



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
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Smoking cigarettes

Vaping combined with smoking is as harmful as smoking cigarettes alone (The Tribune: 20210105)

<https://www.tribuneindia.com/news/health/vaping-combined-with-smoking-is-as-harmful-as-smoking-cigarettes-alone-193638>

Vaping combined with smoking is as harmful as smoking cigarettes alone

A new research has revealed that the effects of vaping when combined with smoking cigarettes, results in similar health effects to that of smoking regular cigarettes.

As per the new research published in the American Heart Association's flagship journal, Circulation, during large data analysis of more than 7,100 U.S. adults ages 18 and older, researchers studied the association of cigarette smoking and e-cigarette use with inflammation and oxidative stress as biomarkers. Inflammation and oxidative stress are key contributors to smoking-induced cardiovascular disease and their biomarkers have been shown to be predictors of cardiovascular events, including heart attack and heart failure.

Smoking, a well-known link to cardiovascular disease and death, appears to be on the decline. While the use of e-cigarettes, known as vaping, is increasingly popular, there has been limited research on the impact of vaping on the body.

"This study is among the first to use nationally representative data to examine the association of cigarette and e-cigarette use behaviours with biomarkers of inflammation and oxidative stress," said Andrew C. Stokes, PhD, assistant professor of global health at Boston University School of Public Health in Boston and first author of the study. "Given the lag time between tobacco exposure and disease symptoms and diagnosis, identifying the association between e-cigarette use and sensitive biomarkers of subclinical cardiovascular injury is necessary for understanding the long-term effects of newer tobacco products such as e-cigarettes.

Researchers used data from the Population Assessment of Tobacco and Health (PATH) Study, a nationally representative longitudinal cohort in the U.S. This study's analysis was restricted to adults 18 years and older from Wave 1 of the survey, which was administered from 2013 to 2014 and included the collection of blood and urine samples.

Five biomarkers of inflammation and oxidative stress were analyzed. Participants were slotted into four categories based on the use of traditional cigarettes and e-cigarettes within a 30-day period: non-use of cigarettes and e-cigarettes; exclusive vaping; exclusive cigarette smoking; and dual use of cigarettes and e-cigarettes. To test the robustness of initial results, the scientists repeated the analyses in subgroups of respondents, including those with no past 30-day use of any other tobacco products.

Of the study participants, more than half (58.6 per cent) did not use cigarettes or e-cigarettes; nearly 2 per cent vaped exclusively; about 30 per cent smoked cigarettes exclusively; about 10 per cent used e-cigarettes and traditional cigarettes.

The analysis found out those participants who vaped exclusively showed a similar inflammatory and oxidative stress profile as people who did not smoke cigarettes or use e-cigarettes. Those who smoked exclusively and those who used cigarettes and e-cigarettes had higher levels across all biomarkers assessed compared to participants who did not use cigarettes or e-cigarettes.

But when compared to participants who smoked exclusively, those who only vaped had significantly lower levels of almost all inflammatory and oxidative stress biomarkers. However, participants who used cigarettes and e-cigarettes had levels of all inflammatory and oxidative stress biomarkers comparable to those who smoked exclusively.

"This study adds to the limited body of research we have on biologic measures in those using e-cigarettes," said study co-author Rose Marie Robertson, M.D., FAHA, deputy chief science and medical officer of the American Heart Association and co-director of the Association's National Institutes of Health/Food and Drug Administration-funded Tobacco Centre of Regulatory Science, which supported the study. "I believe it has an important message for individuals who may believe using e-cigarettes while continuing to smoke some combustible cigarettes reduces their risk. This commonly-seen pattern of dual-use was not associated with lower levels of inflammatory markers, and thus is not likely to offer a reduction in risk in this specific area."

Researchers also conducted extensive analyses to test the results against the influence of related behaviours such as the use of other tobacco products and marijuana, and second-hand smoke exposure. The results remained consistent across the additional analyses.

Covaxin efficacy

Experts question govt's claim of Covaxin efficacy against new coronavirus strains

Experts question govt's claim of Covaxin efficacy against new coronavirus strains (The Tribune: 20210105)

<https://www.tribuneindia.com/news/health/experts-question-govts-claim-of-covaxin-efficacy-against-new-coronavirus-strains-193625>

Some healthcare experts Monday questioned the government's assertion that Bharat Biotech's COVID-19 vaccine Covaxin can target mutated coronavirus strains and maybe used as a "backup", as they asked for the scientific basis for the claim and for the vaccine's safety and efficacy.

The country's drugs regulator Sunday granted emergency use approval to Oxford-AstraZeneca's Covishield and also to indigenously developed Covaxin even though not enough data on the latter's efficacy and safety was available, which triggered a debate.

Noted virologist Shahid Jameel said he does believe that eventually Covaxin would turn out to be safe and show more than 70 per cent efficacy.

"I say this based on the platform, which is widely used and Bharat Biotech's own track record of successfully making inactivated viral vaccines," he said.

He also said his concerns are based on the processes adopted for approving the vaccine and also on the utterances of people in responsible positions.

"If approval requires both safety and efficacy data for a representative population, phase 2 safety and immunogenicity do not fulfill that criteria," he said.

"That is why we conduct a phase 3. It is the closest you get to a population. Where is that data? Vaccines are not drugs. They are given to healthy people. They are prevention not a treatment. Both safety and efficacy is required," he said.

He also questioned what approval for a "backup" meant.

"Does this mean that if needed, a vaccine of unproven efficacy would be used?" He said the biggest concern is that "sidestepping" processes and poor/complex communication will fuel vaccine hesitancy in India.

"There is already evidence of that on account of fast tracked development timescales. Our country has one of the finest immunisation programmes. It will also undermine the global value of India's vaccine industry, which is first rate by any measure," he said.

Indian Council of Medical Research Director General Dr Balram Bhargava had Sunday said Covaxin is based on an inactivated whole virus, having potential to target mutated coronavirus strains including the UK-variant, and it was a major reason for giving it a conditional nod.

He, however, had also said no clear data regarding the efficacy of the vaccine is available so far.

"The data generated so far demonstrates a strong immune response (both antibody as well as T cell) and in-vitro viral neutralisation. The ongoing clinical trial is the largest trial on 25,800 subjects, in which 23,000 volunteers have already been enrolled including subjects with comorbid conditions, and the vaccine has demonstrated safety till date," Bhargava has said.

All India Institute of Medical Sciences (AIIMS) director Randeep Guleria Monday said Bharat Biotech's vaccine has been given approval only in emergency situations as a backup.

"If there is a surge in cases then we may need larger doses of vaccine then we may go with Bharat Biotech's vaccine. The Bharat Biotech vaccine is more of a backup," he said.

He also rejected claims of fast-tracking the process.

"None of the clinical trials was fast tracked in terms of safety and efficacy. Fast tracking was done in taking regulatory approval which generally takes a long time while going from one phase to the other," he said.

All India Drugs Action Network (AIDAN) also questioned the claim that Covaxin can work better against the UK strain of the virus which is more transmissible.

"It is not clear if there is any scientific basis to claim that Covaxin will be effective in the context of infection by mutant strains when its efficacy has not been established and is currently unknown against any strain of the virus," the AIDAN said.

"The claim being propagated that the whole virion inactivated vaccine is likely to be effective against mutations of the virus is not being supported by any efficacy from the trial because no data has been generated as yet in the Phase 3 trial," AIDAN said in a statement.

A political battle has also ensued over approval to Covaxin.

Some Congress leaders, including Anand Sharma, Shashi Tharoor and Jairam Ramesh, on Sunday raised serious concerns over the green signal to the, saying it is "premature" and can prove dangerous.

The BJP, in response, hit out at the Congress with party president J P Nadda alleging that whenever India achieves something commendable the opposition party comes up with “wild theories” to “ridicule” the accomplishments.

Herd immunity,

Localised herd immunity, young population behind dip in India’s COVID count? (The Tribune: 20210105)

<https://www.tribuneindia.com/news/health/localised-herd-immunity-young-population-behind-dip-in-indias-covid-count-193593>

Localised herd immunity, young population behind dip in India’s COVID count?

The absolute number of people infected with COVID-19 in India may never be known but much of the scientific community agrees the downward trajectory of the disease is real and can likely be attributed to ‘localised’ herd immunity and a younger population.

As scientists attempt to understand India’s sliding COVID count, the country on Monday recorded 16,504 new COVID-19 cases, more than six times lower than the highest daily spike of 97,894 on September 16.

While there is a glimmer of hope and India’s COVID-19 numbers are on a definite decline for a combination of reasons, a vaccination programme continues to be important, particularly given the presence of a mutant, more transmissible strain, several experts said while cautioning against infection upticks ahead.

“It’s not the absolute numbers, but the trajectory that is important,” said Shahid Jameel, director, Trivedi School of Biosciences, Ashoka University, looking at India’s COVID graph.

