



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Tuesday 20190129

## Healthcare

### Think differently about healthcare (The Hindu: 20190129)

<https://www.thehindu.com/opinion/op-ed/think-differently-about-healthcare/article26114208.ece>

“India certainly has a serious problem with health literacy and it is the responsibility of public health professionals to close this gap.”

“India certainly has a serious problem with health literacy and it is the responsibility of public health professionals to close this gap.” | Photo Credit: R.V. Moorthy

India’s public health system can no longer function within the shadows of its health services system

In India, public health and health services have been synonymous. This integration has dwarfed the growth of a comprehensive public health system, which is critical to overcome some of the systemic challenges in healthcare.

A stark increase in population growth, along with rising life expectancy, provides the burden of chronic diseases. Tackling this requires an interdisciplinary approach. An individual-centric approach within healthcare centres does little to promote well-being in the community. Seat belt laws, regulations around food and drug safety, and policies for tobacco and substance use as well as climate change and clean energy are all intrinsic to health, but they are not necessarily the responsibilities of healthcare services. As most nations realise the vitality of a robust public health system, India lacks a comprehensive model that isn’t subservient to healthcare services.

A different curriculum

India’s public health workforce come from an estimated 51 colleges that offer a graduate programme in public health. This number is lower at the undergraduate level. In stark contrast, 238 universities offer a Master of Public Health (MPH) degree in the U.S.

In addition to the quantitative problem, India also has a diversity problem. A diverse student population is necessary to create an interdisciplinary workforce. The 2017 Gorakhpur tragedy in Uttar Pradesh, the 2018 Majerhat bridge collapse in Kolkata, air pollution in Delhi and the Punjab narcotics crisis are all public health tragedies. In all these cases, the quality of healthcare

services is critical to prevent morbidity and mortality. However, a well organised public health system with supporting infrastructure strives to prevent catastrophic events like this.

Public health tracks range from research, global health, health communication, urban planning, health policy, environmental science, behavioural sciences, healthcare management, financing, and behavioural economics. In the U.S., it is routine for public health graduates to come from engineering, social work, medicine, finance, law, architecture, and anthropology. This diversity is further enhanced by a curriculum that enables graduates to become key stakeholders in the health system. Hence, strong academic programmes are critical to harness the potential that students from various disciplines will prospectively bring to MPH training.

Investments in health and social services tend to take precedence over public health expenditure. While benefits from population-level investments are usually long term but sustained, they tend to accrue much later than the tenure of most politicians. This is often cited to be a reason for reluctance in investing in public health as opposed to other health and social services. This is not only specific to India; most national health systems struggle with this conundrum. A recent systematic review on Return on Investment (ROI) in public health looked at health promotion, legislation, social determinants, and health protection. They opine that a \$1 investment in the taxation of sugary beverages can yield returns of \$55 in the long term. Another study showed a \$9 ROI for every dollar spent on early childhood health, while tobacco prevention programmes yield a 1,900% ROI for every dollar spent. The impact of saving valuable revenue through prevention is indispensable for growing economies like India.

#### Problem of health literacy

Legislation is often shaped by public perception. While it is ideal for legislation to be informed by research, it is rarely the case. It is health literacy through health communication that shapes this perception. Health communication, an integral arm of public health, aims to disseminate critical information to improve the health literacy of the population. The World Health Organisation calls for efforts to improve health literacy, which is an independent determinant of better health outcome. Data from the U.S. show that close to half of Americans lack the necessary knowledge to act on health information and one-third of Europeans have problems with health literacy. India certainly has a serious problem with health literacy and it is the responsibility of public health professionals to close this gap.

Equally important is a system of evaluating national programmes. While some fail due to the internal validity of the intervention itself, many fail from improper implementation. Programme planning, implementation and evaluation matrices will distinguish formative and outcome evaluation, so valuable time and money can be saved.

The public health system looks at the social ecology and determinants focusing on optimising wellness. Healthcare services, on the other hand, primarily focus on preventing morbidity and mortality. A comprehensive healthcare system will seamlessly bridge the two.

#### A council for public health

A central body along the lines of a council for public health may be envisaged to synergistically work with agencies such as the public works department, the narcotics bureau, water management, food safety, sanitation, urban and rural planning, housing and infrastructure to promote population-level health. In many ways, these agencies serve to bring in many facets

of existing State and federal agencies and force them to see through the lens of public health. The proposed council for public health should also work closely with academic institutions to develop curriculum and provide license and accreditation to schools to promote interdisciplinary curriculum in public health.

As international health systems are combating rising healthcare costs, there is an impending need to systematically make healthcare inclusive to all. While the proposed, comprehensive insurance programme Ayushman Bharat caters to a subset of the population, systemic reforms in public health will shift the entire population to better health. Regulatory challenges force governments to deploy cost-effective solutions while ethical challenges to create equitable services concerns all of India. With the infusion of technology driving costs on the secondary and tertiary end, it is going to be paramount for India to reinvigorate its public health system to maximise prevention. India's public health system can no longer function within the shadow of its health services.

Ravikumar Chockalingam is a public health scholar and psychiatrist at the Veterans Affairs Medical Center, Saint Louis, Missouri

## **Non-communicable diseases**

### **Non-communicable diseases top killers in South-East Asia: WHO (The Hindu: 20190129)**

<https://www.thehindu.com/sci-tech/health/non-communicable-diseases-top-killers-in-south-east-asia-who/article26114279.ece>

Diabetes, cancer and heart disease responsible for over 70% of deaths worldwide

Non-communicable diseases (NCDs) — mainly cardiovascular diseases, chronic respiratory diseases, diabetes and cancer — continue to be the top killers in the South-East Asia Region, claiming 8.5 million lives each year, according to the World Health Organisation (WHO).

