



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Monday 20190128

Leprosy

Timely treatment can cure leprosy, claim experts (The Tribune: 20190128)

<https://www.tribuneindia.com/news/punjab/timely-treatment-can-cure-leprosy-claim-experts/719732.html>

Early detection of leprosy is the key to its elimination. According to experts, early consultation and timely treatment can cure leprosy, a communicable disease caused by bacteria that affect the skin and nerves. Timely intervention prevents disability.

In Punjab, as on March 2018, there were total 497 leprosy cases, with prevalence rate (PR) of 0.16 per 10,000 population and Annual New Case Detection Rate (ANCDR) of 1.69 per million population. The disease is well within the range of elimination in the state. According to the World Health Organisation (WHO), elimination means bringing the disease burden to a low level. The WHO has defined “elimination” in case of leprosy as a prevalence rate of less than one case per 10,000 inhabitants. In some states, the prevalence rate is above one per 10,000. In Bihar the PR is 1.18. In Chhattisgarh it is 2.25, while in Odisha it is 1.38.

According to the National Leprosy Eradication Programme (NLEP) data, a total of 626 new cases were detected in Punjab in 2016-17. In industrial hub Ludhiana, 136 new cases were detected. In Jalandhar 81, Amritsar 62, Mohali 44 and Kapurthala 38 new cases were detected. The PR per 10,000 population was 0.27 in Ludhiana, 0.29 in Jalandhar, 0.23 in Amritsar, 0.37 in Mohali, 0.44 in Kapurthala. In all the districts of the state for which the data was tabulated, the prevalence rate was less than one case per 10,000 inhabitants.

The NLEP, a Centrally-sponsored Health Scheme of the Ministry of Health and Family Welfare, aims at early detection and treatment of new cases of leprosy. While the NLEP strategies and plans are formulated at the Centre, the programme is implemented by the states and union territories. Last October, the Ministry of Health and Family Welfare started a year-long campaign called Sparsh Leprosy Elimination Campaign (SLEC) that would culminate in October 2019 when the nation celebrates the 150th birth anniversary of Mahatma Gandhi. Major components of the campaign include leprosy case detection campaign in districts with high incidence of grade 2 disabilities due to leprosy and Sparsh Leprosy Awareness Campaign (SLAC) where gram sabhas are organised to spread awareness regarding leprosy signs, symptoms and treatment.

Leprosy infections

Eradication distant goal as new leprosy infections loom (The Tribune: 20190128)

<https://www.tribuneindia.com/news/nation/eradication-a-distant-goal-as-new-leprosy-infections-loom/719761.html>

New infections continue to loom in India making leprosy eradication a distant goal.

In 2017, the national leprosy programme detected more than the average annual number of new cases, mainly on account of active house-to-house detection involving physical examination of people in 173 districts of 20 states.

On an average, India has been reporting more than one lakh new leprosy cases annually since 2005.

While World Leprosy Day was observed today, the Ministry of Health attributed the spurt in new cases (1,35,000 in 2016-2017) to a mass leprosy surveillance campaign undertaken in 2016-2017 after evidence of rising disability due to the disease.

The government data showed that disability rate due to leprosy doubled between 2005 and 2015, indicating a huge hidden burden of the disease which the government is now tracking in mission mode.

Dr Anil Kumar, Deputy Director General, Leprosy, Government of India, said the high case detection should not cause panic and low case detection should not be seen as a cause of relief.

“It’s a complicated sector. India declared national-level leprosy elimination in 2005. But strangely, between 2005 and 2015 the average annual number of new case detections remained static at a little over one lakh whereas ideally this number should have decreased. On investigation, we found that disability due to the disease had risen two-fold in the decade ending 2015. At the end of 2014-2015, the disability rate due to leprosy was 4.6 persons per 10,000 persons. This indicated a massive hidden burden of the disease. The ministry then started detecting leprosy in mission mode starting 2016-2017, besides expanding treatment networks. The result was — disability rate from leprosy came down to 2.8 per 10,000 persons ending 2017,” added Dr Kumar.

The WHO defines leprosy elimination as the presence of less than one leprosy case per 10,000 persons. Although India had declared national-level elimination of the disease in 2005 and state-level elimination (barring Chhattisgarh and Dadra and Nagar Haveli) in 2012, district-level elimination has not been achieved. The government had committed year 2018 as the deadline for elimination. Eradication, defined as zero case in the community, is even more challenging.

As of now, there are over 110 leprosy endemic districts in India with the prevalence being more than one case per 10,000 persons. The principally affected states are Chhattisgarh, Gujarat, Maharashtra, Bihar, Odisha, Jharkhand and UP. This year the government will consider expanding the indigenous anti-leprosy vaccine to all affected people in endemic districts.

The vaccine has been piloted in Gujarat by the Indian Council of Medical Research and will now be introduced in Chhattisgarh. The ICMR has asked the ministry for a national rollout with India still contributing the most to the global leprosy burden.

Leprosy is caused by the slow multiplying bacillus *Mycobacterium leprae* and mainly affects the skin, peripheral nerves, mucosa of the upper respiratory tract and eyes. The challenge with leprosy management is its five-year incubation period and the fact that symptoms can take 20 years to appear.

