Brain mechanism

Researchers decode brain mechanism of taking risks (The Tribune: 2020831)


This may lead to future therapies for depression, anxiety and post-traumatic stress disorder

Researchers decode brain mechanism of taking risks
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Israeli researchers have shed light on the survival mechanism activated in the brain in conditions of uncertainty, stressful conflict with a need to take risks.

The findings, published in the journal Nature Communications, may help understand the neural mechanisms in mental disorders that feature increased or reduced avoidance.

This may lead to future therapies for depression, anxiety and post-traumatic stress disorder (PTSD), or disorders associated with excessive risk-taking, such as addiction and mania.

In their study, researchers from Tel Aviv University (TAU) and Tel Aviv Sourasky Medical Center examined brain conditions of uncertainty and conflict over which course of action to take, in an environment of risks and opportunities.

They identified the areas of the brain responsible for the delicate balance between desiring gain and avoiding potential loss along the way.

It was found that the human brain is affected more by prior experience of failure or punishment than positive experience of success and reward, something that encourages future avoidance of risk, reports Xinhua news agency.

The study was performed among epilepsy patients who had electrodes inserted into their brains for testing prior to surgery to remove the area of the brain causing epileptic seizures.
The patients were asked to play a computer game that included risks and opportunities, during which the researchers recorded the electrical activity in their nerve cells immediately after they won or lost money after taking risks in the game.

It was found that the neurons in the area of the inner prefrontal cortex responded much more to lose (punishment) than to the gaining (reward) of coins.--IANS

COVID-19 case surge:

Increased testing, opening economy, complacency among people behind COVID-19 case surge: Experts (The Tribune: 2020831)


India has till Sunday recorded 63,498 fatalities linked to COVID-19

Increased testing, opening economy, complacency among people behind COVID-19 case surge: Experts

A health worker takes sample from a construction worker for COVID-19 test as others wait for their turn, in New Delhi. PTI

The surge in coronavirus infections in India can be attributed to increased testing on one hand and opening of the economy on the other accompanied by complacency among people towards following COVID-appropriate behaviour, experts have said, as the country witnessed over five lakh cases in a week.

A record single-day spike of 78,761 cases took India’s COVID-19 tally to 35,42,733, on Sunday, according to Union Health Ministry data updated at 8 am.

The country has been registering over 70,000 cases for the last four days.

Dr Samiran Panda, Head of Epidemiology and Communicable Diseases at the Indian Council of Medical Research (ICMR), said this increase in cases was expected but pointed out that it is not a homogenous phenomenon across the states.

“It is happening in some pockets and among groups where there is an intermixing of the susceptible population and asymptomatic or mildly symptomatic cases which is leading to a transmission of the disease. So, efforts have to be made to interrupt this transmission in these pockets,” Dr Panda said.

Also, testing has been ramped up exponentially which is leading to more number of cases getting detected, he said.

“Further, with the opening up of the economy and people’s movement increasing, some complacency is being seen among people towards following COVID-appropriate behaviour
which is also contributing to the rise in cases,” Panda said as he stressed on the need for a sustained COVID-19 appropriate behaviour.

Leading virologist Shahid Jameel said that people are not following advisories on wearing masks, hand hygiene and social distancing.

“This is driven by a complacency that results from the official narrative which only talks of increasing recovery and low death rate. The fact is that we are producing the largest daily numbers. We are now third in total infections and going to be on the third spot on total deaths as well,” he said.

Experts underlined that the way forward is for the people to follow COVID-appropriate behaviour which includes wearing a mask, maintaining social distancing, hand hygiene and respiratory etiquette in a sustained manner while the government should focus on preventing deaths.

Dr KK Aggarwal, the president of the Confederation of Medical Association of Asia and Oceania (CMAAO) and former IMA chief said, “There is no way the number of cases can be checked by government efforts at this stage.”

He stressed that prevention will have to be at an individual level now.

“If this current trend continues, nobody can stop India from crossing Brazil and America (in the number of cases). That would happen in probably six weeks. There is no way we can check the number of cases by government efforts. Now, prevention will have to be an individual effort.

“Opening up (of the economy) will lead to a surge in cases. The locking period was to prepare and sensitise people about how to prevent themselves from getting infected. What is more important now is to put a check on mortality. So government efforts should focus on mortality reduction,” Aggarwal said.

India has till Sunday recorded 63,498 fatalities linked to COVID-19 with 948 people succumbing to the disease in the last 24 hours, according to the Union Health Ministry data.

According to sources in the government, a record 10.5 lakh tests were conducted for detection of COVID-19 on Saturday, which took India’s cumulative tests to 4,14,61,636. India’s COVID-19 positivity rate as on date is 7.50 per cent.

The number of recoveries has surged to 27,13,933 pushing the recovery rate to 76.61 per cent while the fatality rate has declined to 1.79 per cent.

The Health Ministry had on Saturday said, “The global comparison depicted that India has one of the lowest cases per million (2,424) and deaths per million (44) compared to the global average of 3,161 and 107.2 respectively.” PTI
Exposure to air pollution contributes to higher BP

The study was conducted by Indian scientists at the Centre for Chronic Disease Control and PHFI in collaboration with the Harvard T.H. Chan School of Public Health. Reuters file

For a major part of north India, air pollution is a menacing issue and last year during the winter season, pollution led to a health emergency in Delhi-NCR. Ambient air pollution, specifically PM 2.5, is reportedly associated with cardiovascular disease risk.

However, evidence linking PM 2.5 and blood pressure is largely from cross-sectional studies and from settings with a lower concentration of PM 2.5, with exposures not accounting for myriad time-varying and other factors such as the built environment. But, a first-of-a-kind study in Delhi, has shown epidemiological evidence, for short and long-term effects of ambient PM2.5 exposure on elevated blood pressure (BP) and hypertension.

The research was published in the American Heart Association’s flagship journal Circulation. According to this research, data strongly supports a temporal association between high levels of ambient air pollution, higher systolic BP, and incident hypertension.

One of the authors and lead investigators of the project, Dr. Dorairaj Prabhakaran, vice president, research and policy at the Public Health Foundation India said: “In India, there is very little or no evidence linking the exposure of ambient particulate matter (PM2.5), as a marker of air pollution with hypertension. This is a first-of-a-kind study in the Indian context which shows epidemiological evidence, for short and long-term effects of ambient PM2.5 exposure on elevated BP and hypertension.”

The study was conducted by Indian scientists at the Centre for Chronic Disease Control and PHFI in collaboration with the Harvard T.H. Chan School of Public Health on a locally recruited representative population. It presents strong evidence of the harmful effects of PM2.5 exposures on cardiovascular diseases (CVDs) in India.

“The findings have shown that both short and long-term exposure to air pollution contributed to higher BP and increased risk of hypertension, especially in certain sections of the population (obese individuals),” added Prabhakaran The research suggests there are significant benefits of controlling air pollution in reducing a major risk factor for cardiovascular deaths, the leading contributor to deaths in the country.

“Till we reach the safe levels of air quality, people with high risk of arrhythmias, worsening heart failure or stroke such as those with severe heart failure should be specially protected by avoiding exposure to high levels of outdoor PM2.5 by not going out on these days or through the use of protective N95 masks if feasible,” said one of the researchers.
The participants in the project were studied for seven years. “The longitudinal range of seven years, over which the participants have been followed, also ensures that we are observing consistent long-term patterns and lends significant weight to the findings compared with cross-sectional studies of intermittent episodes of high pollution and BP that may skew the findings,” said the research.

