



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Thursday 20190425

## Measles cases

**Measles cases up by 300% in 2019 as vaccinations dip (Hindustan Times: 20190425)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

CONCERN Unvaccinated children fuelling outbreak, says Unicef

From page A NEWDELHI: Children unvaccinated against measles are fuelling global outbreaks, with more than 110,000 measles cases being reported worldwide in the first three months of 2019, up nearly 300% over the same period last year, Unicef said on Thursday.

This has led to a 30% spike in measles cases worldwide since 2016, taking cases to 6.7 million and deaths to 110,000 in 2017. India confirmed 55,399 measles cases in 2018.

Globally, each year around 21.1 million children on average don't get the first dose of the measles vaccine, which has led to around 169 million children remaining unvaccinated between 2010 and 2017, according to UNICEF.

Measles is a highly infectious virus that causes death and debilitating complications, including encephalitis (swelling of the brain membranes), severe diarrhoea, pneumonia, ear infections and permanent vision loss.

India has 2.9 million children unvaccinated against measles, the second highest number after Nigeria, which is home to 4 million children not vaccinated against the disease, said Unicef.

The measles-rubella vaccine is safe and has saved at least 21 million lives since 2000, according to the World Health Organization (WHO), but fake news campaigns spread by anti-vaxxers — those who oppose vaccination — have led to people saying no to vaccination even in countries that have eliminated the disease.

Immunisation coverage must be at least 95% to achieve ‘herd immunity’, the threshold over which unvaccinated people in a community are protected, according to WHO. “It is critical not only to increase coverage but also to sustain vaccination rates at the right doses to create an umbrella of immunity for everyone. The measles virus will always find unvaccinated children. If we are serious about averting the spread of this dangerous but preventable disease, we need to vaccinate every child, in rich and poor countries alike,” said Henrietta Fore, Unicef executive director, in a statement.

The US, which eliminated measles in 2000, tops the list of high-income countries with the most children not receiving the first dose of the vaccine between 2010 and 2017, which prompted the American Medical Association last month to urge big social media and technology companies such as Amazon, Facebook, Google, Twitter, Pinterest and YouTube, to stop anti-vaccine groups from spreading misinformation on their platforms.

“Since launch of the Measles Rubella (MR) vaccination campaign in India in February 2017, 305 million children in 32 states/ UTs using the Serum Institute of India vaccine is WHO pre-qualified for its quality and safety and used the world over, but the campaign has been stalled by misinformed parents in some parts of India, including Delhi,” said a health ministry official who did not want to be identified.

“The MR vaccine being used in the campaign as well as for Routine Immunization, is very safe and effective against measles. It is made in India and is exported for use world over. Two doses of this vaccine provides more than 95% protection against the disease that has been eliminated in four countries (Bangladesh, Bhutan, DPR Korea and Timor Leste) in WHO’s South Asia region and transmission of the virus is likely to have been interrupted in Sri Lanka,” said Dr Poonam Khetrapal Singh, regional director, WHO South East Asia Region, which is holding a meeting of the Regional Verification Commission for Measles Elimination and Rubella Control to review progress in the battle against measles. ..

The global coverage of the first dose of the measles vaccine was reported at 85% in 2017, with the coverage for the second dose being at a lower 67%. In high income countries, while coverage with the first dose is 94%, coverage for the second dose drops to 91%, according to the latest data.

## **Medical drone service**

### **Ghana eyes world record in medical drone service (The Hindu: 20190425)**

<https://www.tribuneindia.com/news/world/ghana-eyes-world-record-in-medical-drone-service/763144.html>

Workers pack a box of vaccines to be delivered by a Zipline drone, in Ghana April 22, 2019.  
— Gavi/2019/Tony Noel via Reuters

Ghana launched on Wednesday a fleet of airborne drones carrying medical supplies to remote areas, with President Nana Akufo-Addo declaring it would become the “world’s largest drone delivery service”.

The drones are part of an ambitious plan to leapfrog problems of medical access in a country with poor roads.

“No one in Ghana should die because they can’t access the medicine they need in an emergency,” Akufo-Addo said as he launched the programme.

“That’s why Ghana is launching the world’s largest drone delivery service,” Akufo-Addo said. “It represents a major step towards giving everyone in this country universal access to lifesaving medicine.” The drones have been flying test runs with blood and vaccines, but the project was officially inaugurated Wednesday at the main drone base in Omenako, 70 km north of Accra.

Omenako is the first of four distribution centres, which when fully operational, will each have 30 drones serving 500 clinics within an 80-km radius.

The company says the three other sites should be up and running by the end of 2019.

If the proposal goes to plan, the delivery system will ferry 150 different medicines, blood and vaccines to more than 2,000 clinics and serve more than 12 million people, roughly 40 percent of the population.

Zipline, a US-based company, first began delivering blood and medicine in East Africa in 2016, deploying drones in Rwanda, a country dubbed the “land of a thousand hills” where access to many villages by road is difficult.

Zipline is now expanding on the other side of the continent.

“Millions of people across the world—in both developed and developing countries—die each year because they can’t get the medicine they need when they need it,” said Zipline boss Keller Rinaudo.