In the interval, unaware carriers can transmit the disease to others adding to the burden. “This makes case detection the key. Earlier the detection, faster the treatment,” says Dr Sripad Patil, Director, ICMR’s Jalma Institute for Leprosy and Other Mycobacterial Diseases.

‘Shocking’ new finding

The Jalma Institute for Leprosy and Other Mycobacterial Diseases recently found ‘live’ leprosy bacteria in muddy water samples from Ghatanpur, Kanpur, the first discovery of ‘live and viable *Mycobacterium leprae* in the atmosphere’.

Focus on early detection

India declared national-level leprosy elimination in 2005. But average annual number of new case detections remained static at over one lakh between 2005 and 2015

Disability rate due to leprosy doubled between 2005 and 2015. But disability rate of 4.6 persons per 10,000 persons in 2015 came down to 2.8 per 10,000 persons in 2017 due to detection of disease in mission mode

The principally affected states are Chhattisgarh, Gujarat, Maharashtra, Bihar, Odisha, Jharkhand and UP

Fitness

Road to fitness (The Tribune: 20190128)

<https://www.tribuneindia.com/news/health/road-to-fitness/719107.html>

Building strength: Both men and women in their twenties should focus on improving muscle and bone health. Resistance training can help in achieving that

Dr Ramananda Srikantiah Nadig

Staying healthy and energetic throughout life is the one desire most people would have but the lack of awareness about how and what to do may not let this dream turn into reality. It is a proven fact that the more physically active you are, the slower will be the ageing process. That you will also be thwarting several age-related ailments is a bonus.

A healthy and balanced diet must be supplemented by regular physical activity across all age groups. Given that every person’s body has different limitations and capacities that continually change with age, the fitness regimen must also be age-specific for it to work.

Trim in the twenties

The twenties are all about figuring out the exercise or sport that suits you best. Apart from the fact that you are in the best phase physically, all your vital parameters such as muscle mass, bone density and aerobic health will aid in the fitness effort. This is, therefore, also the best time to try out new regimes.

Both men and women should focus on improving their muscle and bone health — resistance training can help in achieving strength. This should be undertaken thrice a week with exercises that allow the joints to achieve their full range of motion. Women can opt for aerobic training and high-intensity interval training (HIIT) about thrice a week. Focus on preventing injuries with stability exercises such as yoga, which are also a great way to warm-up or cool-down before the main session.

While you are at your youthful best, it is imperative to try and get the best out of the physical training undertaken. Ensure that you do not go overboard — this is particularly true for men and women who have started a new sport.

Thin in the thirties

Life in the thirties is more about increased responsibilities, work-life balance, and finding time for yourself. Both men and women gain body fat and weight as their metabolism is slower. All of this can become demotivating both physically and mentally. However, the key is to not slow down but plan an efficient fitness regime. This is particularly true for stay-at-home women and those who are not working.

Shorter sessions are a good idea as these will reap benefits and give you enough rest time in between. It is better to undertake a combination of strength and endurance training exercises that work out your entire body. You can also take up activities such as running, jogging and swimming which will gel easily into a busy schedule. Given that this phase of life also brings with it some amount of stress, it is advisable to do yoga or meditation to bring in some balance.

Fit in forties

The forties increase your chances of acquiring lifestyle-related problems and other ailments such as diabetes and high blood pressure. Thus, along with a healthy eating pattern, exercise serves as a preventive measure to keep these diseases at bay. Many people experience a decline in muscle mass and bone-mineral density. For those in a desk job, lack of exercise can mean lower back pain and restricted movement. It is, therefore, imperative that men and women in this age group undertake resistance training and activities such as running and brisk walking. The focus should be on improving and maintaining mobility. Apart from this, some cardiovascular training should also be incorporated at least thrice in a week. Make sure to do adequate warm-up exercises before you begin any training.

In conclusion

When it comes to remaining fit, age can just be a number, provided you start the appropriate time. A fit body will not only ward off potential diseases but also improve the quality of your life. The time to begin is now.

— The writer is head of the clinical advisory board, healthi

DNA

Night shifts may cause DNA damage (The Tribune: 20190128)

<https://www.tribuneindia.com/news/health/night-shifts-may-cause-dna-damage/719683.ht>

Working night shifts can damage a person's DNA, increasing the risk of cancer as well as cardiovascular, metabolic, and neurodegenerative diseases, a study has found.

For the study published in the journal *Anaesthesia*, researchers analysed blood samples of 49 healthy full-time doctors taken at different times.

"Although this work is very preliminary, it is clear from the results that even a single night of sleep deprivation can trigger events that may contribute to the development of chronic disease," said Siu-Wai Choi, of the University of Hong Kong.

Researchers found that on-call doctors who were required to work overnight on-site had lower DNA repair gene expression and more DNA breaks than those who did not work overnight.

In these overnight on-site call doctors, DNA repair gene expression decreased and DNA breaks increased after sleep deprivation. Damaged DNA increased after only one night of sleep deprivation.

