IIHMR DELHI

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH DELHI

SYNAPSE

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"If you don't have time to read, you don't have the time (or the tools) to write. Simple as that."

--Stephen King

LIFE AT CAMPUS

Folk-fusion band from Rajasthan

On 16th November 2024, IIHMR Delhi hosted a talented band of singers from "Arpan Music Lab". This folk-fusion band blends traditional Rajasthani music with modern instruments and encourages young artists to learn traditional singing. This incredible event, which had singers from Arpan Music Lab, brought a vibrant and unique experience to the thrilled audience with their unique talent. It's amazing to see such initiatives that encourage young artists to learn and preserve traditional singing

IIHMR Delhi becoming ICMR Collaborating Centre of Excellence

IIHMR Delhi reached a significant milestone when it got recognition of Indian Council of Medical Research Collaborating Centre of Excellence (ICMR-CCoE) in November 2024, affirming its leadership in health management education and research. This accolade underscores our steadfast dedication to fostering innovation, excellence, and making meaningful contributions to modern healthcare systems. We are proud to set new standards for the future of heath management.

Commencement of the Management Development Program on Public Health Financial Management

In collaboration with National Health Mission Odisha, IIHMR Delhi began the Management Development Program (MDP) on Public Health Financial Management on 16th December 2024. This program aims to enhance the skills of NHM Odisha's Block Account Managers and District Headquarters Accountants in financial planning, resource optimization and effective public health financial management. The program runs for five days for each batch of these personnel. Over five days, the participants engage in sessions designed to strengthen the public health system and improve financial efficiency in healthcare delivery. This collaborating program is a significant step toward building capacity and empowering financial professionals to make impactful contributions to public health.

Academic Immersion Program

IIHMR Delhi initiated an "Academic Immersion Program" for students to give them firsthand exposure to the hospital and healthcare sector before their summer training or internship begins. The program was organized between 25th to 29th November 2024. As part of this program, students visited different states and gained an understanding of the ground realities. Students were divided into four groups, each group worked on different research projects in various states. One group went to Mahatma Gandhi University of Medical Sciences & Technology in Jaipur, led by Dr. Divya Aggarwal and Dr. Anandhi Ramachandran, to understand Hospital System and Management. Another group went to Damoh District, Madhya Pradesh, for a project titled "An Implementation Research to investigate the barriers and reasons for low adherence to IFA and calcium supplementation and recommend improved adherence to IFA and calcium in selected areas of selected states in India" led by Dr. Sumesh Kumar, Dr. Mukesh R. Raushan, and Tanuj Kaushik. The third group went to District Unnao, Lucknow, under the project "SANKALP - Strengthening Program Implementation and Monitoring to Achieve Single Digit Neonatal Mortality" led by Dr. Preetha G.S., Dr. Anuj K Pandey, and Dr. Altaf Meer Yousuf. The fourth group went to District Sangrur, Punjab, for the project on "Implementation Research to develop an optimized model of comprehensive intervention package and delivery strategies to reduce stillbirth". Students identified the issues that can be addressed through effective management practices. This program helped orient students to real-world challenges and prepares them for their future roles in the healthcare industry. Students also held an official meeting with Dr. Sutapa B. Neogi (Director, IIHMR Delhi) to share their learnings and experiences.

Fire Mock Drill

IIHMR Delhi organized a fire mock drill on 17th December 2024 in campus to raise awareness and ensure preparedness for emergency situations among students, faculty members and staff. The drill, which was conducted in collaboration with Delhi Fire Services, highlighted the importance of learning about fire safety precautions and measures. The personnel from Delhi Fire Services demonstrated the different ways to control fire and familiarized everyone with safety procedures and evacuation protocols in the event of a fire or any other emergency. The participants from NHM Odisha who were attending MDP in the Institute also participated actively in the mock drill and benefited from the exercise.

A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves. —Lao Tzu

The Circular Economy: How Solar Recycling can Save the Planet

In today's era where sustainability is the need of the hour, the circular economy has emerged as a promising framework to combat environmental degradation. With the world rapidly transitioning to renewable energy sources, solar power has become the cornerstone of green energy. Among its many applications, solar panel recycling stands out as a pivotal innovation.