Health goal

Containing the NCDs has been listed by the WHO as its health goal for this year along with reducing mortality related to air pollution and climate change, global influenza pandemic etc.

“One third of these deaths are premature and occur before the age of 70, affecting economically productive individuals. The four ‘major’ NCDs are caused, to a large extent, by four modifiable behavioural risk factors: tobacco use, unhealthy diet, insufficient physical activity and harmful use of alcohol. The NCDs disproportionately affect the poor, impoverish families, and place a growing burden on health care systems,” noted the WHO.

Non-communicable diseases such as diabetes, cancer and heart disease, are collectively responsible for over 70% of all deaths worldwide, or 41 million people. These include 15 million people dying prematurely, aged between 30 and 69.

Fibre, whole grains

Dr. K.K. Aggarwal, former president of the Indian Medical Association, said: “A study conducted world-wide has noted that consuming fibre and whole grains can reduce health risks from non-communicable diseases such as heart disease.

The paper published in The Lancet indicates that eating fibre-rich foods reduces the incidence of coronary heart disease, stroke, type 2 diabetes and colorectal cancer by 16% to 24%. A higher fibre intake is also associated with lower bodyweight, systolic blood pressure and total cholesterol when compared with lower intake.

Doctors then recommend — eat less and enjoy your food by eating slowly, fill half your plate with fruits and vegetables, avoid oversized portions which causes weight gain, at least half of your grains should be whole grains, limit consumption of food high in trans fats..



## **Food and Nutrition**

### **GM chickens may lay ‘cheaper medicines’ (The Hindu: 20190129)**

<https://www.thehindu.com/sci-tech/science/gm-chickens-may-lay-cheaper-medicines/article26114318.ece>

Drug makers : Just three eggs were enough to produce a clinically relevant dosage.

Drug makers : Just three eggs were enough to produce a clinically relevant dosage. | Photo Credit: valentinrussanov

Therapeutic proteins are encoded in the bird’s DNA and produced as part of the egg white

Genetically modified chickens that produce human proteins in their eggs can offer a cost-effective method of manufacturing drugs widely used for treating cancer and other diseases, a study has found.

The research, which initially focused on producing high quality proteins for use in scientific research, found the drugs work at least as well as the same proteins produced using existing methods.

According to researchers from the University of Edinburgh in the U.K., high quantities of the proteins can be recovered from each egg using a simple purification system and there are no adverse effects on the chickens themselves, which lay eggs as normal.

The findings, published in the journal BMC Biotechnology, provide sound evidence for using chickens as a cheap method of producing high quality drugs for use in research studies and, potentially one day, in patients.

Eggs are already used for growing viruses that are used as vaccines, such as the flu jab.

Anti-cancer drug

This new approach is different because the therapeutic proteins are encoded in the chicken's DNA and produced as part of the egg white.

The team have initially focused on two proteins that are essential to the immune system and have therapeutic potential — a human protein called IFNalpha2a, which has powerful antiviral and anti-cancer effects, and the human and pig versions of a protein called macrophage-CSF, which is being developed as a therapy that stimulates damaged tissues to repair themselves.

Just three eggs were enough to produce a clinically relevant dose of the drug. As chickens can lay up to 300 eggs per year, researchers say their approach could be more cost-effective than other production methods for some important drugs.

“We are not yet producing medicines for people, but this study shows that chickens are commercially viable for producing proteins suitable for drug discovery studies and other applications in biotechnology,” said Helen Sang, a professor at University of Edinburgh in the U.K..

Protein-based drugs, which include antibody therapies such as Avastin and Herceptin, are widely used for treating cancer and other diseases.

For some of these proteins, the only way to produce them with sufficient quality involves mammalian cell culture techniques, which are expensive and have low yields. Other methods require complex purification systems and additional processing techniques, which raise costs. The approach is efficient and produces better yields.

## **Superbug gene**

### **New Delhi superbug gene reaches the Arctic (The Hindu: 20190129)**

<https://www.thehindu.com/news/international/new-delhi-superbug-gene-reaches-the-arctic/article26114270.ece>

In a significant find in the global spread of multi-drug resistant (MDR) bacteria, scientists have found a “superbug” gene — first detected in New Delhi over a decade back — in one of the last “pristine” places on Earth that is some 12,870 km away.

Soil samples taken in Svalbard — a Norwegian archipelago between mainland Norway and the North Pole — have now confirmed the spread of blaNDM-1 (called New Delhi Metallo-beta-lactamase-1) into the High Arctic.

This Antibiotic-Resistant Gene (ARG), originally found in Indian clinical settings, conditionally provides multi-drug resistance (MDR) in microorganisms, revealed the research team from U.K.'s Newcastle University.

British scientists later found the “superbug” in New Delhi’s public water supply. Since then, the resistant gene has been found in over 100 countries, including new variants.

Carried in the gut of animals and people, the new research said that blaNDM-1 and other ARGs were found in Arctic soils that were likely spread through the faecal matter of birds, other wildlife and human visitors to the area.

## **Meditation**

### **Meditation has lasting benefits (The Hindu: 20190129)**

<https://www.thehindu.com/sci-tech/health/meditation-has-lasting-benefits/article23631197.ece>

Mindful meditation has beneficial effects. A study has found that 60 minutes after meditating, participants showed lower resting heart rates and a reduction in aortic pulsatile load — the amount of change in blood pressure between diastole and systole of each heartbeat multiplied by heart rate. Additionally, shortly after meditating, and even one week later, the group reported anxiety levels to be lower than pre-meditation levels. While it has been well-documented that meditation over the course of several weeks reduces anxiety, there have been few comprehensive research studies on the benefits of a single meditation session. The study was to understand the effect of acute mindfulness on cognition and the cardiovascular system in order to improve anti-anxiety therapies and interventions. The study by a team of Michigan Technological University researchers will be presented at the 2018 Experimental Biology meet, in San Diego, this week.

