specific antibodies in the blood of long COVID patients.

These findings show how certain factors can increase the risk of long COVID. But they are not enough to predict whether you, or any other person, are specifically at risk.

In addition, researchers do not yet know why some patients don't get it.

Long-term impact on people and society

There's another thing we can't predict: How long COVID will affect individuals and communities over the coming years. We simply lack the data about the burden of long COVID on the global economy, communities and health services.

Those statistics are years away, as well. But researchers are tracking these developments.



Long COVID is defined as a heterogenous syndrome — it can be caused by different factors or a mix of factors. (Photo: Getty/Thinkstock)

Some large-scale studies aim to track people's health long after their COVID-19 infections and recovery.

Other studies aim to calculate the impact of long COVID on health systems, societies and economies.

But researchers like the DZNE's Joachim Schultze say we need more research to provide better clinical definitions and diagnostic criteria on the various forms of long COVID. They believe they will need much more data to be able to understand the full impact of the condition.

Do vaccines protect against long COVID?

Some data shows that vaccines can lower a person's risk of developing long COVID after a SARS-CoV-2 infection.

Two studies — one in Israel and the other in the [United Kingdom](#) — have found that people with two doses of a vaccine are less likely to report long COVID symptoms than unvaccinated people.

The researchers have said their findings also show that vaccines do not cause long COVID. Long COVID only occurs after a viral infection.

According to the researchers, vaccines help reduce the risks associated with long COVID in two ways.

First, vaccines help us avoid COVID-19 infections. And second, they reduce the severity of symptoms if you still do get infected.

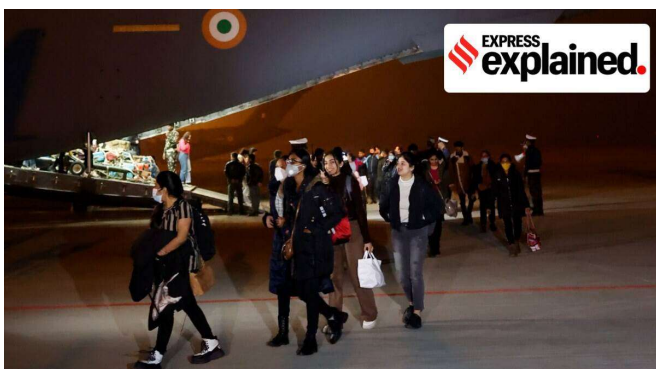
Vaccines do not, however, fully remove the risk of long COVID. As a result, says Schultze, it's important that scientists are allowed to develop new diagnostic tools and therapeutic options for long COVID while they also continue to identify its broader impact on society.

The Indian EXPRESS

Explained: Why Govt has allowed foreign medical students to complete internships in India, who can apply

The National Medical Commission has allowed foreign medical students who have returned from war-torn Ukraine to complete their internships in India. Who can apply? Is there a quota? Will students have to pay additional fees? Will a stipend be given?

Written by [Kaunain Sheriff M](#) , Edited by Explained Desk
| New Delhi |
Updated: March 5, 2022 6:49:38 pm



Students who were evacuated from Ukraine arrive at Hindon Air Force Station in Ghaziabad, Uttar Pradesh by an Indian Air Force aircraft. (Express Photo: Praveen Khanna)

The National Medical Commission (NMC) [has made a significant relaxation](#) for students who are unable to complete their MBBS internships because of compelling situations like the Ukraine war or the [Covid-19](#) pandemic. It has said foreign medical graduates can apply to complete their internships in India.

The change is likely to provide some relief for final year medical students returning from Ukraine, and several students who are not able to complete their internships in China due to Covid-19 restrictions that continue to be imposed in the country.

What has changed now?

Currently, Indian regulations do not allow foreign medical graduates to transfer to an Indian medical college for internships or examinations. The regulations strictly state that the MBBS course, training, and internship should be done in the same foreign medical institution.

For instance, the MBBS course in Ukraine is five and half years. The regulation stipulates that students have to complete a 12-month internship in Ukraine.

Now, however, the NMC has made one relaxation related to internships. The regulator has said that foreign medical graduates with incomplete internships due to the war can apply to complete the remaining part of the internship in India.

Can any foreign medical student apply in India?