This DNA damage may help explain the increased risk for cancer and cardiovascular, metabolic, and neurodegenerative diseases associated with sleep deprivation, researchers said. PTI

Healthcare

Tech track to health (The Tribune: 20190128)

<https://www.tribuneindia.com/news/health/tech-track-to-health/719108.html>

Given the vast population numbers, innovation and technology adaption are the need of the hour in the Indian healthcare scenario. A narrative of positive change that is emerging in this sector is the increasing attention on patient-centeredness. In fact, the transition in the healthcare industry from being caregiver-focused to the point of putting the patients' needs first, is being driven by technology.

Here are some ways how technology is making healthcare in India more patient-centric:

Increasing efficiency and involvement: Technology-driven healthcare models hold promise in terms of improving difficult aspects such as information redundancy for healthcare stakeholders. By automating complex, manual systems like health-record filing, status inquiries, referrals, etc., life can be made easy for patients in an integrated manner. Also, by introducing electronic database of lab test results, medicine orders, prescriptions, etc. and

making multiple doctor reviews available on smartphones (through a mobile app), technology is empowering the patient or end-user, whilst also ensuring his/her active and continuous engagement in the process of healthcare delivery.

Improving access to care: In India, where the urban-rural divide in healthcare is massive, embracing the concept of tele-consultations can drastically improve the scenario for patients with limited mobility and transportation options. Consultations via video conferencing, Skype or tele-health apps have opened up possibilities for medical experts to reach patients effectively anywhere and at all times, irrespective of the distance. It is now possible to obtain guidance, education and specialised feedback on several acute and chronic disorders via e-consultations. Other health-tech solutions like patient-clinician messaging and virtual appointments have also helped in improving accessibility of health services in recent times.

Time saving for everyone: Technology also facilitates time saving not only for doctors, but patients as well. While a one-on-one consultation with a specialist may be tiresome and travelling back and forth from the clinic may be time-taking for patients, even for experts pre-fixed tele consultations usually do not take more than 10-15 minutes, given there are no interruptions. Another issue that patients face in the conventional settings is the long waiting period to get appointments. The solution to this lies in introducing e-referrals in healthcare settings, which refers to an electronic process that enables seamless transfer of patient records from a primary care doctor to a secondary/specialist practitioner. Through this arrangement, not only can patients save a lot of waiting time but can also be assured of a hassle-free experience in receiving the care.

Reducing the cost burden: India has one of the highest out-of-pocket expenditures for health, globally. To reduce the cost burden incurred for health by patients, making technology work is an ideal solution. By adhering to home-based monitoring systems for certain conditions, patients can avoid recurring visits to the doctor in-person. In the near future, less expensive yet more successful treatments and lifestyle management can be made a reality with the best use of a combination of digital tools, data, and information technology.

Monitoring your well-being

With a vast variety of mobile apps and wearable and other tele health devices, self-monitoring of physical as well as mental and emotional status changes for an individual in real time has become easier. Technology even allows a patient's health monitoring without the need for a person to have to visit a medical facility. For instance, devices that obtain body vitals like a non-invasive blood pressure monitor or a sensor patch to measure blood sugar are usually easy-to-use and patients themselves can keep a track of their lifestyle changes and transfer their e-health records to the doctor via app or mail. For medication adherence and personalised health coaching too, apps are now coming to the rescue.

Aspirin

Ibuprofen, aspirin may boost cancer survival (The Tribune: 20190128)

<https://www.tribuneindia.com/news/health/ibuprofen-aspirin-may-boost-cancer-survival/719653.html>

The survival for patients whose gene was not altered in their tumour, was unaffected by NSAID use.

LOS ANGELES: Regular use of common type of medications, such as aspirin and ibuprofen, may significantly improve survival for patients with head and neck cancer, a study has found.

Non-steroidal anti-inflammatory drugs (NSAIDs) improved the overall five-year survival rate from 25 per cent to 78 per cent for patients whose cancer contained a specific altered gene, known as PIK3CA, according to researchers from University of California, San Francisco (UCSF) in the US.

The survival for patients whose gene was not altered in their tumour, was unaffected by NSAID use.

This is the first study to show a strong clinical advantage of regular NSAID use for head and neck cancer patients with mutations in the PIK3CA gene and may indicate a clear, biological reason to implement NSAID therapy in certain cases of the disease, researchers said.

"Our results suggest that the use of NSAIDs could significantly improve outcomes for not only head and neck cancer patients, but also patients with other cancers that contained the PIK3CA mutation," said Jennifer R Grandis, a professor at UCSF.

"The magnitude of the apparent advantage is strong, and could potentially have a positive impact on human health," Grandis said, senior author of the study published in the Journal of Experimental Medicine.

Within head and neck squamous cell carcinoma, PIK3CA is the most commonly altered oncogene, with 34 per cent of all tumours carrying mutations that activate the PIK3CA gene.

In head and neck cancer associated with the human papillomavirus (HPV), PIK3CA is mutated in more than half of tumours.