## **Maternity care hospital,**

### **Delhi: At top maternity care hospital, ultrasound only for four hours (The Indian Express: 20190129)**

<https://indianexpress.com/article/cities/delhi/delhi-at-top-maternity-care-hospital-ultrasound-only-for-four-hours-5558497/>

The issue was raised Monday at the North Corporation house meeting by Congress councillor from Jama Masjid Sultana Abad Khan, who said people from her constituency are facing problems as the facility is not available round-the-clock.

Delhi: Woman working at elderly couple's home, her son held for their murder

An inside problem

Delhi: JeM member arrested for allegedly planning attacks on R Day

A North body health department official told the house that this was due to lack of technicians, and that 'on call duty' arrangements are made if the need arises (Representational Image)

At Kasturba Gandhi Hospital, considered one of the biggest in Delhi for maternity-care facilities, the ultrasound facility is only available for around four hours a day, forcing patients to visit private hospitals.

The issue was raised Monday at the North Corporation house meeting by Congress councillor from Jama Masjid Sultana Abad Khan, who said people from her constituency are facing problems as the facility is not available round-the-clock. A North body health department official told the house that this was due to lack of technicians, and that 'on call duty' arrangements are made if the need arises.

According to an official, the maternity-cum-child care ward at the hospital has 450 beds, where around 1,600 deliveries are done every year, and caters to people living in Old Delhi.

"The facility is only available from 10 am to 2 pm... there is also a long wait time for appointments (15 days to a month). The problem has persisted for the past two years... I even raised it in during a meeting two months ago, to no avail. In emergency cases, they transfer patients to private hospitals," Khan claimed.

She added that ECG services are also not available, and that there is a shortage of medicines, doctors and staff.

North corporation Mayor Adesh Gupta said, "... arrangements are being made immediately for round-the-clock ultrasound service."

How India celebrated the 70th Republic Day

BJP councillor from Paharganj Babita Bharija, meanwhile, raised the issue of illegal dairies in the city: "Shopkeepers have complained of cattle defecating before their shops and eating their vegetables..."

"If there is alternate land for dairies at Ghoga and it is illegal to operate them in the city, how is there a proliferation of illegal dairies in Katra Hussain Baksh area of my ward?" she added.

## Leprosy

### Leprosy on rise, Bihar may see all-time high of 50,000 new cases this year (The Indian Express: 20190129)

<https://indianexpress.com/article/india/leprosy-cases-bihar-naubatpur-town-lcdc-nlep-5558650/>

World Leprosy Day: over half of new cases are detected in India

End leprosy for good: 28,456 Maharashtra's gram panchayats to take vow on Republic Day

Lok Sabha clears Bill to remove leprosy as ground for divorce, Owaisi says interference

Leprosy cases, Leprosy Bihar, Leprosy cases Bihar, new Leprosy cases, Naubatpur bihar, LCDC, NLEP, india news, indian express

Several new cases were detected in Naubatpur town, about 25 km from Patna. (Express photo)

Under Leprosy Case Detection Campaign (LCDC) of the National Leprosy Eradication Programme (NLEP), funded jointly by the Centre and the state government, all people from Scheduled Caste (SC) communities across Bihar's 38 districts — approximately 2 crore people — were surveyed for leprosy detection between January 9 and 13 this year.

Although the survey result will be published only in the first week of February, sampling of collections and initial reports indicate nearly 50,000 new leprosy cases, according to Dr Bijoy Kumar Pandey, additional director (headquarters), health services, and state programme officer for leprosy.

If that projection turns out to be true, it will be an all-time high detection of new leprosy cases in the state.

## EXPLAINED

Poor living conditions lead to cases in SC households

More leprosy cases are emerging among people from SC communities in districts bordering Jharkhand and West Bengal due to their poor living conditions, according to officials. In 2017-18, 15 out of Bihar's 38 districts showed a prevalence rate of more than 1 per 10,000. Banka, for instance, reported prevalence rate of 3.40 - 1,457 new cases, including 779 women, were detected in the district. Of these, 248 infected people are from SC and 79 from ST communities. The main cause of concern, according to experts, was detection of 488 multibacillary (MB) cases, which can cause deformity. Fifty-four cases Grade II deformity were found. Supaul district reported a prevalence rate of 3.07, followed by Jamui (2.64).

“It is a projected figure based on initial findings of the survey. We decided to conduct the survey after our first pilot project of 12,500 SC people in Samastipur, Motihari and Munger (districts) early this year yielded 125 new cases,” said Dr Pandey, who plans to survey the entire population of the state in the next financial year.

Leprosy cases in Bihar had a prevalence rate of 0.79 (cases per 10,000 people) in 2015-16 with detection of 16,185 new cases. In 2016-17, that prevalence rate went up to 1.10 with 21,818 cases, and to 1.18 (21,353 new cases) in 2017-18.

People on the ground — accredited social health activist (ASHA) workers, volunteers and specialist doctors — attribute this rise to a variety of factors: unhygienic living condition, too many people living in one room and sharing the bed, and a more active search and increased level of awareness, among others.

## LATEST VIDEOS

00:50

How India celebrated the 70th Republic Day

Sandhya Devi, an ASHA worker in Naubatpur town, about 25 km from state capital Patna, where several new cases were detected in the recent round of survey, said, “If any patch or mark on the body is not congenital and does not hurt and give sensation after being pinched or pricked, it could be signs of leprosy.”

The percentage of children among the cases detected across the state was 14.20 in 2015-16, 13.70 in 2016-17, and 12.56 in 2017-18, it was informed.

