DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE Day

Monday **20190408**

Good health

Investing for good health (The Hindu: 20190408)

https://www.thehindu.com/business/Industry/investing-for-good-health/article26758115.ece

Stitch in time: Deciding on sufficient coverage is essential as some procedures may be very expensive.

Understanding policy contours is important while choosing the right cover

The first insurance you should consider buying is health insurance.

Understanding which policy is best for you can be fairly complex. Let's look at the top three factors to consider — what is covered, what is not covered and how much coverage to take

Under hospitalisation policies you can claim expenses incurred in India for hospital stay, food, medicines, treatment, surgery and medical professionals' fees.

Many specified day-care procedures are also covered as are related pre-hospitalisation costs, including diagnostic tests for 30 days and post-hospitalisation costs for 60 days.

Treatment at Ayurveda, Unani and Homoeopathy hospitals accredited with the National Accreditation Board for Hospitals is covered up to 25% of your sum insured (SI).

It is very important for you to know the exclusions in any policy. New polices will not admit any hospitalisation claims for the first 30 days except following an accident.

If you have a pre-existing medical condition, it will be covered after a specified waiting period, usually 36 or 48 months, of unbroken coverage.

Specified treatments and surgery, even if not arising out of a pre-existing condition, are covered only after a waiting period, say 24 months.

They can include cataract surgery, gall bladder surgery and renal failure. The list and the waiting period can vary between companies and policies.

Dental treatment and surgery is a standard exclusion except due to an accident and requiring hospitalisation but several policies now offer them as part of their main fare and some even as outpatient treatment. Apollo Munich Maxima Health has a limited dental outpatient cover and ICICI Prudential Health Saver has a unit- linked insurance plan section that creates a health fund from which dental treatments can be paid for.

Outpatient treatment

Similarly, outpatient treatment is also being increasingly covered in some hospitalisation policies like Bajaj Allianz Tax Gain Plan.

Any policy has a coverage value called sum insured (SI) which is valid for the policy period, typically one year. Deciding what is sufficient coverage for you is critical.

A coronary bypass surgery can cost about ₹4 to ₹5 lakh today in a large city and if you opt for a private room. A gall bladder removal can cost about ₹1.5 to ₹2 lakh and a total knee replacement ₹3 to ₹4 lakh.

Smaller cities are also catching up on medical care costs and you can expect to spend about 75% of these amounts. This gives you an idea of the SI you would need. The premium depends on this and your age.

Watch out for sub-limits for different heads of expenses, like room rent and fees, in your policy. This could compromise the extent of your claim even if you have sufficient SI.

For example, you may have a ₹5 lakh SI, but if your policy says that room rent, boarding and nursing expenses have a limit of 1% of SI per day then anything over ₹5,000 a day will have to be borne by you.

Should you exceed this limit, your claims for all other expenses incurred at the hospital, with the exception of the cost of medicines, will be paid only proportionately.

(The writer is a business journalist specialising in insurance & corporate history)

Waste management policy

Cleaning up the mess: the need for a waste management policy (The Hindu: 20190408)

https://www.thehindu.com/opinion/op-ed/cleaning-up-the-mess/article26763338.ece

India needs a waste management policy that stresses the need for decentralised garbage disposal practices

Hyperconsumption is a curse of our modern times. Humans generate monumental amounts of waste, a sizeable portion of which is disposed in landfills and through waste-to-energy incinerators. However, billions of tonnes of garbage, including microplastics, never make it to landfills or incinerators and end up in the oceans. This garbage chokes marine life and disturbs zooplankton, which are vital to the elimination of carbon dioxide from the atmosphere.

Landfills are seedbeds of methane and other greenhouse gases, which contribute to global warming. These toxic chemicals poison the soil and their leached run-off makes its way into the oceans. And while they do generate energy, waste incinerators cause health issues such as cancer. In India, nearly 60% of the household waste is wet organic waste, with low calorific value. This makes options such as waste-to-energy incinerators inefficient. We need to design incinerators that are suited to Indian conditions.

It does seem overwhelming, but there are solutions to the garbage pandemic through the crucial processes of material recycling and composting. Efficient composting is possible through an optimal combination of microbes and temperature to produce a nutrient-dense soil conditioner.

Mathangi Swaminathan, in her article in Economic and Political Weekly, sheds light on India's broken waste management system. In India, less than 60% of waste is collected from households and only 15% of urban waste is processed.

There are several problems in India in how waste is treated. First, segregation of waste into organic, recyclable and hazardous categories is not enforced at source. As a result, mixed waste lands up in the landfills, where waste-pickers, in hazardous conditions, try to salvage the recyclables, which are of poor quality and quantity by then. Second, ideally, waste management should not be offered free of cost to residents. Only if residents pay will they realise the importance of segregation and recycling. Third, there is the issue of logistical contractors who are motivated to dump more garbage in landfills as their compensation is proportional to the tonnage of waste. They are also prone to illegally dump waste at unauthorised sites to reduce transportation costs. Fourth, and importantly, organic farming and composting are not economically attractive to the Indian farmer, as chemical pesticides are heavily subsidised, and the compost is not efficiently marketed.

We need a comprehensive waste management policy that stresses the need for decentralised garbage disposal practices, This will incentivise private players to participate. Unless these concerns are addressed, what will we tell our children who inherit this planet? That our greatest existential challenge, climate change, was also facilitated by garbage?

Mysterious Infection

A Mysterious Infection, Spanning the Globe in a Climate of Secrecy (The New York Times: 20190408)

https://www.nytimes.com/2019/04/06/health/drug-resistant-candida-auris.html

The rise of Candida auris embodies a serious and growing public health threat: drug-resistant germs.

Revenge of the Bacteria: Why We're Losing the War

Bacteria are rebelling. They're turning the tide against antibiotics by outsmarting our wonder drugs. This video explores the surprising reasons.CreditCreditMelissa Golden for The New

Last May, an elderly man was admitted to the Brooklyn branch of Mount Sinai Hospital for abdominal surgery. A blood test revealed that he was infected with a newly discovered germ as deadly as it was mysterious. Doctors swiftly isolated him in the intensive care unit.

The germ, a fungus called Candida auris, preys on people with weakened immune systems, and it is quietly spreading across the globe. Over the last five years, it has hit a neonatal unit in Venezuela, swept through a hospital in Spain, forced a prestigious British medical center to shut down its intensive care unit, and taken root in India, Pakistan and South Africa.

Recently C. auris reached New York, New Jersey and Illinois, leading the federal Centers for Disease Control and Prevention to add it to a list of germs deemed “urgent threats.”

The man at Mount Sinai died after 90 days in the hospital, but C. auris did not. Tests showed it was everywhere in his room, so invasive that the hospital needed special cleaning equipment and had to rip out some of the ceiling and floor tiles to eradicate it.

“Everything was positive — the walls, the bed, the doors, the curtains, the phones, the sink, the whiteboard, the poles, the pump,” said Dr. Scott Lorin, the hospital’s president. “The mattress, the bed rails, the canister holes, the window shades, the ceiling, everything in the room was positive.”

C. auris is so tenacious, in part, because it is impervious to major antifungal medications, making it a new example of one of the world’s most intractable health threats: the rise of drug-resistant infections.

Dr. Shawn Lockhart, a fungal disease expert at the Centers for Disease Control and Prevention, holding a microscope slide with inactive Candida auris collected from an American patient.

Dr. Shawn Lockhart, a fungal disease expert at the Centers for Disease Control and Prevention, holding a microscope slide with inactive Candida auris collected from an American patient.CreditMelissa Golden for The New York Times

For decades, public health experts have warned that the overuse of antibiotics was reducing the effectiveness of drugs that have lengthened life spans by curing bacterial infections once commonly fatal. But lately, there has been an explosion of resistant fungi as well, adding a new and frightening dimension to a phenomenon that is undermining a pillar of modern medicine.