Head and neck squamous cell carcinoma is a complex malignancy that carries a poor prognosis: the five-year survival rate is about 45 per cent.

NSAIDs, which include over-the-counter drugs such as ibuprofen and aspirin, are known to relieve pain and reduce inflammation, fever and blood clots. They are the most frequently-prescribed medication for conditions such as arthritis.

In the new research, 266 patients whose tumours were surgically removed were investigated by researchers. The majority (84 per cent) smoked and 67 per cent received post-surgery chemotherapy and/or radiotherapy. Median overall survival was 66 months.

Altogether, 75 tumours (28 per cent) in the study had an activating alteration of the PIK3CA gene.

Among the patients who regularly used NSAIDs, 93 per cent used aspirin as a component of the NSAID regiment, and 73 per cent took aspirin exclusively.

Most of the regular users started on the aspirin therapy following their head and neck cancer diagnosis.

Researchers found that regular use of NSAIDs for at least six months provided "markedly prolonged" improved survival compared to non-use for patients whose PIK3CA gene was mutated or amplified -- in these patients, NSAIDs raised overall five-year survival from 25 to 78 percent.

However, patients without alterations in their PIK3CA gene were no better off by taking NSAIDs.

Through analysis of both cell line and mouse studies, the researchers speculated that NSAIDs likely blocked tumour growth by reducing the production of an inflammatory molecule called prostaglandin E2. — P

Weight

Women gain weight in high demand jobs (The Tribune: 20190128)

<https://www.tribuneindia.com/news/health/women-gain-weight-in-high-demand-jobs/719633.html>

Women who face heavy psychological pressures at work are more likely to gain weight, a study claims.

The study, published in the journal International Archives of Occupational and Environmental Health, included data from over 3,872 participants in Sweden.

"We were able to see that high job demands played a part in women's weight gain, while for men there was no association between high demands and weight gain," said Sofia Klingberg, a researcher at University of Gothenburg in Sweden.

The participants in the study were investigated on three occasions over a 20-year period with respect to such variables as body weight and demands and control at work.

They were followed either from age 30 to 50 or from 40 to 60.

To estimate the level of job demands, the respondents were asked about their work pace, psychological pressures, whether there was enough time for their duties and how often the demands made were contradictory.

The questions about control at work covered such matters as how often they learned something new; whether the job called for imagination or advanced skills; and whether the respondent was personally able to choose what to do and how to do it.

The results show that the respondents with a low degree of control in their work more frequently gained considerable weight, defined as a weight gain of 10 per cent or more, in the course of the study. This applied to women and men alike.

On the other hand, long-term exposure to high job demands played a part only for women. In just over half of the women who had been subjected to high demands, a major increase in weight took place over the 20 years.

This gain in weight was some 20 per cent higher than in women subject to low job demands.

"When it came to the level of demands at work, only the women were affected," Klingberg said.

"We haven't investigated the underlying causes, but it may conceivably be about a combination of job demands and the greater responsibility for the home that women often assume. This may make it difficult to find time to exercise and live a healthy life," Klingberg said.

Having had or not had an academic education does not explain the associations in the study. Neither do quality of diet or other lifestyle factors. However, the information about dietary intake comes from the respondents themselves, with a certain risk of incorrect reporting.

At the same time, given the problems associated with work-related stress, the study is relevant in terms of public health.

The researchers think identification of groups who are susceptible to stress and efforts to reduce work-related stress would likely achieve a decrease not only in weight gain but also in the incidence of ill health, including cardiovascular disease and diabetes. — PTI

Rabies-free state

Goa on its way to becoming nation's only rabies-free state (The Times of India: 20190128)

<https://timesofindia.indiatimes.com/city/goa/goa-on-its-way-to-becoming-nations-only-rabies-free-state/articleshow/67083575.cms>

PANAJI: Goa is on its way to become country's first rabies-free state as no cases of deaths due to the viral disease have been recorded in 2018. Focused vaccination and education campaigns for one million children over the last five years by Mission Rabies has contributed for this milestone.

dog

"One third of all human rabies deaths universally occur in India and as such it necessitates our intervention here. We give priority to primary schools as children are more receptive to new messages at the tender age and share with their community members. There is a multiplier effect to this," said Mission Rabies director of education, Dr Murugan Appupillai.

Goa was the pioneer state to start with Mission Rabies after the success of its pilot project in 2013. "In the next three years, 50% of dogs will be vaccinated while the remaining will be covered for both vaccination and sterilization. The drive will begin once the government gives approval," said assistant director at the department of animal husbandry and veterinary services, Dr Vilas Naik.

Lol, while deadly greed infested humans roam in abundance.

Generic Middle Class Goan

He further informed that there are around one lakh dogs, both domestic and stray, in Goa. India was the first country that Mission Rabies started working in, beginning with a 14-city canine vaccination drive in 2013. Following a successful pilot project, Mission Rabies began to focus on making Goa rabies-free as a model for other state governments.

The project has now become the largest systematic mass dog vaccination and community education campaign to have ever been conducted in India. Education being a key cornerstone of the project, the charity has worked in 1,390 schools across Goa and led workshops for hundreds.

