CORONAVIRUS NEWS BRIEF

Compiled Periodically from various sources By:

Kaushik Amin, USA.

201-936-4927 * kaushikamin@hotmail.com

For South Asian Media Network INC, USA.

Issue# 41 * November 27, 2021- Saturday.

A health care worker conducts a COVID-19 test on a traveler at OR Tambo International Airport in Johannesburg, South Africa.

Report Page 2.

South African scientists brace for wave propelled by omicron

Worried scientists in South Africa are scrambling to combat the lightning spread across the country of the new and highly transmissible omicron COVID-19 variant as the world grapples with its emergence.

Students from the Tshwane University of Technology make their way back to their residence in Pretoria, South Africa. As the world grapples with the emergence of the new variant of COVID-19, scientists in South Africa — where omicron was first identified — are scrambling to combat its spread across the country.

In the space of two weeks, the omicron variant has sent South Africa from a period of low transmission to rapid growth of new confirmed cases. The country's numbers are still relatively low, with 2,828 new confirmed cases recorded Friday, but omicron's speed in infecting young South Africans has alarmed health professionals. "We're seeing a marked change in the demographic profile of patients with COVID-19," Rudo Mathivha, head of the intensive care unit at Soweto's Baragwanath Hospital, told an online press briefing. "Young people, in their 20s to just over their late 30s, are coming in with moderate to severe disease, some needing intensive care. About 65% are not vaccinated and most of the rest are only half-vaccinated," said Mathivha. "I'm worried that as the numbers go up, the public health care facilities will become overwhelmed."

She said urgent preparations are needed to enable public hospitals to cope with a potential large influx of patients needing intensive care. "We know we have a new variant," said Mathivha. "The worst case scenario is that it hits us like delta ... we need to have critical care beds ready."

What looked like a cluster infection among some university students in Pretoria ballooned into hundreds of new cases and then thousands, first in the capital city and then to nearby Johannesburg, South Africa's largest city.

Studying the surge, scientists identified the new variant that diagnostic tests indicate is likely responsible for as many as 90% of the new cases, according to South Africa's health officials. Early studies show that it has a reproduction rate of 2 — meaning that every person infected by it is likely to spread it to two other people.

The new variant has a high number of mutations that appear to make it more transmissible and help it evade immune responses. The World Health Organization-WHO- looked at the data and named the variant Omicron, under its system of using Greek letters, calling it a highly transmissible variant of concern.

"It's a huge concern. We all are terribly concerned about this virus," Professor Willem Hanekom, director of the Africa Health Research Institute, told.

"This variant is mostly in Gauteng province, the Johannesburg area of South Africa. But we've got clues from diagnostic tests ... that suggest that this variant is already all over South Africa," said Hanekom, who is also co-chair of the South African COVID Variant Research Consortium.

"The scientific reaction from within South Africa is that we need to learn as much as soon as possible. We know precious little," he said. "For example, we do not know how virulent this virus is, which means how bad is this disease that it causes?"

A key factor is vaccination. The new variant appears to be spreading most quickly among those who are unvaccinated. Currently, only about 40% of adult South Africans are vaccinated, and the number is much lower among those in the 20 to 40-year-old age group.

South Africa has nearly 20mn doses of vaccines,- made by Pfizer and Johnson & Johnson,- but the numbers of people getting vaccines is about 120,000 per day, far below the government's target of 300,000 per day.

As scientists try to learn more about omicron, the people of South Africa can take measures to protect themselves against it, said Hanekom.

"This is a unique opportunity. There's still time for people who did not get vaccinated to go and get the vaccine, and that will provide some protection, we believe, against this infection, especially protection against severe infection, severe disease and death," he said.

"So I would call on people to vaccinate if they can."

****

Biden Restricts Travel From 8 African Countries Over COVID-19 Variant

President Joe Biden speaks during an announcement in Washington on Nov. 22, 2021.

The United States will restrict travel from South Africa and seven other African countries on Monday, November 29, in a bid to control the spread of the new COVID-19 variant.

A proclamation from President Joe Biden said travel will be curbed from Botswana, Zimbabwe, Namibia, Lesotho, Eswatini, Mozambique, and Malawi in addition to South Africa. American citizens and lawful permanent residents will still be allowed to enter the United States from those countries.

"It is the policy of my administration to implement science-based public health measures, across all areas of the federal government, to act swiftly and aggressively to prevent further spread of the disease," Biden said, adding that the move was recommended by health officials.

Dr. Anthony Fauci was one of the officials who met with Biden before the proclamation was released, the president told reporters while on vacation in Massachusetts.

The restrictions will remain in place until Biden decides to terminate them.

The World Health Organization (WHO) on Friday dubbed the new strain Omicron and described it as heavily mutated. The U.N. health agency said the variant may be able to re-infect individuals who were previously infected with COVID-19.

The European Union, Israel, the UK, Japan, and other countries announced Friday that similar travel restrictions will be placed on southern African nations.

In a statement, WHO said the variant, which was discovered in South Africa on Wednesday, has led to a rise of infections in the country.

"The epidemiological situation in South Africa has been characterized by three distinct peaks in reported cases, the latest of which was predominantly the Delta variant," said WHO in its statement.

"In recent weeks, infections have increased steeply, coinciding with the detection of B.1.1.529 variant."

The UN health agency did not say whether common COVID-19 vaccines are effective against the Omicron variant, although the statement suggested that individuals should still receive the shot.

Some scientists have said that due to the number of mutations, the strain may be able to penetrate through vaccines.

