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THE  HINDU

TB patients got unhindered support despite pandemic constraints: MoS Health

NEW DELHI:, NOVEMBER 10, 2021 17:29 IST

Efforts made by NTEP led to significant improvements in time-to-diagnosis, treatment adherence and outcomes, Bharati Pravin Pawar said.

Despite the [COVID-19](#) pandemic, India has managed to scale up access to free rapid molecular diagnostics and treatment for tuberculosis while financial and nutritional support to affected patients continued without any hindrance, Union Minister of State for Health Bharati Pravin Pawar said on Tuesday.

Efforts made by the National Tuberculosis Elimination Programme (NTEP) led to significant improvements in time-to-diagnosis, treatment adherence and outcomes, Ms. Pawar said as she chaired the brainstorming session on "Strategies for Ending TB by 2025", a Health Ministry statement said.

Reiterating Prime Minister Narendra Modi's commitment to eliminate TB in India by 2025, five years ahead of the Sustainable Development Goals (SDGs) target of 2030, Ms. Pawar said, "We have a mere 37 months before the deadline to end TB in the country. We need to shift gears and come up with innovative solutions to make up for the setbacks due to COVID-19 and move beyond." As proper diagnosis and prompt treatment are key to TB elimination, the NTEP is working towards accelerating universal TB care coverage and preventive services in the country.

THE  HINDU

Explained | Understanding the Omicron variant of coronavirus

NOVEMBER 29, 2021 18:06 IST

Bani Jolly | Vinod Scaria

What is Omicron? How is it different from the other variants? Where all has the B.1.1.529 coronavirus variant been detected?

The story so far: A new lineage of SARS-CoV-2 has been identified in samples sequenced and deposited in public domain from Botswana, South Africa and Hong Kong and was assigned as B.1.1.529. The variant has been designated as a Variant of Concern (VoC) by the World Health Organisation (WHO) and has been named Omicron.

TB preventive treatment has been prioritised under the pillar of "Prevent" in the National Strategic Plan to End TB, Ms. Pawar said.

Scaling up TB preventive treatment and at the same time decentralising it to bring services closer to patients, are of utmost importance to break the chain of transmission and breakdown of those with TB infection into full-blown TB disease, she said.

Highlighting the Union government's efforts for TB eradication, she added, "TB has now been made an essential part of Comprehensive Primary Health Care and is integrated with Ayushman Bharat scheme. Our aim is to detect cases early and prevent the emergence of new cases of TB by expanding TB care through engagement of various stakeholders, including the community. The nationwide 'TB Mukht Bharat Abhiyan' has been launched in this regard." Mentioning the introduction of newer anti-TB drugs, newer regimens and programmes, Ms. Pawar appreciated the research and development efforts to combat TB.

The session focussed on five pillars – improving case detection, improving treatment adherence, evolving ways to converge with other social welfare programmes, utilising and refining private sector engagement and finally integration of NTEP within our health system for accelerating TB eradication in the country, the statement said.

THE  HINDU

Detecting tuberculosis, the SWEET way

KOZHIKODE, NOVEMBER 03, 2021 00:00 IST

Pilot project launched in Kozhikode to detect tuberculosis among workers

A national-level pilot project to detect tuberculosis (TB), HIV and non-communicable diseases such as diabetes among workers has been launched in Kozhikode district. It has been titled System for Workplace Engagement to Eliminate TB (SWEET).

P.P. Pramod Kumar, district TB and AIDS control officer, told *The Hindu* that migrant labourers formed a large chunk of the workforce at present. Prevalence of TB and HIV was found to be high among them. Kozhikode has a huge share of migrant labourers with HIV. The public health system missed many of the cases because of the pandemic. "We found it difficult to screen these people at their residences. So we contacted their employers and devised a plan to conduct medical camps and tests at their workplaces," he said.

Since Kozhikode and Ernakulam districts have a high number of migrant labourers, the scheme was proposed to be first launched in these places. Companies that employ more than 1,000 workers are targeted in the scheme. Uralungal Labour Contract Cooperative Society, which employs the highest number of workers in the district, is the first to be covered.

Dr. Pramod said though the main aim of SWEET was to detect TB cases, HIV and other non-communicable diseases too were made part of the screening process to make it more comprehensive. Awareness events too will be held. The officials are planning to finish the screening in the district in three months.

The Central TB division and the State TB cell have supported the initiative. The Kozhikode district-level launch was opened by Collector N. Tej Lohit Reddy recently. Dr. Pramod claimed that SWEET would be rolled out in other districts in the coming days.

The officials said efforts were on to make the district TB-free by 2025. Old age homes, jails, pain and palliative care centres and tribal colonies, and those who were earlier listed as vulnerable

to TB and people with post-COVID complications have been screened. Webinars are being held in each Assembly constituency to create awareness among people's representatives.

THE HINDU

Karnataka sends samples of South African visitor to ICMR

BENGALURU, NOVEMBER 30, 2021 00:00 ISI

'Tests revealed a variant that was different from Delta strain'

Amid growing concern over the Omicron variant of the coronavirus, Karnataka Health and Medical Education Minister K. Sudhakar on Monday said the sample of one of two South African travellers who had tested COVID-19 positive recently in Bengaluru has features of a variant that is "different from the Delta variant." The Minister said he was in touch with the Union Health Ministry and the Indian Council for Medical Research (ICMR) on this.

THE HINDU

WHO chief: Omicron shows need for global accord on pandemics

GENEVA, NOVEMBER 29, 2021 18:12 IST

WHO Director-General Tedros Adhanom Ghebreyesus also said many uncertainties remain about just how transmissible and severe infection by the highly mutated Omicron might be.

The World Health Organization (WHO) on Monday is pushing for an international accord to help prevent and fight future pandemics amid the emergence of a worrying [new omicron COVID-19 variant](#).

WHO Director-General Tedros Adhanom Ghebreyesus also said many uncertainties remain about just how transmissible and severe infection by the highly mutated omicron might be.

Mr. Tedros joined leaders like outgoing German Chancellor Angela Merkel and Chilean President Sebastian Pinera for a long-planned and largely virtual special session of the U.N. health agency's member states at the World Health Assembly.

The gathering is aimed at devising a global action plan toward preventing, preparing and responding to future pandemics.

"The emergence of the highly mutated omicron variant underlines just how perilous and precarious our situation is," Mr. Tedros said, calling for a "legally binding" agreement that wasn't mentioned in a draft text seeking consensus on the way forward.

"Indeed, omicron demonstrates just why the world needs a new accord on pandemics." "Our current system disincentivizes countries from alerting others to threats that will inevitably land on their shores," he said, saying that South Africa and Botswana — where the new variant was detected in southern Africa — should be praised and not "penalized" for their work.

That was an allusion to travel restrictions announced by many countries on air travel to and from the region.

Mr. Tedros said WHO scientists and others around the world were working urgently to decipher the threat posed by the new variant, saying: "We don't yet know whether omicron is associated with more transmission, more severe disease, more

risk of infections, or more risk of evading vaccines." The world should now be "wide awake" to the threat of the coronavirus, "but omicron's very emergence is another reminder that although many of us might think we are done with COVID-19. It's not done with us," he added.

A draft resolution set to be adopted by the World Health Assembly stops short of calling for work toward specifically establishing a "pandemic treaty" or "legally binding instrument" sought by some, which could beef up the international response when — not if — a new pandemic erupts.

European Union member countries and others had sought language calling for work toward a treaty, but the United States and a few other countries countered that the substance of any accord should be worked out first before any such document is given a name. A "treaty" would suggest a legally binding agreement that could require ratification — and would likely incur domestic political haggling in some countries.

Outgoing German Chancellor Angela Merkel, whose 16-year tenure is likely to end next week, called for "reliable financing" for WHO and increased contributions to the U.N. agency from its member states — while alluding to the EU position in favor of a binding agreement.

"The catastrophic impact of the COVID-19 pandemic in terms of health and the economy ought to be a lesson to us," she said by video message. "Viruses know no national borders. That's precisely why we should lay down measures to be taken to improve prevention, early detection, and response in internationally binding fashion." Britain's ambassador in Geneva, Simon Manley, tweeted a copy of the draft text that was agreed by consensus — as required under WHO rules on such issues — and

praised Chile and Australia for their work as co-chairs.

"The #Omicron variant shows yet again why we need a common understanding of how we prepare for and respond to pandemics, so we're all playing by the same rules," he wrote.

The draft makes no reference to the word "treaty" but, among other things, calls for the creation of an "intergovernmental negotiating body" among WHO member states to work out a possible deal to improve pandemic prevention, preparedness and response.

The three-day meeting that opened on Monday amounts to a long-term approach: Any U.N.-backed agreement is likely to take many months, if not years, to be concluded and come into effect.

But, it comes as many countries have been scrambling to address the emergence of omicron that has led to travel bans across the world and sent tremors through stock markets on Friday.

THE HINDU

Clarity on various aspects of Omicron awaited: WHO

HYDERABAD, NOVEMBER 30, 2021 00:57 IST

'Not yet clear whether Omicron is more transmissible or causes more severe infection'

The constant flow of information about Omicron has left people wondering about the efficacy of vaccines against the new variant of concern, the rate of transmission, concerns about a third wave of coronavirus and severity of infection caused by the variant, among other aspects.

On Sunday, the World Health Organisation (WHO) communicated all that is currently known about its transmissibility, severity, effectiveness of test and vaccines and treatment required. For a majority of the aspects, however, WHO stated that clarity is yet to be gained. In their communication titled 'Update on Omicron', WHO said it is not yet clear whether Omicron is more transmissible and causes more severe disease compared to infections with other variants, including Delta.

"WHO is working with technical partners to understand the potential impact of this variant on our existing countermeasures, including vaccines. The widely used PCR tests continue to detect infection, including infection with Omicron, as we have seen with other variants as well. Studies are ongoing to determine whether there is any impact on other types of tests, including rapid antigen detection tests," it said,

To gain better understanding of Omicron, WHO is coordinating with researchers from across the world. "Studies currently under way or under way shortly include assessments of transmissibility, severity of infection (including symptoms), performance of vaccines and diagnostic tests, and effectiveness of treatments," it added.



Explained: Can an RT-PCR test detect infection with Omicron variant of Covid-19?

RT-PCR tests can only confirm whether the person has an infection or not. They are not designed to determine which particular variant has infected the person. For that, a genome sequencing study has to be done.

Written by [Anuradha Mascarenhas](#) | Pune |
Updated: November 30, 2021 8:06:51 am



A flier to Uganda has his swab taken at Johannesburg airport. (Reuters)

The [Omicron](#) variant of SARS-CoV2 is being seen as a big threat, with the World Health Organization (WHO) on Sunday [assessing the global risk as "very high"](#). Preliminary data has indicated that Omicron could have higher transmissibility, and also a greater ability to evade the immune response generated either through prior infection or through vaccines.

Timely detection of this variant is, therefore, key to containing its spread. The WHO has said one positive thing about this variant is that it could be detected in some of the RT-PCR diagnostic tests being used across the world, unlike other variants whose presence can be determined only after genetic sequencing. This can speed up detection and help in controlling the spread.

But as scientists told [The Indian Express](#), this is not straightforward; most RT-PCR tests in India might not be able to distinguish between Omicron and other variants.

Omicron variant: How a 'miss' by RT-PCR helps

RT-PCR tests can only confirm whether the person has an infection or not. They are not designed to determine which particular variant has infected the person. For that, a genome sequencing study has to be done.

Not all infected samples are sent for genome sequencing, because it is a slow, complicated and costly process. Normally, only a very small subset of all positive samples — about 2 to 5 per cent — is sent for gene analysis.

RT-PCR tests look for the presence of some specific identifiers in the genetic material (not the entire gene sequence) of the virus in the human body. Usually, two or more identifiers are searched to increase the probability of finding a match. If one of the identifiers has mutated, the other one can still return a positive result.

Many of the RT-PCR tests look for an identifier in the [coronavirus](#) spike protein, the protruded area that allows the virus to enter the human body. If there are mutations in the spike protein, as is the case with the Omicron variant, then there is a possibility that such RT-PCR tests, looking for identifiers in this region, would not recognise the mutation as the identifier it is looking for, and would thus give a negative result.

But as mentioned above, RT-PCR tests look for more than one identifier. So, if the test finds the identifier in the other region (which would mean the person has coronavirus infection) but does not find the identifier in the spike protein, then it could be an indication that the infection is with the Omicron variant.