The circular economy is a regenerative model which is designed to minimize waste and maximize the reuse of materials. Unlike the traditional linear economy, which follows a "take-make-dispose" approach, the circular economy focuses on designing products for reusability, recyclability and durability. Solar panel recycling perfectly aligns with this philosophy, offering a sustainable solution to the burgeoning e-waste crisis.

Over the past two decades, solar energy has gained widespread adoption with millions of panels installed worldwide. Solar panels have a lifespan of 25-30 years, so the first generation of these panels is now reaching the end of their life. It is estimated that over 78 million tons of solar panel waste could be generated globally by 2050. Without proper recycling mechanisms, this could lead to massive environmental harm, including the leaching of hazardous materials like lead and cadmium into soil and water.

How solar recycling works?? Solar panels are primarily made of glass, aluminum, silicon, and other valuable materials. Recycling processes focus on recovering these components for reuse. The panels are dismantled, and the glass, aluminum, and junction boxes are separated. This process is known as mechanical recycling. In another process, which is known as thermal recycling, high temperatures are used to separate silicon wafers from the glass and remove any plastic encapsulation. Lastly, via chemical recycling which uses advanced processes extract pure silicon and other rare materials, such as silver and indium, for reuse in new panels.

There are various benefits of solar recycling. Recycling reduces the need to extract raw materials like quartz, aluminum, and rare metals, conserving finite natural resources. Proper disposal and recycling prevent solar panel waste from ending up in landfills and reducing waste. The recycling industry can create jobs and foster innovation in material recovery technologies. Recycling materials requires less energy compared to mining and processing new raw materials, further reducing the carbon footprint.

While solar recycling holds immense promise, it faces several challenges, including, economic viability. The cost of recycling can exceed the value of recovered materials, making it less attractive without subsidies. Lack of infrastructure is another challenge. Many countries lack specialized facilities for solar panel recycling. Clear regulations and extended producer responsibility laws are needed to ensure manufacturers take accountability for end-of-life panels.

To overcome these challenges, governments, industries, and researchers must work together. Subsidies and incentives can make recycling economically feasible, while investments in advanced technologies can improve recovery rates. Public awareness campaigns can also play a crucial role in encouraging responsible disposal of solar panels.

Solar panel recycling exemplifies the principles of the circular economy, turning waste into a resource and creating a sustainable cycle. By embracing solar recycling, not only address the waste generated by the renewable energy boom is addressed but it also conserves resources and protect the environment. It's a vital step toward a greener, cleaner planet, ensuring that our quest for renewable energy doesn't inadvertently harm the Earth we aim to save.

Menopause: A Global Health and Wellbeing Issue that Needs Urgent Attention

Menopause, whether natural, surgical, or induced by medical treatments, is characterised by the permanent cessation of menstruation. It is also associated with several long-term health risks, perhaps the most notable of which is cardiovascular disease which is the leading cause of death in women and an important concern during menopause. Osteoporosis is another major health concern particularly within health-care systems that have poor access to bone health services whereas urogenital atrophy is another common complication of menopause.

Despite the severity of acute symptoms and the serious implications of menopause for women's long-term health, access to menopause care varies widely and is particularly scarce in low-income and middle-income countries (LMICs) with little access to health-care professionals with specialist knowledge of menopause. In addition, cultural and societal factors in some regions can prevent individuals from seeking care, further complicating the management of menopause-related health issues and leading to inadequate support in the workplace and even early retirement.

With increase in life expectancy, more individuals spend more of their lives in the post-menopausal phase. According to WHO, by 2030, over 1·2 billion women worldwide will be menopausal or post-menopausal. This demographic shift, along with the range and impact of the consequences of menopause, amplify menopause as a global health and wellbeing issue and clarify the need for more effective management and equitable access to care.

The paper provides eight key recommendations which are supported by latest evidence to improve health outcomes for individuals with menopause. The future of menopausal care needs to be inclusive, personalised, and gender-sensitive, addressing unique experiences across all ethnicities and races.

To provide comprehensive support, there must be a greater understanding of intersectional care that accounts for diverse social and cultural influences and considers disease sequelae and their impact on health outcomes.