For Ghana, a country of nearly 30 million people scattered across a land area about the size of Britain, the former colonial ruler, poor roads and a lack of ambulances are major challenges to health care access. — AFP

## Medical drone service

### Ghana eyes world record in medical drone service (The Tribune: 20190425)

<https://www.tribuneindia.com/news/world/ghana-eyes-world-record-in-medical-drone-service/763144.html>

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Accra, April 24

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## **Lifestyle advice for kids under 5**

### **Tummy timetables: WHO has lifestyle advice for kids under 5? (The Tribune: 20190425)**

<https://www.tribuneindia.com/news/health/tummy-timetables-who-has-lifestyle-advice-for-kids-under-5/763163.html>

The UN health agency said its advice could apply to all young children, regardless of gender, cultural background or socio-economic status.

The United Nations on Wednesday released its first-ever recommendations on physical activity for children under five, with disputed advice on subjects ranging from screen time to “tummy time”.

The guidelines from the World Health Organisation may read to some parents like common-sense practices, including not exposing babies under one-year-old to screens.

But several experts noted that WHO’s broad recommendations were based on thin evidence and chastised the agency for adopting overly simplistic definitions of key terms, notably “sedentary screen time”. WHO said the guidelines “fill a gap” in the global effort to promote healthy living.

With obesity posing a rising public health threat and 80 per cent of adolescents “not sufficiently physically active,” WHO said it was necessary to outline best practices for children under five—a crucial period for lifestyle development.

Despite acknowledging that its “strong recommendations” were based on “very low quality evidence,” the UN health agency said its advice could apply to all young children, regardless of gender, cultural background or socio-economic status.

For infants under one, the WHO recommends at least 30 minutes of physically activity a day, including prone position—or tummy time—for those not yet mobile.

Babies under one should also not be restrained in a pram, highchair or strapped to someone's back for more than an hour at a time and should sleep between 12 and 17 hours per day, the agency said.

For infants between one and two years old, WHO recommends two hours of physical activity per day, with no more than an hour of "sedentary screen time" and at least 11 hours of sleep.

And for children aged three to four, two hours of daily physical activity should include at least an hour of "moderate to vigorous" movement, while screen time should be kept under an hour.

"I do rather wonder to what extent global guidelines on public health policy, affecting millions of families, should be based on 'very low quality evidence'," Kevin McConway, emeritus professor of applied statistics at The Open University in Britain said in a statement.

He noted that it is often not possible to conduct experiments on young children, which forced WHO to rely on observational studies.

"What exactly is 'sedentary screen time' anyway?" McConway further asked.

WHO's "glossary says that it excludes 'active screen-based games where physical activity or movement is required', but that's not very clear in my view." Andrew Przybylski, director of research at the Oxford Internet Institute at Oxford University, agreed that while restricting screen time among young children appeared to "make sense... in many ways the conclusions drawn about screens are out of step with scientific evidence of harm."

"Not all screen time is created equal," he added, urging WHO to call for "higher quality studies" to more broadly assess the various types of screen-based activities available to children and their impacts.

"The report represents a missed opportunity for the WHO," he said. — AFP

## **Magic milk**

### **Magic milk: fighting infections with a clue from the echidna (The Hindu: 20190425)**

<https://www.thehindu.com/sci-tech/fighting-infections-with-clues-from-nature/article26935384.ece>

Scientists find novel way of tackling antibiotic-resistant bacterial strains

Scientists at the Council of Scientific & Industrial Research - Centre for Cellular and Molecular Biology (CSIR-CCMB) here have isolated an anti-microbial protein found in the milk of an

egg-laying mammal. The protein promises to serve as an alternative to antibiotics used on livestock.

Echidnas, also known as spiny anteaters, are unique egg-laying mammals found only in Australia and New Guinea.

Their young hatch from eggs at a very early stage of development and depend completely on mother's milk. But the mammary glands of the echidnas are devoid of nipples, forcing the young ones to lick milk from the mother's body surface and potentially making them vulnerable to micro-organisms.

However, nature protects its own. The milk of the echidna has a protein that can puncture the cell membranes of multiple bacterial species, thus destroying the source of infection. Scientist Satish Kumar from the research team said that there are ways to produce the protein in large quantities using *E. coli*. It can then be used to fight infections.

The scientist pointed out that there is a rise of superbugs due to the indiscriminate use of antibiotics by the animal husbandry industry to raise livestock.

The superbugs can cause mastitis, an infection of the mammary gland, in dairy animals.

Dr. Kumar's team has been able to show that the protein from echidna milk is effective against mastitis-causing bacteria.

The research was published in *Biochimica et Biophysica Acta - Biomembranes*, said CSIR-CCMB director Rakesh Mishra. "These studies give us novel approaches to fighting infectious diseases taking clues from nature. They are the best way forward in this emerging scenario of increased infectious disease burden and resistance to current treatments," he said.

## **World's first malaria vaccine**

### **World's first malaria vaccine launched in Africa? (The Tribune: 20190425)**

<https://www.tribuneindia.com/news/health/world-s-first-malaria-vaccine-launched-in-africa/763118.html>

The world's first malaria vaccine has been launched in Malawi after concerted efforts of over 30 years to protect children from the deadly disease that claims over 435,000 lives globally every year.

The World Health Organization (WHO) welcomed the Government of Malawi's landmark pilot programme.

