DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE Da
Tuesday 20201110

COVID vaccine prioritisation

10K Health Care Workers in UT identified for COVID vaccine prioritisation The health care workers are from 45 health facilities of Chandigarh (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/10k-health-care-workers-in-ut-identified-for-covid-vaccine-prioritisation-168743

10K Health Care Workers in UT identified for COVID vaccine prioritisation
The health care workers are from 45 health facilities of Chandigarh. Reuters photo.

A database of over 10,000 Health Care Workers (HCWs) has been created by the UT health the department, who will be prioritized for vaccination once a COVID vaccine is available as per the directions of the central government.

The health care workers are from 45 health facilities of Chandigarh excluding the Post Graduate Institute of Medical Education and Research (PGIMER), which is governed by the centre.

The union government asked the states and union territories for collecting data of health care service providers and other workers in health care settings, both government and private. The Covid vaccination drive of the HCWs will utilize this database to identify the beneficiaries.

As per the union ministry of health and family welfare, the HCWs working in the health facilities is envisaged to be prioritized for the immunization drive (including HCWs working in community under their geographical jurisdiction).

These include front line health workers like auxiliary nurse midwife, accredited social health activist, staff nurse, allopathic doctors (MBBS or post graduates, teaching and non-teaching and doctors on administrative posts), AYUSH Doctors (both in AYUSH dispensaries and other PHCs, hospitals, etc.), dentist, paramedical staff, scientist and research Staff, support Staff-

dietary staff, sanitation worker, ambulance drivers, security staff, outsource agency staff and other support staff, and clerical & administrative staff in the hospital."

Anticipating that COVID-19 vaccine may soon be available, the Government of India (GoI) is preparing for its introduction in the country so that it can be expeditiously rolled out when available. For this, a National Expert Group on Vaccine Administration for COVID-19 (NEGVAC) has been constituted, which is guiding on prioritization of population groups for vaccination; vaccine inventory management and tracking; monitoring of implementation processes; identification of vaccine delivery platforms, etc.

Vaccine beneficiary management system

COVID-19 Vaccination Beneficiary Management system (CVBMS) is being created as an extension of existing electronic Vaccine Intelligence Network (eVIN) module for individualised tracking of all beneficiaries receiving COVID-19 vaccine. This will require the creation of beneficiary databases within the CVBMS which in turn will streamline the process of tracking them for vaccination.

Testing timeline

Testing timeline: What's ahead for COVID-19 vaccines (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/testing-timeline-whats-ahead-for-covid-19-vaccines-168735

Pfizer's surprising news that its COVID-19 vaccine might offer more protection than anticipated — an announcement right after a fraught US presidential election campaign — is raising questions about exactly how the different shots will make it to market.

Pfizer Inc. and the maker of the other leading US vaccine candidate, Moderna Inc., have been cautioning for weeks that the earliest they could seek regulatory approval for wider use of their shots would be late November.

In Britain, AstraZeneca recently said it hoped to prove its own vaccine was effective by year's end.

Late on Monday in a series of tweets President Donald Trump accused the US Food and Drug Administration and Pfizer of waiting until after the election to announce its positive vaccine news. Pfizer did not receive data from independent trial monitors until Sunday, however, and the FDA was not involved in Pfizer's decision to announce its early results.

The hard truth: Science moves at its own pace. While COVID-19 vaccines are being developed at record speeds in hope of ending the pandemic, when they're ready for prime time depends

on a long list of research steps including how many study volunteers wind up getting the coronavirus — something scientists cannot control.

Here's a look at the process:

How the studies work

Pfizer and its German partner BioNTech have enrolled nearly 44,000 people in final testing of their vaccine. Neither participants, their doctors nor Pfizer know who gets the real vaccine and who gets a dummy shot. They get a second dose about three weeks after the first.

And then another week after the second dose, key tracking begins: Counting anyone who experiences COVID-19 symptoms and tests positive for the virus as participants go about their daily routines, especially in hot spots.

Late-stage testing of other vaccine candidates is similar, varying slightly in the number of volunteers and timing.

How to tell shots work

Every vaccine study is overseen by an independent “data and safety monitoring board,” or DSMB. These boards include scientists and statisticians who have no ties to the vaccine makers.

Before a study is complete, only the DSMB has the power to unlock the code of who got real vaccine and who got placebo, and to recommend if the shots are working well enough to stop testing early.

Those boards take sneak peeks at pre-determined times agreed to by the manufacturer and the Food and Drug Administration. The first interim analysis for Pfizer came Sunday.

The company reported its data monitors had counted 94 infections so far -- and that among those initial cases, the vaccine appeared 90 per cent effective.

But the study isn't stopping: To be sure of protection, it's set to run until there are 164 infections. The more COVID-19 cases occur in the trial, the better idea scientists will have of just how protective the shots really are.

Could that sneak peek have come earlier?

Pfizer's initial plans called for evaluating when just 32 infections had been counted. But many scientists warned that was simply too small to draw conclusions about a vaccine needed by billions.

Pfizer said it reconsidered, going back to the FDA for permission to change the plan and do its first interim analysis when there were more cases. By the time Pfizer made the change and caught up with a backlog of virus tests, the DSMB had 94 infections to analyze.

The higher number increases confidence in those still preliminary results, said Dr. Jesse Goodman, a former FDA vaccine scientist now at Georgetown University.

Moderna, AstraZeneca and other companies not quite as far along in their final testing all have set slightly different timepoints for when their data monitors will peek at how the shots are working.

Don't forget safety

Safety is the top priority. Monitors also watch for unexpected or serious side effects. Earlier this fall, separate studies of vaccine candidates made by AstraZeneca and Johnson & Johnson were temporarily halted after some participants experienced health problems, delaying the research until safety investigations allowed both to resume.

Pfizer said Monday no serious safety concerns have emerged so far with its vaccine.