India, Turkey, Switzerland, and the United Arab Emirates also tightened travel curbs on Friday. But WHO officials said that travel restrictions may be premature. "It's really important that there are no knee-jerk responses here," said WHO's emergencies director Mike Ryan.

Officials in Belgium said the Omicron variant was discovered in the country, possibly the first confirmed case in the European Union so far.

Health Minister Frank Vandenbroucke told a news conference that the variant was found in an individual who had developed symptoms and tested positive on Nov. 22.

"It is a suspicious variant. We do not know if it is a very dangerous variant," he told reporters.

Worries about the impact the variant might have, including government-mandated lockdowns, sent stock markets spiraling on Friday. Such concerns especially caused stocks of airlines and others in the travel sector, and oil to tumble.

Kamal Haasan recovering well from COVID-19.

Actor-turned-politician and Makkal Needhi Maiam President Kamal Haasan is recovering well after being infected by Covid-19 and admitted to a hospital.

The superstar of South Indian cinema is recovering at an isolated unit of the Sri Ramachandra Medical Centre in Chennai.

He was admitted on November 22. Kamal Haasan, who was in the US for the launch of his Khadi brand 'House of Khadder' tested Covid positive after he returned to India.

Announcing this in a tweet on November 22, he called upon people to be careful.

Wrong Time for the Flu, Right Time for the Flu Shot.

By Dr. Dave A. Chokshi

(Editor's note: Dr. Dave A. Chokshi is Health Commissioner of New York City.)

Flu season is just beginning in New York City, and already my two-year-old daughter, my wife, and I have all received our seasonal flu vaccination. I encourage everyone to join us, to protect yourself and your community.

Every year, the Health Department works to make the flu vaccine easily available because the influenza virus can cause painful, and potentially life-threatening, symptoms—even in healthy people. In a typical flu season, roughly 2,000 New Yorkers die from influenza and pneumonia, and some of them are kids.

That is why we are recommending all New Yorkers ages six months and older to get the flu shot, especially people who are most likely to get sick, including adults ages 50 and older, pregnant people, children ages 6 months to 5 years, and people with chronic diseases like diabetes. The flu vaccine is safe and effective: Scientific evidence shows that it reduces the risk of illness between 40% and 60%, according to the CDC. If you're 65 or older, ask your doctor about the high-dose flu vaccine.

I was proud to see a record number of adult New Yorkers get the flu vaccine last year. Over 1.4 million adults got vaccinated—the most ever. Our goal this year is to have another record-breaking year, and we are well on our way with 1,039,787 adult New Yorkers already vaccinated.

But despite our progress, we are still seeing troubling gaps in coverage. This is due in part to misinformation about the flu vaccine and mistrust in medical advice. I want to make clear to New Yorkers that the flu vaccine will not give you the flu. Young and healthy people can become severely ill. And getting a flu shot will not increase your risk of getting COVID-19. These are common myths, and we know we must address them in order to instill trust in the vaccine.

In addition, not enough children are getting vaccinated. Our data show that only 67% of children ages 6 months to 5 years were vaccinated last year, and this year's numbers are also looking low. With children returning to schools and families out and about in our city again, it's even more critical than ever to protect our littlest New Yorkers.

The flu vaccine is now widely available across the city for free or low-cost and regardless of immigration status. New Yorkers can find out where to get vaccinated at NYC.gov/FLU. And if you still haven't gotten a COVID-19 vaccine, you can get one at the same time as the flu vaccine. Remember that the flu vaccine doesn't protect you against COVID-19, and the COVID-19 vaccine doesn't protect you against the flu. You need both!

Serious reactions to the flu shot are extremely rare. Common reactions may include mild pain, redness or swelling at the injection site or headache, fever and muscle aches.

As a doctor and a father, I wouldn't ask New Yorkers to do anything I wouldn't do myself. Flu activity usually starts as early as November and continues through late spring, and it takes a couple of weeks for your vaccine to kick in with immunity. Now is the right time, so go get that flu shot today.

What is a COVID booster shot,

why we need it and when we might be free of them

By Dennis Nealon * *HMS/The Harvard Gazette.*

Questions about COVID-19 vaccine boosters — like who is eligible and how to choose one — have dominated scientific discussions, news headlines, and dinner-table conversations recently, but the practice of giving our immune systems periodic "refreshers" is anything but new.

Jonathan Abraham, assistant professor of microbiology in the Blavatnik Institute at Harvard Medical School and an infectious disease specialist at Brigham and Women's Hospital, discussed the science and history of vaccine boosters.

Q&A:

***HMS:* What exactly is a booster shot, and how does it work?**

ABRAHAM: A booster shot is meant to increase levels of immune responses after these have naturally waned. A booster tricks the immune system into thinking that it is again seeing a pathogen, so antibody producing cells, and other immune cells, are recalled into gear. The quantity and quality of antibodies that are produced can increase. Through a process called antibody affinity maturation, our immune system learns to do a better job at recognizing a pathogen and making antibodies that bind more tightly to their target. For the SARS-CoV-2 virus, for example, affinity matured antibodies can be more effective at recognizing variants with multiple mutations.