Source: https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(24)00528-X/fulltext

QUIZ TIME
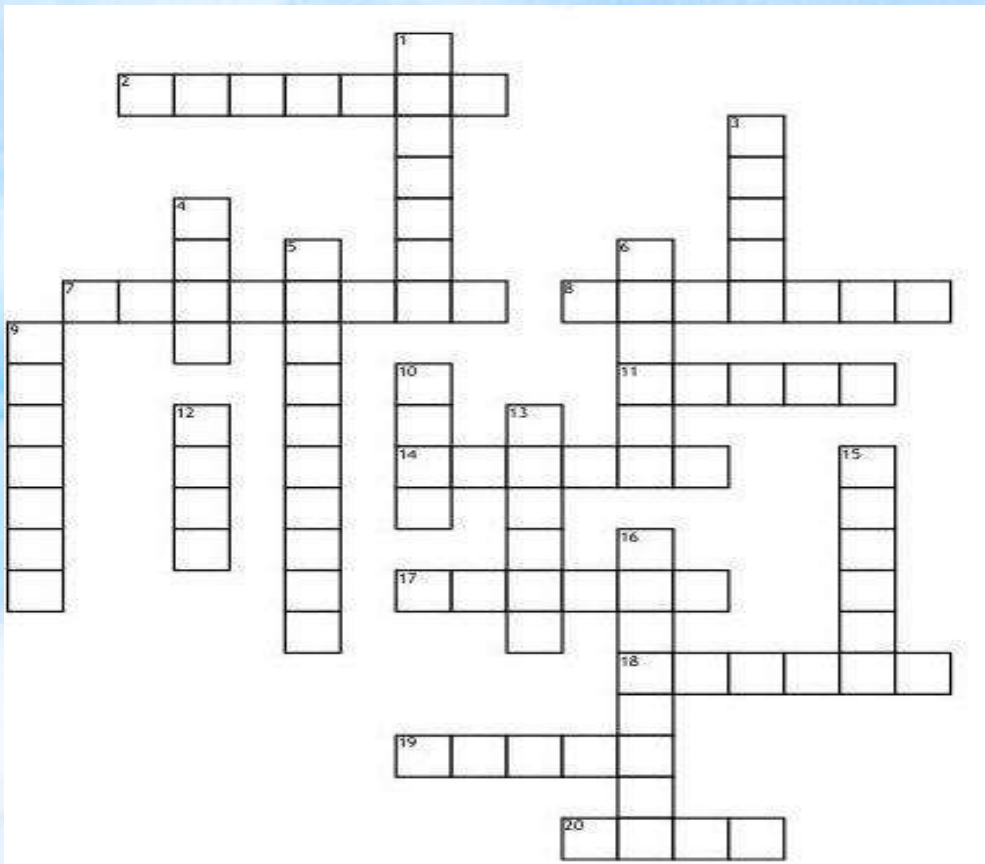
ACROSS

2. a lean white meat
7. used to make chips
8. long pasta used in Asian food
11. red or green fruit that has a core
14. a rabbit's favourite food
17. dairy product used at breakfast time with berries
18. yellow and smooth type of dairy
19. tropical fruit with a big seed
20. salty protein from the sea

DOWN

1. green vegetable with lots of leaves
3. used to make sandwiches
4. you could be allergic to this food
5. only fruit with its seeds on the outside
6. a red juicy fruit used in salads
9. vegetable used at Halloween
10. white grain used in Asian cooking
12. dairy product that comes from a cow
13. a round fruit used for juice
15. a small red or green fruit
16. a green vegetable shaped like a tree

HOSPITAL BUZZ

1) Metropolis healthcare reveals landmark findings for lung cancer awareness month

In recognition of Lung Cancer Awareness Month this November, Metropolis Healthcare, a premier diagnostic chain in India, unveiled key findings from a seven-year research study (2015-2021) examining molecular and clinicopathological aspects of lung cancer. This extensive research analyzed data from over 3,200 lung cancer patients, focusing on genetic mutations critical to non-small cell lung cancer (NSCLC) treatment.
Link- https://ehealth.eletsonline.com/2024/11/metropolis-healthcare-reveals-landmark-findings-for-lung-cancer-awareness-month/