The problem is that Omicron is not the only variant that has mutations in the spike protein. A few others, notably the Alpha variant, also have mutations in this region, and therefore could show similar behaviour in RT-PCR tests.

Nonetheless, such a result can be seen as a screening mechanism for the Omicron variant, especially since the prevalence of the Alpha variant in the Indian population has gone down significantly. Such screening at the diagnostic test stage can be vital in identifying and isolating the potential infections with the Omicron variant.

As Anurag Agarwal, director of Delhi based Institute of Genomics and Integrative Biology (IGIB) explained, such a result would only be indicative of the presence of Omicron variant, and would need to be confirmed through gene sequencing. But it is still an important head start.

The WHO said one of the widely-used RT-PCR kits, developed by Thermo Fisher Scientific, can detect the presence of Omicron variant. Some of the kits being used in India can also potentially detect the variant. As Vinod Scaria, a scientist at IGIB, said, the ability of kit to detect the variant depended on the primers (chemicals that will pick up the identifiers) being used.

“Unfortunately, the primer details for a majority of kits used in India are not publicly available. So, one cannot say whether a particular kit being used will be able to detect this variant or not,” Scaria said.

If the diagnostic tests do not offer any indication, the detection of Omicron, or any other variant, would have to await the result of gene sequencing exercise that takes anywhere between 24 and 96 hours, depending on the technology being used. But since all samples are not sent for sequencing, it is possible that the Omicron variant will have started circulating but not been picked up. One way to counter this is by increasing the number of samples sent for sequencing.

R R Gangakhedkar, former head of epidemiology at ICMR, said a smart strategy needed to be worked out since it was not possible to send all samples for gene sequencing. He said that in India, it was still the [Delta variant](#) that was most prevalent and, therefore, wherever applicable, the diagnostic test laboratories should look out for the missing identifier in the spike protein region, and immediately mark these for gene sequencing.

Explained: How Covid-19 shots for kids help prevent dangerous new variants

Vaccinating kids also means reducing silent spread, since most have no or mild symptoms when they contract the virus.

By: [AP](#) | Louisville (kentucky) |

Updated: November 23, 2021 12:03:34 pm



Cadell Walker comforts her daughter Solome, as a nurse administers a Pfizer COVID-19 shot at a vaccination clinic for young students at Ramsey Middle School on Saturday, Nov. 13, 2021 in Louisville (AP)

Cadell Walker rushed to get her 9-year-old daughter Solome vaccinated against [COVID-19](#) — not just to protect her but to help stop the [coronavirus](#) from spreading and spawning even more dangerous variants.

“Love thy neighbor is something that we really do believe, and we want to be good community members and want to model that thinking for our daughter,” said the 40-year-old Louisville mom, who recently took Solome to a local middle school for her shot. “The only way to really beat COVID is for all of us collectively to work together for the greater good.”

Scientists agree. Each infection — whether in an adult in Yemen or a kid in Kentucky — gives the

virus another opportunity to mutate. Protecting a new, large chunk of the population anywhere in the world limits those opportunities.

That effort got a lift with 28 million US kids 5 to 11 years old now eligible for child-sized doses of the Pfizer-BioNTech vaccine. Moves elsewhere, like Austria’s recent decision to require all adults to be vaccinated and even the US authorising booster shots for all adults on Friday, help by further reducing the chances of new infection.

Vaccinating kids also means reducing silent spread, since most have no or mild symptoms when they contract the virus. When the virus spreads unseen, scientists say, it also goes unabated. And as more people contract it, the odds of new variants rise.

David O’Connor, a virology expert at the University of Wisconsin-Madison, likens infections to “lottery tickets that we’re giving the virus.” The jackpot? A variant even more dangerous than the contagious delta currently circulating.

“The fewer people who are infected, the less lottery tickets it has and the better off we’re all going to be in terms of generating the variants,” he said, adding that variants are even more likely to emerge in people with weakened immune systems who harbor the virus for a long time.

Researchers disagree on how much kids have influenced the course of the pandemic. Early research suggested they didn’t contribute much to viral spread. But some experts say children played a significant role this year spreading contagious variants such as alpha and delta.

Getting kids vaccinated could make a real difference going forward, according to estimates by the COVID-19 Scenario Modeling Hub, a collection of university and medical research organizations that consolidates models of how the pandemic may unfold. The hub’s latest estimates show that for this November

through March 12, 2022, vaccinating 5- to 11-year-olds would avert about 430,000 COVID cases in the overall US population if no new variant arose. If a variant 50 per cent more transmissible than delta showed up in late fall, 860,000 cases would be averted, "a big impact," said project co-leader Katriona Shea, of Pennsylvania State University.

Delta remains dominant for now, accounting for more than 99 per cent of analysed coronavirus specimens in the United States. Scientists aren't sure exactly why. Dr. Stuart Campbell Ray, an infectious disease expert at Johns Hopkins University, said it may be intrinsically more infectious, or it may be evading at least in part the protection people get from vaccines or having been infected before.



Rodrigo Serra gets a shot of the Pfizer vaccine for COVID-19 from a nurse at the National College school in Asuncion, Paraguay, Monday, Nov. 22, 2021. The government has launched a vaccination campaign for adolescents at their schools. (AP)

"It's probably a combination of those things," he said. "But there's also very good and growing evidence that delta is simply more fit, meaning that it's able to grow to higher levels faster than other variants that are studied. So when people get delta, they become infectious sooner."

Ray said delta is "a big family" of viruses, and the world is now swimming in a sort of "delta soup."

"We have many lineages of delta that are circulating in many places with no clear

winners," Ray said, adding that it's hard to know from genetic features which might have an edge, or which non-delta variants might dethrone delta.

"I often say it's like seeing a car parked on the side of the road with racing slicks and racing stripes and an airfoil on the back and a big engine," Ray said. "You know it looks like it could be a real contender, but until you see it on the track with other cars, you don't know if it's going to win."

Another big unknown: Dangerous variants may still arise in largely-unvaccinated parts of the world and make their way to America even as US children join the ranks of the vaccinated.

Walker, the Louisville mom, said she and her husband can't do anything about distant threats, but could sign their daughter up for vaccination at Jefferson County Public Schools sites on a recent weekend. Solome is adopted from Ethiopia and is prone to pneumonia following respiratory ailments after being exposed to tuberculosis as a baby.

She said she wants to keep other kids safe because "it's not good to get sick."

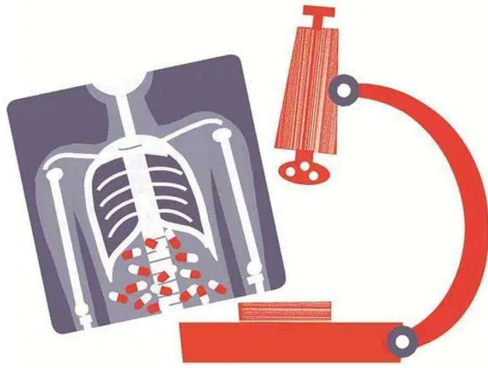
As a nurse leaned in to give Solome her shot, Walker held her daughter's hand, then praised her for picking out a post-job sticker appropriate for a brave kid who just did her part to help curb a pandemic. "Wonder Woman," Walker said. "Perfect."



'Nutrition initiatives in India must prioritise children with TB'

According to the latest Global TB report, only 41% of children with TB and 11% of children with drug-resistant TB received treatment between 2018 and 2020.

Written by [Anuradha Mascarenhas](#) | Pune |
Updated: November 20, 2021 10:33:07 am



The current target include treating 3.2 million children with TB and 1.15 lakh children with drug-resistant TB by 2022. (Representational)

EVERY DAY more than 650 children die from tuberculosis (TB), a disease that is both preventable and treatable. However, the pandemic disrupted efforts to treat children with TB and drug-resistant TB, as well as prevent TB in children, say experts.

According to the latest Global TB report, only 41% of children with TB and 11% of children with drug-resistant TB received treatment between 2018 and 2020. Ahead of World Children's Day, on November 20, Deputy Executive Director of Stop TB Partnership Dr Suvanand Sahu told [The Indian Express](#) that nutrition initiatives in the country must prioritise children with TB.

The current target include treating 3.2 million children with TB and 1.15 lakh children with drug-resistant TB by 2022. Globally in 2020 more than one million children developed TB and of these about three lakh children were from India.

According to Dr Sahu, globally almost four lakh children received treatment for TB of which nearly a lakh were children from the country. As the world prepares to celebrate World Children's

Day, Dr Lucica Ditiu, Executive Director of the Stop TB Partnership highlighted the setbacks suffered in the fight against childhood tuberculosis (TB) as a result of the Covid pandemic.

Dr Sahu also pointed out that before the pandemic, every year India was making rapid progress in improving the proportion of people left without treatment for TB. "This trend got reversed in 2020 due to the Covid pandemic. Overall, there was a 27% decline in the total number of people treated for TB in 2020 (1.6 million treated) compared to 2019 (2.2 million treated). The decline in children accessing TB treatment in 2020 versus 2019 was more severe at 33% when compared to adults (27%). We saw a similar pattern in several other large high TB burden countries. In 2021, when the second wave of Covid hit India, we saw a similar decline in TB diagnosis and treatment and a similar improvement after the wave was over," he said.

He pointed out that there could be many possible reasons why children faced increased barriers to TB care during the pandemic. First, TB in children is more complex to diagnose than adults. Restricted movements during the pandemic may have made it more difficult for children to access such specialized care. Second, young children often get affected by more severe forms of TB with rapid progression and increased mortality, he added.

The World Health Organisation (WHO) estimated that globally the TB mortality increased in 2020 when compared to 2019.

Drive to detect active TB cases underway in Pune, Pimpri Chinchwad

Among the high-risk population that have been identified for the exercise include migrant workers, slum dwellers, construction workers, brick kiln workers, jail inmates, labour force at mines and industries, among others.

Written by [Anuradha Mascarenhas](#) | Pune |
Updated: November 17, 2021 2:27:37 pm



State TB officer Dr R S Adkekar said that the drive is underway across districts and will continue till November 25. (Express Photo)

With the aim of eliminating tuberculosis (TB) by 2025 — a goal set under the national strategic plan of the Central TB Division, Maharashtra has launched its active case finding campaign to detect the infectious disease among the state population.

The target is to cover 1.7 crore people and vulnerable groups. Among the high-risk population that have been identified for the exercise include migrant workers, slum dwellers, construction workers, brick kiln workers, jail inmates, labour force at mines and industries, among others.

State TB officer Dr R S Adkekar said that the drive is underway across districts and will continue till November 25. "Our objective is to break the chain of transmission and eliminate TB by 2025. Last year we were able to detect 1.6 lakh new cases of TB and this year we have already crossed that figure. We are trying to reach out to vulnerable groups and detect new TB cases," Dr Adkekar told [The Indian Express](#).

The target for eliminating TB by 2025 across the country entails 80 per cent reduction in TB incidence (reduction from 217 cases per lakh in 2015 to 44 cases per one lakh in 2025) and 90 per cent reduction in TB mortality (reduction from 32 deaths per lakh to three deaths per lakh). Active case finding requires systematic screening and clinical evaluation of persons who are at high risk of developing TB, such as contacts of someone who was diagnosed with TB.

Vulnerable groups, hence, have been identified, said Pune city TB officer Dr [Vaishali](#) Jadhav adding that their target was detecting 4.9 lakh cases. "We have also written to hotel and restaurant owners so that sputum samples can be collected from their workers," Dr Jadhav said. "People with HIV will also be tested. Over 250 teams are presently engaged in door to door visits so that suspect TB cases can be identified and sputum can be collected and sent for tests. Preventive therapy will be given free of cost"

In Pimpri Chinchwad too, city officer Dr Balasaheb Hodgar said that the active case finding campaign was underway. "The first drive is from November 15-25 and the second one was planned between December 13-23. We are checking for symptoms like cough for more than two weeks, mild recurring fever, weight loss, lumps in the the throat and neck and chest pain among others," Dr Hodgar said. The target in Pimpri Chinchwad among the identified vulnerable groups is approximately three lakh. "60 teams are already functional and include national tuberculosis elimination programme

staff, accredited social health activists and others," he added.



Over 33 lakh children in India malnourished, 17.7 lakh of them severely malnourished: Govt data

Also, India has slipped to the 101st position in the Global Hunger Index (GHI) 2021 of 116 countries, from its 2020 position of 94th and is behind its neighbours Pakistan, Bangladesh and Nepal.