The launch of the first and only malaria vaccine, known as RTS,S, makes Malawi the first of three countries in Africa where it will be made available to children up to 2 years of age.

Ghana and Kenya will introduce the vaccine in the coming weeks, WHO said in a statement.

Malaria remains one of the world's leading killers, claiming the life of one child every two minutes. Most of these deaths are in Africa, where more than 250,000 children die from the disease every year.

WHO estimates that India accounts for 89 per cent malaria cases in South-East Asia. According to National Vector Borne Disease Control Programme (NVBDCP), 1,090,724 cases and 331 deaths due to malaria were reported during 2016 in the country.

Children under five are at greatest risk of its life-threatening complications. Worldwide, malaria kills 435 000 people a year, most of them children.

“We have seen tremendous gains from bed nets and other measures to control malaria in the last 15 years, but progress has stalled and even reversed in some areas,” said Tedros Adhanom Ghebreyesus, WHO Director-General.

“We need new solutions to get the malaria response back on track, and this vaccine gives us a promising tool to get there. The malaria vaccine has the potential to save tens of thousands of children's lives,” Ghebreyesus said in a statement.

Thirty years in the making, RTS,S is the first, and to date the only, vaccine that has demonstrated it can significantly reduce malaria in children.

In clinical trials, the vaccine was found to prevent approximately four in 10 malaria cases, including three in 10 cases of life-threatening severe malaria.

“Malaria is a constant threat in the African communities where this vaccine will be given. The poorest children suffer the most and are at highest risk of death,” said Matshidiso Moeti, WHO Regional Director for Africa.

“We know the power of vaccines to prevent killer diseases and reach children, including those who may not have immediate access to the doctors, nurses and health facilities they need to save them when severe illness comes,” Moeti said.

“This is a day to celebrate as we begin to learn more about what this tool can do to change the trajectory of malaria through childhood vaccination,” she added.

The pilot programme is designed to generate evidence and experience to inform WHO policy recommendations on the broader use of the RTS,S malaria vaccine.

It will look at reductions in child deaths; vaccine uptake, including whether parents bring their children on time for the four required doses; and vaccine safety in the context of routine use.

The vaccine is a complementary malaria control tool—to be added to the core package of WHO-recommended measures for malaria prevention, including the routine use of insecticide-treated bed nets, indoor spraying with insecticides, and the timely use of malaria testing and treatment.

The WHO-coordinated pilot programme is a collaborative effort with ministries of health in Ghana, Kenya and Malawi and a range of in-country and international partners, including PATH, a non-profit organization, and GSK, the vaccine developer and manufacturer, which is donating up to 10 million vaccine doses for this pilot.

“We look forward to the start of vaccination in Ghana, and then Kenya later this year. A vaccine for malaria is among many innovations needed to bring an end to this disease, and we proudly stand with all countries and our many partners in progressing towards a malaria-free world,” said Steve Davis, President and CEO of PATH.

The malaria vaccine pilot aims to reach about 360,000 children per year across the three countries. Ministries of health will determine where the vaccine will be given.

They will focus on areas with moderate-to-high malaria transmission, where the vaccine can have the greatest impact.

In selected areas in the three countries, the vaccine will be given in 4 doses: three doses between 5 and 9 months of age and the fourth dose provided around the second birthday. PTI

## **Mental Health**

### **Encounter with ‘God’ may bring long-lasting health (The Tribune: 20190425)**

<https://www.tribuneindia.com/news/health/encounter-with-god-may-bring-long-lasting-health/763131.html>

NEW YORK: A personal encounter with the “ultimate reality” or God—spontaneous or under the influence of a psychedelic drug—can bring positive changes in psychological health even decades after the initial experience, says an interesting study.

In a survey of thousands of people who reported having experienced personal encounters with God, researchers from Johns Hopkins University report that more than two-thirds of self-identified atheists shed that label after their encounter, regardless of whether it was spontaneous or while taking a psychedelic.

The findings, described in a paper in the journal PLOS ONE, add to evidence that such deeply meaningful experiences may have healing properties.

“Experiences that people describe as encounters with God or a representative of God have been reported for thousands of years, and they likely form the basis of many of the world’s religions,” said lead researcher Roland Griffiths, professor of psychiatry and behavioural sciences at Johns Hopkins’ School of Medicine.

“Although modern Western medicine doesn’t typically consider ‘spiritual’ or ‘religious’ experiences as one of the tools in the arsenal against sickness, our findings suggest that these encounters often lead to improvements in mental health,” he argued.

People over the millennia have reported having deeply moving religious experiences either spontaneously or while under the influence of psychedelic substances such as psilocybin-containing mushrooms or the Amazonian brew ayahuasca.

The researchers say a majority of respondents attributed lasting positive changes in their psychological health—life satisfaction, purpose and meaning—even decades after their initial experience.

For the new study, the scientists used data from 4,285 people worldwide who responded to online advertisements to complete one of two 50-minute online surveys about God encounter experiences.

The surveys asked participants to recall their single most memorable encounter experience with the “God of their understanding,” a “higher power,” “ultimate reality” or “an aspect or representative of God, such as an angel.” They also asked how respondents felt about their experience and whether and how it changed their lives.

