



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Friday

201901018

Alcoholism

Frequent drinking more harmful than binges: Study (The Tribune: 201901018)

<https://www.tribuneindia.com/news/health/frequent-drinking-more-harmful-than-binges-study/848447.html>

Alcohol lovers, take a note. Drinking small amounts of alcohol frequently is linked with a higher likelihood of atrial fibrillation than binge drinking, says a new study.

Atrial fibrillation is the most common heart rhythm disorder and raises the risk of stroke by five-fold. Symptoms include palpitations, racing or irregular pulse, shortness of breath, tiredness, chest pain and dizziness.

"Our study suggests that drinking less often may also be important to protect against atrial fibrillation," said study author Jong-Il Choi, from Korea University College in South Korea.

For the study, published in the journal EP Europace, researchers examined the relative importance of frequent drinking versus binge drinking for new-onset atrial fibrillation.

The analysis included 9,776,956 individuals without atrial fibrillation who underwent a national health check-up in 2009 which included a questionnaire about alcohol consumption.

Participants were followed-up until 2017 for the occurrence of atrial fibrillation.

The number of drinking sessions per week was the strongest risk factor for new-onset atrial fibrillation.

Compared with drinking twice per week (reference group), drinking every day was the riskiest, with a hazard ratio (HR) of 1.412, while drinking once a week was the least risky (HR 0.933).

Binge drinking did not show any clear link with new-onset atrial fibrillation.

"Our study suggests that frequent drinking is more dangerous than infrequent binge drinking with regard to atrial fibrillation," Choi said.

The number of drinking sessions was related to atrial fibrillation onset regardless of age and sex.

Repeated episodes of atrial fibrillation triggered by alcohol may lead to overt disease, the research notes.

In addition, drinking can provoke sleep disturbance which is a known risk factor for atrial fibrillation.

There was a two per cent increase in the risk of new-onset atrial fibrillation for each gram of alcohol. Compared to mild drinkers, those who drank no alcohol, moderate, or high amounts had 8.6 per cent, 7.7 per cent, and 21.5 per cent elevated risks, respectively, the study said. — IANS

MCI:

MCI: Should memory tests score males and females differently? (Medical News Today: 201901018)

<https://www.medicalnewstoday.com/articles/326700.php>

A recent study found that scoring verbal memory tests according to sex can alter who receives a diagnosis of mild cognitive impairment (MCI) by as much as 20%.

senior man and woman reading something on a tablet

New research assesses the differences in cognition between males and females after the age of 65.

Evidence shows that females tend to have better verbal memory than males, and yet, tests that assess cognitive ability do not reflect this.

In the new study, the researchers scored memory tests using different norms and thresholds, or cut-off scores, for males and females.

They found that using sex-specific scores led to 10% more females and 10% fewer males receiving a diagnosis of MCI compared with scores that used averages.

The team suggests that should further studies validate the findings, they could change the way that doctors diagnose males and females for dementia.

"If these results are confirmed, they have vital implications," says first study author Erin E. Sundermann, Ph.D., a scientist at the University of California, San Diego.

She explains that one of the consequences of identifying people as having no memory difficulties when they actually have MCI is that they do not start treatment when they should. This can also mean that they and their families do not begin planning future care and putting affairs in order.

Conversely, inaccurately diagnosing someone with MCI when they do not have it means that they take unnecessary drugs, and they and their families experience undue stress.

MCI does not always precede dementia

MCI affects around 15-20 percent of people aged 65 and older.

People with MCI have a small but measurable reduction in their memory and thinking ability. The loss is not enough to stop them from being able to take care of themselves and carry out everyday tasks.

Computer use in midlife may prevent cognitive decline

Computer use in midlife may prevent cognitive decline

Using a computer and participating in mentally stimulating activities in later life may lower the risk of mild cognitive impairment.

Typical symptoms of MCI include losing the thread of a conversation and forgetting important appointments. Problems with reasoning and reaching decisions can also occur.

While MCI commonly precedes dementia, having the condition does not necessarily mean that dementia will follow.

Doctors and scientists speak of two types of MCI: amnesic and nonamnesic. Amnesic MCI (aMCI) mostly impairs memory and is the subject of the new study.

Nonamnesic MCI mostly affects the other mental skills, such as visual perception, making sound decisions, and judging the order of steps in a complicated task.

The recent findings follow those of a 2016 study, which revealed that females show better verbal memory in aMCI than males. This happens even though their brains' ability to metabolize glucose might have similar impairments. Problems with glucose metabolism in the brain is a feature of Alzheimer's disease, which is the most common cause of dementia.

"This [earlier finding] is especially important because verbal memory tests are used to diagnose people with Alzheimer's disease and [MCI], so women may not be diagnosed until they are further along in the disease," notes Sundermann, who was also first author of the earlier study.

Sex-specific norms and cut-off scores

For the new investigation, the team began by using the results of the Rey Auditory Verbal Learning Test in the Mayo Clinic Study of Aging.

From this data, the researchers calculated new norms and cut-off scores for males and females separately so that they could compare the application of these with results from the traditional scores.

The sex-specific norms and cut-off scores took into account the fact that females typically scored higher on the tests, which involved learning words for immediate and delayed recall.