By: [PTI](#) | New Delhi |
November 7, 2021 7:08:16 pm



There are 17,76,902 (17.76 lakh/1.7 million) severely acute malnourished children (SAM) and 15,46,420 (15.46 lakh/1.5 million) moderately acute malnourished (MAM) children as of October 14, 2021. (File)

Over 33 lakh children in India are malnourished and more than half of them fall in the severely malnourished category with Maharashtra, Bihar and Gujarat topping the list, the WCD ministry has said in response to an RTI query.

Prompting concern that the Covid pandemic could exacerbate the health and nutrition crisis among the poorest of the poor, the Women and Child Development ministry estimates that there are 17,76,902 (17.76 lakh/1.7 million) severely

acute malnourished children (SAM) and 15,46,420 (15.46 lakh/1.5 million) moderately acute malnourished (MAM) children as of October 14, 2021.

The total 33,23,322 (33.23 lakh/3.3 million) is a compilation of data from 34 states and union territories, the ministry said in response to an RTI query by PTI. The numbers were registered on the Poshan tracker app developed last year as a governance tool for real-time monitoring of nutritional outcomes.

While the numbers are alarming in themselves, a comparison with figures from last November makes them even more so. A 91 per cent rise in the number of SAM children has been seen between November 2020 and October 14, 2021 — up from 9,27,606 (9.27 lakh) to 17.76 lakh now.

However, the two sets of figures are based on different methods of data collection. The number of SAM children (from six months to six years) identified last year was counted by 36 states and union territories and conveyed to the Centre. The latest figures are through the Poshan tracker where the numbers were directly entered by anganwadis and accessed by the Centre and the age group of the children has not been specified. The World Health Organisation defines SAM by very low weight-for-height or a mid-upper arm circumference less than 115 mm, or by the presence of nutritional oedema. MAM is defined as moderate wasting and/or mid-upper arm circumference (MUAC) greater or equal to 115 mm and less than 125 mm.

Both MAM and SAM have severe health repercussions on the health of a child. Children suffering from SAM have very low weight for their height, and are nine times more likely to die in case of diseases due to their weakened immune system. Those suffering from MAM are also at increased risk of morbidity and mortality during childhood.

According to the RTI reply quoting the Poshan tracker, Maharashtra registered the highest number of malnourished children at 6,16,772 (6.16 lakh) with 1,57,984 (1.57 lakh) MAM children and 4,58,788 (4.58 lakh) SAM children. Number two on the list is Bihar with 4,75,824 (4.75 lakh) malnourished children (3,23,741 MAM children and 1,52,083 SAM children). Gujarat registered the third highest number of such children at 3,20,465 (3.20 lakh) with 1,55,101 (1.55 lakh) MAM children and 1,65,364 (1.65 lakh) SAM children.

Responding to the numbers, Child Rights and You (CRY) CEO Puja Marwaha said the Covid pandemic has impacted nearly all socio-economic indicators negatively and threatens to undo much of the progress made over the past decade.

“Services like ICDS (Integrated Child Development Scheme) and midday meals in schools have become irregular during the prolonged closure of schools. These have severely affected children living in multi-dimensional poverty disproportionately, since they have been largely dependent on these services to fulfil their rights and entitlements,” Marwaha told PTI.

Unless challenges related to adequacy in budgetary allocations to secure nutrition security of children and bottlenecks in utilisation are addressed, India will be unable to mitigate the loss caused due to the pandemic, she added.

Of the other states, Andhra Pradesh registered 2,67,228 (2.76 lakh) malnourished children (69,274 MAM children and 1,97,954 SAM children) and Karnataka registered 2,49,463 (2.49 lakh) such cases (1,82,178 MAM children and 67,285 SAM children).

Uttar Pradesh has 1,86,640 (1.86 lakh) malnourished children (1,14,094 MAM children and 72,546 SAM children) while Tamil Nadu recorded 1,78,060 (1.78 lakh children (1,20,076

MAM children and 57,984 SAM children). Following close behind, Assam has 1,76,462 (1.76 lakh) cases of malnourishment (1,17,016 MAM children and 59,446 SAM children) and Telangana 1,52,524 (1.52 lakh, 95,033 MAM and 57,491 SAM children).

New Delhi is not too far behind. The combined number of SAM and MAM children in the national capital is 1,17,345 (1.17 lakh) with 20,122 MAM and 97,223 SAM children.

It is extremely important to recognise malnutrition early and to institute appropriate therapy to prevent worsening of malnutrition, said Anupam Sibal, group medical director and senior paediatrician, Apollo Hospitals Group.

“We know that children who are malnourished have a greater risk of infections, have less energy and perform less than their genetic potential in school. The management of malnutrition requires a holistic approach starting with adequate nutrition of pregnant and lactating ladies, exclusive breastfeeding for six months, focusing on appropriate weaning and balanced nutrition in the first few years of life,” Sibal told PTI.

Manish Mannan, head of department, paediatrics and neonatology, Paras Hospitals, added that children with severe acute malnutrition need to be treated with specialised therapeutic diets alongside the diagnosis and management of complications during in-patient care.

“Nutrition counselling has long been used as an approach to MAM management in situations where caregivers may have access to affordable food, and knowledge of appropriate care practices is not a constraint. This approach is predicated on the assumption that nutritious food is available, but also that caregivers do not have sufficient awareness of how to combine foods into appropriate diets for malnourished or at-risk children,” Mannan said.

It is important, he stressed, to assess any associated illness alongside treatment of malnutrition. Sometimes there is an underlying illness, which is responsible for malabsorption, a renal disorder or even diseases like diabetes and tuberculosis which may lead to malnutrition.

“Therefore, apart from diet, it is also important to look into the possible organic causes and the effects of malnutrition on the body,” he said.

The last available figure of malnourished children is from NFHS-4 (National Family Health Survey) in 2015-16 according to which 38.4 per cent of children under five years are low height-for-age and 21 per cent wasted or low weight-for-height in India. NFHS-5, released in December last year, which gave figures for 22 states and UTs also presented a grim scenario and showed that malnutrition increased among children in 2019-20 from 2015-16 in 22 states and UTs.

Also, India has slipped to the 101st position in the [Global Hunger Index](#) (GHI) 2021 of 116 countries, from its 2020 position of 94th and is behind its neighbours Pakistan, Bangladesh and Nepal.

To tackle the high persistence of malnutrition in the country, the Centre launched the Poshan Abhiyan programme in 2018 to reduce low birth weight, stunting and undernutrition and anaemia among children, adolescent girls and women.

According to Census 2011, there are over 46 crore children in the country.



Study identifies need to improve patient retention in the National TB

Elimination Programme, highlights patients' trust relationship with private providers

Researchers found long delays in care access, with patients shuttling back and forth between providers and health sectors (private vs. public) before they are eventually enrolled on effective treatment.

Written by [Anuradha Mascarenhas](#) | Pune |
October 31, 2021 12:44:12 pm

Given the complexity of Multi Drug Resistance – Tuberculosis MDR-TB diagnosis and care, a new study sought to address key knowledge gaps in MDR risk factors, care delays, and drivers of delay to help guide disease control.

Researchers found long delays in care access, with patients shuttling back and forth between providers and health sectors (private vs. public) before they are eventually enrolled on effective treatment.

Additional evidence for recent transmission of drug-resistant TB in crowded localities/slum areas was also found, researchers said in their study “Tuberculosis Pathways to Care and Transmission of Multidrug-Resistance in India” published in a top ranked – American Journal of Respiratory and Critical Care Medicine on October 27 this year

The research team, including Dr. Sachin Atre of Pune based D. Y. Patil Medical College and the Johns Hopkins Center for Clinical Global Health Education and Dr. Maha Reda Farhat, assistant Professor of Biomedical Informatics at Harvard Medical School, Boston, USA.

“We believe these findings are of current interest to the Indian public given that [Covid-19](#) has further limited testing and diagnosis capacity for TB in India over the last 18 months,” Dr Atre said.

Researchers conducted interviews with adults registered with the National TB Elimination Program (NTEP) for MDR (n=128) and non-MDR-TB (n=269) treatment to quantitatively and qualitatively study care pathways. The study conducted in 2018-19 was funded by Harvard-Dubai Centre for Global Health Delivery and it was done among patients who are registered with the National TB Elimination Control Program (NTEP) in Maharashtra.

They collected treatment records and GeneXpert-TB/RIF diagnostic reports. MDR-TB was associated with young age, and crowded residence. GeneXpert rifampicin resistance diversity was measured at 72.5%. Delay decreased with wider access to GeneXpert testing. Pathways to care were complex with a median of 4 providers. Of MDR-TB patients, 68% had their first encounter in the private sector and this was associated with a larger number of subsequent healthcare encounters and huge expenditures.

The association of MDR with young age, crowded locality and low genotypic diversity (means many patients have the same resistant TB strain which may cause an epidemic situation) raise concerns of ongoing MDR-TB transmission which is fueled by long delays in care.

Delays are decreasing with GeneXpert use, suggesting the need for routine use in presumptive TB and provision for that. The study identified the need to improve patient retention in the NTEP and highlight patients' trust relationship with private providers.



Central team finds TB death rate higher than national average in Karnataka's Ballari

The team noted that the death rate in the district at 7.2 per cent this year, which was more than the national average of 5 per cent.

By: [Express News Service](#) | Bengaluru |
Updated: October 30, 2021 10:43:59 am



According to a note shared by the Department of Health and Family Welfare, the team noted that 247 people had died due to TB in the last nine months in Ballari district. (Representational/File)

A team of health experts from the Union Ministry of Health and Family Welfare has directed the Ballari district administration to take suitable measures to enhance community involvement after it found the district to be recording a tuberculosis (TB) death rate higher than the national average.

The team noted that the death rate in the district at 7.2 per cent this year, which was more than the national average of 5 per cent.

According to a note shared by the Department of Health and Family Welfare, the team noted that 247 people had died due to TB in the last nine months in Ballari district. While 3,407 persons were infected, 1,170 had recovered while another 1,789 persons were under treatment in various health facilities across Ballari (including talukas now named under the new Vijayanagara district).

Officials attributed the lesser number of deaths in 2021 as compared to previous years to restrictions related to lockdowns and precautions like wearing masks and maintaining

social distance taken during the period. The fatalities recorded in 2019 and 2020 were 451 and 372, respectively.

Meanwhile, State Joint Director (TB) Dr Ramesh Chandra Reddy told [The Indian Express](#) that officials found that most deaths took place as patients avoided seeking treatment during the initial stages.

“While developing a cough, most patients chose not to report it at their nearest health facility fearing that they might be diagnosed with [Covid-19](#) and will be shifted to Covid Care Centres. To tackle this, we have enhanced asymptomatic screening as well with Information, Education and Communication (IEC) initiatives in place now even at the gram panchayat and village levels to create awareness on the need to seek medical treatment faster,” he explained.

The team headed by Dr Tarak Shah visited the District Hospital (including NCD Clinic and TCC), VIMS Bellary (Medical College including DRTB Center, ART center, Truenat Lab facility), Sub-divisional hospitals – Hospet & Sandur, CHC-Thekkalakotte & Tornagallu, Chappardalli UPHC, and Gadiganur -PHC & HWC in Ballari.

The team also comprising Dr Suresh Shastri, Dr Shazia Wafai, Dr Gulfam Ahmed Hashmi, Dr Nischit, and Dr Devigan visited private facilities, including Adarsh Hospital, Pawan Health Clinic, Sanjivani Hospital and in Siruguppa-Madushashtra Chikitsalaya, and Jindal Sanjeevani Hospital in the district.

On collecting information from hospital authorities, patients and their relatives, the team found that most fatalities were reported in Ballari taluk (93) followed by Siruguppa (34) and Hospet (33).

Further, in a revised strategy to be followed for TB treatment, officials in Ballari and across Karnataka have been directed to admit patients

to their respective medical facilities. “We will now take all measures to stabilise each patient before leaving him or her back to the community with continued medication. Issues like alcoholism and malnutrition that lead to cases worsening will be addressed directly at the village level itself,” Dr Reddy highlighted.

The central team has noted that the pending approval for PPSAs (Patient Provider Support Agencies) in the selected 12 districts in the state, and shortage of CBNAAT Cartridges and other lab consumables among major issues to be tackled.