“It’s an enormous problem,” said Matthew Fisher, a professor of fungal epidemiology at Imperial College London, who was a co-author of a recent scientific review on the rise of resistant fungi. “We depend on being able to treat those patients with antifungals.”

Simply put, fungi, just like bacteria, are evolving defenses to survive modern medicines.

Yet even as world health leaders have pleaded for more restraint in prescribing antimicrobial drugs to combat bacteria and fungi — convening the United Nations General Assembly in 2016 to manage an emerging crisis — gluttonous overuse of them in hospitals, clinics and farming has continued.

Read the next article in this series

In a Poor Kenyan Community, Cheap Antibiotics Fuel Deadly Drug-Resistant InfectionsApril 7, 2019

Resistant germs are often called “superbugs,” but this is simplistic because they don’t typically kill everyone. Instead, they are most lethal to people with immature or compromised immune systems, including newborns and the elderly, smokers, diabetics and people with autoimmune disorders who take steroids that suppress the body’s defenses.

Scientists say that unless more effective new medicines are developed and unnecessary use of antimicrobial drugs is sharply curbed, risk will spread to healthier populations. A study the British government funded projects that if policies are not put in place to slow the rise of drug resistance, 10 million people could die worldwide of all such infections in 2050, eclipsing the eight million expected to die that year from cancer.

Dr. Johanna Rhodes, an infectious disease expert at Imperial College London. "We are driving this with the use of antifungicides on crops," she said of drug-resistant germs.

Drug-resistant infections: Fungus immune

The rise of drug-resistant infections: Fungus immune to drugs secretly sweeps the globe (The Indian Express: 20190408)

https://indianexpress.com/article/lifestyle/health/the-rise-of-drug-resistant-infection-fungus-immune-to-drugs-secretly-sweeps-the-globe-5663214/

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Pak F-16 row: 3 questions, evidence on the ground and in the air

Nationalism to novels, three chapters out of NCERT's Class 10 history book

Candida auris, mysterious global infections, fungal infections

Dr Shawn Lockhart, a fungal disease specialist, holds a microscope slide with inactive Candida auris, in Atlanta. (Melissa Golden/The New York Times)

In May, an elderly man was admitted to the Brooklyn branch of Mount Sinai Hospital for abdominal surgery. A blood test revealed that he was infected with a newly discovered germ as deadly as it was mysterious.

The germ, a fungus called Candida auris, preys on people with weakened immune systems, and it is quietly spreading across the globe. Recently C. auris reached New York, New Jersey and Illinois, leading the federal Centers for Disease Control and Prevention to add it to a list of germs deemed “urgent threats.”

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Plogging across 5 Southeast Asian countries

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Antibiotics and antifungals are essential to combat infections in people, but antibiotics are also used widely to prevent disease in farm animals, and antifungals are also applied to prevent agricultural plants from rotting. Some scientists cite evidence that rampant use of fungicides on POPULAR PHOTOS

Samantha Akkineni and Naga Chaitanya celebrate success of Majili

IPL 2019: RCB’s free fall continues, KKR sweep away RR

YSRCP, TDP intensify campaigns in Andhra Pradesh

Yet as the problem grows, it is little understood by the public — in part because the very existence of resistant infections is often cloaked in secrecy. With bacteria and fungi alike, hospitals and local governments are reluctant to disclose outbreaks for fear of being seen as infection hubs.

C. auris, which infected the man at Mount Sinai, is one of dozens of dangerous bacteria and fungi that have developed resistance. Yet, like most of them, it is a threat that is virtually unknown to the public.

Candida auris, mysterious global infections, fungal infections

Dr Tom Chiller heads the fungal division at the Centers for Disease Control and Prevention, leading the team researching the emerging Candida Auris crisis, in Atlanta, August 23, 2018. (Melissa Golden/The New York Times)

Other prominent strains of the fungus Candida — one of the most common causes of bloodstream infections in hospitals — have not developed significant resistance to drugs, but more than 90 percent of C. auris infections are resistant to at least one drug, and 30 percent are resistant to two or more drugs, the CDC said.

Nearly half of patients who contract C. auris die within 90 days, according to the CDC. Yet the world's experts have not nailed down where it came from in the first place.

How Election Commission runs poll machinery

"It is a creature from the black lagoon," said Dr Tom Chiller, who heads the fungal branch at the CDC. "It bubbled up and now it is everywhere."

'No Need' to Tell the Public

In late 2015, Dr Johanna Rhodes, an infectious disease expert at Imperial College London, got a panicked call from the Royal Brompton Hospital outside London. C. auris had taken root there months earlier, and the hospital couldn't clear it.

"'We have no idea where it's coming from. We've never heard of it. It's just spread like wildfire,'" Rhodes said she was told. She agreed to help the hospital identify the fungus' genetic profile and clean it from rooms.

It was spreading, but word of it was not. The hospital, a specialty lung and heart center that draws wealthy patients from the Middle East and around Europe, alerted the British government and told infected patients, but made no public announcement.

This hushed panic is playing out in hospitals around the world. Individual institutions and national, state and local governments have been reluctant to publicize outbreaks of resistant infections, arguing there is no point in scaring patients — or prospective ones.

Candida auris, mysterious global infections, fungal infections

Dr Johanna Rhodes, an infectious disease expert, in her lab at the Department of Infectious Disease Epidemiology, Imperial College School of Public Health, St. Mary's Campus London, August 13, 2018. (Tom Jamieson/The New York Times)

Dr Silke Schelenz, Royal Brompton's infectious disease specialist, found the lack of urgency from the government and hospital in the early stages of the outbreak "very, very frustrating."

“They obviously didn’t want to lose reputation,” Schelenz said. “It hadn’t impacted our surgical outcomes.”

By the end of June 2016, a scientific paper reported “an ongoing outbreak of 50 C. auris cases” at Royal Brompton, and the hospital took an extraordinary step: It shut down its ICU for 11 days, again with no announcement.

Days later the hospital finally acknowledged to a newspaper that it had a problem. A headline in The Daily Telegraph warned, “Intensive Care Unit Closed After Deadly New Superbug Emerges in the U.K.”

Yet the issue remained little known internationally, while an even bigger outbreak had begun in Valencia, Spain, at the Hospital Universitari i Politècnic La Fe. As with Royal Brompton, the hospital in Spain did not make any public announcement. It still has not.

The secrecy infuriates patient advocates, who say people have a right to know if there is an outbreak. “Why the heck are we reading about an outbreak almost a year and a half later — and not have it front-page news the day after it happens?” said Dr Kevin Kavanagh, chairman of Health Watch USA, a nonprofit patient advocacy group.

Health officials say that disclosing outbreaks frightens patients about a situation they can do nothing about, particularly when the risks are unclear. “It’s hard enough with these organisms for health care providers to wrap their heads around it,” said Dr Anna Yaffee, a former CDC outbreak investigator. “It’s really impossible to message to the public.”

Officials in London did alert the CDC to the Royal Brompton outbreak while it was occurring. And the CDC realized it needed to get the word to U.S. hospitals. On June 24, 2016, the CDC blasted a nationwide warning and set up an email address, candidaauris@cdc.gov, to field queries. Dr Snigdha Vallabhaneni, a key member of the fungal team, expected to get a trickle — “maybe a message every month.”

Candida auris, mysterious global infections, fungal infections

Dr Snighdha Vallabhaneni is a fungal expert and epidemiologist at the Centers for Disease Control and Prevention and has been closely involved with the emerging Candida Auris crisis. (Melissa Golden/The New York Times)

Instead, within weeks, her inbox exploded. In the United States, 587 cases of people having contracted C. auris have been reported, according to the CDC. The symptoms — fever, aches and fatigue — are seemingly ordinary, but when a person gets infected, particularly someone already unhealthy, such commonplace symptoms can be fatal.

The Role of Pesticides?

As the CDC works to limit the spread of drug-resistant C. auris, its investigators have been trying to answer the vexing question: Where in the world did it come from?