The authors investigated the association between PM2.5, a marker of air pollution with blood pressure and incident hypertension in Delhi, carried out in a cohort of 5,300 individuals, and included annual questionnaire surveys and alternate year biological sample collection.

Blood pressure was assessed longitudinally at three time points within the cohort over the seven-year period. “There are various mechanistic pathways through which acute and chronic exposure to air pollutants can increase BP, including an imbalance in the autonomic nervous system, activation of the sympathetic nervous system, generation and release of proinflammatory mediators, and direct influence on the vascular endothelium,” said the study.

**Global coronavirus cases top 25 million**

**Global deaths from COVID-19 stand at over 842,000(The Tribune: 2020831)**


Global coronavirus cases top 25 million
Brazil came in second place with 3.8 million infections.

The number of confirmed coronavirus cases globally has topped 25 million.

That's according to a tally kept by Johns Hopkins University.

The US leads the count with 5.9 million cases, followed by Brazil with 3.8 million and India with 3.5 million.

The real number of people infected by the virus around the world is believed to be much higher - perhaps 10 times higher in the US, according to the Centre for Disease Control and Prevention - given testing limitations and the many mild cases that have gone unreported or unrecognised.

Global deaths from COVID-19 stand at over 842,000, with the US having the highest number with 182,779, followed by Brazil with 120,262 and Mexico with 63,819. — AP
Hope floats as PGI invites healthy volunteers for trial of Covid vaccine (The Tribune: 2020831)

Hope floats as PGI invites healthy volunteers for trial of Covid vaccine
The PGI has invited volunteers for a trial of the Covid-19 vaccine.

The PGI has invited volunteers for a trial of the Covid-19 vaccine. The institute today issued a notice for voluntary participation in the Covishield study.

Dr Madhu Gupta, principal investigator for the trial, said: “We are going to start the ICMR/SII-Covishield study titled, ‘A phase 2/3 observer-blind, randomised, controlled study to determine the safety and immunogenicity of Covishield (Covid-19 Vaccine) in healthy Indian adults’. The study is being sponsored by Serum Institute of India Pvt Ltd and cosponsored by the Indian Council of Medical Research.

Dr Gupta stated that participation in the vaccine trial was purely on a voluntary basis. “All healthy volunteers above 18 years of age (not involved in patient care) interested in participating in the study can send a registration form by email to covi.shield2020@gmail.com or send a text message to +917696148362.” The registration form is available on the PGI website, she added.

The Serum Institute of India is conducting the Phase 3 clinical trials for the adenovirus-based Covid-19 vaccine developed by the University of Oxford. The PGI is among the 17 institutes across the country to participate in the second and third phases of human clinical trials of Covishield.

The institute will check the antibody levels of the volunteer before administering the vaccine and increase of the antibodies thereafter. The desired level of antibodies found in the volunteer will be an indicator of sufficient protection against the virus.

The institute will assess immunogenicity along with the safety of the vaccine and is expecting the participation of nearly 250 individuals.

Immunogenicity of the vaccine is checked in two ways – T-cell response and antibody response provoked in the human body after administering the vaccine.

Antibodies play an important role in immune response to viruses. This study will assess both quantity and quality of antibodies found in blood samples of the participants. The quality of antibodies is its ability to neutralise the virus so that it cannot infect cells when initially contracted. T cells play an important role in the immune response to viral infections. Some T cells are responsible for killing viruses inside the infected cells.
An Indian-origin researcher in the US has developed an artificial intelligence (AI) algorithm that promises to accurately diagnose Alzheimer’s without the need for expensive scans or in-person testing.

The software not only can diagnose Alzheimer’s with more than 95 percent accuracy but is also capable of explaining its conclusions, allowing physicians to double-check the accuracy of its diagnosis. “This is a real breakthrough,” said the tool’s creator KP Subbalakshmi from the Stevens Institute of Technology in the US.

“We’re opening an exciting new field of research, and making it far easier to explain to patients why the AI came to the conclusion that it did while diagnosing patients,” she added.

By designing an explainable AI engine that uses attention mechanisms and convolutional neural network, the team was able to develop software that could accurately identify well-known telltale signs of Alzheimer’s.

The team trained the algorithm using texts produced by both healthy subjects and known Alzheimer’s sufferers as they described a drawing of children stealing cookies from a jar.

Using tools developed by Google, Subbalakshmi and her team converted each individual sentence into a unique numerical sequence, or vector, representing a specific point in a 512-dimensional space.

Such an approach allows even complex sentences to be assigned a concrete numerical value, making it easier to analyse structural and thematic relationships between sentences. By using those vectors along with handcrafted features, the AI system gradually learned to spot similarities and differences between sentences spoken by healthy or unhealthy subjects.

“This is absolutely state-of-the-art. Our AI software is the most accurate diagnostic tool currently available while also being explainable,” Subbalakshmi said.

The system can also easily incorporate new criteria that may be identified by other research teams in the future, so it will only get more accurate over time. “We designed our system to be both modular and transparent,” Subbalakshmi said “If other researchers identify new markers of Alzheimer’s, we can simply plug those into our architecture to generate even better results,” she added. The study was presented at the 19th International Workshop on Data Mining in Bioinformatics at BioKDD. — IANS
Vaccine diplomacy in India’s outreach plan

Government readies five models to share Covid vaccines with neighbours and friendly nations (Hindustan Times: 2020831)
The Union government is working on at least five distinct ways, ranging from free vaccines to guaranteed supply, in which it can help its immediate neighbours as well as countries in West
Asia, Africa and even Latin America, officials familiar with the plan said on condition of anonymity. The idea is to leverage the country’s standing as the world’s vaccine factory to consolidate diplomatic ties.

Indian companies are working on two vaccines which are currently in clinical trials. Though the arrangement will be largely for these vaccines, it might also include vaccines manufactured by the Pune-based Serum Institute of India (SII), the world’s largest vaccine maker, which has partnerships with three companies, including AstraZeneca.

To be sure, key details of the plan, which is still work in progress, are yet to be finalised, the officials added. For instance, any platform India sets up for the supply of vaccines has to respect licensing agreements that will decide where the vaccine can be sold and where they cannot.

Government officials are working out the details of the plan in consultation with the experts’ group on vaccines headed by Dr VK Paul of Niti Aayog. Once ready and approved, New Delhi will finalise agreements with the possible beneficiaries, the officials added.

The countries will be carefully chosen to include key neighbours, nations where large number of Indians are working or studying, and those who have been very helpful and supportive of India in international forums such as the United Nations (UN), the officials said, explaining the five models being considered.

The first of the five models involve free distribution and might be restricted to a few immediate neighbours such as Bangladesh, Afghanistan, and other Saarc countries. The officials added that Pakistan isn’t part of the thinking yet, and that they believe Islamabad might be relying on the Chinese vaccines under development.

The second model entails heavily subsidised vaccines being distributed to poor countries as a part of India’s international obligations. Many African nations could benefit from this, the officials said.

On August 15, Prime Minister Narendra Modi announced that India is prepared to mass produce Covid-19 vaccines for domestic consumption when scientists approve the trails. “Not one, not two, as many as three coronavirus vaccines are being tested in India,” he said from the ramparts of the Red Fort in his Independence Day speech. Last week, when foreign secretary Harsh Vardhan Shringla visited Dhaka, he mentioned in a press briefing that when India is ready with a vaccine, “our closest neighbours, friends, and partners and other countries will be part of it”.