Pune: ‘Every sixth patient at respiratory OPD had chronic obstructive pulmonary disease’

November 17 is observed as World COPD Day and to raise awareness, the week-long programme was conducted across 44 medical colleges, including two in Pune -- Bharati Vidyapeeth Medical College and Navale Medical College.

Written by [Anuradha Mascarenhas](#) | Pune | November 18, 2021 9:59:27 am

Every sixth patient who visited an out-patient department (OPD) dealing with respiratory diseases, across 44 medical colleges in India, had chronic obstructive pulmonary disease (COPD), according to the first nationwide screening programme for the disease that concluded recently.

November 17 is observed as World COPD Day and to raise awareness, the week-long programme was conducted across 44 medical colleges, including two in Pune — Bharati

Vidyapeeth Medical College and Navale Medical College.



COPD is a chronic and progressive lung disease with intermittent periods of exacerbations, called lung attacks, that can often be fatal. (Source: Getty Images/Thinkstock)

COPD is a chronic and progressive lung disease with intermittent periods of exacerbations, called lung attacks, that can often be fatal, said Dr Sundeep Salvi, director of CREST, an institute dedicated towards research and education in the field of chronic lung diseases, based in Pune. CREST organised and coordinated the week-long COPD screening programme.

Of the 2,440 patients who visited OPD for screening, every sixth patient was found to have COPD. As many as 75% of the total patients were males and 25% were females. Of these, 269 (11%) were found to have COPD.

Every patient was screened for COPD using a screening tool comprising a set of 8 questions and a peak flow meter test. Those who were detected positive underwent a spirometry test. Those found positive on spirometry were then seen by the treating doctor. The final diagnosis of COPD was based on spirometry and by the treating doctor in the medical college.

According to the latest figures, India has an estimated 50 million people living with COPD. Every day, more than 2,400 people die due to COPD in India, which is more than the number of people who die because of tuberculosis (1,157),

diabetes (748), and HIV-AIDS (126) put together, Dr Salvi said.

According to the 2019 Global Burden of Disease Report, COPD caused by tobacco smoking in India is 29% whereas COPD due to air pollution in India is 53.3%.

“There are national programmes for TB, HIV and other diseases but COPD has been neglected in the country,” Dr Salvi told [The Indian Express](#).

COPD is caused by long-term exposure to noxious pollutants that causes damage to the breathing tubes and parts of the lung.

THE TIMES OF INDIA

Covid-19: How fast does it spread?: Scientists ask whether Omicron can outrun Delta

Reuters | Nov 30, 2021, 09.36 AM IST

NEW YORK: As scientists race to understand the consequences of the Omicron Covid-19 variant, one of the most important questions is whether this new version of the coronavirus can outrun the globally dominant Delta variant.

The World Health Organization on Friday designated Omicron a "variant of concern" just days after the variant was first reported in southern Africa. The WHO said it is coordinating with many researchers worldwide to better understand how the variant will impact the Covid-19 pandemic, with new findings expected within "days and weeks."

Many questions remain, including whether Omicron will evade vaccine protection and whether it will cause more serious illness. But such

characteristics would be far less concerning if the new variant remains relatively contained.

Several disease experts interviewed by Reuters said there are strong grounds already for believing that Omicron will render vaccines less effective. Omicron shares several key mutations with two previous variants, Beta and Gamma, that made them less vulnerable to vaccines. In addition, Omicron has 26 unique mutations, many of them in regions targeted by vaccine antibodies.

Within months, however, Delta spread far more quickly than any of its predecessors.

"So the question, really, is how transmissible Omicron is relative to Delta. That's the major, major, major thing that we need to know," said John Moore, a professor of microbiology and immunology at Weill Cornell Medical College in New York.

It is also likely to be one of the last to be answered, experts said. South African officials raised the alarm about Omicron after identifying just dozens of cases of the variant.

Scientists will be closely watching whether cases caused by Omicron reported on public databases start to supplant those caused by Delta. That could take three to six weeks, depending on how fast the variant moves, experts said.

Other information should come more quickly. Within two weeks, "we'll get a better handle on the severity of the illness," said Dr Peter Hotez, a vaccine expert and professor of molecular virology and microbiology at Baylor College of Medicine. "We're hearing different reports - some saying it's a very mild disease and others (reporting) some severe cases in South African hospitals."

Within a similar time frame, researchers said they expect early answers on whether Omicron can

evade protection from vaccines. Initial data will come from lab tests of blood samples from vaccinated people or lab animals, analyzing antibodies in the samples after exposure to the new variant.

"There are a lot of labs that are actively looking to make the Omicron virus and test its antibody sensitivity, and that is going to take a couple of weeks," Moore said.

David Ho, professor of microbiology and immunology at Columbia University in New York, believes Omicron will show a substantial degree of resistance, based on the location of its mutations in the virus's spike protein.

"The vaccine antibodies target three regions on the coronavirus spike, and Omicron has mutations in all three of those regions," Ho said. "We technical experts are much more worried than the public health experts because of what we know from the structural analysis" of Omicron.

Others note that earlier variants, such as Beta, also had mutations that rendered the vaccines less effective, but that those vaccines still helped prevent severe disease and death. Even if neutralizing antibodies induced by vaccines become less effective, other immune system components known as T cells and B cells will likely compensate, they said.

"Vaccination will likely still keep you out of the hospital," said John Wherry, director of the Penn Institute for Immunology in Philadelphia.

The first real-world studies of vaccine effectiveness against Omicron in the community are likely to take at least three to four weeks, as experts study rates of so-called "breakthrough" infections in people who are already inoculated, said Dr Michael Osterholm, an infectious disease expert at the University of Minnesota.

Columbia's David Ho said the fact that Omicron is already spreading in the presence of Delta,

"which outcompeted all the other variants, is worrisome."

But others insist it is still an open question.

When it comes to the specific mutations that could help Omicron spread, it "doesn't look too much different from Alpha or Delta," said Hotez

THE TIMES OF INDIA

Covid-19: New virus variant stokes concern but vaccines still likely to work

NYT News Service | Nov 27, 2021, 07.56 AM IST

Scientific experts at the World Health Organization warned Friday that a new coronavirus variant discovered in southern Africa was a "variant of concern," the most serious category the agency uses for such tracking.

The designation, announced after an emergency meeting of the health body, is reserved for dangerous variants that may spread quickly, cause severe disease or decrease the effectiveness of vaccines or treatments. The last coronavirus variant to receive this label was delta, which now accounts for virtually all Covid cases in the United States.

The WHO said the new version, named omicron, carries a number of genetic mutations that may allow it to spread quickly, perhaps even among the vaccinated.

Independent scientists agreed that omicron warranted urgent attention but also pointed out that it would take more research to determine the extent of the threat. Although some variants of concern, like delta, have lived up to initial worries, others have had a limited impact.

Researchers said that vaccines will most likely protect against omicron, but further studies are needed to determine how much of the shots' effectiveness may be reduced.

Omicron first came to light in Botswana. So far, six people have tested positive for omicron there, according to an international database of variants. Around the same time, researchers in South Africa stumbled across omicron in a cluster of cases in the province of Gauteng.

Researchers found more than 30 mutations on a protein, called spike, on the surface of the omicron coronavirus. The spike protein is the chief target of antibodies that the immune system produces to fight a Covid-19 infection. So many mutations raised concerns that omicron's spike might be able to evade antibodies produced by either a previous infection or a vaccine.

Still, vaccines are expected to provide some protection against omicron because they stimulate not only antibodies but immune cells that can attack infected cells. Mutations to the spike protein do not blunt that immune cell response. And booster shots could potentially broaden the range of antibodies people make, enabling them to fight against new variants like omicron.

For now, there is no evidence that omicron causes more severe disease than previous variants. And it is also not clear yet how quickly omicron can spread from person to person.

THE TIMES OF INDIA

Omicron risk very high, may change pandemic course: WHO

Reuters | Nov 30, 2021, 02.04 AM IST



GENEVA: The Omicron coronavirus variant is likely to spread internationally, posing a “very high” global risk of infection surges that could have “severe consequences” in some areas, the World Health Organisation (WHO) said on Monday.

It urged its 194 member states to accelerate vaccination of high-priority groups and, in anticipation of increased case numbers, to “ensure mitigation plans are in place” to maintain essential health services.

“Omicron has an unprecedented number of spike mutations, some of which are concerning for their potential impact on the trajectory of the pandemic,” the WHO said. “The overall global risk related to the new variant... is assessed as very high.”

To date, no deaths linked to Omicron had been reported, though further research was needed to assess Omicron’s potential to escape protection against immunity induced by vaccines and previous infections, it said.

“Increasing cases, regardless of a change in severity, may pose overwhelming demands on healthcare systems and may lead to increased morbidity and mortality. The impact on vulnerable populations would be substantial, particularly in countries with low vaccination coverage,” it said.

The variant was first reported to WHO on November 24 from South Africa, where infections have risen steeply.

It has since spread around the world, with new cases found in the Netherlands, Denmark and Australia even as more countries imposed travel restrictions to try to seal themselves off. Japan said on Monday it would close its borders to foreigners, joining Israel in taking the toughest measures.

The WHO, in its latest guidance, reiterated that countries should use a “risk-based approach to adjust international travel measures in a timely manner”. Further advice would be forthcoming, it said.

“The presence of multiple mutations of the spike protein in the receptor-binding domain suggests that Omicron may have a high likelihood of immune escape from antibody-mediated protection. However, immune escape potential from cell-mediated immunity is more difficult to predict,” it said.

“Overall, there are considerable uncertainties in the magnitude of immune escape potential of Omicron.”

More data was expected in coming weeks. “Covid-19 cases and infections are expected in vaccinated persons, albeit in a small and predictable proportion,” it added.

THE TIMES OF INDIA

Why Omicron spread could be 'good sign' for Delta-hit world

Nov 29, 2021, 07.52 PM IST

NEW DELHI: Health authorities across southern Africa, currently dealing with an outbreak of the Omicron variant, are consistently reporting that the symptoms of the new highly infectious Covid strain are “different but very mild”.

Around 90% of all new infections in South Africa's Johannesburg are due to the Omicron strain but the death rate and even hospital admissions appear not to be increasing significantly, local media has reported.

Could replace deadly Delta

Some experts are therefore cautiously optimistic that if Omicron turns out to be less lethal but more contagious than the Delta variant, then the new strain may become dominant globally and could actually be a "blessing in disguise".

Virologist Marc van Ranst said, "If the Omicron variant is less pathogenic but more transmissible, allowing Omicron to replace Delta, this would be very positive news."

The Delta variant, first detected in India, currently accounts for over 90% of all new Covid cases in the world. All new infections being reported in India are due to the Delta strain, which has higher hospitalisation and mortality rate than its predecessors Alpha or Beta.

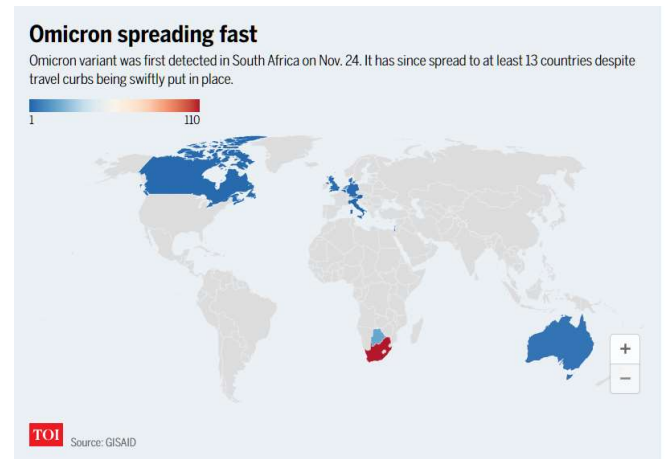
The Delta strain was the major reason for breakthrough infections during the second wave of Covid-19 in India. It infected lakhs of people and claimed tens of thousands of lives in a matter of months.

The World Health Organization (WHO) has, however, said there is still insufficient data on how transmissible the Omicron variant is or how severe the symptoms could be.

Hundreds of people in southern Africa infected with the Omicron variant are reporting nausea, headache, fatigue and high pulse rate, but none seem to be suffering from a loss of taste or smell, which has been the case with most other Covid mutations, including the Delta strain.