George Fernandes, ex-Union minister and anti-Emergency stalwart, dies at 88

Want to hand over non-disputed land to temple trust: Centre tells SC

BJP eyes Maharashtra, Haryana and Jharkhand polls with Lok Sabha 2019

Dr R K Singh, who has attended to several leprosy patients in Hajipur district, said, “One obvious reason leprosy cases are going up in Bihar is the lack of single-dose rifampicin (SDR) programme for people living in close contact of an affected patient. Lack of sanitation and general awareness of hygiene are the other reasons.”

An official associated with NLEP said lack of infrastructure is also a hurdle in the way of monitoring cases. “In some districts, such as Gopalganj, there is no NLEP staff. One non-medical staff has to look after several primary health centres (PHCs),” the official said. “Posts of leprosy consultant and physiotherapist remain vacant. Very few vacancies out of the sanctioned 434 paramedical workers have been filled. We have to depend on ASHA workers and other volunteers. We get technical assistance from four NGOs: NLR India, The Leprosy Mission, DFIT and Lepra Society.

Dr Pandey, the state programme officer (SPO) for leprosy, however, said it should not be called a rise in the number of cases. The increased numbers, he said, is due to the “active search undertaken by our sustained campaign, especially after launch of LCDC in 2015-16. We take entire Bihar as endemic.”

Asked why cases are going up despite a sustained NLEP, Dr Pandey said, “Maybe 20 per cent population was not covered under the previous survey. The people not covered could have been from SC communities.”

Dr Pandey’s predecessor, Yanteshwar Jha, denied it: “During my tenure as SPO, we conducted door-to-door search and visited SC households. Yes, the level of awareness has gone up now, but cases were duly detected during my tenure between 2011 and 2014.”



## **World Leprosy Day**

**World Leprosy Day: over half of new cases are detected in India(The Indian Express: 20190129)**

<https://indianexpress.com/article/explained/world-leprosy-day-over-half-of-new-cases-are-detected-in-india-5558520/>

India accounts for 60% of new cases detected in 2017 — 1.26 lakh out of 2.10 lakh. The country’s numbers have consistently been more than half the world figures since 2008.



As of March 2018, Bihar had 14,338 cases of leprosy, followed by India's most populous state, Uttar Pradesh, with 12,583 cases. Next were Maharashtra (9,836) and West Bengal (9,175). (Picture for representaton)

EVERY YEAR, over 2 lakh new leprosy cases are detected around the world, with India accounting for more than half of these. World Leprosy Day, which focuses on the target of zero cases of leprosy-related disabilities in children, was observed globally on January 27 (the last Sunday of January) and will be observed in India on January 30 (M K Gandhi's death anniversary). A look at the trends of the disease in the world and India, from data collated from the websites of the World Health Organization (WHO) and India's National Leprosy Eradication Programme (NLEP):

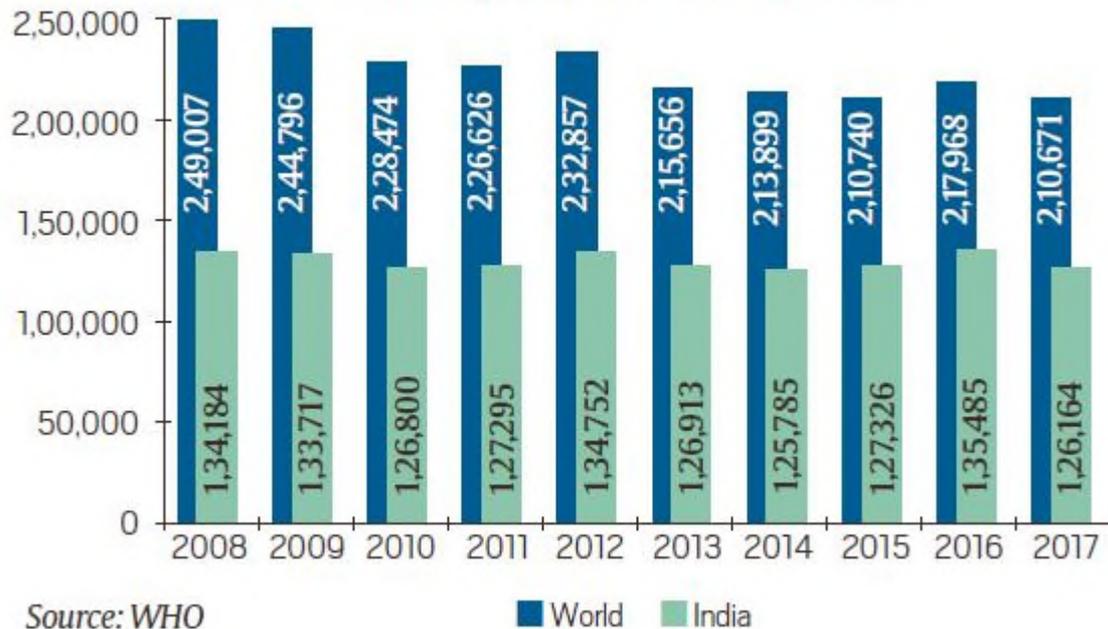
\* India accounts for 60% of new cases detected in 2017 — 1.26 lakh out of 2.10 lakh. The country's numbers have consistently been more than half the world figures since 2008.

TOP 5 INDIAN STATES, BY NUMBER OF CASES		PREVALENCE (EXCLUDING UTs) PER LAKH POPULATION	
Bihar	14,338	Chhattisgarh	2.25
Uttar Pradesh	12,583	Odisha	1.38
Maharashtra	9,836	Bihar	1.18
West Bengal	9,175	Jharkhand	1.05
Chhattisgarh	6,499	West Bengal	0.92

*Source: National Leprosy Eradication Programme; figures as of March 2018*

New cases have declined gradually since 2008. However, they hit a sudden spike in 2012 and 2016. This was the trend for both India and globally.