Rabies-free state

Zero deaths in 2018, Goa targets rabies-free 2020(The Indian Express: 20190128)

<https://indianexpress.com/article/india/goa-rabies-free-zero-death-manohar-parrikar-5557414/>

With 5.2 lakh children and 23,000 school teachers educated on the virus in four years, with close to 1 lakh dogs vaccinated annually, and 106 positive samples between 2017 and 2018, Goa is the first state that did not report a single human death due to rabies last year.

Name Goa's 2 bridges after Dayanand Bandodkar, Dr Jack Sequeira: Congress urges PM Modi

Drinking in public in Goa? be ready to pay Rs 2000 fine, serve jail term

Ailing Goa CM Manohar Parrikar to attend three-day Assembly session

Zero deaths in 2018, Goa targets rabies-free 2020

Goa is now on its way to declare itself rabies free by 2020.

In, nine-year-old Eknath Ajgaonkar from Guirim in north Goa and seven-year-old Palin Pagi from Canacona in the south, forced their parents to dial a hotline, as they suspected rabies-infected dogs were on the loose in their village. Two dogs were caught, their samples probed, and both tested positive.

Eknath and Palin are no experts, but products of a state-backed three-pronged mass campaign against human deaths due to rabies. "A rabies-infected dog can bite upto 60 times in a lifetime. We look at those vigilante phone calls as our success story," says Gowri Yale, scientific manager, Mission Rabies, a global umbrella campaign.

With 5.2 lakh children and 23,000 school teachers educated on the virus in four years, with close to 1 lakh dogs vaccinated annually, and 106 positive samples between 2017 and 2018,

Goa is the first state that did not report a single human death due to rabies last year. It is now on its way to declare itself rabies free by 2020.

The first to congratulate and tweet the effort was Chief Minister Manohar Parrikar — with requests pouring from health departments in Afghanistan, Bangladesh and Ghana. Goa's findings are also in the early stages of implementation in Malawi, Tanzania, Uganda and Sri Lanka.

Zero deaths in 2018, Goa targets rabies-free 2020

Dr Vilas Naik, Assistant Director, Directorate of Animal Husbandry and Veterinary Services, Goa, says the government is now “fully committed” to this exercise.

“We have released Rs 1.65 crore since 2015 towards the entire programme... a newly designed post-mortem room and quarantine kennels have been designated for this exercise on the veterinary campus. This year, we are looking at increasing the number of dogs that are sterilised along with making vaccination an annual routine exercise,” says Naik.

How India celebrated the 70th Republic Day

Unlike the WHO process of using human vaccines as a post-bite measure, the Goa model looks for complete elimination of the virus, by expanding the coverage of the anti-virus vaccination and sterilisation of dogs.

It was in 2012 that Dr Luke Gamble, a UK-based veterinarian with the charity organisation Worldwide Veterinary Service (WVS), identified India as a hotspot for rabies deaths. “Death estimates then was 20,000 across India due to rabies,” says Dr Murugan Appupillai, Director of Education, Mission Rabies, India.

In 2015, 14 states were chosen, but even as the others progressed slowly — in Jharkhand, due to the Naxal threat, for instance — Goa was chosen as a pilot state. “With international and domestic tourist footfall, and with water as a natural barrier preventing easy migration of dogs, Goa was an obvious choice,” says Appupillai.

In 2014, when Mission Rabies volunteers from abroad landed in Goa, the state got curious. “We soon got call from the Chief Minister's office. ‘What is going on here?’ he asked,” recalls Appupillai.

Soon the government got involved, with dog population pegged at 30,000. It's only when the dog vaccination vans were dispatched that the real estimate was made: 1.3 lakh stray and 31,000 confined. Also, tourist belts across Candolim-Calangute were found to be hotspots, mainly in the vicinity of tourist shacks, while villages near the site for a proposed IT park in north Goa and the port town Mormugao had the most cases of infected dogs multiplying due to garbage.

“Now, south and north districts have been broken down to panchayats, and further to working zones, with a van accommodating one vet, four dog handlers, and one to count the dogs, travelling across the state. And the demographics are more specific: an App tracks details right down to age, sex, lactating dogs, pet or stray, further to roaming dogs which are also owned,” says Julie Corformat, project manager for the Goa chapter of Mission Rabies.

Mission Rabies figures show 51,294 dog vaccinations in 2016, 96,033 in 2017, and over 97,000 in 2018. In 2017, of the 163 cases, 78 tested positive and the dogs euthanised, with 15 released. In 2018, of the 82 suspected calls, 28 dogs were found to be carrying the virus.

Officials say villages engaged better with dogs, while urban centres saw more canine population, due to garbage. Statistics also reveal that 42 per cent of positive tests are of confined dogs.

The campaign now has an alternate team — two-member hand-catcher teams that go with dog food (biscuits) and vaccinate 100 dogs on an average every day. The baits are innovative, too: the Oral Rabies Vaccine (ORV) is covered with eggs and coconut coating.

The campaign will also expand to panchayats to reduce garbage and hold classes for postmen, garbage collectors and those with field jobs involving many hours of walking. In 2019, the focus is on “intense surveillance”.