Spreading fast

The Omicron variant was first reported on November 24 from South Africa, where infections



have risen steeply. In less than a week and despite swift travel curbs, cases have been reported from at least 13 countries, including Australia, Belgium, Botswana, Canada, Denmark, Germany, Hong Kong, Israel, Netherlands, Portugal, Scotland, South Africa, and the UK.

Australia, Hong Kong, Israel, Canada, South Africa, Botswana, UK, Germany, Italy, Belgium, Austria, Denmark, and the Netherlands.

The Omicron strain has more than 30 mutations – around twice as many as the Delta variant. The mutations may effect transmissibility, severity and response to vaccines.

Drug firms have already started looking into ways to tweak their vaccines to take on the new variant.



Missing in Action: Why Children Are Not Getting Tuberculosis Treatment

[Interview](#) | 25/11/2021 | [Elaine Ruth Fletcher](#)



Many children with tuberculosis don't get TB treatment because of challenges with diagnosis and reporting.

Every day, more than 650 children around the world die from tuberculosis – largely because they have never had the chance to be diagnosed and treated.

In the wake of the COVID-19 pandemic, children have fallen behind on almost every score – from access to schooling and nutrition to mental health and basic health services. But nowhere are those gaps more urgently in need of being addressed, than in the case of the world's most deadly infectious disease.

In commemoration of [World Children's Day 2021](#), observed 20 November, *Health Policy Watch* interviewed Dr Lucica Ditiu, executive director of the [Stop TB Partnership](#), about how seriously children are lagging behind in TB diagnosis and treatment – and what can be done about it.

Health Policy Watch: According to this year's [Global TB report](#), only 41% of the estimated 3.5 million children living with TB have been diagnosed and treated (2018-2020), and only 11% of those children with drug-resistant TB. What are the major factors driving the disturbing lack of children's access to treatment?

Lucica Ditiu: The children of today are paying the bill for the negligence of the past – for TB programmes being underfunded, as well as a lack of attention to children as a vulnerable group. Children, in the vast majority, get infected by adults and, usually, do not transmit the disease. So when you see a lot of children with TB, it means that there are a lot of adults passing it on. It's a very good indicator of a very weak programme.

The biggest problem is to find and diagnose the children with TB. One is about access. To find the children you need to ensure that their parents and families have access to the health system, and that is not secure. This is why the [Universal Health Coverage Sustainable Development Goal](#) (SDG) is very good. And the number of children with TB diagnosed and treated can be an indicator of how far along we are in reaching UHC.

The other problem is one of diagnostic tools. We do not have good enough TB diagnosis tools for adults. A lot of diagnosis still relies on clinical examination and sputum smear microscopy, exactly like 100 years ago. With children is even more difficult – as children don't produce sputum when they cough. So they are more difficult to diagnose.

HPW: What about new TB tools like GeneXpert, which provides a rapid molecular diagnosis?

Ditiu: Even GeneXpert and other rapid molecular tests rely on sputum, which children don't produce. So you have to make do with X-rays, clinical approaches, or very extreme procedures like gastric aspirate, where a nasogastric tube is inserted through the nose to extract and diagnose TB based on gastric fluids. It is a very unpleasant and aggressive procedure. The child has to be intubated under anaesthesia.

That means we need more advanced diagnostic tools for children. There are different groups, supported by STOP TB and our partners –

such as UNITAID, and the Global Fund, looking at alternatives. One of the most advanced tools involves diagnosing TB in the stool of children, and there is very good progress on that.

There are other groups looking at other types of diagnosis, based on DNA, based on blood, based even on cough.

But in general, for TB, even though it's one of the oldest known diseases, we still don't have a point-of-care diagnostic, that people can self test at home. Diagnosis still requires heavy involvement of the health system and therefore access to diagnosis is a huge bottleneck.

HPW: What are the particular hotspots for children's TB?

Ditiu: The largest numbers of TB-infected children are living in Asia, including India, Bangladesh, Indonesia, and Pakistan.

In Africa, conversely, there are a lot of children with TB and HIV co-infections. And that is where the clinical progression of the disease is more accentuated. So if we look at high numbers, they are in Asia. If we look at the complicated forms, it's more in Africa.

In Eastern Europe and Russia, meanwhile, we see more of the drug-resistant TB forms among children. These are forms that cannot be easily treated in the usual six-month treatment regimes.

Multi-drug resistant TB (MDR-TB) in children is also hugely underestimated. It's very difficult to diagnose and treat – although if the child has a parent with drug-resistant TB, you can assume that he or she has drug-resistant forms too. It's disastrous for children. The estimates are at least 30 000 children fall ill with drug-resistant TB every year, but the diagnosis and treatment coverage is very low. Only 12 200 children have been treated over the last three years (2018- 2020)! Whereas we estimate that there are around

200,000 children worldwide with MDR-TB. This is a huge and dramatic gap.

Last year was the first year that WHO made estimates of children with MDR-TB. But we need WHO to lead on improving these estimates, including asking countries to notify and report upon children with drug-resistant TB by country.

For MDR-TB, the treatment is at least one year instead of six months. We have specific oral formulations for the treatment of children with TB. And we have everything needed for a full oral regimen for children. Fortunately, 85% of countries have dropped the injectable treatments for MDR-TB, which have horrible side effects, including deafness. We still have some countries in which injectables are still used in children and we must immediately change that. But the big problem is to identify the children.

HPW: In terms of HIV/TB coinfection, why are children left out? We have noted that children's access to HIV treatment [also lags far behind that of adults, with less than 40% of children 0-14 getting ARVs in 25 sub-Saharan African countries reviewed in 2020](#). One would think that if more HIV-infected children were being treated, they could also be screened for TB?

Ditiu: For TB, the biggest challenge is still identifying the children who are TB co-infected. Once they are diagnosed, treating them is not such a big problem. For HIV, the problem is access to treatment.

Why are children left behind? It could be partially attributable to the stigma of co-infection and I think it's all about access, a matter of the weakest link in the chain. But indeed it's a bit puzzling because the amount of resources for HIV treatment of children is very high. Hundreds of millions of dollars are available for diagnosis and treatment. What I can say is that, on the positive side, preventive TB treatment is recommended for people living with

HIV. And in the African region, people living with HIV are for the most part receiving preventative TB treatment, including children

But I think access to services is essential for TB and HIV. In the last two years, what we have seen as a result of the pandemic, is that people that are most vulnerable and have any barrier to access services – poverty, distance, gender, religion, color – have had even more problems in accessing services.

HPW: What is Stop TB doing to address these access barriers that you're describing?

Ditiu: Our focus is on removing barriers for people to access diagnosis, treatment and care for TB. Some 80% of our budget of \$20 million a year is distributed in various small grants to governments and civil society to pilot and test new ways to reach, diagnose and treat TB-infected people.

For children, through our Global Drug Facility work funded by Japan and USAID, we pushed for the introduction of new children formulations for the treatment of drug-resistant TB, with specific doses and a great taste. This effort has supported the treatment of children with drug-resistant TB in more than 60 countries, but it also made people think more about drug-resistant TB in children.

We also are the leading organization in ensuring that social justice, discrimination, stigma, gender disparities, and human rights are being properly addressed in TB programmes. Through our Challenge Facility for Civil Society granting mechanism, uniquely in the TB world, we provide grants only to local, grassroots organizations for their work on TB response.

Supported mainly by USAID, with some funding from the Global Fund, we managed to grant around \$6-7 million annually to these civil society and community organizations from TB high-burden countries.

Our other granting mechanism – TB-REACH, which is an initiative funded by Canada and several other donors – provides since 2010 support to any organization, from government to faith-based, that is able to show they can find people infected with TB and get them diagnosed and treated, using local solutions. It basically funds local solutions using innovative solutions as well as new tools to remove barriers to access to early diagnosis and treatment and we grant around \$15-20 million each year.

With the support of TB REACH and other teams in Stop TB, we are also testing new tools and innovations, for instance, to support people with TB with treatment adherence. For instance, there are digital tools to ensure that when a TB-infected person opens his or her pillbox, a signal is sent to the portable phone of the health care worker who therefore will know that he or she took the treatment.

We also have a team that identifies and supports new developers and start-ups in the TB space.

Finally, under the STOP TB Partnership there are 9 different working groups, including the Working group for Childhood TB, led by Dr Farhana Amanulla, a Pakistani physician, who is one of the leading paediatric TB experts in the world. We try all of us to raise the awareness about children in TB as for a long time TB in children was not recognized.

So: <https://healthpolicy-watch.news/why-children-are-not-getting-tuberculosis-treatment/>



Advances in the management of TB and NTM infections

P30 Mobile health uses in surveillance of tuberculosis medication side effects and beyond-a pilot study

O Dytko et.al.

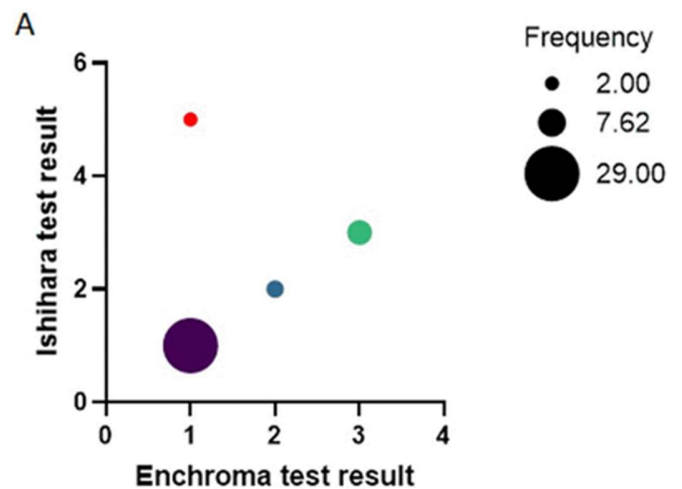
Abstract

Tuberculosis (TB) and multi-drug resistant TB (MDR-TB) are some of the most deadly infectious lung diseases worldwide. Medications such as ethambutol and fluoroquinolones, used in treatment, have potentially severely debilitating side effects, namely ocular toxicity. Current monitoring is infrequent and can lead to unnecessary progression of side effects until irreversible or fatal. Mobile health (m-health) may be able to provide suitable solutions.

Methods 196 eyes from 96 participants sourced from St Mary's TB clinics, Western Eye Hospital outpatient clinics, Charing Cross Hospital MS clinics and student volunteers were examined using a digital colour vision test (EnChroma). The results were compared to currently used analogue tests during two phases. Phase one involved comparison to the Farnsworth D15 test (FD15) and phase two to the Ishihara plate test. Participant self-assessment and opinions on the usability of the m-health solution were recorded.

Results There was good correlation between the EnChroma and Ishihara tests ($r=0.81$, $p<2.3\times 10^{-10}$), correlation between EnChroma and the FD15 was poor ($r=0.49$, $p<2.3\times 10^{-10}$). The qualitative analysis showed high trust and ease of use when scored by patients and clinicians.

Abstract P30 Figure 1 Correlation of EnChroma comparison to Ishihara test, (n=40). Axis numbers correspond to results with EnChroma result on the x-axis and the Ishihara test result on the y-axis. Normal=1, protan=2, deutan=3, tritan=4, unknown=5. Bubble size denotes number of participants.



Discussion The low correlation between the EnChroma and FD15 tests could be due to oversensitivity of the EnChroma test, however previous studies comparing the FD15 to other colour vision tests showed a low sensitivity for the FD15, (0.59)¹ suggesting that EnChroma results may be true abnormalities rather than false positives.

Apps like EnChroma have the potential to revolutionise, modernise and personalise colour vision testing in medicine, however the study lacks power (shown by the large confidence intervals) and will have to be repeated on a larger scale. Patients are keen to engage with m-health and more, suitable solutions should be explored. M-health has the potential to enable rapid point of care testing and fully remote management of side effects in TB and MDR-TB with further potential in other conditions.

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So: https://thorax.bmj.com/content/76/Suppl_2/A81.2

Why TB is still with us

Challenge in notifying cases is the trust deficit between public and private healthcare systems.

Written by [Balkrishna Mishra](#) |

Updated: November 17, 2021 12:23:41 pm

It kills an estimated 4,80,000 Indians each year — more than 1,400 every day, almost one Indian per minute.

Having worked in community health for over two decades in Bihar and Madhya Pradesh, I am well aware of the power of the slogan. Especially of one so simple and telling: TB Harega, Desh Jeetega. And yet, this rang hollow as we marked another TB Day on March 24. The disease is far from being vanquished. It kills an estimated 4,80,000 Indians each year — more than 1,400 every day, almost one Indian per minute.