The Oxford AstraZeneca vaccine — co-produced by Serum Institute of India — is in the third or final phase of trials and widely considered as one of the front runners in the global vaccine race to tackle the pandemic that has already affected 25 million and killed around 840,000 people worldwide. The two Indian vaccine candidates—from Zydus-Cadila and Bharat biotech—have entered the phase 2 of human trials.

The third model involves recipient countries purchasing vaccines at the market price but being assured of supply. “As and when the vaccines are ready, they will not be available in the open market but will be distributed through a strict, government-controlled channel. So, even if a country is sitting on trillions of dollars, it will not be able to buy it off the shelf,” said one of the officials, a member of the expert panel on vaccine.

Last week, a report in Nature said countries around the world have signed agreements or committed to buying around 4.5 billion doses of nine promising vaccine candidates being tested. Of this, developed countries have ordered at least 2 billion.
Under the fourth model, some countries will be approached to participate in Phase 3 trials of the two Indian candidates.

In the fifth model, India may offer some countries opportunities to co-produce the two domestic vaccines — a move that could hasten production of these vaccines.

The entire exercise will take place under the close supervision of the expert panel headed by Dr Paul and co-chaired by Union health secretary Rajesh Bhushan. On August 7, the panel was formed by the Cabinet secretariat and its mandate is to identify the right vaccine or a bunch of vaccines for use in the country, managing finances for large-scale procurement, and also deciding prioritisation of the population group that will receive the first doses.

While it isn’t clear when the first vaccines will be available in India, Indian authorities told a Parliament panel earlier this month that they are keeping the option of an “emergency authorisation” of vaccines undergoing clinical trials for use.

Director general of ICMR Dr Balaram Bhargava told the panel that normally phase 3 trials require at least six to nine months, but considering the immediacy involved, the government could opt for emergency authorisation.

Covid-19: What you need to know today (Hindustan Times: 2020831)

https://epaper.hindustantimes.com/Home/ArticleView
On Friday, as reported by Hindustan Times the same day, India crossed the peak seven-day average of the US in terms of daily coronavirus cases, according to both worldometers.info and the New York Times database. The US saw its peak seven-day average in mid-July; India saw it in late August. A seven-day average is more representative than just a day’s number. It accounts for spikes, including those caused by reporting delays. For instance, for most countries in the world, the skyline of daily case numbers (represented in bars), shows a dip every five days – at the weekend. In India, even testing drops off on Sundays.

Since mid to late July, the US has been on its second trough, with daily cases dropping off by almost 25,000. India’s seven-day average of daily cases has at least doubled since mid-July. And unlike the US, the country hasn’t seen any troughs. The progress of the pandemic in India has been on a steadily rising curve, definitely slowed by the 68-day lockdown imposed by the federal government, but still one that continues to inch up. And that shouldn’t surprise anyone.

It shouldn’t because of four reasons. One, India is testing more than it used to. At the end of June, the country was averaging 210,525 tests a day, according to the HT dashboard (the number is, again, a seven-day average). By the end of July, this number increased to 501,370 tests a day on average. And by the end of August (as of Saturday), this number was 881,345 tests a day. This is a significant increase (although India continues to remain a laggard in terms of tests per million people compared to many other countries), and when you test more, it is
only natural that you find more cases. The average positivity rate (again, a weekly average) has remained in the 8-12% corridor in this period, moving from 8.87% in late June to 10.4% in late July. It was at 8.14% as of Saturday. I’ve always discounted the national positivity rate for two reasons: disparities between testing intensity across states; and the fact that many states have not seen their positivity rates follow the established pattern (as testing is increased continuously, a rise, then a long plateau, and finally a fall) indicating that they are testing nowhere close to the numbers they should be.

Two, India is opening up, and as countries open up, they will see a rise in daily cases (the important question is the efficacy with which they quell these flare-ups). Given India’s size and population, it definitely did not make sense for India to wait, like countries in Europe did, for the number of cases to start declining before opening up. That would have meant waiting till the end of the year perhaps — something the economy could have ill-afforded. The home ministry has issued guidelines for what it calls Unlock 4.0, the fourth stage of India’s phased reopening, and welcome as this is from the point of view of livelihoods and the economy, it will result in some flare-ups.

Three, and regular readers will recognise the refrain, India isn’t testing enough. It is only when it tests adequately can infected individuals be identified and isolated, and people exposed to them be traced. Four, the ability of a country to keep the number of coronavirus disease cases under check once it eases its lockdown is directly proportional to its ability and willingness to enforce measures such as the wearing of masks and social distancing (and also directly proportional to the willingness of its people to be disciplined about both). India, unfortunately, lags on this count — as do other countries including the US, but other people’s mess is other people’s problem.

India’s peak still seems sometime away, which means the number of daily cases will continue to rise. While the country’s low case fatality rate — touted often by health administrators — is definitely cause for cheer, at the current 1.8%, it is worth noting that 80,000 cases a day, today, will translate into 1,440 deaths, weeks from now.

STEADY INCREASE

India’s seven-day average of daily cases has at least doubled since mid-July. The progress of the pandemic in India has been one steadily rising curve, definitely slowed by the 68-day lockdown imposed by the federal government, but still one that continues to inch up

FOUR REASONS

Covid-19 cases in India are mounting because:

India is testing more than it used to, and when a country tests more, it is only natural that it finds more cases

India is opening up and it will see a rise in daily cases

India isn’t testing enough. It is only when it tests adequately can infected individuals be identified and isolated

The country’s ability to keep cases under check once it eases its lockdown is proportional to its ability to enforce social distancing measures

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COVID-19 Patient (The Asian Age: 2020831)

30% Covid-19 patients from other states in city hospitals

Delhi records Aug’s highest single-day spike of 2,024

AGE CORRESPONDENT
with agency inputs
NEW DELHI, AUG 30

Around 30 per cent of the coronavirus patients admitted to Delhi hospitals in August were from other states, according to government data.

Non-residents also accounted for more than half the number of deaths reported in the national capital between August 3 and August 28, it showed.

Delhi recorded as many as 2,024 fresh coronavirus cases on Sunday, the city’s highest single-day spike in August till date. With this the tally of coronavirus cases in the state has jumped over 1.73 lakh, while the death toll mounted to 4,426.

Twenty-two fatalities have been recorded in the last 24 hours, according to the latest bulletin issued by the Delhi health department. The national capital had recorded its previous highest spike of 1,954 fresh cases on August 29.

According to Delhi government’s health bulletin, 6,881 RTPCR/CBNAAT/TruSNaT tests were done in the last 24 hours while 13,555 rapid antigen tests were conducted during the same time.

The bulletin said that the total number of cases stood at 1,73,390, while 1,54,171 patients have either recovered, been discharged or migrated out. The number of active cases stands at 14,733 and the number of containment zones at 820.

The AAP dispensation, in June, had predicted an exponential rise in the number of coronavirus cases in the national capital and decided to reserve beds in Delhi government-run hospitals only for city residents.

But, the decision was overturned by Lt Governor Anil Baijal.

Delhi health minister Satyendar Jain had on Friday said the recent increase in the number of Covid cases in Delhi was due to various reasons, including patients from outside seeking treatment here, return of migrants who left Delhi during lockdown as well as increased testing.

Government data shows that of the 8,577 Covid patients admitted to city hospitals in August, 2,536 belonged to other states — mostly from neighbouring Uttar Pradesh and Haryana.

For example, of the 120 non-residents admitted to Delhi hospitals on August 28, as many as 64 belonged to Uttar Pradesh, while 39 were from Haryana.

In private hospitals, the number of Covid patients from outside was more than those belonging to Delhi. Of the 98 patients admitted to BL Kapoor Hospital, 51 were from outside the city. Similarly, 111 out of 158 patients admitted to Apollo Hospital were not from Delhi.

