



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Monday

202101213

New Cases

India sees 7,350 new Covid cases, 202 more deaths; active cases decline to 91,456 (The Tribune: 202101213)

Tally reaches 3,46,97,860; death toll climbs to 4,75,636 with 202 new fatalities

<https://www.tribuneindia.com/news/nation/india-sees-7-350-new-covid-cases-202-more-deaths-active-cases-decline-to-91-456-349818>

India sees 7,350 new Covid cases, 202 more deaths; active cases decline to 91,456

The daily rise in new coronavirus infections has been recorded below 15,000 for the last 46 days now. PTI file

India's coronavirus tally rose to 3,46,97,860 with 7,350 people testing positive for the infection in a day, while the number of active cases declined to 91,456, the lowest in 561 days, the Union Health Ministry data showed on Monday.

The death toll from the pandemic has climbed to 4,75,636 with 202 new fatalities, according to the data updated at 8 am.

The daily rise in new coronavirus infections has been recorded below 15,000 for the last 46 days now.

The number of active cases has declined to 91,456, comprising 0.26 per cent of the total infections, the lowest since March 2020, while the national COVID-19 recovery rate was recorded at 98.37 per cent, the highest since March 2020, the Health Ministry said.

A decline of 825 cases has been recorded in the active COVID-19 case count in a span of 24 hours.

The daily positivity rate was recorded at 0.86 per cent. It has been less than 2 per cent for the last 70 days.

The weekly positivity rate was recorded at 0.69 per cent. It has been below 1 per cent for the last 29 days, according to the ministry.

The number of people who have recuperated from the disease surged to 3,41,30,768, while the case fatality rate was recorded at 1.37 per cent.

The cumulative doses administered in the country so far under the nationwide COVID-19 vaccination drive has exceeded 133.17 crore.

India's COVID-19 tally had crossed the 20-lakh mark on August 7, 2020; 30 lakh on August 23; 40 lakh on September 5 and 50 lakh on September 16. It went past 60 lakh on September 28; 70 lakh on October 11, crossed 80 lakh on October 29; 90 lakh on November 20 and surpassed the one-crore mark on December 19.

India crossed the grim milestone of two crore coronavirus cases on May 4 and three crore on June 23.

The 202 new fatalities include 143 from Kerala, and 16 from Maharashtra.

Of the 143 deaths, 34 were recorded over the last few days and 109 were designated as COVID-19 deaths after receiving appeals based on the new guidelines of the Centre and the directions of the Supreme Court, according to a released issued by the Kerala government on Sunday.

A total of 4,75,636 deaths have been reported so far in the country, including 1,41,259 from Maharashtra, 42,967 from Kerala, 38,261 from Karnataka, 36,612 from Tamil Nadu, 25,100 from Delhi, 22,914 from Uttar Pradesh and 19,600 from West Bengal.

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

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

Vaccination

77% of those tested Covid-19 +ve in Chandigarh in November were fully vaccinated (The Tribune: 202101213)

<https://www.tribuneindia.com/news/chandigarh/77-of-those-tested-ve-in-chandigarh-in-november-were-fully-vaccinated-349688>

90 per cent of those jabbed and found infected required no hospitalisation

77% of those tested Covid-19 +ve in Chandigarh in November were fully vaccinated

Photo for representation only.

About 77 per cent of the new cases of Covid reported from the city in November were fully vaccinated, as per the data shared by the UT health authorities. Only 10 per cent of those vaccinated and tested positive for the virus, including patients with co-morbidities, required hospitalisation.

However, the month also recorded zero fatalities due to Covid-19, which reiterated the fact that the vaccine reduced severity of the disease and hospitalisation of the patient.

Dr Suman Singh, Director, Health Services, said, "Vaccines do not stop transmission but reduces hospitalisation. We can deduce this from the fact that even as 77 per cent of the infected cases in November were fully vaccinated, there has been no death in the city due to Covid-19."

While Omicron continued to pose a greater risk to the community, vaccine protection was still considered a safer bet against the new variant, said experts.

"The person from Italy, who has been detected with Omicron variant, has been asymptomatic throughout his course of coronavirus disease as he was fully vaccinated with Pfizer. All those residents who have not yet taken their second dose of the vaccine should get it without any delay," added Dr Suman.

"Most patients who are fully vaccinated do not need hospitalisation. Those who are coming to our hospitals are those who have not taken any dose of the vaccine. Vaccines protect against severe disease," she said.

According to the Ministry of Health and Family Welfare, there is no evidence to suggest that existing vaccines do not work against Omicron. Some of the mutations reported on Spike gene may decrease the efficacy of the existing vaccines. However, vaccine protection is also by antibodies as well as by cellular immunity, which is expected to be relatively better preserved. Hence, vaccines are expected to still offer protection against severe disease and vaccination with the available vaccines is crucial.

Women candidates a force to reckon with this time

the Bahujan Samaj Party, the Samajwadi Party and Independents are also vying from unreserved seats.

BJP's sitting councillor Sunita Dhawan, who is contesting from ward number 18, reserved for women, said, "Women are coming forward in every field. Some women, who come from political families, should become self-dependent after they come to the MC; then only can they understand the problems of the ward better."

However, there is another side to the story. Many women candidates are disinterested in politics and are contesting only as their councillor husband's ward has been reserved for women.