The startling fact is that this number creates little panic in the public. It doesn't get any headline attention at a time when everything is a headline — when was the last time you heard a debate in Parliament or on prime time TV on TB? The toll hasn't reached this figure overnight or in a month or even in a year. India has continued to account for one fourth of the global TB burden for more than a decade despite implementing the WHO-backed Directly Observed Treatment, Short-Course (DOTS) programme nationwide.

Indeed, India is the largest DOTS implementing country and the Revised National Tuberculosis Control Programme (RNTCP) under the leadership of Central Tuberculosis Division, a wing of the Union Ministry of Health and Family Welfare, has been praised internationally.

Recently, the government made three significant important policy decisions to improve disease surveillance: Making TB a notifiable

disease (May 2012); including anti-TB drugs under Schedule-H1 (August 2013); and developing a case-based, web-based TB surveillance system.

So why is the disease still with us despite the above and the fact that its causative organism is known, effective drugs are available and key locations of the vulnerable population are well mapped? There are many reasons but let's focus on one that doesn't get discussed much: The public-private trust deficit.

Over 80 per cent of people with TB first knock on the doors of the private health sector where the standard of diagnosis and quality of TB care have always been contentious issues. As per norms, a private doctor or hospital has to inform the government about each TB case but this hardly happens. There is a deep trust deficit between the public and the private sector but it's deeper when it comes to TB. It would be unfair to pass the entire blame for not notifying on private doctors. There is an undue expectation from private providers that they will follow the DOTS administration to ensure treatment adherence. There is no institutionalised mechanism to help them update their knowledge and skills about changing diagnostic algorithms, even the use of anti-TB drugs in appropriate doses for the correct duration.

A study by Zarir F. Udawadia and others to understand the prescribing practices of private practitioners in Mumbai found that the practitioners were never approached or oriented by the local TB programme. Only six of the 106 respondents wrote a prescription with a correct drug regimen. And the 106 doctors prescribed 63 different drug regimens. Wherever those barriers have been addressed, the notification has significantly improved. For example, in Patna, where private doctors have been engaged through a private-provider

interface agency, notification has increased fourfold.

Although there have always been provisions for the involvement of NGOs and private practitioners in the government's anti-TB programmes, the state and district-level programme managers themselves were never adequately oriented towards facilitating the partnership.

RNTCP has an "intermittent drug regimen" (three days of drugs a week). Outside RNTCP, the most common treatment method is the daily drug regimen. Healthcare providers, particularly in the private sector, have always had reservations in engaging with the RNTCP due to a lack of confidence in an intermittent regimen.

That's changing. The treatment of TB with a daily regimen, under RNTCP, is being implemented for all HIV-infected TB patients across the country and for all TB patients in Kerala, Maharashtra, Bihar, Himachal Pradesh and Sikkim. It is likely to be made available across the country in the near future. This will likely to enhance notification from private sector.

One reason why notification is so important is because TB comes wrapped in silence and invisibility. Anyone, rich or poor, can get infected with the TB bacteria and already more than 40 per cent of the Indian population is said to harbour it. But over 90 per cent of such people (infected) may not fall ill because of TB or spread the disease. This will depend on their immune system, standard of nutrition, the condition of their overall health and their habitat. So, in cases where the patient is well-placed, the bacteria may remain alive inside the body for a lifetime without producing any symptoms. It is the poor and the marginalised who are the first victims.

That's why the key to the fight against TB is how ministries other than the health ministry respond to the Sustainable Development Goals.

Prevention, care and support to TB-affected people will contribute to other SDGs and will help all, particularly the poor and the vulnerable who have to pay a catastrophic cost due to the disease — debt, loss of wages and death. At the rate of almost one a minute.



Everything we know so far about the Omicron COVID-19 variant

- Scientists are studying a new COVID-19 'variant of concern' named Omicron.
- The new COVID-19 strain was first identified in southern Africa.
- There are concerns Omicron could increase risks of reinfection.
- Scientists are seeking to understand if vaccines will work against Omicron.

Scientists in South Africa and around the world are working at pace to discover more about a newly identified strain of the COVID-19 virus.

On November 26th the World Health Organization (WHO) designated variant B.1.1.529 as a ['variant of concern' and named it Omicron](#).

Scientists in South Africa and around the world are working at pace to discover more about a newly identified strain of the COVID-19 virus.

On November 26th the World Health Organization (WHO) designated variant B.1.1.529 as a ['variant of concern' and named it Omicron](#).

Why are scientists so concerned about Omicron?

The decision to classify Omicron as a [variant of concern](#) was based on evidence presented to the WHO's [Technical Advisory Group on Virus Evolution](#). This evidence suggested the new variant has several mutations that could impact how easily it spreads, the severity of illness it may cause and, crucially, the effectiveness of [existing COVID-19 vaccines](#). This is what we know so far about Omicron:

Omicron cases reported in South Africa were among students. With other COVID-19 variants, younger people have generally had milder symptoms. There is currently no evidence to suggest Omicron symptoms are different, but it will likely take weeks to determine if Omicron causes more severe illness among the general population.

Will existing COVID-19 vaccines and other



A number of countries are tightening travel restrictions over fears about the new COVID-19 variant called Omicron. Image: REUTERS/Loren Elliott

Is it transmitted more easily?

The WHO says it's not yet clear if the Omicron variant is spread from person-to-person more easily than other variants, including Delta. The number of people testing positive for COVID-19 has risen in the area of South Africa where Omicron was first identified. More research is being carried out to determine whether this is due to Omicron, or to other factors.

Does Omicron cause more severe illness?

Early data from South Africa shows the rate of hospitalization is rising among COVID-19 patients. However, there is no evidence so far that directly links infection with Omicron with an increased need for hospital treatment. The WHO says the rise in hospitalizations may be due to a general rise in infection rates. Many of the early

treatments work against the Omicron variant?

The WHO says it's working with partners to understand the potential impact of Omicron variant on the effectiveness of vaccines and other COVID-19 countermeasures. [Corticosteroids and IL6 Receptor Blockers](#) will still be effective against severe disease, the WHO advises. As research continues, the WHO is reminding people that vaccines remain effective against other COVID-19 variants - including the dominant Delta strain - and are the best way to avoid severe disease and death.

Does Omicron increase the risk of reinfection?

Preliminary research shows the new variant may increase the risk of reinfection for people who have already had COVID-19, according to the

WHO. However, data is currently limited and more information should be made available in the coming days. In terms of testing for infections, existing PCR tests are effective at detecting the Omicron variant.

What can people do to protect themselves?

The WHO is reminding people that the best way to [stop the spread of COVID-19](#) is to socially distance, staying at least 1m from others; wear a well-fitting mask; open windows to improve ventilation; avoid poorly ventilated or crowded spaces; keep hands clean; cough or sneeze into a bent elbow or tissue; and get vaccinated when it's your turn.

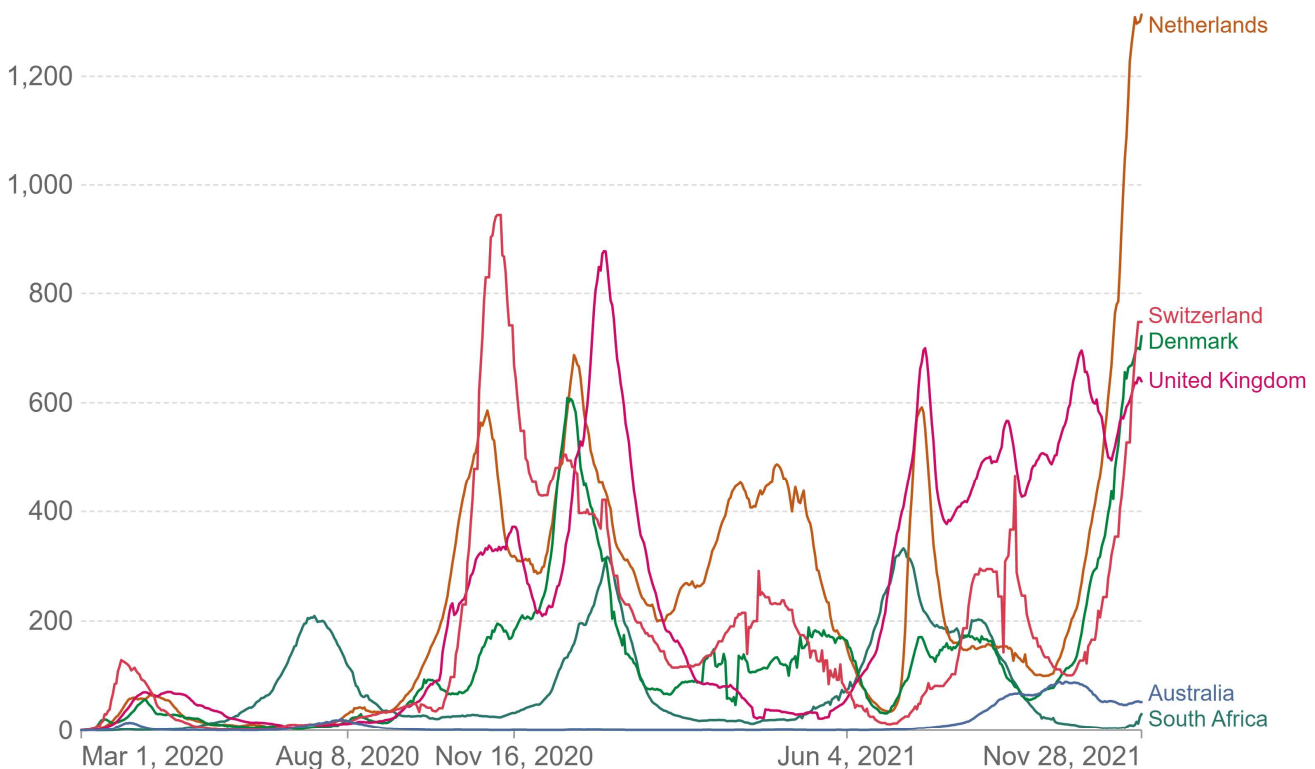
In the days since scientists in South Africa identified the Omicron variant, cases have been reported in a number of countries around the world.

An [outbreak in Portugal](#) has been traced to a soccer club. The [Netherlands, Denmark and Australia](#) have also reported their first cases. Earlier, cases were reported in [Switzerland, Belgium](#) and [the UK](#).

A number of countries are [tightening travel and entry restrictions](#) after the WHO warned on Monday of a global risk of a surge in infections, Reuters reported. Japan said on Monday it would shut its borders to foreigners from midnight

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



Source: Johns Hopkins University CSSE COVID-19 Data

CC BY

Governments react as Omicron cases are detected in more countries

to prevent a spread of the Omicron variant there. Israel on Saturday became the first country to shut its borders completely in response to Omicron. The U.S. Centers for Disease Control

and Prevention (CDC) and the State Department on Saturday advised against travel to eight southern African countries.

So:

<https://www.weforum.org/agenda/2021/11/omicron-covid-19-variant-everything-we-know-so-far/>

BusinessLine

Omicron Covid variant: No evidence of importation in Tamil Nadu, says health secretary

[Our Bureau](#) Chennai | Updated on November 29, 2021



In advisory to district collectors, he underlines need to continue to observe Covid appropriate behaviour

There is still substantial uncertainty related to the Omicron variant, with regard to its transmissibility, immune escape potential (from infection and vaccine induced immunity), severity of disease, and response to available countermeasures (eg diagnostics, vaccines, therapeutics). At present, there is no evidence of importation and transmission of the variant in Tamil Nadu, said Health Secretary J Radhakrishnan in a letter to all district collectors and the Commissioner of the Greater Chennai Corporation.

As travel has been continuing between the affected countries and other nations, it is possible that despite a tightening of surveillance measures, the Omicron variant might still slip in or get introduced.



Update on Omicron

28 November 2021 Statement

On 26 November 2021, WHO designated the variant B.1.1.529 a variant of concern, named Omicron, on the advice of WHO's [Technical Advisory Group on Virus Evolution](#) (TAG-VE). This decision was based on the evidence presented to the TAG-VE that Omicron has several mutations that may have an impact on how it behaves, for example, on how easily it spreads or the severity of illness it causes. Here is a summary of what is currently known.

Current knowledge about Omicron

Researchers in South Africa and around the world are conducting studies to better understand many aspects of Omicron and will continue to share the findings of these studies as they become available.