Of those who reported using a psychedelic, 1,184 took psilocybin (“magic mushrooms”), 1,251 said they took LSD, 435 said they took ayahuasca (a plant-based brew originating with indigenous cultures in Latin America), and 606 said they took DMT (N,N-dimethyltryptamine), also a naturally occurring substance found in certain plants and animals.

About 75 per cent of the respondents in both the non-drug and psychedelics groups rated their “God encounter” experience as among the most meaningful and spiritually significant in their lifetime. — IANS

**Longer, healthier life'**

**If your wife is cheerful, you are likely to lead a longer, healthier life'(The Tribune: 20190425)**

<https://www.tribuneindia.com/news/health/-if-your-wife-is-cheerful-you-are-likely-to-lead-a-longer-healthier-life/763129.html>

'If your wife is cheerful, you are likely to lead a longer, healthier life'

The study, published in the journal Psychological Science, suggests that having a happy spouse not only leads to a longer marriage but also a longer and healthier life.

Is your wife a cheerful person? If yes, then you are more likely to lead a healthier and longer life as compared to those who have less happy partners, reveals a new study.

The study, published in the journal Psychological Science, suggests that having a happy spouse not only leads to a longer marriage but also a longer and healthier life.

“The data shows that spousal life satisfaction was associated with mortality, regardless of individuals’ socioeconomic and demographic characteristics, or their physical health status,” said study author Olga Stavrova, a researcher at Tilburg University in the Netherlands.

For the study, the researchers studied about 4,400 US couples, aged over 50.

They observed that spouses’ life satisfaction was an even better predictor of participants’ mortality than participants’ own life satisfaction.

“The findings underscore the role of individuals’ immediate social environment in their health outcomes. Most importantly, it has the potential to extend our understanding of what makes up individuals’ ‘social environment’ by including the personality and well-being of individuals’ close ones,” said Stavrova.

“People who have a happy, active spouse, for example, are likely to have an active lifestyle themselves,” noted Stavrova.

The researchers pointed out that a partner’s life satisfaction might have important consequences for health and longevity.

“If your partner is depressed and wants to spend the evening eating chips in front of the TV—that’s how your evening will probably end up looking, as well.”

The study’s findings showed that greater partner life satisfaction was linked to participants’ lower mortality risk. IANS

## **Malaria cases**

### **Over 300 malaria cases in Delhi in last four years: SDMC (Hindustan Times: 20190425)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

Over the last four years, there have been over 300 malaria cases in the capital every year, showing the disease is far from eliminated from the city. Even as Delhi gears up to observe 'World Malaria Day' on April 25, these figures are a cause for worry for health officials.

As per figures provided by the South Delhi Municipal Corporation (SDMC), which tabulates data for the entire city, there were 201 malaria cases in Delhi in 2014. The numbers increased to 359 in 2015, 454 in 2016 and 577 in 2017. It then decreased to 473 cases in 2018. Till April this year, only one case has been reported.

Most cases, according to civic body officials, were reported from areas along the Yamuna such as Burari, Mukundpur, Wazirpur, Jaitpur, Meethapur, Prahladpur, Shaheen Bagh, Taimur Nagar and Jasola.

"That's because colonies along the Yamuna are mostly low-lying and collect freshwater which is ideal for the breeding of Anopheles mosquito that carries malaria parasite. Also, these areas bear a low socio-economic profile with few health facilities for quick diagnosis and treatment," an SDMC public health official said, requesting anonymity.

The city's municipal corporations attributed the rise in numbers in the last five years to "better malaria surveillance" as Delhi has been given a target of year 2020 by the Union health ministry to eliminate malaria. This is under the National Strategic Programme for Malaria Elimination, whereby India aims to eliminate malaria by 2030.

"Till 2016, we used to tabulate patients coming to civic body's 60 malaria clinics. Now, we have recognised 36 hospitals run by the Centre, the Delhi government and municipalities as 'sentinel surveillance hospitals' and they include Bara Hindu Rao, Swami Dayanand Hospital, among others, from where we also collect data. Later, 42 private hospitals were also roped in. Naturally, the numbers went up," an SDMC officer explained.

Besides these "passive surveillance" tactics, "active surveillance" methods were also adopted, an East Delhi Municipal Corporation (EDMC) official said.

Luckily, almost all cases reported in Delhi are caused by Plasmodium vivax and not Plasmodium falciparum, which if not treated in time can cause severe neurological complications. "To achieve the elimination target next year, we have to completely stop local transmission of the disease," an official said.

## **Anti-malaria fight**

### **The anti-malaria fight gets a boost with Mosquirix (Hindustan Times: 20190425)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

The vaccine pilot project must not lead to diversion of funds from the existing toolkit

The World Health Organization (WHO) on Tuesday said Malawi in southeastern Africa will be the first country to begin immunising children against malaria using the only licensed vaccine, Mosquirix, to protect against the mosquito-borne disease. The immunisation rollout is a massive success for the research community because Mosquirix could save the lives of tens of thousands of children each year. According to the 2018 World Malaria report, the parasitic disease kills about 435,000 people every year. It is still a top killer of children worldwide, but the children in Africa are most affected.