The team then applied the traditional and sex-specific norms and cut-off scores to another set of results for the same verbal memory tests. These results came from 985 participants in the Alzheimer's Disease Neuroimaging Initiative.

Application of the traditional norms and cut-off scores — namely those that did not differentiate between males and females — showed that the rate of aMCI was higher in males.

However, application of the new sex-specific norms and cut-off scores identified 10% false negatives, or previously missed cases of aMCI, among the females and 10% false positives among the males.

Findings likely to affect research

Results from biomarker tests supported these findings. Markers of brain changes that happen in Alzheimer's disease, such as plaques of amyloid protein, were more advanced than normal in the females that the sex-specific scores identified as false negatives.

Also, the brain changes of the males that the sex-specific scores identified as false positives were more like those of healthy adults.

"Biomarker analyses supported the hypothesis that sex-specific diagnostic criteria improve diagnostic accuracy," conclude the authors.

Sundermann suggests that the findings, subject to confirmation, will likely also affect research.

"When the typical average cut-off scores are used for diagnosis," she comments, "women might respond less to treatments in a clinical trial than men because they are at a more advanced stage of the disease, while men might not respond because some of them do not actually have MCI."

"These combined factors would result in research that reduces the estimate of how well treatments work for both men and women."

Rotavirus vaccine

Does the rotavirus vaccine prevent type 1 diabetes? (Medical News Today: 201901018)

<https://www.medicalnewstoday.com/articles/326693.php#4>

Scientists have highlighted a possible link between infection with rotavirus and an increased risk of developing type 1 diabetes. Undergoing vaccination against the pathogen may be an effective way to prevent the condition.

Could a routine childhood vaccination reduce the incidence of type 1 diabetes?

Type 1 diabetes is an autoimmune condition.

The exact reason a person develops this condition is unknown, but experts believe that a complex relationship between many genetic and environmental factors is at play.

A longstanding theory has implicated certain infections Trusted Source in early childhood as a trigger for type 1 diabetes — particularly in children who are genetically susceptible.

One such infection is rotavirus.

Infection with rotavirus causes gastroenteritis, also known as stomach flu. In infants, rotavirus is the most common cause of gastroenteritis.

Writing in the journal PLOS Pathogens, Dr. Leonard C. Harrison — a professor at the Walter and Eliza Hall Institute for Medical Research at the University of Melbourne in Australia — and colleagues present data that underpin their theory of a link between rotavirus and type 1 diabetes.

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They point to two studies in particular that show a drop in new type 1 diabetes cases in children who received the rotavirus vaccine.

Rising rates and 'rooming-in'

Experts are warning that the number of people living with type 1 diabetes is on the rise.

In 2009, a group of European scientists published the results of a multicenter study that looked at almost 30,000 newly diagnosed cases of type 1 diabetes in children under the age of 15.

Based on these data, they predicted a "doubling of new cases of type 1 diabetes in European children younger than 5 years [...] between 2005 and 2020."

In Australia, Dr. Harrison writes, environmental factors very likely played a vital role in this increase.

"An interesting observation in the Australian context that may be relevant to [rotavirus] as a candidate environmental factor relates to the practice of mothers "rooming-in" with their newborns," he notes. "This was introduced in the 1970s and entailed mother and baby remaining together rather than separating the baby to a communal nursery at night."

Infections with rotavirus were common in newborn nurseries. Having babies stay with their mothers delayed their exposure to the virus.

Dr. Harrison cites research in mice suggesting that the timing of rotavirus exposure may be crucial.

When genetically susceptible newborn mice became infected with the virus, they did not go on to develop type 1 diabetes. However, animals exposed to rotavirus at a later time did.

Vaccine linked to a drop in numbers

If infection with rotavirus during early infancy does trigger type 1 diabetes in genetically susceptible people, what happened when health professionals introduced the rotavirus vaccine as part of the recommended immunization schedule?

"We hypothesized that if natural infection with [rotavirus] was a causative factor in [type 1 diabetes], then [rotavirus] vaccination would alter the incidence of [condition]," Dr. Harrison explains.

Looking at the 8 years before the introduction of the vaccine into the Australian National Immunization Program in 2007 and the subsequent 8 years, the team saw a drop in the number of new type 1 diabetes cases.

According to their earlier JAMA Pediatrics paper, the data showed a 15% reduction in new type 1 diabetes diagnoses in children ages 0–4. However, there was no difference in rates among children ages 5–14.

Another study paper in the journal Scientific Reports Trusted Source reported similar results. Having analyzed data from nearly 1.5 million children in the United States between 2001 and 2017, the study authors reported a 41% reduction in new cases of type 1 diabetes during this time in children who received all doses of the rotavirus vaccine.

This was not the case for those who only received some of the shots or who never underwent vaccination.

However, Dr. Harrison points out that not all studies have come to the same conclusion.

For example, a population study of 495 Finnish children did not find a significant change in the risk of type 1 diabetes when the scientists compared vaccinated and unvaccinated children.

"Environmental factors promoting the increase in [type 1 diabetes] incidence on particular genetic backgrounds are likely to be ubiquitous and multiple," conclude Dr. Harrison and colleagues.

