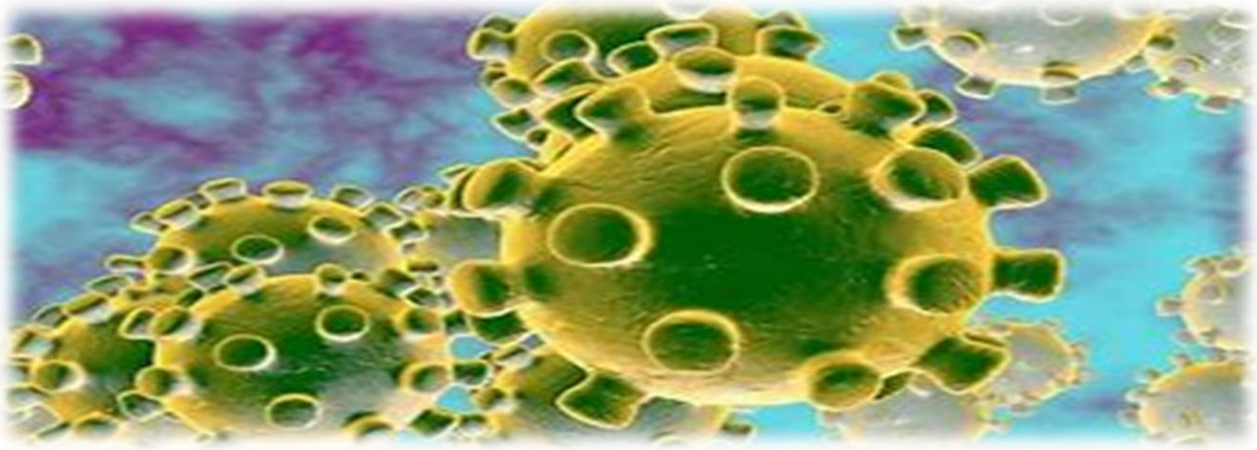
CORONAVIRUS NEWS BRIEF



Compiled Periodically from various sources By:

Kaushik Amin, USA.

201-936-4927 * kaushikamin@hotmail.com

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Given the shortage of supplemental oxygen, India's Union health ministry has advised that people facing respiratory distress due to Covid-19 should be made to lie face down to ease their breathing trouble.(Details next page:)

Why lying on your tummy can make you breathe easier

Given the shortage of supplemental oxygen, India's Union health ministry has advised that people facing respiratory distress due to Covid-19 should be made to lie face down to ease their breathing trouble. Known as proning, the procedure simply involves turning over a patient on his/her belly, if their oxygen level drops below 94 as it helps keep the alveolar units open.
The health ministry guidelines advise placing four to five pillows — one under the neck, one or two below the chest down through to the upper thighs and two under the shin.
The concept of proning is not a new one, in 2013, a study conducted by French doctors and published in **the New England Journal of Medicine** found that the mortality rate for patients with acute respiratory distress syndrome (ARDS) who lay in prone position was less than half of those patients with ARDS who were lying in supine (lying on back) position.

In fact last year, during the first wave of Covid-19 in the US, doctors across the country recommended proning to ease ARDS as it was facing a huge shortage of ventilators. According to critical care specialists, proning allows more oxygen to be absorbed in the lungs as it opens up sections of the lungs that are constricted when in supine position due to the weight of the body.
According to the health ministry, the patient's position needs to be changed every 30 minutes, from lying on the stomach to lying on each side followed by sitting up and then going back to the proning position.
It can be done for a maximum of 16 hours a day in multiple cycles.
The guidelines advise against proning for pregnant women as also for an hour after meals. It is also not advisable for those suffering from cardiac trouble, deep vein thrombosis, weak spine and femur bone or pelvic fracture.

USA's CDC Chief Warns of This "Unsettling" COVID Trend

As national immunity against COVID-19 continues to build with millions of Americans lining up for vaccination daily, there is one trend that is "unsettling" for Dr. Rochelle Walensky, director of the Centers for Disease Control and Prevention (CDC). During the White House COVID-19 Response Team Briefing on Friday, she revealed that certain parts of the country are in danger of an upcoming COVID surge because of one, avoidable reason.

MIT researchers say you're no safer from Covid indoors at 6 feet or 60 feet in new study challenging social distancing policies

-Rich Mendez

* An MIT study showed that people who maintain six feet of distance from others indoors are no more protected than if they socially distanced by 60 feet.
*According to the researchers, other calculations of the risk of indoor transmission have omitted too many factors to accurately quantify that risk.
*"We need scientific information conveyed to the public in a way that is not just fear mongering but is actually based in analysis," the author of the study said.

The risk of being exposed to Covid-19 indoors is as great at 60 feet as it is at 6 feet — even when wearing a mask, according to a new study by Massachusetts Institute of Technology researchers who challenge social distancing guidelines adopted across the world.

MIT professors Martin Bazant, who teaches chemical engineering and applied mathematics, and John Bush, who teaches applied mathematics, developed a method of calculating exposure risk to Covid-19 in an indoor setting that factors in a variety of issues that could affect transmission, including the amount of time spent inside, air filtration and circulation, immunization, variant strains, mask use and even respiratory activity such as breathing, eating, speaking or singing.