80% of UT residents double vaccinated

As much as 80 per cent of the city population has been fully immunised with the Covid vaccine, while 113.14 per cent of the target population has taken the first dose of the vaccine. Around 4,300 people are administered the shot daily in Chandigarh now.

Vaccine Dose

86% eligible adults given 1st Covid vaccine dose (The Tribune: 202101213)

<https://www.tribuneindia.com/news/nation/86-eligible-adults-given-1st-vaccine-dose-348776>

Dispelling doubts on post-vaccination complexities in some people, Health Minister Mansukh Mandaviya today told the Lok Sabha that vaccine was given approval only after detailed studies and cautioned against possible vaccine hesitancy by claims of health complications after vaccination.

Vax effectiveness on omicron being studied

Studies (on Omicron) are currently on and only after their completion it will be known how effective the Covid vaccines are against the new variant. Mansukh Mandaviya, Health Minister

"I request that such claims are avoided because they lead to vaccine hesitancy. It is because of lot of efforts and awareness that the (Covid-19) vaccine programme is going on, we should all support it," the minister said.

He was replying to supplementaries by Anandpur Sahib MP Manish Tewari, who, referring to "post-vaccine complications" in a person known to him, wanted to know "if the Indian Council of Medical Research or any other medical body has conducted any kind of research, or is there any kind of empirical evidence which has been gathered, to determine that what really is the incidence of post-vaccine complications".

"Has the government really, institutionally taken a view as to how to deal with it and surmount it," Tewari asked.

Mandviya told the House that 86 per cent of India's eligible population had received the first dose of Covid vaccine and the government wishes that 100 per cent vaccination is achieved at the earliest.

As on December 6, "about 80.02 crore eligible beneficiaries (85.2 per cent) (i.e. persons aged 18 years & above) have received at least one dose of Covid-19 vaccine and 47.91 crore (51 per cent) have received both the doses of the vaccine," he said.

Sharing data about the Covid vaccination levels in other countries, including the US, Germany and France, the minister said, "India has been doing well on the vaccination front."

Covid-19 impact

Covid-19 impact: Schools' closure hit 320 million kids (The Tribune: 202101213)

<https://www.tribuneindia.com/news/nation/schools-closure-hit-320-million-kids-348777>

Govt: 27.85 lakh children not enrolled, 3-fold rise from previous year

Covid-19 impact: Schools' closure hit 320 million kids

In a worrying sign, enrolment ratio of girl students has come down from 101% in primary to 50% in higher secondary. - File photo

The closure of schools in India has affected 320 million children from pre-primary to tertiary levels, Ministry of Education has told the Parliamentary Committee on Women's Empowerment, in the first official admission of the effect of the pandemic.

In its statement to the Committee, which submitted its report on "Beti Bachao, Beti Padhao" to Parliament on Friday, the Ministry said out of 320 million children affected by the Covid-induced school closure, 158 million – 49.37 per cent – were girls.

Officials said there were growing concerns that the pandemic would disproportionately affect adolescent girls. "Post pandemic, this can lead to a higher risk of girls permanently dropping out of school and reversing the gains made over recent years. One cannot also ignore the fact that there is a gender dimension in digital access to learning. In families which possess a single smartphone, it is likely that sons will be given the preference to access online classes, followed by girls, if time permits," the ministry told the panel.

During oral evidence, the government officials acknowledged a nearly three-fold rise in the number of out-of-school children, over the pandemic year.

"We have seen during last year's Project Approval Board under Sarva Shiksha Abhiyan that there is an increase in the number of out-of-school children. In 2020 to 2021, we had only 10 lakh out-of-school children. But during the current year, the states have given a total figure of 27.85 lakh out-of-school children," the Ministry said, adding that such children were being tracked and a bridge course introduced to integrate them into the schools.

The Committee has recorded alarming reduction in Gross Enrolment Ratio (GER) (ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown) for girls – from 101.78 per cent at primary level to 88.55 per

cent at upper primary, 96.75 per cent elementary, 76.93 per cent at secondary to 50.84 per cent at the higher secondary level, with the Ministry admitting to GER decline in 18 of the 36 states.

The data show that if out of every 100 eligible girls, more than 100 (overage and underage also enrol) enter primary classes, only 50 reach higher secondary school.

WHO

No evidence yet that vaccines are ineffective against Omicron: WHO Africa (The Tribune: 202101213)

<https://www.tribuneindia.com/news/nation/no-evidence-yet-that-vaccines-are-ineffective-against-omicron-who-africa-348286>

Experts say emerging data from SA shows Omicron causing less severe disease, ICU occupancy only 6.3 pc, much less than the peak with Delta

Emerging evidence from South Africa has revealed that although Covid cases with Omicron are rising rapidly signaling its high transmissibility, the variant of concern is not causing severe disease or hospitalisations. There is also no current suggestion that vaccines are ineffective against Omicron, WHO Africa experts said.

In a briefing on Thursday, Coordinator for Immunisation and Vaccine Development, WHO Africa Region Richard Mihigo said, “Encouragingly, emerging data from South Africa suggests the Omicron variant may cause less severe disease. Data on hospitalisations across the country between November 14 and December 4 found ICU occupancy at only 6.3 pc, which is very low compared to the same period when South Africa was facing a peak with the Delta variant in July.”

Mihigo said this was the preliminary analysis.