2) 10 children killed, 16 injured in fire at Jhansi hospital

At least 10 children lost their lives, and 16 others sustained injuries in a massive fire that broke out at the neonatal intensive care unit (NICU) of Maharani Laxmi Bai Medical College in Jhansi, Uttar Pradesh, on Friday. The fire, likely caused due to a short circuit, led to panic and chaos, with families and patients desperately trying to escape, leading to a stampede-like situation.
Link- https://www.indiatoday.in/india/story/fire-breaks-out-jhansi-hospital-children-ward-uttar-pradesh-2634235-2024-11-15

3) Leading Indian hospitals announce aggressive expansion plans amidst heightened competition in healthcare

Indian healthcare is witnessing an intense expansion phase as prominent hospital chains strategically increase their footprint across the country to meet rising demand and intensify competition with local hospitals. These moves underscore the competitive intensity within India's healthcare sector as hospital chains rapidly expand to secure market share, meet regional healthcare needs, and align with evolving healthcare demands across the country.
Link- https://ehealth.eletsonline.com/2024/11/leading-indian-hospitals-announce-aggressive-expansion-plans-amidst-heightened-competition-in-healthcare/

4) AIG hospital hosts Indian debut of Pill Bot, a disposable endoscopy device

AIG Hospitals witnessed a landmark moment in medical innovation on Thursday, with the Indian debut of the Pill Bot, a capsule endoscopy technology developed by US-based medical company Endiatx.The programme featured a live demonstration by Alex Luebke, co-founder of Endiatx, who swallowed the tiny capsule-shaped device before an audience of medical professionals and journalists.
Link- https://www.thehindu.com/news/cities/Hyderabad/aig-hospital-hosts-indian-debut-of-pillbot-a-disposable-endoscopy-device/article69004156.ece

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5) THE WEEK Best Hospitals Awards 2024: AIIMS Delhi bags top honour

All India Institute of Medical Sciences, Delhi, was adjudged the best hospital in India at THE WEEK Best Hospitals Awards 2024 held at the Sheraton in Hyderabad today. Telangana Deputy Chief Minister Mallu Bhatti Vikramarka, Health Minister C. Damodar Raja Narasimha and Warangal MP Kadiyam Kavya gave away 24 awards across several categories.
Link- https://www.theweek.in/news/health/2024/12/06/the-week-best-hospitals-awards-2024-aiims-delhi-bags-top-honour-special-health-section-on-website-launched.html

6) India's journey to Universal Health Coverage: achievements, challenges, and opportunities

India's journey toward building a healthier nation is a story of resilience, innovation, and commitment. Over the past decade, the country has implemented transformative policies and initiatives that have significantly improved healthcare access, equity, and outcomes. The cornerstone of this transformation has been the commitment to achieving Universal Health Coverage (UHC), ensuring that all citizens receive the health services they need without financial hardship.
Link- https://ehealth.eletsonline.com/2024/12/indias-journey-to-universal-health-coverage-achievements-challenges-and-opportunities/

7) Health Ministry delists 19 Delhi-NCR hospitals from CGHS for forging medical bills

The empanelment of 19 hospitals in Delhi-NCR under the Central Government Health Scheme (CGHS) has been suspended until further notice for indulging in fraudulent practices, according to an official order. Of the 19 hospitals, four are in Delhi and eight in Noida.
Link- https://www.news18.com/india/health-ministry-delists-19-delhi-ncr-hospitals-from-cghs-for-forging-medical-bills-9121018.html

HEALTH BUZZ

1. IIT Madras releases most detailed 3D High-Resolution images of Human Foetal Brain

Indian Institute of Technology Madras (IIT Madras) has become the First Research Organization in the world to release the most detailed 3D High-Resolution images of the foetal brain. This pioneering work from the Sudha Gopalakrishnan Brain Centre of IIT Madras pushes the frontiers of Brain Mapping Technology and places India in the global league of brain mapping science as this is first-of-its-kind work anywhere in the world. This Data Set, termed 'DHARANI', is available open source, making it freely available for all researchers world-wide (https://brainportal.humanbrain.in/publicview/index.html). For the first time globally, 5,132 Brain sections have been captured digitally using cutting-edge Brain Mapping Technology developed by Sudha Gopalakrishnan Brain Centre in the Institute. This work will advance the field of Neuroscience and potentially lead to the development of treatment for health conditions affecting the brain. This monumental work is the first advanced human neuroscience data that has been produced from India. The project was done at less than 1/10th of the costs in Western Countries. The research was undertaken by a multidisciplinary team at IIT Madras with researchers from India, Australia, U.S., Romania and South Africa, and medical collaborations with Chennai-based Medi scan Systems and Saveetha Medical College Hospital.