But the FDA is requiring that companies track at least half of study volunteers for two months to look for side effects before asking the agency to review their vaccine. That's about when side effects have cropped in studies of other vaccines.

Pfizer and Moderna both expect to reach that safety milestone later in November.

What happens then?

Companies are expected to seek permission for “emergency use” of their vaccines, rather than waiting to fully complete their studies and then seeking traditional approval.

The FDA's scientific advisers will debate each company's study findings in a public meeting before the agency decides.

Manufacturers already have begun stockpiling vaccine doses in anticipation of eventual approval, but the first shots will be in short supply and rationed. And the first people vaccinated will need to undergo extra safety tracking, as the government watches for rare side effects that might crop up when the shots are given to many more people than were in the research studies.

Pfizer vaccine

Pfizer vaccine ‘90% effective’ in ph-3 trial (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/pfizer-vaccine-90-effective-in-ph-3-trial-168353

Vials with a sticker reading, 'COVID-19 / Coronavirus vaccine / Injection only' and a medical syringe are seen in front of a displayed Pfizer logo in this illustration taken October 31, 2020.

Reporting results from early analysis of late-stage phase-3 trials, US pharmaceutical giant Pfizer and its German collaborator BioNTech on Monday said their Covid vaccine candidate was found to be 90 per cent effective in preventing the disease among those without prior infection.

The companies plan emergency use authorisation once the required safety milestone is achieved, expectedly by November third week.

In a joint statement, the collaborators announced success from the first interim efficacy analysis of phase-3 data. The study was done by an independent data monitoring committee.

The protection from the disease was reported at seven days after the second dose and 28 days after the initiation of the vaccination, which consists of a two-dose schedule, said Albert Bourla, Pfizer chairman and CEO.

Ugur Sahin, BioNTech co-founder and CEO, termed it a victory for innovation and science. The phase-3 trial of BNT162b2 began on July 27. Around 43,500 participants have been enrolled to date, of whom 38,955 have received the second dose as on November 8.

2-dose schedule

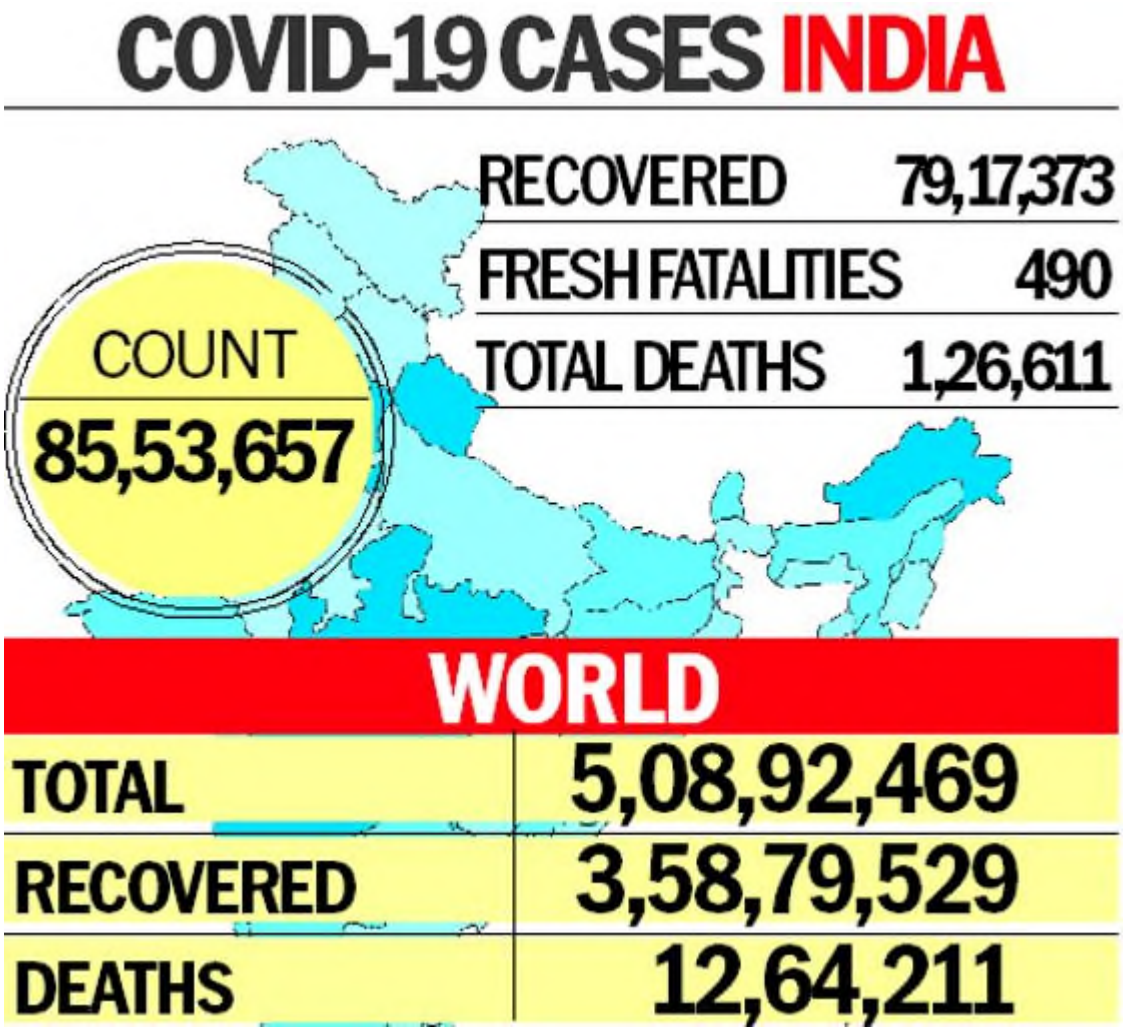
BNT162b2 reported protection from Covid on seventh day after the second dose and 28 days after initiation of the vaccination (1st dose)

50 million

Doses likely to be produced in 2020; production may touch 1.3 billion doses in 2021

Sputnik updates on social media

Sputnik V manufacturers on Monday said all updates on the Russian vaccine’s launch would be shared across all social media platforms — Twitter, Facebook, YouTube and Instagram.