He also said researchers were working around the clock to determine whether Omicron was more contagious, caused more severe illness or if it had any impact on vaccines and treatment.

“There is an assumption that the current vaccines may not protect people against Omicron but so far there is no conclusive evidence that vaccines are ineffective against this new variant. Vaccines have protected people from severe disease and hospitalization due to other VOCs so far and there has been no need for modifying these vaccines so far,” Mihigo assured.

The WHO expert said researchers will need two to three weeks to determine the full effects of Omicron.

“WHO is improving its genomic surveillance to detect other variants of concern,” he said as South Africa entered the second week since the reporting of Omicron.

As of Thursday, Omicron has spread to 60 countries worldwide. Ten of these are in Africa.

“Nearly 46 per cent of the 1,000 Omicron cases worldwide are in the African continent. Cumulative Covid 19 cases in the continent are 8.8 million. Over the past week, new cases have risen by 93 pc compared with the week before. Three sub regions of the continent have reported an increase in cases this week, two more than the previous week. Southern Africa has recorded the highest increase with a weekly case rise of 140 pc mainly due to upsurge in South Africa,” Mihigo said.

Omicron variant

Early indications suggest Omicron variant is less dangerous than Delta: Dr Fauci (The Tribune: 202101213)

<https://www.tribuneindia.com/news/world/early-indications-suggest-omicron-is-dangerous-than-delta-dr-omicron-346932>

Anthony Fauci says early reports encouraging about Omicron variant

Early indications suggest Omicron variant is less dangerous than Delta: Dr Fauci

Reports from South Africa, where it emerged? and is becoming the dominant strain, suggest that hospitalisation rates have not increased alarmingly. Reuters/File

United States health officials said that while the Omicron variant of the coronavirus is rapidly spreading throughout the country, early indications suggest it may be less dangerous than Delta, which continues to drive a surge of hospitalisations.

President Joe Biden's chief medial adviser, Dr Anthony Fauci, told CNN's “State of the Union” on Sunday that scientists need more information before drawing conclusion's about Omicron's severity.

Reports from South Africa, where it emerged and is becoming the dominant strain, suggest that hospitalisation rates have not increased alarmingly.

“Thus far, it does not look like there's a great degree of severity to it,” Fauci said. “But we have really got to be careful before we make any determinations that it is less severe or it really doesn't cause any severe illness, comparable to delta.”

Fauci said the Biden administration is considering lifting travel restrictions against non-citizens entering the United States from several African countries. They were imposed as the omicron variant exploded in the region, but UN Secretary-General Antonio Guterres has blasted such measures as “travel apartheid.”

“Hopefully we'll be able to lift that ban in a quite reasonable period of time,” Fauci said. “We all feel very badly about the hardship that has been put on not only on South Africa but the other African countries.”

Omicron had been detected in about a third of US states by Sunday, including in the Northeast, the South, the Great Plains and the West Coast. Wisconsin and Missouri were among the latest states to confirm cases.

But delta remains the dominant variant, making up more than 99 per cent of cases and driving a surge of hospitalisations in the north.

National Guard teams have been sent to help overwhelmed hospitals in western New York, and Massachusetts Governor Charlie Baker issued an emergency order requiring any hospitals facing limited patient capacity to reduce scheduled procedures that are not urgent.

US officials continued urging people to get vaccinated and to receive booster shots, as well as take precautions such as wearing masks when among strangers indoors, saying anything that helps protect against delta will also help protect against other variants.

Even if Omicron proves less dangerous than Delta, it remains problematic, World Health Organisation epidemiologist Dr Maria Van Kerkhove told CBS' “Face The Nation.”

“Even if we have a large number of cases that are mild, some of those individuals will need hospitalisations,” she said. “They will need to go into ICU and some people will die. ... We don't want to see that happen on top of an already difficult situation with Delta circulating globally.”

Covid-19 cases and deaths in the US have dropped by about half since the Delta peak in August and September, but at more than 86,000 new infections per day, the numbers are still high, especially heading into the holidays, when people travel and gather with family. AP

Omicron tally 38

1st cases in Kerala, C'garh, Andhra; Omicron tally 38 (Hindustan Times: 202101213)

<https://epaper.hindustantimes.com/Home/ArticleView>

A health care worker collects a swab sample of a passenger for a Covid-19 test at Bandra terminal in Mumbai on Sunday. VIJAY BATE/HT

A total of five new cases of the Omicron variant of Sars-Cov-2 were reported across India — one each in Andhra Pradesh, Chandigarh, Karnataka, Kerala and Maharashtra – on Sunday, taking the national tally of the heavily mutated variant to 38.

All the five people who tested positive on Sunday had arrived from abroad, according to state officials.

The new Omicron infections detected on Sunday in Andhra Pradesh, Chandigarh and Kerala were the first in the respective regions, while the tally in Karnataka and Maharashtra now stands at three and 18, respectively. Omicron infections have also been reported in three other regions – nine in Rajasthan, three in Gujarat, and two in Delhi.

Experts across the world have warned that there is a high possibility that the Omicron variant, which was first detected in South Africa in November-end, may lead to a new wave of infections wherever it gains a foothold. Whether the variant leads to milder disease is unclear, but early data appears to strongly suggest that this variant is a more resistant to vaccines, and evidence is now mounting that it could surpass the Delta variant's transmissibility.