The first time doctors encountered C. auris was in the ear of a woman in Japan in 2009 (auris is Latin for ear). It seemed innocuous at the time, a cousin of common, easily treated fungal infections. Three years later, it appeared in an unusual test result in the lab of Dr Jacques Meis, a microbiologist in Nijmegen, Netherlands, who was analyzing a bloodstream infection in 18 patients from four hospitals in India. Soon, new clusters of C. auris seemed to emerge with each passing month in different parts of the world.

When the CDC investigators compared the entire genome of auris samples from India and Pakistan, Venezuela, South Africa and Japan, they found that its origin was not a single place, and there was not a single auris strain. The genome sequencing showed that there were four distinctive versions of the fungus, with differences so profound that they suggested that these strains had diverged thousands of years ago and emerged as resistant pathogens from harmless environmental strains in four different places at the same time.

“Somehow, it made a jump almost seemingly simultaneously, and seemed to spread and it is drug-resistant, which is really mind-boggling,” Vallabhaneni said.

There are different theories as to what happened with C. auris. Meis, the Dutch researcher, said he believed that drug-resistant fungi were developing thanks to heavy use of fungicides on crops.

Meis became intrigued by resistant fungi when he heard about the case of a 63-year-old patient in the Netherlands who died in 2005 from a fungus called Aspergillus. It proved resistant to a front-line antifungal treatment called itraconazole. That drug is a virtual copy of the azole pesticides that are used to dust crops the world over.

Chiller of the CDC theorizes that C. auris may have benefited from the heavy use of fungicides. His idea is that C. auris actually has existed for thousands of years, a not particularly aggressive bug. But as azoles began destroying more prevalent fungi, an opportunity arrived for C. auris to enter the breach.

Yoga and Physical Fitness

The art ofslowing down (The Hindu: 20190408)

https://www.thehindu.com/society/history-and-culture/stressful-yoga-offers-a-remedy/article26532184.ece

It will offer you the time to appreciate life better

Yoga is the practice of inner stillness. But modern life pushes us to the opposite. One of the main reasons for this is the feeling and habit of being rushed, of hurrying.

Examine the sentences running through our minds in the course of a regular day. We push ourselves with dialogue that make us feel restless and hurried, many times over.

We use phrases like, “ASAP, there’s no time, quickly, hurry up, right now, right away, why is it taking so long...”

The more we say those words to ourselves, the harder it is for any other part of us, to slow down. When we practice yogic mindfulness, we pay attention to what’s happening in the mind, and we realise that our thoughts are often rushed. The mind can’t just rest; it prods us to do more, and in a hurry.

This habit of hurrying is insidious in modern life. It has permeated our daily life, both at work and at home. Digital devices have made it very easy for us to hurry even more, to stay connected all the time.

If we have to wait for a few minutes, we immediately send a message saying, “Where are you? I am here already.” Of course, it’s good to have modern communications, to be in touch, and to get things done. But when hurrying becomes a way of life, it damages our well-being and peace of mind.

Could we change our inner dialogue to slow down instead of hurrying?

If we tell ourselves, “Taking the time as you need.” “Whenever you feel ready.” “If it takes a little longer, that’s okay.” “Patiently…”

We don't often hear people saying these phrases, isn’t it?

This practice of slowing down is a necessity to reduce stress and practice positive changes for our body and mind. This is one of the reasons why asana and breathing practices in yoga is best done by slowing down. It’s also useful to speed up and exercise. But that is not a substitute for slow movement, slow breathing and patient attention.

Does it make sense to say, “Be calm. But do it quickly!” Or, “Be mindful. Meditate. But hurry, there’s no time.” It does not make sense. How can we calm down or be mindful when we are rushed?

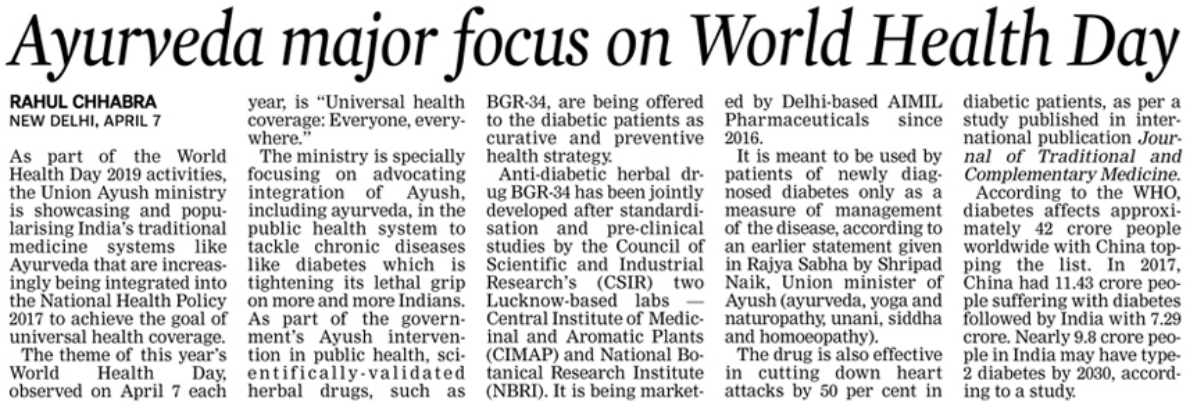
Hurrying is deeply embedded in us in modern life to the extent that we often don’t listen even when we are given permission to slow down. We don’t believe that we can. We think we will miss out on life. And there’s an impression that if you’re not running around and doing something all the time, there’s something wrong with you. Is this really true?

Life is always experienced in the present. It is not found in a future that we wish to hurry toward. The future doesn’t exist yet, and when it does, it will be the present. One of the key messages of yoga is to watch your mind with appreciative and restful awareness! To do that, we should cultivate the skill of slowing down and being present, at least for a small portion of every day.

Try bringing this practice of slowing down to your asanas. Take a few deliberately slow breaths every hour. You could speak more mindfully and slowly for a few minutes every day. Eat one meal everyday slowly. Small steps. Let slowing down make you calmer, and notice that you can appreciate life better when you take the time to do so. Yoga happens when we take the time to be present with the practices and with our life.

Ayurveda (The Asian Age: 20190408)

http://onlineepaper.asianage.com/articledetailpage.aspx?id=12772837



Ayurveda major focus on World Health Day

RAHUL CHHABRA
NEW DELHI, APRIL 7

As part of the World Health Day 2019 activities, the Union Ayush ministry is showcasing and popularising India's traditional medicine systems like Ayurveda that are increasingly being integrated into the National Health Policy 2017 to achieve the goal of universal health coverage.

The theme of this year's World Health Day, observed on April 7 each year, is "Universal health coverage: Everyone, everywhere."

The ministry is specially focusing on advocating integration of Ayush, including ayurveda, in the public health system to tackle chronic diseases like diabetes which is tightening its lethal grip on more and more Indians. As part of the government's Ayush intervention in public health, scientifically-validated herbal drugs, such as BGR-34, are being offered to the diabetic patients as curative and preventive health strategy.

Anti-diabetic herbal drug BGR-34 has been jointly developed after standardisation and pre-clinical studies by the Council of Scientific and Industrial Research's (CSIR) two Lucknow-based labs — Central Institute of Medicinal and Aromatic Plants (CIMAP) and National Botanical Research Institute (NBRI). It is being marketed by Delhi-based AIMIL Pharmaceuticals since 2016.

It is meant to be used by patients of newly diagnosed diabetes only as a measure of management of the disease, according to an earlier statement given in Rajya Sabha by Shripad Naik, Union minister of Ayush (ayurveda, yoga and naturopathy, unani, siddha and homoeopathy).

The drug is also effective in cutting down heart attacks by 50 per cent in diabetic patients, as per a study published in international publication *Journal of Traditional and Complementary Medicine*.

According to the WHO, diabetes affects approximately 42 crore people worldwide with China topping the list. In 2017, China had 11.43 crore people suffering with diabetes followed by India with 7.29 crore. Nearly 9.8 crore people in India may have type-2 diabetes by 2030, according to a study.