While the launch of the vaccine is a landmark event, many have questioned its effectiveness because a previous trial showed Mosquirix protects only about one-third of immunised children. However, even if infected, the severity is less for those who have had the vaccine. The world cannot wait for a perfect option because the next generation of the vaccine may take years to develop: It took more than 30 years — and more than \$500 million — for an international consortium to develop Mosquirix. India will be watching the rollout in Africa with interest because it is among the 11 countries with 70% of the world's burden of malaria, though it has registered a 24% decrease between 2016 and 2017. About 1.25 billion Indians — 94% of its population — are still at risk of malaria, the World Malaria report noted.

However, the Mosquirix pilot project in Africa must not lead to the diversion of health funds from the existing set of tools against malaria. In fact, India's success is largely due to the decline of the disease in Odisha, home to 40% of all cases in the country. This was possible because of the use of anti-malarial tools: Screening for malaria, indoor insecticide spraying, reduction of mosquito breeding spots, free distribution of long-lasting insecticidal nets, distribution of free drugs to affected people, use of rapid diagnostic kits (the conventional method of diagnosing malaria by smear microscopy is cumbersome and challenging in inaccessible regions) and regular health education activities that focused on interventions and behaviour change of the people.

## **World's first malaria vaccine**

### **360,000 Sub-Saharan African kids to get world's first malaria vaccine(Hindustan Times: 20190425)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

From page A NEW DELHI: The world's first malaria vaccine was launched on Wednesday in Malawi, Kenya and Ghana in Sub-Saharan Africa to protect 360,000 children under the age of two years from the mosquito-borne disease that causes 435,000 deaths across the world each year.

RTS,S/AS01 (trade name Mosquirix), is an injectible recombinant protein-based vaccine and acts against *P. falciparum*, the most prevalent malaria strain in Africa. The vaccine prevents four in 10 cases of malaria in children who received four doses over a four-year period, according to the World Health Organization (WHO).

Children under five years are at the greatest risk of death, with at least 250,000 children dying of the disease in Africa each year.

With India reducing malaria cases by 24% in 2017 from the previous year using conventional methods, such as one to "test-treat-track" all cases and distributing free insecticide-treated bed nets in endemic areas, the vaccine is unlikely to be made part of India's public health programme, experts say.

In the sharpest global reduction in malaria in a year, cases in India fell from 1,087,285 in 2016 to 844,558 cases in 2017, according to the World Malaria Report 2018.

"Defeating malaria demands high-impact country-led and owned approaches," said Dr Poonam Khetrpal Singh, WHO regional director for South-East Asia Region (SEARO), where cases have halved in two years using conventional methods. "Between 2015 and 2017, the Region reduced its estimated malaria caseload by 56%, from 25.5 million to 11.3 million, with cases presumed and confirmed decreasing by 25% and more than halving of deaths. Maldives and Sri Lanka remain malaria-free, while seven of the Region's nine malaria endemic countries, including India, are set to have reduced case incidence by 40% by 2020," said Khetrpal Singh.

## **Killer disease**

### **Explained: What is the new malaria vaccine, how it will help fight killer disease (The Indian Express: 20190425)**

<https://indianexpress.com/article/explained/what-is-the-new-malaria-rts-s-vaccine-malawi-ghana-kenya-who-5693110/>

The vaccine has taken three decades to come to fruition, and is the first one ever against a disease that kills 4,35,000 people a year, most of them children. India ranks high in the list of countries worst affected by the mosquito-borne disease.

Kim meets Putin: Russian-North Korean relations since the Korean War

Explained: With US talks faltering, why North Korea has turned to Russia

ISSF World Cup: Why Heena's slide is worrying

World Health Organisation, RTS-S vaccine, malaria vaccine, malawi malaria, ghana malaria, kenya malaria,

A total 3,60,000 children in three African countries — Malawi, Ghana, and Kenya — will be covered every year with the malaria vaccine. (Reuters file photo)

The World Health Organisation issued a statement Tuesday welcoming a pilot project in Malawi of administering a malaria vaccine to children below the age of 2 years. A total 3,60,000 children across three African countries — Malawi, Ghana and Kenya — will be covered every year with the vaccine.

The vaccine has taken three decades to come to fruition, and is the first one ever against a disease that kills 4,35,000 people a year, most of them children. India ranks high in the list of countries worst affected by the mosquito-borne disease.

What is it that makes the RTS,S vaccine unique, and why is the public health fraternity excited about it?

What is the RTS,S vaccine?

The vaccine has been developed by GSK — the company is donating about 10 million doses of the product for the pilot. It was created in 1987 by GSK, and was subsequently developed with support from the Bill and Melinda Gates Foundation. In 2014, the vaccine cleared phase III clinical trials which certified that it was both effective and safe for use in humans. According to a description from PATH's Malaria Vaccine Initiative (MVI), "RTS,S aims to trigger the immune system to defend against the first stages of malaria when the Plasmodium falciparum parasite enters the human host's bloodstream through a mosquito bite and infects liver cells.

The vaccine is designed to prevent the parasite from infecting the liver, where it can mature, multiply, re-enter the bloodstream, and infect red blood cells, which can lead to disease symptoms”.

PATH is an international nonprofit team of innovators which advises and partners with public institutions, businesses, grassroots groups, and investors to tackle the world’s toughest global health problems, including malaria. MVI works with various stakeholders towards the development of a malaria vaccine.