Bazant and Bush question long-held Covid-19 guidelines from the Centers for Disease Control and Prevention and World Health Organization in a peer-reviewed study published earlier this week in Proceedings of the National Academy of Science of the United States of America.

"We argue there really isn't much of a benefit to the six-foot rule, especially when people are wearing masks," Bazant said. "It really has no physical basis because the air a person is breathing while wearing a mask tends to rise and comes down elsewhere in the room so you're more exposed to the average background than you are to a person at a distance."

The important variable the CDC and WHO have overlooked is the amount of time spent indoors, Bazant said. The longer someone is inside with an infected person, the greater the chance of transmission, he said.

Opening windows or installing new fans to keep the air moving could also be just as effective or more effective than spending large amounts of money on a new filtration system, he said.

Bazant also says that guidelines enforcing indoor occupancy caps are flawed. He said 20 people gathered inside for 1 minute is probably fine, but not over the course of several hours, he said.

"What our analysis continues to show is that many spaces that have been shut down in fact don't need to be. Often times the space is large enough, the ventilation is good enough, the amount of time people spend together is such that those spaces can be safely operated even at full capacity and the scientific support for reduced capacity in those spaces is really not very good," Bazant explained. "I think if you run the numbers, even right now for many types of spaces you'd find that there is not a need for occupancy restrictions."

Six-feet social distancing rules that inadvertently result in closed businesses and schools are "just not reasonable," according to Bazant.

"This emphasis on distancing has been really misplaced from the very beginning. The CDC or WHO have never really provided justification for it, they've just said this is what you must do and the only justification I'm aware of, is based on studies of coughs and sneezes, where they look at the largest particles that might sediment onto the floor and even then it's very approximate, you can certainly have longer or shorter range, large droplets," Bazant said. "The distancing isn't helping you that much and it's also giving you a false sense of security because you're as safe at six feet as you are at 60 feet if you're indoors. Everyone in that space is at roughly the same risk, actually," he noted.

Pathogen-laced droplets travel through the air indoors when people talk, breathe or eat. It is now known that airborne transmission plays a huge role in the spread of Covid-19, compared to the earlier months of the pandemic where hand washing was considered the leading recommendation to avoid transmission.

Those droplets from one's warm exhalation mix with body heat and air currents in the area to rise and travel throughout the entire room, no matter how socially distanced a person is. People seem to be more exposed to that "background" air than they are by droplets from a distance, according to the study.

For example, if someone infected with Covid-19 is wearing a mask and singing loudly in an enclosed room, a person who is sitting at the other side of the

room is not more protected than someone who is sitting just six feet away from the infected person, he said. This is why time spent in the enclosed area is more important than how far you are from the infected person.

Masks work in general to prevent transmission by blocking larger droplets, therefore larger droplets aren't making up the majority of Covid infections because most people are wearing masks. The majority of people who are transmitting Covid aren't coughing and sneezing, they're asymptomatic.

Masks also work to prevent indoor transmission by blocking direct plumes of air, best visualized by imagining someone exhaling smoke. Constant exposure to direct plumes of infectious air would result in a higher risk of transmission, though exposure to direct plumes of exhaled air doesn't usually last long.

Even with masks on, as with smoking, those who are in the vicinity are heavily affected by the secondhand smoke that makes its way around the enclosed area and lingers. The same logic applies to infectious airborne droplets, according to the study. When indoors and masked, factors besides distance can be more important to consider to avoid transmission.

As for social distancing outdoors, Bazant says it makes almost no sense and that social distancing outdoors with masks on is "kind of crazy."

"If you look at the air flow outside, the infected air would be swept away and very unlikely to cause transmission. There are very few recorded instances of outdoor transmission." he said. "Crowded spaces outdoor could be an issue, but if people are keeping a reasonable distance of like three feet outside, I feel pretty comfortable with that even without masks frankly."

Bazant says this could possibly explain why there haven't been spikes in transmission in states like Texas or Florida that have reopened businesses without capacity limits.

As for variant strains that are 60% more transmissible, increasing ventilation by 60%, reducing the amount of time spent inside or reducing the amount of people indoors could offset that risk.

Bazant also said that a big question that is coming will be when masks can be removed, and that the study's guidelines can help quantify the risks involved. He also noted that measuring carbon dioxide in a room can also help quantify how much infected air is present and hence risk of transmission.

"We need scientific information conveyed to the public in a way that is not just fear mongering but is actually based in analysis," Bazant said. After three rounds of heavy peer review, Bazant says it's the most review he's ever been through, and that now that it's published he hopes that it will influence policy.

India Covid-19: Leaders face public anger over second wave and oxygen shortages

By Jessie Yeung, Manveena Suri and Swati Gupta, CNN

Just six weeks ago, India's Health Minister declared that the country was "in the endgame" of the Covid-19 pandemic. On Friday, India reported the world's highest single-day number of new cases since the pandemic began, for the second day in a row.

India's second wave, which began in mid-March, has devastated communities and hospitals across the country. Everything is in short supply -- intensive care unit beds, medicine, oxygen and ventilators. Bodies are piling up in morgues and crematoriums.

India reported 332,730 new cases on Friday, marking the highest daily case count globally. The United States is second, having recorded a high of 300,310 cases on January 2.

India's population is roughly four times that of the US, and its daily cases still fall behind the US when adjusted for population size (in cases per million people).