Unlike earlier, when test results took days to return from the country’s only WHO referral facility at the Bengaluru-based National Institute of Mental Health and Neurosciences, the state has also made arrangements for testing Goa samples in real time.

DIPPING NUMBERS

No. of human deaths
due to rabies in Goa:

2014	17
2015	5
2016	1
2017	1
2018	0

Measles-rubella vaccination

**Delhi: Lack of consent puts measles-rubella vaccination campaign in limbo
(The Indian Express: 20190128)**

<https://indianexpress.com/article/cities/delhi/delhi-lack-of-consent-puts-measles-rubella-vaccination-campaign-in-limbo-5557340/>

The High Court on January 22 had made it clear to the Delhi government that the risks of administering measles and rubella vaccine have to be indicated in its advertisements if the drive has to be carried out in schools.

measles-rubella vaccines, mr vaccination campaign, Measles vaccine campaign delhi, delhi high court, indian express, latest news

The Department of Health will now challenge the court's latest decision. Under the MR campaign, the departments of health and education are collaborating to encourage participation of schools. (Representational image)

With Delhi High Court putting a stay on the measles-rubella (MR) vaccination campaign, initially planned to be carried out in city's schools from January 16, the Department of Health and schools are still struggling to get consent of children's parents. The High Court on January 22 had made it clear to the Delhi government that the risks of administering measles and rubella vaccine have to be indicated in its advertisements if the drive has to be carried out in schools.

now challenge the court's latest decision. Under the MR campaign, the departments of health and education are collaborating to encourage participation of schools. This will include orientation for officers, principals, teachers and students by experts of the Health Department.

"As it is a national policy, we must follow what is being done in other states. Delhi cannot have two separate policies for private and government schools. We will challenge the court's decision," Dr Nutan Mundeja, Director General of Health Services (DGHS), Delhi Government, told The Indian Express.

EXPLAINED

A mega project to end the disease

Measles and Rubella are highly contagious viral diseases that spread by contact with an infected person through coughing and sneezing. While infection with measles is followed by high fever, rash, cough and red watery eyes, infection with rubella is followed by rash and low fever. It may be associated with swelling of lymph nodes and joint pain. The World Health Organisation plans to eliminate measles and rubella by 2020. The measles-rubella (MR) immunisation campaign is one the largest in the world, and aims to cover 40 crore children in the age group of nine months to less than 15 years. One-third of all measles-related deaths worldwide occur in India, and the country also accounts for around one-third of all children born worldwide with congenital rubella syndrome (CRS).

The department had planned to cover more than 9,000 schools and 55 lakh children all over the city. A pamphlet explaining the benefits and side-effects of the campaign was circulated by the department to the schools. Around 300 schools have refused to participate in the vaccination programme.

"It was our way of reaching out to parents. The programme is not compulsory for students. Parents who have agreed for the programme can send their kids. An injection will be administered to the child by our health expert," added Dr Mundeja.

As per the order, all children aged between nine months and 15 years will be provided an additional dose of MR vaccine, regardless of previous vaccination status or history of measles/rubella-like illness.

How India celebrated the 70th Republic Day

School heads have been asked to assign teachers to help organise and conduct immunisation sessions in school and coordinate with health workers to conduct vaccination sessions during school timings.

“When the circular came to us, we invited government doctors and parents to have a discussion on the programme. But parents were apprehensive and said they will get their child vaccinated by their own doctor. We again sent a circular to the parents last week, informing them about the initiative. But over 99% of parents haven’t given their consent. We can’t force them to be a part of it,” said Ameeta Wattal, principal, Springdales school.

“We have informed parents about the campaign but most of them are in the favour of getting it done from their personal pediatrician. The decision has to be taken by them,” said Sanghamitra Ghosh, principal of The Mother’s International School. The High Court had sought the reply of the Ministry of Health and Family Welfare, Delhi government and its Directorate of Education (DoE) by January 21 on a plea stating that no person could be deprived of his life or personal liberty.

Sickle Cell Anemia

Knowledge as the first remedy for Sickle Cell Anemia (The Hindu: 20190128)

<https://www.thehindu.com/sci-tech/health/knowledge-as-the-first-remedy-for-sickle-cell-anemia/article25273839.ece>

There is a common belief in Nigeria that anybody living with sickle cell anemia, also known as SCD, dies before age 40. As a result, they are treated differently, excluded from the job market, and are not considered worth marrying.

SCD is an inherited blood disorder caused by abnormal hemoglobin – the oxygen-carrying proteins in the red blood cells. The distorted red blood cells are fragile and die sooner than regular ones, preventing oxygen from flowing properly through the body.

According to the World Health Organization, each year more than 100,000 children worldwide die from the disease before the age of five. In Nigeria, the worst-hit country, roughly 150,000 babies are born with it every year. Ignorance about the disease and a lack of funding are major challenges. But with proper prevention and treatment, it is possible to survive it.