***HMS:* This will require some degree of speculation, but given that SARS-CoV-2 has shown remarkable capacity for shape-shifting and mutation, will we require periodic boosters for the foreseeable future?**

ABRAHAM: Vaccines remain extremely effective at preventing severe infection and death, but they are not 100 percent effective at stopping acquisition and transmission of the virus. Particularly, in areas with high-infection rates due to low vaccination uptake, vaccinated people are more likely to be exposed to the virus and get a breakthrough infection. With this in mind, I would speculate that because of highly transmissible variants, we will need periodic boosters for the next few years. During that time frame, using an updated vaccine strain may be wise because we are unlikely to ever see the original vaccine strain again — it has virtually gone extinct.

***HMS:* What other types of vaccines besides COVID-19 require periodic boosters?**

ABRAHAM: An example is Tdap immunization: tetanus, diphtheria, and acellular pertussis. We usually require boosters, with Td component or Tdap, every 10 years to preserve immunity.

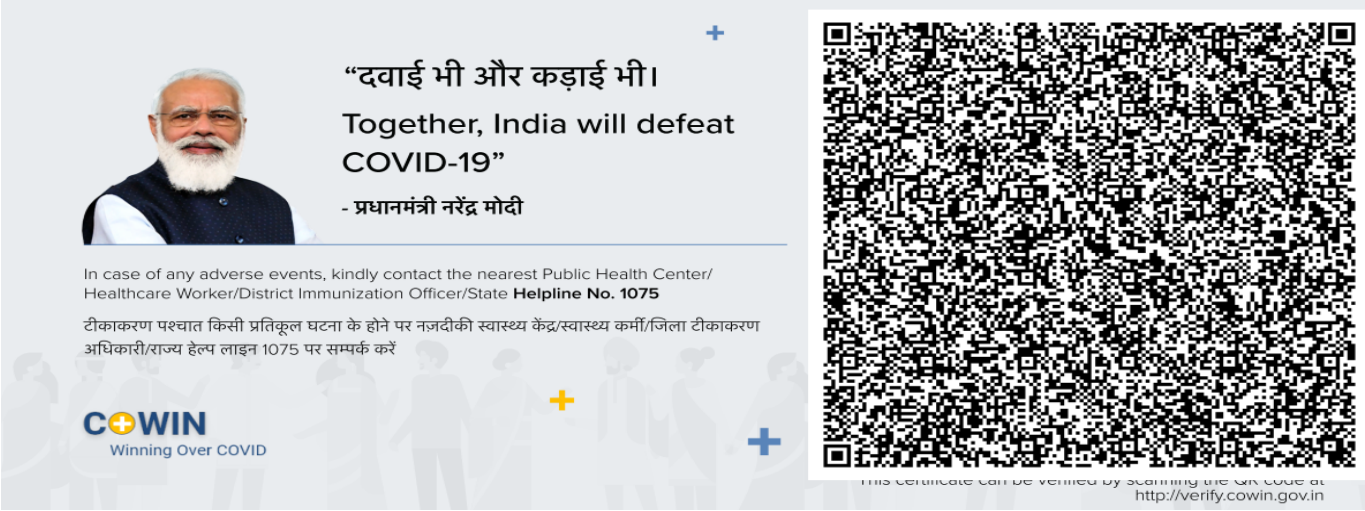
***HMS:* Why do we need boosters for some vaccines but not for others?**

ABRAHAM: For some pathogens, having preexisting and primed immune responses — for example, in the form of measurable antibody levels — is critical for efficacy. So, as antibody levels naturally wane over time, a booster is required. For other pathogens, like hepatitis B virus, completing the immunization three-shot series is likely to provide lifelong protection, so measurable antibody levels are not routinely checked. But, if the risk of infection is higher, for example, for health care workers, checking antibody levels at least once and providing a booster if antibodies are found to be low may be important. So, the decision to boost or not boost is multifactorial, and ultimately, it is based on studies and experience.

***HMS:* Are COVID-19 boosters different in any way than other vaccine boosters?**

ABRAHAM: For now, the same SARS-CoV-2 spike protein antigen is used for the vaccine and the boosters. However, there is the chance that, over time, the SARS-CoV-2 spike protein will shape-shift or mutate enough that a booster with an updated strain antigen would be required to prime the immune system to recognize the mutant virus. This scenario would be more like what is done with the seasonal influenza virus vaccines every year, although we think more of flu vaccines as strain-matched vaccines as opposed to periodic boosters.

Kerala HC issues notice on PM's photo on vax certificate



The Kerala High Court (HC) on Tuesday issued a notice to the Centre directing it to file its counter in a petition filed by a Right to Information (RTI) activist challenging the inclusion of PM Narendra Modi's photograph on the Covid-19 vaccination certificates.

The petitioner argued that since he had paid for his Covid-19 vaccination at a private hospital, depiction of Modi's image on his vaccination certificate was a violation of his fundamental rights as he was being treated like a captive audience, which, his counsel argued, was against his right of free speech that prohibited forced and compulsory listening.

Moreover, he argued, since Modi is the leader of a political party, usage of his photograph on vaccination certificates could affect an individual's choice of voting.