Noting that it is impossible and impractical to have true numbers during a pandemic, or even after that, unless everyone is tested, the virologist said COVID-19 cases in the country have gone down steadily since the peak in mid-September.

Reflecting the national trend, Delhi’s graph has also been on a downward slide with 384 fresh COVID-19 cases recorded on Monday, the lowest in over seven months, raising hopes that herd immunity may have set in.

Herd immunity is a form of indirect protection from infectious disease that sets in when a sufficient percentage of a population has become immune to an infection.

“Nothing has changed drastically in testing or behaviour since mid-September. So relatively speaking, it’s a downward trajectory,” Jameel told PTI. The country’s average, he said, hides many localised spikes and that would continue.

While the actual numbers may well be underestimated, the trend of lower numbers appears to be real and the rate of spread of the infection is likely to have reduced, said immunologist Satyajit Rath.

“A possible explanation for this may be that crowded urban localities and neighbourhoods where spread was very rapid earlier might be largely saturated, a form of hyperlocal ‘herd immunity’,” Rath, from New Delhi’s National Institute of Immunology (NII), told PTI.

The lack of more travel and the distancing measures—however poorly implemented—may be keeping rates of spread somewhat lower in other less crowded neighbourhoods, he said.

Given the large number of infections in the first wave, it is certainly conceivable that some population immunity has set in and it is difficult for the virus to transmit as easily as it had in the first round, said epidemiologist and economist Ramanan Laxminarayan.

For that reason, it is doubtful India will have a second wave as big as the first one, he explained.

Vaccines

UK scientists worried vaccines may not work on S.African coronavirus variant (The Tribune: 20210105)

<https://www.tribuneindia.com/news/health/uk-scientists-worried-vaccines-may-not-work-on-s-african-coronavirus-variant-193573>

UK scientists worried vaccines may not work on S.African coronavirus variant

Scientists are not fully confident that COVID-19 vaccines will work on a new variant of the coronavirus found in South Africa, ITV’s political editor said on Monday, citing an unidentified scientific adviser to the British government.

Both Britain and South Africa have discovered new, more infectious variants in the coronavirus in recent weeks that have driven a surge in cases. British Health Secretary Matt Hancock said on Monday he was now very worried about the strand found in South Africa.

Scientists including BioNTech CEO Ugur Sahin and John Bell, Regius Professor of Medicine at the University of Oxford, have said they are testing the vaccines on the new variants and say they could make any required tweaks in around six weeks.

"According to one of the government's scientific advisers, the reason for Matt Hancock's 'incredible worry' about the South African COVID-19 variant is that they are not as confident the vaccines will be as effective against it as they are for the UK's variant," ITV political editor Robert Peston said.

The health ministry and Public Health England did not immediately respond to requests for comment on the report.

The world's richest countries have started vaccinating their populations to safeguard against a virus that has killed 1.8 million people and crushed the global economy.

There are currently 60 vaccine candidates in trials, including those that are already being rolled out from AstraZeneca and Oxford, Pfizer and BioNTech, Moderna, Russia's Sputnik V and China's Sinopharm.

That has helped to lift global financial markets, but the discovery of the new variants has raised fresh alarm.

Scientists say the new South African variant has multiple mutations in the important "spike" protein that the virus uses to infect human cells.

It has also been associated with a higher viral load, meaning a higher concentration of virus particles in patients' bodies, possibly contributing to higher levels of transmission.

Oxford's Bell, who advises the government's vaccine task force, said on Sunday he thought vaccines would work on the British variant but said there was a "big question mark" as to whether they would work on the South African variant.

He told Times Radio that the shots could be adapted and "it might take a month or six weeks to get a new vaccine".

BioNTech's Sahin told Spiegel in an interview published on Friday that their vaccine, which uses messenger RNA to instruct the human immune system to fight the coronavirus, should be able to cope with the variant first detected in Britain.

"We are testing whether our vaccine can also neutralise this variant and will soon know more," he said.

Asked about coping with a strong mutation, he said it would be possible to tweak the vaccine as required within six weeks - though it might require additional regulatory approvals. Reuters

Comorbidities for vaccine

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

Grading on basis of age, comorbidities for vaccine There will be division even within senior citizens and those having comorbidities for Covid-19 vaccine shots, officials said (Hindustan: 20210105)



Sweta Goswami

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New Delhi : The 42 lakh people, excluding health care and front line workers, who will be eligible for the Covid-19 vaccinations in Delhi in the first phase will be further graded on the basis of age and the number of comorbidities a person has, senior health officials said on Monday.

With the Central government mulling to launch India's Covid vaccination drive — the biggest such programme in the world — in a week's time, state health officials urged people, especially senior citizens and those with co-morbidities not to panic and throng the vaccine centres once they are opened.

“The Co-WIN mobile application is going to go live for everybody in a few days. One thing which the district administrations are being asked to publicise widely is that the government will only select individuals who are less than 50 with co-morbidities and those above 50 for the vaccination. The Co-WIN app will accept registrations with valid documents only if their names show up in the list within the app. Also, there will be an option to register through camps wherein district health officials will do the registration after basic verification. Just walking up to a vaccine centre will not work,” said Dr Suneela Garg, who is leading the Capital's

vaccination programme and is the director professor at the department of community medicine in Maulana Azad Medical College, University of Delhi.

She, however, clarified that there will be division even within senior citizens and those having comorbidities.

“Within the third category also there are priorities. For example, if a person is 49 years of age and is diabetic and has hypertension and there is another person of the same age, who is diabetic, then priority will be given to the person with two or more comorbidities. Similarly, in the 50+ category, those who are above 60 years of age and with comorbidities will be given the vaccine shot first. The idea is to bring down Covid fatalities,” she said.

Senior government officials said database of those above 50 years is being taken from electoral rolls. “Just like before a polling day, voters get SMSes about their polling booth and other details, here also the same process will be followed. The beneficiary will have to wait for the SMS alert from the district after registration, to know the date, time and place of getting the vaccine shot,” said a health official.

For vaccination of those below 50 years of age with co-morbidities, database from the door-to-door survey which started from November 20 in all hot spots and containment zones is likely to be considered.

However, when HT contacted officers of at least five of the 11 districts of Delhi, all of them said there were no clear directions as on Monday evening on which datasets should be considered for compiling the “under-50 list”.

“We have some data of all 11 districts from the multiple surveys conducted during the last seven months. But we don’t know whether that will be used or will some other mechanism will be used,” said one district magistrate.

Another revenue official from the New Delhi district said there is no dedicated or fresh survey being conducted as of now to identify those below 50 with comorbidities.

The last such survey was conducted between November 20 and December 31, when the Delhi government had initiated a massive survey, covering 5.73 million people, to identify those with symptoms of Covid or a history of contact with a Covid patient. “In all likelihood, it is from this survey that all districts will be asked to compile the final list of those having comorbidities. But no directions have been issued yet. The focus currently is on preparing lists of health care and front line workers,” said an official in the office of the divisional commissioner of Delhi.

Active cases below 5000

The total number of active cases or those with Covid-19 infections in the city has dropped below the 5,000 mark for the first time since May 10 . On Monday, there were 4,689 active cases .

Delhi reported 384 new cases of the infection and 12 new deaths on Sunday, as reported a day later in Monday’s bulletin.

The city has been conducting fewer than 80,000 tests for three days in a row.

Multidimensional Post-COVID-19 Respiratory Distress Rehabilitative Treatment

Sukino Healthcare Launches its Multidimensional Post-COVID-19 Respiratory Distress Rehabilitative Treatment (New Kerala: 20210105)

Sukino Healthcare, India's first and only continuum care provider has announced today, the launch of its post-COVID-19 multidisciplinary respiratory distress rehabilitative treatment for patients who have recovered yet suffer from the after effects of COVID-19. Sukino Healthcare's round the clock team of doctors, nurses and caregivers with their unique and multidimensional patient centric approach have helped patients make remarkable progress within just a month of the rehabilitative care.

Sukino Healthcare has pioneered the concept of Continuum Care in India to revolutionize post-hospital discharge care for patients. Often, COVID-19 patients need a level of medical care and rehabilitation that is difficult to achieve at home. Some of them need continuous monitoring and non-invasive clinical intervention supervised by a medical expert. Once the patient is admitted, a detailed assessment is carried out by Sukino Healthcare's Physio, Occupational and Respiratory therapists for mapping out the therapy sessions and fine-tuning a goal oriented treatment plan depending on the condition of the patient. Over the course of the treatment, the progress of the patient is assessed on a weekly basis with the Borg Dyspnea Scale, six minutes walk test, 12 minutes walk test, TUG scale and the Cough Sputum Score. The treatment is an amalgamation of Physio, Occupational and Respiratory therapy.