No. The NMC has said state medical councils have to ensure the candidates applying for completion of internship in India must have cleared the Foreign Medical Graduates Examination (FMGE) — a licensure examination conducted by the National Board of Examinations in India.

This means, state medical councils can process the applications of students who want to complete their internships in India only after they clear the FMGE.

What other guidelines do state medical councils have to follow?

First, state medical councils have to ensure the medical degree can be used to practice medicine in the jurisdiction of the country in which the MBBS degree was awarded, and is at par with the license to practice medicine given to a citizen of that country.

Second, state medical councils should ensure the student has documentary evidence certifying successful completion of physical training or internship during MBBS.

Third, the FMGE conducted by the National Board of Examination should be cleared by the candidate. "If the candidate is found fulfilling all the above-mentioned criteria, provisional registration may be granted by State Medical Councils for 12 month internship or balance period, as the case may be," the NMC has said.

Has the NMC fixed a quota for allocation of internships?

Yes. The NMC has said the maximum quota for allocation of internships to foreign medical graduates must be restricted to the additional 7.5 per cent of total permitted seats in a medical college. And, internships will be allowed only in the medical colleges that are permitted by the NMC.

Will foreign medical graduates have to pay additional fees?

No. The NMC has said the state medical councils should obtain an undertaking from the medical college that no amount or fee is charged from the students for the internships.

Will a stipend be given to the students?

Yes. The NMC has said a stipend and other facilities, equivalent to what is provided to Indian medical graduates being trained at government colleges, should be extended to foreign medical graduates.



FDA declines pediatric EUA for Ocugen's Covid vaccine Covaxin

Covaxin, which is not cleared for any age group in the United States, is one of the two most widely used COVID vaccines in India and also has an emergency use listing from the World Health Organization.

By: [Reuters](#) |
March 5, 2022 10:08:29 am



Shares of Ocugen slumped 30% premarket on the news. (File)

Ocugen Inc said on Friday US regulators have declined to issue an emergency use authorization (EUA) for [Covaxin](#), the [COVID-19](#) vaccine developed by its Indian partner Bharat Biotech, for use in individuals aged 2 to 18 years.

Shares of Ocugen slumped 30% premarket on the news.

Ocugen said it intends to continue working with the U.S. Food and Drug Administration to evaluate the process for getting an EUA for pediatric use of Covaxin. Ocugen had entered into a deal with vaccine maker Bharat Biotech in late 2020, under which it would develop, supply, and commercialize Covaxin for the US market.

Covaxin, which is not cleared for any age group in the United States, is one of the two most widely used COVID vaccines in India and also has an emergency use listing from the World Health Organization.



Govt panel recommends EUA for Covid vaccine Covovax for 12-17 age group

The Subject Expert Committee on COVID-19 of the Central Drugs Standard Control Organisation (CDSCO) on Friday deliberated on SII's application and recommended granting EUA to Covovax.

By: [PTI](#) | New Delhi |
March 4, 2022 10:19:54 pm



Covovax is manufactured by technology transfer from Novavax. (Representational Image)

An expert panel of the country's central drug authority has recommended granting emergency use authorisation (EUA) to Serum Institute of India's [COVID-19](#) vaccine Covovax for the 12-17 age group, official sources said on Friday.

The Drugs Controller General of India (DCGI) had approved Covovax for restricted use in emergency situation in adults on December 28. It has not yet been included in the country's vaccination drive.

Prakash Kumar Singh, Director-Government and Regulatory Affairs at Serum Institute of India (SII), had submitted an application to the DCGI on February 21, seeking EUA for Covovax for the 12 to 17 years age group.

The Subject Expert Committee on COVID-19 of the Central Drugs Standard Control Organisation (CDSCO) on Friday deliberated on SII's application and recommended granting EUA to Covovax. The recommendation will be sent to the DCGI for approval, sources said.

In the EUA application, Singh is learnt to have stated that data from two studies on about 2,700 children aged 12 to 17 years show that Covovax is highly efficacious, immunogenic, safe and well tolerated in this age group of children.