COVID War (The Asian Age: 2020831)
In guise of Covid war, it’s unbridled hate

The savage violence let loose by the police on Muharram processions in Srinagar last Saturday is likely to deepen the perception that physical assaults on the populace in the Valley is the action of the first resort as far as the government is concerned. At least 19 persons have been reported to be wounded, one of whom is said to be in a critical state. A dozen of the injured have taken pellet hits, including in the face. This is suggestive of the fact that pellet guns were fired from close range.

When scores were blinded or lost sight in one eye as a result of pellet injuries in the post-Burhan Wani protests of 2016 in Kashmir valley, the government mulled minimising if not eliminating the use of pellet guns until suitable replacements were developed. The faulty trajectory of the discharge from close range from these weapons was hitting people in the face, and head and chest areas, causing injuries of a grave nature. Such weapons were not proving to be crowd deterrents in volatile situations but instruments of possible death, which raised political costs for the local administration and the country internationally.

Clearly, no active thinking on ending the use of such weapons may exist now except on paper. Last year, not long after the ending of J&K’s constitutional autonomy, the government forces in Srinagar had used pellet guns on a thick crowd of civilian protestors in the Soura-Anchar locality, a dirt-poor area of the old city. The incident, which caused widespread injury, had raised international concern, and gave the lie to the orchestrated government propaganda that people had accepted the ending of autonomy peacefully and had not protested.

Last Thursday the Supreme Court disallowed the holding of Muharram processions anywhere in the country on the ground that this may lead to the blaming of a particular community (the Shia Muslim) for the spread of the new coronavirus (presumably as had happened in the case of the Tablighi Jamaat). If this was a common sense precaution the top court sounded, the authorities in Kashmir enforced it with brutal energy.

Over the years, Muharram processions in Kashmir have been routinely limited to specified areas in order not to take chances with sectarian clashes, but last week’s violence testifies to the uncommon zeal that the government brought to the fighting of Covid-19 by cracking down with unqualified force on the small Muharram processions. This stood in sharp contrast with police behaviour at religious ceremonies of India’s majority community in many parts of the country, sometimes held with official sanction and display of devotion, underlining the grievance of many that the blatant repression of Kashmir and the taking away of J&K’s historical rights owes to the fact of the Valley’s denominational status in contrast with the rest of the country.

There is no peace in Kashmir, and the government’s fear of the people seems real. Top political figures, no longer in detention, are routinely prevented by the police from leaving their homes. Last week, a group of protesters of the People’s Democratic Party was scattered through police action. This was immediately followed by the police attacks on Muharram processions. These are signs that betray the government’s insecurities.
Mental health

Coronavirus | House panel looks at impact of lockdown on mental health (The Hindu: 2020831)


Standing Committee for Home Affairs briefed by heads of ICMR and AIIMS
As India heads towards completing six months of being in virtual mode and restricted mobility because of the COVID-19 pandemic in September, the Parliamentary Standing Committee for Home Affairs is examining the impact of the lockdown on citizens’ mental health.

Post-traumatic stress disorder

Coronavirus lockdown | Rise in post-traumatic stress disorder: survey (The Hindu:2020831)


The web-based study reveals that COVID lockdown has affected the psychological profile of people
A nationwide lockdown may have prevented the COVID-19 pandemic curve from peaking earlier but it certainly has shown adverse impact on the psychological profile of people in the form of rise in Post-Traumatic Stress Disorder (PTSD), said a dip-test, pan-India, web-based survey conducted via Google form during the last week of April 2020 when the nation had completed four weeks of lockdown. The survey was conducted by the Department of Community Medicine, Vardhman Mahavir Medical College and Safdarjung Hospital.

Coronavirus reinfection reported

Second case of confirmed coronavirus reinfection reported (The Hindu: 2020831)

The second infection led to severe symptoms, including hypoxia, breathlessness. About five days after the first case of confirmed reinfection by novel coronavirus (SARS-CoV-2) 142 days after the first symptomatic episode in a 33-year-old adult was first reported by researchers at the University of Hong Kong, a second such case has now been reported in the U.S. Like in the first reported case of reinfection in Hong Kong, the second case of reinfection by SARS-CoV-2 virus in Nevada, U.S. was confirmed through genetic sequencing.

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**COVID-19 symptoms**

**Coronavirus | Experts widen list of COVID-19 symptoms (The Hindu: 2020831)**

Involvement of other organs warrants that patients be closely followed up for any long-lasting impact. COVID-19 which was considered a viral pneumonia when it was first detected eight months ago, is now a multi-systemic disease with many extra-pulmonary manifestations, warn experts and top doctors at the All India Institute of Medical Sciences (AIIMS). The medical experts added that involvement of other organs due to COVID-19 warrants that patients be closely followed up to check for any long lasting sequels, including reproductive health in young patients.

**Psychotic disorders**

**Blood test may predict those likely to develop psychotic disorders: Study (New Kerala: 2020831)**


Testing the levels of certain proteins in blood samples can predict whether a person at risk of psychosis or is likely to develop a psychotic disorder years later, suggest the findings of a novel study.

The study, published in the current edition of JAMA Psychiatry, was led by researchers from RCSI University of Medicine and Health Sciences.

Based on certain criteria, such as mild or brief psychotic symptoms, some people are considered to be clinically at high risk of developing a psychotic disorder, such as schizophrenia. However, only 20 per cent to 30 per cent of these people will actually go on to develop a psychotic disorder.
The researchers analysed blood samples taken from people at clinical high risk of psychosis. These individuals were followed up for several years to see who did and did not develop a psychotic disorder.

After assessing the proteins in blood samples and using machine learning to analyse this data, the scientists were able to find patterns of proteins in the early blood samples that could predict who did and did not develop a psychotic disorder at follow-up.

Many of these proteins are involved in inflammation, suggesting that there are early changes in the immune system in people who go on to develop a psychotic disorder. The findings also suggest that it is possible to predict their outcomes using blood samples taken several years in advance.

The most accurate test was based on the 10 most predictive proteins. It correctly identified those who would go on to develop a psychotic disorder in 93 per cent of high-risk cases, and it correctly identified those who would not in 80 per cent of cases.

"Ideally, we would like to prevent psychotic disorders, but that requires being able to accurately identify who is most at risk," said Professor David Cotter, the study's senior and corresponding author and professor of molecular psychiatry at RCSI.

"Our research has shown that, with help from machine learning, analysis of protein levels in blood samples can predict who is at truly at risk and could possibly benefit from preventive treatments. We now need to study these markers in other people at high risk of psychosis to confirm these findings," Cotter.

A patent application has been filed, and the research team is working to commercialise this research through licensing or partnering with industry.

**Estrogen**

**Study finds estrogen may lessen severity of COVID-19 symptoms in women (New Kerala: 2020831)**


Researchers from Wake Forest School of Medicine conducted a review in an effort to understand why men are at greater risk for more severe symptoms and worse outcomes from COVID-19 regardless of age. The scientists conducted a review of the published preclinical data on sex-specific hormone activity, especially estrogen.

The review has been published in the September online issue of the journal Current Hypertension Reports.

"We know that coronavirus affects the heart and we know that estrogen is protective against cardiovascular disease in women, so the most likely explanation seemed to be hormonal differences between the sexes," said the lead author of the review, Leanne Groban, M.D.,
professor of anesthesiology at Wake Forest School of Medicine, part of Wake Forest Baptist Health.

