



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 20190115

अंगदान

दिल्ली-एनसीआर में अंगदान की मुहिम पड़ने लगी कमजोर (Dainik Jagran:20190115)

https://epaper.jagran.com/epaper/article-15-Jan-2019-edition-delhi-city-page_6-10403-3419-4.html

राज्य ब्यूरो, नई दिल्ली : मन की बात कार्यक्रम में प्रधानमंत्री नरेंद्र मोदी द्वारा अंगदान की अपील के बाद इसका खासा असर देखा गया। अंगदान की शपथ लेने वाले लोगों की संख्या अचानक बढ़ गई। अंगदान के मामले भी बढ़े। ब्रेन डेड व्यक्ति के अंगदान करने पर दूसरे शहरों से विमान से अंग लाकर दिल्ली में प्रत्यारोपित किए जाने लगे, लेकिन इस बीच दिल्ली-एनसीआर में अंगदान की मुहिम कमजोर पड़ती दिख रही है। पिछले साल दिल्ली व एनसीआर में अंगदान बहुत कम हुए।

सफदरजंग अस्पताल स्थित राष्ट्रीय अंग और ऊतक प्रत्यारोपण संगठन (नोटो) का कहना है कि एक तो लोगों में जागरूकता का अभाव है। दूसरे अस्पताल के डॉक्टरों में भी उदासीन है। इसलिए अस्पतालों में अधिक अंगदान नहीं हो पा रहे हैं।

नोटो के अनुसार वर्ष 2017 में दिल्ली एनसीआर में 45 ब्रेन डेड व्यक्तियों के अंगदान हुए थे। इससे 78 लोगों को किडनी, 36 लोगों को लीवर और 22 को हार्ट प्रत्यारोपण हुआ था। वर्ष 2018 में यह 60 फीसद तक घट गया। पिछले साल 18 अंगदान हुए। जिससे 26 किडनी, सात लीवर और सिर्फ आठ हार्ट प्रत्यारोपण लोगों को हो सके।

नोटो का हेल्पलाइन नंबर भी खराब: लोगों को अंगदान के प्रति जागरूक करने के लिए नोटो में हेल्पलाइन नंबर (1800114770) शुरू किया गया था। प्रधानमंत्री ने मन की बात कार्यक्रम में इस टोल

फ्री हेल्पलाइन नंबर को अधिक से अधिक लोगों तक पहुंचाने की बात कही थी, ताकि लोग अंगदान से संबंधित जानकारी ले सकें। पर हालत यह है कि यह हेल्पलाइन नंबर पिछले कई महीनों से बंद पड़ा है।

इस हेल्पलाइन को संचालित करने के लिए नोटो में कॉल सेंटर बनाया गया है और इसमें 18 कर्मचारी हैं। पहले औसतन इस हेल्पलाइन पर प्रतिदिन 80 से 90 कॉल आते थे। लोग कॉल करके अंगदान के लिए रजिस्ट्रेशन कराने की प्रक्रिया की जानकारी लेते थे। इसके बाद अनेकों लोग रजिस्ट्रेशन भी कराते थे। इसके अलावा किसी भी अस्पताल में ब्रेन डेड होने पर नोटो को इसकी सूचना देना अनिवार्य है। नोटो की निदेशक डॉ. बसंती रमेश ने कहा कि हेल्पलाइन की पांच लाइनें हैं। एक ठीक है। चार लाइनें भी जल्द ठीक करा ली जाएंगी।

स्वाइन फ्लू

फरीदाबाद में स्वाइन फ्लू बना सिरदर्द (Dainik Jagran:20190115)

https://epaper.jagran.com/epaper/article-15-Jan-2019-edition-delhi-city-page_7-5661-3420-4.html

जासं, फरीदाबाद : सर्दी में स्वाइन फ्लू के मरीजों की संख्या लगातार बढ़ती जा रही है। सोमवार शाम जिला स्वास्थ्य विभाग ने स्वाइन फ्लू के छह मामलों की पुष्टि की है। अब स्वाइन फ्लू के 16 मामले हो गए हैं। अधिकांश मामले निजी अस्पतालों से आ रहे हैं। स्वास्थ्य विभाग की ओर से निजी अस्पतालों से साफ तौर से कहा गया है कि स्वाइन फ्लू संदिग्ध मामलों की पूरी केस हिस्ट्री भेजें, ताकि सरकारी लैब में संदिग्ध मरीजों के गले की लार के नमूनों की जांच करवाई जा सके। स्वास्थ्य विभाग के अधिकारियों का कहना है कि सामान्य बुखार व खांसी के कई मरीज स्वाइन फ्लू की आशंका के चलते गले की लार के नमूनों की जांच करवा रहे हैं। जिला मलेरिया अधिकारी डॉ.रामभगत का कहना है कि निजी अस्पतालों से कहा गया है कि स्वाइन फ्लू की आशंका के चलते कोई भी मरीज आता है तो उसकी जांच सरकारी लैब में भी अवश्य कराएं। हमारे पास पर्याप्त दवा उपलब्ध है। लोग जागरूक रहें। अपनी मर्जी से दवा न लें।

गाजियाबाद में भी तीन और मरीज (Dainik Jagran:20190115)

https://epaper.jagran.com/epaper/article-15-Jan-2019-edition-delhi-city-page_7-8083-3420-4.html

जासं, गाजियाबाद : दो साल बाद फिर स्वाइन फ्लू के वायरस का आतंक बढ़ रहा है। मौसम भी इसका साथ रहा है। स्वास्थ्य विभाग ने तीन और मरीजों में स्वाइन फ्लू की पुष्टि की है। विभाग ने तीनों मरीजों के घर जाकर परिवार के सभी सदस्यों को एंटी स्वाइन फ्लू वैक्सीन दी और सावधानी बरतने की सलाह दी। दो मरीजों को अस्पताल से छुट्टी दिए जाने के बाद फिलहाल घर पर ही उपचार चल रहा है, एक मरीज अस्पताल में भर्ती है। इससे पहले दो मरीजों में स्वाइन फ्लू की पुष्टि हो चुकी है। नए मरीज राजनगर सेक्टर 10, नंदग्राम और शास्त्रीनगर के हैं।

लगातार स्वाइन फ्लू के मामले सामने आने पर सीएमओ ने जनपद के सभी सरकारी और निजी स्कूलों में पत्र भेजकर अलर्ट रहने के लिए कहा है। स्कूल प्रबंधन को किसी बच्चे को बुखार होने पर उसकी तुरंत जांच करवाने और उसे छुट्टी देने के लिए कहा गया है। जिससे अन्य बच्चे इससे संक्रमित न हों।

Swine flu grips state, 8 deaths in two weeks (The Tribune:20190115)

<https://www.tribuneindia.com/news/punjab/swine-flu-grips-state-8-deaths-in-two-weeks/713701.html>

46 test positive for virus | Patiala has maximum cases

Attendants of swine flu patients at a waiting hall of Government Rajindra Hospital in Patiala on Monday.