But the fact remains, India's total now stands at more than 16 million confirmed cases and nearly 187,000 related deaths, according to data from Johns Hopkins University.

"We're going through pretty much the worst possible phase of the pandemic here," said Chandrika Bahadur, chair of the Lancet Commission on Covid-19 India Taskforce, on Wednesday. "It has been bad for a couple of weeks, but now it's reached a peak."

And that peak shows no sign of falling off anytime soon. As India tumbles deeper into crisis, many are wondering: where are the country's leaders?

State ministers and local authorities, including those in hard-hit Maharashtra, have been warning about the second wave and preparing action since February. In jarring contrast, there appears to have been a vacuum of leadership within the central government, with Prime Minister Narendra Modi staying largely silent on the situation until recent weeks.

In intermittent statements throughout April, Modi discussed the national vaccination effort and acknowledged the "alarming" rise in cases, but was slow to take containment measures besides ordering states to increase testing and tracking, and asking the public to stay vigilant. And he continued to praise the country's success, even as states imposed new restrictions and hospitals began running out of space.

"Despite the challenges, we have better experience, resources and, also the vaccine," his

A mass cremation of victims who died due to Covid-19 is seen at a crematorium ground in New Delhi, India, on April 22.

office said in a press release on April 8. Two days later, he celebrated 100 million doses of vaccine
administered nationwide, tweeting that they were "strengthening the efforts to ensure a healthy and Covid-19 free India."

It wasn't until Tuesday that Modi finally emphasized the urgency of the situation and laid out new measures in a late night address to the nation. "The country is again fighting a very big battle against Covid-19," he said. "A few weeks ago, the conditions had stabilized -- and then came the second wave."

But by then, India's outbreak was already the world's biggest in terms of absolute daily numbers. Nearly 28% of all new cases worldwide in the past week have come from India, according to the World Health Organization.

The descent into crisis, and the administration's scramble to respond, has shown "a complete arrogance, hubris of a kind, in terms of decision making," said Harsh Mander, writer and human rights activist, on Thursday. "The government has completely and manifestly shown (a lack of) both competence and compassion."

Building anger

Supporters of Bharatiya Janata Party (BJP) wave at a helicopter carrying Indian Prime Minister Narendra Modi upon his arrival at a rally in Kawakhali, West Bengal, on April 10.

Modi, who won a landslide re-election with his Hindu nationalist Bharatiya Janata Party in 2019, enjoys immense popularity in India. Even last year, when India's economy was battered by a stringent lockdown that brought the entire country to a halt, Modi largely escaped the scathing headlines and crushing opinion polls that other world leaders have had to face.

But this wave is far bigger than the last one. People are exhausted and frayed after more than

Ambulance drivers and others wait to receive oxygen cylinders at a gas supplier facility in Bengaluru, India, on April 21.

a year of the pandemic. Patients and their loved ones, unable to get the necessary care, have resorted to pleading on social media for medicine and open hospital beds. And experts who cautioned for months about a potential second wave are frustrated that their warnings went unheeded.

These grievances spilled over on social media in the past week. Tens of thousands of people took to Twitter with trending hashtags like #ResignModi, #SuperSpreaderModi, and #WhoFailedIndia. Political figures, including state authorities and former officials, were among the voices calling for greater accountability and criticizing the government's handling of the crisis.

"Covid19 struggle in India is the reflection of (Modi's) govt," tweeted Siddaramaiah, the former chief minister of Karnataka state, on Monday. The government may have been caught off guard by the first wave, he added -- but "what is the status now? The preparedness is hopeless even now!"

Mamata Banerjee, West Bengal chief minister and member of the Trinamool Congress Party, called for Modi's resignation. "The prime minister is responsible," she said, adding that he "has not done anything to stop Covid nor let anyone else do anything to stop it."

Experts and health care workers say the public let its guard down with a false sense of security after the first wave subsided, which is why the second wave advanced so rapidly -- but this complacency was exacerbated by government officials like Modi and Health Minister Harsh Vardhan, who loudly celebrated the country's apparent recovery. Leaders did little to discourage public gatherings, allowing a massive weeks-long Hindu pilgrimage to proceed with millions of attendees traveling across numerous states.

The anger has also been heightened this time by Modi flying out to hold political rallies in between meetings with his ministers about the outbreak. Four states and one union territory are holding elections for their state legislature -- including West Bengal, a major battleground currently ruled by Banerjee's Trinamool Congress Party, and which has never had a BJP government.

It has become a key focus for the BJP, and Modi has held numerous rallies in the state with thousands in attendance between March and April.

But as cases skyrocketed, several of the competing parties stepped back from the campaign trail. The Indian National Congress, India's main opposition, announced on last Sunday it would suspend all public rallies in West Bengal. Banerjee said her party would also hold short meetings due to the pandemic.

The BJP announced it would also limit its rallies to "small public gatherings" -- with a cap of 500 people. Modi was set to travel to West Bengal on Friday for a campaign event -- but announced on Thursday that he was canceling the trip to instead attend high-level Covid meetings.

But Modi and the BJP's rallies throughout March and April, and their late action, undermine his message to the public for greater vigilance, said Mander, the activist.

"There's a blaming on ordinary people," he said. "But what we have seen is that the prime minister has actually gathered large masses of people, none of them wearing masks and keeping any kind of distancing in political gatherings."

Suffering on the ground.