"This approval will not only be beneficial for our country alone, but will benefit the entire world, fulfilling our Prime Minister's vision of 'Making in india for the World'. In line with the philosophy of our CEO Adar C Poonawalla, we are sure that Covovax will play an important role to protect children of our country and world at large against COVID-19 disease and will keep our national flag flying high globally," an official source had quoted Singh as having stated in the application earlier.

Covovax is manufactured by technology transfer from Novavax and is approved by the European Medicines Agency for conditional

marketing authorisation and also granted emergency use listing by WHO on December 2017,2020. India has been using Bharat Biotech's [Covaxin](#) to vaccinate adolescents between 15-18 years.



WHO updates treatment guidelines on Covid therapeutics to include molnupiravir

As this is a new medicine, there is little safety data. WHO recommends active monitoring for drug safety, along with other strategies to mitigate potential harms

By: [Express News Service](#) | Pune |
March 3, 2022 6:34:57 pm

Children, and pregnant and breastfeeding women should not be given the drug (Express photo by Amit Chakravarty, file)

The World Health Organisation has updated its living guidelines on [COVID-19](#) therapeutics to include a conditional recommendation on molnupiravir, a new antiviral medicine. This is the first oral antiviral drug to be included in the treatment guidelines for COVID-19. As this is a new medicine, there is little safety data. WHO recommends active monitoring for drug safety, along with other strategies to mitigate potential harms.

Because of these concerns and data gaps, molnupiravir should be provided only to non-severe COVID-19 patients with the highest risk of hospitalisation. These are typically people who have not received a COVID-19 vaccination, older

people, people with immunodeficiencies and people living with chronic diseases.

Children, and pregnant and breastfeeding women should not be given the drug. People who take molnupiravir should have a contraceptive plan, and health systems should ensure access to pregnancy testing and contraceptives at the point of care, an official statement issued by WHO has said.

Under the care of a health care provider, molnupiravir, an oral tablet, is given as four tablets (total 800 mg) twice daily for five days within five days of symptom onset. Used as early as possible after infection, it can help prevent hospitalisation. Thursday's recommendation is based on new data from six randomised controlled trials involving 4,796 patients. This is the largest dataset on this drug so far.



Explained: Why are Covid-19 vaccination rates still low in some countries?

Most countries with low vaccination rates are in Africa. Other countries with extremely low vaccination rates include Yemen, Syria, Haiti and Papua New Guinea.

By: [AP](#) |
March 3, 2022 2:00:07 pm

Why are [COVID-19](#) vaccination rates still low in some countries?

Limited supplies remain a problem, but experts say other challenges now include unpredictable deliveries, weak health care systems and vaccine hesitancy.



A health worker gives a youth a shot of the Moderna vaccine for Covid-19 at Saint Damien Hospital in Port-au-Prince, Haiti. (AP Photo/Odelyn Joseph, File)

Most countries with low vaccination rates are in Africa. As of late February, 13 countries in Africa have fully vaccinated less than 5% of their populations, according to Phionah Atuhebwe, an officer for the World Health Organization's regional office for Africa.

Other countries with extremely low vaccination rates include Yemen, Syria, Haiti and Papua New Guinea.

For most of last year, developing nations were plagued by a lack of supplies. Rich countries were hoarding doses and many countries didn't have the facilities to make their own vaccines. COVAX — an initiative to distribute vaccines equally around the world — faltered in delivering shots.

Many rich countries had planned to donate doses once their own populations were vaccinated, but the emergence of the delta and [omicron](#) variants spurred booster campaigns that further delayed those plans. Vaccine makers have largely declined to share their formulas or technology, further restricting production.

Other setbacks to vaccinations have also emerged.

“The main problem among countries with low vaccination rates is poor infrastructure to distribute shots,” says Dina Borzekowski, director of the Global Health Initiative at the University of Maryland. “What is absent are best practices to

get vaccines to populations who typically live without safely managed sanitation systems or reliable electricity.”

Donated vaccines are also sometimes delivered close to their expiration dates, giving health officials little time to distribute them, says Sinhye Ha of Doctors Without Borders.

Some countries also lack materials like syringes to inject the shots or ways to keep the vaccines at the right temperature.

Vaccine hesitancy fueled by misinformation and a distrust of governments has also contributed to low vaccine uptake in some countries, says Atuhebwe.