Swine flu has gripped the state Health Department, with the disease claiming eight lives in two weeks in the state.

Besides, 46 people were tested positive for the virus till last Sunday. In 2018, only 47 swine flu cases were reported in the state.

The home district of the Health Minister, Patiala, has topped the state with maximum cases, followed by Ludhiana and Ropar.

So far, Patiala has recorded 11 positive cases followed by Ludhiana and Ropar with seven each. Mohali has reported five cases this year.

With the number of cases rising, health officials said the threat of H1N1 influenza (swine flu) was looming large over the state. However, state health officials said out of the eight suspected deaths so far, only four have been attributed to H1N1.

However, the Health Department has claimed that they have taken all precautionary measures to curb the disease. Doctors across the state have been directed to provide immediate health care to anyone with H1N1 symptoms.

The health department claims to have made all routine preparations, including isolation wards, medicines and masks and running sensitisation programmes.

Director, Health and Family Welfare Department, Dr Jaspak Kaur said, "We have earmarked ventilators for the swine flu patients in all government health institutions. Besides, only people with comorbid conditions are at risk of swine flu."

Nangal cop among victims

Nangal: A 46-year-old policeman belonging to Kanhera village died of swine flu at a Mohali hospital on Monday morning. The deceased identified as Dev Raj was posted at Fatehgarh Sahib. Medical officer Vidhan Chander said Dev Raj, who had come home last month, initially went to the Bhakra Beas Management Board Hospital for treatment. Later, he got treatment from a private doctor. When his condition did not improve, he was referred to the PGI, Chandigarh. Dev Raj, however, was admitted to Fortis Hospital, Mohali. TNS

डीएनए उपकरण

वैज्ञानिकों ने तैयार किया नया डीएनए उपकरण (Dainik Jagran:20190115)

https://epaper.jagran.com/epaper/article-15-Jan-2019-edition-delhi-city-page_13-8100-3415-4.html

लंदन, प्रेटर : वैज्ञानिकों ने एक ऐसा डीएनए उपकरण तैयार किया है जो प्राचीन लोगों की बिलकुल सटीक पहचान कर सकने में सक्षम है। साथ ही इसका इस्तेमाल इस बात के लिए भी किया जा सकता

है कि कोई व्यक्ति उन प्राचीन लोगों से किस हद तक मेल खाता है जो कभी धरती पर विचरण करते थे।

वर्तमान में प्राचीन डीएनए के अध्ययन में किसी कंकाल का संबंध किसी निश्चित आबादी से जोड़कर बताने या उसकी जैव-भौगोलिक उत्पत्ति ढूंढने के लिए बहुत सारी सूचनाओं की जरूरत होती है। ब्रिटेन के शेफील्ड विश्वविद्यालय के एरान एलहेक की अगुआई में हुए इस अनुसंधान में एंसिएंट एंसेस्ट्री इंफॉर्मेटिव मार्कर्स (एआइएम) की पहचान की गई जिनका इस्तेमाल कंकालों के वर्गीकरण के लिए किया जा सकता है। एलहेक ने कहा, 'एआइएम का प्रभावी तरीके से पता लगाने का हमने एक नया जरिया विकसित किया है और साबित किया कि यह सटीक है।'

उन्होंने कहा, 'प्राचीन लोगों में आधुनिक लोगों के मुकाबले ज्यादा विविधता थी। उनकी यह विविधता नवपाषाण काल में हुए बदलावों और ब्लैक डेथ जैसी घटनाओं के बाद कम होने लगी।'

उन्होंने बताया कि विकृत डीएनए की वजह से प्राचीन डेटा को समझना मुश्किल है और इसी चुनौती से उबरने के लिए उन्होंने ऐसा विशिष्ट उपकरण विकसित किया जो पारंपरिक और नए तरीके के मेल से बना है। यह बेहद सटीक तरीके से पता लगा सकता है कि आप किनके वंशज हैं।

Student Suicides

Preventing student suicides (The Hindu:20190115)

<https://www.thehindu.com/opinion/op-ed/preventing-student-suicides/article25995130.ece>

The rising number of cases must provoke a discussion on how outcomes of education are perceived in India

The end of 2018 brought with it some deeply unsettling cases of student suicides. The deaths of 49 students in Navodaya Vidyalaya schools in the last five years, and of three students preparing for the IIT entrance examinations in Kota in a span of four days, brings the issue of youth suicides to the fore again. More youths are taking their lives due to the fear of failing in examinations, constant flak from teachers, bullying from peers, family pressure and a loss of a sense of a decent future. These cases force us to recognise that youth suicides are ubiquitous, and the educational ecosystem must take the blame for this.

Current scenario

The Kota case is not an aberration. There have been frequent news reports of suicides taking place in coaching centres that train students for medical and engineering entrance examinations. According to the National Crime Records Bureau, between 2014 and 2016, 26,476 students committed suicide in India. Of them, 7,462 committed suicide due to failure in various examinations.

The rising number of these cases provokes a serious discussion on the way in which outcomes of education are perceived in India. The instrumental value of education in India is its potential in generating socio-economic and cultural capital through a promise of decent job opportunities in the future. But the education system has not been successful in generating enough job options. For instance, the International Labour Organisation's World Employment and Social Outlook Trends Report of 2018 says that in 2019, the job status of nearly 77% of Indian workers would be vulnerable and that 18.9 million people would be unemployed. With their job future being so bleak, students are put under constant pressure to perform. They have failed to learn to enjoy the process of education. Instead, the constant pressure and stress has generated social antipathy and detachment among them. Sociologist Emile Durkheim had famously hypothesised that suicides are a result of not just psychological or emotional factors but social factors as well. With a loss of community and other social bonds, students in schools, colleges and coaching centres end up taking their lives.