In Kerala, state health minister Veena George said early on Sunday that the first Omicron case has been confirmed in the state. In a post on Facebook, she said the male patient, a native of the state, had recently returned from the United Kingdom, one of the countries seeing a high volume of Omicron infections. She added that the patient's condition was stable and that his wife and mother had also tested positive and that their samples have been sent for genome sequencing, results of which are expected in few days.

In Karnataka, officials confirmed the third positive case of Omicron in the state in a man who returned from South Africa. "Third case of #Omicron has been detected in Karnataka. A 34-year-old male returning from South Africa has tested positive. He is isolated and being treated in a govt hospital. Five primary and 15 secondary contacts have been traced and samples sent for testing," Dr K Sudhakar, Karnataka's minister for health, family welfare and medical education said.

In Maharashtra, the first such infection in Nagpur on Sunday took the state's tally to 18. Senior officials from the Nagpur Municipal Corporation said that the infected person, a 40-year-old who arrived in Nagpur on December 5 from Burkina Faso, had 30 close contacts, all of whom have tested negative for Covid-19.

A 20-year-old man, who landed in Chandigarh from Italy on November 22, tested positive for Omicron on Sunday. "His whole genomic sequencing report was received late night on December 11 and found positive for Omicron variant," senior officials told PTI. However, by Sunday evening, the man had already tested negative for Covid-19, as had his seven high-risk relatives, officials said.

The Omicron case in Andhra Pradesh was a 34-year-old who arrived in Mumbai from Ireland in November end. The man tested negative in an RT-PCR test in Mumbai and was subsequently allowed to travel to Visakhapatnam on November 27. "On conducting a re-test at Vizianagaram, the test was found positive... His sample was for genome sequencing and it was Omicron positive," informed Andhra Pradesh Health Department.

Omicron was first detected in India in Bengaluru with two people testing positive for it comprising a South African national of Indian origin and a doctor.

On Saturday, the Centre had asked states to maintain a strict watch on the situation, with district-level measures for containment of clusters of new cases in light of the new variant.

India's daily new Covid-19 cases have hovered under 10,000 for the past few weeks, the lowest since the pandemic took grip of the country in mid-2020. A total of nearly 34.7 million people have been so far been infected with the disease in the country, more than 474,000 of whom have died. Till Sunday, more than 1.32 billion doses of the Covid-19 vaccine have been administered across India to 814.5 million people (299.6 million partially vaccinated and 514.9 million having received both shots of the vaccine). Around 31.9% of the country's adults are now partially vaccinated while another 54.8% are fully vaccinated, data shows.

With inputs from Mumbai, Chandigarh, Bengaluru and Thiruvananthapuram

Women's Role

Explaining the decline in women's role in (Hindustan Times: 202101213)

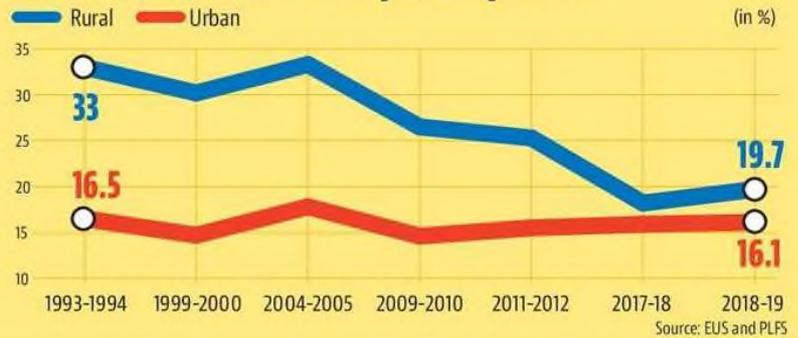
<https://epaper.hindustantimes.com/Home/ArticleView>

Women's participation in India's labour force is low and has been declining this century, official employment surveys have shown. However, these surveys – the Employment and Unemployment Survey (EUS), and the Periodic Labour Force Survey (PLFS) – do not sufficiently explain the reasons for this trend or offer clues on how this trend can be changed. A survey conducted by the Center for the Advanced Study of India (CASI) at the University of Pennsylvania has tried to solve this problem. The survey was conducted in January-August 2019 in around 15,000 households in four cities: Dhanbad in Jharkhand, Indore in Madhya Pradesh, Patna in Bihar, and Varanasi in Uttar Pradesh. The survey was done in the core city, and their peripheral rural and urban areas. While its results may not apply uniformly across the country, they offer important pointers to understand India's falling female labour force participation. Here are four charts that explain this.

1 Women's LFPR is declining, especially because of rural women

Labour force participation is captured in a number called the Labour Force Participation Rate (LFPR, or the share of people either working or looking for a job). Women's LFPR in the latest PLFS before the pandemic (2018-19) was just 18.6% compared to 55.6% for men. PLFS and its earlier version – the EUS – show that women's LFPR was not always this low. It has fallen over time, especially because of a decline in the LFPR of rural women. However, rural women's LFPR continues to be higher than urban women's.