COVID-19 vaccine

Q&A: Where are we in the COVID-19 vaccine race? (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/qa-where-are-we-in-the-covid-19-vaccine-race-168351

Here's everything you want to know about the race for a vaccine

Drugmakers and research centers around the world are working on COVID-19 vaccines, with large global trials of several of the candidates involving tens of thousands of participants well underway.

The following is what we know about the race to deliver vaccines to help end the coronavirus pandemic that has claimed over 1.25 million lives worldwide:

Who is furthest along?

US drugmaker Pfizer Inc and German partner BioNTech SE are the first to announce data from a late-stage clinical trial.

The next data releases will likely be from US biotech firm Moderna Inc, possibly in November, and from Britain-based AstraZeneca Plc with the University of Oxford in November or December. Johnson & Johnson says it is on track to deliver data this year.

What happens in these trials?

The companies are testing their vaccines against a placebo--- typically saline solution---in healthy volunteers to see if the rate of COVID-19 infection among those who got the vaccine is significantly lower than in those who received the dummy shot.

Why is Pfizer ahead with its data?

The trials rely on subjects becoming naturally infected with the coronavirus, so how long it takes to generate results largely depends on how pervasive the virus is where trials are being conducted. Each drugmaker has targeted a specific number of infections to trigger a first analysis of their data.

AstraZeneca said last week a slowdown in infections during the summer is delaying data analysis for its UK trial.

COVID-19 cases, however, soared in October and early November, setting daily records in the United States and Europe.

How well are the vaccines supposed to work?

The World Health Organization has recommended a minimum standard for effectiveness of at least 50 per cent. The United States and some other regulators are following that guideline---which means there must be at least twice as many infections among volunteers who received a placebo as among those in the vaccine group. The European Medicines Agency has said it may accept a lower efficacy level.

When will regulators decide on safety and efficacy?

Regulators review vaccines after companies submit applications seeking either emergency use authorization (EUA) or formal approval.

The earliest the US Food and Drug Administration could make a decision is in December because Pfizer/BioNtech and Moderna do not expect to have enough safety data until the second half of November. The FDA has asked companies to watch trial participants for side effects for two months after receiving a final vaccine dose.

Regulators for Europe, the United Kingdom and Canada are considering data on a rolling basis, as it becomes available.

They expect to conduct expedited reviews as well. It is not clear when companies will submit efficacy data to these agencies or when the agencies would make a decision.

Could these be the first widely available coronavirus vaccines?

Yes, although China and Russia are on a similar timeline. China launched an emergency use programme in July aimed at essential workers and others at high risk of infection that has vaccinated hundreds of thousands of people.

At least four vaccines are far along including those from China National Biotec Group (CNBG), CanSino Biologics and Sinovac. Sinovac and CNBG have said to expect early trial data as soon as November.

Russia's Gamaleya Institute has begun a 40,000-person late-stage trial and is expected to have early data in November.

Russia has also given the vaccine to at least hundreds of "high-risk" members of the general population.

Inflammatory bowel disease

People with inflammatory bowel disease likely to die early (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/people-with-inflammatory-bowel-disease-likely-to-die-early-168347

People with inflammatory bowel disease likely to die early

Researchers have found that people with inflammatory bowel disease (IBD) are likely to die early.

"The good news is life expectancy has increased in people with IBD, but there is still a gap between people with and without the disease," said study author Eric Benchimol from The Hospital for Sick Children in Canada.

"However, people with IBD suffer from pain, which can negatively affect daily functioning and contribute to decreased health-adjusted life expectancy," Benchimol added.

The study, published in the Canadian Medical Association Journal included 32,818 people living with IBD in 1996 (matched to 163,284 people without IBD), increasing to 83,672 in 2011 (matched to 418,360 non-IBD people).

In women with IBD, life expectancy increased by almost three years between 1996 (75.5 years) and 2011 (78.4 years).

The findings showed that Life expectancy among men with IBD increased by 3.2 years between 1996 and 2011, from 72.2 years to 75.5 years.

However, people with IBD had a consistently shorter life expectancy than those without IBD. Women with IBD can expect to live between 6.6 years and 8.1 years less than women without IBD.

Men with IBD can expect to live between five years and 6.1 years less than men without IBD.

When measuring health-adjusted life expectancy, a measure of how health-related symptoms and functioning affects both quality of life and life expectancy, the gap between those with and without IBD was even greater.

Women with IBD have a health-adjusted life expectancy that is 9.5 to 13.5 years shorter than women without IBD.

Men with IBD have a health-adjusted life expectancy that is 2.6 to 6.7 years shorter than men without IBD.

"Patients with IBD often experience inflammation beyond the intestinal tract and are more likely to be diagnosed with cancer, heart disease, arthritis and other conditions," the authors wrote.

Immunisation

India should build COVID-19 vaccine confidence, identify ‘hesitancy hotspots’, says int’l immunisation expert (The Tribune: 20201110)

https://www.tribuneindia.com/news/health/india-should%C2%A0build-covid-19-vaccine-confidence-identify-hesitancy-hotspots-says-intl-immunisation-expert-168342

According to a recent global survey, people in 10 out of 15 countries showed growing reluctance about getting vaccinated

India should build COVID-19 vaccine confidence, identify ‘hesitancy hotspots’, says int’l immunisation expert
People throng Dadar market ahead of Diwali in Mumbai. (PTI Photo)

India should identify COVID-19 vaccine “hesitancy hotspots” pockets, where people may be unwilling to receive immunisation for varied reasons, and then build vaccine confidence, says anthropologist and international immunisation expert Heidi J Larson.