"That [rotavirus] may be one such factor is supported by several lines of evidence [...], to which we can now add an association between [rotavirus] vaccination and a decrease in [type 1 diabetes] incidence."

"This may be the first clear example of primary prevention of [type 1 diabetes]."

Dry eye disease

Dry eye disease: New treatment on the horizon (Medical News Today: 201901018)

<https://www.medicalnewstoday.com/articles/326687.php>

Published Wednesday 16 October 2019 By Tim Newman Fact checked by Isabel Godfrey

Dry eye disease is one of the most common eye disorders in the United States. Although treatment is available, it does not work for everyone. A new antibody based eye drop may be the answer.

Person using eye drops

Dry eye disease is surprisingly common, and some cases can be difficult to treat.

Although scientists do not know the exact prevalence of dry eye disease, global estimates vary from 5% to 34%.

The National Eye Institute estimate that it affects nearly 5 million people in the U.S.

In the most severe cases, dry eye disease causes significant eye pain and sensitivity to light, and it can compromise an individual's overall quality of life.

Dry eye disease creates dry areas on the cornea, which, in some cases, can produce scarring.

Several factors play a role in this condition. For instance, the body may not produce tear fluid in the right quantities or at the right time.

Similarly, tear production is a complex process, and if anything goes wrong, it can affect tear quality.

Experts have noted that there appears to be an autoimmune component — meaning that the immune system attacks healthy tissues — for some individuals.

Researchers from the University of Illinois at Chicago have spent the past few years delving into the details of this disorder, trying to understand more about why it occurs and how to treat it.

The senior author of the latest study, Dr. Sandeep Jain, explains why finding a new solution is so important, "There are currently only two approved drugs to treat dry eye, and they don't work for everyone, especially those with severe disease."

The role of neutrophils

In earlier work, Dr. Jain and colleagues uncovered new factors that appear to help drive severe cases of dry eye disease. They found that neutrophils — a type of immune cell — produce neutrophil extracellular traps (NETs), which stretch like webs across the surface of the cornea.

Neutrophils produce NETs to trap bacteria outside of cells and destroy them.

In the case of dry eye disease, NETs appear to trigger the production of autoantibodies — antibodies that target the body's own proteins.

The authors believe that these autoantibodies might play a role in the inflammation that exacerbates dry eye disease and makes it so difficult to treat in some cases. These particular autoantibodies are called anti-citrullinated protein autoantibodies (ACPAs).

What role do immune cells play in dry eye?

What role do immune cells play in dry eye?

The role of the immune system in dry eye is complex. A recent study takes a detailed look at neutrophils.

With this in mind, the authors produced eye drops containing antibodies that target ACPAs. If they could counteract the negative effects of ACPAs, they thought that they might be able to relieve dry eye disease.

The researchers published their latest findings in the journal *The Ocular Surface*.

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Testing a new breed of eye drops

To investigate, the researchers used pooled antibodies, which they created from human immune globulins. After checking that the eye drops were effective and safe in mice, they moved on to a human trial.

The scientists designed a randomized, placebo-controlled clinical trial. In all, they recruited 27 participants with different variations of dry eye disease, including Sjogren's syndrome and Meibomian gland dysfunction.

The researchers gave half of the participants eye drops containing pooled antibodies, and they gave the rest of the participants similar eye drops that did not contain the antibodies. They instructed all of the participants to administer one drop per eye twice daily for 8 weeks.

To assess how well the drug performed, the participants filled out questionnaires asking about their symptoms. Before, during, and after the trial, the scientists measured the level of corneal damage. They also assessed the level of inflammation biomarkers on the surface of the eye.

As hoped, the researchers measured a significant, clinically meaningful benefit when using the antibody based eye drops.

"Participants in the trial who used the drops with pooled antibodies reported less eye discomfort, and their corneas were healthier."

Dr. Sandeep Jain

Specifically, those who took these drops experienced a reduction in corneal damage, and the level of inflammatory biomarkers dropped compared with those in the control group. The questionnaire data also reflected these benefits, with participants in the experimental group reporting improvements.

The study is preliminary, and, as such, participant numbers are low. Nevertheless, Dr. Jain is encouraged by the results.

"The data from this early clinical trial suggest that eye drops containing pooled antibodies may be safe and effective for treating dry eye disease, and we look forward to conducting larger randomized trials to definitively prove its efficacy," he concludes.

Dementia:

Dementia: Brain mapping method may predict progression (Medical News Today: 201901018)

<https://www.medicalnewstoday.com/articles/326689.php>

Does dementia spread gradually and evenly in all directions across the brain, or can it "jump" from one brain area to another? New research helps to settle the question by examining the progression of frontotemporal dementia.

hand pointing at mri scans

Researchers have used MRI scans to improve their prediction of brain atrophy progression in a type of dementia.

Frontotemporal dementia (FTD) is a condition in which the frontal and temporal anterior lobes of the brain shrink, or atrophy. This results in two broad categories of symptoms: behavioral

changes and language problems. Unlike in other forms of dementia, FTD does not affect spatial awareness and memory.

There are currently no treatments for slowing the progression of FTD. The medical community has insufficient knowledge of how the disease spreads and how differently it progresses between individuals.