## NEW CASES, INDIA & THE WORLD



\* As of March 2018, Bihar had 14,338 cases of leprosy, followed by India's most populous state, Uttar Pradesh, with 12,583 cases. Next were Maharashtra (9,836) and West Bengal (9,175).

### Yoga,

### Yoga, as heart healer (The Hindu: 20190129)

<https://www.thehindu.com/sci-tech/health/yoga-as-heart-healer/article25527704.ece>

Trial shows 'similar' benefits as prescribed post-operative cardiac care

Preliminary results of the largest ever multi-centre randomised trial on cardiac rehabilitation and of health benefits of yoga have shown that it is safe and offers "similar" benefits as cardiac care typically prescribed after surgery.

The study was conducted in 24 centres across India and recruited close to 4,000 patients immediately after discharge following a heart attack. The patients were randomised to undergo a structured 'Yoga-CaRe' programme that comprised meditation, breathing exercises and selected heart-friendly yoga poses in addition to lifestyle advice. The control group received conventional lifestyle advice.

Target group

Cardiac rehabilitation is prescribed for patients after a heart attack and cardiac surgery to get patients back to normal activities.

The study in question, which lasted for five years and ended in September 2018, was funded by the Indian Council for Medical Research (ICMR) and the Medical Research Council – U.K. The results were presented at a meeting of the American Heart Association in Chicago, U.S., last month.

Professor D. Prabhakaran, Vice President, Public Health Foundation of India (PHFI) and principal investigator of the study, explained that the prevalence of ischemic heart disease in India has increased by over 50%, and in terms of absolute numbers, from 10 million in 1990 to 24 million in 2016.

“This trial is the largest so far on yoga as well as cardiac rehabilitation (CR) and has shown the potential of yoga to be an alternative to conventional CR programmes. It addresses the unmet needs of cardiac rehabilitation for patients in low- and middle-income countries,” he says.

The benefits applied to those patients who attended at least 75% of the sessions. The results show that yoga is safe, relatively inexpensive, does not need an elaborate infrastructure, is culturally acceptable and improves quality of life, notes a release issued by the authors.

Independent doctors say that there is now scientific evidence to recommend yoga as equivalent to conventional CR.

‘Evidence-based’

“Modern medicine demands evidence of benefit for interventions for its wider acceptance, especially among the medical research community. This study is a step in that direction. We hope that it spurs several such large rigorously performed trials in other diseases where yoga can be potentially beneficial,” says Dr. Ambuj Roy, Professor of Cardiology at the All India Institute of Medical Sciences. “It gives me a lot of confidence now in sending my patient on a yoga-based cardiac rehabilitation [programme] as we realise that the benefits are similar to conventional CR programmes... This trial transcends yoga from belief to science-based intervention.”

Focus on quality of life

Professor Sanjay Kinra, Head, Epidemiology, London School of Hygiene and Tropical Medicine, and co-principal investigator of the study, says that improvements in cardiac care mean that most people nowadays survive a heart attack. “The focus has therefore shifted to improving the quality of life of survivors of heart attacks so that they can readjust better after such a catastrophic event and contribute maximally to their families and society.”

According to him, this is particularly true in India where heart attacks tend to occur at a very young age.

Yoga has gained immense popularity nationally and internationally as a tool for health promotion, especially after the United Nations declared June 21 as International Yoga Day.

## Superbug (The Asian Age: 20190129)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=12346555>

CONCERNS | GALORE

■ NDM-1 was first identified in New Delhi, may have spread through bird faeces

# Delhi's 'superbug gene' now spreads to Arctic

London, Jan. 28: Superbug genes that were first detected in New Delhi over ten years ago have now spread to the Arctic - one of the last 'pristine' places on the Earth, scientists say. Antibiotic-Resistant Genes (ARGs) provide multidrug resistance (MDR) in microorganisms. An example is NDM-1, which is a protein that can confer resistance in a range of bacteria.

NDM-1 is a protein that can confer resistance in a range of bacteria.



■ Strains that carry blaNDM-1 were first found in clinical settings in 2008.

■ By 2010 blaNDM-1 was found in surface waters in Delhi.

■ Since then, the resistant gene has been found in over 100 countries, including new variants.

NDM-1 was first identified in New Delhi and coded by the resistant gene blaNDM-1. Strains that carry blaNDM-1 were first found in clinical settings in 2008, but by 2010

blaNDM-1 was found in surface waters in Delhi.

Analysing the extracted DNA from forty soil cores at eight locations along Kongsfjorden region of Svalbard, a total of 131

ARGs were detected, according to the study published in the journal *Environmental International*.

Carried in the gut of animals and people, blaNDM-

1 and other medically-important ARGs were found in Arctic soils that were likely spread in the faecal matter of birds, other wildlife and human visitors to the area. — PTI

## Genetically modified hens pave way for cheaper cancer drugs

London, Jan. 28: Genetically modified chickens that produce human proteins in their eggs can offer a cost-effective method of manufacturing drugs widely used for treating cancer and other diseases, a study has found.

The research, which initially focused on producing high quality proteins for use in scientific

research, found the drugs work at least as well as the same proteins produced using existing methods.