Rajinish Menon, Founder and CEO, Sukino Healthcare said, "Optimal care is crucial for speedy recovery and early return to normal life at home after discharge from the hospital. We at Sukino act as the bridge between the hospital and the home, delivering out-of-hospital care that enables the patients to achieve optimal recovery in a best suited environment. At Sukino, we take a holistic view of the patient's health needs and tailor-make the solution to suit the patient's specific health status."

Incepted in 2015, Sukino Healthcare is the first in India to provide managed home care, rehabilitative care, palliative care and end of life care. We offer Neuro, Cardio, Onco, Nephro and Respiratory rehabilitation across the life-cycle of patients, once they are out of the hospital. The services are focused on patients with chronic ailments, including complications from Kidney Diseases, Neurological Impairments, Cardiac Diseases, Cancer, Respiratory Distress and Post-Operative Disabilities. Sukino Healthcare's 120 strong member team of well qualified Doctors, Nurses, Therapists and Counsellors currently provide services to over 1000 patients in six centers across Bangalore and Kochi. They have a tie up with key hospitals in the region for the same.

Masks, Hand Sanitizers

Masks, Hand Sanitizers and Vaccines May be Protective but Insufficient (New Kerala: 20210105)

The Governments in several countries have made it clear that failure to wear face masks will result in the public being faced with hefty fines. The concept that a mask can prevent the spread of COVID-19 continues to remain debatable. Despite the curtailment of droplets in crowded places, there are disadvantages to wearing a face mask, especially for long periods.

Since the beginning of the outbreak, there has been ambiguity with how effectual masks could contain the spread but in recent light of the evidence, several international experts have unanimously admitted that the face mask cannot completely eliminate the threat of COVID-19. Initially, it was gloving that health professionals deemed as potentially hazardous, now, masks also face the same critique posing severe risks for the wearers.

As we started to navigate life beyond the stay-at-home orders, masks have made their way to numerous closets as more of a fashion accessory in comparison to being used as a necessity. The benefits of using masks to prevent contraction of the virus should be weighed against possible respiratory consequences linked with extended use of the aforementioned. Under the right circumstances, face masks are helpful to reduce infection transmission and they are recommended especially for healthcare workers. On the contrary, wearing a mask to walk down the street while social distancing has no benefit at all and simply wastes resources, as there is no evidence that the virus could or would exist in infectious amounts in outside air. In fact, it would cause a decreased airflow and worsen breathlessness. Moreover, a fraction of carbon dioxide previously exhaled is inhaled at each respiratory cycle causing increased breathing frequency and deepness, particularly while exercising. Not only this but re-inhalation of exhaled air creates oxygen deficiency and flooding of carbon-dioxide resulting in severe brain damages.

Comprehending from a normal human perspective, what exactly happens when someone initiates a cough or sneeze? Especially while they are wearing the mask on the face, do you think that the deadly virus or bacteria would be eliminated from our body? No, these contagious particles continue to remain on the surface of the mask while we resume our breathing process. Ultimately this affects our body's in-house mechanism to remove the harmful foreign particles and further creates more stress on the body, leading to various other infections and medical issues.

If one has or is under the assumption of having contracted the COVID-19, one should self-quarantine and remove the mask, as it will worsen the clinical condition of infected people if the enhanced breathing pushes the viral load down into their lungs. By wearing a mask, the exhaled infectious viruses, not limited only to coronavirus, will not be given a chance to escape and will further penetrate into the nasal passages.

Face masks can foster a false sense of security and prolonged contact has to be balanced with one's need for a real breath of fresh air.

Sanitizers The Dirty Truth

Good hand hygiene is paramount to good health and is one of the simplest ways to reduce one's risk of getting sick. Ever since the inception of the pandemic, hand sanitizers have become all the rage. It is a convenient alternative to washing hands with soap and water. It is quick and portable, especially when there is no running water nearby.

The active ingredient in hand sanitizers is often a form of alcohol, such as ethyl alcohol working as an antiseptic. Although antibiotics are effective against bacteria, using hand sanitizers only significantly lowers one's resistance to diseases by killing good bacteria, which helps protect against pathogens.

Excess usage of sanitizers not only leads to alcohol poisoning but also induces intoxication when it comes in contact with eyes and mouth, which in turn weakens the immune system. As companies are not required to disclose the ingredients that make up their secret fragrances, scented sanitizers are highly likely to be loaded with toxic chemicals. Synthetic fragrances contain phthalates, which are endocrine disrupters that mimic hormones and could also alter genital development.

Alcohol is a skin irritant, which disrupts one's natural oil production causing both dry and flaky skin. Over time, alcohols disrupt the natural barrier function, reducing the skin's ability to protect itself, and leading to accelerated aging as a result of increased dehydration.

Washing hands is traditionally superior to using hand sanitizer since soap lifts dirt, germs, and oil off grimy hands to provide a better, overall cleansing, unlike sanitizers, which do not eliminate pesticides and other chemical residues. Hand sanitizers only offer a short-term solution and quickly smearing an ethanol-based liquid would not kill cold and flu bugs either. They are a good temporary stand-in, in case of unavailability of soap and water.

As a complementary habit, sanitizers are most effective when used alongside frequent hand-washing and physical distancing measures. While hand sanitizers can be the saviors on-the-go and prevent the spread of many pathogens, they cannot be considered as a frontline defense.

Coronavirus Vaccines The Hidden Facts

As per CNBC, participants who underwent vaccine trials of two reputed biotechnology companies reportedly experienced high fever, body and headaches, daylong exhaustion, and other symptoms upon receiving the shots. On this account, several doctors have urged CDC to be transparent with the public regarding the side effects following their first shot of the coronavirus vaccine. While both the companies have acknowledged that their vaccines could induce side effects that are mildly equivalent with COVID-19 symptoms, there have been worries if the patient will return for the second dose because of potentially unpleasant aftermath.

Since a fixed dose of vaccine is given to every individual irrespective of age, gender, nutritional status or other co-morbidities the response may vary, the vaccine may not work because it does not induce enough antibodies; if it produces antibodies but the antibodies do not kill the virus; if it kills the virus but the antibodies only last for a short time; there are bothersome side effects. When the advancement in the development of a vaccine occurs and the information is made

public, invariably laxity sets in at various levels. The people will have the sense that we are soon to vanquish COVID and the general public would start to ignore the standard preventive methods like masking and social distancing and governments would also relax the official guidelines.

Most of the times the vaccine is tested on healthy adult individuals, whereas the protection is needed for more vulnerable, older and especially with co-morbidities population. Allergic or anaphylactic reaction to the components of the vaccine especially adjuvants is a real possibility. More so the long-term adverse effects cannot be gauged in short term studies like what has been done in development of COVID vaccine.

Furthermore, developing the vaccine within a short stretch of time impels its own challenges. While the efficacy of the trial in terms of eliciting a response to the virus can be tested, the safety and adverse effects caused by the vaccines in the long term remains questionable. As many people globally, India in particular, are building up immunity to COVID-19, the purpose of vaccines will turn out to be redundant by the time they are being mass-produced in the country, as it is highly likely for herd immunity to have occurred by then.

Although the measured exposure to the virus used in the preparation of a vaccine might be suitable to a few, the potency might either result in an overdose or underdose for the others, as each individual responds uniquely. In its truest form, the human body is composed of and works in tandem with the five elements of nature. The human body is capable of generating vaccines on its own as and when required based on the training and practices. Injecting it with a foreign component only deranges the native functioning of the immune system. As Mr. Narendra Modi, Prime Minister of India said that everyone should be self-reliant i.e., Aatmanirbhar, similarly the human body is capable of being self-reliant/aatmanirbhar subject to right training being provided to the body. Therefore, instead of promoting some vaccine companies for their benefit and blindly following it, we must train our own body to become self-reliant/aatmanirbhar. Hence, naturopathy amplifies the significance of supporting the body's capacity to treat and heal itself with the appropriate combination of food and yoga, as the vaccines which were developed within a brief span are not only feasible for rapid mass production but with minimal trial runs, they might not be the ideal lifelong solution for the entire population exhibiting varied symptoms.

, CEO of (est. 1909) is an entrepreneur and an ardent follower and preacher of wellness. He carries out his philanthropic activities towards wellness through , an initiative of Surajbai Sardarmull Navyas Trust.

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Antibodies against COVID-19

Neuroscientists isolate mini antibodies against COVID-19 from a llama (New Kerala: 20210105)

<https://www.newkerala.com/news/2021/1881.htm>

National Institutes of Health researchers have isolated a set of promising, tiny antibodies, or nanobodies against SARS-CoV-2 virus that were produced by a llama named Cormac.

Preliminary results published in Scientific Reports suggest that at least one of these nanobodies, called NIH-CoVnb-112, could prevent infections and detect virus particles by grabbing hold of SARS-CoV-2 spike proteins.