Alhaja Laguda, age 92, is the oldest woman living with SCD in Nigeria. She said that being sick while growing up was particularly difficult. She was often too sick to attend school for more than three months a year. In the quest to find a cure for an illness people attribute to supernatural causes, Laguda was given all sorts of concoctions from local tribes. “I just took

everything they gave me,” she recalled. “They would cut me on every part of my body, but I put up with it because I wanted to live.”

The disorder can cause everything from acute pain to anemia, swelling of extremities, bacterial infections and strokes – most of which can be prevented or treated when diagnosed early. Abimbola Edwin, who comes from a well-off family, recognized the disease as soon as her daughter, Timilehin, began manifesting the symptoms at four months of age. Timilehin is now 29, and has suffered much less than if her mother had not been educated about the risks.

Knowledge as the first remedy for Sickle Cell Anemia

Toyin Adesola, Founding Executive Director of the Sickle Cell Advocacy and Management Initiative (SAMI), has lived with sickle cell for 53 years. For her, early detection can make all the difference. “Currently we wait up to two years – or when the symptoms appear – to start a treatment,” she said, adding that Nigeria is behind other African countries in terms of early prenatal and newborn screenings, due to lack of proper facilities. “Prenatal screening is very expensive,” she added. “People with low incomes cannot afford it. It’s easier to do with newborns, and public hospitals are supposed to do it.”

Although Adesola’s pain has left her physically challenged, she’s determined to help others. Her foundation aims to prevent SCD’s prevalence through awareness campaigns – helping people know their genotype and get diagnosed, which is not always easy. “A lot of people mistake genotype for blood group,” she said, adding that in many cases, people are misdiagnosed. “We tell people to go to at least three places to carry out the test.”

SAMI helps parents who are often emotionally and financially overwhelmed by the disease. The organization offers free genotype testing when possible, and runs a free clinic in Lagos, where it is based. Adesola said, “The whole aim of this is to act as an intermediary between the hospital and the person with sickle cell, because we find that, due to lack of funds, a lot of people don’t do anything about the illness until they deteriorate and complications arise, and then we spend a lot of money or we lose the person.” However, she noted, funding remains a serious limitation for the foundation, too.

Adesola said that other diseases, such as cancer, tuberculosis or malaria, often receive more attention and funding from the government and organizations, who tend to neglect the issue of sickle cell. She noted that the latest statistics for the sickness in Nigeria date back to 1993.

These indicate that around 4 to 5 million people are declared to be living with the disease, a number that has surely gone up since then. Furthermore, many families keep it a secret.

Doris Gbemiloye, popularly referred to as Mama Genotype, created the Genotype Foundation. UNICEF, she said, stipulates that every child has the right to know his or her genotype. “We try to educate people at a young age because our major focus is prevention. For years we have been going to schools to run genotype tests for them free through sponsorships and donations, and the more we meet them the more they are being armed with information.” Despite the foundation’s limited means, it manages to carry out its work in cities and rural areas.

“We have a monthly meeting where we give [beneficiaries] drugs and they see a doctor on duty who talks to them about how to live with sickle cell,” said Gbemiloye. “We talk to the parents to balance their psyche because there are parents who have it in mind that their children will die anytime.” The foundation invites older survivors of the disease to talk with parents, too.

They serve as living proof that knowledge and information can tip the balance for those who are born with SCD.

Alzheimer's (The Asian Age: 20190128)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12341208>

Gum infection linked to Alzheimer's disease

Washington, Jan. 27: A new study published in the journal *Science Advances* found that gum infection could be a potential risk factor of Alzheimer's disease. The bacteria, *Porphyromonas gingivalis*, known as Pg, causes the gum infection chronic periodontitis, causing chronic inflammation and potential loss of teeth, reported CNN.

The same bacteria was further found in 51 out of 53 brain autopsies of Alzheimer's disease patients, according to new research by Dr. Stephen Dominy and Casey Lynch, founders of the pharmaceutical firm Cortexyme. The pharmaceutical company, which is focused on developing therapeutics to alter the course of Alzheimer's disease, funded the research.

The team also tested blocking the bacteria in mice by injecting small molecules targeting Pg, to inhibit it and found that it could reduce neurodegeneration in the brain, showing a potential new way to tackle Alzheimer's disease. According to Lynch, her team's publication "sheds light on an unexpected driver of Alzheimer's pathology — the bacterium commonly associated with chronic gum disease."

Lynch added that while previous studies have established a link between periodontal disease and Alzheimer's, the new research observes a "highly significant" link between Alzheimer's and the oral infection and that the mouse study indicates causation.

Alzheimer's disease is the most common form of dementia, characterised by memory loss that increases over time. It is believed to be caused by a buildup of

Cervical Cancer (The Asian Age: 20190128)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12341209>

Cervical cancer: Early detection, treatment crucial

New Delhi, Jan. 27: Early detection and treatment of cervical cancer is vital in the fight against the deadly form of cancer, which accounts for the second highest number of new cancer cases and cancer-related deaths in the country, according to doctors.

Cervical cancer is the second most deadly cancer for women just after breast cancer and India shares the burden of around one-fourth of the world cancer patients. It is estimated that over 96,000 women are diagnosed with cervical cancer every year and over 60,000 die from

the disease in the country.