According to researchers from the University of Edinburgh in the UK, high quantities of the proteins can be recovered from each egg using a simple purification system and there are no adverse effects on the chickens themselves, which lay

eggs as normal. The findings, published in the journal *BMC Biotechnology*, provide sound evidence for using chickens as a cheap method of producing high quality drugs for use in research studies and, potentially one day, in patients. Eggs are already used for growing viruses that are used as vaccines, such as the flu jab. — PTI

## Swine Flu

दिल्ली में स्वाइन फ्लू से अबतक 10 जाने गईं, 267 मामलों की पहचान हुई (Navbharat Times: 20190129)

<http://epaper.navbharattimes.com/details/13216-68781-2.html>

इलाज, दवा और वैक्सीन है मौजूद

स्वाइन फ्लू

कारगर है वैक्सीन

स्वास्थ्य मंत्रालय के अनुसार अभी Quadrivalent Vaccine रिकमेंड की गई है, यह वैक्सीन इन्फ्लूएंजा के चारों टाइप के खिलाफ कारगर है। इन्फ्लूएंजा A के दोनों टाइप और इन्फ्लूएंजा B के दोनों टाइप। इस वायरस से बचने के लिए हर साल वैक्सीनेशन की जरूरत है। डॉक्टर के अनुसार, नवंबर में वैक्सीनेशन कराना ठीक रहता है, क्योंकि वैक्सीन के बाद इम्युनिटी बनने में दो से तीन हफ्ते का समय लगता है। 70 से 80 पर्सेंट वैक्सीन कारगर है।

एनसीडीसी की रिपोर्ट के मुताबिक, पूरे देश में जनवरी में कुल 2775 मामले आए हैं, जिसमें से 85 की मौत हो चुकी है। इसमें से सबसे ज्यादा राजस्थान में 1233 मामले आए हैं, जिनमें 49 की मौत हुई है। इसके बाद पंजाब में 90 मामले में 9 की जान चली गई है। गुजरात में 347 मामले में 6 की मौत, हरियाणा में 246 मामले में 2 की मौत और यूपी में 90 मामले में 4 की जान गई है।

केस स्टडी • क्रॉनिक बीमारी से पीड़ित लोग। अस्थमा, हार्ट डिजीज, लीवर, किडनी, डायबिटीज, कैंसर से पीड़ित लोग • प्रेग्नेट महिलाएं • 6 महीने से लेकर 8 साल तक के बच्चे • 65 साल से ज्यादा उम्र के लोग • जो लोग अस्पताल में काम करते हैं। डॉक्टर, नर्स, पैरामेडिकल स्टाफ • सभी मेडिकल व पैरामेडिकल स्टाफ, जो कैजुअल्टी या इमरजेंसी में काम करते हैं और स्वाइन फ्लू के मरीजों का इलाज करते हैं • सभी मेडिकल और पैरामेडिकल स्टाफ, जो आईसीयू व आइसोलेशन वार्ड में स्वाइन फ्लू के मरीजों का इलाज करते हैं • सभी स्क्रीनिंग सेंटर, जहां पर मरीज जांच के लिए आते हैं • एंबुलेंस के ड्राइवर और अन्य स्टाफ जो ऐसे मरीज को लेकर चलते हैं

## बुजुर्ग कोभी जकड़ा

अलीपुर निवासी 66 साल के बुजुर्ग स्वाइन फ्लू से 3 दिनों से जूझ रहे हैं। पहले सांस की बीमारी को लेकर रोहिणी के एक प्राइवेट अस्पताल में एडमिट हुए, लेकिन हालत में कोई सुधार नहीं हुई तो डॉक्टर ने स्वाइन फ्लू का टेस्ट कराया। 25 जनवरी को रिपोर्ट पॉजिटिव आने पर बुजुर्ग की हालत बिगड़ने लगी। रोहिणी के इस प्राइवेट अस्पताल में इलाज पर होने वाले अधिक खर्च को देखते हुए बुजुर्ग ने डॉक्टर से डिस्चार्ज करने की बात कही। 26 जनवरी को इस अस्पताल से बुजुर्ग को डिस्चार्ज कर दिया गया। इसके बाद पीड़ित बुजुर्ग पश्चिम विहार के निजी अस्पताल पहुंचे, लेकिन यहां बेड न होने की वजह एडमिट नहीं हो सके। इसके बाद 26 जनवरी को ही आरएमएल अस्पताल पहुंचे, बुजुर्ग की हालत को देखते हुए डॉक्टर ने तुरंत एडमिट कर लिया।

## थर्मा गई जिंदगी

दिनेश नोडियाल परिवार के साथ मंगोलपुरी के एच ब्लॉक में रहते हैं। दिनेश ने बताया कि 5 वर्षीय बेटी को बुखार होने के बाद रोहिणी के एक प्राइवेट अस्पताल में एडमिट कराया। चार दिनों तक हालत में कोई सुधार नहीं हुआ तो डॉक्टर ने स्वाइन फ्लू का टेस्ट कराया। टेस्ट पॉजिटिव आते ही मेरे होश उड़ गए। इलाज के लिए मोटी रकम की जरूरत थी। कई दोस्तों से मदद मांगी, लेकिन कोई तैयार नहीं हुआ। काफी मशक्कत के बाद ब्याज पर पैसे लेकर बेटी का इलाज कराया। 10 दिनों में एक लाख से अधिक रुपये खर्च हो गए। अभी भी इलाज जारी है। एक महीने तक कारोबार भी चौपट रहा। इन दिनों परिवार का सभी सदस्य परेशान रहे। एक महीने बाद भी इस परेशानी से राहत नहीं मिल सकी है। हर दो दिनों के बाद बेटी को अस्पताल लेकर जाना पड़ रहा है।