The government launched a number of measures this week, including plans for the delivery of 100,000 cylinders of oxygen nationwide, new oxygen production plants, and hospitals dedicated to Covid-19 patients.

But as states and hospitals wait for much-needed assistance, a black market has emerged to fill the gap, highlighting the lack of resources from central authorities.

Earlier this week, 22-year-old student Vishwaroop Sharma drove his critically ill Covid-positive father to a hospital in Delhi, but there were no beds or oxygen available. They were forced to wait outside, where "nothing was provided, and he died in front of me, on my hands," Sharma told CNN.

He returned home to find his mother had also been infected and was struggling to breathe. Frantic, he bought an oxygen cylinder off the black market, placed her on an oxygen mask, and drove her from hospital to hospital for several days until he finally found her an open bed 100 kilometers (62 miles) away. The shortages are particularly damning since the country has had ample time to prepare, said Mander.

"You had a full year to do it," he said. "And suddenly we're finding these really criminal shortages around the country. When you start searching, you find that orders were not placed, companies have not been pressured because they're not making supplies."

The tragedy and desperation on the ground could potentially leave a deep, generational rift between the public and their government, he added.

"Many things broke down last year -- but one of them is trust," Mander said. India's poorest and most vulnerable residents "believed that when things get really bad, we will be protected by our government and our employers. That trust completely broke down ... You're on your own."

And still, Modi's popularity could shield him from public backlash and protect his seat of power.

When Modi was re-elected in 2019, there were already "very few illusions," Mander said. The economy was struggling, with little job creation; the farming sector was in crisis, leading to ongoing nationwide farmers' protests. Despite these numerous problems on Modi's plate, his Hindu nationalist policies and agenda won him loyal followers as tensions rose between Hindus and Muslims in the country.

Even now, even as thousands die each day, "none of this is seeming to weigh against the popularity of the government," said Mander -- which "can only be explained by the power" of his Hindu nationalist base.

It remains to be seen how the pandemic will affect Modi or his party in the next general election, in 2024, he said.

In the meantime, civilians devastated by the outbreak are left to grapple with fear, grief, and the sense that they have been abandoned.

"New Delhi is getting worse day by day, it's becoming hell," said Sharma, who returned home after finding the open hospital bed.

"They are not getting anything."

"I am totally helpless," he added.

"I am so scared, I am so terrified.

I don't want to lose my mother as I have lost my father. I won't be able to survive if I lose my mother."

What immunosuppressed patients should know about the coronavirus vaccines?

Lindsey Bever

Cancer patients. Organ transplant recipients. Individuals with HIV. Those with autoimmune or chronic inflammatory conditions such as lupus, multiple sclerosis and rheumatoid arthritis.

An estimated 10 million people in the United States are considered immunocompromised, including those who were born with immune-system deficiencies. It often makes them more susceptible to infections and puts them at a higher risk of experiencing a more severe outcome when they get sick.

So it makes sense why many would want to inoculate themselves against covid-19, the illness caused by the coronavirus — and public health authorities have advised them to do it.

But even though the coronavirus vaccines authorized for emergency use by the Food and Drug Administration are considered safe for people with compromised immune systems, some of them may not produce protective antibodies after vaccination, or any antibodies at all.

That's why researchers are working to understand more about vaccines' effectiveness within the immunocompromised community and how to protect the most vulnerable.

I'm immunocompromised. Will the vaccines work for me?

No one knows yet for certain, and it will likely depend on a number of factors — the individuals, the illnesses and which immune-suppressing treatments are involved in their care.

U.S. clinical trials did not specifically study the effectiveness of the coronavirus vaccines in people with compromised immune systems, so there is not yet conclusive data to show how they will ultimately respond.

But emerging research seems to suggest it will be a mixed bag — that though some immunocompromised individuals may make antibodies, others may not. And for those who do, it is not known whether the antibodies will be effective at neutralizing SARS-CoV-2, what level of antibody will be needed to protect against infection or how long the antibodies will last.

Many of these questions remain unanswered for the general population as well.

Staying together — six feet apart.

Immunocompromised families grapple with coronavirus.

Ghady Haidar, an infectious-diseases physician at the University of Pittsburgh Medical Center who specializes in organ transplant recipients, said he and his team studied immune responses in blood-cancer patients who received both doses of one of the FDA-authorized messenger-RNA vaccines and discovered that 46 percent of them did not produce any antibodies against covid-19.

"These were expected results, as disappointing as it is," Haidar said about the findings.

He said each flu season, he urges his cancer and transplant patients to get the flu shot, telling them although the vaccine is "probably not going to work as well as with someone with a healthy immune system, it might soften the blow."

"My hope is the same will hold true for covid-19," he said.

All of that said, some early studies are showing that, for some patients, the vaccines are producing antibodies.

In fact, one journal pre-proof out of Mount Sinai and New York University's medical schools documented detectable antibodies in inflammatory bowel disease patients who received at least one dose of either the Pfizer or Moderna vaccines.

Why you shouldn't get a covid antibody test after your vaccine

Charlotte Cunningham-Rundles, an immunologist at Icahn School of Medicine at Mount Sinai who was not involved in the above-mentioned study, said she has also seen an immune response in some of her patients after covid-19 infection and vaccination. Cunningham-Rundles treats many patients with congenital immune system deficiencies.