Following the reports of suicides in Navodaya Vidyalayas, the National Human Rights Commission sought information from the Ministry of Human Resource Development on whether trained counsellors were present on campus. In the recently concluded winter session of Parliament, the HRD Minister said that an expert committee has been set up to look into the matter. According to Navodaya Vidyalaya Samitis, merely one or two training sessions are included to sensitise the teachers and principals regarding safety and security of the children and to prevent suicidal tendencies. The framework for implementation of the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) recognises the role of guidance and counselling services to students. In 2018, the government approved an integrated school education scheme subsuming the Sarva Shiksha Abhiyan, the RMSA, and Teacher Education from April 1, 2018 to March 31, 2020. However, without any significant rise in budgetary allocations for education, it is likely that there would be cuts in "non-productive" areas of education such as guidance and counselling.

The way forward

First, stop-gap solutions to setting up expert committees and counsellors in schools have not been able to solve the problem. The deep-rooted causes must be addressed. The government must undertake a comprehensive study on the reasons behind these suicides. Second, the curriculum should be designed in ways that stress the importance of mental exercises and meditation. The Delhi government's initiative on the 'Happiness Curriculum' may be a step in the right direction. Third, with regards to higher education, 12 measures were suggested by

the Justice Roopanwal Commission. One of them stressed on making Equal Opportunity Cells with an anti-discrimination officer functional in universities and colleges. Finally, it is high time we seek to reinvent our educational ecosystem in ways that impregnate new meanings, new ideas of living, and renewed possibilities that could transform a life of precarity into a life worth living.

Climate Change

An open-air lab to study effects of climate change (The Hindu:20190115)

<https://www.thehindu.com/sci-tech/energy-and-environment/an-open-air-lab-to-study-effects-of-climate-change/article25995027.ece>

Early pointers: Scientists sail near a colony of fur seals (*Arctophoca australis*) in Seno Ballena fjord, Chile.

Scientists analysing marine species of Chile's Seno Ballena

In one of the most inhospitable places on Earth, the southernmost part of Chile's Patagonia region, scientists are studying whales, dolphins and algae in order to help predict how climate change will affect the world's oceans.

For the study, four researchers from the Austral University of Chile embarked from Punta Arenas for the remote Seno Ballena fjord.

The fjord produces the kind of conditions that should be seen in other marine systems in the next few decades, when dramatic changes are expected in the environment due to increased carbon dioxide emissions in the atmosphere and the melting of glaciers. "This place is like an actual experiment in nature because it allows us, without needing to conduct experiments in the lab, to know what will happen without imagining it," marine biologist Maximiliano Vergara said.

Dire consequences

The researchers are analysing the chemical, physical and biological variables of the waters, which show lower levels of pH, salinity and calcium, especially in the most shallow areas, as a consequence of climate change.

The chilly fjord waters provide one of the most productive marine habitats in the world, where sardines and krill can be found in huge numbers.

But climate change poses a threat to its ecosystem as the melting of a glacier on Santa Ines island and increased rainfall have led to rising levels of freshwater. If that continues, it would have dire consequences for whales as the plankton they feed on could disappear.

“A change in the microalgae could generate changes in the secondary structure (of the marine system) or the animals that feed on these,” marine biologist Marco Antonio Pinto said.

Under normal circumstances, when there is an abundance of microalgae, these provide food for the zooplankton that subsequently nourish the food chain all the way up to whales, said Mr. Pinto.

The expedition members are taking samples from eight stations around Seno Ballena to measure the effects of the melting glacier on Santa Ines.

“The waters of high latitudes, both in the northern and southern hemispheres, contain a huge amount of biological and physiochemical information that can be used as a basis to take crucial decisions for environmental preservation projects in developed countries,” said biologist Maximo Frangopulos, a professor at the University of Magellanes and leader of the expedition.

‘It’s like a puzzle’

For now, researchers have noted a slight drop in the number of humpback whales but an increase in other species such as sea lions, which previously were not present in that region, and dolphins.

They also found a lower concentration of calcium carbonate, something which can affect the shells of marine organisms such as mollusks or krill, a staple of a whale’s diet.

“It’s like a puzzle that we’re trying to put together... to see how climate change can affect not just the baseline marine system, but also the large mammals, something that would have an impact on the region,” said Mr. Pinto.