Transmissibility: It is not yet clear whether Omicron is more transmissible (e.g., more easily spread from person to person) compared to other variants, including Delta. The number of people testing positive has risen in areas of South Africa affected by this variant, but epidemiologic studies are underway to understand if it is because of Omicron or other factors.

Severity of disease: It is not yet clear whether infection with Omicron causes more severe disease compared to infections with other variants, including Delta. Preliminary data suggests that there are increasing rates of hospitalization in South Africa, but this may be due to increasing overall numbers of people

becoming infected, rather than a result of specific infection with Omicron. There is currently no information to suggest that symptoms associated with Omicron are different from those from other variants. Initial reported infections were among university students— younger individuals who tend to have more mild disease—but understanding the level of severity of the Omicron variant will take days to several weeks. All variants of COVID-19, including the Delta variant that is dominant worldwide, can cause severe disease or death, in particular for the most vulnerable people, and thus prevention is always key

Effectiveness of prior SARS-CoV-2 infection

Preliminary evidence suggests there may be an increased risk of reinfection with Omicron (ie, people who have previously had COVID-19 could become reinfected more easily with Omicron), as compared to other variants of concern, but information is limited. More information on this will become available in the coming days and weeks.

Effectiveness of vaccines: WHO is working with technical partners to understand the potential impact of this variant on our existing countermeasures, including vaccines. Vaccines remain critical to reducing severe disease and death, including against the dominant circulating variant, Delta. Current vaccines remain effective against severe disease and death.

Effectiveness of current tests: The widely used PCR tests continue to detect infection, including infection with Omicron, as we have seen with other variants as well. Studies are ongoing to determine whether there is any impact on other types of tests, including rapid antigen detection tests.

Effectiveness of current treatments: Corticosteroids and IL6 Receptor Blockers will still be effective for managing

patients with severe COVID-19. Other treatments will be assessed to see if they are still as effective given the changes to parts of the virus in the Omicron variant.

Studies underway

At the present time, WHO is coordinating with a large number of researchers around the world to better understand Omicron. Studies currently underway or underway shortly include assessments of transmissibility, severity of infection (including symptoms), performance of vaccines and diagnostic tests, and effectiveness of treatments.

WHO encourages countries to contribute the collection and sharing of hospitalized patient data through the [WHO COVID-19 Clinical Data Platform](#) to rapidly describe clinical characteristics and patient outcomes.

More information will emerge in the coming days and weeks. WHO's TAG-VE will continue to monitor and evaluate the data as it becomes available and assess how mutations in Omicron alter the behaviour of the virus.

Recommended actions for countries

As Omicron has been designated a Variant of Concern, there are several actions WHO recommends countries to undertake, including enhancing surveillance and sequencing of cases; sharing genome sequences on publicly available databases, such as GISAID; reporting initial cases or clusters to WHO; performing field investigations and laboratory assessments to better understand if Omicron has different transmission or disease characteristics, or impacts effectiveness of vaccines, therapeutics, diagnostics or public health and social measures. More detail in the [announcement](#) from 26 November.

Countries should continue to implement the effective public health measures to reduce

COVID-19 circulation overall, using a risk analysis and science-based approach. They should increase some public health and medical capacities to manage an increase in cases. WHO is providing countries with support and guidance for both readiness and response.

In addition, it is vitally important that inequities in access to COVID-19 vaccines are urgently addressed to ensure that vulnerable groups everywhere, including health workers and older persons, receive their first and second doses, alongside equitable access to treatment and diagnostics.

Recommended actions for people

The most effective steps individuals can take to reduce the spread of the COVID-19 virus is to keep a physical distance of at least 1 metre from others; wear a well-fitting mask; open windows to improve ventilation; avoid poorly ventilated or crowded spaces; keep hands clean; cough or sneeze into a bent elbow or tissue; and get vaccinated when it's their turn.

WHO will continue to provide updates as more information becomes available, including following meetings of the TAG-VE. In addition, information will be available on WHO's digital and social media platforms.



Covid: New Omicron variant not a disaster, says Sage scientist

By Hamish Mackay
BBC News | 3 days ago

The Omicron coronavirus variant is "not a disaster" and some people may be "hugely overstating the situation", a scientist advising the government says.



Calum Semple says vaccines should still protect people from Omicron, which was first identified in southern Africa

Omicron has been labelled "of concern" by the World Health Organization, and is [causing alarm among some scientists](#).

But microbiologist Prof Calum Semple says vaccines are "still likely to protect you from severe disease".

Prof Semple does, however, support [the new UK travel restrictions](#), saying they will allow more people to get jabbed.

Asked whether people should be fearful of the new variant, Prof Semple - who sits on the UK government's Scientific Advisory Group for Emergencies - told BBC Breakfast: "This is not a disaster, and the headlines from some of my colleagues saying 'this is horrendous' I think are hugely overstating the situation.

"Immunity from the vaccination is still likely to protect you from severe disease. You might get a snuffle or a headache or a filthy cold but your chance of coming into hospital or intensive care or sadly dying are greatly diminished by the vaccine and still will be going into the future."

So far, more than 50 million people in the UK have had at least one dose of a Covid vaccine.

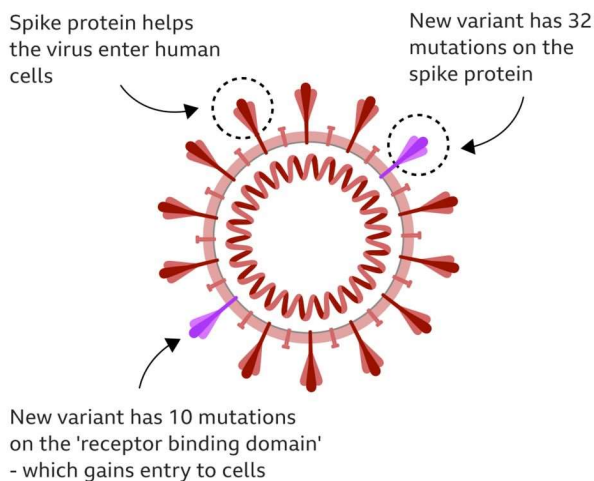
More than 42 million have had two doses while almost 17 million have had a third or booster jab. The new Omicron variant was first reported to the WHO from South Africa on 24 November and has also been identified in Botswana, Belgium, Hong Kong and Israel.

Countries around the world are currently racing to introduce travel bans and restrictions on southern African countries in an effort to contain Omicron's spread.

The UK has placed South Africa, Namibia, Zimbabwe, Botswana, Lesotho and Eswatini on its travel red list, meaning, from Sunday at 04:00 GMT, all arrivals will have to quarantine in a hotel for 10 days.

The new Covid-19 variant: B.1.1.529

More mutations may make it spread faster



Source: South Africa Centre for Epidemic Response and Innovation



Prof Semple said that while it may not be possible to stop the variant coming to the UK, it is still important to delay its arrival.

"If you can slow the virus coming into your country it gives you more time for your booster campaign to get ahead of it," he said.

"It also gives the scientists longer to understand more about the virus in case there is anything we really should be worrying about."

Asked what other measures he thought were advisable in the face of a new variant and the 50,091 new UK cases reported on Friday, Prof Semple said he was in favour of mask wearing in shops and on public transport, and hand washing.

Like Prof Semple, Prof Sir Andrew Pollard, the director of the Oxford Vaccine Group, expressed cautious optimism that existing vaccines could be effective at preventing serious disease from the Omicron variant.

He told the Today programme that while it would still be weeks until scientists properly understood the effects of Omicron's mutations, most of them were similar to those seen in other variants.

"Despite those mutations existing in other variants, the vaccines have continued to prevent serious disease as we've moved through Alpha, Beta, Gamma and Delta," he said.

"At least from a speculative point of view, we have some optimism that the vaccine should still work against a new variant for serious disease but really we need to wait several weeks to have that confirmed.

"It's extremely unlikely that a reboot of a pandemic in a vaccinated population like we saw last year is going to happen."

Asked whether it was possible to update the vaccines if deemed necessary, Prof Pollard added: "The processes of how one goes about developing a new vaccine are increasingly well oiled. So, if it's needed, that is something that could be moved very rapidly."

The UK currently has no known cases of the Omicron variant.

The travel ban for southern African countries is designed to maintain that for as long as possible, and Health Secretary Sajid Javid said the

government "won't hesitate to act" if further measures are needed.

"One of the lessons of this pandemic has been that we must move quickly, and at the earliest possible moment," he told MPs on Friday. "We're heading into winter and our booster programme is still ongoing, so we must act with caution."

But asked whether the government could switch from its current, minimal Covid restrictions to [its Plan B](#) for winter, Mr Javid said the current rules "remain the policies that I think we need at this time".

The Labour Party, meanwhile, is calling on the government to reduce the amount of time people need to wait between their second vaccine dose and their booster.

At present, people can book a booster after five months but [must wait until six months](#) to have it. Labour says the gap should be reduced to five months before people get a third dose.

Shadow health minister Alex Norris said: "This new variant is a wake-up call. The pandemic is not over, we need to urgently bolster our defences to keep the virus at bay."

So: <https://www.bbc.com/news/uk-59442141>



'Omicron' More Dangerous Than Delta? WHO's Take In 5 Points

Edited by [Akhil Kumar](#) Updated
November 29, 2021 11:03 am IST

Omicron has several mutations that may have an impact on how it behaves, for example, on how easily it spreads or the severity of illness it causes.

It is not yet clear whether infection with 'Omicron' causes more severe disease.

New Delhi: Having flagged the coronavirus strain B.1.1.529, named 'Omicron', a variant of concern earlier this week, the World Health Organisation or WHO on Sunday released its latest findings amid growing concern across the world. **Here's your 5-point cheatsheet in this big story:**

1. According to the WHO, preliminary evidence suggests there may be an increased risk of reinfection with 'Omicron' - people who have previously had COVID-19 could become reinfected more easily with this variant.
2. It is not yet clear whether 'Omicron' is more transmissible (more easily spread from person to person) compared to Delta and other variants. For now, RT-PCR tests can detect the strain.
3. The WHO is working with technical partners to understand the potential impact of this variant on vaccines.
4. It is not yet clear whether infection with 'Omicron' causes more severe disease. There is currently no information to suggest that symptoms associated with Omicron are different from those from other variants.
5. Preliminary data suggests increased hospitalisation in South Africa, but this may be due to increasing overall numbers of people becoming infected, rather than a result of specific infection with 'Omicron'. Initial reported infections were among university studies - younger individuals who tend to have milder symptoms - but understanding the level of severity of the 'Omicron' variant will take days to several weeks.

So: <https://www.ndtv.com/india-news/omicron-more-dangerous-than-delta-whos-take-in-5-points-2628529>



India offers support for Africa to fight the Omicron variant

November 29, 2021

We have noted the emergence of a new variant of Covid-19, Omicron. We express our solidarity with the countries, particularly in Africa, who have so far been affected by the Omicron variant.

The Government of India stands ready to support the countries affected in Africa in dealing with the Omicron variant, including by supplies of Made-in-India vaccines. Supplies can be undertaken through COVAX or bilaterally. In this regard, the Government has cleared all orders placed so far by COVAX for supplies of COVISHIELD vaccines including to African countries like Malawi, Ethiopia, Zambia, Mozambique, Guinea and Lesotho. We have also cleared supplies of COVAXIN to Botswana. Any new requirement projected either bilaterally or through COVAX will be considered expeditiously.

India also stands ready to supply essential life-saving drugs, test kits, gloves, PPE kits and medical equipment such as ventilators, as may be required. Indian institutions would favourably consider cooperation in genomic surveillance and virus characterization related research work with their African counterparts.

[NOTE: India has, so far, supplied more than 25 million doses of Made-in-India vaccines to 41 countries in Africa, including nearly 1 million doses as grant to 16 countries and more than 16 million doses under the COVAX facility to 33 countries.]