Womens' labour force participation



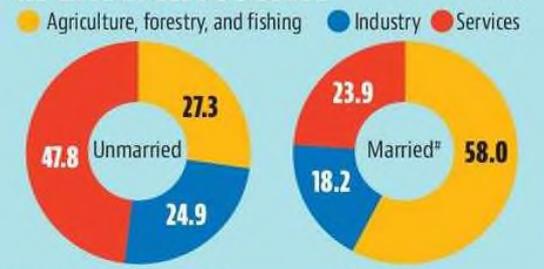
2 Official surveys offer some clues, but not a definitive answer

The PLFS does offer some clues for these trends. Marriage, for example, significantly reduces women's LFPR. In the 21-25 years and 26-30 years cohorts, unmarried women are twice as much likely to participate in the labour force as married women. This suggests that the expectation of household work after marriage negatively impacts women's participation in the labour force.

Women's LFPR in India by marital status



Distribution of women workers in different sectors



However, the PLFS does not ask reasons for not working or not looking for work. It is possible that women are willing to work, but the available jobs are not suited to their requirements. Moreover, a working paper based on the PLFS published in October by Jyotirmoy Bhattacharya, who teaches economics at Ambedkar University, suggested that people could be misreporting their employment status (reported by HT on Nov 1). Unemployed people – those looking for work but not finding one – possibly report that

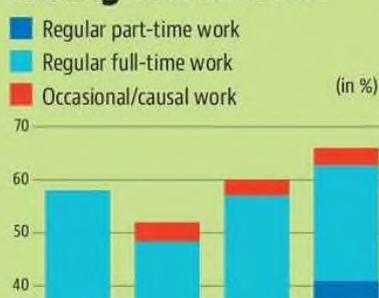
they are simply not looking for work, and end up being misclassified as out of labour force. LFPR may not represent the true size of the labour force in that case.

Similarly, the PLFS also shows that for married women, agriculture is the most preferred sector for work. This explains why rural women's LFPR is higher than urban women's. Still, we can only hazard guesses on why agriculture is the preferred sector for married women.

3 Flexibility and proximity is important for women's willingness to work

By asking a different set of questions, the CASI survey has been able to give us clues that India's official surveys don't. It surveyed 9,777 non-working women in four cities, with over 2,000 such women surveyed in each. Its questions reveal three important characteristics of this group. One, more than half of such women were willing to work. Of such willing women, however, more than half wanted only part-time work. Secondly, reasons related to the distance to work and household constraints trumped those related to financial need or individual preferences when respondents were asked why they wanted a particular kind of work. Additionally, in a question asking them to consider hypotheticals, a longer than one kilometre distance to work created a 12 to 23 percentage point drop in willingness to work. The primary male wage earner losing or leaving work or help available for household work did little to change willingness to work.

Share of non-working women who expressed willingness to work



Reason for preference of type of job



Vaccines

‘India must boost vulnerable people with available vaccines as a stopgap’ (Hindustan Times: 202101213)

<https://epaper.hindustantimes.com/Home/ArticleView>

Expert groups – the National Technical Advisory Group on Immunisation (NTAGI) and the National Expert Group on Vaccine Administration for Covid-19 (NEGVAC) – are studying scientific evidence and deliberating on the need for booster vaccine shots against Covid-19 in the country. The Christian Medical College (CMC), Vellore is conducting a study to look at which of the two main vaccines available in India – Covishield and Covaxin – can be a better booster shot. The study could not find an adequate number of trial participants who have taken Covaxin, prompting Dr Gagandeep Kang, a leading researcher and microbiologist from CMC, to put out an appeal on social media. “Folks in Vellore, Chennai, Bangalore or Delhi willing to consider participating please email mnm.cmcvellore@gmail.com,” she said. On Sunday, **Jyoti Shelar** spoke to Dr Kang about the ongoing study and the available evidence on boosters. Excerpts:

What is the status of CMC Vellore’s study on boosters?

We started recruitment for the trial in September. We are taking people who have received two doses of either Covishield or Covaxin and then randomly assigning them to receive a booster dose, more than three months later. The idea is to prepare for a programme for India on boosting. We want to make sure that mixing and matching is okay and have some idea of what the performance is like.

We had no problem in getting people who have got Covishield, but we had a problem finding enough people who have received two doses of Covaxin and willing to be in the trial. The study was getting delayed since we are having trouble finding people in Vellore, so we are now looking at recruiting people outside Vellore, who we can run the study on and follow up on the phone.

If we finish recruitment fast, we get the results fast. While it was okay to keep doing things at the pace we were doing them earlier, now with Omicron coming, I really think we can shorten the time to results. It’s an advantage for all of us. The Covishield results are ready, but because it’s a trial of both vaccines, we can’t unblind it until we finish the Covaxin arm.

Going by data emerging from different parts of the world, which vaccines are most suited for boosters?

Right now, all we are measuring is antibody responses. And if we look at antibody response measurement, the Messenger RNA (mRNA) vaccines give the highest level of antibodies either as primary series or as boosters. So, you have to have the mRNA vaccines somewhere in the mix. For instance, if you boost with AstraZeneca on an mRNA-base vaccine, that also gives a high value. Having an mRNA vaccine in the mix of either primary or booster series seems to be showing up as important. But remember that this is only antibody response and we not talking about the T cell response here. Then there are protein vaccines, but we don’t know what the antibody levels will be like with the Indian protein vaccines. But hopefully, we will have

that data soon. And then there are vectored vaccines and inactivated virus vaccines. Covaxin in the clinical trial seems to have higher antibodies than the Chinese inactivated vaccine.