Groban's researchers said the published literature indicated that the angiotensin-converting enzyme2 (ACE2), which is attached to cell membranes in the heart, arteries, kidneys and intestines, is the cellular receptor of the coronavirus responsible for COVID-19 infections, and helps bring the virus into the cells of those organ systems.

The review, they said, also pointed to estrogen's lowering the level of ACE2 in the heart, which may modulate the severity of COVID-19 in women. Conversely, higher levels of ACE2 in tissues could account for why symptoms are worse in men than women, Groban said.

"We hope that our review regarding the role of estrogenic hormones in ACE2 expression and regulation may explain the gender differences in COVID-19 infection and outcomes, and serve as a guide for current treatment and the development of new therapies," Groban said.

Caffeine-nap'

Caffeine-nap' can help you stay sharp during night shift at work (New Kerala: 2020831)


In new research, participants who took 'caffeine-nap' -- drinking a coffee before taking a nap - showed improvements in both performance and alertness, indicating its potential to counteract sleep grogginess.

A simple coffee and a quick catnap could be the cure for staying alert on the nightshift as new research from the University of South Australia shows that this unlikely combination can improve attention and reduce sleep inertia.

In Australia, more than 1.4 million people are employed in shift work, with more than 200,000 regularly working night or evening shifts.

Lead researcher, Dr Stephanie Centofanti from UniSA Online and the Sleep and Chronobiology Laboratory at UniSA says the finding could help counteract the kind of sleep inertia that is experienced by many shift workers.

"Shift workers are often chronically sleep-deprived because they have disrupted and irregular sleep patterns. As a result, they commonly use a range of strategies to try to boost their alertness while on the nightshift, and these can include taking power naps and drinking coffee - yet it's important to understand that there are disadvantages for both," Dr Centofanti said.
"Many workers nap during a night shift because they get so tired. But the downside is that they can experience 'sleep inertia' - that grogginess you have just after you wake up - and this can impair their performance and mood for up to an hour after their nap," the researcher added.

Dr Centofanti explained "Caffeine is also used by many people to stay awake and alert. But again, if you have too much coffee it can harm your overall sleep and health. And, if you use it to perk you up after a nap, it can take a good 20-30 minutes to kick in, so there's a significant time delay before you feel the desired effect.

According to the researcher, 'caffeine-nap' (or 'caff-nap') is a "win-win" as shift workers can gain the benefits of a 20-30-minute nap then the perk of the caffeine when they wake. It's a win-win."

The small pilot study tested the impact of 200 mg of caffeine (equivalent to 1-2 regular cups of coffee) consumed by participants just before a 3.30 am 30-minute nap, comparing results with a group that took a placebo.

Dr Centofanti says this shows a promising fatigue countermeasure for shift workers. She says the next move is to test the new finding on more people.

**Ovarian cancer**

**Study focuses on new treatment possibilities for young women diagnosed with rare form of ovarian cancer (New Kerala: 2020831)**


A new treatment possibility for people diagnosed with a rare and aggressive form of ovarian cancer has been found by a team of researchers at the BC Cancer Research Institute and the University of British Columbia (UBC).

Small cell carcinoma of the ovary, hypercalcemic type (SCCOHT), is a particularly devastating cancer that has no effective treatments and is usually diagnosed in women in their 20s. The study, published in Clinical Cancer Research, describes a metabolic vulnerability present in cells that may represent a therapeutic target if proven in clinical trials.

"Finding this vulnerability and identifying a way to exploit it could have a huge impact for anyone diagnosed with this rare disease," said the study's first author Jennifer Ji, an MD/PhD candidate at UBC's faculty of medicine and trainee at the BC Cancer Research Institute.

The discovery is welcome news to Justin Mattioli, whose 34-year-old wife Eileen, passed away from SCCOHT in the spring of 2019. Prior to her passing, Eileen made the decision to donate her tissue samples to help advance cancer research in the hopes of finding new treatments for others facing the disease.
"We would hate to see someone else go through what Eileen did," said Justin. "And there is a good possibility that this may help advance further research into other types of cancers as well."

Eileen's samples are being used as a new cell model, enabling researchers to test the effects of new treatments and to better understand the biology of the disease.

The team found that SCCOHT cancer cells have very low levels of an enzyme necessary for the production of arginine, an amino acid needed to help our cells build protein.

Non-cancerous cells have this enzyme and can produce their own arginine, but tumours without it cannot produce this amino acid themselves, meaning that they need to be in an arginine-rich environment to survive.

Using a small molecule agent, the team has found a way to eliminate arginine in the tumour environment, essentially starving cancer to death while having minimal effect on normal cells.

"This agent basically absorbs all of the arginine within the tumour environment so cells can't produce it themselves, thus starving the tumour," said research team lead Dr David Huntsman, a pathologist and ovarian cancer researcher at BC Cancer and professor in the departments of pathology and laboratory medicine and obstetrics and gynecology at UBC. "As such vulnerability has been also discovered in several other cancer types, we are now looking to partner with other research organizations who are evaluating these treatment options in patients whose cancer lacks the expression of this particular enzyme."

So far, researchers have validated this treatment in pre-clinical studies. They are now exploring combination therapy, with the use of Eileen's samples, in an effort to boost the response and avoid potential resistance. In addition, they want to test their findings in clinical trials.

"This research is another step to better understanding a very aggressive form of ovarian cancer and providing better treatment outcomes for women diagnosed with this disease," said Huntsman.

**Knee surgery**

**Study reveals overdose of opioid for knee surgery linked to death (New Kerala: 2020831)**


Opioid prescription rates for outpatient knee surgery vary widely across the country, but the strength of the average prescription in the United States is at a level that has been linked to an increased risk of overdose death, suggest the findings of a new study.

The study has been published in BMJ Open.
While the nationwide rate at which patients - who had not already been taking opioids - received an opioid prescription after arthroscopic knee surgery was found to be more than 70 percent across the United States between 2015 and 2019.

The variation at the state level was stark, bottoming out at 40 percent in South Dakota and reaching 85 percent in Nebraska, the study showed. The strength of the typical prescription, though, was revealed to be high, equal to 50 milligrams of morphine per day, the level that the Centers for Disease Control and Prevention has identified as being the threshold for increased risk of opioid overdose death.

"We found massive levels of variation in the proportion of patients who are prescribed opioids between states, even after adjusting for nuances of the procedure and differences in patient characteristics," said the study's senior author, M. Kit Delgado, MD, an assistant professor of Emergency Medicine and Epidemiology in the Perelman School of Medicine at the University of Pennsylvania."We've also seen that the average number of pills prescribed was extremely high for outpatient procedures of this type, particularly for patients who had not been taking opioids prior to surgery," Delgado added. The latter is of increased concern because it is especially prone to contributing to the opioid epidemic. It has been shown that giving patients who have never been on opioids before a high-dosage prescription can be associated with a transition to long term opioid use, higher numbers of leftover pills, and even higher rates of overdose among family members. As such, the research team - which included lead author Benjamin Ukert, MD, then a post-doctoral researcher at Penn and now an assistant professor of Health Policy and Management at Texas A and M - chose arthroscopic knee surgery as the lens through which to examine this because arthroscopies are in the top three of most common outpatient procedures in the United States.

To gauge prescription rates, the researchers accessed a large, national database of insurance claims. They were able to identify nearly 100,000 patients who had arthroscopic knee surgery and had not used any opioid prescriptions in the six months before the surgery.

The team found that, nationwide, 72 per cent of patients filled an opioid prescription within three days of their procedure. There was very little variation in the fill-rate between non-invasive (which might include the removal of torn cartilage) and invasive procedures (which requires work cutting or drilling into bone) such as ACL repair.