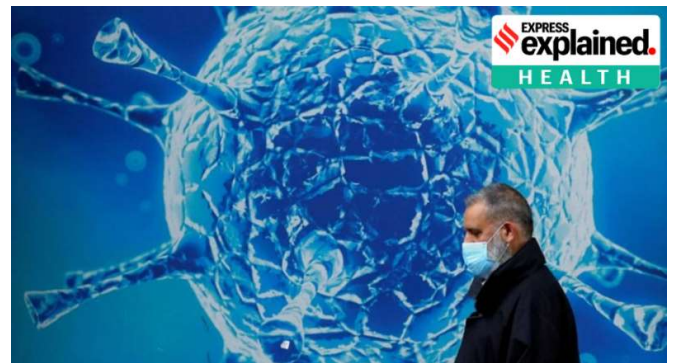
New Delhi | November 29, 2021

So: https://www.mea.gov.in/press-releases.htm?dtl/34546/India_offers_support_for_Africa_to_fight_the_Omicron_variant

Explained: Why it has been named Omicron and not Nu or Xi

The WHO has been using Greek letters to refer to the most widely prevalent coronavirus variants, which otherwise carry long scientific names.

Written by [Amitabh Sinha](#) | Pune |
Updated: November 29, 2021 12:45:24 pm



The WHO said Nu could have been confused with the word 'new' while Xi was not picked up following a convention. (File)

In picking a name for the newest variant of SARS-CoV-2, [Omicron](#), the World Health Organization (WHO) has skipped two letters of the Greek alphabet, one of which also happens to be a popular surname in China, shared even by Chinese President Xi Jinping.

The WHO has been using Greek letters to refer to the most widely prevalent [coronavirus](#) variants, which otherwise carry long scientific names. It had already used 12 letters of the Greek alphabet before the newest variant emerged in South Africa this week. After Mu, the 12th named after a Greek letter, WHO selected the name Omicron, instead of Nu or Xi, the two letters between Mu and Omicron.

The WHO said Nu could have been confused with the word 'new' while Xi was not picked up following a convention.

"Two letters were skipped —Nu and Xi — because Nu is too easily confounded with 'new' and Xi was not used because it is a common surname and WHO best practices for naming new diseases (developed in conjunction with FAO and OIE back in 2015) suggest avoiding 'causing offence to any cultural, social, national, regional, professional or ethnic groups'," the WHO said in a statement.

All variants are given scientific names that represent their parentage and the chain of evolution. Omicron, for example, is also known by its more scientific designation B.1.1.529, which shows that it has evolved from the B.1 lineage.

Since the scientific names are not easy to remember, the more prevalent variants started to be named after the country from where they were first reported: 'UK variant', 'Indian variant', 'South African variant', or 'Brazilian variant'. To remove the connection with specific countries, which was triggering name-calling and blame game, the WHO decided on a new naming system using Greek letters. The variant that earlier used to be referred as the 'Indian' thus got the name Delta, while the one being associated with the UK was named Alpha.

Over the course of the pandemic, many variants of the SARS-CoV-2 coronavirus have arisen, the latest being Omicron in South Africa.

WHAT IT MEANS

As an infected cell builds new coronaviruses, it occasionally makes tiny copying errors. These called mutations. Mutations are passed down through a lineage, a branch of the viral family tree. A group of coronaviruses that share the same inherited set of distinctive mutations is called a variant.

VARIANTS OF CONCERN

The WHO currently lists 5 variants of concern:

- Omicron (B.1.1.529), identified in southern Africa in November 2021
- Delta (B.1.617.2), which emerged in India in late 2020 and spread around the world
- Gamma (P.1), which emerged in Brazil in late 2020
- Beta (B.1.351), which emerged in South Africa in early 2020
- Alpha (B.1.1.7), which merged in Britain in late 2020
- VARIANTS OF INTEREST

There are currently two:

- Mu (B.1.621), which emerged in Colombia in early 2021
- [Lambda](#) (C.37), which emerged in Peru in late 2020



Double-vaccinated? Are you safe from Omicron variant?

Following the detection of the Omicron variant, one of the most pressing questions today is whether the vaccine will provide protection against the newly detected Covid variant.

New Delhi | November 29, 2021

One of the dominant questions today following the detection of Omicron variant of SARS-CoV-2, which causes Covid-19, is whether vaccine will work against the newly detected coronavirus variant or not. This is an intriguing question as most Covid-19 vaccines are two-dose regime, and a large number of people are partially vaccinated.



Fully vaccinated people are said to have three times lower chances of catching infection compared to those unvaccinated (Photo: AP)

To understand this situation, let's first see how vaccines work against SARS-CoV-2. Most vaccines target the spike protein area of the virus. It is that part of the coronavirus that it uses to enter a human cell.

Vaccines work by training the human's immune system to identify the spike protein of SARS-CoV-2 and attack it when the virus tries to enter the body.

What has been seen in the Omicron variant is that its spike protein has more than 30 mutations. Ten of these mutations have been seen in what is called the receptor-binding domain or RBD of the spike protein. The RBD is that part of the spike protein which latches on to a human cell. A highly mutated RBD can carry the Omicron variant undetected by the body's immunity.

However, spike proteins are not the only part of the coronavirus that the immune system identifies and can target. Antibodies and T cells specific cells that grow in the body in response to previous infection or vaccination and are capable of memorising the pathogens can still offer protection against a mutated SARS-CoV-2. This holds true even for the Omicron variant.

The UK-based newspaper, The Guardian quoted Danny Altmann, professor of immunology at Imperial College London, as saying, "If you scribble the mutations on to a picture of the

spike protein's crystal structure, and relate that to all of the main antibody activities that we know about, it looks kind of terrifying like, most of your key, neutralising antibody targets will be shot to pieces, so what's going to be left of your immune protection?"

"And yet, the soundings we're getting from South Africa seem to be saying that it doesn't look severe, and the people who are going to hospital are the unvaccinated, rather than the vaccinated, as if vaccination was still buying [them] some cover."

"We all think that the T cells can see the differences [between variants], and that the T cell repertoire is much more impervious to it, so that might also buy you some protection."

So, how much protection can vaccines offer?

In the case of vaccinated yet infected with Delta variant, the Covid-19 patients were reported to have nine times less likely to die. Fully vaccinated people were also said to have three times lower chances of catching infection compared to those unvaccinated.

The Guardian quoted another expert, Cardiff University's immunologist Prof Paul Morgan, as saying that although the Omicron variant looks more infectious "a blunting rather than a complete loss [of immunity] is the most likely outcome."

"The virus can't possibly lose every single epitope [areas on virus which antibodies and T cells can target] on its surface, because if it did that spike protein couldn't work anymore. So, while some of the antibodies and T cell clones made against earlier versions of the virus, or against the vaccines may not be effective, there will be others, which will remain effective."

In case of fully vaccinated people, who were infected with Delta variant, the protection appears to have been better. University of

Bristol's virology professor David Matthews told The Guardian, "If you've been double-jabbed and then infected with Delta and recovered, then you have got a very broad, very effective immune response, that probably covers pretty much any variant that you can think of."



Explained: What we know so far about Omicron variant of Covid-19

A new Covid-19 variant has been identified in South Africa. What's different about the Omicron variant of Covid-19? Are the symptoms different? What precautions should one take? What has the WHO said?

Written by [Kaunain Sheriff M](#) | New Delhi |
Updated: November 30, 2021 7:29:20 am

On Friday, the World Health Organization (WHO) [classified a new variant of SARS-CoV-2](#), currently circulating in South Africa, as a 'variant of concern'. It also named it [Omicron](#).

The Network for Genomics Surveillance in South Africa (NGS-SA) had identified the variant on Monday. It had detected a group of related SARS-CoV-2 viruses, which belong to a lineage named B.1.1.529.

Early indications are that this variant is possibly even more transmissible than the highly infectious [Delta variant](#), and that current vaccines may be less effective against it.

What we do know so far about Omicron?

New variants continue to emerge as SARS-CoV-2 spreads, and the significance of each

mutation becomes known after a period of time. But health authorities worldwide need to keep a constant watch to identify which ones are more important than others. It was as part of such an exercise that the NGS-SA detected B.1.1.529.

From what is known currently, B.1.1.529 has multiple spike protein mutations, and preliminary analysis suggests it is highly infectious. South Africa has reported a four-fold increase in new cases over the last two weeks, coinciding with the emergence of B.1.1.529.

On Thursday, the NGS-SA said B.1.1.529 has rapidly increased in Gauteng province, which includes Johannesburg and Pretoria, and may already be present in most provinces. The NGS-SA has said the sustained increase in cases is possibly fuelled by cluster outbreaks.

What are the mutations that characterise this variant?

On the mutation profile of the new variant, the NGS-SA has said that B.1.1.529 has "very unusual constellations of mutations" — with 30 in the region that encodes the spike protein, which is responsible for the virus's entry in human cells.

It has said that some of the mutations are well characterised with a known phenotypic impact, affecting transmissibility and immune evasion. Some of these mutations have already been detected in the Alpha and Delta variants. But many other mutations, the NGS-SA said, have been "rarely observed until now and not well characterised". So, the full significance of these mutations remain uncertain at this point. "More investigations are underway to determine the possible impact of these mutations on the capacity of the virus to transmit more efficiently, to impact vaccine effectiveness and evade immune response, and/or to cause more severe or milder disease," the Africa Centers for Disease Control (CDC) has said.

Which of these mutations are of concern?

The NGS-SA has said that a cluster of mutations, known as H655Y + N679K + P681H, is associated with more efficient cell entry, indicating enhanced transmissibility.

There is also a deletion, nsp6, which is similar to a deletion in the Alpha, Beta, Gamma, and [Lambda](#) variants. The NGS-SA says this may be associated with evasion of innate immunity, and could enhance transmissibility.

Again, the new variant carries the mutations R203K+G204R — also seen in Alpha, Gamma and Lambda — and which are associated with increased infectivity.

What is the WHO's assessment?

The WHO said on Friday that its technical advisory group met to review the new variant and designated it as a variant of concern. This effectively means that Omicron has been demonstrated to be associated with one or more of the following changes: increase in transmissibility; and decrease in the effectiveness of diagnostics, vaccines, therapeutics.

Earlier in the day, Maria Van Kerkhove, [Covid-19](#) Technical Lead at WHO, had said in a statement: "This variant has been detected and reported to us by our colleagues in South Africa. There are fewer than 100 whole-genome sequences that are available. We do not know very much about this yet. What we do know is that his variant has a large number of mutations. And the concern is that when you have so many mutations, it can have an impact on how the virus behaves."

Are the symptoms any different?

The National Institute for Communicable Diseases (NICD) of South Africa has said that currently, "no unusual symptoms" have been reported following infection with the B.1.1.529 variant. It has highlighted the fact that, as with

other infectious variants such as Delta, some individuals are asymptomatic.

How will scientists determine vaccine effectiveness and disease severity?

Omicron's epidemiological and clinical correlation is not fully established. Without that, scientists cannot establish a direct linkage to any surge. South Africa has started to examine the immune escape potential of B.1.1.529 in a laboratory setting. This will also indicate the performance of current vaccines. It has also established a real-time system to monitor hospitalisation and the outcome associated with B.1.1.529. The data will reveal if the mutation is associated with disease severity, or if it may affect the performance of therapeutic medicines being administered in hospitals.

How easy or difficult is it to detect the new variant in RT-PCR tests?

The South African NICD has said B.1.1.529 has a deletion within the S gene that allows for rapid identification of this variant.

"However, most other targets (including the N and RdRp genes) remain unaffected from specimens tested in over 100 specimens from testing laboratories in Gauteng so it is unlikely that overall PCR test sensitivity is affected. These PCR tests typically detect at least two different SARS-CoV-2 targets, which serves as a backup in the case of a mutation arising in one," the NICD said.

What precautions should one take?

All the expert bodies have stressed that vaccination remains critical, especially to protect groups at high risk of hospitalisation and death. Real-time data have shown that high vaccination rates also significantly reduce the strain on health systems.

The emergence of the new variant shows once again that the pandemic is far from over — and Covid-appropriate behaviour is critical for breaking the chain of transmission: masking, [social distancing](#), good ventilation in all shared spaces, and washing or sanitising hands and surfaces regularly.



Omicron probably indicates Covid is now endemic: 3 things experts say on this new variant

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According to experts, the Omicron might be potent in spreading fast but will not result in severe disease

India on Monday confirmed there is no case of Omicron found in the country.

The entire picture of new Covid variant omicron is not yet clear as studying the cases will take some time, but from the information available so far, scientists and experts in India are gauging the possible extent of the impact of the variant. The variant has not been confirmed in India, though Karnataka has raised alarm on Monday over a Covid case reported in a 63-year-old South African person. Karnataka health minister said the variant pattern is not matching with Delta. Apart from Karnataka, some cases in Maharashtra are also being closely watched.

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