With the emergence of the Omicron variant, can we afford to wait for Indian data to roll out a booster policy?

For the immunocompromised, we should have rolled out a third shot dose or the booster, months ago. I have been saying this for a while now. The immunocompromised need better vaccination strategies, they need more doses. You can't use a one-size-fits-all strategy, when you know that certain groups have extra vulnerability. We don't have the mRNA vaccines in India. But we can think about the priority population first by giving them what is available. By then we will have data from our study being conducted at CMC Vellore, among healthy people, and it will tell us which is a better vaccine to boost with.

So, if India does allow boosters, Covishield or Covaxin can be used for third doses?

Every vaccine will boost, it's a question of which vaccine is the best. If you have vaccines that give a high and long-lasting response, then you will need to boost less often. So that's what we should aim for. But in the absence of data, in the absence of knowledge about what might be best for our population given our prior exposure, it's difficult to make a final policy now. As a stopgap, we should give the vaccines that are available to the vulnerable groups and then think about policies for the rest of the population as we gather data.

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Ayurvedic remedies

This winter, manage your skin woes with these Ayurvedic remedies (The Indian Express: 202101213)

<https://indianexpress.com/article/lifestyle/life-style/winter-season-skincare-ayurvedic-remedies-7667775/>

"As per Ayurveda, winter is the time when the earth is in dakshinayana phase, which is a feminine phase of the universe and thus, the season of regeneration," Dr Nitika Kohli said

skincareFollow these tips to get healthy and glowing skin. (Source: Getty Images/Thinkstock)

Winters are here and so are our skin woes. From dry skin and scalp to chapped lips — this season rips the skin off its moisture, leaving it rough and flaky. Therefore, this season calls for some extra pampering of your skin and hair.

But, instead of reaching out for chemical-based products, resort to natural Ayurvedic remedies to take care of your skin this winter.

“As per Ayurveda, winter is the time when the earth is in dakshinayana phase, which is a feminine phase of the universe and thus, the season of regeneration,” Ayurvedic expert Dr Nitika Kohli said.

“By following Ayurvedic tips for glowing skin, wherein the formulations comprise of herbs, plants and natural essences, you can reap the advantage of the amazing benefits these ingredients have to offer time and again,” the expert explained, as she shared Ayurvedic skincare routine for the winter season.

Take a look.

Follow these Ayurvedic remedies, as shared by the expert.

*Soak 1 tbsp of sesame seeds for 2 hours. Grind finely, add milk and a pinch of turmeric. Make a paste. “This scrub cleanses and moisturises the skin,” she said.

*Bath with warm water. Avoid very hot water as it increases dryness.

*Take a spoon of sesame oil, add a teaspoon of coarse gram flour and apply. This scrub exfoliates skin effectively in winters without making it dry.

*An oil massage (abhyanga) before bath keeps skin healthy and smooth.

*Avoid harsh, chemical soaps.

*Herbs like shatavari, yashimadhu, anantamool, nagarmotha, amla, aloe vera can be mixed with milk to make a face pack. Apply once a week to keep the skin soft.

*Start your day with a simple yoga practice and meditation. “Winter is no excuse to be lazy or sedentary,” she said.

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Cancerous tissue in tumours

AI tool to simplify identification of cancerous tissue in tumours (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/science/ai-tool-to-simplify-identification-of-cancerous-tissue-in-tumours/article37933916.ece>

IIT Madras researchers developed this tool using deep learning and traditional machine learning

Indian Institute of Technology Madras researchers use a combination of deep learning techniques and traditional machine learning to develop a tool that can diagnose cancer by looking at whole slide images of the tumour. The tool has been tested on datasets of breast, liver and colon cancer tissue images. It is economical in terms of the time required to process the images and analyse them.

Vaccine

How the idea of vaccine protection changed in one year (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/science/how-the-idea-of-vaccine-protection-changed-in-one-year/article37933854.ece>

From being centred around the idea of 'herd immunity', over a period of a year, the narrative has now shifted to that of booster doses

On this day a year ago (December 11, 2020), Pfizer's vaccine for COVID-19 was granted an emergency use authorisation, and exactly a week later Moderna vaccine was granted an EUA. On December 30, 2020. AstraZeneca was given an EUA by the U.K. drug regulatory body. In India, the drug regulator granted a restricted use authorisation to both Covishield and Covaxin on January 3, this year.

The discussion for months before and after the vaccines got an EUA was centred around achieving herd immunity — where a large percentage of the population is infected or vaccinated so that virus spread in the population is significantly slowed or stopped. Achieving herd immunity was seen as an end goal of the pandemic.

Omicron

Was Omicron designated a variant of concern in haste? (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/science/was-omicron-designated-a-variant-of-concern-in-haste/article37842075.ece>

It was termed a VOC three days after genome sequence data was posted

On November 26, the World Health Organization designated the newly identified SARS-CoV-2 lineage B.1.1.529 with a whopping 32 mutations in the spike protein alone a variant of concern and named it 'Omicron', making it the 13th lineage to receive a Greek letter under its nomenclature system.

The Greek letter nomenclature of variants was introduced by the WHO in 2021 as a uniform system of naming variants of interest and concern. This nomenclature system unifies the different systems of nomenclature that have existed since the beginning of the COVID-19 pandemic. These largely include the scientific names assigned by GISAID, the largest open-access global database of genome sequences and related data of SARS-CoV-2, Nextstrain, which provides a phylogenetic context of the genome sequences available in the public domain, and Pango, a network of researchers for dynamically identifying and naming lineages of SARS-CoV-2.