Several global surveys were being conducted about public willingness to take a vaccine, said the professor of Anthropology, Risk and Decision Science at the London School of Hygiene and Tropical Medicine.

"... India must identify hesitancy hotspots and then conduct a vaccine confidence survey," Larson, who is also founder-director of the Vaccine Confidence Project research group in London, told PTI in an email interview.

With many vaccine candidates globally in the final phase of human trials, a safe and effective COVID-19 preventive is expected to be approved for production, distribution and acceptance sometime next year.

According to a recent global survey, people in 10 out of 15 countries showed growing reluctance about getting vaccinated. However, Indians are the keenest on getting vaccinated whenever a COVID-19 vaccine is available.

In the World Economic Forum/Ipsos survey of 18,526 adults from 15 countries, 73 per cent said they would get a COVID-19 vaccine if available, down from 77 per cent in August.

In India, the survey found that vaccination intent has remained unchanged at 87 per cent since August, although 34 per cent respondents were worried about side effects while 16 per cent were concerned about fast-moving trials.

According to Larson, there is generalised vaccine hesitancy primarily because of the lack of proper information on the safety and efficacy of any of the possible COVID-19 vaccines. This is due to distrust of governments as well as motives of pharmaceutical companies as they are trying to come out with a vaccine faster than normally done so, she reasoned.

"Some of these concerns are understandable as we currently do not have any final information on the safety and efficacy profiles of whichever vaccine may be approved. Other fears are due to distrust of government more broadly or the motives of vaccine companies to produce vaccines more quickly than normal," she said.

"But these vaccines have been able to be developed and tested more quickly because of new technologies. These are not old processes that have been short-cut, they are new processes," she further noted.

According to the anthropologist, certain communities, such as the Muslims, also have issues due to the presence of gelatine, which is derived from pork.

"There are religious issues. Such as some Muslims concerned that some vaccines are not halal because they have gelatine which is derived from pork… Although most Muslims agree that vaccines are important to save lives and if there is no alternative, they will accept the very a small amount of gelatine in some vaccines," she said.

On what could be the solution to clear such hesitation, she said: "The most important thing is to understand why people refuse vaccines, only then can you know what the issue is and how to address it."

Larson, who earlier headed the Global Immunisation Communication at UNICEF, noted that "political polarisation, religious extremism and misinformation on the internet and through other media such as radio, newspapers and person-to-person discussions" were a problem for vaccine confidence.

"It is important to get accurate information out to the public but some of these issues are not about information, they are about emotions and beliefs which are much more difficult to change," she said.

Larson described the COVID-19 pandemic as a "global health crisis" which can "cause long term problems for individuals".

Asked whether the invention of a COVID vaccine will be able to eradicate the disease, Larson said, "We are unlikely to eradicate COVID-19 for a very long time, if at all."

However, she is hopeful that everyone will be vaccinated by the end of 2021 and suggests that healthcare professionals and frontline workers should be immunised first as they are most at risk.

They were also at risk of spreading it to others, she added.

"As there are likely not to be enough vaccines for everyone in the world at the same time, there will need to be a decision on who gets the vaccines first," Larson said.

After healthcare workers, older people should be administered the new vaccine for COVID-19.

India's Union Health Minister Dr Harsh Vardhan had in early October stated the Centre was planning to vaccinate about 25 crore people against novel coronavirus by July next year.

Vardhan had also said priority would be given to health workers engaged in COVID-19 management in getting inoculated and asserted that the Centre would ensure fair and equitable distribution of vaccines, once they were ready. PTI

Covid-19: What you need to know today (Hindustan Times: 20201110)

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

The big news of Monday is, of course, on Page 1 of this paper -- on the Pfizer-BioNTech mRNA vaccine being at least 90% effective in preventing Covid-19 according to the first interim analysis of late stage trail data. Pfizer's CEO termed it a "great day for science and humanity," and history may well prove him right, although there are still a few hurdles the vaccine has to clear. If it does that, it may well be available by the end of the year (See front page).

But this column isn't about vaccines; it is about spillovers.

David Quammen's 2012 book, Spillover: Animal Infections and the Next Human Pandemic, and the chapter on AIDS from it, later published as a separate book, The Chimp and the River: How AIDS Emerged from an African Forest, are among the best reads on zoonotic diseases. A spillover is an infection that originates in a non-human species but spills over into humans. In the case of AIDS, as Quammen chronicles, everything began with one "bloody encounter" between a Cameroonian hunter and an infected chimpanzee. In the case of Mers (Middle Eastern Respiratory Syndrome), a camel figures somewhere in the chain. And in the case of Sars, the virus was traced back to civets (hunted for meat), and further back to a species of horseshoe bats. Sars-CoV2, the virus behind the coronavirus disease (Covid-19), is believed to have jumped from horseshoe bats, perhaps to an intermediary (pangolins are likely candidates), and then to humans, although this chain is still being investigated.

Spillovers are far more common than people think (to be fair, many of the zoonotic pathogens are common ones such as Salmonella), although there are times when a new virus emerges. The virus behind AIDS was new. As were those responsible for Sars, Mers, and Ebola. And, more recently, Covid-19. These are so-called black swan events that result in nightmarish scenarios – and, unfortunately, given indiscriminate commercial farming of animals for meat or fur, and rampant deforestation and hunting (the consumption of bushmeat is widely believed to be behind Ebola), they are becoming far more common than the generic term used to describe them would suggest.

There's been a lot of interest in spillovers in recent days because of minks in Denmark. Minks are small carnivorous mammals that belong to the same family as weasels, otters, ferrets, and wolverines (Mustelidae). In Dispatch 151 on September 7, I wrote about Netherlands deciding to close its mink farms by next March ahead of a planned 2024 deadline following research by the Erasmus Medical Centre, Rotterdam, that showed workers in mink farms (the animals are farmed for fur) were infected by other workers, who passed on the infection to more workers, suggesting that the virus was anthropozoonotic (capable of jumping from humans to animals), apart from being zoonotic (capable of jumping from animals to humans) in the case of minks.