In addition, the nanobody appeared to work equally well in either liquid or aerosol form, suggesting it could remain effective after inhalation. SARS-CoV-2 is the virus that causes COVID-19.

The study was led by a pair of neuroscientists, Thomas J. "T.J." Esparza, B.S., and David L. Brody, M.D., Ph.D., who work in a brain imaging lab at the NIH's National Institute of Neurological Disorders and Stroke (NINDS).

"For years TJ and I had been testing out how to use nanobodies to improve brain imaging. When the pandemic broke, we thought this was a once in a lifetime, all-hands-on-deck situation and joined the fight," said Dr. Brody, who is also a professor at Uniformed Services University for the Health Sciences and the senior author of the study.

"We hope that these anti-COVID-19 nanobodies may be highly effective and versatile in combating the coronavirus pandemic," added Dr. Brody.

A nanobody is a special type of antibody naturally produced by the immune systems of camelids, a group of animals that includes camels, llamas, and alpacas. On average, these proteins are about a tenth the weight of most human antibodies.

This is because nanobodies isolated in the lab are essentially free-floating versions of the tips of the arms of heavy chain proteins, which form the backbone of a typical Y-shaped human IgG antibody. These tips play a critical role in the immune system's defenses by recognizing proteins on viruses, bacteria, and other invaders, also known as antigens.

Because nanobodies are more stable, less expensive to produce, and easier to engineer than typical antibodies, a growing body of researchers, including Esparza and Dr. Brody, have been using them for medical research.

For instance, a few years ago scientists showed that humanized nanobodies may be more effective at treating an autoimmune form of thrombotic thrombocytopenic purpura, a rare blood disorder, than current therapies.

Since the pandemic broke, several researchers have produced llama nanobodies against the SARS-CoV-2 spike protein that may be effective at preventing infections. In the current study, the researchers used a slightly different strategy than others to find nanobodies that may work especially well.

"The SARS-CoV-2 spike protein acts like a key. It does this by opening the door to infections when it binds to a protein called the angiotensin converting enzyme 2 (ACE2) receptor, found on the surface of some cells," said Esparza, the lead author of the study.

"We developed a method that would isolate nanobodies that block infections by covering the teeth of the spike protein that bind to and unlock the ACE2 receptor," added Esparza.

To do this, the researchers immunized Cormac five times over 28 days with a purified version of the SARS-CoV-2 spike protein. After testing hundreds of nanobodies they found that Cormac produced 13 nanobodies that might be strong candidates.

Initial experiments suggested that one candidate, called NIH-CoVnb-112, could work very well. Test tube studies showed that this nanobody bound to the ACE2 receptor 2 to 10 times stronger than nanobodies produced by other labs. Other experiments suggested that the NIH nanobody stuck directly to the ACE2 receptor binding portion of the spike protein.

Then the team showed that the NIH-CoVnb-112 nanobody could be effective at preventing coronavirus infections. To mimic the SARS-CoV-2 virus, the researchers genetically mutated a harmless "pseudovirus" so that it could use the spike protein to infect cells that have human ACE2 receptors. The researchers saw that relatively low levels of the NIH-CoVnb-112 nanobodies prevented the pseudovirus from infecting these cells in petri dishes.

Importantly, the researchers showed that the nanobody was equally effective in preventing the infections in petri dishes when it was sprayed through the kind of nebulizer, or inhaler, often used to help treat patients with asthma.

"One of the exciting things about nanobodies is that, unlike most regular antibodies, they can be aerosolized and inhaled to coat the lungs and airways," said Dr Brody.

The team has applied for a patent on the NIH-CoVnb-112 nanobody.

"Although we have a lot more work ahead of us, these results represent a promising first step. With support from the NIH we are quickly moving forward to test whether these nanobodies could be safe and effective preventative treatments for COVID-19. Collaborators are also working to find out whether they could be used for inexpensive and accurate testing," said Esparza.

Pandemic

कोरोना महामारी ने बढ़ाई डॉक्टरों की चिंता, देश में एक साल में बढ़ सकते हैं टीबी के 10 लाख मामले (Hindustan: 20210105)

<https://www.livehindustan.com/national/story-one-million-additional-tb-cases-due-to-malnutrition-after-covid-pandemic-3725650.html>

भारत में कोरोना के मामले भी घट रहे हैं और वैक्सीन को भी मंजूरी मिल गई है। हम भले ही COVID-19 को मात देने की कगार पर हैं, लेकिन इस महामारी ने जनजीवन को काफी प्रभावित किया है। देश में

कई बीमारियों के खिलाफ जारी लड़ाई पर भी इसका असर हुआ है। विश्व स्वास्थ्य संगठन के वरिष्ठ वैज्ञानिक और भारतीय आयुर्विज्ञान अनुसंधान परिषद (ICMR) के पूर्व महानिदेशक डॉ. सौम्या स्वामीनाथन ने कहा है कि 2025 तक भारत में जीवाणु संक्रमण को खत्म करने के अपने लक्ष्य को खोने के साथ दुनिया भर में तपेदिक (TB) के दस लाख मामलों की वृद्धि हो सकती है।

टीबी दुनिया भर में हर साल लगभग एक करोड़ लोगों को प्रभावित करता है। करीब 14 लाख लोगों की तो इससे मौत हो जाती है। डॉ. स्वामीनाथन ने हाल ही में संपन्न भारत अंतर्राष्ट्रीय विज्ञान महोत्सव के दौरान कहा, 'इस महामारी ने टीबी प्रोगाम को वैश्विक स्तर पर प्रभावित किया है। जेनेक्स पर्ट मशीन (जिसे आरटी पीसीआर परीक्षण करने के लिए इस्तेमाल किया जा सकता है) और मेडिकल स्टाफ को कोरोना प्रबंधन में लगाया जा रहा है। लॉकडाउन और अन्य प्रतिबंधों से जीडीपी में गिरावट आई, जिसका असर पोषण पर भी पड़ सकता है। इस कारण एक साल में टीबी के करीब मरीजों की संख्या में दस लाख का इजाफा हो सकता है।'

उन्होंने कहा, "टीबी अधिसूचना में महामारी के दौरान 50 से 60% तक गिरावट देखी गई है, जिसके परिणामस्वरूप भविष्य में मामला बढ़ सकते हैं।"

आपको बता दें कि भारत में 2019 में टीबी के 26 लाख 90 हजार मामले सामने आए थे। यह वैश्विक आंकड़े का करीब 26% है। भारत ने 2025 तक प्रति 1,00,000 लोगों पर एक से कम टीबी मामलों का लक्ष्य रखा था। उन्होंने कहा, "महामारी ने निश्चित रूप से 2025 तक टीबी को समाप्त करने के लिए भारत के लक्ष्य को प्रभावित किया है।"

हालांकि, महामारी ने कई सबक दी है। साथ ही प्राइवेट सेक्टर से सहयोग मिला है। इससे देश से जीवाणु संक्रमण को खत्म करने के लक्ष्य को पूरा करने में मदद करने के लिए समाधान खोजने में मदद मिल सकती है।

उन्होंने कहा, "कोरोना की चुनौतियों का सामना करने के लिए बहुत सारे खोज किए गए। इनमें से कुछ का उपयोग टीबी के लिए किया जा सकता है। टेस्टिंग को बढ़ाने के साथ-साथ सोशल डिस्टेंसिंग के पालन और टीका परीक्षण के लिए केंद्रों का निर्माण। प्राइवेट सेक्टर भी इस क्षेत्र में आगे आए हैं। ये सभी टीबी उन्मूलन कार्यक्रम को पटरी पर लाने में भारत की मदद कर सकते हैं।"

Vaccine Dose (Hindustan: 20210105)

https://epaper.livehindustan.com/imageview_554534_86330610_4_1_05-01-2021_2_i_1_sf.html

किल्लत होने पर दो अलग-अलग टीकों की डोज दी जाएगी

योजना

नई दिल्ली | हिन्दुस्तान ब्यूरो

कोरोना टीके को आपात मंजूरी मिलने के बाद बड़े देशों में अब इसकी किल्लत पड़ने लगी है। इसके चलते दो अलग-अलग कंपनियों के टीके को मिलाकर दो डोज देने की तैयारी हो रही है। सबसे पहले टीकाकरण शुरू करने वाला देश ब्रिटेन मिश्रित टीकाकरण की शुरुआत करने जा रहा है। वह ऐसा करने वाला दुनिया का पहला देश होगा। ब्रिटेन में सबसे पहले फाइजर के टीके को मंजूरी दी गई थी। इसके बाद अमेरिका समेत दुनिया के अन्य देशों ने इसके आपात इस्तेमाल की अनुमति

