

News and Views

Key Health-related Highlights of the Union Budget 2022-23

The budget does not have much for the health sector directly, though indirectly it has made provisions for drinking water and housing. Here are the key health-related highlights:

- A National Tele-Mental Health Programme to be launched with NIMHANS as the nodal center and 23 tele-mental health centers of excellence, for mental health counseling and care.
- An open platform for the National Digital Health Ecosystem consisting of digital registries of health providers and health facilities, unique health identity and universal access to health facilities.
- Integrated benefits to women and children through Mission Shakti, Mission Vatsalya, Saksham Anganwadi and Poshan 2.0.
- Two lakh anganwadis to be upgraded to Saksham Anganwadis with better facilities.
- Har Ghar, Nal Se Jal: Provide tap water connections to 3.8 crore households in 2022-23.
- Housing for All: 80 lakh houses in 2022-23 under Pradhan Mantri Awas Yojana.
- Government will introduce a battery swapping policy to encourage use of electric vehicles in the country.

For the individual taxpayer, there is no change in the income tax slabs. They remain the same.

(Source: Press Information Bureau, Ministry of Finance, Feb. 1, 2022)

ICMR Approves COVID-19 Test Kit Made in Odisha

A rapid antigen test (RAT) kit, developed by a company based in Bhubaneswar, in association with the Regional Medical Research Centre (RMRC), has got the approval of the Indian Council of Medical Research (ICMR) for use to detect COVID-19.

Sanghamitra Pati, Director of RMRC Bhubaneswar, said that the test kit (ImCOV-Ag), developed by IMGENEX India, has a high sensitivity and specificity and is capable of detecting all severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) variants. The RMRC did the internal validation, while a third party – an expert

group from Kerala – assessed the efficacy and accuracy. Following the RMRC validation and third party quality audit, the ICMR gave approval to the test kit.

IMGENEX India's Founder, Sujay Singh, said that the company can make up to 20 lakh kits per month by April... (ET Healthworld – TNN, January 29, 2022)

Nurses had Sleep Issues Due to Work Stress, Schedules During Pandemic: Study

According to a new study, published in the *Journal of Occupational & Environmental Medicine*, more than half of the nurses in the US experienced sleeping issues during the first 6 months of the pandemic, which resulted in anxiety and depression.

Investigators conducted a survey among 629 nurses and interviewed 34 nurses between June and August 2020. The nurses, working across 18 states, were asked about their experiences during the first 6 months of the pandemic in the US. The investigators noted high rates of depression (22%), anxiety (52%) and insomnia (55%) among the nurses. Difficulty sleeping was found to be a contributor to, as well as an outcome of, poor mental health. Sleeping for 5 hours or less prior to a shift increased the likelihood of depression, anxiety and insomnia. The nurses also stated that anxiety and thinking about stressful working conditions, such as staff shortage, being redeployed to a COVID unit, lack of personal protective equipment (PPE) and several patient deaths, was associated with difficulty falling asleep and waking up at night... (HT – ANI, January 29, 2022)

Brisker Walking Associated with Lower Heart Failure Risk

Walking at a faster pace is tied to a lower risk of developing heart failure (HF), according to a new observational study conducted in postmenopausal women.

Researchers tracked more than 25,000 women aged 50 to 70 years for a median of around 17 years. They evaluated a subset of postmenopausal women who were a part of the Women's Health Initiative (WHI) cohort between 1993 and 1998 (N = 25,183, mean [SD] age 62.6 [7.2] years) with no history of HF or cancer. In comparison with women who walked at a casual pace, those walking at an average or fast

pace were shown to have a 27% and 34% lower risk of HF, respectively. Even a short duration of fast walking, even less than 1 hour a week, was correlated with the same amount of reduction in the risk for HF, compared to double that amount of average or casual walking. The findings are published in the *Journal of the American Geriatric Society...* (Medscape, January 28, 2022)

Yoga Maneuver may Help Prevent Vasovagal Syncope

According to a new study, regular practice of a specific yoga maneuver may help reduce the vulnerability to reflex vasovagal syncope.