Last week, Denmark announced that it is culling the entire mink population of its farms – around 17 million – citing mutations in the virus as it jumped from humans to minks, and then back. Worryingly (and scarily), the country's environment ministry said in a statement that

state health authorities “have now found a mutation in tests from five mink farms in Northern Jutland and in tests from 12 persons, and testing shows that the potential vaccines would not work effectively on this mutated virus”.

The statement also clarified that “there is no evidence that those people infected with this mutation experience a more serious disease”. Denmark has already started sharing the results of its genomic sequencing of the mutated virus on scientific databases, and more research is needed to understand and confirm the effect the mutation has on the infectivity of the virus, the severity of the disease, and the response to vaccines under development.

This is the year that proved Murphy’s Law beyond doubt, so how worried should we be? The opinion of most experts is: not much (although they’d like to see more data); many think the link Denmark makes about the mutation and the effectiveness of vaccines may not be backed by research. It’s not uncommon for viruses to jump from humans to animals. And Sars-CoV2 is no longer a strange virus whose effect on the human body is unknown.

Still, it is 2020.

Coviid Cases (The Asian Age: 20201110)

http://onlineepaper.asianage.com/articledetailpage.aspx?id=15215618

Delhi and Kerala highest contributors to Covid cases

India sees 45,903 new cases, 490 deaths in 24 hours

AGE CORRESPONDENTS
NEW DELHI/GUWAHATI/RAIPUR/ THIRUVANATHAPURAM/ BHUBANESHWAR/BENGALURU, NOV. 9

A health worker collects swab samples for the Covid test in New Delhi on Monday. — *PTI*

As India prepares to face a harsh winter, Delhi and Kerala are bracing to deal with a harsher Covid season as fresh cases in these two continue to rise alarmingly. West Bengal and Haryana too have started reporting higher cases even as Maharashtra and Telangana have some relief with lowering of new detections. India on Monday had 85.54 lakh total cases out of which 45, 903 were detected in the last 24 hours. The total number of deaths is 1,26, 611 with 490 new fatalities in the last 24 hours.

Delhi recorded over 70 fatalities due to Covid for the third consecutive day on Monday, taking the death toll to 7,060, while 5,023 fresh cases pushed the infection tally to over 4.4 lakh, a health department bulletin said.

With over 7,000 fresh cases now, Delhi is the new Covid epicentre of the country and Kerala, with close to 6,000 new daily cases, not far behind. Delhi chief minister said the national capital is going through the 'third wave' and it is estimated that the city may have about 10,000-15,000 cases daily by December end and early January. In Delhi, the number of patients under home isolation has seen a 50 per cent increase in the last two weeks, while the containment zones have increased by over 32 per cent.

Meanwhile, Kerala recorded 3,593 new Covid cases on Monday, pushing the caseload to 4,89,702, while the toll climbed to 1,714 with new 22 fatalities, Health minister K.K. Shailaja said.

With close to 6,000 new cases, Kerala has been witnessing a big wave 4again with the arrival of non-resident Keralites from abroad. With contact cases increasing alarmingly, the test positivity rate in Kerala touched an all-time high of 17.32 per cent in October which was the highest in the country when the national rate was 5.93 per cent. Similarly, the growth of Covid positive cases in Kerala was 2.8 per cent compared to the national average of 0.9 per cent, taking the state beyond Maharashtra. At present, over 3.16 lakh people are under observation including 2.96 lakh under home/institutional quarantine. The state recorded the highest single-day spike so far on October 10 with 11, 755 cases.

Madhya Pradesh, after witnessing a steady decline in cases for the past 38 days, has once again started recording a rise in fresh cases since November 2. The state had recorded the biggest one-day fresh cases of Covid-19 (2202) in the 3rd week of September and the lowest one-day new cases (632) in the last week of October. On November 8, 891 fresh cases were reported taking the tally of Covid-19 cases in the state. The active cases which witnessed a steady decline for the last 38 days till November 6 (7766) have also begun increasing since November 8 (7928). Similarly, the positivity rate which had peaked to 10.25 per cent in April-May, had declined to 2.1 per cent in the last week of October, has again increased to 3.1 per cent on November 8.

Smoking

E-cigs may be 'gateway' to cigarettes for teens: Study (New Kerala: 20201110)

https://www.newkerala.com/news/2020/196143.htm

Researchers have revealed that e-cigarette use is associated with a higher risk of cigarette smoking among adolescents who had no prior intention of taking up conventional smoking.
The study, published in the journal Pediatrics, found that e-cigarettes can predispose adolescents to cigarette smoking, even when they have no prior intentions to do so.

"Research is showing us that adolescent e-cigarette users who progress to cigarette smoking are not simply those who would have ended up smoking cigarette anyway," said study author Olusegun Owotomo from the Children's National Hospital in the US.

In one of the first theory-guided nationally representative studies to identify which adolescent e-cigarette users are at most risk of progressing to cigarette smoking, researchers looked at data of more than 8,000 adolescents, ages 12-17, who had never smoked.

The data was collected by the Population Assessment of Tobacco and Health (PATH) study, an NIH and FDA collaborative nationally representative prospective cohort study of tobacco use, from 2014-2016.

Among adolescents who did not intend to smoke cigarettes in the future, those who used e-cigarettes were more than four times more likely to start smoking cigarettes one year later compared to those who did not use e-cigarettes.

E-cigarette use constitutes a relatively new risk factor for nicotine use disorder among US adolescents.

Previous studies found that 28 per cent of high school students and 11 per cent of middle school students were current e-cigarette users.