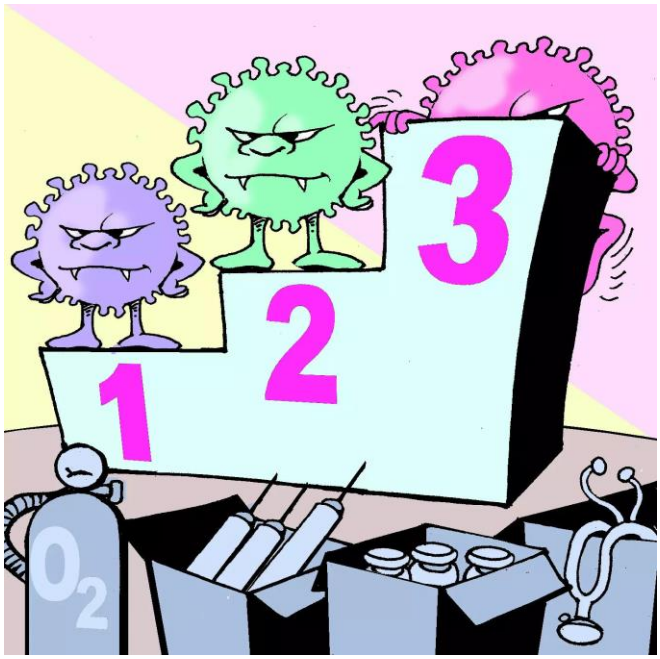
It may be recalled that earlier this year, the Election Commission of India (ECI) had asked the Central government to remove Modi's photograph from vaccination certificates issued in the four states and one union territory (UT) that went to polls,-West Bengal, Assam, Kerala, Tamil Nadu, and Puducherry. The ECI contended that usage of Modi's photograph on vaccination certificates issued in poll bound states and UT was a violation of the Model Code of Conduct (MCC) that came into effect on February 26,-a day after the ECI announced the dates for the assembly polls.

(Editor's note: For helping people and communities, voluntary institutions (NGO's) in India, Please donate generously specifically for Coronavirus Pandemic and other humanitarian causes. Please use your common sense to donate to the right organization. If possible, give priority to your own family, neighbors and your village/Town or area healthcare systems directly.

There are fraudulent organizations be aware of them. Look into the need and response to those priorities. Get some advice from your Doctors or helping organizations. Many time Cash Donations are more effective than kind. I would recommend donating to Red Cross of India, UNICEF, Oxfam India, and Care India.

In my personal opinion, please do not send any contributions to India's Prime Minister Narendra Modi's PM Care Fund as its not transparent, has no accountability, is a private charity, and not a Government of India organization. -Kaushik Amin).

Should India rethink its booster shot strategy?



Even as the Indian Council of Medical Research (ICMR) dismissed speculation over starting off with booster shots for people who have completed their two-dose regimen, with its Director General Balram Bhargava saying that "there is no scientific evidence so far to support the need for a booster vaccine dose against Covid-19", a study conducted by researchers at US' Northwestern University says that the immunity granted by a booster shot may last longer than the immunity granted by a two-shot regimen.

The study, which is yet to be peer-reviewed, says that "boosters generate large antibody responses in healthy adults, with post-booster antibody levels that exceed levels documented after natural infection with Covid-19, after two doses of vaccine, or after both natural infection and vaccination"

The research also said that antibody levels increased almost 25 times within 6 to 10 days after a booster shot as compared to a near 10-fold decrease from levels seen early after the second dose of two-dose vaccines which "provide protection against hospitalisation and death from Covid-19 for at least six months."

The study also pointed out that there was a near 50-fold rise in antibody levels among those who had Covid-19 before being vaccinated, than just after their infection.The study's authors claim that their research validates "the use of boosters to prevent breakthrough infections."

However, the study was only conducted on the booster shot impact of mRNA based vaccines, such as those by Pfizer/BioNTech and Moderna, which were rolled out in the US from December 2020 and not on vaccines based on either the inactivated virus vaccines, such as Covaxin, or the adenovirus based vaccines, such as Covishield and Sputnik — which are the ones used in India.

Moreover, the US has seen a spurt in breakthrough infections as immunity from the mRNA vaccines waned and the Delta variant of SARS-CoV-2 became the dominant strain around the world. As per the US CDC data, the US is averaging 90,000 fresh cases of Covid-19 infections daily whereas India reported less than 7,600 new Covid-19 cases today — its lowest rise in last 543 days — which is why the ICMR chief said that "administering the second dose of Covid-19 vaccine to all adult population, and ensuring that not only India, but the entire world gets vaccinated, is the priority of the government for now."

Pfizer's vaccine's 100% effective in kids in longer-term study.

Pfizer and BioNTech have announced their jointly-developed coronavirus vaccine offered strong long-term protection against Covid-19 in teenagers aged 12 to 15, data the companies said will support planned submissions for full regulatory approval in the US and around the world.

The updated findings from the Phase 3 trial show that a two-dose series of the vaccine (30-g per dose) was 100% effective, measured seven days through over four months after the second dose.

Data from almost 2,230 participants showed that 30 cases of Covid were reported in the placebo group and 0 cases in the Pfizer-BioNTech vaccine group.

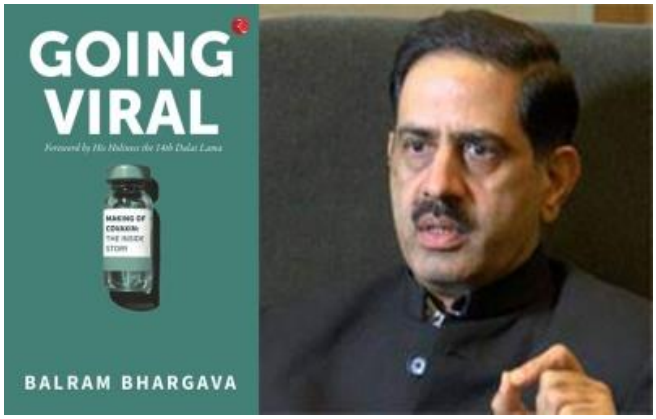
The adverse event profile was generally consistent with other clinical safety data for the vaccine.