K G Kids ((The Asian Age: 20190408)

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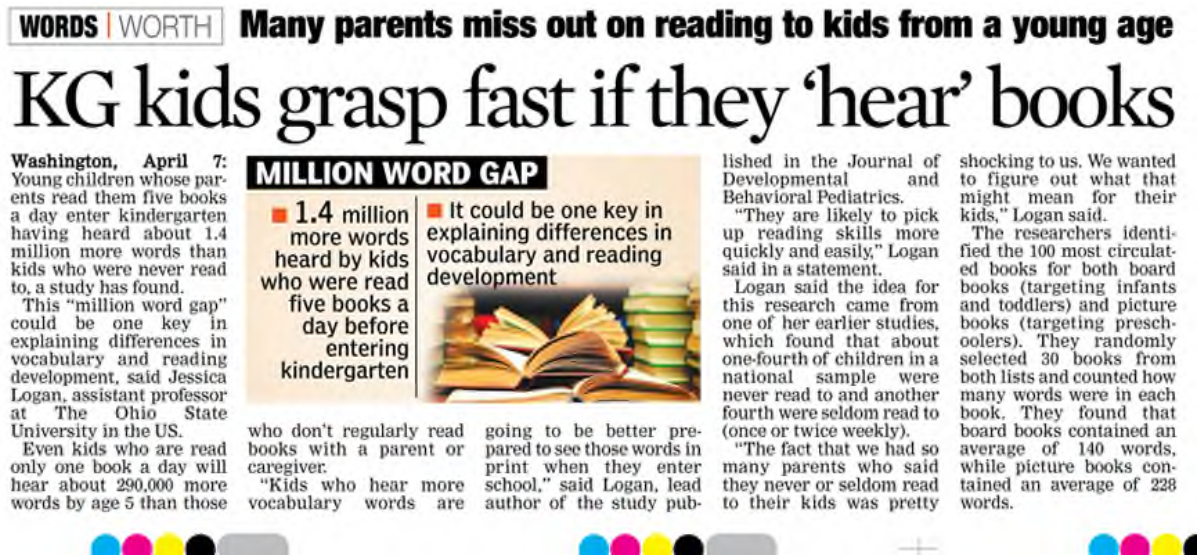

WORDS | WORTH **Many parents miss out on reading to kids from a young age**

KG kids grasp fast if they 'hear' books

Washington, April 7: Young children whose parents read them five books a day enter kindergarten having heard about 1.4 million more words than kids who were never read to, a study has found.

This "million word gap" could be one key in explaining differences in vocabulary and reading development, said Jessica Logan, assistant professor at The Ohio State University in the US.

Even kids who are read only one book a day will hear about 290,000 more words by age 5 than those who don't regularly read books with a parent or caregiver.

"Kids who hear more vocabulary words are going to be better prepared to see those words in print when they enter school," said Logan, lead author of the study published in the Journal of Developmental and Behavioral Pediatrics.

"They are likely to pick up reading skills more quickly and easily," Logan said in a statement.

Logan said the idea for this research came from one of her earlier studies, which found that about one-fourth of children in a national sample were never read to and another fourth were seldom read to (once or twice weekly).

"The fact that we had so many parents who said they never or seldom read to their kids was pretty shocking to us. We wanted to figure out what that might mean for their kids," Logan said.

The researchers identified the 100 most circulated books for both board books (targeting infants and toddlers) and picture books (targeting preschoolers). They randomly selected 30 books from both lists and counted how many words were in each book. They found that board books contained an average of 140 words, while picture books contained an average of 228 words.

MILLION WORD GAP

- 1.4 million more words heard by kids who were read five books a day before entering kindergarten
- It could be one key in explaining differences in vocabulary and reading development

Silent epidemic

Confronting silent epidemic (The Tribune: 20190408)

https://www.tribuneindia.com/news/in-focus/confronting-silent-epidemic/754876.html

Political commitment at state, district and local levels and the participation of other sectors can help to effectively implement disease prevention strategies and reverse rising trend of chronic lifestyle diseases, writes Dr Jai Prakash Narain

Lifestyle diseases or chronic non-communicable diseases (NCDs) are rising alarmingly all over the world, including India. Characterised by long duration and slow progression, these diseases contribute globally to an estimated 38 million deaths annually.

In India, these diseases are now the leading cause of death, causing every year 6 million (63% of total 9.6 million) deaths. Commonest of these are cardiovascular diseases, followed by chronic lung diseases, cancers and diabetes. According to the International Diabetes Federation, India ranks second in the world in terms of total number of persons affected by diabetes — an estimated 63 million. One in every 12 adults in India has diabetes.

These diseases are closely related with national economic development and poverty. By 2030, India is estimated to lose nearly 18 million potentially productive years of life. This means a huge loss of productive man-years and expenses on care and treatment. In an era of skyrocketing healthcare expenses, lifestyle diseases are already exacerbating poverty and social inequities. Having to meet the expenses from one's own pocket, 60 million people are pushed to poverty every year because of illness and associated medical costs.

The silent epidemic is caused by four shared and modifiable risk factors — tobacco use, unhealthy diet, lack of physical activity, and harmful use of alcohol,which are fueled by forces such as globalisation, rapid urbanisation, ageing population, changing lifestyles and widening inequities in society.

Consumption of processed food rich in sugar, salt, and unhealthy fats instead of home-cooked food is resulting in rapid increase in the number of overweight people at risk of lifestyle diseases. On the other hand, nearly 80 per cent of the population does not eat enough fruits and vegetables and a quarter of the population does not have sufficient physical activity. Modernisation and industrialisation are leading to a sedentary life with limited physical activity at the workplace and at home.

Recognising the increasingly high burden of NCDs and its economic consequences, India joined 191 other countries in the UN General Assembly (UNGA) in 2011 in making a commitment to accelerate national and international response to these diseases. The World Health Assembly had in 2012 set a target of reducing NCD mortality rates by 25 per cent by 2025 (referred to as ‘25 by 25’ target) and the initiative is now part of the sustainable development goals (SDGs).

In India, the Ministry of Health and Family Welfare launched the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS) on January 4, 2008, on a pilot basis, which was expanded to 100 districts spread over 21 states; it was scaled up to the whole country in 2015. However, with only 3 per cent of the meagre health budget allocated for the prevention and control of these diseases, one is doubtful whether the targets included in the SDGs can be achieved by 2030.

Myths and facts

There are many myths that still persist, hindering the recognition of these diseases as a health and development issue and effective implementation of the national programme.

Myth #1: Lifestyle diseases or NCDs are diseases of the rich; the poor do not need to worry about them.

In reality, the poor are disproportionately affected by these diseases; they are not only at greater risk due to higher prevalence of risk factors but when sick are not able to access appropriate healthcare. The high out-of-pocket expenses drive many families to poverty from which they cannot escape. Furthermore, nearly 80 per cent of the deaths due to lifestyle diseases occur in low and middle-income countries.

Myth #2: These diseases mainly affect older people.

While lifestyle diseases are linked with ageing, more than 50 per cent of the burden falls on people younger than 70 years. Moreover, in many Asian countries, including India, the onset

of diabetes, heart disease and cancers occurs at a younger age — at least 10 years younger than in the Western countries. More and more children are now developing obesity-related diseases.

Myth #3: Lifestyle diseases are too difficult and expensive to tackle effectively.

Preventing lifestyle diseases means having to bring about lifestyle changes, which are both affordable and effective. These interventions include controlling the four major risk factors — tobacco use, consumption of alcohol, physical inactivity and unhealthy diet. Studies show that these strategies when applied at the community/population and individual levels even in developing countries can prevent 80 per cent of the heart disease and diabetes.

In addition, medications for high blood pressure are effective and do not cost much, although access to these medicines need to be enhanced. Liver and cervical cancer can be prevented by Hepatitis B and Human Papillomavirus vaccination, respectively, which are both part of the national immunisation programme.