With the recent emergence of newer and potentially highly addictive e-cigarette products, adolescents who use e-cigarettes are at increased risk of developing nicotine use disorder and progressing to smoke conventional cigarettes.

"Abstinence from e-cigarettes can protect teens from becoming future smokers and should be framed as a smoking prevention strategy by all concerned stakeholders," Owotomo noted.

Cardiovascular

Food insecurity linked to higher cardiovascular death risk (New Kerala: 20201110)

https://www.newkerala.com/news/2020/195979.htm

Increasing rates of food insecurity are independently associated with an increase in cardiovascular death rates among adults between the ages of 20 and 64, say researchers.
According to the study, about 10 per cent of adults in the US are considered food insecure, meaning they lack immediate access to fresh, healthy and affordable food.

In addition, the stress from not knowing where their next meal will come from or regularly consuming cheap, processed foods may have an adverse impact on cardiovascular health.

"This research shows food insecurity, which is a particular type of economic distress, is associated with cardiovascular disease," study author Sameed Khatana from University of Pennsylvania in the US.

"It illustrates that cardiovascular health is tied to many things," Khatana added.

Researchers accessed county-level data on cardiovascular death rates and food insecurity rates that occurred from 2011 to 2017, among adults age 20 to 64, and those 65 years old and older.

In their analysis, researchers examined cardiovascular mortality trends in the US by average annual percent change in food insecurity.

They assessed the relationship between changes in food insecurity and cardiovascular death rates, after adjusting for variables including changes in demographics, employment, poverty, income, health insurance and other factors already known to affect cardiovascular risk.

Overall, food insecurity rates for the entire country declined significantly (from 14.7 per cent to 13.3 per cent) between 2011 and 2017.

The level in which food insecurity changes was a significant predictor of death for people between the ages of 20 and 64.

The findings showed that cardiovascular death rates remained much higher among the elderly than younger people.

According to the researchers, for every one per cent increase in food insecurity, there was a similar increase in cardiovascular mortality among non-elderly adults.

The study is scheduled to be presented at the American Heart Association's Scientific Sessions 202, virtually from November 13-17.

Health literacy

Study examines health literacy, shared decision-making in prostate cancer screening (New Kerala: 20201110)

https://www.newkerala.com/news/2020/195892.htm

New research examines the dynamics between men's health literacy, their discussions with their doctors, and their decisions on whether to get tested for prostate-specific antigen (PSA), a potential marker of prostate cancer.
The findings have been published early online in CANCER, a peer-reviewed journal of the American Cancer Society (ACS).

Controversy exists over PSA testing for prostate cancer because it may lead to overdiagnosis and subsequent over-treatment. In 2012, guidelines recommended against PSA screening for all men, but the most recent guidelines from 2017 state that for men between the ages of 55 to 69 years, physicians and patients should have meaningful discussions concerning PSA screening's advantages and disadvantages so as to make choices based on shared decision-making.

This approach depends on both physicians' ability to clearly and accurately explain relatively complex clinical concepts and engage patients in the process, as well as on patients' ability to understand the information provided. In this respect, health literacy, or the degree to which individuals have the capacity to understand health information and services to make appropriate health decisions, is important.

To better understand the effect of health literacy and shared decision-making on patients' likelihood of undergoing PSA screening, investigators examined 2016 data from the Behavioral Risk Factor Surveillance System, an annual health survey of a random sample of US adults. The analysis included information representing more than 12 million men aged 50 years or older who reported their last year's PSA screening status.

Higher health literacy was associated with higher rates of PSA screening, a surprising result given the 2012 guidelines' recommendation against screening. This finding suggests that men with the highest health literacy may request to undergo PSA testing despite knowledge of the recommendations, or that physicians may be more likely to offer PSA screening to patients with higher health literacy compared with other patients.

The researchers also identified a dynamic interplay between health literacy and shared decision-making. Specifically, in the presence of shared decision-making, patients with higher health literacy were less likely to undergo PSA screening compared with patients with low health literacy.

"This finding should inform the creation and promulgation of shared decision-making guidelines and interventions, specifically when considering patients with low health literacy," said lead author David-Dan Nguyen, MPH, a research fellow at the Center for Surgery and

Public Health (a joint initiative of the Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health), under the supervision of Dr Jesse Sammon, DO, an assistant professor at Tufts University School of Medicine. Nguyen noted that physicians may also need guidance in assessing patients' health literacy. "Providers consistently overestimated patients' health literacy, and this poor accuracy may diminish the providers' ability to successfully personalize communication with patients and engage them in shared decision-making, especially for patients with the lowest levels of health literacy," he said.

An accompanying editorial notes that the study provides important information on the relationship between health literacy, shared decision-making, and PSA screening, and notes the findings offer less insight for the character of this dynamic in the general population. "Further prospective investigation into how best to educate and empower vulnerable populations with lower health literacy to make informed decisions is required in order to design effective interventions to improve PSA screening in populations at greatest risk," the authors wrote.

Food and Nutrition

Pretty food may seem healthier to consumers, finds study (New Kerala: 20201110)

https://www.newkerala.com/news/2020/195561.htm

A new paper explores whether attractive food might seem healthier to consumers.
The study forthcoming in the Journal of Marketing is titled "Pretty Healthy Food How and When Aesthetics Enhance Perceived Healthiness" and is authored by Linda Hagen.

Consumers see almost 7,000 food and restaurant advertisements per year, with the vast majority touting fast food. In marketing materials, food is extensively styled to look especially pretty. Imagine the beautiful pizza you might see on a billboard -- a perfect circle of crust with flawlessly allocated pepperoni and melted cheese. Advertisers clearly aim to make the food more appetizing. But do pretty aesthetics have other, potentially problematic, effects on your impressions of food?

On one hand, beautiful aesthetics are closely associated with pleasure and indulgence. Looking at beautiful art and people activates the brain's reward centre and observing beauty is inherently gratifying. This link with pleasure might make pretty food seem unhealthy because people tend to view pleasure and usefulness as mutually exclusive. For instance, many people have the general intuition that food is either tasty or healthy, but not both.