The Indian EXPRESS

Lancet report on children orphaned during Covid has no correlation with ground realities: Govt

Lancet has reported that more than 19 lakh children have lost their primary caregivers due to Covid-19 in India.

By: [Express News Service](#) | New Delhi |
March 3, 2022 2:51:09 am



The Lancet report was released on February 24.

Responding to a recently released study by Lancet, which claimed that 19 lakh children in India lost a parent or caregiver to Covid 19, the Ministry of Women and Child Development on Wednesday said that "the findings have no correlation to ground realities".

The Lancet report was released on February 24.

"Lancet has reported that [more than 19 lakh children](#) have lost their primary caregivers due to [Covid-19](#) in India. There is no doubt that the researchers have used sophisticated methodology to estimate the numbers about children, who have lost their primary caregivers, but these findings have no correlation with ground reality in India as reflected from field findings," said the ministry said in a statement on Wednesday.

The ministry said that according to the official data the number of children affected due to Covid in India is 1,53,827. This data, however, is not restricted to Covid-19 orphans alone.

The Supreme Court had directed all states and UTs to identify every child who has lost one or more of their parents or have been abandoned during Covid due to any reason, Covid or otherwise, during the pandemic period. The loss of parent could have been due to Covid, natural, unnatural, or from any other cause during the period of pandemic.

National Commission for Protection of Child Rights (NCPCR) is the nodal monitoring agency in this regard and set up a "Bal Swaraj" portal where the states upload their data which is collected at district level. The data collated is from April 1, 2020.

"So far, 1,53,827 children have been registered on the [Bal Swaraj] portal including 1,42,949 children with single parent, 492 abandoned children and 10,386 children who have lost both their parents," said the ministry.

Pfizer vaccine less effective against COVID-19 in kids aged 5-11: Study

The study also found that while vaccine effectiveness fell for older children and teens, it fell more slowly than it did for smaller children.

By: [PTI](#) | Washington |
March 2, 2022 6:10:23 pm



The effectiveness of the Pfizer [COVID-19](#) vaccine for children waned quickly during the [Omicron](#) surge in the US, especially among those aged 5 to 11 years, but the preventive was [still protective against severe disease](#), according to a study. Researchers from the New York State Department of Health and the University at Albany School of Public Health, US, estimated the effectiveness of Pfizer vaccine against COVID cases and hospitalisations.

They used data from 852,384 fully-vaccinated children of 12-17 years of age and 365,502 children aged 5-11 years during December, 2021 and January, 2022.

The yet-to-be peer-reviewed study, posted on the preprint repository MedRxiv on Monday, found that the effectiveness of the Pfizer shots against infection caused by the Omicron variant fell from 68 per cent to just 12 per cent in children 5 to 11 years old within [one month of being fully vaccinated](#).



A surge of Omicron cases gripped the world early this year, affecting children as well. (Representative Image/Pexels)

Effectiveness against hospitalisation in the same age group was higher but also dropped substantially, falling from 100 per cent in early December to just 48 per cent by the end of January.

The study also found that while [vaccine effectiveness fell](#) for older children and teens, it fell more slowly than it did for smaller children.

The vaccine effectiveness waned from 66 per cent in early December to 51 per cent by the end of January for children in the age group of 12 to 17, the researchers said.

For hospitalisations, vaccine effectiveness fell from 85 per cent to 73 per cent over the same time frame, they said.

“In the Omicron era, the effectiveness against cases of BNT162b2 (Pfizer) [declined rapidly for children](#), particularly those 5-11 years,” the authors of the study said.

“However, vaccination of children 5-11 years was protective against severe disease and is recommended,” they added.

The researchers said these results highlight the potential need to study alternative vaccine dosing for children and the continued

importance layered protections, including mask wearing, to prevent infection and transmission.