To help understand the condition, Dr. William Seeley — a professor of neurology and pathology at the Memory and Aging Center and Weill Institute at the University of California San Francisco — together with his team, set out to examine the patterns of brain atrophy progression in FTD.

Dr. Seely and his colleagues published their findings in the journal *Neuron*.

Finding the 'patient-tailored epicenter'

The new study builds on previous work by Dr. Seeley, which showed that in various forms of dementia, brain atrophy patterns largely overlap with well known "highways" in the brain.

These highways are brain networks, or groups of brain regions that communicate closely via their synaptic connections, functioning together. These brain regions cooperate, sometimes from afar, with the functional brain networks enabling this long distance communication by serving as "roads."

Dr. Seeley's previous work on how degeneration spreads showed that neurodegeneration, or atrophy, does not spread evenly like a tumor, but can "jump" from one brain area to another.

Walking patterns may help differentiate types of dementia

Walking patterns may help differentiate types of dementia

New research suggests that people with Lewy Body dementia walk differently from people with Alzheimer's disease.

The new study adds to this evidence. Here, the scientists examined how well neural network maps based on brain scans from cognitively healthy participants can predict the advancement of brain atrophy in people with FTD over 1 year.

To find out, the team asked a group of 42 people living with one of two subtypes of FTD to have an MRI scan at the beginning of the study and another one about 12 months later. This way, the researchers could see how the disease progressed.

Then, using the functional MRI brain scans of 75 healthy participants, the researchers created standardized maps of 175 different brain areas and the corresponding regions that they communicated with.

After they identified the brain networks in this way, the team picked the one network that most closely matched the brain atrophy pattern observed in a person with FTD.

Dr. Seeley and his team identified and deemed the center of this specific brain network as the "patient-tailored epicenter" of brain degeneration.

Using the same standardized brain network maps, the researchers predicted where the atrophy would spread to over 1 year, and compared their predictions with the MRI scans.

They also compared the accuracy of their predictions with predictions that did not account for functional network connectivity.

Knowing the 'patient zero' of brain atrophy

The researchers identified two functional connectivity measures in particular that improved the accuracy of their predictions.

One of them, called "shortest path to the epicenter," measured the number of synaptic connections between the initial epicenter and the brain area to which the damage had spread.

The other measure, the "nodal hazard," measured the number of already atrophied brain areas connected to one main, given brain area.

"It's like with an infectious disease, where your chances of becoming infected can be predicted by how many degrees of separation you have from 'Patient Zero' but also by how many people in your immediate social network are already sick," says Jesse A. Brown, the study's first author.

He adds that their findings will hopefully help scientists determine and target the next disease site, "Just like epidemiologists rely on models of how infectious diseases spread to develop interventions targeted to key hubs or choke points."

"Neurologists need to understand the underlying biological mechanisms of neurodegeneration to develop ways of slowing or halting the spread of the disease," he adds.

"We are excited about this result because it represents an important first step toward a more precision medicine type of approach to predicting progression and measuring treatment effects in neurodegenerative disease."

Dr. William Seeley

However, the scientists also emphasize the fact that their method is not yet ready for clinical use. They do hope that in the future, their results will help evaluate potential therapies that have entered clinical trials.

TB

India fares well in fight against TB but has 27 per cent of global burden: report (The indian Express:201901018)

The total TB incidence rate in India has decreased by almost 50,000 patients over the past one year.

<https://indianexpress.com/article/lifestyle/health/india-fares-well-in-fight-against-tb-but-has-27-per-cent-of-global-burden-report-6075175/>



In 2017, India had 27.4 lakh TB patients, which came down to 26.9 lakh in 2018, but of these, only about 21.5 lakh were reported, the report stated.

India has shown significant progress in its battle against tuberculosis (TB) even though it accounted for more than a quarter of the global burden of tuberculosis in 2018, according to Global TB report for 2019.

The total TB incidence rate in India has decreased by almost 50,000 patients over the past one year. In 2017, India had 27.4 lakh TB patients, which came down to 26.9 lakh in 2018, but of these, only about 21.5 lakh were reported, the report stated.

Incidence per 1 lakh population decreased from 204 in 2017 to 199 in 2018. The number of patients being diagnosed for resistance to rifampicin (one of the frontline TB drugs) increased from 32 per cent in 2017 to 46 per cent in 2018 due to mandatory testing for resistance, according to the report.

The number of drug-resistant cases detected increased from 38,000 in 2017 to 58,000 in 2018. This is good because these cases would normally go undetected and continue to spread drug-resistant TB.

Treatment success rate increased to 81 per cent for new and relapse cases (drug-sensitive) in 2017, which was 69 per cent in 2016, it reported. Children below 14 years comprised 6 per cent of patients and women were 34 per cent.

Yet, 26.9 per cent of the global TB burden of 10 million in 2018 was from India, according to the report. In 2017, the figure was 27 per cent. The report says 66 per cent of that burden came from eight countries: India (27%), China (9%), Indonesia (8%), the Philippines (6%), Pakistan (6%), Nigeria (4%), Bangladesh (4%), and South Africa (3%).

India has resolved to end TB by 2025, five years ahead of the global deadline of 2030. But experts say the annual rate of TB reduction, at 2 per cent, is far lower than what is required to meet the target.