Significant differences in prescribing rates were found from state to state. High prescription rates (77 per cent or above) extended across the Midwest into the Rocky Mountain region, from Ohio to Utah, and extended into Arizona and Washington state. Lower rates, below 70 per cent, tended to be on either coast but also includes the Dakotas, Texas, and other states. There was also a wide variation in the number of tablets in every single prescription, ranging from 24 (in Vermont) to 45 (Oklahoma). "Some factors that may contribute to state variation are policies, such as mandates to check prescription drug monitoring program data, which have shown to affect the opioid prescribing rate," Ukert said.

"However, most state policies are aimed at patients with a history of opioid use, and our study focuses on patients who do not have that history. Thus, practice and organizational styles may be more important factors for this population," added Ukert. While the prescription rate varied greatly, the average prescription translated to roughly 250 milligrams of morphine over a five-
day period, above the CDC's threshold for risky opioid prescriptions. Approximately 25,000 of the patients studied, 36 percent, were receiving this dosage level or more.

With that in mind, a different study involving Delgado and another co-author of this study, Brian Sennett, MD, chief of Sports Medicine at Penn Medicine, is currently being conducted. Using automated text messages to directly check-in with patients, it is examining how many opioid tablets they actually do take from their prescription after knee surgeries. So far, they're observing that most patients take less than 10 tablets, which jells with what's been found by other groups.

"These studies suggest that current prescribing patterns are still resulting in a significant number of opioid tablets in the community that could be misused and potentially diverted to others. The data we've collected shows that there's ample opportunity to reduce excessive prescribing for this common outpatient procedure," Delgado said. Moving forward, both Ukert and Delgado feel there needs to be more definitive work done to nail down what is the right prescription to prevent pain but also protect against potential dependence and overdose.

"Given that most arthroscopies are not invasive, there seems to be room to reduce the prescribing rate and the strength of the prescription," Ukert said.

Nomophobia'

**Study links 'nomophobia' to poor sleep health in college students (New Kerala: 2020831)**


'Nomophobia' -- the tension or fear of not being in contact with your smartphone is extremely common among college students and is associated with poor sleep health, according to a recent study.

Preliminary results show that 89 per cent of a sample of college students had moderate or severe nomophobia. Greater nomophobia was significantly related to greater daytime sleepiness and more behaviors associated with poor sleep quality.

"We found that college students who experience more 'nomophobia' were also more likely to experience sleepiness and poorer sleep hygiene such as long naps and inconsistent bed and wake times," said lead author Jennifer Peszka, Ph.D., professor of psychology at Hendrix College in Conway, Arkansas.

While Peszka anticipated that nomophobia would be common among the study participants, she was surprised by its high prevalence.
"Because our study suggests a connection between nomophobia and poorer sleep, it is interesting to consider what the implications will be if nomophobia severity continues to increase," she said.

The study involved 327 university students with a mean age of 20 years. Participants completed several questionnaires, including the Nomophobia Questionnaire, the Epworth Sleepiness Scale, and the Sleep Hygiene Index.

Peszka also noted that one common recommendation for improving sleep habits is to limit phone use before and during bedtime. However, she said that for people who have nomophobia, this recommendation could exacerbate bedtime anxiety and disrupt sleep, rather than improve it.

"The recommendation to curtail bedtime phone use, which is meant to improve sleep and seems rather straightforward, might need adjustment or consideration for these individuals," she said.

The research team included co-investigators David Mastin, Ph.D., and Bruce Moore, Ph.D., from the University of Arkansas at Little Rock, where the other co-authors are undergraduate student researchers Shalonda Michelle, Benjamin T. Collins, Nataly Abu-Halimeh, Monnar Quattom, Maya Henderson, Madison Sanders, and Jeremiah Critton.

The research abstract was published recently in an online supplement of the journal Sleep.

**Heart disease**

**Study probes whether people with heart disease can exercise safely New Kerala: 2020831)**


Regular exercise not only prevents heart disease, but also reduces premature death in people with established heart disease, according to a study by the European Society of Cardiology (ESC).

Physical activity is good for everyone with heart disease and the chance of exercise triggering a cardiac arrest or heart attack is extremely low, according to the study which has been published online in the European Heart Journal 1 and on the ESC website.

"With rising levels of obesity and sedentary lifestyles, promoting physical activity is more crucial now than ever before. Regular exercise not only prevents heart disease, but also reduces premature death in people with established heart disease," said Professor Antonio Pelliccia, Chairperson of the guidelines Task Force and chief of cardiology, Institute of Sports Medicine and Science, Rome, Italy.

"The chance of exercise triggering a cardiac arrest or heart attack is extremely low. People who are completely inactive and those with advanced heart disease should consult their doctor before taking up sports," said Professor Sanjay Sharma, Chairperson of the guidelines Task
Force and professor of sports cardiology and inherited cardiac diseases, St George's, University of London, UK.

The document covers leisure exercise and competitive sports for people with heart disease and conditions which raise the risk of heart disease such as obesity and diabetes. Advice is also given on exercise during pregnancy, or in special settings such as at high altitude, in deep-sea, in polluted areas, and at extreme temperatures. The document states that traffic fumes are unlikely to lessen the benefits of physical activity to heart health.

In common with healthy adults of all ages, people with heart disease should exercise on most days, totalling at least 150 minutes per week of moderate-intensity exercise. Moderate intensity means increasing your heart rate and breathing rate but still being able to hold a conversation.

For people who are obese or have high blood pressure or diabetes, the guidelines recommend strength-building exercise (for example, lifting light weights) at least three times a week plus moderate or vigorous aerobic exercise, such as cycling, running, or swimming.

Coronary artery disease is the most common type of heart disease and is caused by the build-up of fatty deposits on the inner walls of the arteries. If the arteries become completely blocked this can cause a heart attack. Most people with coronary artery disease can play competitive or amateur sports.

"People with long-standing coronary artery disease who wish to take up exercise for the first time should see their doctor first. The aim is to tailor the intensity of activity according to the individual risk of causing an acute event such as a heart attack," said Professor Pelliccia.

Regular, moderate physical activity is recommended to prevent the most common heart rhythm disorder - called atrial fibrillation. People with atrial fibrillation who are taking anticoagulants to prevent stroke should avoid contact sports due to the risks of bleeding.

People with pacemakers should not be discouraged from playing sports (except collision sports) because of the device. However, they need to tailor their choice according to the underlying disease.

Professor Pelliccia noted that anyone experiencing chest pain for more than 15 minutes should call an ambulance. He added "If you find that exercise brings on palpitations or unusual shortness of breath or chest discomfort, scale back your activity and make an appointment to see your health professional."