**Rahul.Anand@timesgroup.com** नई दिल्ली : स्वाइन फ्लू (H1N1) वायरस तेजी से लोगों को अपना शिकार बना रहा है। जनवरी में सफदरजंग में इस वायरस की वजह से तीनों लोगों की जान जा चुकी है, वहीं आरएमएल में भी इस महीने अबतक छह लोगों की मौत की वजह यही है। एक मरीज की मौत एक्शन बालाजी हॉस्पिटल में हुई है। जनवरी में अबतक कुल 10 लोगों की जान जा चुकी है। वहीं नैशनल सेंटर फॉर डिजीज कंट्रोल (NCDC) के अनुसार, अबतक दिल्ली में स्वाइन फ्लू के 267 मामलों की पहचान हो चुकी है।

बढ़ते मरीजों को लेकर एम्स के डॉक्टर करन मदान का कहना है कि इन दिनों एच1एन1 का केस बढ़ा जरूर है, लेकिन अभी इमरजेंसी वाली स्थिति नहीं है। डॉक्टर ने कहा कि अब पहले की तुलना में लोगों में सेहत के प्रति जागरूकता बढ़ी है, लोग स्वास्थ्य संबंधी दिक्कत होने पर अब जांच करा रहे हैं। एक बात यह भी है कि आमतौर पर यह बीमारी खुद ही ठीक हो जाती है। लेकिन किस में यह गंभीर हो जाएगी, यह भी कहना मुश्किल है। यही वजह है कि कभी-कभी किसी में यह जानलेवा हो जाती है।

सफदरजंग अस्पताल के अनुसार, जनवरी में कुल 18 मरीज स्वाइन फ्लू पॉजिटिव पाए जाने के बाद एडमिट किए गए हैं, इनमें से तीन की मौत हो गई है। पहली मौत 10 जनवरी को हुई थी। 72 साल के एक पुरुष की जान इलाज के दौरान चली गई थी। मरीज को यूपी के मेरठ से सफदरजंग रेफर कर भेजा गया था। अस्पताल में दूसरी मौत 13 जनवरी को हुई, जब गाजियाबाद के 78 साल के एक मरीज की मौत हुई थी। तीसरी मौत 22 जनवरी को यूपी के गौतमबुद्ध नगर के 35 साल के युवक की हुई थी। वहीं, आरएमएल में अबतक 22 मरीजों में यह वायरस पॉजिटिव पाया गया। इनमें से 7 को इलाज के बाद छुट्टी दे दी गई, जिसमें से 6 की मौत हो गई है।

मैक्स के डॉक्टर रोमेल किट्टू ने कहा कि आमतौर पर नॉर्मल फ्लू की तरह ही यह वायरस भी बिहेव करता है। लेकिन कभी-कभी यह खतरनाक हो जाता है, खासकर जो लोग पहले से किसी बीमारी से पीड़ित हों। इस बारे में डॉक्टर नरेंद्र सैनी का कहना है कि जब पहली बार यह वायरस आया था तो बहुत ही खतरनाक था। लेकिन अब पहले की तुलना में माइल्ड है। इसका इलाज है, दवा उपलब्ध है और अब वैक्सिन भी है।

## Swine Flu (Hindustan: 20190129)

राजधानी में एक महीने के अंदर 440 मरीज सामने आए, वायरस खुद में बदलाव कर जानलेवा बन रहा है

# स्वाइन फ्लू से 28 दिन में 10 की मौत

## चिताजनक

नई दिल्ली | हेनवती नंदन राजौरा

राजधानी में स्वाइन फ्लू तेजी से फैल रहा है। आंकड़ों के मुताबिक 1 से 28 जनवरी के बीच राजधानी में 440 लोगों में स्वाइन फ्लू की पुष्टि हुई है। केंद्र सरकार के दो अस्पतालों में इसकी वजह से पिछले 28 दिनों में 10 की मौत हो चुकी है। वैसे दिल्ली की स्वास्थ्य महानिदेशक का कहना है कि ये मरीज दिल्ली के निवासी नहीं हैं।

बता दें कि हाल में जारी केंद्र सरकार के आंकड़ों के मुताबिक, पिछले साल स्वाइन फ्लू के 205 मरीज राजधानी में सामने आए थे। इस वर्ष 28 दिनों में ही यह संख्या दोगुनी हो गई। इस साल 28 जनवरी तक राम मनोहर लोहिया अस्पताल में सात और सफदरजंग अस्पताल में तीन लोगों की मौत स्वाइन फ्लू से हुई है। इन 440 मरीजों में 19 सरकारी अस्पताल और छह निजी अस्पताल शामिल हैं। विशेषज्ञों का कहना है कि लोगों को विशेष सावधानी बरतने की जरूरत है।



**205** लोगों में मामले की पुष्टि हुई थी पिछले साल

**19** सरकारी और छह निजी अस्पतालों में जाए मामले सामने आए

**3** मरीजों की स्वाइन फ्लू से पिछले वर्ष मौत हो गई थी, जिसके बाद सतर्कता बढ़ाई गई थी

### लक्षण

- सर्दी, खांसी और बुखार
- सांस लेने में परेशानी
- गला खराब हो जाना
- गले में दर्द की समस्या
- मांसपेशियों में दर्द रहना
- डायरिया की परेशानी
- तेज ढंढ महसूस होना
- कमजोरी महसूस होना

### बचाव

- सार्वजनिक स्थानों पर मास्क और रुमाल का इस्तेमाल करें
- खान-पान से पहले हाथ अच्छी तरह धोएं
- बाहर से आने के बाद गर्म पानी से स्नान करें
- सांस लेने में परेशानी होने पर तुरंत डॉक्टर से संपर्क करें

जो लोग लंबे समय से किसी बीमारी से पीड़ित हैं और उनकी प्रतिरोधक क्षमता कम है या फिर अस्पतालों में काम करने वाले लोगों को स्वाइन फ्लू की वैक्सीन जरूर लगवानी चाहिए। संक्रमित लोगों से दूर रहें। -डॉक्टर करन मदान, प्लवनरी मेडिसन, एम्स।