TB cases dropped by 30% in 2020, MDR TB rose from 4% to 5%

The drop in cases could be due to increased pressure on the health infrastructure and ignorance towards other diseases due to the pandemic



In 2020, the reporting of Tuberculosis cases in the state went down by 30% as compared to the previous year as only 1.60 lakh cases were reported vis-à-vis 2.27 lakh Tuberculosis cases in 2019. (REPRESENTATIVE IMAGE)

Published on Mar 02, 2022 11:01 PM IST
BySteffy Thevar

PUNE In 2020, the reporting of Tuberculosis cases in the state went down by 30% as compared to the previous year as only 1.60 lakh cases were reported vis-à-vis 2.27 lakh Tuberculosis cases in 2019. The drop in cases could be due to increased pressure on the health infrastructure and ignorance towards other diseases due to the pandemic. The state also saw over 8,000 multidrug resistant (MDR) Tuberculosis cases in the first year of the pandemic, which was 5% of

the total cases reported; an increase in the MDR TB cases as compared to previous years.

As per the state health department, in 2020, the state saw 160,072 confirmed cases of Tuberculosis which was a 30% drop as compared to 227,004 confirmed cases of Tuberculosis reported in 2019. The data also showed that this was the first time in the past four years that the state saw a drop in the reporting (notifications) of Tuberculosis cases. Despite the fall in the reporting of TB cases, the percentage of MDR TB and extreme drug resistant (XDR) TB increased in 2020. In 2019, 4% of the total confirmed cases were those of MDR TB which in the following years rose to 5%. In 2019, 0.29% of the total confirmed cases were those of XDR TB while the next year, they went down to 0.26%.

In view of the pandemic, the entire health machinery was burdened with Covid-19 cases, reporting, contact tracing, treatment, and hospital bed management followed by vaccination, and so, the reporting of other ailments was affected. Dr Pradeep Awate, state surveillance officer said, "It is true that the notifications have dropped down by 30% and there has been a slight rise in MDR TB and XDR TB cases. Both MDR and XDR TB cases are of serious concern as the treatment could be difficult for the patient and also the risk of spread of infection to the family. Before Covid-19, Tuberculosis was one of the biggest reasons for deaths among communicable diseases and now, we are working on multiple fronts to increase surveillance and ensure that the treatment is thoroughly followed by all the active cases."

The case fatality rate due to TB in 2020 was about 4.36% which was much more than the CFR reported in the state due to Covid-19 in the first or second wave.

Two years into the Covid-19 pandemic, is the end in sight?

The WHO has said that the "acute phase" of the pandemic could end by the middle of this year - if around 70 percent of the world is vaccinated.



FILE - Medical workers in booths take nasal samples from people at a makeshift coronavirus testing site in Seoul, South Korea, Wednesday, Jan. 26, 2022. The official global death toll from COVID-19 is on the verge of eclipsing 6 million — underscoring that the pandemic, now in its third year, is far from over. (AP Photo/Ahn Young-joon, File)(AP)

Published on Mar 07, 2022 08:57 AM IST

Two years after the official start of the pandemic, some countries are now trying to "live with Covid", however scientists warn that potential new variants and unequal vaccination rates threaten any long-awaited return to normality. When US global health researcher Christopher Murray wrote "Covid-19 will continue but the end of the pandemic is near", in The Lancet medical journal in late January, he summed up the hopes of many national health authorities around the world.

In the weeks leading up to the two-year anniversary of the World Health Organization declaring a pandemic in March 2020, countries such as Britain and Denmark lifted all legal Covid

restrictions. Many US states also relaxed mask and other rules.

British Prime Minister Boris Johnson said the change marked the beginning of learning "to live with Covid", as the global death toll falls after the more transmissible though less severe Omicron variant swept the world.

The WHO has said that the "acute phase" of the pandemic could end by the middle of this year - if around 70 percent of the world is vaccinated.

From pandemic to endemic?

Spain has been among the nations calling for approaching Covid as having transitioned to an "endemic" phase, meaning it has milder seasonal outbreaks that humanity can live with, such as the flu.

However some scientists worry governments could use the somewhat vague term to justify lifting life-saving measures.

University of Oxford evolutionary virologist Aris Katzourakis said "the word 'endemic' has become one of the most misused of the pandemic."

"A disease can be endemic and both widespread and deadly," he wrote in the journal Nature last week, pointing out that malaria killed more than 600,000 people in 2020, while 1.5 million died of tuberculosis.

There are also other options than just pandemic or endemic. The British government's scientific advisory body SAGE has laid out four potential scenarios for the years to come.

People with heart defects may be at higher risk for severe Covid: Study

Hospitalised Covid-19 patients with congenital heart defect may be at higher risk for severe illness or death than those without the disorder, says a study.