Tuberculosis

HomeLifestyleHealthIndia Fares Well In Fight Against TB But Has 27 Per Cent Of Global Burden: Report

Nutrition is no puzzle

Global Hunger Index figures are stark. They bring home urgency of long-term investments in nutrition, health, sanitation

Nutrition is no puzzle

Though the country's position has gone up a notch since last year, this is not an improvement since this year's GHI mapped two more countries.

Last year, the Centre launched the National Nutrition Mission (NNM) to ensure a "malnutrition free India" by 2022. The Global Hunger Index (GHI), released on Tuesday, has sobering figures for this inter-ministerial mission. India is one of the 47 countries that have "serious levels of hunger", according to the study. Though the country's position has gone up a notch since last year, this is not an improvement since this year's GHI mapped two more countries. It is particularly worrying that India is among the worst-performing countries on the acute under-nutrition parameter. "India's wasting rate (indicative of acute under-nutrition) is extremely high at 20.8 per cent — the highest wasting rate of any country for which data or estimates were available," the report states.

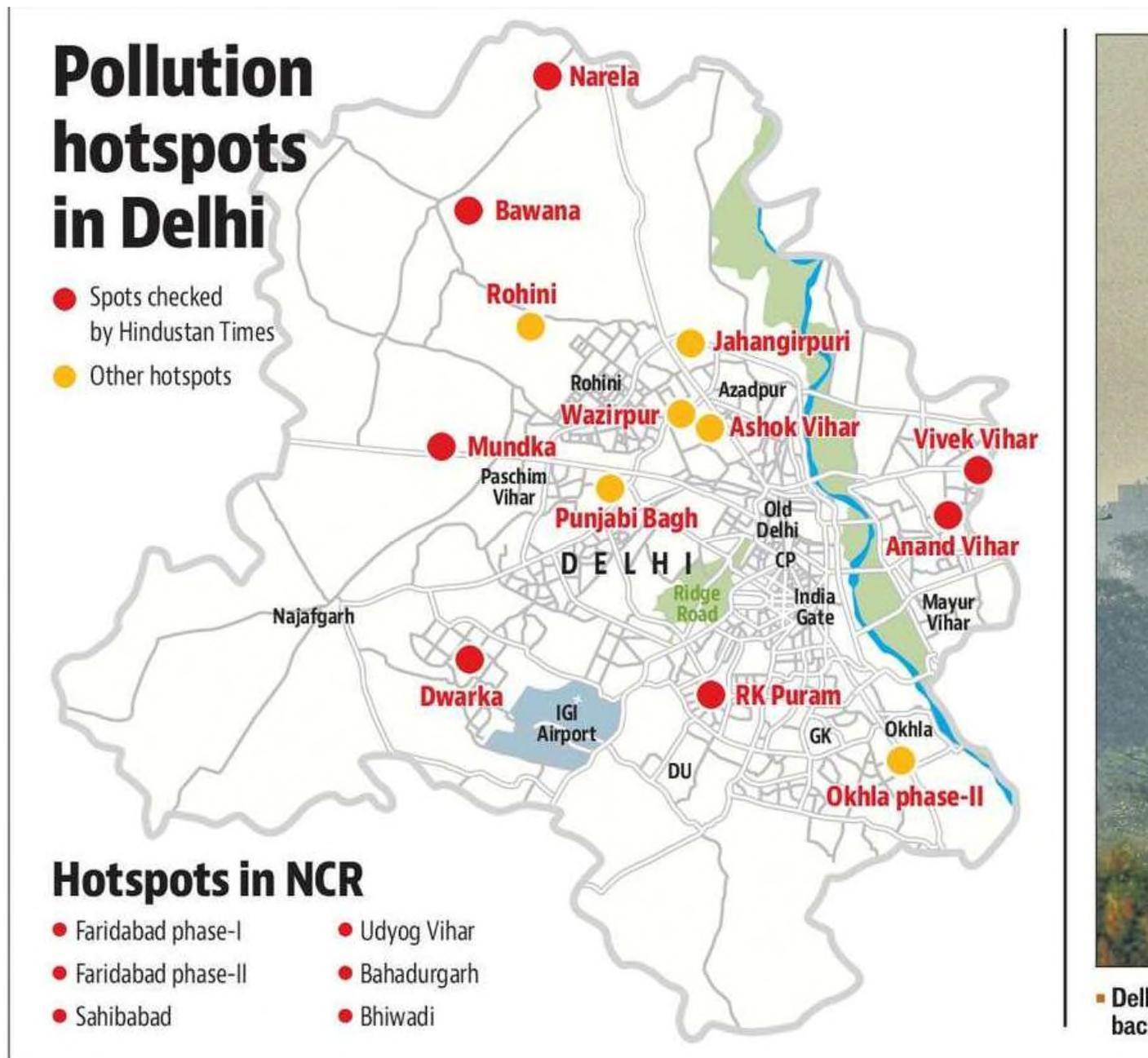
Malnutrition is most often a product of several factors including poverty, inadequate availability of food, genetic predisposition, environmental factors and poor health and sanitation services. And, the oft-repeated complaint of policymakers that there is no real-time data that brings all these factors together to show the extent of India's malnutrition problem is valid to an extent. However, it is also clear that providing nutritious food to the country's children is more a matter of political will and effective policy implementation at the grass roots level than solving a difficult puzzle. For example, in May-June, the Acute Encephalitis Syndrome (AES) outbreak in Bihar bared the failure of the Integrated Child Development Scheme (ICDS) in the state. Moreover, by its own admission, the state government did not have any special nutritional programme to combat a disease that has been a scourge for at least 10 years.