The maneuver, known as “tadasana”, is a movement-based practice which slowly improves the orthostatic imbalance, as it strengthens the protective neuromuscular reflexes. The tadasana exercise, done for just 15 minutes twice a day, was found to be tied to complete eradication of vasovagal syncope episodes for several patients.

The researchers presented their preliminary findings from a pilot study in a letter to *JACC: Clinical Electrophysiology*. In the study, 113 patients with recurrent vasovagal disorder were advised to practice standard physical maneuvers and maintain adequate hydration. Medications were given at the treating physician's judgment. Sixty-one patients were also trained to practice the tadasana maneuver. The patients were followed for an average of about 20 months. There was a reduction in the episodes of both near-syncope and syncope in both the groups; however, it was more marked in patients practicing the tadasana maneuver... (Medscape, January 28, 2022)

Potential Danger of NeoCov to Human Beings Needs Further Study: WHO

Chinese researchers have identified a new type of coronavirus in bats in South Africa. The research states that the virus has latent ability to mutate; however, the World Health Organization (WHO) has said that its potential needs to be studied further.

Scientists from the Wuhan University, China, have stated that NeoCov can penetrate human cells in the same manner as SARS-CoV-2. It is the closest relative to Middle East Respiratory Syndrome coronavirus (MERS-CoV). In a paper posted on preprint website bioRxiv, researchers stated that the virus is only one mutation away from becoming dangerous for humans. The paper has yet to be peer-reviewed.

The WHO; however, says that whether the newly discovered NeoCov coronavirus is a threat to humans needs to be evaluated further. The global health agency said that it works closely with the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO) and the UN Environment Program (UNEP) to assess and respond to the threat of emerging zoonotic viruses... (ET Healthworld – IANS, January 28, 2022)

Extremely Preterm Babies have Higher Risk of Eye Problems in Young Adulthood

Babies born extremely preterm appear to have worse visual function through young adulthood, suggests a cohort study conducted in the UK and Ireland.

The study included infants born at 22 to 25 weeks' gestation between March and December 1995 in the UK and Ireland. Age-matched individuals born full-term formed the control group. Many of the participants in the control group were classmates to the study patients, who had been enrolled at ages 6 and 11 years.

The mean best-corrected visual acuity (BCVA) among 128 young adults who were extremely premature at birth was found to be significantly worse in comparison with 65 individuals who were born full-term (monocular vision: 0.14 vs. -0.06 logMAR; binocular vision: 0.06 vs. -0.14 logMAR), reported researchers. Mean binocular contrast sensitivity was also worse among those born extremely preterm compared to controls (1.89 vs. 1.95). The findings are published in *JAMA Network Open...* (Medpage Today, January 28, 2022)

Booster Doses Enhance Protection Against Death from Omicron in 50-plus People: UKHSA

The UK Health Security Agency (UKHSA) has stated that nearly 6 months after the administration of second dose of any of the COVID-19 vaccines, protection against death from the Omicron variant was about 60% in those aged 50 years and above. The protection increased to about 95% 2 weeks after the administration of a booster shot.

The agency further stated that data point to high levels of protection against hospitalization from the booster dose. Effectiveness against hospitalization was found to be 90% for the Pfizer/BioNTech jab, which came down to 75%, 10 to 14 weeks following the booster dose. Effectiveness against hospitalization for Moderna jab was 90% to 95% up to 9 weeks following the booster shot.

Dr Mary Ramsay, Chief of Immunization at UKHSA, said that booster shots are offering high levels of

protection against hospitalization and death in the most vulnerable people in the society... (*The Guardian*, January 27, 2022)

Covishield, Covaxin Receive DCGI's Conditional Market Approval for Use in Adults

The Drugs Controller General of India (DCGI) has granted conditional market authorization to COVID-19 vaccines Covishield and Covaxin for use in adults. Union Health Minister, Mansukh Mandaviya, tweeted, "The @CDSCO_INDIA_INF has now upgraded the permission for Covaxin and Covishield from restricted use in emergency situations to normal new drug permission in the adult population with certain conditions."