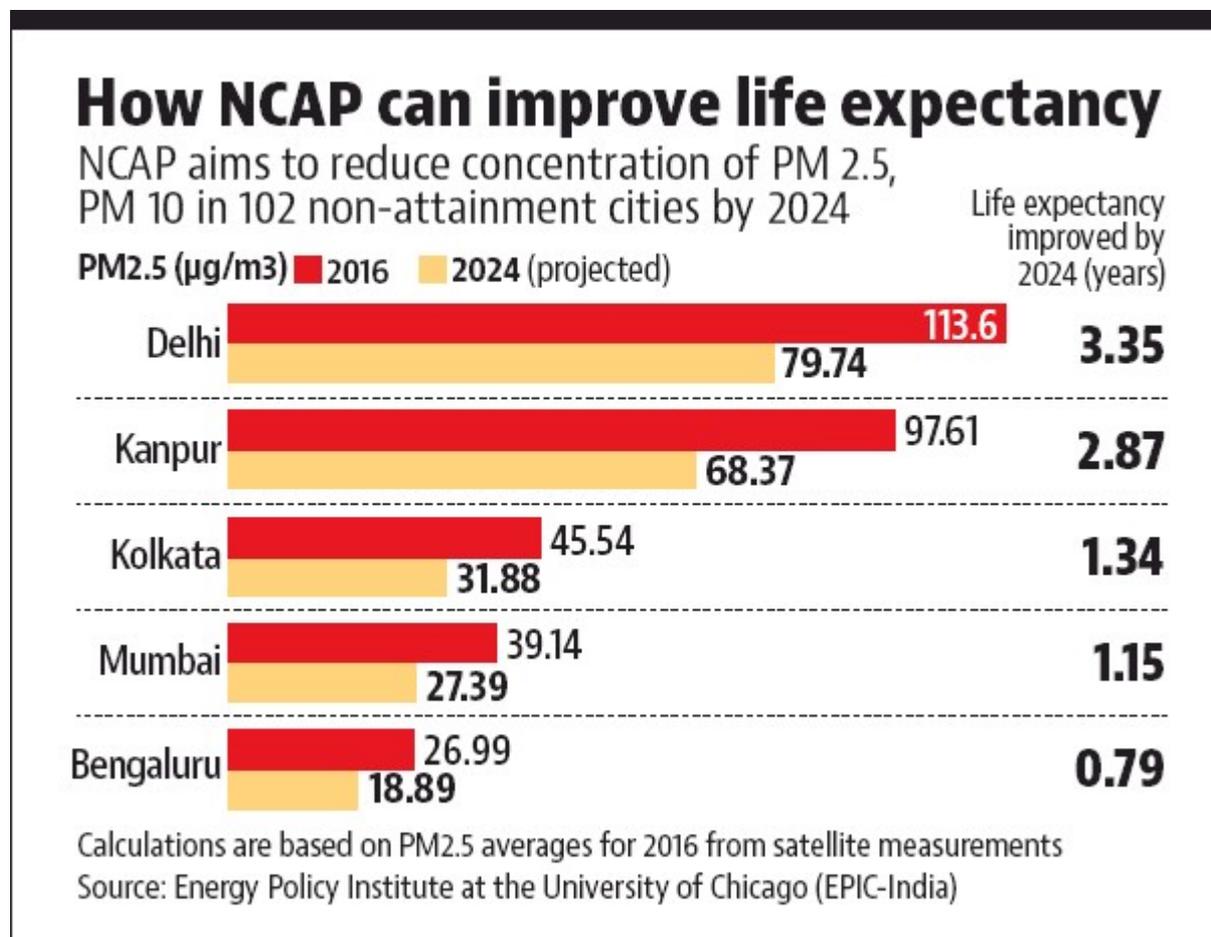
The crab, a species vital to the economy of the region around the strait, could be affected as it needs calcium to harden its shell.

Air Pollution

In Delhi, clean air plan could add over 3yrs to residents' lives (Hindustan Times:20190115)

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

NEW DELHI: Delhi residents could hope to live 3.35 years longer if the National Clean Air Programme (NCAP) is implemented and the reduction in air pollution is sustained, according to Michael Greenstone, the Milton Friedman professor in economics at University of Chicago and the director of the Energy Policy Institute (EPIC).



Greenstone is one of the creators of the Air Quality Life Index of AQLI which measures the impact of particulate matter pollution on life expectancy.

According to the World Health Organisation, Delhi is among the most polluted cities in the world.

NCAP, which was launched by India's environment minister Harsh Vardhan last week, aims to reduce the concentration of PM 2.5 (fine, respirable pollution particles with a diameter of

less than 2.5 micron) and PM 10 (coarse pollution particles) in 102 non-attainment cities (cities which didn't meet the annual PM 10 national standard from 2011 to 2015) by 20% to 30% by 2024 over their 2017 annual average levels. NCAP was criticised by environmental experts for not having legally binding air pollution reduction targets. It aims to take a "participatory and collaborative" approach

Greenstone said the targets could also be achieved by providing incentives or disincentives . "I think it's terrifically important that the government get deeply engaged in air pollution reduction. NCAP reflects that the public is beginning to demand improvements in air quality. It's an important step," Greenstone said, adding that NCAP has very ambitious goals.

"As is so often the case here too, the devil is in the detail. I assume there will be a lot of hard work in successfully meeting those goals. Money helps focus people's minds. Empower people to meet targets, give them incentives to deliver it."

In the US, under the Clean Air Act, if states failed to get their counties to comply with standards, then the money to build highways was withheld. "What's at stake here is an opportunity for people to live longer," he added.

Greenstone who has worked with and tracked the air pollution reduction strategies in China for decades said India's neighbour has achieved improvements through a "methodical focus."

"In China, the work on air pollution was set out by the demands from the public. India is the biggest thriving democracy in the world; China has more of a single party rule. It's been quite surprising to me how responsive the Chinese government has been to air pollution, even though China doesn't have a history of democracy," he said.

"After the US passed the clean air act in 1970, it probably took 12 to 15 years for reduction in pollution in US to be as large as what China has achieved in only four years....," he said.

Greenstone recommends targeting the biggest polluters first through NCAP. "Go to the biggest polluters and fix them."

Women Empowerment

'Women no longer need to wear the veil' (Hindustan Times:20190115)

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

Every year, this Haryana khap leader convenes a gathering across thousands of villages to spread the message that women deserve their freedom and liberty

My wife, until a few years back, used to cover her face with a veil while visiting the village. She no longer wears the veil, and neither does my daughter-in-law. I never insisted that my daughter-in-law cover her face with a veil

Khap leader Baljit Singh Malik says he realised the need to convey a progressive message to people and make them aware of the changes that the country is witnessing.

ghunghat (veil). The ones who didn't were looked down upon by the villagers. "She has no shame or dignity," elders would say about these women. Their family members were ridiculed. "Look, your daughter-in-law steps out of the house without any purdah. Please put your house in order," people would say.

The scales were tilted in favour of men. Women's education wasn't deemed important, and they had to spend their lives within the confines of their homes. The veil, too, gained acceptability.

The ghunghat has for long been a part of Haryana's cultural landscape. Covering one's face is seen as a mark of respect for elders, and women who follow the practice are thought to be dutiful and responsible. With time, society has changed and so have the notions of honour and respect. Today, women are breaking these shackles. Doesn't it then make sense for us to ensure that more women get the courage to step out of the confines of their homes? How can we possibly expect women to break the glass ceiling if they remain bound in tradition? The answers to these questions lie in empowering women.

Khap panchayats have a social standing in Haryana and are important pillars of its society. Over the years, some of them have been associated with a few decisions that have received public flak. As the leader of the largest khap in Haryana, I realised that we had to convey a progressive message to people and make them aware of the changes that the country is witnessing. I understood that holistic development couldn't take place by confining our women behind the veil. I decided to start a conversation around this issue.