देनी शुरू कर दी। मांग में अचानक आई तेजी से खुद ब्रिटेन में ही आपूर्ति कम पड़ने लगी है। इसे देखते हुए देश में स्वास्थ्य सेवाएं संभालने वाली संस्था एनएचएस को ब्रिटिश सरकार ने टीकों के सीमित मिश्रित इस्तेमाल की इजाजत देने का फैसला किया है। इसके तहत लोगों को पहले एक कंपनी का टीका लगाया जाएगा। इसके बाद दो से तीन सप्ताह की बजाय 12 सप्ताह में दूसरी डोज अन्य कंपनी के टीके की दी जाएगी। एनएचएस का कहना है कि पहले उनकी कोशिश होगी कि लोगों को एक ही टीके की दोनों डोज दी जाएं। जरूरी होने पर ही दूसरी कंपनी का टीका लगाया जाएगा। पब्लिक हेल्थ इंग्लैंड के प्रमुख डॉ. मैरी रामसे के मुताबिक,



ब्रिटेन में सोमवार को 82 वर्षीय किडनी के मरीज ब्रायन पिकर को ऑक्सफोर्ड-एस्ट्राजेनेका का पहला टीका लगाया गया। ● राइटर्स

टीकों के इस्तेमाल को लेकर यह कोई आधिकारिक नीति नहीं है। लेकिन कुछ विशेष मामलों में जहां वैक्सीन की पहली डोज लगने के बाद टीकों

की कमी है वहां कुछ न मिलने से बेहतर है कि लोगों को एक निश्चित अंतराल के बाद दूसरी कंपनी का टीका लगाया जाए।

06

लाख लोगों को अब तक लग चुका है ब्रिटेन में टीका

30

लाख के करीब लोगों को अमेरिका में लगाई गई वैक्सीन

अमेरिका में भी चर्चा

दुनिया में सबसे ज्यादा संक्रमण की मार झेल रहे अमेरिका में भी टीके की मिश्रित डोज को लेकर चर्चा है। कॉर्नेल विश्वविद्यालय के प्रोफेसर जॉन मूर ने कहा, ब्रिटेन में ऐसा कोई ट्रायल नहीं किया है जिसमें दो टीकों के प्रयोग के प्रभाव का अध्ययन किया गया हो। लेकिन व्यावहारिक रूप से निर्णय कुछ हद तक सही है। वहीं, सेंटर फॉर डिजीज कंट्रोल एंड प्रिवेंशन (सीडीसी) के वैज्ञानिकों ने चेतावनी दी है कि एक व्यक्ति पर दो टीकों का इस्तेमाल बेहद खतरनाक साबित हो सकता है। क्योंकि इसके प्रभावों को लेकर किसी भी देश में कोई अध्ययन नहीं किया गया है।

कई दुष्परिणाम भी सामने आ सकते हैं

कोरोना वायरस के नए स्ट्रेन के खतरों के बीच स्वास्थ्य विशेषज्ञों का मानना है कि इसके कई दुष्परिणाम भी सामने आ सकते हैं। वृत्ति अब तक मिश्रित डोज को लेकर कोई ट्रायल नहीं किया गया है, ऐसे में इससे नुकसान की भी आशंका है।

Covid-19 vaccine

Explained: What next for Covid-19 vaccine rollout in India? (The Indian Express: 20210105)

<https://indianexpress.com/article/explained/covid-vaccine-rollout-covishield-covaxin-coronavirus-mass-vaccination-7132877/>

COVID-19 vaccine: India has approved two Covid-19 vaccines for restricted use. How do these work, when will they be given, and to whom? Why have some scientists expressed concern, and what is the government's explanation?

India's top drug regulator on Sunday approved Covishield and Covaxin as vaccines for restricted use against Covid-19, paving the way for mass vaccination against the virus that has so far infected over a crore people and killed nearly 1.5 lakh. A look at these vaccines, how they were approved and what this means for the population:

How do Covishield and Covaxin work?

Covishield is the Indian variant of AZD1222, the vaccine developed by AstraZeneca and University of Oxford. Pune-based Serum Institute of India (SII) developed and manufactured Covishield through a licence from AstraZeneca and Oxford.

It is a “non-replicating viral vector” vaccine, which means it makes use of another weakened and genetically modified virus — in this case a common cold chimpanzee virus — to help the body develop immunity against the coronavirus. The vaccine carries just the code to make the spike protein (the spike on the virus’s surface). The body’s immune system is supposed to recognise this protein as a threat, and work on building antibodies against it.

Covaxin, developed by Hyderabad-based Bharat Biotech in collaboration with the National Institute of Virology, uses a different platform. It is an “inactivated” vaccine, which means it uses the killed SARS-CoV-2 virus, which has no potential to infect or replicate once injected and just serves to boost an immune response. Covaxin is expected to target more than just the spike protein — it also aims to develop an immune response to the nucleocapsid protein (the shell of the virus that encloses its genetic material).

What type of approval has been granted?

Both vaccines have received what is known as a “restricted use approval in an emergency situation” — similar to an Emergency Use Authorisation that countries like the UK and US have been granting to companies like Pfizer, Moderna and AstraZeneca for their vaccines.

This means the vaccines have been approved for use despite the companies not having completed clinical trials. Given the pandemic, the government wanted a vaccine ready to use at the earliest. Another growing concern is the mutation of the SARS-CoV-2 virus that has led to newer strains in countries like the UK which are starting to spread to other parts of the world, including India.

Covishield secured a restricted approval with the help of data generated from over 23,000 participants in AZD1222’s trials in countries like the UK and Brazil. An expert committee of the regulator found Covishield compared with AZD1222 after looking at this data as well as interim data from the vaccine’s phase 2/3 trials on 1,600 participants in India.

In the case of Covaxin, the regulator felt it needed to be approved because it felt the inactivated platform would be able to protect against mutations. The regulator looked at animal testing data as well as data on safety and immunogenicity (ability of the vaccine to prompt an immune response) from phase 1/2 trials.

Bharat Biotech, Covaxin, Mutant virus, Covid vaccine distribution, Coronavirus vaccine India, India vaccine distribution, Vaccine rollout latest news, Indian express news Now that two vaccines have been approved, the country will be able to begin its mass vaccination programme. (Express Photo: Praveen Khanna)

Are there any conditions for these approvals?

Several conditions have been imposed on SII and Bharat Biotech, including that both firms have to continuously submit safety, efficacy and immunogenicity data from their ongoing trials until these are complete.

They also have to submit safety data every 15 days for the coming two months, and after that monthly for the duration of their trials.

On top of this, the restricted approval to Covaxin has been given “in clinical trial mode”. Bharat Biotech will still have to complete vaccinating nearly 26,000 participants in its phase-3 trial, and then collect and analyse data from these people. Bharat Biotech was earlier testing its vaccine by giving half of its participants a placebo. According to the firm, everyone it is testing now will be given Covaxin and data on safety and efficacy will be analysed from them over a fixed time period.

Bharat Biotech will have to submit a protocol for this trial, and a risk management plan.

What concerns have been raised, and what is the government’s response?

Some scientists have expressed concern about the basis for the approval to Covaxin, given that it does not seem to adhere to the regulator’s own requirements for clearing a vaccine in this pandemic.

Health Minister Dr Harsh Vardhan has described the approval for Covaxin as a “strategic decision for our vaccine security”. The Minister posted on Twitter on Sunday evening: “Let it be known that EUA for COVAXIN is differently conditional — in clinical trial mode... All COVAXIN recipients to be tracked,monitored as if they’re in trial... COVAXIN approval is ‘Monitored Approval’ with strict follow-up & rolling review. This approval ensures India has an additional vaccine shield in its arsenal esp[ecially] against potential mutant strains in a dynamic pandemic situation – A strategic decision for our vaccine security.”

All India Institute of Medical Sciences Director Dr Randeep Guleria told The Indian Express on Sunday: “This (approval for Covaxin) is like a back-up. If we find that cases don’t rise, then we stick to the SII (Serum Institute of India’s Covishield), till the Bharat Biotech data comes early next month. And if that data is found to be good enough, then they will get the same approval as the SII. Indirectly, looking at the safety profile, that (Covaxin) is a safe vaccine, although we don’t know how efficacious it is. They (the regulators) have given, I would say, a green signal to start stockpiling in case we need it.”

Dr Vinod K Paul, NITI Aayog member-Health, and chair of the National Expert Group on Vaccine Administration for Covid-19 (NEGVAC), said: “The thinking that has gone in is that this vaccine is not only covering the S protein, it is also against other antigens because it is targeting the whole surface of the SARS-CoV-2 virus. So, this provides much more leverage for the vaccine to work against mutations. It’s our guarantee against the mutations that may be appearing.”

What happens now? Who gets it first?

Now that two vaccines have been approved, the country will be able to begin its mass vaccination programme. A schedule is expected soon, Dr Paul said.