After the second dose, no serious safety concerns were observed in individuals with at least six months of safety follow up.

"These are the first and only disclosed longer-term data demonstrating the safety and efficacy of a Covid-19 vaccine in individuals 12 to 15 years of age," said Ugur Sahin, CEO and co-founder of BioNTech. The companies added that these data will form the basis for a planned supplemental marketing application to expand approval of the vaccine for use in individuals 12 years and older.

Book Review:

Inactivated virus vaccine against Covid19 was the perfect choice



"We pulled off an extraordinary feat. After the tension, the drama, the hard work, the long nights, the constant fear of illness and death, the brainstorming, the travel, the testing the fatigue, the adrenalin rush… After all this, lets pause and marvel. There is much to marvel at," writes Balram Bhargava, the Director General of the Indian Council for Medical Research (ICMR), in "Going Viral" of the race against time to develop the Covaxin vaccine against Covid-19.

With the SARS-CoV-2 virus finally isolated, cultured and better understood in March 2020 – with India only one of five countries to do so – "we at ICMR started thinking seriously about developing a vaccine of our own. The global and national situations were dire, it was clearly time for bold action", Bhargava, who is also a professor of cardiology at AIIMS, writes in the book, subtitled "Making of Covaxin: The Inside Story" and published by Rupa.

"Apart from hard science, vaccine development also requires manufacturing power and a whole lot of logistical manoeuvring. The average time from discovery to production for any vaccine in the past was 10 years. We were on the lookout for industrial partners with whom we could collaborate for a vaccine. The first company to approach us was Bharat Biotech… The proposal was an exciting one as it fitted well with the Indian government's publicly stated prioritization of indigenous technology, production and capabilities in all sectors," Bhargava writes.

"We wanted Bharat Biotech to work on an inactivated vaccine. It turned out to be the perfect choice," he adds.

Inactivated vaccines, Bhargava explains, are developed by 'killing' the lab-grown, well-characterised virus by using chemicals and subsequently generating a product with a known concentration of inactivated viral particles. These destroy the pathogen's ability to replicate but keep it 'intact' so that our immune system can still recognise it and produce an immune response. These inactivated viruses are then reproduced in large quantities and prepared for use as a vaccine.

Once the BBIL (Bharat Biotech International Limited)-ICMR-NIV (National Institute of Virology) team had developed three inactivated SARS-CoV-2 vaccine candidates – BBV152A, BBV152B and BBV152C – it tested them on small animals like mice and rabbits.

"The goal was to see if the test animals produced neutralising anti-bodies that provided any protection when subsequently challenged with the live virus…Out of the three candidates, BBV152A was the winner," Bhargava writes.

"Strict quality control ensured that nothing went wrong at any point of time. Anti-SARS-CoV-2 ELISA test kits developed by ICMR-NIV were used for preclinical studies that required detecting antibodies generated following vaccination.

"From ICMR headquarters, we kept a regular watch on the entire process. We monitored the work and sprang into action to expedite the necessary approvals and ensure supplies of critical equipment and materials, including reagents," he adds.

Then came some Serious Monkey Business, as Bhargava subtitles the chapter titled An Indian Vaccine From Dream To Roll-Out: India does not have any laboratory-bred Rhesus macaques and a countrywide search of zoos and institutes failed to locate any. Eventually, 20 Rhesus macaques were located deep in a forest near Nagpur.

They were divided into four groups of five each. One group was administered a placebo which did not have any active substance meant to affect their health while three groups were immunised with the three different BBV152 vaccine candidates at 0 and 14 days. All the macaques were exposed to SARS-CoV-2 14 days after the second dose, the virus being delivered deep into the lungs via a bronchoscope.

"The macaques had strong immune responses to the vaccine. They were protected when they were exposed to the virus. The vaccinated primates cleared the virus well from their lungs, nasal and throat passages within seven days of being infected. Daily bronchoscopy with lavage was taken from deep in the lungs.

"The vaccinated groups, unlike subjects in the placebo group, did not develop pneumonia. Overall, the vaccines showed remarkable immunogenicity and protective efficacy. It was a turning point for all of us

at ICMR and Bharat Biotech. It was one of the best results we had encountered.

The vaccinated monkeys showed excellent anti-body response with no adverse effect. We thereafter concluded that the vaccine was both safe and effective and that with the new adjuvant it could be administered in the dose of either three or six micrograms.

"We finally had a completely indigenous vaccine, an epitome of Atmanirbhar Bharat," Bhargava writes.

Thereafter, the Drug Controller General of India (DCGI) granted Covaxin Emergency Use Authorisation (EUA) on January 2, 2021 after two phases of human clinical trials even as the third phase was underway.

"There were critics who said we had to complete Phase III before giving the vaccine to humans before it can be given to the nation. But there is a Gazette notification of 19 March 2019, which is pre-COVID, and it said that in national interest, if a product has successfully undergone the Phase II trial, it can be deployed. In other words, emergency authorisation can be given. And that rule was invoked by the Drugs Controller" when approval for Covaxin was issued," Bhargava writes.

India's mass vaccination drive began on January 16, 2021.

Bhargava also laments that "as we battled one challenge after another and found ways to deal with them, and firmed our resolve to have an Indian vaccine, a tiny section of our population, the so-called experts in the media and elsewhere, began to raise doubts on our ability. It was not the first time that an Indian initiative was being ridiculed even before it had the opportunity to succeed. But it was disgraceful that it should happen at a time when our scientists and researchers were showing a steely determination find a solution to the pandemic" and ascribes this to "the Macaulay-mindset at work".