Oxford vaccine

Study finds mechanism of blood clots after giving Oxford vaccine (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/science/study-finds-mechanism-of-blood-clots-after-giving-oxford-vaccine/article37842168.ece>

The rare adverse effect can follow vaccination using chimpanzee adenovirus Y25, human adenovirus type 26, and human adenovirus type 5

A multi-institutional study published on December 1 in the journal Science Advances has revealed for the first time the mechanism responsible for blood clots arising from thrombosis with thrombocytopenia syndrome (TTS) following vaccination with AstraZeneca vaccine. Thrombocytopenia syndrome causes low platelet count. A low number of platelets – blood cells that help prevent blood loss when vessels are damaged – can result in no symptoms or can lead to an increased risk of bleeding or, in some cases, clotting.

Omicron blunts immune response

Omicron blunts immune response more, say reports (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/health/studies-show-omicron-blunts-immune-response-more-than-other-variants-of-concern/article37904566.ece>

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Three studies were based on Pfizer's mRNA vaccine

A slew of laboratory studies suggest that Omicron dramatically blunts the immune system's response to the coronavirus in those inoculated with the Pfizer vaccine, more than any other variant so far. Though the studies don't dent existing vaccines' claims at protecting against severe COVID-19 and death, they suggest that booster shots may be required to protect to keep antibody levels up, or vaccines may have to be updated to account for newer variants.

The three studies are out of South Africa, Germany and Sweden and they all independently tested how antibody numbers in those vaccinated with the Pfizer mRNA vaccine were influenced when exposed to the Omicron variant of the coronavirus. These are laboratory studies and are done by extracting plasma from the blood of vaccinated people and tested in petri dishes. Some of them had previously been infected with the coronavirus. The researchers also studied if the antibody levels in those previously infected and vaccinated differed from those who had antibodies solely as a result of vaccination.

The first study out of Durban showed a nearly 40-fold decline in neutralising antibodies when blood plasma of those vaccinated and with a previous infection (with the original Wuhan strain) were tested against the Omicron variant. Another study out of Germany's Institute of Virology found a 37-fold decrease in neutralising antibodies. This time, the comparison was in those previously infected with the Delta variant and vaccinated and when compared to the Omicron variant. The final study out of the Karolinska Institute in Sweden showed the reduction in neutralisation with Omicron was seven-fold, which is significantly lower than observed in previous studies.

A key difference in the Swedish study was that they used a pseudo virus for their analysis, as opposed to the other two studies that employed a live virus and therefore a more realistic picture of how the virus might behave in the body.

By comparison, earlier studies on the neutralisation reduction by the Beta and Delta variant have shown they reduced antibodies no more than three-fold and this therefore puts Omicron in an entirely different league. Alex Sigal, Faculty at the African Health Research Institute, who led the study, tweeted that despite the fall in neutralisation, the results were "better than expected". This was because the results suggested that those previously exposed to the virus and double vaccinated "retained a considerable level of immunity", and that it showed Omicron continued to rely on well understood tactics to infiltrate the body's defence.

Ben Murell, who was involved with the study at the Karolinska Institute, tweeted that while the magnitude in his lab's results and that from South Africa differed "...what is common is that neutralisation is not completely lost for all samples, which is a positive".

An independent expert told The Hindu that while the fall in antibodies represented by Omicron was significant, it wasn't necessarily an indicator of a vaccine's declining effectiveness. mRNA vaccines — the Pfizer and Moderna vaccines used this technology — were known to spike the neutralising antibody response much more than ChAdOx1 (or Covishield) and more than

what's required for protection, said Ram Thiruvengadam, a physician-scientist who researches the potency of vaccines. The fall in antibodies was also much steeper in mRNA vaccines and so, it's important to conduct such studies in India, where a high fraction of people have already been exposed to the virus and were primarily inoculated with Covishield.

“The question here is, after the fall, are they at levels sufficient enough to confer protection? That answer isn't here in these studies,” Dr. Thiruvengadam said.

Some studies showed that if the antibody levels in those vaccinated were at least 20% as much as in the levels in those infected by the virus, or those who were convalescent, that would indicate a sufficient protective effect. “Ideally, these [three] studies should have compared the antibody levels to those in the convalescent,” he added.

The studies also did not evaluate the T-cell response or the second, more critical line of defence employed by the body when it generates relevant antibodies when exposed to a live virus. The T-cell response can only kick in the following vaccination or a previous exposure to the vaccine.

Anurag Agrawal, Director, Council of Scientific and Industrial Research-Institute of Genomics and Integrative Biology (CSIR-IGIB) tweeted: “As expected, infection + vaccination neutralised Omicron. Such hybrid immunity also blocked super-mutated artificial spike protein earlier. We need such data for our population too to be sure this isn't limited to mRNA vaccines.”

WHO emergencies

‘Highly unlikely’ existing vaccines will fail against Omicron: WHO (The Hindu: 202101212)

<https://www.thehindu.com/sci-tech/health/highly-unlikely-existing-vaccines-will-fail-against-omicron-who/article37892111.ece>

There are indications that Omicron is better at infecting people who have been vaccinated or already had COVID-19. | File

In the fight against all COVID-19 variants, WHO emergencies director Michael Ryan said, “the best weapon we have right now is to get vaccinated.”