Every year, on February 19, I convene a gathering of the roughly 1,440 villages that fall under my khap across Haryana, Punjab, Uttar Pradesh and Rajasthan. The purpose of this annual gathering is to propose and implement measures that can eradicate many social evils. In previous years, we have raised our voice against practices like female foeticide and dowry. The Beti Bachao, Beti Padhao campaign is also an important focus area for our khap. While adopting these new ideas, I also felt the need to do away with some archaic notions that were holding back women. After all, it would be hypocritical if we spoke about educating girls on the one hand, and encouraged stifling practices like the veil on the other.

This year, I declared that women no longer needed to cover their faces with the veil. Spurn the veil, I told the gathering. The decision was unprecedented, but I knew that it had to be taken. I sought the approval of those who had gathered for the meeting and they nodded in agreement. "We should implement the decision in all villages," I declared, and requested people to create awareness about the decision in their respective villages. I told them that

women deserved liberty and freedom to make their own choices, and it was important for the khap to stamp its approval on the changes that society was witnessing.

Through the medium of my khap, I decided to drive conversations around the social shackles that had, over the years, gained currency as acceptable practices. Committees were formed and dispatched to different villages to drive home the importance of the decision.

Over the past few months, women in at least 700-800 villages have spurned the veil. Women have approached me on the sidelines of social gatherings to thank me for the decision. Women in my family also celebrated this decision. My wife, until a few years back, used to cover her face with a veil while visiting the village. She no longer wears the veil, and neither does my daughter-in-law. I never insisted that my daughter-in-law cover her face with a veil. She is an educated woman, and makes her own choices. I believe that all girls should be educated and empowered so that they can grow up to become women who can take charge.

It is a change demanded by both time and necessity. Earlier, women would draw the veil reflexively, without anyone telling them. They would face shame and stigma for not doing so. They did not even dare enter the village chaupal, a space traditionally used by men for informal gatherings.

That has changed now. Now people appreciate women who have shed these inhibitions. "Look, how smart his or her daughter is," they now say.

The veil is no longer a compulsion. It's not binding on anyone. At the same time, I am mindful of the fact that one cannot force women out of the veil. Many older women or women who are not educated continue to wear the veil as a mark of respect for their elders. We can't expect them to give up on an age-old practice.

Men should learn to accept women without veils. Those still resisting this should wear the veil to get a sense of the challenges faced by women.

I want to ask you all, why do we adopt different yardsticks for our daughter and daughter-in-law? The answer to all these questions lies in making sure that we walk the talk, and step forward to make the change. Society has progressed over the years, and one cannot continue to treat women as second-class citizens.

We should condemn hate crime and those who oppose inter-caste marriage. There is no honour in killing. No one deserves to be killed for one's personal choices. Our khap encourages inter-caste marriage. Women are fewer in number in Haryana due to which men are left with no option but to bring brides from outside. Our Constitution doesn't differentiate between men and women. They have equal rights.

Today, women have conquered different bastions. They are doctors, engineers, IAS, and IFS officers. Be it wrestling, kabaddi, Asian Games or the Commonwealth Games, women are breaking barriers everywhere. Women from Haryana are making their mark. Look at wrestler Sakshi Malik. Haryana's daughter Kalpana Chawla even made it to space. Would this have been possible if they had remained behind the veil? Women need to be given equal

opportunities. We, as a society, need to open our eyes and recognise the talent of women. No society can progress if its women don't march ahead. Shunning the veil takes us a step closer to empowering women. As told to Sadia Akhtar (Baljit Singh Malik features in the documentary 'SON RISE' – a film by National Award winning filmmaker Vibha Bakshi)

Health Policy

Unhealthy friction (The Indian Express:20190115)

<https://indianexpress.com/article/opinion/editorials/mamata-banerjee-west-bengal-ayushman-bharat-pmjay-scheme-5538432/>

West Bengal's exit from PMJAY bares tensions between states and Centre over health policy. Both should mend fences

Punjab, Delhi, Kerala, Telangana and Odisha — non-NDA-ruled states — had opted out of the PMJAY when the programme was launched.

Three-and-a-half months is too short a period to judge the performance of any policy. The period is definitely too brief for the Pradhan Mantri Jan Arogya Yojana (PMJAY) to come into full play. Even then, West Bengal's withdrawal from the Centre's ambitious health insurance scheme, last week, raises disturbing questions. The state government's reason for the move bares the fact that ownership of the project remains a fraught issue. West Bengal Chief Minister Mamata Banerjee has alleged that the Centre is taking "all credit" for the scheme. She said that her government will not honour its commitment to pay 40 per cent of the scheme's expenses because pamphlets being distributed by Ayushman Bharat — PMJAY's nodal agency — "mention the name of the Prime Minister and have his photograph". This certainly smacks of petty politics. However, West Bengal's exit from the PMJAY also speaks poorly of the Centre's efforts to make the states, especially the ones where the NDA does not hold office, partners in its flagship project.

Punjab, Delhi, Kerala, Telangana and Odisha — non-NDA-ruled states — had opted out of the PMJAY when the programme was launched. But Kerala and Punjab eventually agreed to implement the scheme. Delhi, Telangana and Odisha, however, continued to raise issues over converging their existing health programmes with the PMJAY. West Bengal too had similar reservations to begin with, but the state government came around to aligning its existing scheme, Swasthya Saathi, with the Centre's programme. This decision meant that an additional one crore people in West Bengal got a health insurance cover. But the state's volte face means that these beneficiaries stand to lose out.

PMJAY's architecture gives states the flexibility to decide the modalities of implementation. But Delhi, Telangana and Odisha's objections show that more work needs to be done in this respect. The greater problem, however, is that the boundaries between genuine differences over modalities and politicking have become blurred. The three states, for instance, claim their policies are better than the PMJAY. Instead of finding ways to end the stand-off, the Centre has often resorted to grandstanding. Union Minister of Textiles Smriti Irani had berated Odisha CM Naveen Patnaik for withholding the benefits of Ayushman Bharat from the state's people. West Bengal's withdrawal signals a new low.

Food Allergy

Healthy babies' gut bacteria prevent common food allergy (Medical News Today:20190115)

<https://www.medicalnewstoday.com/articles/324171.php>

Gut bacteria have a crucial role in protecting against food allergies, according to recent research.

Cow's milk is the most common food allergen among children.