Under the conditions, the company will supply the vaccines for programmatic settings, with registration on the CoWIN platform and submission of vaccine safety data on a 6-monthly basis. Adverse events after vaccination will be monitored. The approval has been granted under the New Drugs and Clinical Trials Rules, 2019.

The Subject Expert Committee (SEC) on COVID-19 of the Central Drugs Standard Control Organisation (CDSCO) had recommended granting regular market approval to the two vaccines for use in adults under certain conditions on January 19... (*The Hindu – ET Healthworld – PTI*, January 27, 2022)

Tool to Identify Who may Benefit from COVID Convalescent Plasma

A large meta-analysis on the use of convalescent plasma therapy early in the pandemic found no survival advantage for the typical patient hospitalized with COVID-19. However, researchers have now devised a tool to identify who may benefit.

The simple tool, named the Convalescent Plasma Benefit Index Calculator, enables doctors to input patient criteria to ascertain if the patient may benefit from convalescent plasma – age, oxygen need, blood type and history of either diabetes, heart disease or pulmonary disease. The meta-analysis and the study on the validated treatment benefit index (TBI) tool derived from it, were published in *JAMA Network Open*.

The Continuous Monitoring of Pooled International Trials of Convalescent Plasma for COVID-19 Hospitalized Patients (COMPILE) meta-analysis found no significant difference between patients receiving convalescent plasma therapy or control patients on the basis of 11-point ordinal WHO scale. Using data from COMPILE, researchers identified the groups with the

highest odds of a large benefit from convalescent plasma (B1 group; 28% of the population), a modest benefit (B2 group; 42%), and people who may not benefit or may even be at risk of potential harm (B3 group; 31%): B1: OR 0.69; B2: OR 0.82; B3: OR 1.58. People in group B1 had a higher likelihood of having A or AB blood type (56% for each), and a history of cardiovascular disease (52%) or pulmonary disease (52%). B1 and B2 groups each had double the rates of diabetes in comparison with the group that obtained little benefit (40% vs. 20%)... (*Medpage Today*, January 26, 2022)

Moderate-Vigorous Stepping may Reduce Diabetes Risk in Older Women

More steps taken in a day, especially at a higher intensity, may decrease the risk of type 2 diabetes in older women, suggests a prospective cohort study.

Researchers reported that the association between daily stepping and diabetes was not significantly modified by body mass index (BMI) or other common diabetes risk factors, thus indicating that the link is highly generalizable. They assessed data from 4,838 older, community-living women in the Objective Physical Activity and Cardiovascular Health Study. At the time of recruitment, women did not have physician-diagnosed diabetes and had a mean age of 78.9 years. The study participants took an average of 3,729 steps per day, divided roughly evenly between light and moderate-vigorous intensity. After a median of 5.7 years of follow-up, 8.1% of women developed diabetes. According to the least-adjusted model, there was a 14% reduction in diabetes risk per 2,000 steps (hazard ratio [HR], 0.86), while a second model that adjusted for more confounding variables, noted a 12% reduction in diabetes risk per 2,000 steps (HR, 0.88). The final model, which added BMI, revealed a 10% risk reduction; however, it was not statistically significant (HR, 0.90). The findings are published in *Diabetes Care*... (*Medscape*, January 27, 2022)

Omicron Subvariant BA.2 Seems More Contagious, but not More Severe: Denmark

The BA.2 subvariant of the Omicron variant of coronavirus, currently dominant in Denmark, seems to be more contagious than the BA.1 sublineage, stated Danish Health Minister Magnus Heunicke.