Haven Hospital, explained, those tests do not look at the response from the other arms of the immune system, such as T cells. She said she and her colleagues are studying B-cell and T-cell responses in vaccinated patients who have multiple sclerosis and other autoimmune neurological diseases.

It's for these reasons that official health authorities and many medical experts agree antibody testing for assessing immunity post-vaccination is not recommended. "And it really doesn't change the makeup of what you're going to do next," said Gauri Varadhachary, a professor of gastrointestinal oncology at MD Anderson Cancer Center.

Unlike with other vaccines such as hepatitis B, at this time health authorities are not recommending a repeat dose of the coronavirus vaccines for people who do not make antibodies.

Haidar, at the University of Pittsburgh, acknowledged that "it's frustrating for people."

"I know patients want to be tested and there are doctors who are also testing their patients. I get it — I do," he said. "But the issue then becomes well, what do we do now?"

"I worry that if immunocompromised people are antibody positive, they might be infused with a false sense of overconfidence. And if they're antibody negative, what do you do? I know that many patients are panicking when they realize that the vaccine 'did not take,' " he added.

However, she said, a "big caveat" to her observations is whether the detected antibodies are capable of fighting infection and for how long they will be able to do the job.

Still, for those who do not develop protective antibodies from the vaccines, she said it is also important to remember that "the immune system is not a one-trick pony." Aside from antibodies, the immune system also enlists protective T cells — white blood cells that help protect against viral infections.

"So antibodies are only part of what an immune system can do. It's a big, big part and it's a fantastic part, but many people who don't make antibodies at all still have a working T-cell side and the T-cell side can say, 'Okay, I can do some stuff here. I can help you out. I know how to kill viruses,' " she added.

So how will I know whether the vaccine has done its job?

There's no way to know for sure.

Yes, there are antibody tests. But the tests vary in the types of antibodies they detect, and even when they do detect antibodies, it's not that informative because experts do not yet know the level of antibody needed for protection against the coronavirus.

And as Erin Longbrake, a neurologist at Yale New

Without being able to offer more to immunocompromised patients right now, Haidar said, "I personally think that, for now, we should restrict post-vaccine antibody monitoring to studies so that we can understand this better." But, he said, assuming health authorities change their recommendation down the line, "we can certainly change our practices then."

What more can I do to protect myself against the virus?

Medical experts agree that most immunocompromised people should still get vaccinated because, to recap, many people may make protective antibodies. And others may still achieve protection from the cellular side of the immune system as it is revved up by the vaccine.

That may mean working with treating physicians to balance the timing of the shots with any immune-suppressing treatments such as chemotherapy or other medications for underlying illnesses.

Even after vaccination, experts say those with immune system deficiencies will need to be extra cautious — continuing with hand-washing, mask-

wearing, social distancing as well as choosing the types of gatherings that are the safest for them.
And as time goes on, there may be alternative ways to try to boost the immune system.
Gamma globulin, for example, takes disease-fighting antibodies from healthy donors and gives them to those who cannot make antibodies on their own.
Cunningham-Rundles, who is also a professor of medicine and pediatrics at Mount Sinai, said within the next year, many immunocompromised patients who are on immunoglobulin therapy will be receiving covid-19 antibodies through their regular infusions as more donors have made antibodies either through natural infection or vaccination.
There are also laboratory-designed monoclonal antibodies, which have been used to treat patients with active covid-19 infections. But several companies that make them are now looking into whether monoclonal antibodies may be used prophylactically. Specifically, AstraZeneca is running a worldwide clinical trial to determine, at least in part, whether they would protect people who are at "increased risk of inadequate response to vaccination."
But it's not all about what immunocompromised patients can do to protect themselves from covid-19, it's also about those around them.
"Every vaccine that goes into the arm of someone, anyone, is more protection for these people who aren't able to build a full response to vaccination," Longbrake said.
"So as many healthy people who get vaccinated, that's one fewer person who can pass covid on to these more vulnerable people.
"Everyone needs to get vaccinated so we can protect those who can't protect themselves."

Japan is set to place a quarter of its population under a state of emergency just 3 months before the Olympics are scheduled to start

insider@insider.com (Lina Batarags)

*Japan is set to put Tokyo, Osaka, Kyoto, and Hyogo under a state of emergency to control a surge in COVID-19 cases.
*The state of emergency stands to affect roughly 25% of the country's population.
*The announcement comes less than three months before the Tokyo Olympics are slated to begin.Japan is set to place one quarter of its population under a state of emergency starting April 25.The declaration from Prime Minister Yoshihide Suga is expected to come on Friday.
The state of emergency is expected to affect four prefectures - Tokyo, Osaka, Kyoto, and Hyogo, and to run from Sunday, April 25 through Tuesday, May 11.
Roughly 25% of the country's population stands to be affected by the announcement. Under the state of emergency, expected restrictions include temporary closure of establishments that serve alcohol, the banning of spectators from events, and limited buses and trains on weekends, per Japan Today.
The announcement comes as coronavirus cases climb in Japan. On April 21, the country recorded 5,369 new COVID-19 cases, a daily high not seen in the country since mid January, data from the Johns Hopkins University Center for Systems and Science Engineering (JHU CSSE) shows.To date, Japan has recorded 548,000 cases and 9,737 deaths, per JHU CSSE data. Of Japan's 47 prefectures, Tokyo has recorded the most coronavirus cases and deaths (132,000 and 1,840 respectively), followed by Osaka (71,058 and 1,297 respectively). The country is lagging behind many other developed countries in its vaccine roll-out. As of April 23, Japan has administered 2.3 million coronavirus doses, or about 1.9 doses per 100 people, The New York Times' vaccine tracker shows.
This is not the first time Japan will have declared a state of emergency during the COVID-19 pandemic. On April 7, 2020, Tokyo and six other prefectures went into a monthlong state of emergency to slow the spread of the coronavirus.
Meanwhile, the Tokyo Olympics, which are projected to start on July 23, draw ever nearer. On April 15, a senior Japanese official said that canceling the Olympics is still "an option." If they are not canceled, they will proceed without any overseas spectators, per a decision the Olympics organizing committee announced on March 20.