Omicron does not appear to cause more severe disease than previous COVID-19 variants, and is “highly unlikely” to fully dodge vaccine protections, a top WHO official said.

The World Health Organization's second-in-command, said that while a lot remained to be learned about the new, heavily mutated variant of COVID-19, preliminary data indicated it did not make people sicker than Delta and other strains.

“The preliminary data doesn’t indicate that this is more severe. In fact, if anything, the direction is towards less severity,” WHO emergencies director Michael Ryan said in an interview, insisting though that more research was needed.

Watch | All about the new Omicron coronavirus variant

“It’s very early days, we have to be very careful how we interpret that signal,” he said.

At the same time, he said there was no sign that Omicron could fully sidestep protections provided by existing COVID-19 vaccines.

“We have highly effective vaccines that have proved effective against all the variants so far, in terms of severe disease and hospitalisation,” the 56-year-old epidemiologist and former trauma surgeon said.

“There’s no reason to expect that it wouldn’t be so” for Omicron, he said, pointing to early data from South Africa where the variant was first detected that “suggest the vaccine at least is holding up in protection terms”.

The new variant of COVID-19 should be fought with the same measures, including vaccines, masks and physical distancing. | File

The new variant of COVID-19 should be fought with the same measures, including vaccines, masks and physical distancing. | File

Vaccination is the best weapon

Mr. Ryan acknowledged it was possible that the existing vaccines might prove less effective against Omicron, which counts more than 30 mutations on the spike protein that dots the surface of the coronavirus and allows it to invade cells.

But he said it was “highly unlikely” it would be able to evade vaccine protections altogether.

“We have to confirm if there's any lapse in that protection, but I would expect to see some protection there,” he said.

“The preliminary data from South Africa wouldn't indicate that we will have a catastrophic loss of efficacy. In fact, the opposite at the moment,” Mr. Ryan said.

Also read: With Omicron, third wave projected to hit India by Feb, says IIT scientist

In the fight against all COVID-19 variants, he said, “the best weapon we have right now is to get vaccinated.”

Two weeks after first being identified, Omicron has been found in dozens of countries around the world.

Early data from South Africa indicates that the new variant is likely more transmissible than previous variants, Mr. Ryan said, adding that this was not a surprise.

“When any new variant emerges, it will tend to be more transmissible, because it’s got to compete with previous variants,” he said.

Same rules for new variant

Mr. Ryan said one could expect Omicron to gradually replace Delta as the dominant strain.

But he pointed out that Omicron had so far been seen spreading especially quickly in South Africa, where Delta had waned, and may just be “exploiting a gap in the transmission of Delta”.

There are also indications that Omicron is better at infecting people who have been vaccinated or already had COVID-19.

“There is some evidence to suggest that reinfection with Omicron is more common than it was with previous waves or previous variants,” Mr. Ryan said.

But, “we’re particularly interested in seeing not whether you can be reinfected with Omicron, but whether any new infection is more or less severe,” he said.

Also read: The Omicron response is not making sense

He said that, as the current COVID-19 vaccines aim to prevent severe disease but do not necessarily protect against simply contracting the virus, reinfections with mild or no symptoms were of lesser concern.

In any case, Mr. Ryan said, despite its mutations, the new variant was still COVID-19, and should be fought with the same measures, including vaccines, masks and physical distancing.

“The virus hasn’t changed its nature. It may have changed in terms of its efficiency, but it hasn’t changed the game entirely,” he said.

“The rules of the game are still the same.”

Health Ministry

Omicron patients to be treated in designated area: Health Ministry(The Hindu: 202101212)

<https://www.thehindu.com/news/national/omicron-patients-to-be-treated-in-designated-area-health-ministry/article37901461.ece>

Photo used for representation purpose only.

States directed to enhance testing and tracking

The Health Ministry on Wednesday directed States to ensure that all cases that have tested positive for Omicron should be treated at designated COVID-19 facilities with a separate isolation area marked only for patients with the new variant.

Directing State Health Departments to ensure that no cross infection takes place, the Ministry said in its letter signed by Health Secretary Rajesh Bhushan that adequate precautions have to be taken by healthcare workers to prevent transmission between them and other patients.

States have also been told to quickly track the primary and secondary contacts of positive cases on “mission mode”, and test them. “It is critical to track all contacts of such cases, quarantine them without delay, and test them as per the guidelines,” Rajesh Bhushan, Health Secretary, said in a letter.

He has also suggested that States can utilise the e-Sanjeevani telemedicine platform, call centres, and plan home visits by special teams to the contacts under home isolation and quarantine.

Omicron-positive patients have been reported in Maharashtra, Delhi, Karnataka and Rajasthan.

The Government has asked States to keep a close watch on new clusters of COVID-19 positive cases, vaccination breakthrough cases, and reinfection cases, and ensure prompt investigation of such events by their rapid response teams. “They should send all positive samples from these events to designated genome sequencing labs of INSACOG,” Mr. Bhushan added.

The Health Ministry has also said that it would be difficult to determine the true level of infection spread in the absence of sufficient testing. States have to be on guard due to the onset of winter, increased pollution in some parts of the country, and the prevalence of influenza and severe and acute respiratory illnesses.