"Today, I am filled with a sense of urgency to vaccinate India and prevent a repeat of the tragic second wave. We have to be very careful.

"Ironically, the best way forward for us is to imitate our enemy: we need to mutate and evolve in order to outsmart the virus. And that is what we are doing. When it attacks, we defend. When it hides, we find it. When it changes course, we are right there behind it. When we need to, we call in reinforcements.

"At this moment, as the world waits to see the pandemic in the rear-view mirror, the superheroes of the day are scientists: women and men who stay smarter than the virus, who change and adapt and innovate so we can all have a better shot at a better tomorrow," Bhargava concludes.

CORONAVIRUS: NEWS FROM AROUND THE WORLD:

**** Will we have a new 'variant of interest' or 'concern'?***

The World Health Organization will be holding a meeting today to discuss the dramatic rise in Covid-19 cases in South Africa that has been blamed on a new variant of the virus: B.1.1.529. (Omicron-The new variant has more than 30 mutations to the spike protein that affects transmissibility.)

The WHO said it was "closely monitoring" the reported variant and would determine if it should be designated a variant of "interest" or of "concern". It may give it a Greek variant name- like the dominant Delta strain. "Our technical advisory group on virus evolution is discussing this with our colleagues in South Africa," said Maria Van Kerkhove, Covid-19 technical lead for WHO. "Early analysis shows that this variant has a large number of mutations that require and will undergo further study."

Tulio de Oliveira from the Network for Genomic Surveillance in South Africa, who's tracked the spread of the delta variant in the country, said that a team of scientists from seven South African universities have 100 whole genomes of it and expect to have many more in the next few days. The one piece of good news is that it can be detected by a PCR test, he added.

The impact already: Asian markets and oil prices sank while safe havens rallied today over fears of B.1.1.529, which could potentially deal a blow to the global recovery.

The UK government also announced that it was banning flights from South Africa and five other southern African countries effective noon (1200 GMT) today, and that anyone who had recently arrived from those countries would be asked to take a coronavirus test.

**** Exposure to harmless coronaviruses boosts SARS-CoV-2 immunity: Study.***

Previous antibody responses to other, harmless coronaviruses may confer immunity against SARS-CoV-2, the virus that causes Covid-19, according to a new study.

The study, published in the journal Nature Communications, showed that people infected with Covid had lower levels of antibodies against coronaviruses that cause common colds compared to uninfected people.

In addition, people with high levels of antibodies against harmless coronaviruses were less likely to have been hospitalised after catching Covid.

aceOur study shows that a strong antibody response to human coronaviruses increases the level of antibodies against SARS-CoV-2. So someone who has gained immunity to harmless coronaviruses is therefore also better protected against severe SARS-CoV-2 infections," said Alexandra Trkola, head of the Institute of Medical Virology at University of Zurich (UZH).

This type of immune response is referred to as cross-reactivity, and it also occurs with T-cell responses, the additional line of the immune system in the defense against infections.

In the study, the team used a specially developed assay to analyse antibody levels against four other human coronaviruses in 825 serum samples taken before Covid emerged. They also examined 389 samples from donors infected with Covid. Combining these analyses with computer-based models enabled the team to precisely predict how well the antibodies would bind to and neutralise invading viruses.

People get fully protected against Covid shortly after they have recovered from an infection or have received an effective vaccination. This is when antibody levels against the virus are still very high. As these levels drop over time, infection is no longer prevented, but the immunological memory quickly reactivates the body's defenses, the production of antibodies as well as the T-cell defense.

"Of course, immune responses targeting SARS-CoV-2 that are mounted by the memory cells are far more effective than cross-reactive responses. But even though the protection isn't absolute, cross-reactive immune responses shorten the infection and reduce its severity. And this is exactly what is also achieved through vaccination, just much, much more efficiently," Trkola said.

It is, however, not yet known whether this cross-reactivity also works in the opposite direction. Whether immunity to Covid — achieved through vaccination, for example — also offers protection against other human coronaviruses still needs to be elucidated.

"If SARS-CoV-2 immunity also offers some degree of protection from infection with other coronaviruses, we would be a significant step closer to achieving comprehensive protection against other coronaviruses, including any new variants," the virologist explains.

This idea is also supported by the fact that cross-reactive protection is not only based on antibodies, but very likely also on T cells.

** State Of Emergency Declared As NY Prepares For Omicron Variant.*

A state of emergency was issued for New York Friday as the state's governor warned a new coronavirus variant discovered in Africa would soon turn up close to home.

"It's coming," governor Kathy Hochul warned of the Omicron variant that was recently discovered in South Africa.

The executive order allows the Department of Health to cancel non-urgent scheduled surgeries if medical centers' capacity runs low, which is defined as having less than 10 percent of staffed beds available.

The cancellations haven't been done since the height of the pandemic last year. Hochul said it was necessary to increase space in hospitals ahead of a potential spike in COVID-19 cases.

"We've taken extraordinary action to prevent the spread of COVID-19 and combat this pandemic," Hochul said. "However, we continue to see warning signs of spikes this upcoming winter, and while the new Omicron variant has yet to be detected in New York State, it's coming.

"In preparation, I am announcing urgent steps today to expand hospital capacity and help ensure our hospital systems can tackle any challenges posed by the pandemic as we head into the winter months. The vaccine remains one of our greatest weapons in fighting the pandemic, and I encourage every New Yorker to get vaccinated, and get the booster if you're fully vaccinated."