On the other hand, a specific type of aesthetics called "classical" aesthetics is characterized by the ideal patterns found in nature. For instance, a key classical aesthetic feature is symmetry, which is also extremely common in nature. Another prominent classical aesthetic feature involves order and systematic patterns, which, again, are ubiquitous in nature. It seems possible that sporting more of these nature-like visual features might make food depictions feel more

natural. Seeming more natural, in turn, may make the food seem healthier because people tend to consider natural things (e.g., organic food or natural remedies) to be healthier than unnatural things (e.g., highly processed food or synthetic chemicals). So, by virtue of reflecting nature, the same food may seem healthier when it is pretty (compared to when it is ugly).

In a series of experiments, the researcher tested if the same food is perceived as healthier when it looks pretty by following classical aesthetics principles (i.e., symmetry, order, and systematic patterns) compared to when it does not. For example, in one experiment, participants evaluated avocado toast. Everyone read identical ingredient and price information, but people were randomly assigned to see either a pretty avocado toast or an ugly avocado toast (the pictures had previously been, on average, rated as differentially pretty). Despite identical information about the food, respondents rated the avocado toast as overall healthier (e.g., healthier, more nutritious, fewer calories) and more natural (e.g., purer, less processed) if they saw the pretty version compared to the ugly version.

As suspected, the difference in naturalness judgments drove the difference in healthiness judgments. Judgments of other aspects, like freshness or size, were unaffected. Experiments with different foods and prettiness manipulations returned the same pattern of results, suggesting that the effect is unlikely idiosyncratic to certain pictures.

Importantly, these healthiness judgments affect consumer behaviour. In a field experiment, people were willing to pay significantly more money for a pretty bell pepper than an ugly one, and a substantial portion of this boost in reservation prices was attributable to an analogous boost in healthiness judgments. In another study, even when people had financial incentives to correctly identify which of two foods contained fewer calories, they were more likely to declare a target food to be the lower calorie option when it was pretty than when it was ugly--even though this choice lost them money.

There are some key qualifications. First, the pretty=healthy effect is limited to classical aesthetics. "Expressive" aesthetics do not involve nature-like patterns, but instead please through imaginative execution of creative ideas, such as food cut into fun shapes or arranged to depict a scene. Second, the pretty=healthy bias can be muted by displaying a disclaimer next to the food reminding people that the food was artificially modified.

This effect of classical aesthetic principles has implications for marketers and public health advocates, albeit different ones. Hagen explains that "Classical aesthetics may be a costless and subtle new way to convey naturalness and healthfulness--attributes that consumers increasingly demand in food products. At the same time, pretty food presentation may optimistically distort nutrition estimates and negatively impact dietary decisions. Given these findings, policy-makers may want to consider modification disclaimers as an intervention or strengthen regulations around providing objective nutrition information with food images."

Vitamin E

Palm oil extracted from Vitamin E useful in boosting immune response based on studies on liver cells(New Kerala: 20201110)

https://www.newkerala.com/news/2020/195547.htm

Vitamin E extracted from palm oil helps in boosting the immune response of the body, suggest the findings of a study conducted on mice liver cells.
Palm oil contains abundant quantities of vitamin E compounds, which include tocopherols and tocotrienols. These compounds have antioxidant effects, which protect cells from damage from toxic chemicals produced by metabolic processes. While tocopherol is a widely known and researched compound, there remains much to learn about tocotrienols.

A team of researchers from Malaysia and Libya recently investigated the effect of tocotrienols extracted from palm oil on mice liver cells. The team investigated the expression levels of genes influenced by a transcription factor Nrf2, and the translocation of the same factor into the cellular nucleus. Nrf2 is known to upregulate phase II drug metabolism in reaction to metabolic processes. The genes activate cellular defense mechanisms.

"Our study is the first in vivo study on the effect of tocotrienols on Nrf2on genetic material in the nucleus," said Azman Abdullah (Universiti Kebangsaan Malaysia), corresponding author of the study.

The team observed that the translocation of Nrf2 in mice liver cells is both dose dependent, and functionally relevant.

"We observed that the maximum effect of Nrf2 translocation into the liver cell nucleus after administration of the palm oil extract occurred in 60 minutes of administration," said Abdullah.

"The increased concentration of liver nuclear Nrf2 corresponded with increased transcript levels of several Nrf2 regulated genes," added Abdullah.

Palm oil is an economical source of vitamin E, and several studies have shown the beneficial effects on the immune system, which include anti-oxidant and anti-cancer activity as well has cytoprotective actions.Researchers hope that these findings pave the way for easily available remedies for a variety of diseases. The current study is published in Current Pharmaceutical Biotechnology.

Coronavirus (Hindustan: 20201110)

https://epaper.livehindustan.com/imageview_441575_51656224_4_1_10-11-2020_3_i_1_sf.html

सुखद : फाइजर का कोरोना टीका आखिरी ट्रायल में 90% कारगर

न्यूयॉर्क | एजेंसियां

कोरोना से कराह रही दुनिया के लिए राहत भरी खबर। अमेरिका की दिग्गज कंपनी फाइजर ने सोमवार को दावा किया कि उनके द्वारा तैयार टीका कोरोना वायरस के इलाज में 90% से अधिक प्रभावी पाया गया है। इसे दुनिया का पहला टीका बताया जा रहा जो आखिरी चरण के परीक्षण में इतना सफल रहा।

फाइजर जर्मन कंपनी बायोएनटेक के साथ मिलकर टीके का निर्माण कर रही है। कंपनी ने कहा कि अब तक छह देशों में 43,500 लोगों पर टीके का परीक्षण किया गया लेकिन किसी भी वालंटियर में दुष्प्रभाव नजर नहीं आए। हालांकि, कंपनी ने अभी तक सिर्फ 94 वालंटियर के नतीजे जारी किए हैं।