There are more than a dozen types of congenital heart defects (*Getty Images/iStockphoto*)

Published on Mar 07, 2022 06:15 PM IST

Hospitalised [COVID-19](#) patients with congenital heart defect may be at higher risk for severe illness or death than those without the disorder, according to a US study. The research, published in the journal Circulation, found that people with a congenital heart defect who contracted COVID-19 were also more likely to require treatment in the intensive care unit (ICU) or need a ventilator.

The researchers found that among those at the highest risk for the most severe COVID-19 illness were patients who had a heart defect and another health condition, were 50 years and older, or were men.

There are more than a dozen types of congenital heart defects, which result when the heart, or

blood vessels near the heart don't develop normally before birth, they said.

"Data comparing COVID-19 outcomes among individuals with and without congenital heart defects has been limited," said study lead author Karrie Downing from the U.S. Centers for Disease Control and Prevention.

Researchers examined data on hospitalised COVID-19 patients from March 2020 to January 2021, collected in the Premier Healthcare Database Special COVID-19 Release, a database representing approximately 20 per cent of all U.S. hospitalisations.

During this period, the database had more than 235,000 patients, aged 1 to 64 years old, who were hospitalised for COVID-19.

Patients were divided into two groups: those who had a congenital heart defect and those who did not.

Researchers then determined how many required an admission to the ICU, needed a ventilator to help with breathing or died.

They also reviewed other characteristics including other health conditions.

People with congenital heart defects consistently remained at high-risk for severe COVID-19 illness, even when divided into categories by age or other health conditions noted in the study, according to the researchers.

The findings have immediate, practical relevance for health care professionals as the COVID-19 pandemic continues to evolve, the researchers said.

"People with heart defects should be encouraged to receive the COVID-19 vaccines and boosters and to continue to practice additional preventive measures for COVID-19,

such as mask-wearing and physical distancing," said Downing.

"People with heart defects should also consult with their health care teams about additional steps to manage personal risks related to COVID-19, given the significantly increased risk of severe infection and serious complications," she added.

Downing noted that not all patients with heart defects who were hospitalised with COVID-19 had poor outcomes.

The authors pointed out several limitations to their study.

Only people already hospitalised with COVID-19 were included, the clinical details about the underlying heart defect were not available, and lab testing to identify or confirm COVID-19 diagnoses may vary by hospital.

COVID-19 vaccination status was not considered, since the vaccines became available in the U.S. starting in December 2020.

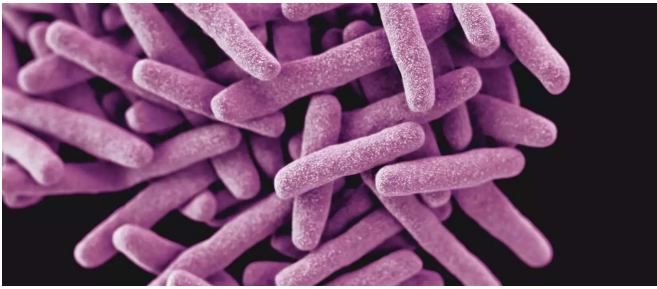


We must use lessons learned from tackling COVID to fight tuberculosis

02 Mar 2022

[Patricia Monthe](#) Founder and Chief Executive Officer, MEDx eHealthcenter

Tuberculosis was responsible for 1.5 millions deaths in 2020, despite being curable and preventable.



Tuberculosis is the second leading global infectious killer after COVID-19. Image: CDC/Unsplash

Global progress in tackling the infectious disease has been reversed during the COVID-19 outbreak.