SII and Bharat Biotech are being told to keep “significant” doses ready so that they can be transported to over 30 vaccination hubs, in places like Lucknow, Panchkula, Chennai and Delhi. Once the companies send the vaccines there, state governments are expected to mobilise the doses to the vaccination points. In the first tranche, the vaccination points will be healthcare facilities where nearly 70 lakh public and private health professionals will be vaccinated over the course of three months.

The next to receive vaccines are likely to be frontline workers and then people aged 50 years and above.

Health Minister Dr Harsh Vardhan earlier said the government expected the first phase of vaccination — targeting around 30 crore people on priority — to be completed by August 2021.

Allergic reactions to Covid-19 vaccines

Explained: What is known about allergic reactions to Covid-19 vaccines (The Indian Express: 20210105)

<https://indianexpress.com/article/explained/amid-concerns-over-allergic-reactions-to-vaccines-us-experts-offer-reassurance-7132895/>

Concerns have been raised over reports that some people have possible allergic reactions to Covid-19 vaccines. A team of experts has now examined the relevant information.

Syringes containing the Covid-19 vaccine are shown before being administered at Jackson Memorial Hospital in Miami. (AP Photo: Wilfredo Lee)

In the US, where the Food and Drug Administration (FDA) has granted emergency use approvals to the Covid-19 vaccines from Pfizer-BioNTech and Moderna, concerns have been raised over reports that some people have possible allergic reactions to Covid-19 vaccines. A team of experts has now examined the relevant information and offered reassurance that the vaccines can be given safely, even to people with food or medication allergies. The review is published in the Journal of Allergy and Clinical Immunology: In Practice.

The review notes that allergic reactions to vaccines in general are rare, with a rate of about 1.3 per 1 million people.

The authors summarise what is currently known about allergic reactions to vaccines like the ones developed against Covid-19, and propose detailed advice so that individuals with different

allergy histories can safely receive their first Covid-19 vaccine. They also outline steps on safely receiving the second dose in individuals who develop a reaction to their first dose.

“As allergists, we want to encourage vaccination by reassuring the public that both FDA-approved Covid-19 vaccines are safe. Our guidelines are built upon the recommendations of US regulatory agencies and provide clear steps to the medical community on how to safely administer both doses of the vaccine in individuals with allergic histories,” review author Aleena Banerji from Massachusetts General Hospital (MGH) and Harvard Medical School said in a statement released by MGH.

The experts stress that Covid-19 vaccine clinics will be monitoring all patients for 15 to 30 minutes and can manage any allergic reactions that occur. Banerji and her co-authors recommend that individuals with a history of anaphylaxis to an injectable drug or vaccine containing the compounds polyethylene glycol or polysorbate speak with their allergists before being vaccinated. They stress that patients with severe allergies to foods, oral drugs, latex, or venom can safely receive the Covid-19 vaccines.

The review notes that in the UK, following accounts of potential allergic reactions in some people following vaccination, the medical authorities advised that individuals with a history of anaphylaxis to a medicine or food should avoid Covid-19 vaccination.

In the US, after a review of the data related to allergic reactions, the FDA recommended that the vaccines be withheld only from individuals with a history of severe allergic reactions to any component of the Covid-19 vaccine. The Centers for Disease Control and Prevention (CDC) advised that all patients be observed for 15 minutes post-vaccination by staff who can identify and manage such reactions. The US agencies do not recommend that people with food or medication allergies avoid vaccination.

Coronavirus (Hindustan: 20210105)

https://epaper.livehindustan.com/imageview_554534_86329370_4_1_05-01-2021_2_i_1_sf.html

पांच राज्यों में कोरोना ग्राफ लगातार गिर रहा

कोविड से जंग के मोर्च पर एक और राहत मरी खबर है। कम से कम पांच ऐसे राज्य हैं जहां कोविड के सक्रिय मरीजों की संख्या लगातार गिर रही है और उनका ग्राफ समतल होने की ओर है।

(महीने की तीन तारीख पर आधारित है ग्राफ)

महाराष्ट्र



उत्तर प्रदेश



पश्चिम बंगाल



छत्तीसगढ़



कर्नाटक



नई दिल्ली | हिन्दुस्तान ब्यूरो

इन पांच राज्यों में पश्चिम बंगाल, छत्तीसगढ़, कर्नाटक, उत्तर प्रदेश और महाराष्ट्र शामिल हैं। अगर इस रफ्तार से भी चले तो जल्द ही इन राज्यों में काबिलेगौर सुधार दर्ज हो जाएगा। वहीं केरल के आंकड़ों पर गौर करें तो वहां सक्रिय मरीजों की संख्या में लगातार गिरावट है। लेकिन केरल सुधार के वो संकेत नहीं दे रहे जैसा पांच राज्य दे रहे हैं।

स्वास्थ्य मंत्रालय की ओर से जारी किए इन पांचों राज्यों के आंकड़ों पर गौर करें तो एक सुकून का अहसास होता है। कोविड की सबसे बुरी मार झेलने वाले वाले महाराष्ट्र में बीते सितंबर के दौरान

प्रतिदिन नए मामलों की संख्या 20 हजार तक पहुंच गई थी मगर अब यह संख्या तीन हजार के आसपास है। तीन जनवरी को यहां कुल 3282 नए मामले आए। इसी तरह कर्नाटक में तीन जनवरी को केवल 810 नए मामले आए। राज्य में अक्टूबर में नए मामलों का ग्राफ दस हजार

03

जनवरी को यूपी में मात्र 769 मामले कोरोना वायरस के आए

पहुंच गया था, लेकिन उसी महीने में यह नीचे गिरने लगा और अब समतल होता जा रहा है। यही हालात यूपी, छत्तीसगढ़ और पश्चिम बंगाल के हैं।

यूपी में तीन जनवरी को 769 मामले सामने आए वहीं छत्तीसगढ़ में 537 तो पश्चिम बंगाल में 896 नए संक्रमित मिले। इन राज्यों में नए केसों का ग्राफ लगातार नीचे की ओर जा रहा है, जोकि राहत का संकेत है।

संक्रमण में कमी का कारण युवा आबादी व हर्ड इम्युनिटी

नई दिल्ली | एजेसी

भारत में कोविड से संक्रमित लोगों की निश्चित संख्या का शायद कभी पता नहीं चल सके, लेकिन वैज्ञानिक समुदाय इससे सहमत है कि मामलों की संख्या कम होना वास्तविकता है। विशेषज्ञों के मुताबिक इसके लिए हर्ड इम्युनिटी यानी सामूहिक रोग प्रतिरोधक क्षमता और युवा आबादी को श्रेय दिया जा सकता है।

वार्शिंगटन में सेंटर फॉर डिजीज डायनेमिक्स, इकनोमिक्स एंड पॉलिसी के संस्थापक व निदेशक लक्ष्मीनारायण ने कहा-भारत युवा आबादी के कारण अधिक सुरक्षित रहा जहां देश का 65 प्रतिशत हिस्सा 35 वर्ष से कम आयु का

है, इस आयु वर्ग में संक्रमण की संभावना कम है। अशोका यूनिवर्सिटी के त्रिवेदी स्कूल ऑफ बायोसाइंसेज के निदेशक शाहिद जमील ने भारत के कोविड ग्राफ को देखते हुए कहा-यह निश्चित संख्या नहीं है, बल्कि उतार-चढ़ाव महत्वपूर्ण है। उन्होंने कहा कि महामारी के दौरान सही संख्या का पता होना असंभव और अव्यावहारिक लगता है। हर्ड इम्युनिटी होने का मतलब है कि लोगों के एक बड़े हिस्से में किसी वायरस से लड़ने की ताकत को पैदा करना। दिल्ली के नेशनल इंस्टीट्यूट ऑफ इम्यूनोलॉजी के रोग प्रतिरक्षा विज्ञानी सत्यजीत रथ ने कहा कि हालांकि वास्तविक संख्याओं को अच्छी तरह से आंका जा सकता है।

Coronainfection (Hindustan: 20210105)

https://epaper.livehindustan.com/imageview_554535_86296834_4_1_05-01-2021_3_i_1_sf.html

संकट: कोरोना के नए रूप से अब तक 38 संक्रमित

नई दिल्ली/मेरठ | हिन्दुस्तान ब्यूरो

ब्रिटेन में मिले कोरोना के नए प्रकार की चपेट में सोमवार शाम तक 38 लोग आ चुके थे। इनमें से चार मेरठ और तीन दिल्ली के रहने वाले हैं। केंद्रीय स्वास्थ्य मंत्रालय ने यह जानकारी दी। इनमें 29 लोग शुक्रवार तक संक्रमित पाए गए थे।

मेरठ में बीते दिनों लंदन से लौटी एक बच्ची में संक्रमण की पुष्टि हुई थी, अब बच्ची के माता-पिता के अलावा बलवंत एन्क्लेव में रहने वाले दो रिश्तेदारों की रिपोर्ट भी पॉजिटिव आई है। अभी एक

महाराष्ट्र, केरल में भी मिले

ब्रिटेन से लौटे महाराष्ट्र में आठ और केरल में छह लोग नए वायरस से संक्रमित मिले हैं। राज्य सरकारें इनके साथ यात्रा करने वाले व उनके परिजनों की तलाश कर रही हैं।

की रिपोर्ट का इंतजार है। दिल्ली में तीन और गुरुग्राम में भी एक शख्स संक्रमित पाया गया है। मंत्रालय ने बताया कि इन सभी लोगों को संबंधित राज्य सरकारों द्वारा निर्धारित स्वास्थ्य केंद्र में पृथक्वास में रखा गया है।

38 UK variant Covid-19 cases now; strain isolated,

38 UK variant Covid-19 cases now; strain isolated, NIV to test vaccines (The Indian Express: 20210105)

<https://indianexpress.com/article/india/uk-variant-coronavirus-vaccine-niv-covid-test-7132992/>

“All these persons (detected with the UK strain of the virus) have been kept in single room isolation in designated Health Care facilities by respective State Governments. Their close contacts have also been put under quarantine,” the Union Health Ministry said in a statement.