Professor Sharma said "Physical activity is good for everyone with heart disease and even small amounts are beneficial. We hope these guidelines will help patients and their health professionals choose the best and most enjoyable activities for them."
कोरोना वैक्सीन

कोरोना वैक्सीन की एक डोज से वायरस से बचना मुश्किल, अमरीकी वैज्ञानिकों ने चेताया (Amar Ujala: 2020831)


दुनियाभर के वैज्ञानिक कोरोना वायरस की वैक्सीन तैयार करने की जड़ोजड़ में मुट्ठे हुए हैं। वहीं, अमरीका के वैज्ञानिकों ने कहा है कि वैक्सीन के तैयार होने पर केवल एक डोज से काम नहीं चलने वाला है। वैज्ञानिकों का कहना है कि लोगों को दो डोज की जरूरत पड़ सकती है और यह सबसे बड़ी चुनौती है।

वर्तमान समय में, दुनियाभर में टेस्टिंग किट, पीपीई किट और दूसरी जरूरी चीजों की कमी है। उपर से दो बार वैक्सीनेशन का प्रोग्राम चलाना दुनियाभर के देशों के सामने एक बड़ी चुनौती बनकर उभरेगा।

वहीं, अपने यही समयभर में तैयार ही शामिल हैं। लोगों को इस बात के लिए मनाना कि उन्हें एक नहीं बल्कि वैक्सीन के दो डोज की जरूरत पड़ेगी, तुलना में ही एक बड़ी समय ध्वस्त हो सकता है। ऐसा भी हो सकता है कि कुछ लोग वैक्सीन के दुर्घड में फंसकर वैसीन न मिलेगा।

वैक्सीनिट विश्वविद्यालय की हेल्थ पॉलिसी प्रोपर्टी डोज ने कहा, इनमें कोई तीन राज्य नहीं हैं कि यह सबसे बड़ी चुनौती बनकर समाने आएगा।

यह मानव स्वास्थ्य का सबसे बड़ा वैक्सीनेशन प्रोग्राम होगा। इस पूरे करने में हर्ष होते मेहनत करनी पड़ेगी। हमें अभी तक इतना बड़ा प्रोग्राम नहीं चलाया है।

यह भी पहा: वैक्सीन पर इटली के लिए यह दिन का खुलासा रहा, कहा- कोरोना के सभी रूपों पर असस्तर होगा टीका

अमरीका में वैक्सीन तैयार होने का क्षण है हाल अमरीका में कोरोना की वैक्सीन को तोड़ा तक करने के लिए 'ओपरेटिंग वार्न स्पीड' चल रहा है। इसके तहत दुसरे अर्थतात्त्विक कंपनियों की तरह यह उन्हें पहले दिन को घोषित कर दिए गए हैं। इनमें से कोई भी हमें दो बार बदले और फाइट्जर, जिसकी वैक्सीन स्थलियों पर है। दोनों कंपनी 30 हजार वॉलंटरों को वैक्सीन की दो डोज दे रहे हैं। यह मोड़ 28 दिन के बाद तो फाइट्जर 21 दिन के बाद दूसरी डोज देगी।

एड्रेस्ट्रेका इस महर्षने फेज-3 ट्रायल को शुरू कर सकती है। इसके फेज-1 और फेज-2 ट्रायल के दौरान दो डोज 28 दिनों के दौरान दी गई। नोबेलेक्स को अभी फेज-3 ट्रायल को शुरू करना है, लेकिन इसमें पहले ट्रायल में वॉलंटरों को वैक्सीन की दो डोज दी थी।

जॉल्मसन एंड जॉल्मसन के फेज-3 ट्रायल में कुछ लोगों को एक डोज दिया जाएगा और वहाँ कुछ को वैक्सीन की दो डोज दी जाएगी। दूसरी तरफ, साथी ने अभी तक इस बात को घोषणा नहीं की है कि यह वॉलंटरों को वैक्सीन की एक डोज देगा या दो डोज।

पूरे कर्न भारतीय सेना का अपना झांका, CDS व CAPF में होगी बंपर भर्तियां विज्ञापन

Corona Vaccine

Corona Vaccine: कोरोना से छुटकारा पाने के लिए टीके की खोज जारी, जल्द मिलेगी सफलता(Amar Ujala: 2020831)
कोरोना वायरस से छुटकारा दिलाने के लिए टूटके की क्रोध में वैज्ञानिक जुटे हुए हैं। शासक को मंची समूह की बैठक में नीति आयोग के सदस्य डॉ वीकेट पॉल ने बताया कि विश्व स्तर पर अभी 29 परीक्षण चल रहे हैं जिनमें छह तौर पर चरण में हैं। भारत वायोटेक वैक्सीन कैडिडेट दूसरे चरण के ट्रायल में है।

इसी तरह जाइडस कैडिडेट का वैक्सीन वायरस प्रोफेसर अंबारीत अमायोड वैक्सीन कैडिडेट पहले से महाराष्ट्र और अन्य राज्यों में चरण तीन के ट्रायल में है। डॉ पॉल ने मंची समूह को कोविड-19 पर वैक्सीन प्रशासन राष्ट्रीय विशेषज्ञ समूह की प्रभाव से अवगत कराया।

इस समूह का काम वैक्सीन विकास में सुधार देना है जिसमें ट्रायल व भंडारण, नितीय मूल्यों के समाधान में मदद देना, वैधता प्रमाण, भारी लाभार्थियों का चयन करना और उनके लाभमिति का कार्य देखना इत्यादि शामिल हैं। इस विशेषज्ञ समूह की अब तक तीन बैठकें हुई हैं।

बैठक में बताया गया कि देश में प्रति 10 लाख आबादी पर 2,424 मामले और प्रति 10 लाख आबादी पर 44 मृत्यु के साथ बहुत संभावित है। विश्व में प्रति 10 लाख आबादी पर औसत 3,161 मामले हैं और प्रति 10 लाख आबादी पर मृत्यु दर 107.2 है। देश के भीतर आठ राज्य-महाराष्ट्र, कर्नाटक, आंध्र प्रदेश, तमिळनाडु, उत्तर प्रदेश, पश्चिम बंगाल, ओडिशा और तेलंगाना में सक्रिय मामलों के भार का लाभ 73 प्रतिशत है।

इसके अलावा 7 राज्यों- महाराष्ट्र, दिल्ली, तमिळनाडु, आंध्र प्रदेश, कर्नाटक, उत्तर प्रदेश और पश्चिम बंगाल में देश में कोविड-19 से हुई कुल मौतों की 81 प्रतिशत मौतें हुईं। मंची समूह को बाई-डायरेक्शन टूटके और कोविड स्क्रीनिंग, मधुमेह आदि के कोविड कंटेंट में प्रवेश के रूप में अवगत कराया गया। कैडिडेट सिविल की अप्रतिवधा में हुई इस बैठक में राज्यों को सलाह दी गई है कि वे अपने यहाँ जरूरियत की संख्या बढ़ाएं और ऐसे उपाय करें जिससे मृत्यु दर एक प्रतिशत से कम हो सके।

स्वास्थ्य मंत्रालय के सचिव राजेश सिवानी ने मंची समूह को महामारी के दौरान मानसिक स्वास्थ्य के लिए स्वास्थ्य मंत्रालय द्वारा किए गए प्रायोगिक अध्ययन की जानकारी दी। उन्होंने यह भी कहा कि केंद्र सरकार उन राज्यों के साथ सीधे संपर्क में है जहां मामले बढ़ रहे हैं और मृत्यु दर अधिक है। इन राज्यों को लोगों की जान बचाने और लोगों के होने वाले बचने के बारे में किए जाने वाले उपायों की सलाह दी गई है।

मंची समूह की 20वीं बैठक में केंद्रीय स्वास्थ्य मंत्री डॉ हर्ष चरण ने अप्रतिवधा की। इस बैठक में विदेश मंत्री डॉ एस जयशंकर, नागरिक विस्मय मंत्री विनोबा भट्ट, सेना के छत्र राज्य गौरव मनमुखु लाल कार्यकारी अध्यक्ष, स्वास्थ्य और परिवार कल्याण राज्य मंत्री अप्पी कुमार चौधरी और गृह राज्य मंत्री निर्मला राय उपस्थित थे जबकि नीति आयोग के सदस्य डॉ मिनोट पॉल कन्वेंशन रूप से उपस्थित रहे।