The ICDS has also been vexed by disagreements over the constituents of the mid-day meal programme. In the past four years, the Centre has increasingly laid emphasis on the use of "fortified varieties" of salt, wheat flour and edible oil. A section of policymakers have also advocated the use of Ready To Use Therapeutic Food (RTUF). The debate on the nutritional quality of "fortified food" is far from settled. But the emphasis on such food has led to the increasing centralisation of the mid-day meal scheme and moreover, has not addressed local food sensitivities and tastes. Also, as a study published, this week, in PLOS Medicine shows, long-term investments in health, sanitation and nutrition are far more effective in preventing deaths due to severe acute malnutrition than measures such as RTUF. The NNM would do well to keep such studies in mind. But most of all, it should be bear in mind that the GHI figures are too stark for any further prevarication.

Pollution

Delhi's Achilles heel: Eight spots with foulest airchoking Delhi Pollution Control Committee has identified hotspots where unchecked violations cause pollution levels to spike (Hindustan Times: 201901018)

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





Delhi's air quality improved marginally on Thursday and went back to 'poor' category from 'very poor' vipin kumar/ht photo



Soumya Pillai and Vatsala Shranghi

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New Delhi : The national capital, which is looking to its neighbouring states to control crop stubble burning, is not faring so well in its fight against local sources of pollution that foul the air every day.

The Delhi Pollution Control Committee (DPCC) has identified 13 ‘hot spots’ where unchecked violations cause pollution to spike. From illegal industries to plastic waste being set on fire, these areas are Delhi’s Achilles heel.

The hotspots list names Okhla Phase-2, Narela, Bawana, Mundka, Punjabi Bagh, Dwarka, Wazirpur, Rohini, Anand Vihar, RK Puram, Jahangirpuri, Vivek Vihar and Ashok Vihar. Six more have been identified in NCR— Faridabad Phase-1 and 2, Udyog Vihar, Bahadurgarh, Bhiwadi and Sahibabad.

Hindustan Times did a spot check at eight spots to see what government has done to check pollution and to understand problems unique to each area.

Vivek Vihar

The Jhilmil Industrial Area, just 3km from Vivek Vihar, is the hub of open dumping of plastic waste.

HT inspected the area and found that dumps largely comprised plastic wire coatings and sheets, and packaging material. Construction debris had also found its way there.

Prashant Singh, who owns an eatery below the Jhilmil flyover, said after midnight, people are often seen dumping bags of plastic waste below the flyover and the Metro bridge. “It has been seven years since I set up business here and I have not seen any agency clear the trash.

Last week, he said, a fire broke out in one of the dumps and five fire tenders were called in to douse the flames.

When HT visited the spot, the aftermath of the fire could be seen there — the blackened pillars of the flyover and Metro and charred waste.

Anand Vihar

The transport hub of Delhi is riddled with multiple pollution sources— road dust, vehicular emissions and the open burning of garbage.

Data shows that Anand Vihar bus terminal handles over 4,000 to 5,000 buses every day, of which nearly 60% come from other states. Even though the Delhi government has tightened the noose around polluting diesel vehicles within the city, all rules fly out the window at the bus terminal.

Since there is no way to stop diesel-run buses from neighbouring states, this area is mostly shrouded in thick smoke. What makes things worse is the Kaushambi bus depot, on the other side of the road. Most of the diesel-run, rickety buses plying within Uttar Pradesh have crossed their lifespan of 10 years (after which diesel vehicles start polluting).

“People also openly burn garbage below the foot over bridge. And since I can’t quit work, I’m losing years from my life and no agency will be able to compensate that,” Raghuvendra Trivedi, a bus conductor, said.

Dwarka

The Dwarka sub-city in southwest Delhi has been a victim of government apathy for many years. The absence of adequate public transport has created a dependency on private vehicles. Also, empty plots have turned garbage dumps, which are regularly set on fire.

“Many sectors of Dwarka are still not connected by public transport. Most residents have to travel several kilometres to reach a bus stand/Metro station,” Manoj Rajput, of Dwarka’s Sector 6, said.

The open fires are also a major problem. Data provided by the Delhi Fire Services (DFS) shows that from October 1 to October 15, 12 fires were reported from Palam and Dwarka.

“People dump garbage in open areas and then set it on fire,” a senior fire official said.

Mundka, Bawana, Mandoli and Narela

Environment pollution (prevention and control) authority (EPCA) chairman Bhure Lal inspected industrial areas early October and found signs of “polluting fuels” being used in Mandoli.

“We found industrial waste being dumped outside. The DPCC has been ordered to act against errant industries,” Lal said.

When HT visited Mandoli in northeast Delhi, there was a haze along the road that had industries on both sides.