In Phase 3 trials conducted in Africa between 2009 and 2014, children received four doses of RTS,S. The vaccine prevented four in 10 cases of clinical malaria; three in 10 cases of severe malaria; and six in 10 cases of severe malaria anaemia, the most common reason children die from malaria. There were reductions in overall hospital admissions and the need for blood transfusions.

How Notre Dame Is The Most Important Witness Of French History

“We have seen tremendous gains from bed nets and other measures to control malaria in the last 15 years, but progress has stalled and even reversed in some areas. We need new solutions to get the malaria response back on track, and this vaccine gives us a promising tool to get there. The malaria vaccine has the potential to save tens of thousands of children’s lives,” WHO Director-General Dr Tedros Adhanom Ghebreyesus said.

Why is malaria such a major global public health challenge?

AAP releases manifesto: Will do anything to attain full statehood for Delhi, says Kejriwal

'Conspiracy' against CJI: 'Do rich think they can remote control SC?'

5 of 6 designated targets were hit in Balakot air strikes: IAF review

Malaria is a potentially life-threatening parasitic disease caused by the parasites *Plasmodium vivax* (*P.vivax*), *Plasmodium falciparum* (*P.falciparum*), *Plasmodium malariae* (*P.malariae*), and *Plasmodium ovale* (*P.ovale*), transmitted by the female *Anopheles* mosquito.

Malaria, according to the WHO, remains one of the world’s leading killers, claiming the life of one child every two minutes. Most of these deaths are in Africa, where more than 2,50,000 children die from the disease every year. Children under the age of 5 are at greatest risk from its life-threatening complications.

“Malaria is a constant threat in the African communities where this vaccine will be given. The poorest children suffer the most and are at highest risk of death. We know the power of vaccines to prevent killer diseases and reach children, including those who may not have immediate access to the doctors, nurses and health facilities they need to save them when severe illness comes,” Dr Matshidiso Moeti, WHO Regional Director for Africa, said.

How badly is India affected by malaria?

India ranks very high in the list of countries with a serious malaria burden. In 2018, 3,99,134 cases of malaria and 85 deaths due to the disease were reported in the country, according to data from the National Vector Borne Disease Control Programme.

Questions are repeatedly asked about the veracity of the Indian data, with some reports suggesting India may be recording just 8% of the actual number of malaria cases. Between 60% and 80% of patients in the urban areas are treated by private doctors or health establishments, most of whom do not notify cases. Although malaria is a notifiable disease, it is only voluntary notification — there are no penalties for doctors or hospitals not doing so. However, there is, of late, renewed focus on case reporting.

Six states — Odisha (40%), Chhattisgarh (20%), Jharkhand (20%), Meghalaya, Arunachal Pradesh, and Mizoram (5-7%) — bear the brunt of malaria in India. These states, along with the tribal areas of Maharashtra and Madhya Pradesh, account for 90% of India's malaria burden.

What is the next step for the malaria vaccine now?

The pilot countries — Malawi is the only one that has actually started it; Kenya and Ghana will follow — were chosen after they responded to a WHO call for expressions of interest. Ten African countries were in the fray and these three countries were selected for their well-functioning malaria and immunization programmes, and for their areas with moderate to high malaria transmission. In the selected areas in the three countries, the vaccine will be given in four doses: three doses between 5 and 9 months of age, and the fourth dose around the child's second birthday.

“This novel tool is the result of GSK employees collaborating with their partners, applying the latest in vaccine science to contribute to the fight against malaria. We look forward to seeing the results of the pilot, and in parallel, are working with WHO and PATH to secure the vaccine's sustained global health impact in the future,” Dr Thomas Breuer, Chief Medical Officer of GSK Vaccines, said.

Once the pilots have been completed, the WHO will review the results and come out with its recommendations for the use of the vaccine. For a country like India, the key question though is likely to be as much the efficacy of the vaccine as its cost

## **Healthy babies**

### **A lifestyle advisory for active, healthy babies (The Times of India: 20190425)**

<https://timesofindia.indiatimes.com/home/science/a-lifestyle-advisory-for-active-healthy-babies/articleshow/69036099.cms>

GENEVA: Children aged two to four should not be allowed more than one hour of “sedentary screen time” per day and infants less than one year old should not be exposed to electronic screens at all, the World Health Organization (WHO) said on Wednesday.

The UN agency, issuing its first such guidelines, said under-fives should also be physically active and get adequate sleep to help develop good lifelong habits and prevent obesity and other diseases in later life.

Sedentary screen time would include watching television or videos and playing computer games.

“Healthy physical activity, sedentary behaviour and sleep habits are established early in life, providing an opportunity to shape habits through childhood, adolescence and into adulthood,” the WHO said in the guidelines to member states.

Children between one and four years old should spend at least three hours in a variety of physical activities spread throughout the day, it said. Infants under one should interact in floor-based play and avoid all screens, it said.

Being inactive is a “leading risk factor” for mortality and fuels the global rise in overweight and obesity, the WHO said.

In a report two years ago, the WHO said the number of obese children and adolescents worldwide had jumped tenfold to 120 million in the past 40 years and that the rise was accelerating in low- and middle-income countries, especially in Asia.