Myth #4: Even if there are effective interventions, developing countries cannot afford them.

There are already many successful initiatives underway in developing countries which demonstrate that we can rapidly expand access to comprehensive services for lifestyle diseases. Most countries, including India, have formulated national plans and set up mechanisms for the implementation of these programmes. A set of indicators and targets have also been identified to monitor progress. Recently, a nation-wide survey has been carried out in India to measure the prevalance of risk factors and the health system capacity. Such data can help further refine national policies and strategies, and monitor progress over time.

Myth #5: As slow-progressing diseases, these do not represent a health crisis for the present generation and hence do not require urgency.

In fact, there is enormously compelling evidence that we are already in the midst of a chronic disease epidemic, and their mitigation is something we cannot afford to postpone. The action must be taken now and without further delay. If not, with business as usual, the World Economic Forum estimates their global cost will reach $30 trillion in the coming two decades.

Lifestyle diseases are preventable and manageable conditions, and even curable, if detected early. The strategies basically consist of: (1) disease prevention by modifying/changing risk behaviors, including through use of inter-personal communication approaches; (2) early detection through screening; and (3) clinical management of those already afflicted with the disease.

Three-pronged approach

1Disease prevention requires population-wide health promotion and creation of public awareness about the harmful effects of tobacco use and alcohol, and the importance of a healthy diet. Quitting the use of tobacco, both smoking and smokeless, can help prevent chronic diseases both among users of tobacco as well as those exposed to passive smoking. Engaging

in physical activity such as walking, cycling, sports and other recreational activities, for at least 30 minutes per day, significantly reduces the risk.

The healthy diet-related changes include switching over from the use of saturated fats to unsaturated fats and eliminating the intake of transfats; reducing intake of sugar and salt; and increasing consumption of fruits and vegetables. Food items such as jalebi and pakoras, fried in dalda or vanaspati, have high transfat content. Soft drinks and fruit juices have high sugar content, while processed food such as pickles and chips contain a lot of salt. These items should be avoided. A diet that moves away from white, refined wheat flour to the use of coarse grain and millets, and from polished rice grain to coarse grain, is considered healthy.

Besides mass awareness, a well thought-out communication strategy and action plan should stress on advocacy with policy-makers, sensitisation and skill development of health service providers, and education about lifestyle diseases in educational institutions such as schools and colleges, and at the workplace.

In addition to health promotion, legislation can play a vital role in primary prevention. This includes increasing tobacco and alcohol tax, health warnings on tobacco packs, restricting or banning smoking in public places, and a comprehensive ban on advertising, promotion and sponsorship of tobacco and alcohol. Discouraging marketing of foods high in salt, fat and sugar can be effective in reducing these diseases. But these laws must be enforced effectively.

2Diseases such as cancer or heart disease can be cured, provided they are detected early. The government has initiated a screening programme in the country for the early detection of heart disease and three common cancers — breast, cervix and mouth — as well as high blood pressure.

Promoting proactive early detection such as through annual health check-ups by those 40 years or above, and provision of low-cost diagnostic technologies and essential medicines at the primary healthcare level has the greatest potential for reversing the progression of disease, preventing complications, reducing hospitalisation, healthcare and out-of-pocket expenditure. Screening is important for early detection because 70-80 per cent of those with the disease are unaware of their condition and thereby remain undiagnosed.

3In spite of the prevention efforts, there are many people who already have or would develop chronic diseases over time. They need treatment and follow-up on an ongoing basis. While the disease may have to be diagnosed in an institution, the care has to be provided at the community and home levels, as a part of a continuum of care. This requires linking institutions with health centres and the community.

Besides medical care, social protection schemes can help ensure access to healthcare of some quality, without fear of a financial catastrophe. For this, the health system capacity such as financing, staffing and medical supplies must be strengthened, based on the principles of primary healthcare, equity and social justice. While 70 per cent of India’s population lives in rural areas, only about 40 per cent of health workers are working in rural areas. Moreover,

innovative methods, including the use of modern technology, can help in the effective delivery of health services closer to the patient's home and for ensuring treatment adherence.

Govt initiatives

Ayushman Bharat or Prime Minister's Jan Arogya Yojana (PM-JAY) scheme launched recently by the government is a game-changing initiative. Under the scheme, the poor families are entitled to an insurance cover of Rs 5 lakh per family per year for tertiary care. This enables the families to obtain health services without the fear of paying from the pocket. The second arm of the Ayushman Bharat scheme — converting sub-centres and primary health centres into health and wellness centres — if prioritised and funded adequately, has the potential to transform primary healthcare in the country. In other words, everyone, everywhere could have an opportunity to have equitable access to healthcare of good quality, without fear of financial hardship.

In the election season, it is hoped that the political leaders of all parties would consider prevention of lifestyle diseases a high priority and strive to creating public awareness about these diseases, their risk factors, and prevention. They should promise and make a commitment to pass legislations that promote the availability and intake of vegetables, fruits and whole grains, and discourage marketing/consumption of unhealthy food, beverages and behaviour such as smoking and harmful use of alcohol. And finally, ensure that counselling and health promotion services, testing facilities and essential medicines are available under Ayushman Bharat in each health and wellness centre for early diagnosis and treatment.

To fight lifestyle diseases, political will and leadership is required at all levels. Without a sustained political commitment by the government at the state, district and panchayat levels, and the wholehearted participation of other sectors, including the community, the disease prevention strategies can neither be implemented effectively nor the rising trend of chronic lifestyle diseases reversed.

The author is former Regional Adviser & Director, World Health Organisation

Risk factors

Reducing the major risk factors for non-communicable diseases (NCDs) — tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol — is the focus of WHO's work to prevent deaths from NCDs.

NCDs — primarily heart and lung diseases, cancers and diabetes — are the world's largest killers, with estimated 38 million deaths annually. Of these deaths, 16 million are premature (under 70 years of age). If we reduce the global impact of risk factors, we can go a long way in reducing the number of deaths worldwide.

The burden of NCDs falls mainly on developing countries, where 82% of premature deaths from these diseases occur. Tackling the risk factors will not only save lives, but will also provide a huge boost for the economic development of countries.

Tobacco menace

Implementing the key elements of the WHO Framework Convention on Tobacco Control have been found cost-effective. These include increasing taxes, comprehensive legislations creating smoke-free indoor workplaces and public places, health information and warnings about the effects of tobacco, and banon advertising, promotion and sponsorship.

Harmful alcohol use

Reduction in the harmful use of alcohol not only prevents cancers and cardiovascular diseases, but also prevents conditions like liver cirrhosis, depression and road traffic injuries. Enhanced taxation of alcohol beverages and comprehensive bans on their advertising/ marketing have proved to be beneficial.

Unhealthy diet

Excessive salt intake is related to raised blood pressure. Reducing salt content in food is an effective strategy. The use of added salt should be discouraged. In India, we need to address both homemade and processed food. Population-based approaches include reaching out through mass media campaigns. Use of polyunsaturated fats as cooking medium, along with avoiding transfats, is also recommended.

Physical inactivity

Physical activity promotes healthy lifestyle and lessens the risk of NCDs. It fosters physical and mental wellbeing.

Indoor air pollution

The dependence on solid fuels (coal, wood, animal dung, crop wastes) and traditional stoves for cooking and heating leads to high levels of indoor air pollution. This increases the risk of childhood pneumonia, chronic lung disease and lung cancers. In addition to tobacco control, reducing indoors air pollution is the most important strategy for preventing chronic lung disease, particularly in non-smokers.

Global Action Plan

To strengthen national efforts to address the burden of non-communicable diseases (NCDs), the 66th World Health Assembly endorsed the WHO Global Action Plan for the Prevention and Control of NCDs-2013-20. The global action plan offers a paradigm shift by providing a roadmap and a menu of policy options for Member States, WHO, other UN organisations and intergovernmental organisations, NGOs and the private sector which, when implemented

collectively between 2013 and 2020, will attain 9 voluntary global targets, including that of a 25% relative reduction in premature mortality from NCDs by 2025.