When scientists transplanted gut microbes, or microbiota, from healthy human babies into mice with no bacteria of their own, the animals did not have an allergic reaction on exposure to cow's milk.

In contrast, germ-free mice that received gut bacteria from human babies with cow's milk allergy did experience allergic reactions to cow's milk.

Allergy to cow's milk is the most common childhood food allergy.

The researchers, who report their findings in the journal *Nature Medicine*, also identified a bacterium that, when present in the gut, prevents allergic responses to food.

"This study," says senior study author Cathryn R. Nagler, Ph.D., a professor in food allergy at the University of Chicago in Illinois, "allows us to define a causal relationship and shows that the microbiota itself can dictate whether or not you get an allergic response."

She adds that the results "strongly suggest" that treatments that work by altering gut bacteria could help to reduce the "food allergy disease burden."

Food allergy and prevalence

Allergic reactions happen when the immune system responds in an extreme way to foreign substances, or allergens, that usually cause no harm in most people.

Some common substances that produce allergic reactions include pollen and certain types of food.

Although most reactions are not severe, when they are, they can be life-threatening because of the enormous stress that they place on circulation and breathing.

Cow's milk, eggs, peanuts, soy, wheat, and tree nuts are some of the foods that most often provoke allergic responses in children.

The foods that are most likely to cause allergic responses in adults include fish, shellfish, peanuts, and tree nuts.

In childhood, most food allergies develop in the first 2 years of life.

The prevalence of food allergy in those aged 0–17 years has been rising slowly in the United States. During 1997–1999 it was 3.4 percent, and it rose to 5.1 percent during 2009–2011.

Gut microbes, health, and disease

With an internal surface area of some 250–400 square meters, the gastrointestinal tract, or gut, is one of the largest interfaces between the human body and its environment.

Around 60 metric tons of food pass through the human gut in an average lifespan. This includes a huge quantity and variety of microorganisms that could be a considerable threat to gut health.

'Surprising' number of food allergies begin in adulthood, study says

A study reveals that up to 45 percent of U.S. adults diagnosed with a food allergy did not have the same symptoms in childhood.

Over thousands of years, the human gut and the vast colonies of microbes that live in it — collectively termed the gut microbiota — have together evolved a complex relationship that benefits both sides.

As a result of this long association, gut microbes have come to play a key role in the health and disease of their human hosts. For example, they help to digest food, harvest energy, protect against pathogens, and control immunity.

However, imbalances in the composition of gut microbes can disrupt these vital functions. This may cause or contribute to illness or prompt failure to protect against it.

As tools for investigating and profiling gut bacteria have improved, so scientists have increasingly uncovered connections between gut microbes and diseases that affect not only the intestines but also other parts of the body.

There is evidence to suggest, for example, that gut bacteria can control cancer immunity in the liver, that they may protect against sepsis, and that they could be a trigger for multiple sclerosis.

Cow's milk allergy and gut bacteria differences

A few years ago, some researchers behind the new study found that the gut bacteria of healthy babies differed markedly from those of babies with cow's milk allergy.

This prompted them to wonder if the differences might help the allergy to develop.

To investigate this, they obtained fecal samples containing gut microbes from eight human babies. Four of the infants had cow's milk allergy, while the other four did not.

Using the fecal samples, the team transplanted gut microbes from the human babies with and without cow's milk allergy into mice that had been raised in a sterile environment and had no gut bacteria of their own.

The scientists fed the mice the same infant formula that the human babies received. This was to ensure that the bacteria had the same nutrients and colonized in the same way.

When they fed cow's milk to the germ-free mice that had received gut bacteria from infants with cow's milk allergy, the animals developed anaphylaxis, a life-threatening condition that arises during severe allergic responses.

The same severe response occurred when the team gave cow's milk to germ-free mice that had not received any bacteria (the controls).

However, the germ-free mice that had received gut bacteria from infants without cow's milk allergy showed no severe reactions on exposure to cow's milk. It appears that they were "completely protected."

The investigators then ran genetic comparisons of the gut microbes of the allergic germ-free mice with those that showed no allergic reaction.

The tests identified a particular bacterium by the name of *Anaerostipes caccae*. It seems that the presence of this species in the gut prevents allergic reactions to food.

One bacterium with a huge impact

A. caccae belongs to a class of bacteria called Clostridia. In earlier work, Prof. Nagler and her team had found that the presence of the bacterium in the gut protects against nut allergy.

The recent study suggests that this protection extends to other types of food allergy.

A. caccae produces a short-chain fatty acid called butyrate. This nutrient helps the gut to establish a bacterial composition that promotes health.

The researchers were surprised to find how big an impact this one bacterial species — out of the many that inhabit the gut — can have on the body's reaction to food.

"[This work] shows that we can use metabolic products of the healthy microbiome to develop drugs that protect against food allergy."

Prof. Cathryn R. Nagler, Ph.D.

Sleeping Pills

Safer sleeping pills keep brain alert to danger (Medical News Today:20190115)

<https://www.medicalnewstoday.com/articles/324173.php>

Most sleeping pills are so strong that the sound of a fire alarm is unlikely to wake those who take them. However, a new study, published in the journal *Frontiers in Behavioral Neuroscience*, proposes a safer alternative to these drugs.

New research proposes a safer alternative to existing sleeping pills.

One-third of adults in the United States do not get enough sleep on a regular basis, according to the Centers for Disease Control and Prevention (CDC).

Between 50 and 70 million individuals in the country either have sleep disorders such as insomnia or live with sleep deprivation.

The CDC also report that about 4 percent of the U.S. population over the age of 20 take sleeping pills and that this figure tends to increase with age and education.

According to the same source, 1 in 8 adults in the country who have sleeping problems take sleeping aids.

But how safe are these drugs? Researchers have linked various adverse health effects with the prolonged use of sleeping aids, and the risk of addiction is well-known.

New research points to another safety hazard that sleeping pills may pose. Professor Tomoyuki Kuwaki, Ph.D., of Kagoshima University in Japan, and colleagues note in their paper that retaining "the ability to wake from sleep in response to dangerous situations is an ideal characteristic of safe hypnotics."

But most sleeping pills do not have this characteristic. In a trial of widely used hypnotics quoted by the researchers, half of the participants who took the drugs did not wake up at the sound of a fire alarm.