पूरे क्रम भारतीय सेवा का अपना सपना, CDS और CAPF में होगी बंधन भर्तियां बिजली कोरोना
Corona India Latest Updates: एक दिन में 80 हजार से ज्यादा कोरोना केस वाला दुनिया का पहला देश बना भारत(Navbharat Times: 2020831)

1. DAILY CASES RISING; INCREASED CASES BY MORE THAN 75K OVER PAST WEEK.
रोज़ोना कोरोना केस में वृद्धि
कोरोना-19 महामारी के लिए 30 अगस्त को हुआ सराह रहा। पिछले महीने के सबसे खराब रहा। पिछले महीने के केस की वृद्धि दर और महामारी के कारण होने वाली मृत्यु की दर में इजाफा हुआ। बल्कि उससे पिछले महीने के मुकाबले दोनों दर दोगुनी हो गई।
2. **NEW HOTSPOTS HAVE BEEN IDENTIFIED**

<table>
<thead>
<tr>
<th>New hotspots</th>
<th>Active cases*</th>
<th>Global cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagpur</td>
<td>11,437</td>
<td></td>
</tr>
<tr>
<td>Nashik</td>
<td>10,298</td>
<td></td>
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<tr>
<td>Prakasam</td>
<td>9,525</td>
<td></td>
</tr>
<tr>
<td>Chittoor</td>
<td>8,739</td>
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</tr>
<tr>
<td>Vizianagaram</td>
<td>7,641</td>
<td></td>
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<td>Guntur</td>
<td>7,565</td>
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<tr>
<td>Visakhapatnam</td>
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<tr>
<td>Jalgaon</td>
<td>7,045</td>
<td></td>
</tr>
<tr>
<td>Kurnool</td>
<td>6,850</td>
<td></td>
</tr>
<tr>
<td>Lucknow</td>
<td>6,764</td>
<td></td>
</tr>
</tbody>
</table>
उभरने लगे नए होट्स्पॉट्स
बड़ी बात यह है कि सांसाधन होने के कारण रविवार को टेस्टिंग में थोड़ी कमी आई, बाल्क्य इसके 80 हजार से ज्यादा नए केस सामने आ गए। इससे पहले 9 अगस्त के रविवार ने 63,851 नए केस का रेकॉर्ड बनाया था। चिंता की बात यह है कि नए केस और मृत्यु दर में रेकॉर्ड बाद में घटी। इससे प्रथम साहबांत के कारण नए केस सामने आ गए। इससे भी बड़ी चिंता की बात यह है कि नागपुर, नािशक, चित्तूर, विजयनगर, गुंटूर, विशाखापत्तनम, जलगांव, कुनूल, लखनऊ जैसी जगहों कोरोना के नए होट्स्पॉट्स के रूप में उभरने लगी है।
3. Old hotspots continue to add numbers, some seeing resurgence

Daily cases (7 day average)
काबू में नहीं आ रहे पुराने हॉटपॉट्स

लूपातार पांच दिन से 76,000 से ज्यादा नए केस आने के कारण पिछले सप्ताह ग्रोथ रेट 13.1% पर पहुंच गया जो 28 अगस्त को समाप्त हुए सप्ताह में 4.7% ग्रोथ रेट के मुकाबले करीब-करीब तीन गुना है। तब ग्रोथ रेट 5.9% था जबकि अगस्त के पहले सप्ताह में यह 10.9% था। बड़ी बात यह है कि पुणे, बंगलूर अर्बन, दिल्ली, चेन्नई, ईस्ट गोदावरी, मुंबई जैसे पुराने हॉटपॉट्स से बीके केस कम होने के नाम नहीं ले रहे। कुछ जगहें पर तो पहले से भी ज्यादा केस आने लगे हैं।
1. **Positivity Rate or Test Rate Has Started to Decrease**

Cumulative testing vs % tested positive

- **Cumulative tests**
- **Positivity rate**

*3-day average*

- 12 May
- In million
घट रही है जांच में मिल रहे नए मरीजों की संख्या से।

हर दिन जांच की संख्या में भी इजाफा हो रहा है। ज्यादा से ज्यादा मरीजों की पहचान होने से संक्रमण की रफ्तार धारण कर सकती है। क्योंकि समय रहते संक्रमित व्यक्ति की पहचान हो जाए तो मरीज कम-से-कम व्यक्ति को संक्रमित कर पाता है। अच्छी बात यह है कि जांच के दौरान पॉजिटिव पाए जाने वालों की तरह भी लगातार घट रही है।
2. RATE OF GROWTH OF ACTIVE CASES COME DOWN, ESPECIALLY IN B: 

- Cumulative active cases
- Daily new cases

in lakh

9
8
7
6
5
4
3
2
1
0

1 Apr
एक अच्छी बात यह है कि गंभीर हालात वाले कोरोना मरीजों की संख्या भी लगातार घट रही है। यानी, स्वास्थ्य वाले मरीजों के रिकवर होने के चांस बढ़ रहे हैं। देश में अब तक 27 लाख से ज्यादा मरीज महामारी से रिकवर हो चुके हैं। 76.6% की रिकवरी रेट से इनकी संख्या इलाजरत संख्या के मुकाबले 3.5 गुना तक पहुंच चुकी है। जहाँ, यानी 1.8% मरीजों की मौत हुई है जबकि 21.6% मरीज इलाजरत हैं यानी देश में ऐसिटब केस कुल कोरोना केस का 21.6% है।
3. RECOVERY RATE CLIMBING, DEATH RATE DECLINING

- Recovery rate
- Death rate (R.)
बढ़ रहा है रिकवरी रेट
अच्छी बात यह है कि संक्रमितों की संख्या में युवाओं की हिस्सेदारी बढ़ रही है। इसका कारण यह है कि रिकवरी रेट भी लगातार ऊपर जा रहा है। अब यह 76.6% तक पहुंच चुका है। इसके साथ ही, देश में 27,13,933 कोरोना-19 मरीज़ ठीक हो चुके हैं।

Web Title : crossing 80000 cases in a day india became world leader in daily corona cases
Hindi News from Navbharat Times, TIL Network
7 इन टॉपिक्स पर और पढ़ें:
भारत में कोरोना केसकोरोना वैक्सीनकोरोना इंडिया अपडेट्स लिस्टकोरोना इंडिया लेटेस्ट न्यूजकोरोना इंडिया लेटेस्ट लिस्टकोरोना का

Health Care Services (Hindustan: 2020831)

https://epaper.livehindustan.com/imageview_284593_126536430_4_1_31-08-2020_3_i_1_sf.html
34 दिन में 9871 कोरोना के मरीज भर्ती हुए जिसमें से 2874 मरीज दूसरे राज्यों के दिल्ली के अस्पतालों में भर्ती 29% मरीज बहरी

राजस्थान | विशेष न्यायाधीश

दिल्ली में कोरोना के मामले बढ़ रहे हैं। राजस्थान के अस्पतालों में 2874 दिल्ली के मरीज बहरी हुए हैं।

कोरोना से दीक्षित होने के बाद सभी जीवन जीने में पर्याप्त अन्य उपकरण नहीं हैं।

दिल्ली में कोरोना बहरी होने के बाद सभी मरीजों में पर्याप्त अन्य उपकरण नहीं हैं।

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उत्तर प्रदेश | विशेष न्यायाधीश

दिल्ली में कोरोना के मामले बढ़ रहे हैं। उत्तर प्रदेश के अस्पतालों में 2874 दिल्ली के मरीज बहरी हुए हैं।

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