The number of samples detected with the the new, more contagious strain of the novel coronavirus — the UK “variant under investigation” VUI-202012/01 — is now 38, the government said on Monday.

“All these persons (detected with the UK strain of the virus) have been kept in single room isolation in designated Health Care facilities by respective State Governments. Their close contacts have also been put under quarantine. Comprehensive contact tracing has been initiated for co-travellers, family contacts and others. Genome sequencing on other specimens is going on,” the Union Health Ministry said in a statement issued on Monday.

This variant of SARS-CoV-2, first detected in Kent, England, has now reached over 30 countries around the world. The Ministry said that six labs have so far detected the UK strain during genome sequencing.

It has been detected in 11 samples at the CSIR Institute of Genomics and Integrative Biology (IGIB), New Delhi; 10 samples at the National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru; eight samples at the National Centre for Disease Control (NCDC), New Delhi; five samples at the National Institute of Virology (NIV), Pune; three samples at the Centre for Cellular and Molecular Biology (CCMB), Hyderabad; and one sample at the National Institute of Biomedical Genomics (NIBG), Kalyani.

Significantly, NIV Pune has now successfully isolated and cultured the variant, with all signature changes from the clinical specimens collected from the UK returnees; and the research institute will be testing vaccines on the isolated virus strain.

Indian Council of Medical Research (ICMR) DG Prof Balram Bhargava had told The Indian Express on Sunday that the potential of Bharat Biotech’s vaccine candidate Covaxin to mount resistance against the new mutant strain was a key factor in the regulator granting it emergency approval.

“The new virus strain creating havoc in the UK is now present in 34 countries. Some of the vaccines are just targeting the spike protein of the virus, and these may not be effective. From that perspective, we are looking at the whole virus vaccine (Covaxin), which potentially may have benefits and this will be in our armamentarium,” Prof Bhargava had said.

The Health Ministry on Monday said the situation with regard to the UK variant is “under careful watch”, and that “regular advice is being provided to the States for enhanced surveillance, containment, testing & dispatch of samples to INSACOG (Indian SARS-CoV-2 Genomic Consortium) labs”.

डिजीज एक्स'

चेतावनी! अब कोरोना से ज्यादा 'डिजीज एक्स' का खतरा, सुधर जाइए, वर्ना हालात होंगे और खराब (Dainik Jagran: 20210105)

<https://www.jagran.com/news/national-disease-x-could-be-the-next-pandemic-says-doctor-who-discovered-ebola-jagran-special-21239497.html>

यदि इंसान प्रकृति के खिलाफ यूं ही खड़ा होता रहा तो वो दिन दूर नहीं जब इसका हमें भारी खामियाजा उठाना पड़ेगा। ये चेतावनी इबोला वायरस की खोज करने वाले प्रोफेसर तामफूम ने दी है। उनके मुताबिक डिजीज एक्स दुनिया के सामने नई समस्या बन सकता है।

नई दिल्ली (जेएनएन)। वैश्विक स्तर पर साल 2020 कोविड-19 महामारी के लिए चर्चित रहा, लेकिन साल के बीतते-बीतते वैक्सिन के आने से महामारी की विदाई की उम्मीद बंधी। हालांकि 2021 की शुरुआत को अभी एक सप्ताह भी नहीं बीता है कि एक और खतरनाक बीमारी 'डिजीज एक्स' ने दुनिया को डराना शुरू कर दिया है। इबोला वायरस की खोज में महत्वपूर्ण भूमिका निभाने वाले प्रोफेसर जीन जैक्स मुयेम्बे तामफूम ने चेतावनी दी है कि आज हम ऐसी दुनिया में हैं, जहां रोज नए रोगाणु आ रहे हैं और ऐसी कोई बीमारी कोविड-19 से भी घातक हो सकती है। यदि हम आज भी प्रकृति के खिलाफ खड़े रहे तो वह दिन दूर नहीं जब हमें इसका भारी नुकसान उठाना पड़ेगा।

दुनिया के लिए बन सकता है खतरा

विश्व स्वास्थ्य संगठन का कहना है कि डिजीज एक्स, कहां जाकर रुकेगी अभी यह सिर्फ कल्पना है। विशेषज्ञों का मानना है कि यदि यह अस्तित्व में आती है तो यह कोरोना महामारी से कई गुना अधिक खतरनाक होगी।

उभर रहे हैं नए और घातक वायरस

करीब 45 साल पहले इबोला की खोज करने वाले वैज्ञानिक तामफूम ने चेतावनी दी है कि अफ्रीका के उष्ण कटिबंध वाले वर्षा वनों से नए और घातक वायरस उभर रहे हैं। यहां तक की कांगो लोकतांत्रिक गणराज्य में एक महिला में हैमरेजिक बुखार के लक्षण नजर आने के बाद नए जानलेवा रोगाणु की आशंका जताई गई है। महिला की इबोला सहित कई बीमारियों की जांच की गई थी। हालांकि महिला को उनमें से एक भी बीमारी नहीं थी। इसके बाद उसकी बीमारी को लेकर डर बढ़ गया कि कहीं बीमारी का

कारण डिजीज एक्स तो नहीं है। यह नया रोगाणु कोरोना वायरस की तरह काफी तेजी से प्रसार कर सकता है, लेकिन इसकी मृत्यु दर इबोला की तरह 50 से 90 फीसद तक हो सकती है। इबोला जैसे लक्षण वाली यह बीमारी ठीक भी उसी तरह होती है।

बीते करीब दो दशकों में (1990-2017) में आत्महत्या की स्थिति में दुनिया के कुछ देशों में सुधार हुआ है।

जानवरों से आने वाली बीमारियां वनों की कटाई का परिणाम

प्रोफेसर तामफूम ने कई जोनोटिक बीमारियों को लेकर चेताया है। यह ऐसी बीमारियां हैं, जो जानवर से मानव में आकर खतरनाक हो सकती हैं। कोविड-19 इन बीमारियों में से एक है। इसमें यलो फीवर और रेबीज भी शामिल है। उन्होंने कहा कि वायरस के लिए जानवर स्वाभाविक मेजबान होते हैं। सार्स-सीओवी-2, कोविड-19 बीमारी का कारण है। माना जाता है कि यह चीन में चमगादड़ों से उत्पन्न हुआ है। विशेषज्ञों ने बड़े पैमाने पर वनों की कटाई को जोनोटिक बीमारियों के प्रकोप के लिए जिम्मेदार ठहराया है।

मानवता के लिए बड़ा खतरा नए रोगाणु

प्रोफेसर तामफूम ने कहा कि हम ऐसी दुनिया में हैं, जहां नए रोगाणु सामने आ रहे हैं। यह मानवता के लिए बड़ा खतरा बन जाएंगे। जब उनसे पूछा गया कि क्या कोई नई बीमारी कोविड-19 से ज्यादा नुकसान पहुंचा सकती है तो उन्होंने कहा हां, मैं ऐसा ही सोचता हूं। दूसरी ओर, कोविड-19 महामारी का प्रकोप थमा नहीं है। ऐसे में नए रोगाणु के आने की बात से ही लोग परेशान हैं।

जल्द पता लगाकर बना सकते हैं रणनीति

किंशासा में स्थित नेशनल इंस्टीट्यूट ऑफ बायोमेडिकल रिसर्च के प्रमुख तामफूम हैं। इसे अमेरिका के सेंटर फॉर डिजीज कंट्रोल एंड प्रिवेंशन और डब्ल्यूएचओ का समर्थन है। इसकी प्रयोगशालाएं इबोला जैसी ज्ञात बीमारियों के नए प्रकोप के लिए दुनिया की शुरुआती चेतावनी प्रणाली हैं। उन्होंने कहा कि एक रोगाणु यदि अफ्रीका से निकलता है तो उसे पूरी दुनिया में फैलने में वक्त लगेगा। ऐसे वायरस के बारे में जल्द पता लगाकर इससे लड़ने की नई रणनीति बनाई जा सकती है।