Coronavirus: *News* from around the Globe.

* Vaccine Makers Warn Bottlenecks, Nationalism Threaten Production.

Healthcare workers wait to administer the Moderna Covid-19 vaccine at a drive-thru vaccination site at the Meigs County fairgrounds in Pomeroy, Ohio.

Moderna Inc. and GlaxoSmithKline Plc are among a group of drugmakers calling for countries to remove trade barriers related to Covid-19 vaccines amid worsening shortages of basic products needed to manufacture shots globally.

The industry is highlighting that the world needs more raw materials, including lipids used in the messenger RNA vaccines, tubing and plastic bags, according to a press briefing Friday on Covid-19 manufacturing led by the International Federation of Pharmaceutical Manufacturers and Associations. Panelists criticized the use of the U.S. Defense Production Act to protect U.S. supplies, as that's aggravating the problem.

Vaccine production depends on the availability of more than 100 components and ingredients. As the industry prepares to make as many as 10 billion doses this year, rising nationalism is threatening those plans, drugmakers and trade groups warned. U.S. President Joe Biden's administration is weighing an appeal from progressive Democrats to accelerate global access to Covid-19 vaccines.

Along with bottlenecks for raw materials, the industry is also wrestling with finding enough qualified people to scale up manufacturing.

"We're all operating making products which are sterile. That means that they have to be made to the highest standard," said Roger Connor, Glaxo's president of global vaccines and the chief vaccine representative on Covax, an initiative designed to level global access. "Sterile understanding and process understanding, that is not something that you can suddenly just retrain overnight."Finding enough skilled people is an issue Moderna has run up against in recent weeks, according to Stephane Bancel, the company's chief executive officer, who was also on the panel Friday. Moderna said last week it would deliver less vaccine than planned to the U.K., Canada and other countries this quarter due to a shortfall in doses in its European supply chain.

The company is working with Swiss partner Lonza Group AG to make the shots in Europe, which has had some problems with a lack of staff, Bancel said. "We've had indeed some delays in hiring of people in Lonza," Bancel said. "I know the teams are working really hard to close that gap and to make sure we can maximize every dose that we can make. But this is why there has been in some countries a little bit of delays in the last week or two."

*** Promising news for those pregnant**

The Pfizer/BioNTech and Moderna vaccines don't appear to pose any serious risks during pregnancy, an early analysis of real-world data has shown.

The early findings may offer some reassurance to pregnant people and help countries make better informed decisions about how to include them in vaccination programs. The US analysis only looked at Pfizer and Moderna shots, which are both based on newer mRNA technology; the findings are not relevant to vaccines such as those made by AstraZeneca or Johnson & Johnson.

Health authorities globally, including the CDC, have warned that pregnant women with Covid-19 are at increased risk for severe illness and may be at increased risk for adverse outcomes, such as preterm birth. The new data, along with existing research showing mRNA vaccines are effective in pregnant and breastfeeding people, suggest that the benefits of the vaccines outweigh the risks.

The analysis, published in the New England Journal of Medicine, looked at the data of more than 35,000 pregnant people who had reported their health status through CDC reporting systems, including a smartphone app, and followed up with a group of 3,958 pregnant participants who had received an

mRNA vaccine. It found that adverse outcomes, including pregnancy loss and preterm births, were not significantly higher in people who had been given a vaccine.
Further, the study found that vaccine recipients who were pregnant actually experienced common post-inoculation symptoms less frequently, including headache, muscle aches, chills and fever. The most common side effect was pain at the injection site, which appeared to occur more frequently in people who were pregnant.

* **Overburdened hospitals in India fight state-erected oxygen blockade.**

Ambulances carrying Covid-19 patients wait for their turn at a government hospital in Ahmedabad.