The WHO Global NCD Action Plan 2013-20 follows on from commitments made by governments in the United Nations Political Declaration on the Prevention and Control of NCDs, recognising the primary role and responsibility of governments in responding to challenge of NCDs and the important role of international cooperation to support national efforts.

Mysterious Infection

A Mysterious Infection, Spanning the Globe in a Climate of Secrecy (The Indian Express: 20190408)

The rise of Candida auris embodies a serious and growing public health threat: drug-resistant germs.

Bacteria are rebelling. They're turning the tide against antibiotics by outsmarting our wonder drugs. This video explores the surprising reasons.CreditCreditMelissa Golden for The New York Times

Last May, an elderly man was admitted to the Brooklyn branch of Mount Sinai Hospital for abdominal surgery. A blood test revealed that he was infected with a newly discovered germ as deadly as it was mysterious. Doctors swiftly isolated him in the intensive care unit.

The germ, a fungus called Candida auris, preys on people with weakened immune systems, and it is quietly spreading across the globe. Over the last five years, it has hit a neonatal unit in Venezuela, swept through a hospital in Spain, forced a prestigious British medical center to shut down its intensive care unit, and taken root in India, Pakistan and South Africa.

Recently C. auris reached New York, New Jersey and Illinois, leading the federal Centers for Disease Control and Prevention to add it to a list of germs deemed "urgent threats."

The man at Mount Sinai died after 90 days in the hospital, but C. auris did not. Tests showed it was everywhere in his room, so invasive that the hospital needed special cleaning equipment and had to rip out some of the ceiling and floor tiles to eradicate it.

"Everything was positive — the walls, the bed, the doors, the curtains, the phones, the sink, the whiteboard, the poles, the pump," said Dr. Scott Lorin, the hospital's president. "The mattress, the bed rails, the canister holes, the window shades, the ceiling, everything in the room was positive."

C. auris is so tenacious, in part, because it is impervious to major antifungal medications, making it a new example of one of the world's most intractable health threats: the rise of drug-resistant infections.

Dr. Shawn Lockhart, a fungal disease expert at the Centers for Disease Control and Prevention, holding a microscope slide with inactive Candida auris collected from an American patient.

Dr. Shawn Lockhart, a fungal disease expert at the Centers for Disease Control and Prevention, holding a microscope slide with inactive Candida auris collected from an American patient.CreditMelissa Golden for The New York Times

For decades, public health experts have warned that the overuse of antibiotics was reducing the effectiveness of drugs that have lengthened life spans by curing bacterial infections once commonly fatal. But lately, there has been an explosion of resistant fungi as well, adding a new and frightening dimension to a phenomenon that is undermining a pillar of modern medicine.

"It's an enormous problem," said Matthew Fisher, a professor of fungal epidemiology at Imperial College London, who was a co-author of a recent scientific review on the rise of resistant fungi. "We depend on being able to treat those patients with antifungals."

Simply put, fungi, just like bacteria, are evolving defenses to survive modern medicines.

Yet even as world health leaders have pleaded for more restraint in prescribing antimicrobial drugs to combat bacteria and fungi — convening the United Nations General Assembly in 2016 to manage an emerging crisis — gluttonous overuse of them in hospitals, clinics and farming has continued.

In a Poor Kenyan Community, Cheap Antibiotics Fuel Deadly Drug-Resistant InfectionsApril 7, 2019

Resistant germs are often called "superbugs," but this is simplistic because they don't typically kill everyone. Instead, they are most lethal to people with immature or compromised immune systems, including newborns and the elderly, smokers, diabetics and people with autoimmune disorders who take steroids that suppress the body's defenses.

Scientists say that unless more effective new medicines are developed and unnecessary use of antimicrobial drugs is sharply curbed, risk will spread to healthier populations. A study the British government funded projects that if policies are not put in place to slow the rise of drug resistance, 10 million people could die worldwide of all such infections in 2050, eclipsing the eight million expected to die that year from cancer.

Dr. Johanna Rhodes, an infectious disease expert at Imperial College London. "We are driving this with the use of antifungicides on crops," she said of drug-resistant germs.

In the United States, two million people contract resistant infections annually, and 23,000 die from them, according to the official C.D.C. estimate. That number was based on 2010 figures;

more recent estimates from researchers at Washington University School of Medicine put the death toll at 162,000. Worldwide fatalities from resistant infections are estimated at 700,000.

Antibiotics and antifungals are both essential to combat infections in people, but antibiotics are also used widely to prevent disease in farm animals, and antifungals are also applied to prevent agricultural plants from rotting. Some scientists cite evidence that rampant use of fungicides on crops is contributing to the surge in drug-resistant fungi infecting humans.

What You Need to Know About Candida Auris

C. auris is a mysterious and dangerous fungal infection that is among a growing number of germs that have evolved defenses against common medicines. Here are some basic facts about it.

Yet as the problem grows, it is little understood by the public — in part because the very existence of resistant infections is often cloaked in secrecy.

With bacteria and fungi alike, hospitals and local governments are reluctant to disclose outbreaks for fear of being seen as infection hubs. Even the C.D.C., under its agreement with states, is not allowed to make public the location or name of hospitals involved in outbreaks. State governments have in many cases declined to publicly share information beyond acknowledging that they have had cases.

All the while, the germs are easily spread — carried on hands and equipment inside hospitals; ferried on meat and manure-fertilized vegetables from farms; transported across borders by travelers and on exports and imports; and transferred by patients from nursing home to hospital and back.

C. auris, which infected the man at Mount Sinai, is one of dozens of dangerous bacteria and fungi that have developed resistance.

A projection of the C. auris fungus on a microscope slide.CreditMelissa Golden for The New York Times

Other prominent strains of the fungus Candida — one of the most common causes of bloodstream infections in hospitals — have not developed significant resistance to drugs, but more than 90 percent of C. auris infections are resistant to at least one drug, and 30 percent are resistant to two or more drugs, the C.D.C. said.

Dr. Lynn Sosa, Connecticut's deputy state epidemiologist, said she now saw C. auris as "the top" threat among resistant infections. "It's pretty much unbeatable and difficult to identify," she said.

Nearly half of patients who contract C. auris die within 90 days, according to the C.D.C. Yet the world's experts have not nailed down where it came from in the first place.

“It is a creature from the black lagoon,” said Dr. Tom Chiller, who heads the fungal branch at the C.D.C., which is spearheading a global detective effort to find treatments and stop the spread. “It bubbled up and now it is everywhere.”

Candida Auris

A deadly, drug-resistant fungus is infecting patients in hospitals and nursing homes around the world. The fungus seems to have emerged in several locations at once, not from a single source.

The first large outbreak in Europe involved 72 cases in a London hospital in 2015–16.

The country has had at least 587 Candida auris infections since 2013.

The two countries have some of the highest case counts in the world. A distinct strain appeared in Pakistan as early as 2008 and in Delhi by 2009.

The first documented outbreak in the Americas was from 2012–13 at a medical center in Venezuela. Five of 18 infected patients died.

A genetically distinct strain of Candida auris in South Africa infected at least 451 patients from 2012–16.

Candida auris (left) was discovered in 2009 in the infected ear of a 70-year-old Japanese woman.

By The New York Times | Sources: Centers for Disease Control and Prevention; Emerging Infectious Diseases; Emerging Microbes & Infections; Clinical Infectious Diseases; Journal of Infection; Mycoses; Doherty Institute. Image from Kazuo Satoh et al., Microbiology and Immunology

‘No need’ to tell the public

In late 2015, Dr. Johanna Rhodes, an infectious disease expert at Imperial College London, got a panicked call from the Royal Brompton Hospital, a British medical center in London. C. auris had taken root there months earlier, and the hospital couldn’t clear it.