“Even this haze is better than what it used to be. The agencies, this time, had sealed many polluting industries,” Ram Pal, a Delhi Police constable, manning the area, said.

The DPCC, last month, had sealed around 60 units here for using coal, diesel and pet coke.

Last winter, major violations were reported from Bawana, Narela and Mudka. So, this year, the authorities cracked down on pollution in these parts. Monthly inspections led to sealing of illegal industries, which helped reduce pollution.

RK Puram

The residential neighbourhood in south Delhi lies sandwiched between the Ring Road and the Outer Ring Road, two stretches with the highest vehicular volume in Delhi. The air here is most foul, owing to vehicular emissions.

“With the opening of the new RTR Marg flyover, the jams on Outer Ring Road have eased. Hopefully, this will reduce pollution,” a traffic constable said.

Residents also complained of open kitchens.

Kripal Singh, a resident of RK Puram’s Sector 7, said several small restaurants have tandoors that produce a lot of wood and coal smoke. “This might not be a major contributor but is a local factor,” Singh sa

Global Hunger Index (GHI)

India has a problem: HungerThe dip in the hunger index must sound alarm bells(Hindustan Times: 201901018)

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

India is languishing at the 102nd spot among 117 countries in the Global Hunger Index (GHI) that was released by Concern Worldwide, an aid agency, on Wednesday, also World Food Day. The country's ranking is eight spots below Pakistan (94) and 14 below Bangladesh (88). China, the only country with a population size similar to India, is ranked 25. GHI uses indicators such as undernourishment, child stunting, child wasting and child mortality to calculate the levels of hunger and undernutrition, and India's score of 30.3 means it suffers from a level of hunger that is "serious".

There are two aspects of the 2019 GHI report that should worry the government. One, India has the highest child wasting rate of any country (20.8%). Wasting — it means low weight for a given height — is a strong predictor of mortality among children under the age of five. Second, the child stunting rate — meaning low height for a given age due to insufficient nutrient intake — is also very high at 37.9%. This is alarming because a sound foundation is critical for the development of a human being. Despite the nutrition crisis, which can also take intergenerational dimensions, the allocation for children in the 2019-2020 Union Budget has only shown a marginal increase of 0.05%, going up from 3.24% in the last fiscal to 3.29% in the current fiscal with a grant of ₹91,644.29 crore.

The Centre should also take into account the new threat that the GHI report has indicated: Climate change, which will impact food security. This means that the standard inputs to tackle stunting and wasting of children — improving sanitation facilities, providing clean water, better maternal health and early childhood nutrition — will not be enough. Further investments are needed to help farmers to develop and carry out context-specific strategies that will strengthen food and nutrition security. One key aspect of adaptation strategy would be to secure the land and water rights, including customary rights, of indigenous peoples and rural communities because climate change will lead to competition for resources, and the weakest and the marginalised cannot be left alone to tackle the challenge that can affect one of the basic blocks of life: food.

Air Pollution (Navbharat Times: 201901018)

<http://epaper.navbharattimes.com/details/67716-60526-1.html>

रखें अपना ध्यान, 350 के पार जा सकता है दिल्ली में प्रदूषण का स्तर

हवाओं का रुख बदला, अब प्रदूषण बढ़ेगा



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पड़ोसी राज्यों से लेकर पाकिस्तान तक में जल रही पराली के कारण दिल्ली में प्रदूषण का स्तर कल से 350 के पार जा सकता है। हवाओं का रुख बदलने से पराली का धुआं अगले दो दिनों में दिल्लीवालों को बहुत ज्यादा परेशान करनेवाला है। सफर ने यह पूर्वानुमान जारी किया है। इसके मुताबिक, शनिवार को दिल्ली के प्रदूषण में 10 फीसदी वजह पराली होगी। रविवार को यह बढ़कर 18 फीसदी हो जाएगी। इस समय हरियाणा, पंजाब, पाकिस्तान के बाँडर और वेस्टर्न यूपी में बड़ी संख्या में पराली जलाई जा रही है। अभी तक हवाओं का रुख दूसरी ओर होने से दिल्ली पर बहुत अधिक असर नहीं था, लेकिन अब हवाओं का रुख बदल गया है। पंजाब में एक कम दबाव का क्षेत्र विकसित हुआ है। इसकी वजह से शनिवार को हल्की बूंदबांदी की संभावना है। हिमाचल और उत्तराखंड के मौसम में भी बदलाव हुए हैं। इससे 24 घंटे के दौरान दिल्ली में प्रदूषण में कुछ कमी आई है, लेकिन सफर के मुताबिक, 19 अक्टूबर से प्रदूषण काफी बढ़ जाएगा।

दिल्ली का एयर इंडेक्स 284

सीपीसीबी के एयर बुलेटिन के अनुसार, दिल्ली में एयर इंडेक्स 284 रहा।



दिल्ली में अब रोजाना बढ़ रहा है प्रदूषण का स्तर, बुधवार सुबह कुछ ऐसा नजारा था इंडिया गेट पर