The order will also make it easier for the state to acquire critical supplies if needed, Hochul said.

The cancellation of surgeries takes effect on December 3 and will be re-assessed on January 15, the governor's office said.

** Zydus-Cadila's vaccine to hit the market*

Zydus Cadila's needle-free Covid-19 vaccine is likely to be available for India's immunisation programme next month, multiple reports say.

The vaccine, named ZyCoV-D, was granted emergency use approval for use in adults and children above the age of 12 in August but is yet to hit the market.

The central government has begun preparations to include the vaccine — administered in three doses, 28 days apart — in the national programme, Vaccinations for children may start in January.

Zydus managing director Sharvil Patel had earlier said the company could manufacture 10 million doses of the vaccine by October and 40-50 million doses by January 2022.

The government is procuring the vaccine at Rs 265 per dose, excluding taxes, and the needle-free applicator at Rs 93 per dose.

Unlike other available vaccines, ZyCoV-D is administered with a needle-free jet injector designed to deliver the dose subcutaneously, or under the skin. Each dose comprises two shots, one on each arm.

**** The new B.1.1.529 variant of SARS-CoV-2 virus***

Why is it worrisome?

The new variant displays multiple mutations, including more than 30 in the region which encodes the spike protein responsible for the virus' entry into host cells.

Some of the mutations have been detected in previous variants, such as Alpha and Delta, and have been associated with increased transmissibility and immune evasion.

Many of the other identified mutations are not yet well characterised and have not been identified in any other currently circulating variants, including Delta.

It is feared that the new variant may be more transmissible as well as evade immune responses generated by previous infection or vaccination. However, there is little evidence to support the concerns.

WHO has called for an emergency meeting to discuss the new variant.

Countries like the UK, Singapore and Israel have stopped flights from South Africa where more than 70 Covid-19 cases caused by the new variant have been confirmed.

Where has it spread?

B.1.1.529 was first detected in South Africa on November 25.

77 samples collected between November 12-20 from Gauteng province in South Africa tested positive for the new variant. It coincided with a sudden increase in cases in the province over the recent days, researchers said.

Four samples from Botswana and one sample in Hong Kong also came positive for the new variant which is currently labelled as lineage B.1.1.529.

**** Why dip in Covid testing is a worry?***

Even as daily new Covid-19 cases in India have been consistently under the 10,000 mark for the last four days, concern is mounting about the fall in daily testing as it may undermine efforts to keep a tight lid on the spread of Covid-19.

Daily Covid-19 tests have been hovering at the 1 million mark, with a little over 1.1 million tests conducted in the last 24 hours, whereas the country has a capacity of twice as much.

Against the World Health Organisation's (WHO) mandated 140 Covid-19 tests per 10-lakh of population, several states and districts are conducting tests that are well below the WHO-recommended rate.

In Maharashtra, for instance, daily number of tests, which averaged 2.68 lakh in the week of May 17-23 during the second wave, have come down to 9,502 last week while in Kerala, which has a high positivity rate of 9.7%, the number of tests conducted last week stood at 56,071- way below the 2.9 lakh average daily tests conducted in the week August 9-15.

In Nagaland, testing has reduced by over a third in the last two months. For the week ended November 22, the state recorded a positivity rate of 1.5%, with the number of daily tests at 342, down from 1,250 average daily tests conducted in the week of August 23-29.

In a letter to 11 states and two union territories (UT), Union health secretary Rajesh Bhushan said that there has been a decline in weekly testing rates.

The states flagged for low testing include Nagaland, Sikkim, Maharashtra, Kerala, Goa, Manipur, Mizoram, Meghalaya, Punjab, Rajasthan, West Bengal, Jammu & Kashmir and Ladakh.

The health secretary cautioned that a few developed countries are "facing even a fourth and fifth wave despite high levels of Covid vaccination" due to which "there is a need for continued vigil".

**** Europe is once again a pandemic hotspot***

Despite the availability of vaccines, Covid-19 infection records are being broken several times over in several European countries like Germany, Hungary, The Netherlands, Austria, the Czech Republic, Slovakia, Ireland, Russia and beyond.

The World Health Organization has warned that Covid will be the leading cause of death in its designated Europe region, warning of the potential for 700,000 more deaths in parts of Asia and its Europe region by March 2022. Recently, confirmed daily Covid deaths there have reached 4,200.

And many nations are resorting to drastic measures to counter the wave. Austria plans to become the first country in the region to make vaccinations mandatory by February. Along with Slovakia, it has enacted stricter measures to curb Covid cases, including lockdowns and banning the unvaccinated from public places like restaurants and bars.

Vaccination rates range from 75% in Belgium to 24% in Bulgaria. And European Union leaders too have been making their frustrations known to those who haven't yet received a shot.

But despite these countries' efforts to keep cases down, protests against the restrictions continue in the Netherlands, Austria, and across Europe.

**** Covaxin only 50% effective, real-world study shows.***

Covaxin provided only 50% protection against symptomatic Covid-19, a real-world study by researchers at the All India Institute of Medical Sciences, Delhi, shows, far lower than the efficacy rate of 77.8% shown in Bharat Biotech's late-stage study of the vaccine.

AIIMS researchers assessed 2,714 health workers in the hospital who were showing signs of infection and underwent RT-PCR testing between April 15 and May 15. Of this, 1,617 people tested positive for infection, and 1,097 tested negative. The odds of vaccination with Covaxin were compared between cases and controls and adjusted for occupational exposure to Covid-19, previous infection, and infection dates.