Excessive weight can lead to diseases including diabetes, hypertension and some forms of cancer, it said.

Early childhood is a period of rapid physical and cognitive development during which habits are formed and family lifestyle routines are adaptable, it said in the guidelines, drawn from evidence in hundreds of studies, many from Australia, Canada, South Africa and the US.

“Sedentary behaviours, whether riding motorised transport rather than walking or cycling, sitting at a desk in school, watching TV or playing inactive screenbased games are increasingly prevalent and associated with poor health outcomes,” the WHO said.

Chronic insufficient sleep in children has been associated with increased excessive fat accumulation as measured by body mass index (BMI), it said.

Shorter sleep duration has been associated with more TV viewing and time spent playing computer games, it added

## **Microbial toxins - e-cigarettes'**

### **'Microbial toxins found in popular e-cigarettes' (The Times of India: 20190425)**

<https://timesofindia.indiatimes.com/home/science/microbial-toxins-found-in-popular-e-cigarettes/articleshow/69036374.cms>

BOSTON: Popular electronic cigarette products were contaminated with bacterial and fungal toxins linked with myriad health problems, including asthma, a Harvard study said.

The study, which examined 75 popular ecigarette products — cartridges (single use) and e-liquids (refillable material) — found that 27% contained traces of endotoxin, a microbial agent found on Gram-negative bacteria, and that 81% contained traces of glucan, which is found in the cell walls of most fungi.

“Finding these toxins in e-cigarette products adds to the growing concerns about the potential for adverse respiratory effects in users,” said David Christiani, a professor at Harvard T H Chan School of Public Health. It found chemicals linked with severe respiratory disease in common e-cigarette flavours.

The researchers noted that the contamination of the products could have occurred at any point during the production of the ingredients or of the finished e-cigarette product.

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## **Sleeping**

### **Just 16 minutes of sleep loss can affect your work (The Times of India: 20190425)**

<https://timesofindia.indiatimes.com/home/science/just-16-minutes-of-sleep-loss-can-affect-your-work/articleshow/69036313.cms>

Losing just 16 minutes of sleep could be the difference between a clear-headed day at the office or one filled with distractions, say scientists.

A study, published in the journal Sleep Health, found that reducing your sleep routine during the work-week greatly interferes with job performance.

The researchers from University of South Florida found workers are more likely to have poor judgement and fall off-task the next day. They surveyed 130 healthy employees who work in information technology and have at least one school-aged child.

Participants reported that when they slept 16 minutes less than usual and had worse quality sleep, they experienced more cognitive issues the next day.

That raised their stress levels, especially regarding issues related to work-life balance, resulting in them going to bed earlier and waking up earlier due to fatigue.

“These cyclical associations reflect that employees’ sleep is vulnerable to daily cognitive stress and also a contributor to cognitively stressful experiences,” said Soomi Lee, assistant professor at University of South Florida.

“Findings from this study provide empirical evidence for why workplaces need to make more efforts to promote their employees’ sleep. Good sleepers may be better performers at work due to greater ability to stay focused an on-task with fewer errors and interpersonal conflicts,” said Lee.

### **Air Pollution (Hindustan: 20190425)**

[http://epaper.livehindustan.com/imageview\\_54192\\_67151174\\_4\\_1\\_25-04-2019\\_i\\_7.pagezoomsinwindows.php](http://epaper.livehindustan.com/imageview_54192_67151174_4_1_25-04-2019_i_7.pagezoomsinwindows.php)

# ध्वनि प्रदूषण से सुनने की क्षमता खो रहे लोग

नई दिल्ली | वरिष्ठ संवाददाता

वातावरण में बढ़ते शोर की वजह से लोग सुनने की क्षमता खो रहे हैं। डॉक्टरों ने चिंता जताई है कि सरकार इसे गंभीरता से नहीं ले रही, जबकि यह गंभीर समस्या बनती जा रही है। अंतरराष्ट्रीय ध्वनि प्रदूषण जागरुकता दिवस के मौके पर मौलाना आजाद मेडिकल कॉलेज में डॉक्टरों ने अपनी बातें रखीं।

उन्होंने कहा कि सरकार को प्रदूषण को मापने वाले पैरामीटर एयर क्वालिटी इंडेक्स (एक्यूआई) की तरह शोर मापने के लिए नोइस क्वालिटी इंडेक्स (एनक्यूआई) बनाना चाहिए।

‘शोर के स्वास्थ्य पर प्रभाव’ को लेकर मौलाना आजाद मेडिकल

## आयोजन

- अंतरराष्ट्रीय ध्वनि प्रदूषण जागरुकता दिवस पर कार्यक्रम
- एक्यूआई की तरह एनक्यूआई बनाने की उठी मांग

कॉलेज में कार्यक्रम का आयोजन किया गया। इस मौके पर लोकनायक अस्पताल के चिकित्सा निदेशक डॉ. किशोर सिंह, डब्ल्यूएचओ के एडवाइजर डॉ. ए के अग्रवाल और ट्रैफिक पुलिस की ज्वाइंट कमिश्नर मीनू चौधरी भी मौजूद रहीं। मौलाना आजाद मेडिकल कॉलेज के डॉ. रवि मेहरने बताया कि तेज आवाज में संगीत सुनना, बेकार के हॉर्न बजाना घातक है।