India's hospitals, stretched to the limit by the rush of Covid-19 patients, are fighting an administrative battle they didn't sign up for: States authorities are preventing cross-border supplies of medical-grade oxygen.
A desperate tweet, "An oxygen tanker is outside the gate of Air Liquide Panipat plant at IOCL and he is not being allowed nside... Haryana police are stopping it & not letting the oxygen out of Haryana. Need urgent intervention!!," Dr. Sangita Reddy, the joint managing director of Apollo Hospitals Group, tweeted on Thursday, tagging the Prime Minister's Office and other union ministries.
The issue was resolved only after the union home ministry intervened and issued an order barring such inter-state restrictions..
It was not an isolated case. Choked off supplies from Uttar Pradesh and Haryana, hospitals in Delhi were knocking on the doors of the judiciary.
On Wednesday, Max Hospitals had to approach the Delhi High Court, saying the 1,400 Covid-19 patients in its care will soon be deprived of oxygen. Court ordered the Centre to ensure the supply by "whatever means".
Thursday, another hospital, Saroj Super Specialty Hospital, Rohini, moved the high court. Delhi is not alone. Similar petitions have also been made in other courts that the Supreme Court of India on Thursday took the matter upon itself.
A broken supply chain is at the heart of India's oxygen shortage.
India has a daily production capacity of about 7,000 metric tonne of oxygen, & a reserve of about 50,000 MT. This includes industrial oxygen. The demand for medical oxygen is now about 8,000 MT.
The broken link is the supply. While the demand is in states such as Delhi and Maharashtra, the production lies elsewhere.
Industrial oxygen that is now being rerouted to meet the medical needs come from steel industries in Odisha and Jharkhand.
Cryogenic tankers needed to transport the oxygen are also in short supply.

*__What is the cost of vaccinating every Indian adult?__

India will have to spend at least Rs 67,193 crore (~$9 billion) to vaccinate everyone above the age of 18, India Ratings and Research estimate.
Considering this is just 0.36% of GDP, the agency says the cost "is too small an amount", all things considered. State governments will bear a majority of this cost, Rs 46,323 crore or 0.24% of nominal national GDP, to vaccinate adults between the age of 18 and 45, with doses procured at a higher rate than the central government.
Central government will have to spend Rs 20,870 crore or 0.12% of the national GDP to continue its vaccination programme for healthcare and frontline workers, and those above 45 years of age.
The impact won't be equal on all states, of course. As a percentage of state GDP, Bihar (0.60% of GSDP) will spend more, followed by Uttar Pradesh (0.47%), Jharkhand (0.37%), Manipur (0.36%), Assam (0.35%), Madhya Pradesh (0.30%) and Odisha (0.30%).
The calculation: Ind-Ra estimates Centre to procure at Rs 236/dose, including tax, for Covishield, and Rs 243.67/dose for Covaxin. For states, it calculated Rs 400 per dose as stated by SII (Covishield) on Wednesday. It also considers 5% vaccine wastage.
But... The real cost could be higher as Serum Institute and Bharat Biotech will be unable to meet the demand alone. India will have to buy other vaccines, mainly from abroad. They could be priced higher.
Also, since the antibodies generated by these vaccines are likely to last for 12-18 months, the expenditure would be recurring on union and state budgets.

Caring for your liver during Covid-19

Liver disease is a serious concern in India with more than 10 lakh cases being reported every year. Late diagnosis often leads to detection of the condition when it is at end-stage or liver cirrhosis has occurred, during which time it is difficult to treat and it could lead to death The World Health Organisation has reported that liver disease is the tenth most common cause of death in India with liver cancer being the fourth common cause of cancer-related deaths.

"A pandemic like situation can be dangerous for people suffering from liver disease as they are at a higher risk of suffering from severe complications from a virus such as Covid-19. A case in point is the earlier SARS epidemic, during which liver damage was observed in more than half of the afflicted patients. During the ongoing Covid-19 pandemic, it has been observed that a significant percentage of patients develop liver dysfunction, particularly those suffering from severe Covid-19.,While more research and observation is required to fully understand the link, possible reasons for this could be the impact of the virus on the liver, an undesirable immune response from the body which impacts the liver, sepsis, or medication-related liver injury. During the second wave of the pandemic, more people are reporting with GI symptoms which indicate the potential of the virus to infiltrate and attack organs in the body apart from the lungs. Needless to say, patients with liver conditions need to take extra care of their body and health during this time. People who indulge in certain lifestyle habits that contribute to liver damage but who haven't seen any outward symptoms of liver disease may also find that contracting the coronavirus results in more liver-related symptoms." Individuals with pre-existing liver disease appear to be at a significant risk of complications from the Covid-19 infection.

* **Avoid binge-drinking alcohol at all costs**

With more time on hand people are turning to unhealthy habits such as regular drinking/binge drinking which is a major cause of liver damage. Excessive alcohol puts the system on overdrive to process the toxins in the system, the brunt of which is taken up by the liver.

Smoking is equally bad for the liver and heavy drinkers often tend to smoke. Use this time to ease off of these addictions.

*** Eat a liver-friendly diet**

The liver's function is to detoxify. Consuming fruits and vegetables which help keep the liver healthy and functioning effectively are important to prevent liver damage. Some examples are antioxidant rich fruits such as berries, green tea, healthy fats such as olive oil, fatty fish, avocado, bananas, nuts, and green leafy vegetables like spinach, fibrous foods such as whole grains, garlic, etc are beneficial to the liver.

*** Do not forget to exercise**

Please devote extra time to exercise. Medical studies increasingly show that exercise is most essential for liver health. Regular exercise which increases the heart rate to 80% of the target heart rate, at least 4 times a week helps in keeping the liver healthy. Obesity is a prime cause of non-alcoholic fatty liver disease. If you are overweight, use this time to reduce and maintain a healthy weight for your body type. Genetics can also play a role if liver disease runs in the family; use this time to get liver function tests. Even seemingly skinny people can accumulate fat around the liver, leading to fatty liver disease as demonstrated by various studies in India.

We are on the verge of a fatty liver disease epidemic and this can be easily accentuated by the current pandemic.