## राजधानी से बाहर के लोग भी प्रभावित हो रहे

राम मनोहर लोहिया अस्पताल के इमरजेंसी के प्रमुख डॉक्टर नूतन मेहता का कहना है 1 जनवरी से अभी तक सात लोगों की मौत उनके अस्पताल में स्वाइन फ्लू की वजह से हुई है। इस दौरान 57 लोग स्वाइन फ्लू के संदिग्ध पाए गए हैं और 18 मरीजों में इसकी पुष्टि हो चुकी है। सफदरजंग अस्पताल के मेडिसन विभाग के प्रमुख डॉक्टर जुगल किशोर के मुताबिक, उनके अस्पताल में स्वाइन फ्लू से जनवरी में

तीन की मौत हुई है और स्वाइन फ्लू से पीड़ित 17 लोग अभी अस्पताल में भर्ती हैं। वहीं, एम्स में भी स्वाइन फ्लू के 30 से अधिक मरीज पहुंचे हैं। स्वाइन फ्लू से लोगों की मौत के सवाल पर दिल्ली की स्वास्थ्य महानिदेशक डॉक्टर नूतन मुद्देजा का कहना है कि दिल्ली के किसी व्यक्ति की मौत नहीं हुई है। उनका कहना है कि संभव है कि बाहर के राज्यों से आए लोगों की मौत स्वाइन फ्लू से हुई हो।

## विशेष सावधानी बरतें

एम्स के मेडिसन विभाग के प्रोफेसर डॉक्टर नवल विक्रम का कहना है कि जिन लोगों को इफ्लूएंजा से अधिक खतरा है वे बचाव के लिए वैक्सीन इस्तेमाल कर सकते हैं। 65 साल या उससे ऊपर के सभी लोग, मधुमेह, अस्थमा से पीड़ित, गर्भवती, बच्चे इत्यादि को वैक्सीन देना चाहिए। अधिक जोखिम वाले लोगों को चारों प्रकार के फ्लू (एच1एन1 एच1एन2, एच3एन2, एच3एन1) से बचाव करें।

## हर दूसरे वर्ष बदलाव

सफदरजंग अस्पताल के मेडिसन विभाग के प्रमुख प्रोफेसर जुगल किशोर के मुताबिक स्वाइन फ्लू का वायरस खुद में बदलाव (म्यूटेशन) कर लेता है। वायरस में म्यूटेशन आमतौर पर उन्हें दवा प्रतिरोधी बनाकर और खतरनाक बना देता है। उन्होंने कहा कि पहले हर तीन साल बाद स्वाइन फ्लू के मामले अचानक बढ़ जाते थे लेकिन वायरस ने इस तरह बदलाव किया है कि अब यह हर दूसरे साल बाद खतरनाक होकर उभरता है।

## Zika Virus

आइआइटी मंडी ने डूढ़ी जीका वायरस की काट(Dainik Gagan: 20190129)

[https://epaper.jagran.com/epaper/article-29-Jan-2019-edition-delhi-city-page\\_18-6171-149-4.html](https://epaper.jagran.com/epaper/article-29-Jan-2019-edition-delhi-city-page_18-6171-149-4.html)

जागरण संवाददाता, मंडी : भारतीय प्रौद्योगिकी संस्थान (आइआइटी) मंडी के शोधकर्ताओं ने जीका वायरस की दवा खोजने में उल्लेखनीय प्रगति की है। शोध में पता चला है कि वायरस फैलने के लिए जिम्मेदार इंजाइम को मलेरिया में इस्तेमाल होने वाली दवा हाइड्रॉक्सीक्लोरोक्वीन से नियंत्रित किया जा सकता है। इससे पहले आइआइटी के शोधकर्ताओं ने वायरस फैलने में मदद करने वाला प्रोटीन खोजा था।

आज पूरी दुनिया में 10 लाख से अधिक लोग इस वायरस से प्रभावित हैं। शोध पर आइआइटी मंडी में बायोटेक्नोलॉजी विभाग के सहायक प्रोफेसर डॉ. रजनीश गिरी के नेतृत्व में टीम कार्य कर रही है। इससे पहले सेंट लुई अमेरिका स्थित वाॅॅॅ शगटन यूनिवर्सिटी की प्रो. इंदिरा मैसूरकर की खोज से सामने आया कि मलेरिया की प्रचलित दवा हाइड्रॉक्सीक्लोरोक्वीन (एचसीक्यूजी) का वायरस के संक्रमण की संभावना कम करती है। इसका किसी मां से उसके गर्भ में पल रहे बच्चे को खतरा रहता है। इस निष्कर्ष पर काम करते हुए प्रो. गिरी ने उस लक्षित वायरल प्रोटीन की पहचान की है, जिस पर एचसीक्यू असर करता है। उनके शोध के परिणाम एसीएस ओमेगा जर्नल में प्रकाशित हुए हैं।

मच्छर से फैलता है जीका वायरस : जीका वायरस का वाहक मच्छर है। यह फ्लेवीवायरस जीन से संबद्ध पेथोजेन है। (मच्छर के काटने के बाद उसमें वायरस प्रवेश करने से रोग फैलता है) इसका प्रकोप दुनिया में बढ़ रहा है। इस जीन के अन्य सदस्यों में डेंगू वायरस, येलो फीवर और जापानी इनसेफ़लाइटिस वायरस शामिल हैं।

जीका संक्रमण के लक्षण : बुखार, सिरदर्द, सुस्ती, आंखों में लाली और इसका स्नायु रोगों से भी संबंध हो सकता है। अधिक गंभीर होने पर जीका के संक्रमण से गर्भ की विनाशकारी बीमारियां होती हैं।

आइआइटी मंडी ने ढूंढी जीका वायरस की काट