फरीदाबाद में यह 245, गाजियाबाद में 298, ग्रेटर नोएडा में 266, गुरुग्राम में 279 और नोएडा में 283 दर्ज किया गया। सफर के मुताबिक, दिल्ली का एयर इंडेक्स 306 रहा। स्काईमेट के अनुसार, चार-पांच दिनों से दिल्ली-एनसीआर के साथ-साथ उत्तर-पश्चिमी भारत के कई हिस्सों में हल्की हवाएं चल रही हैं। पराली जलने के कारण धुएँ के कण हवाओं के साथ दिल्ली आ रहे हैं। सफर और सीपीसीबी के पूर्वानुमान के अनुसार, 72 घंटों के दौरान पराली के मामले काफी तेजी से बढ़ेंगे हैं।

पल्यूशन फैलाने वालों के 10.8 लाख के चालान

■ **वस, नई दिल्ली:** खुले में कूड़ा जलाने और जहड़-तहड़ मलबा डालने वाले लोगों के खिलाफ नॉर्थ एमसीडी ने कोरेवाई तेज कर दी है। गुरुवार एमसीडी अफसरों ने 78 स्थानों जांच की और जो लोग भी कूड़ा जलाते पकड़े गए उनके खिलाफ चालान किया। ओपन एरिया में कूड़ा जलाने पर 32, निर्माण कार्य के दौरान धूल उड़ाने के लिए 35 लोगों के खिलाफ चालान किया गया। इसके अलावा डॉपिंग साइट के बजाय किसी दूसरे जगह मलबा डालने पर 11 लोगों के खिलाफ एमसीडी अफसरों ने चालान किया। जुर्माने के रूप में एमसीडी ने इन लोगों से 10.8 लाख रुपये वसूले।

Pollution Device ((Navbharat Times: 201901018)

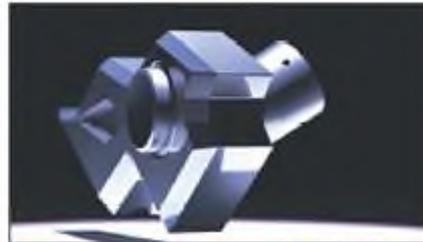
<http://epaper.navbharattimes.com/details/67708-69314-1.html>

‘पीएम 2.5’ डिवाइस कम करेगा दिल्ली के पीएम 2.5 को

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आईआईटी खड़गपुर के स्टूडेंट ने ऐसा डिवाइस बनाया है, जो गाड़ियों से होने वाले प्रदूषण को कम करेगा। आईआईटी से ग्रेजुएट देबायन साहा का दावा है कि अगर उनका डिवाइस ‘पीएम 2.5’ गाड़ी में इजॉस्ट टेल पाइप के ऊपर लगा दिया जाए, तो आसपास की 10 गाड़ियों से निकलने वाला प्रदूषण कम करेगा। देबायन का कहना है कि यह चिमनी, जनरेटर, फैक्ट्री समेत कहीं भी लगाया जा सकता है, जहां पीएम 2.5 ज्यादा हो।

मेकैनिकल इंजिनियरिंग कर चुके देबायन का कहना है कि हम गाड़ी के प्रदूषण को कम करने के लिए फिल्टर नहीं लगा रहे, बल्कि उससे निकलने वाले प्रदूषण का इस्तेमाल आसपास के प्रदूषण को मारने के लिए कर रहे हैं। यही हमारी यूएसपी है। वह बताते हैं, हमने इलेक्ट्रिक एनर्जी और वेव एनर्जी का इस्तेमाल किया है। हमारी तकनीक से प्रदूषक तत्व एक चुंबक की तरह काम करेंगे और पर्यावरण में फैले बाकी प्रदूषक तत्व को खींचेंगे। जब छोटे-छोटे प्रदूषक तत्व मिलकर बड़े हो जाएंगे, वे भार की वजह से जमीन पर गिरेंगे, न कि हवा में फैलेंगे। देबायन बताते हैं, यह कहा जा सकता है कि पीएम 2.5, पीएम 250 में बदलेंगे, जो नुकसानदायक



■ प्रदूषण से प्रदूषण को मारेगी, IIT खड़गपुर के ग्रेजुएट की यह तकनीक
■ दिल्ली सरकार ने दिखाई है दिलचस्पी, जल्द आएगा बाजार में यह डिवाइस

नहीं है। यह मिट्टी या रेत की तरह होंगे। दरअसल, हमने अपनी स्टडी में गहराई से यह देखा कि पीएम 2.5 प्रदूषण के लिए इस वजह से ज्यादा जिम्मेदार है, क्योंकि उनका आकार बहुत छोटा है। इस आकार की वजह से यह हवा में रहता है और आसानी से फेफड़ों, खून में चला जाता है।

देबायन इस डिवाइस को जल्द ही बाजार में उतारने के लिए तैयार हैं। उन्होंने बताया कि दिल्ली सरकार के ट्रांसपोर्ट मिनिस्टर सत्येंद्र जैन से मिले। उन्होंने डिवाइस को लेकर दिलचस्पी दिखाई और अधिकारियों के साथ इसके तकनीकों पहलुओं पर बातचीत चल रही है। उन्होंने बताया कि इसे एक कैम्पेन के साथ लोगों के बीच लाएंगे और जो लोग पर्यावरण के लिए काम कर रहे हैं, उन्हें मुफ्त में इसे देंगे।