जानवरों के जरिये इस तरह से फैलती है जेनेटिक बीमारियां

प्रत्यक्ष संपर्क: संक्रमित जानवर के लाइ-प्यार के दौरान उसके शरीर से निकलने वाले द्रव्य से।

अप्रत्यक्ष संपर्क: दूषित वस्तुओं या वातावरण के जरिये जैसे बिस्तर या मिट्टी से।

खाद्य के जरिये: संक्रमित मांस के सेवन, उत्पादन या जिसे पकाया नहीं गया है।

वाहक के जरिये: मच्छर, मकखी द्वारा।

हवा या पानी से: रोगाणुओं के ड्रॉपलेट्स या एयरोसोल के जरिये सांस लेने के दौरान या दूषित पानी के संपर्क में आने या पीने से।

बर्डफ्लू

पोंग डैम : प्रवासी पक्षियों में बर्डफ्लू की पुष्टि, जिला कांगड़ा के इंदौरा, फतेहपुर, जवाली और देहरा में चिकन, अंडों की बिक्री पर रोक! (Dainik Tribune: 20210105)

<https://www.dainiktribuneonline.com/news/himachal/pong-dam-birdflu-confirmed-in-migratory-birds-ban-on-sale-of-chicken-eggs-in-indaure-fatehpur-jawali-and-dehra-in-district-kangra-22668>

पोंग बांध का एक किलोमीटर क्षेत्र बनाया रेड जोन, आवाजाही 3 दिन के लिये बैन

पोंग डैम में प्रवासी पक्षियों के बड़ी संख्या में मरने के मामले में बर्डफ्लू की पुष्टि हुई है। जालंधर और पालमपुर से आई रिपोर्ट के मुताबिक झील में परिंदों की मौत का कारण बर्ड फ्लू बताया गया है। कांगड़ा के उपायुक्त राकेश प्रजापति ने इस बात की पुष्टि करते हुए कहा है कि इस मामले में भोपाल से आने वाली रिपोर्ट का इंतजार है ताकि ये पता चल सके कि ये किस प्रकार का बर्डफ्लू है। बड़ी संख्या में प्रवासी पक्षियों की मौत के बाद जिला प्रशासन ने एहतियात के तौर पर पोंग डैम से लगते जिला कांगड़ा के चार उपमंडल इंदौरा, फतेहपुर, जवाली और देहरा में मुर्गा व अंडे की बिक्री पर रोक लगा दी है। साथ ही पोंग डैम के 10 किलोमीटर के दायरे में हर तरह की गतिविधियां भी प्रतिबंधित रहेगी। जिला प्रशासन ने लोगों से अपने पशुओं को पोंग डैम की तरफ न ले जाने और अतिरिक्त एहतियात बरतने की हिदायत दी है। झील में अब तक 1775 से अधिक परिंदों की मौत हो चुकी है। संबंधित दुकानें आज से आगामी आदेश तक बंद रहेंगी। पोंग बांध का एक किलोमीटर क्षेत्र रेड जोन बनाया गया है, इसके अलावा 9 किलोमीटर तक क्षेत्र सर्विलांस जोन बनाया गया है। पोंग बांध क्षेत्र में आवाजाही पर प्रशासन ने 3 दिन पहले ही रोक लगा दी थी।

Malnutrition

Community action, with a focus on women's well-being, can fight malnutrition (The Indian Express: 20210105)

<https://indianexpress.com/article/opinion/columns/equal-wages-women-men-mgnrega-gender-equality-malnutrition-7132922/>

Anganwadi workers, ASHAs, ANMs and anganwadi supervisors can work together with panchayat members to ensure that all children and mothers are covered with immunisation, antenatal care, maternity benefits and nutrition services

Malnutrition should also be understood in the context of women's work.

On an MGNREGA worksite in Kolar, Karnataka, a male worker came up to me and said that men ought to be paid more than women. I asked him why. "Adhu yaavaagalu hange," he replied: That was how it always was. Not so in MGNREGA, I told him.

With equal wages for women and men, and direct payments to workers' bank accounts, MGNREGA helps to increase women's incomes. Another major programme which can improve women's livelihood, their social empowerment and their lives is the National Rural Livelihood Mission (NRLM). Increased incomes give women more voice in family decisions, and the ability to care better for their families and themselves.

Data from the fifth round of the National Family Health Survey (NFHS-5) shows gains in some important areas. In most of the 22 states and Union territories surveyed, infant mortality rates and under-five mortality rates have fallen; and institutional births and child immunisation rates have increased. Access to improved drinking water and sanitation has increased in almost all areas surveyed.

On child malnutrition, the NFHS's findings are worrying. Beyond behaviour change communication and regular monitoring, direct nutrition interventions are key, especially during pregnancy, breastfeeding and in the early years of a child's life. Pregnant women, lactating mothers and young children need hot cooked meals with adequate protein, milk, and green leafy vegetables. States like Karnataka, Andhra Pradesh and Telangana have replaced take-home rations for mothers with daily hot cooked meals.

While providing hot cooked meals frontline health workers also have the opportunity to give pregnant women iron, folic acid and calcium tablets. They are also engaged in early childhood stimulation activities and parenting sessions. Instead of frontline workers going to each woman's house, women coming to the anganwadi makes it easier to provide all women with appropriate services and counselling. Mothers' lunch groups at the anganwadi can also function as informal social networks. A study by the Public Health Foundation of India (PHFI) of Karnataka's Mathrupoorna programme for pregnant women and breastfeeding mothers found

a reduction in anaemia, improved gestational weight gain, improved birth weight, and reduced depression among women participants.

Beyond the “first thousand days”, the intergenerational cycle of malnutrition and its social determinants call for a life cycle approach. Such an approach should address the complex social ill of child marriage. One of the best ways to prevent child marriage is by supporting girls to stay in high school. Grass roots social empowerment programmes should focus on increasing girls’ enrolment, access and retention in secondary education. The nutritional status of adolescent girls could be improved by extending the mid-day meal programme to secondary educational institutions, as some states have done.

Malnutrition should also be understood in the context of women’s work. Childcare enables women to earn a livelihood. Longer working hours for the anganwadi, such as in Karnataka where it runs from 9.30 am to 4 pm, will help women go out to do paid work, including on MGNREGA worksites. Mobile creches for younger children at these worksites and construction sites will help women to work without anxiety about their children’s safety and well-being.

The anganwadi system needs strengthening. Anganwadi supervisors can be supported with interest-free loans and fuel allowance for two-wheelers, enabling them to provide regular guidance to their cluster. Their skills should be upgraded with certificate courses on nutrition and early childhood stimulation. Online training at scale has been the discovery of the pandemic year. Anganwadi workers and supervisors can be supported for professional development through live online sessions on nutrition, growth monitoring and early childhood education.

Anganwadi infrastructure needs attention: Sturdy buildings, kitchens, stores, toilets, play areas and fenced compounds, functional water connections and arrangements for handwashing are urgent imperatives. To cater to multiple meal requirements, anganwadi kitchens need double-burner stoves, gas cylinders, pressure cookers and sufficient steel cooking vessels. Kitchen gardens should be planted with drought-resistant and highly nutritive plants like moringa.

The most effective platform for community action on the ground is the gram panchayat. We often talk of the “last mile” for communication services. The panchayat should be the first mile for social welfare services. There are around 2,50,000 gram panchayats in India, and nearly 14 lakh anganwadis, the majority in rural areas. The anganwadi committee, chaired by a stakeholder mother and including other parents, grandparents and the panchayat ward member, should be a subcommittee of the gram panchayat. It should meet every month on a fixed day, and its discussions should be presented to the gram panchayat for action.

Exclusion and convergence are two major challenges in social welfare programmes. Local governments are the best placed to address the problem of exclusion. They can ensure coverage of the poorest women and children, especially nomadic and semi-nomadic communities, and seasonal migrants such as brick workers and sugarcane harvesters. Panchayats are also the best forum to prevent child marriage and ensure that all girls stay in school.

Convergent action on the ground is one of the strengths of gram panchayats. Anganwadi workers, ASHAs, ANMs and anganwadi supervisors can work together with panchayat members to ensure that all children and mothers are covered with immunisation, antenatal care, maternity benefits and nutrition services. Gram panchayats can use their funds, converged with MGNREGA, to strengthen anganwadis. They can engage women's collectives under NRLM for anganwadi and school needs, and provide panchayat services such as end-to-end solid waste management, water pump operations, surveys, bill collections and management of fair price shops. Such steps will increase women's individual and group incomes in sustainable ways. They will also lead to greater social and economic empowerment of women, their participation in local governance, and, eventually, better nutrition for all.