Heunicke said, "There is no evidence that the BA.2 variant causes more disease, but it must be more contagious." While BA.1 lineage is accountable for around 98% of all cases of COVID-19 worldwide, in Denmark BA.2 became the dominant strain in the second

week of January. Preliminary assessments indicate that BA.2 could be 1.5-fold more infectious than BA.1, said Denmark's top infectious disease authority, Statens Serum Institut (SSI). But, as per a preliminary analysis by the institute, there appears to be no difference in the risk of hospitalization for BA.2 in comparison with BA.1... (MSN News – Reuters, January 27, 2022)

Omicron-induced Immune Response Effectively Neutralizes Delta Variant: ICMR

A study conducted by the ICMR has shown that people infected with the Omicron variant have a robust immune response which could neutralize Omicron, as well as other variants of concern, including the Delta variant.

According to the study, the immune response induced by the Omicron variant could effectively neutralize the Delta variant, and make re-infection with Delta less likely, thus replacing Delta as the dominant strain. The study thus emphasized the need for Omicron-specific vaccine strategy. The study included 39 individuals. Of these, 25 had received both the doses of AstraZeneca COVID-19 vaccine, while 8 had received two doses of Pfizer vaccine. Six individuals were unvaccinated. Twenty-eight of these 39 individuals were foreign returnees and 11 people were their high-risk contacts. All had been infected with the Omicron variant. The study was released on the preprint server bioRxiv on January 26 and has yet to be peer-reviewed... (ET Healthworld – PTI, January 26, 2022)

Moderna Starts Next Phase of Omicron-specific Booster Vaccine Trial

Moderna announced that the first participant has been administered a jab as part of a Phase 2 clinical trial of a COVID-19 vaccine booster shot specific to the Omicron variant.

The company is moving the trial into its next phase as new research published in the *New England Journal of Medicine* noted that a booster shot of the vaccine was durable against the Omicron variant but did show signs of decreasing antibody protection.

CEO Stéphane Bancel stated that they are reassured by the persistence of antibodies against Omicron at 6 months following the 50 µg booster of the vaccine. Considering the long-term threat posed by Omicron's immune escape, the Omicron-specific variant vaccine booster candidate is being advanced and the next phase of the Phase 2 study is being started. The company intends to recruit around 600 individuals in the study, to be conducted at up to 24 sites in the US.

Meanwhile, Pfizer and BioNTech have also started their own Omicron-specific vaccine trials... (CNN, January 27, 2022)

Two-thirds with Omicron Say They have had COVID before: Study

According to a large, ongoing study, React, which is swab-testing thousands of volunteers in England, two-thirds of individuals recently infected with Omicron say that they have already had COVID-19 infection previously.

While more work is required to understand how many of these are true reinfections, the results reveal the groups that seem to be more likely to contract the infection again. These include healthcare workers and households with children or several members living under one roof.

Over 2 million people have been tested in the study and the latest findings, for the first 2 weeks of this year, come from nearly 1,00,000 polymerase chain reaction (PCR) tests. About 4,000 tested positive. Two out of every three, i.e., 65% of the infected volunteers stated that they had previously tested positive for COVID... (BBC, January 26, 2022)

Flavonoid-rich Foods Tied to Lower Mortality in Parkinson's Disease

According to a new study, berries, red wine and other flavonoid-rich foods are linked to a lower risk for death among patients with Parkinson's disease (PD).

The prospective analysis of over 1,200 participants with an eventual diagnosis of PD noted that people who consumed three or more servings of foods rich in flavonoids in a week had a 70% lower mortality risk compared to those who consumed one or lesser servings of these foods per month. The study included participants from the ongoing Nurses' Health Study (NHS) of female registered nurses, and male participants from the ongoing Health Professionals Follow-up Study (HPFS). Flavonoid intake was evaluated both prior to and after a PD diagnosis. After controlling for age, medical history, lifestyle behaviors and total energy and caffeine intake, higher total flavonoid intake prior to PD diagnosis was tied to a lower risk for all-cause mortality after diagnosis in men (HR 0.53), on comparing highest and lowest quartiles (P for trend, <0.001). In women, this association was not evident (HR 0.93). The pooled HR was 0.70 with significant heterogeneity (p = 0.01). The study is published online in *Neurology*... (Medscape, January 26, 2022)