“‘We have no idea where it’s coming from. We’ve never heard of it. It’s just spread like wildfire,’” Dr. Rhodes said she was told. She agreed to help the hospital identify the fungus’s genetic profile and clean it from rooms.

Under her direction, hospital workers used a special device to spray aerosolized hydrogen peroxide around a room used for a patient with C. auris, the theory being that the vapor would scour each nook and cranny. They left the device going for a week. Then they put a “settle plate” in the middle of the room with a gel at the bottom that would serve as a place for any surviving microbes to grow, Dr. Rhodes said.

Only one organism grew back. C. auris.

It was spreading, but word of it was not. The hospital, a specialty lung and heart center that draws wealthy patients from the Middle East and around Europe, alerted the British government and told infected patients, but made no public announcement.

“There was no need to put out a news release during the outbreak,” said Oliver Wilkinson, a spokesman for the hospital.

This hushed panic is playing out in hospitals around the world. Individual institutions and national, state and local governments have been reluctant to publicize outbreaks of resistant infections, arguing there is no point in scaring patients — or prospective ones.

"Somehow, it made a jump almost seemingly simultaneously, and seemed to spread and it is drug resistant, which is really mind-boggling," said Dr. Snigdha Vallabhaneni, a fungal expert and epidemiologist at the C.D.C.

Melissa Golden for The New York Times

"Somehow, it made a jump almost seemingly simultaneously, and seemed to spread and it is drug resistant, which is really mind-boggling," said Dr. Snigdha Vallabhaneni, a fungal expert and epidemiologist at the C.D.C.CreditMelissa Golden for The New York Times

Dr. Silke Schelenz, Royal Brompton’s infectious disease specialist, found the lack of urgency from the government and hospital in the early stages of the outbreak “very, very frustrating.”

“They obviously didn’t want to lose reputation,” Dr. Schelenz said. “It hadn’t impacted our surgical outcomes.”

By the end of June 2016, a scientific paper reported “an ongoing outbreak of 50 C. auris cases” at Royal Brompton, and the hospital took an extraordinary step: It shut down its I.C.U. for 11 days, moving intensive care patients to another floor, again with no announcement.

Days later the hospital finally acknowledged to a newspaper that it had a problem. A headline in The Daily Telegraph warned, “Intensive Care Unit Closed After Deadly New Superbug Emerges in the U.K.” (Later research said there were eventually 72 total cases, though some patients were only carriers and were not infected by the fungus.)

Yet the issue remained little known internationally, while an even bigger outbreak had begun in Valencia, Spain, at the 992-bed Hospital Universitari i Politècnic La Fe. There, unbeknown to the public or unaffected patients, 372 people were colonized — meaning they had the germ on their body but were not sick with it — and 85 developed bloodstream infections. A paper in the journal Mycoses reported that 41 percent of the infected patients died within 30 days.

A statement from the hospital said it was not necessarily C. auris that killed them. “It is very difficult to discern whether patients die from the pathogen or with it, since they are patients with many underlying diseases and in very serious general condition,” the statement said.

As with Royal Brompton, the hospital in Spain did not make any public announcement. It still has not.

One author of the article in Mycoses, a doctor at the hospital, said in an email that the hospital did not want him to speak to journalists because it "is concerned about the public image of the hospital."

The secrecy infuriates patient advocates, who say people have a right to know if there is an outbreak so they can decide whether to go to a hospital, particularly when dealing with a nonurgent matter, like elective surgery.

Outside the Royal Brompton Hospital near London. By June 2016, the hospital had seen at least 50 "proven or possible" cases of C. auris, and decided to shut down its intensive care unit for 11 days to address the contamination.

Outside the Royal Brompton Hospital near London. By June 2016, the hospital had seen at least 50 "proven or possible" cases of C. auris, and decided to shut down its intensive care unit for 11 days to address the contamination.CreditTom Jamieson for The New York Times

"Why the heck are we reading about an outbreak almost a year and a half later — and not have it front-page news the day after it happens?" said Dr. Kevin Kavanagh, a physician in Kentucky and board chairman of Health Watch USA, a nonprofit patient advocacy group. "You wouldn't tolerate this at a restaurant with a food poisoning outbreak."

Health officials say that disclosing outbreaks frightens patients about a situation they can do nothing about, particularly when the risks are unclear.

"It's hard enough with these organisms for health care providers to wrap their heads around it," said Dr. Anna Yaffee, a former C.D.C. outbreak investigator who dealt with resistant infection outbreaks in Kentucky in which the hospitals were not publicly disclosed. "It's really impossible to message to the public."

Officials in London did alert the C.D.C. to the Royal Brompton outbreak while it was occurring. And the C.D.C. realized it needed to get the word to American hospitals. On June 24, 2016, the C.D.C. blasted a nationwide warning to hospitals and medical groups and set up an email address, candidaauris@cdc.gov, to field queries. Dr. Snigdha Vallabhaneni, a key member of the fungal team, expected to get a trickle — "maybe a message every month."

Instead, within weeks, her inbox exploded.

Coming to America

In the United States, 587 cases of people having contracted C. auris have been reported, concentrated with 309 in New York, 104 in New Jersey and 144 in Illinois, according to the C.D.C.

The symptoms — fever, aches and fatigue — are seemingly ordinary, but when a person gets infected, particularly someone already unhealthy, such commonplace symptoms can be fatal.

The earliest known case in the United States involved a woman who arrived at a New York hospital on May 6, 2013, seeking care for respiratory failure. She was 61 and from the United Arab Emirates, and she died a week later, after testing positive for the fungus. At the time, the hospital hadn't thought much of it, but three years later, it sent the case to the C.D.C. after reading the agency's June 2016 advisory.

Candida Auris by State

Most cases in the United States have been in nursing homes in New York City, Chicago and New Jersey.

Source: Centers for Disease Control and Prevention

This woman probably was not America's first C. auris patient. She carried a strain different from the South Asian one most common here. It killed a 56-year-old American woman who had traveled to India in March 2017 for elective abdominal surgery, contracted C. auris and was airlifted back to a hospital in Connecticut that officials will not identify. She was later transferred to a Texas hospital, where she died.

The germ has spread into long-term care facilities. In Chicago, 50 percent of the residents at some nursing homes have tested positive for it, the C.D.C. has reported. The fungus can grow on intravenous lines and ventilators.

Workers who care for patients infected with C. auris worry for their own safety. Dr. Matthew McCarthy, who has treated several C. auris patients at Weill Cornell Medical Center in New York, described experiencing an unusual fear when treating a 30-year-old man.

"I found myself not wanting to touch the guy," he said. "I didn't want to take it from the guy and bring it to someone else." He did his job and thoroughly examined the patient, but said, "There was an overwhelming feeling of being terrified of accidentally picking it up on a sock or tie or gown."

Dr. Tom Chiller, head of the fungal branch at the C.D.C. "It is a creature from the black lagoon," he said of C. auris.

The role of pesticides?

As the C.D.C. works to limit the spread of drug-resistant C. auris, its investigators have been trying to answer the vexing question: Where in the world did it come from?

The first time doctors encountered C. auris was in the ear of a woman in Japan in 2009 (auris is Latin for ear). It seemed innocuous at the time, a cousin of common, easily treated fungal infections.

Three years later, it appeared in an unusual test result in the lab of Dr. Jacques Meis, a microbiologist in Nijmegen, the Netherlands, who was analyzing a bloodstream infection in 18 patients from four hospitals in India. Soon, new clusters of C. auris seemed to emerge with each passing month in different parts of the world.

The C.D.C. investigators theorized that C. auris started in Asia and spread across the globe. But when the agency compared the entire genome of auris samples from India and Pakistan, Venezuela, South Africa and Japan, it found that its origin was not a single place, and there was not a single auris strain.

The C.D.C. in miniature. In the United States, two million people contract resistant infections each year, and 23,000 die from them, according to the official C.D.C. estimate.