However, Prof. Kuwaki and the team may have found a solution to this problem. The researchers tested a novel hypnotic drug in mice and found that the rodents woke up as quickly as their drug-free counterparts when confronted with a danger signal. They were also able to fall back asleep just as quickly when the threat was gone.

Studying a safer alternative to sleeping pills

Prof. Kuwaki, who is the senior author of the study, explains how most sleeping pills work. Benzodiazepines, the most widely used type of sleeping aid, suppress our brain's ability to respond to the sensory information it processes during sleep.

These pills "stimulate the widespread brain receptor GABA-A," explains the researcher, "which makes us sleepy but also suppresses off-target brain areas — including the 'gatekeeper' that decides which sensory inputs to process."

Sleep deprivation may cause dehydration

To stave off the harmful effects of sleep deprivation, drink more water.

Prof. Kuwaki and his colleagues hypothesized that a new class of hypnotics, called dual orexin receptor antagonists (DORAs), may enable the brain to stay alert to danger signals, providing a safer alternative to existing sleeping pills.

To test their hypothesis, the researchers administered DORAs to one group of mice, gave another group a benzodiazepine called triazolam, and administered a placebo to the third group.

"DORA-22 and triazolam had similar sleep-promoting effects, extending the duration of deep sleep by 30–40% compared to placebo," says Prof. Kuwaki.

Within 1–4 hours of giving the mice the sleeping pills, the researchers presented them with various danger signals: the smell of a fox, an alarming sound, or a trembling of their cages, which mimicked an earthquake.

How DORAs affect sleep and wakefulness

"As expected, arousal in response to these threatening stimuli was delayed significantly in the triazolam treatment, but not in the DORA-22 treatment, compared to placebo," reports the senior author.

Importantly, the sleep-inducing effects of DORA-22 continued after the threat had passed.

"Even though the DORA-22-treated mice were quickly woken by a threat, they subsequently fell back asleep as quickly as with triazolam, and significantly faster than with placebo," says Prof. Kuwaki.

DORAs are also less likely to induce drowsiness the next day and affect one's ability to drive vehicles. Human clinical trials are needed to further test the benefits and safety of DORAs, but the researchers are hopeful that the benefits will translate to humans.

"Although it remains to be seen whether DORAs have the same properties when used in humans, our study provides important and promising insight into the safety of these hypnotics."

Professor Tomoyuki Kuwaki

Alzheimer's disease

A lack of deep sleep could indicate Alzheimer's development (Medical News Today:20190115)

<https://www.medicalnewstoday.com/articles/324161.php>

A recent study suggests that a warning sign may come before any symptoms of Alzheimer's disease: Adults who do not get enough deep sleep may be on their way to developing the disease.

A lack of deep sleep may lead to Alzheimer's disease.

Researchers from the Washington University School of Medicine in St. Louis, MO, found that older people who experience less slow-wave sleep (in other words, deep sleep) have elevated levels of a brain protein called tau.

The findings, published in *Translational Medicine*, note that higher levels of tau are a sign of Alzheimer's disease.

Elevated levels have also previously been associated with both brain damage and cognitive decline.

Slow-wave sleep and brain proteins

Slow-wave sleep helps people consolidate their memories and experiences, and getting enough of this type of sleep helps people wake up refreshed and energized.

In order to find out if there is a connection between a lack of deep sleep and the development of Alzheimer's, the authors put together a study that involved 119 people aged 60 years or older.

A full 80 percent of the participants had no cognition problems, and the rest had only mild impairment. To conduct the study, researchers monitored their sleep at home over the course of a week.

They gave each participant a portable electroencephalogram, or EEG, monitor that measured brain waves as they slumbered. The participants also wore a watch-like sensor to help track body movement.

In addition, they kept sleep logs that included how much they slept at night and whether they napped during the day.

Bad sleep increases Alzheimer's-related brain proteins

Can chronic poor sleep in midlife raise the risk of developing Alzheimer's disease?

The researchers also measured the amount of amyloid beta and tau in the brain and in the cerebrospinal fluid found around the brain and spinal cord. There were two ways to do this — 38 people underwent PET brain scans, and 104 people underwent spinal taps, with 27 people doing both.

When they looked at the data collected, they found that those adults who experienced less slow-wave sleep had higher amounts of tau in the brain, and they also had a higher tau-to-amyloid ratio in their cerebrospinal fluid.

"The key is that it wasn't the total amount of sleep that was linked to tau, it was the slow-wave sleep, which reflects quality of sleep," noted first study author Dr. Brendan Lucey, director of the Washington University Sleep Medicine Center and an assistant professor of neurology.

"The people with increased tau pathology were actually sleeping more at night and napping more in the day, but they weren't getting as good quality sleep," he explained.

Alzheimer's disease

Alzheimer's disease is the most common form of dementia, according to the Alzheimer's Association. The term dementia describes memory loss and other cognitive problems that are serious enough to interfere with daily life.

It is important to note that Alzheimer's is not a normal part of the aging process, and while most with the disease are aged over 65, it can occur in younger people.

Alzheimer's is a progressive disease, which means that it gets worse over time and is the sixth most common cause of death in the United States.

Mortality rates vary, with the average person living around 4–8 years after diagnosis. However, in some cases, a person with Alzheimer's can live 20 years after they've been diagnosed.

There is currently no cure for the disease, but there are treatments available for symptoms. These treatments can often slow the progression of the disease, which makes early diagnosis crucial, and this is why research such as the recent study is so important.

What the future holds

Of course, research into Alzheimer's disease is ongoing, and Dr. Lucey admits that he does not expect sleep monitoring to replace traditional brain scans or cerebrospinal fluid analysis in regards to identifying early signs of Alzheimer's.

However, this is something that caregivers and doctors can keep in mind as people grow older, even if they're not yet showing any signs of the disease.

"It's something that could be easily followed over time, and if someone's sleep habits start changing, that could be a sign for doctors to take a closer look at what might be going on in their brains."

Dr. Brendan Lucey

Heart Disease

Personal income may increase risk of heart disease (Medical News Today:20190115)

<https://www.medicalnewstoday.com/articles/324135.php>

Income levels, if they are unstable, can easily turn into a stressor. However, the volatility of personal income could be having a more serious effect on people's heart health.

Does how much money we earn affect cardiovascular health?