*** Practice safe behaviours and be responsible**

Unsanitary needles and unprotected sex can lead to Hepatitis B and C, which is part of a group of viruses that can attack the liver. Unhygienic tattoo parlours, injecting drugs, basically any needles that have come in contact with an infected individual's blood and reintroduced into a healthy person can lead to liver disease. Taking vaccination can help reduce the risk of contracting the disease. Wearing a mask and maintaining social distancing is still the most effective way to not contract the disease. Given the long drawn out nature of this pandemic

*** If eligible, take the Covid vaccine**

It is strongly recommended that you take these vaccines if suffering from any chronic liver ailment or are otherwise eligible. Please discuss this with your treating doctor.

Identifying and arresting liver disease early is important to prevent the need for long-term management of the disease. In the middle of the ongoing pandemic, if you experience any of the following symptoms, jaundice, water retention and swelling in the legs and feet, unexplainable fatigue, strong odour from urine and dark yellow colour, severe and unbearable abdominal pain, vomiting, itchy skin, please visit a doctor for consultation.

-Siddhi Jain

COVID19: Weekly Update.

 # The numbers below are from
Saturday 04-24-2021 * 12pm US East coast Time...
Compiled Periodically By:

Kaushik Amin, USA.

201-936-4927/Kaushikamin@hotmail.com

Details are compiled from various sources.

There are likely false data & variations in data most of the time, so, please use the data wisely.

Marked "*" are not reliable data.

World:
146,670,799. Cases. / 3,104,905. Deaths.

Recovered till today:
124,389,763.

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01. U.S. A.:
32,738,575. Cases. /585,115. Deaths.

02. India(???)**
16,869,825. Cases. / 191,281. Deaths.

03. Brazil:
14,238,110. Cases. /386,623. Deaths.

07. UK:
4,403,170. Cases. /127,417. Deaths.

22. Canada.
1,168,675.Cases./23,907.Deaths.

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00 (India): Gujarat* :(???)
481,737.(???) Cases. /6,171. (???) Deaths.

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USA States:

01. California:
3,730,477. Cases./ 61,402. Deaths

02. Texas*:
2,874.424.Cases. /50,104. Deaths.

03. Florida:
2,196,502. Cases / 34,774. Deaths.

04. New York:*
2,069,006. Cases / 52,145. Deaths.

05. Illinois:
1,316,091. Cases. / 24,083. Deaths.

06. Pennsylvania:
1,132,212. Cases. / 26,045. Deaths.

07: Georgia:
1,091,339. Cases / 19,917. Deaths.

08. Ohio
1,061,907 Cases / 19,122. Deaths.

09. New Jersey*.:
993,414. Cases. / 25,328. Deaths.

15. Massachusetts:
680,007. Cases. / 17,528. Deaths.

30. Connecticut:
334,766. Cases /8,047. Deaths.

COVID19: DOS AND DON'TS.

***More than 3** Covid19 vaccines are available now nationwide. Find out how to get yours.

***** Finally Vaccine has arrived in the US; and many parts of world, many of us got both the doses, or single dose in case of Jhonson & Jhonson's vaccine, still it will be a long time to Waite for most of us. Yet post vaccination results/effects are not known to the research/medico community fully. We are still in a Pandemic Period, also possible invasion of new 4 or more strains of UK, Brazil, South Africa, Coronavirus.

* Entering the Spring, and soon the summer, the number of cases are still on a higher side, yet to achive the flat curve, world over most of us are just ignoring the pandemic do's & don'ts, particularly when we are with festivity mode in final days of 2020, so please take Extreme Care, Stay Safe & Stay Home. Yet not an easy time for every one!

* Corona is still around, & may remain lifelong! It's not as simple as viral flu. It's as dangerous as like a contest of survival of the fittest.

* Vaccine is available now, first to the frontline medico fraternity, patients in need, & nursing home/long term care facilities residents on a priority, but average person will have no easy access soon, so be careful & protect yourself & your loved ones for good. Mask, frequent hand wash with soap & social distancing only is the option for now* Must use Mask, even if you have taken Covid shots, Vaccine is just protection, it's not a cure! Also wear Gloves, Sunglasses & the most important: keep safe distance, keep washing your hands frequently with soap or use reliable
sanitizer either one at least for 30 seconds.

* In India nasal steam (Naas) is recommended by the Government authorities, Ayurvedic practitioners, & also is a traditional remedy, but the US CDC doesn't recommend it due to a probable risk to the brain.

* If you can, use Mouth Rinse, will help to boost your oral health.

* If you have young kids/minors attending the school or college, it's advised to put on the mask for everyone inside the home.

* We are passing through a tough time of Life & Death. Follow Social Distancing, but stay in for Social Contacts. If you know any one suffering with Corona, your nearer or dearer, call and talk to them frequently, we don't know whether they will return safely with us. Call other relatives/friends, at least ten persons a week. We are social & want to take care of those who are cut off due to Corona self-imposed lockdowns. Also keep busy yourself & family members with plenty of daily activities like yog, exercise & Stay Physically Fit, Pursue Your Hobby, Get Adequate, at least 6 to 8 hrs. Of Sleep, & Eat Healthy Balance Diet.

* Yet it's a long march to finish, no one knows when we will...!!!!!

Take care, & Stay Safe.