## Sleeping

नींद में 16 मिनट की कमी से खतरे में पड़ सकती है आपकी नौकरी (Hindustan: 20190425)

[http://epaper.livehindustan.com/textview\\_54203\\_93358148\\_4\\_18\\_25-04-2019\\_1\\_0.html](http://epaper.livehindustan.com/textview_54203_93358148_4_18_25-04-2019_1_0.html)

एक दिन की नींद में 16 मिनट की कमी से आपकी नौकरी पर खतरा मंडरा सकता है। एक हालिया शोध में वैज्ञानिकों ने दावा किया है कि अगर एक दिन में 16 मिनट भी नींद कम हो जाती है तो दिमाग एकाग्र नहीं रहता बल्कि व्याकुलता और उलझनों से भरा रहता है।

पत्रिका स्लीप हेल्थ में प्रकाशित इस शोध में पाया गया है कि काम वाले हफ्ते के दौरान नींद में कमी से आपके ऑफिस के काम पर बुरा प्रभाव पड़ता है और आपके प्रदर्शन में कमी आती है। इस शोध में शामिल प्रतिभागियों ने कहा कि जिस दिन उनकी नींद में 16 मिनट की कमी हुई और उनकी नींद की गुणवत्ता खराब रही उसके अगले दिन उनका ध्यान किसी भी काम में केंद्रित नहीं हो पा रहा था। नींद में कमी से उनके तनाव का स्तर में इजाफा हुआ। वर्क-लाइफ बैलेंस के मामले को लेकर लोगों में ज्यादा तनाव देखा गया। ऐसे प्रतिभागियों की तनाव के कारण सुबह नींद भी जल्दी खुल गई।

बढ़ता है तनाव : यूनिवर्सिटी ऑफ साउथ फ्लोरिडा के प्रोफेसर और शोधकर्ता सोमी ली ने कहा, शोध के दौरान पाया गया कि रोज ऑफिस में काम के दौरान होने वाले तनाव से प्रतिभागियों की नींद में कमी आई और कम नींद की वजह से अगले दिन उनके तनाव का स्तर और बढ़ा। यह दोनों ही आपस में जुड़े हुए हैं। कम नींद की वजह से काम के दौरान प्रदर्शन पर असर पड़ता है और इससे आपकी नौकरी जाने का खतरा भी बढ़ सकता है।

कर्मचारियों की नींद की गुणवत्ता को सुधारना जरूरी : ली ने कहा कि इस शोध के परिणामों से नियोक्ताओं को कर्मचारियों की नींद की गुणवत्ता पर ध्यान देने का सुझाव दिया जा रहा है। कार्यस्थलों को कर्मचारियों की नींद की गुणवत्ता बढ़ाने की कोशिश करनी चाहिए क्योंकि जिनकी नींद अच्छे से पूरी होगी वह काम के दौरान बेहतर प्रदर्शन कर सकेंगे। ऐसे कर्मचारियों की कार्यक्षमता बढ़ेगी और वह अपने काम पर ध्यान केंद्रित कर सकेंगे। ऐसे लोग काम के दौरान कम गलतियां करेंगे और साथ ही कार्यस्थल पर दूसरों के साथ उनका मतभेद भी नहीं होगा। शोधकर्ताओं ने हफ्ते के अंत में सोने को लेकर भी अध्ययन किया। उन्होंने बताया कि कम नींद की वजह से होने वाली परेशानी उतनी बड़ी नहीं होगी अगर अगले दिन ऑफिस की छुट्टी हो। हालांकि, उन्होंने माना कि सप्ताहांत में ज्यादा देर तक सोने से काम करने वाले हफ्ते की अधूरी नींद को पूरा नहीं किया जा सकता।

'कम नींद की वजह से लोगों में तनाव और उलझन बढ़ती है।

## Stress

तनाव से कमजोर होती है प्रतिरक्षा प्रणाली (Hindustan: 20190425)

[http://epaper.livehindustan.com/textview\\_54203\\_66785206\\_4\\_18\\_25-04-2019\\_1\\_0.html](http://epaper.livehindustan.com/textview_54203_66785206_4_18_25-04-2019_1_0.html)

## नई दिल्ली | हिटी

हमारे शरीर की प्रतिरक्षा प्रणाली हमें कई बीमारियों से बचाती है। यहां तक कि यह प्रणाली कभी-कभी शरीर के खिलाफ हो सकती है और स्वस्थ कोशिकाओं पर हमला करके टिशू को नष्ट करके रोगों का कारण बन सकती है।

इस स्थिति के चलते ऑटोइम्यून विकार (एआईडी) उत्पन्न हो सकता

है। तनाव और अस्वास्थ्यकर भोजन इसके मुख्य कारण हैं। चूहों पर किए गए एक हालिया शोध में पता चला है कि वीजीएलएल-3 नामक एक अत्यधिक आणविक स्विच, जो त्वचा कोशिकाओं में प्रतिरक्षा प्रतिक्रिया जीन को नियंत्रित करता है, ऑटोइम्यून बीमारियों का कारण बनता है। शोध के अनुसार, वीजीएलएल3 की भूमिका महत्वपूर्ण होती है।