The C.D.C. in miniature. In the United States, two million people contract resistant infections each year, and 23,000 die from them, according to the official C.D.C. estimate.CreditMelissa Golden for The New York Times

The genome sequencing showed that there were four distinctive versions of the fungus, with differences so profound that they suggested that these strains had diverged thousands of years ago and emerged as resistant pathogens from harmless environmental strains in four different places at the same time.

“Somehow, it made a jump almost seemingly simultaneously, and seemed to spread and it is drug resistant, which is really mind-boggling,” Dr. Vallabhaneni said.

There are different theories as to what happened with C. auris. Dr. Meis, the Dutch researcher, said he believed that drug-resistant fungi were developing thanks to heavy use of fungicides on crops.

Dr. Meis became intrigued by resistant fungi when he heard about the case of a 63-year-old patient in the Netherlands who died in 2005 from a fungus called Aspergillus. It proved resistant to a front-line antifungal treatment called itraconazole. That drug is a virtual copy of the azole pesticides that are used to dust crops the world over and account for more than one-third of all fungicide sales.

A 2013 paper in Plos Pathogens said that it appeared to be no coincidence that drug-resistant Aspergillus was showing up in the environment where the azole fungicides were used. The fungus appeared in 12 percent of Dutch soil samples, for example, but also in “flower beds, compost, leaves, plant seeds, soil samples of tea gardens, paddy fields, hospital surroundings, and aerial samples of hospitals.”

Dr. Meis visited the C.D.C. last summer to share research and theorize that the same thing is happening with C. auris, which is also found in the soil: Azoles have created an environment so hostile that the fungi are evolving, with resistant strains surviving.

This is similar to concerns that resistant bacteria are growing because of excessive use of antibiotics in livestock for health and growth promotion. As with antibiotics in farm animals, azoles are used widely on crops.

“On everything — potatoes, beans, wheat, anything you can think of, tomatoes, onions,” said Dr. Rhodes, the infectious disease specialist who worked on the London outbreak. “We are driving this with the use of antifungicides on crops.”

Dr. Chiller theorizes that C. auris may have benefited from the heavy use of fungicides. His idea is that C. auris actually has existed for thousands of years, hidden in the world’s crevices, a not particularly aggressive bug. But as azoles began destroying more prevalent fungi, an opportunity arrived for C. auris to enter the breach, a germ that had the ability to readily resist fungicides now suitable for a world in which fungi less able to resist are under attack.

The mystery of C. auris’s emergence remains unsolved, and its origin seems, for the moment, to be less important than stopping its spread.

Resistance and denial

For now, the uncertainty around C. auris has led to a climate of fear, and sometimes denial.

Last spring, Jasmine Cutler, 29, went to visit her 72-year-old father at a hospital in New York City, where he had been admitted because of complications from a surgery the previous month.

When she arrived at his room, she discovered that he had been sitting for at least an hour in a recliner, in his own feces, because no one had come when he had called for help to use the bathroom. Ms. Cutler said it became clear to her that the staff was afraid to touch him because a test had shown that he was carrying C. auris.

“I saw doctors and nurses looking in the window of his room,” she said. “My father’s not a guinea pig. You’re not going to treat him like a freak at a show.”

He was eventually discharged and told he no longer carried the fungus. But he declined to be named, saying he feared being associated with the frightening infection.

Sustainable food systems

The world must develop sustainable food systems (Hindustan Times: 20190408)

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

The EAT-Lancet commission's diet plan will help reduce both hunger and obesity

The world's menu needs a drastic overhaul. At least 820 million people going hungry worldwide and close to two billion eating too much of the wrong food have made unhealthy diets a bigger cause of death and disease than unsafe sex, drugs, alcohol and tobacco use combined. As human diets are inextricably linked to health and environmental sustainability, the EAT-Lancet Commission has put together the first scientific evidence on a diet plan that meets the nutritional requirements of a 10 billion and growing population by 2050 while staying within a sustainable food production system that does not harm the planet.

Compared with currently popular diets, the global adoption of the new recommendations requires the world to halve its consumption of red meat and sugar and increase nuts, fruits, vegetables, and legumes intake at least two-fold. As countries in North America eat almost 6.5 times the recommended amount of red meat, and countries in South Asia, including India, eat less than half the amount, these food targets will need to be applied locally.

The immediate challenge is to develop sustainable food systems by improving food production and reducing food waste. India is the second-largest grower of fruits and vegetables globally. It produces 97 million metric tonnes of fruits and 179.69 metric tonnes of vegetables, but around 40% of vegetables produced are wasted. Reviving traditional diets and promoting local produce and improving the cold chain, including storage, transport and processing are essential for the optimal use of produce. Introducing policies to encourage people to choose healthy food, including improving logistics and storage, moving from high volumes of crops to producing varied nutrient-rich crops and halving food waste are issues that need to be addressed to make nutrition sustainable and reduce hunger and obesity.

Stress

इन उपायों से दूर कर सकते हैं तनाव (Hindustan: 20190408)

http://epaper.livehindustan.com/textview_27538_97044310_4_1_18_08-04-2019_1_1.html

हर ऑफिस में एक्टिविटी कार्नर होता है जहां लोग थोड़ा रिलैक्स कर सकें। यहां जाकर 10 मिनट मेडिटेशन करें। धयान की मुद्रा *में बैठें और आंखें बंद करके मेडिटेशन करें।.

स्वास्थ्य

जब काम के दौरान तनाव हो तो अपनी सीट पर बैठकर आंखें बंदकर गहरी सांसें लें। यह एक ऐसा व्यायाम है जो अंदर शांति लाता है और तनाव व डर को दूर करता है। विशेषज्ञों के अनुसार डीप ब्रीथिंग करने से मन को सुकून मिलता है।.

विशेषज्ञों के अनुसार रोज एक डायरी में 10 ऐसी चीजों के बारे में लिखें जो आपको खुशी देती हो। कुछ ऐसी बातों के बारे में लिखें जिनके लिए आप भगवान के शुक्रगुजार हों। इससे आप जीवन की अच्छी बातों पर फोकस कर पाएंगे और आपका तनाव कम होगा। .

आखिरी बार आपने अपने डेस्क से बाहर जाकर कब लंच किया था। डेस्क से उठें और कैंटीन या कैफेटेरिया में जाकर सबके साथ लंच करें। इससे आपको काम से आराम भी मिल जाएगा और लोगों के साथ हंसी मजाक कर मन भी प्रसन्न भी हो जाएगा।.

जब काम के दौरान ज्यादा तनाव हो तो टी ब्रेक लें और चाय पीते हुए अपने पसंदीदा गाने सुनें। कुछ देर के लिए अपने कंप्यूटर की स्क्रीन से दूर रहें। इससे आप कुछ देर बाद तरोताज़ा महसूस करेंगे और काम करने के लिए फिर तैयार हो जाएंगे।.

60 फीसदी कर्मचारियों का कहना है कि वह औसतन पूरे हफ्ते में 3 या उससे ज्यादा दिन तनावग्रस्त महसूस करते हैं। पेरोल कंपनी पैचेक्स द्वारा कराये गए एक सर्वे के अनुसार 70 फीसदी कर्मचारीअपने तनाव के स्तर को 5 में से 3 अंक देते हैं। सर्वे के अनुसार 80 फीसदी लोग ऑफिस में इसलिए तनाव महसूस करते हैं क्योंकि वह अपने परिवार को ठीक से समय नही दे पाते। ज्यादातर कर्मचारियों ने यह भी कहा कि काम करने के लंबे घंटों के वजह से उन्हें तनाव होता है।.

दुनिया भर में तनाव एक विकराल रूप लेता जा रहा है। इसके चलते लोग मानसिक रोगों का शिकार भी बन रहे हैं। हालांकि इससे निपटने के लिए कई तरीके भी आजमाए जा रहे हैं। विशेष रूप से ऑफिस कर्मचारियों के लिए यह उपाय बहुत कारगर साबित हो सकते हैं।.