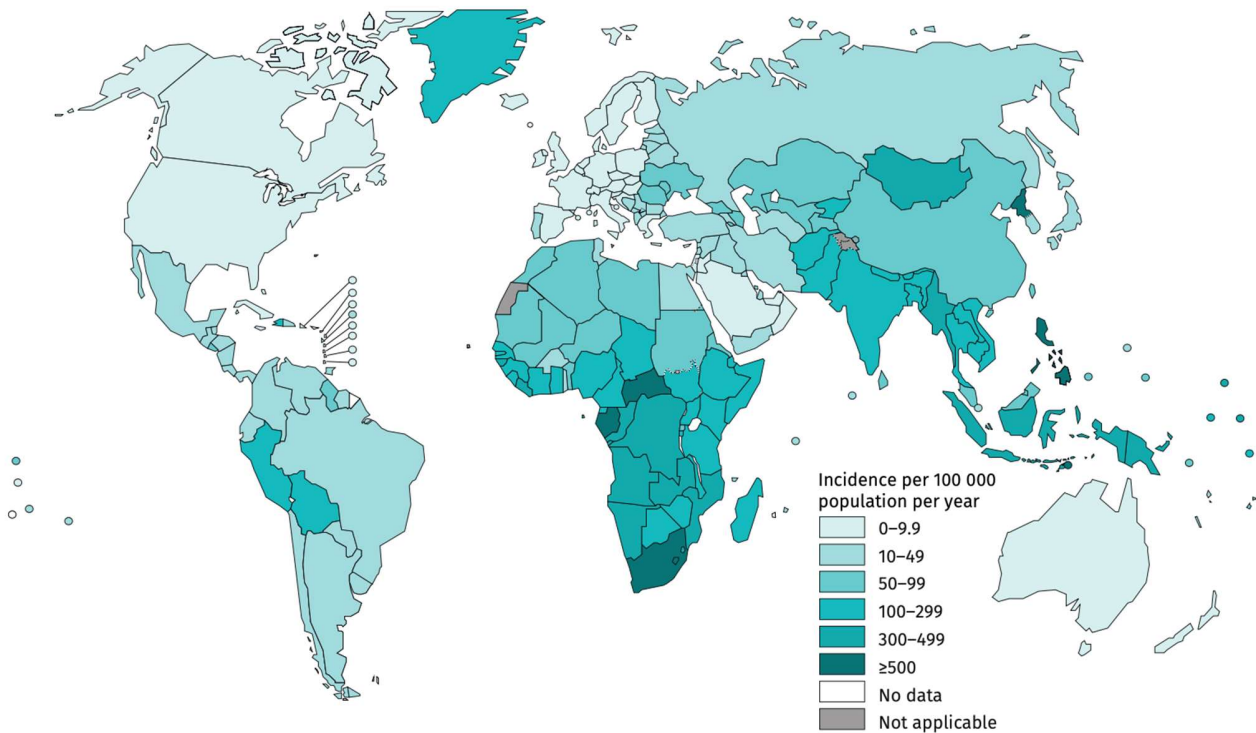
We can use technology, tools and lessons learned during the pandemic in the fight against TB.

Tuberculosis (TB) is the second leading global infectious killer after COVID-19, but efforts to stem its spread have been reversed by the coronavirus pandemic as health and

TB is caused by the bacterium [Mycobacterium tuberculosis](#) and usually attacks the lungs, but also affects other organs. Key symptoms include a cough, fever, night sweats and weight loss. Since its discovery by Dr [Robert Koch](#) in 1882, TB has been a leading cause of death from a single infection second only to [COVID-19](#) in recent years. Tuberculosis alone was responsible for [1.5 million deaths in 2020](#), despite being a curable and preventable disease.

Two-thirds of new TB cases in just eight countries

According to the [World Health Organization](#) (WHO), TB affected [10 million of the world's population in 2020](#), 98% of which were in low and middle-income countries (LMICs). Thirty high TB burden countries account for 86% of new TB cases. Indeed, eight countries – India, China, Indonesia, the Philippines, Pakistan, Nigeria, Bangladesh and South Africa – account for two thirds of total cases.



socioeconomic systems were greatly strained. Now, we must use the technology, innovations and lessons learned from fighting COVID to tackle TB.

Estimated tuberculosis incidence rates across the world in 2020.

Countries with a high disease burden have common [predisposing factors](#) leading to tuberculosis, including HIV/AIDS, poverty, malnutrition and poor housing conditions, particularly overcrowding. Other factors include health conditions that reduce the body's immunity, such as diabetes mellitus, alcohol use disorder and smoking. All of these increase the individual's risk of tuberculosis.

Due to the high mortality and morbidity associated with tuberculosis, the WHO has rolled out strategies aimed at the control and eventual eradication of the disease. TB was declared a public health emergency in [1993](#) and the [End TB Strategy](#) was adopted in a 2014 World Health Assembly meeting, with targets including a 95% reduction in deaths and 90% reduction in incidence rate by 2035.