It is often expected that a person's income will constantly rise until they reach retirement age.

However, this isn't always the case. In fact, incomes have become so unpredictable that their volatility has reached an all-time high since 1980.

When a person's income fluctuates, it can alter many other factors in their life.

It can affect everything from mental health to diet, which could result in potentially serious health problems.

A new study suggests that personal income may even be associated with an increased risk of heart disease and death.

What is most surprising is that this link is present in relatively young people. We know this because an ongoing study has been tracking the health of young people living in four cities around the United States for nearly 3 decades.

The Coronary Artery Risk Development in Young Adults (CARDIA) study started in 1990. The four cities are Minneapolis, MN, Chicago, IL, Oakland, CA, and Birmingham, AL. Each participant was aged 23–35 years when the researchers first examined them.

The risk of low income

The researchers behind the new study analyzed data from the CARDIA study to see whether there was a link between income fluctuations and risk of cardiovascular events as well as death. They first studied income levels taken from five assessments in 1990–2005.

They defined income volatility as a percentage change from one income figure to the next. They also looked at income drop, or an income decrease of 25 percent or more from the previous assessment figure.

How does income actually affect life expectancy?

A recent study takes a deeper look at the theory that wealthy people live longer.

They then tracked the number of people who experienced cardiovascular events — both fatal and non-fatal — or died of any cause in 2005–2015.

There were 106 cardiovascular events and 164 deaths. The team took into account factors such as pre-existing heart risk and sociodemographic background.

The results, now published in the journal *Circulation*, found that substantial fluctuations in personal income were associated with a higher risk of death and cardiovascular diseases in the decade following this income change.

The highest levels of income volatility were linked with almost double the risk of death and over double the risk of conditions such as strokes, heart failure, or heart attacks.

These findings were all compared with those of people who fell into a similar category but who had less of an alteration in their personal income.

Some people were more likely to experience high income volatility. Such people included women, African-American people, those who are unemployed, people who are not married, people who smoke, those with less than a high school education, and people with signs of depression.

Why money matters

Lead study author Tali Elfassy, Ph.D., at the University of Miami Miller School of Medicine in Florida, says that income volatility "presents a growing public health threat, especially when federal programs, which are meant to absorb unpredictable income changes, are undergoing continuous changes, and mostly cuts."

"While this study is observational in nature and certainly not an evaluation of such programs, our results do highlight that large negative changes in income may be detrimental to heart health and may contribute to premature death."

Tali Elfassy, Ph.D.

It is not clear what exactly prompts income volatility to result in an elevated risk of cardiovascular problems, death, or both. It could be that fluctuations in a person's income result in unhealthful behaviors, such as excessive alcohol consumption, a lack of exercise, stress, and high blood pressure.

All of these things are linked to lifespan and cardiovascular health.

The researchers hope that other scientists will carry out further research to understand the cause of this newly found association. They list biologic and psychosocial pathways as being two potential reasons to explore.

They also see these findings as a way to more effectively screen people, especially those who are younger, for cardiovascular disease risk.

However, these results cannot currently be applied to all identities. Other ethnic groups and people living outside of cities will also need to be studied to see whether the same association is present.

Back Pain

What is the impact of back pain over time? (Medical News Today:20190115)

<https://www.medicalnewstoday.com/articles/324174.php>

Most people struggle with back pain at some point, and its effects on the quality of life can be far-reaching. A new study looks at the outcomes of different types of back pain over time in a representative cohort.

How does back pain affect us? A new study investigates.

Past research has shown that back pain — specifically lower back pain — is the "leading cause of activity limitation and work absence throughout much of the world."

Moreover, according to a study previously covered by Medical News Today, back pain is also associated with numerous mental health symptoms, including anxiety and depression.

Due to the far-reaching effects and the fact that the right treatment can often be difficult to find, healthcare costs for back pain can be quite steep.

One study, published in JAMA in 2016, found that in 2013 alone, "low back and neck pain accounted for the third-highest amount" spent on healthcare in the United States, coming to an estimated total of \$87.6 billion.

Now, three specialists at the Krembil Research Institute in Toronto, Canada, have looked into the effects of back pain in the general population over time, assessing information about comorbidities (coexisting health conditions), disability, and the use of medication, among other factors.

Their findings appear in the journal *Arthritis Care & Research*, a publication of the American College of Rheumatology.

The good news and the bad

The researchers analyzed data collected from 12,782 participants based in Canada, whose health they followed from 1994 to 2011.

The investigators interviewed the participants once every 2 years, gathering information on their comorbidities, levels and frequency of pain, disability status, drug use, and visits to their physicians.

Throughout the follow-up period, 45.6 percent of the participants reported at least one instance in which they experienced back pain.

Among this cohort, the researchers identified four categories of back pain:

persistent (reported by 18 percent of participants)

developing (28.1 percent)

occasional (33.4 percent)

recovery from back pain (20.5 percent)

'Coaxing' stem cells to form new bone tissue

Generating bone tissue from stem cells could improve the outcome of spinal surgeries.

The researchers found that the participants with persistent or developing back pain tended to experience more pain overall, as well as greater disability.

The participants in these groups also used more drugs for pain relief and paid more visits to doctors than individuals who had occasional back pain or who had recovered. Still, the participants in the recovery group reported taking increasing dosages of opioids over time.

"The good news is that 1 in 5 people with back pain recovered," says the study's lead author, Mayilee Canizares, Ph.D. "[H]owever," she adds, "they continued to use opioids and antidepressants, suggesting that people recovering from back pain need ongoing monitoring."

"The bad news was that 1 in 5 experienced persistent back pain, with an additional group — almost 1 in 3 — who developed back pain over time. These two groups were associated with greater pain limiting activity, disability, and depression, as well as increased healthcare and medication use."

Mayilee Canizares, Ph.D.

In response to these findings, Canizares and her colleagues suggest that doctors should aim to prescribe more personalized treatments for back pain, rather than offering the same generic approach to everyone.

Currently, physicians often prescribe opioids for the management of back pain, though there is evidence that non-opioids could work just as well, and recent research has encouraged the increased prescription of therapies that rely less on drugs and more on restorative approaches.

"The distinct groups identified in [our present] study may represent opportunities for more individualized treatment and preventative strategies," Canizares also emphasizes.