फाइजर के सीईओ अल्बर्ट बोर्ला ने कहा कि यह बड़ी उम्मीद है लेकिन सिर्फ इस नतीजे से हम टीके इस्तेमाल की अनुमति नहीं मांग सकते, हमें और नतीजों की दरकार है। इसके बाद हम 'बीएनटी162बी2' वैक्सीन को मंजूरी देने के लिए आवेदन करेंगे। सब सही रहा तो इस माह के आखिर तक टीके के इस्तेमाल की अनुमति मिल जाएगी।

दुनियाभर में एक दर्जन से ज्यादा टीके परीक्षण के अंतिम चरण में हैं लेकिन फाइजर पहली वैक्सीन है जिसने प्रभावी नतीजे दिखाए हैं। रूस व चीन ने भी वैक्सीन बनाने का दावा किया है लेकिन अभी उनका तीसरे चरण का परीक्षण किया जा रहा है। फाइजर को उम्मीद है कि वो इस साल अंत तक पांच करोड़ डोज उपलब्ध करा सकेगी। साल 2021 के अंत तक 1.3 अरब डोज तैयार करने की कंपनी की योजना है।

ऐसे काम करेगी वैक्सीन

इसमें वायरस के जेनेटिक कोड को शरीर में इंजेक्ट किया जाता है ताकि शरीर की प्रतिरोधक क्षमता वायरस से लड़ने के लिए तैयार हो जाए। रिपोर्ट के मुताबिक, इस वैक्सीन के तीन सप्ताह के भीतर दो डोज लेनी होंगी। कंपनी ने अभी तक भारत में किसी कंपनी से संपर्क नहीं किया है।

टीके की आहट से वायदा सोना 2400 रुपये टूटा

फाइजर की कोरोना वैक्सीन के नतीजे आने की खबर के बाद वायदा बाजार में सोना करीब 2479 रुपये 49688 तक आ गया (खबर लिखे जाने तक), चांदी में भी 4283 रुपये की गिरावट देखी गई। ब्योरा पेज 15

Vitamin D (Hindustan: 20201110)

https://epaper.livehindustan.com/imageview_441576_51397836_4_1_10-11-2020_4_i_1_sf.html

पांचवीं कड़ी

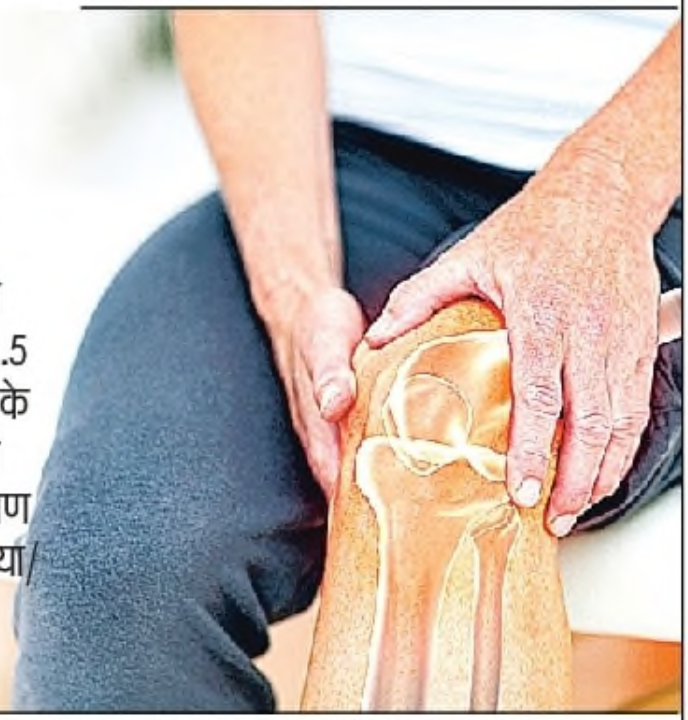
हम कितने तैयार

कैल्शियम युक्त आहार लें हड्डियों को प्रदूषण से बचाएं

वायु प्रदूषण शरीर के विभिन्न अंगों पर बुरा असर डालता है। विशेषज्ञों के अनुसार अधिक समय ऐसे माहौल में रहने पर इसका प्रभाव हड्डियों पर भी देखा गया है। इससे गठिया और शरीर में दर्द जैसी परेशानी सामने आती है। आप कैल्शियम युक्त भोजन को आहार में शामिल करें। साथ ही समय निकालकर धूप में बैठें। किसी अच्छे मल्टीविटामिन का भी प्रयोग करें।

गठिया मरीजों को अधिक परेशानी

एम्स की रूमेटोलॉजी विभाग के प्रमुख डॉक्टर उमा कुमार के मुताबिक अब तक हुए शोध पाया गया है कि वातावरण में पीएम 2 .5 का स्तर अधिक होने पर गठिया के मरीजों को अधिक परेशानी होती है। शोध से पता चला है कि प्रदूषण की वजह से 20% लोगों में गठिया/ अर्थराइटिस जैसे ऑटोइम्यून बीमारी के तत्व बढ़ रहे हैं।



क्या खतरा

डॉक्टर उमा कुमार के मुताबिक, पीएम 2 .5 और अन्य जहरीले रसायन जो बहुत छोटे आकार के होते हैं सांस के साथ शरीर में प्रवेश कर जाते हैं। शरीर का प्रतिरोधी तंत्र या रोग प्रतिरोधक गुण इन्हें बाहरी कण समझकर लड़ने के लिए एंटीबॉडी बनाने लगता है। इन एंटीबॉडी का नकारात्मक प्रभाव भी होता है। इनकी वजह से घुटनों और शरीर के अन्य जोड़ों की कोशिकाओं में एक तरह का हमला होता है।

क्या करें

क्या न करें