WHO tuberculosis eradication targets still not met

These targets have only been achieved in some countries, mainly in the WHO European region, while 30 high TB burden countries still have incidence rates as high as [150-400](#) per 100,000 individuals.

With the advent of the COVID-19 pandemic, the [world lost](#) some of the gains made previously in the fight against TB. Global deaths from tuberculosis increased for the first time in more than a decade, [rising from 1.4 million to 1.5 million](#).

This is due to the socioeconomic impact of the pandemic, with impacts including worsening poverty, malnutrition and the diversion of health resources initially used for TB to fight COVID-19, among others. Other effects suffered globally were a reduction in tuberculosis diagnoses due to lockdown, poor adherence to treatment, and an increasing incidence of [drug-resistant TB](#).

Technology and innovation in the fight against TB

However, the good news is that technological innovations and other lessons learned in the fight against COVID-19 can be used as a source of insights in tackling TB, regaining lost ground and pushing to end the globally tuberculosis scourge.

Technology in health refers to healthcare practices supported by electronic processes and includes technologies such as electronic health records, patient administration systems, and laboratory systems which can be managed using mobile health applications.

Innovation and technology have a pivotal role to play in the fight against TB, especially in the wake of the COVID-19 pandemic. However, the use of these tools must also take into consideration the [complexity of health systems](#) and the interplay of diverse factors, especially in emerging countries where there is still a high incidence rate.

Benefits of technology in treating tuberculosis

Technology has also enabled the [simultaneous testing of TB and COVID-19](#) using nucleic acid amplification tests (NAATs), which is recommended in countries with a high burden of TB – particularly in light of the COVID-19 pandemic.

Mobile technology was also effectively used in India to [monitor those diagnosed with TB in real time](#) as they take their medication, thereby empowering the patient and reducing the physical effort for healthcare.

Technology can be used in ensuring more people take the TB vaccines and producing drugs which are more effective. It also plays a vital role in evaluating TB coverage rates and creating networks among public-private health institutions in high burden countries.

Meanwhile, [interfaces such as chatbots or SMS-based systems](#) used to answer basic queries, and enable inputs of basic data of those suffering

from tuberculosis, can be used to link up healthcare workers within a geographical location, provide referral networks and guide on national TB protocols.

Social media platforms and apps, accessible via mobile devices, can also be leveraged to improve awareness of tuberculosis among young people, who constitute a major percentage of TB cases in high burden countries.

Universal health coverage vital in tackling TB

In 2005, the WHO encouraged countries to move towards achieving [universal health coverage \(UHC\)](#), enabling all individuals and communities to receive healthcare services they need without having to face financial hardship. This includes the full spectrum of essential health services and ensures that, even in the wake of COVID, they are decentralized with a reduction of costs borne by those suffering with TB.

Although global funding is important in helping the resource-poor countries fund the provision of services needed for the fight against tuberculosis, national TB programmes should be seen to start to take up responsibilities. Such schemes should be incorporated into existing health programmes, along with input from the [private health sector](#).

Universal access to healthcare needs to made a global priority for TB treatment coverage in many poorer countries to regain lost ground following the pandemic. Tuberculosis coverage is a key indicator of overall UHC coverage compared to other disease-specific indicators of service provision – particularly in LMICs.

'Solidarity and determination' needed to end TB

In the words of [Dr Tedros Adhanom Ghebreyesus](#), Director-General of the WHO: "I want to remind you that the struggle to end TB is not just a struggle against a single disease. It's also the struggle to end poverty, inequity, unsafe

housing, discrimination and stigma, and to extend social protection and universal health coverage. If the pandemic has taught us anything, it's that health is a human right, not a luxury for those who can afford it.

"If the pandemic has taught us anything, it's that health is a human right, not a luxury for those who can afford it. With solidarity, determination and the equitable use of tools, we will defeat COVID-19. And with the same solidarity, determination and equitable use of tools, we can end TB."

So: <https://www.weforum.org/agenda/2022/03/we-must-use-lessons-learned-from-tackling-covid-to-fight-tuberculosis/>

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