Given such high mortality and morbidity, the awareness about the disease seems to be abysmally low.

"Cervical cancer is a sexually-transmitted disease (STD) but the awareness about the disease is extremely poor in common people, which makes containing cervical cancer a challenge. While societal barriers prevent women from seeking medical help in advance, it forces women to come out at a later stage when the disease has reached an advanced stage," Dr Anjila

Aneja, Fortis La Femme, New Delhi said during a weeklong awareness campaign for cervical cancer that began on January 21.

Dr Aneja stressed the need to set up more pap smear test centres across the country.

"Diagnostic tests such as the pap-smear test are effective in identifying cancerous tendencies. However, these tests are available with a limited number of providers and largely within the cities. This makes screening sporadic and leaves out women who live in rural areas. What makes screen-

ing even more important is the fact that vaccination against the human papillomavirus (HPV) cannot be as effective as screening and it should be mandatory between 21 years to 69 years of age," she said.

Dr. Amita Shah, from the Columbia Asia Hospital, Gurgaon spoke about the need for early screening and vaccinations to prevent the disease.

"Many of the cases reach the doctors at a stage where nothing much can be done. But this kind of cancer can be prevented with safe sex practices," the doctor said. — ANI

New Anti-Flu Drugs (The Asian Age: 20190128)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12341215>

Researchers design new anti-flu drugs

Washington, Jan. 27: Researchers from LSTM and Imperial College London have designed drugs which could help combat potential new flu pandemic.

The drugs work by targeting the receptors of the cells by which the virus gains entry to the human body.

In a paper published in the *Journal of Immunology*, the team, led by LSTM's Professor Richard Pleass, shows that by engineering a part of an antibody, they can target the viral proteins that allow flu to become deadly.

Speaking about the study, Professor Pleass explained that vaccines have limited public health impact during pandemics, and current vaccines are less efficacious than others. — ANI

Cancer Risk ((The Asian Age: 20190128)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=12341218>

Night shifts can damage DNA, increase cancer risk

Beijing, Jan. 27: Working night shifts can damage a person's DNA, increasing the risk of cancer as well as cardiovascular, metabolic, and neurodegenerative diseases, a study has found.

For the study published in the journal *Anaesthesia*, researchers analysed blood samples of 49 healthy full-time doctors taken at different times.

"Although this work is very preliminary, it is clear from the results that even a single night of sleep deprivation can trigger events that may contribute to the development of chronic disease," said Siu-Wai Choi, of the University of Hong Kong.

Researchers found that on-call doctors who were required to work overnight on-site had lower DNA repair gene expression and more DNA breaks than those who did not work overnight.

In these overnight on-site call doctors, DNA repair gene expression decreased and DNA breaks increased after sleep deprivation. Damaged DNA increased after only one night of sleep deprivation.

This DNA damage may help explain the increased risk for cancer and cardiovascular, metabolic,

IMPACT OF NOCTURNAL SHIFTS

▶ Even a single night of sleep deprivation can trigger events that may contribute to the development of chronic disease

▶ Risk of cancer as well as cardiovascular, metabolic diseases increases

▶ Doctors required to work overnight on-site had lower DNA repair gene expression and more DNA breaks

▶ Damaged DNA increased after only one night of sleep deprivation

and neurodegenerative diseases associated with sleep deprivation, researchers said.

And, in follow-up studies in mice, researchers at Washington University School of Medicine in St. Louis say sleep deprivation increases levels of the key Alzheimer's protein tau.

It's not clear whether poor sleep causes the speed-up, or the speed-up causes poor sleep but there does seem to be a clear association.

Tau are a harbinger of brain damage and decisive step along the path to dementia.

The study, published in the journal *Science*, indicates that lack of sleep alone helps drive the disease, and suggested a good night's sleep may help preserve brain health.

Senior author Dr David

Holtzman who is head of the Department of Neurology, said: "The interesting thing about this study is that it suggests that real-life factors such as sleep might affect how fast the disease spreads through the brain.

"We've known that sleep problems and Alzheimer's are associated in part via a different Alzheimer's protein — amyloid beta — but this study shows that sleep disruption causes the damaging protein tau to increase rapidly.

"Getting a good night's sleep is something we should all try to do. Our brains need time to recover from the stresses of the day. We don't know yet whether getting adequate sleep as people age will protect against Alzheimer's disease.

— Agencies

'Women gain weight in jobs where pressure is high'

London, Jan. 27: Women who face heavy psychological pressures at work are more likely to gain weight, a study claims.

The study, published in the journal *International Archives of Occupational and Environmental Health*, included data from over 3,872 participants in Sweden.

"We were able to see that high job demands played a part in women's weight gain, while for men there was no association between high demands and weight gain," said Sofia Klingberg, a researcher at University of Gothenburg in Sweden.

The participants in the study were investigated on three occasions over a 20-year period with respect to such variables as body weight and demands and control at work. To estimate the level of job demands, the respondents were asked about their work pace and psychological pressures. — PTI