They found that the vaccine effectiveness against symptomatic Covid-19 after two doses of Covaxin, with the second dose administered 14 or more days before undergoing RT-PCR testing, was 50%. The effectiveness remained stable over the seven-week follow-up period. The findings were published in The Lancet Infectious Diseases journal.

The study did not assess the vaccine's effectiveness against hospitalisation or death.

The lower real-world data could be due to the high infection rates and virus exposure among the hospital employees as well as due to the emergence of the Delta variant.

They say: "Our study offers a more complete picture of how BBV152 (Covaxin) performs in the field and should be considered in the context of Covid-19 surge conditions in India, combined with the possible immune evasive potential of the delta variant," said Manish Soneja, an additional professor of medicine at AIIMS.

Footnote: The AstraZeneca vaccine, or Covishield, had shown real-world efficacy of around 85% to 90% against symptomatic disease, according to Public Health England.

COVID19: Weekly Update.

 # The numbers below are from
Saturday 11-27-2021 * 12pm US East coast Time...
Compiled Periodically By:

Kaushik Amin.

201-936-4927/Kaushikamin@hotmail.com

South Asian Media Network Inc., USA.

There are likely false data & variations in data most of the time, so, Please use the data wisely. Details are compiled from various sources.
Marked "*" are not reliable data.

World:
261,272,737. Cases. /5,211,264. Deaths.

Recovered till today:
236,016,072.

==========

01. U.S. A.:
49,070,172. Cases. /799,247. Deaths.

02. India (???)**
34,563,749. Cases. / 467,973. Deaths.

03. Brazil:
22,067,630. Cases. /614,000. Deaths.

04. UK:
10,110,408. Cases. /144,724. Deaths.

26. Canada.
1,784,196. Cases. /29,623. Deaths.

==========

00 (India): Gujarat* :(???)
827,381. (???) Cases. /10,092. (???) Deaths.

==========

USA States:

01. California:
4,932,479. Cases./ 74,345. Deaths

02. Texas*:
4,319,671. Cases. /74,017. Deaths.

03. Florida:
3,731,537. Cases / 61,447. Deaths.

04. New York:*
2,792,680. Cases / 57,928. Deaths.

05. Illinois:
1,784,900. Cases. / 29,258. Deaths.

06. Pennsylvania:
1,721,743. Cases. / 33,251. Deaths.

07: Ohio:
1,673,496.(???) Cases / 26,483. Deaths.

08. Georgia:
1,659,491. Cases / 30,358. Deaths.

13. New Jersey*:
1,245,344. Cases. / 28,335. Deaths.

18. Massachusetts:
909,705. Cases. / 19,351. Deaths.

34. Connecticut:
418,473. Cases /8,865. Deaths.

COVID19: DOS AND DON'TS.

***One must be more careful now, as new varient Omicron from South Africa has popup, is considered more dengerous than Delta/Delta plus. All International Travell are disrupted, on hold and treatment paterns are yet subject to study*.**

***More than 4** Covid19 vaccines are available now nationwide in the US. Find out how to get yours.

**** Children of age group 5yrs to 11yrs can have their Vaccins, parents please take a serious note of it, and get your kids vaccinated as soon as possible.***

**** The 3rd booster dose (for Pfizer, Moderna, also a second booster for Jhonsons'.) are available now.***

More serious Delta and Delta Plus (Indian), Lambda, now Kappa, Mue and now a Japanies verients are around & can create an another pendamic, so be careful & follow religeously the Guidelines given by the Medical Authorities.

***** Finally Vaccine is available all time in the US; India and many parts of world, many of us got both the doses, or single dose in case of Jhonson & Jhonson's vaccine. Yet post vaccination results/effects are not known to the research/medico community fully. We are still in a Pandemic Period, of Phase 2 and 3, also possible invasion of new 4 or more strains of UK, Brazil, South Africa, and now India Coronavirus.

* Entering the new wave of Delta and Delta Plus and three other virus varients, 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 Summer days of 2021, 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 third does is available now, first to the frontline medico fraternity, patients in need, & nursing home/long term care facilities residents on a priority, so be careful & protect yourself & your loved ones for good. Mask, frequent hand wash with soap & social distancing only is the option for now

* **Now Mask is not needed in most of the USA, if you are vaccinated.** ***But it is advised one 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 and other Western Health Authorities doesn't recommend it due to a probable risk to the brain.***

**** If you can, use Mouth Rinse, twice a day, 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 and Stay Safe.****

VOICE OF SPECIALLY ABLED PEOPLE

VOSAP Invites You

To Annual Event and Launch of Virtual Exhibition of Assistive Devices

Sparsh Shah (Emcee)
Youth Ambassador,
Voice of SAP

Meenakshi Lekhi (Chief Guest)
Minister of State, External Affairs
and Culture, Govt of India

Chapal Khasnabis (Key Note Speaker)
(Head of Global Co-operation on Assistive
Technology- GATE (WHO)

Angel sponsor : MSI Charitable Trust

REGISTER NOW

events.voiceofsap.org

Event Date : 4th December, 2021
Time : 6 pm PST/9 pm EST and 7:30 am IST (Dec 5)

Agenda:

» **Trends in Assistive Technologies** - Experts views

» **Launch of 3D Exhibition** on Assistive Technologies

» **Bollywood Entertainment** and Fundraiser