Link: https://www.iitm.ac.in/happenings/press-releases-and-coverages/iit-madras-releases-most-detailed-3d-high-resolution-images

2. FSSAI reclassifies packaged drinking water as high-risk, mandates stricter checks

The FSSAI has reclassified packaged drinking water and mineral water as a high-risk food category, mandating stricter regulatory controls and annual facility inspections. The move, effective immediately following an order dated November 29, requires manufacturers to undergo mandatory third-party food safety audits and comply with enhanced quality standards. Central licence holders in this category must now submit to annual inspections aimed at mitigating potential health risks associated with packaged water production. The reclassification by the Food Safety and Standards Authority of India (FSSAI) follows recent amendments to the Food Safety and Standards (Prohibition and Restrictions on Sales) Regulations, 2011, which previously removed mandatory BIS certification requirements for certain food products. The reclassification is designed to strengthen consumer protection and maintain rigorous quality control in the packaged water industry. **Link:**https://economictimes.indiatimes.com/news/india/fssai-reclassifies-packaged-drinking-water-as-high-risk-mandates-stricter-checks/articleshow/115943360.cms?from=mdr

3. **First-in-human indigenous gene therapy for Haemophilia A shows significant positive outcomes**

The first-in-human gene therapy using lentiviral vectors for severe haemophilia A has demonstrated positive results in a recently conducted single-centre study. Supported by the Department of Biotechnology, this innovative therapy was developed by the Centre for Stem Cell Research (CSCR) at Christian Medical College (CMC), Vellore—a translational unit of BRIC-in Stem. The single-centre study has successfully produced zero annualized bleeding rates in all five enrolled participants while enabling prolonged production of Factor VIII, eliminating the need for repeated infusions, the organisation said in a statement. Haemophilia A, a severe bleeding disorder caused by the deficiency of clotting Factor VIII, significantly affects patients' quality of life, leading to spontaneous bleeding episodes. Although rare, India bears the world's second-largest burden of haemophilia, with approximately 136,000 cases. Current treatments require frequent Factor VIII replacement therapy, which faces challenges such as high costs, venous access in children, and low patient acceptance.
Link:https://www.financialexpress.com/business/healthcare-first-in-human-indigenous-gene-therapy-for-hemophilia-a-shows-significant-positive-outcomes-3689479/

4. **India achieves 17.7% decline in Tuberculosis incidence amid strengthened national efforts**

India has achieved a notable 17.7% decline in tuberculosis (TB) incidence, decreasing from 237 to 195 cases per lakh population between 2015 and 2023. This decline surpasses the global reduction of 8.3%. In 2023, approximately 25.1 lakh out of an estimated 27 lakh TB cases were diagnosed and treated, which raised the treatment coverage to 89%. The government's intensified efforts to combat TB include a significant budget increase for the National TB Elimination Programme, which saw funding rise from Rs 640 crores in 2015 to Rs 3,400 crores in 2022-23. Additionally, the Nikshay Poshan Yojana has enhanced monthly patient support from Rs 500 to Rs 1,000, further aiding those affected by the disease. Furthermore, India is enhancing its diagnostic capabilities by procuring AI-enabled portable X-ray machines, which will bolster TB detection efforts. These initiatives reflect a strong commitment to improving TB care and outcomes in the country.
Link:https://www.business-standard.com/health/india-records-17-7-decline-in-tb-incidence-from-2015-to-2023-who-report-124110200792_1.html

5. **Johnson & Johnson's drug delays Multiple Myeloma Progression**

Johnson & Johnson's drug Darzalex (daratumumab) has shown a 51% reduction in the risk of disease progression or death in high-risk patients with smouldering multiple myeloma (SMM). This significant effect helps delay the progression of SMM to active multiple myeloma, a more aggressive form of cancer. By targeting cancerous plasma cells, Darzalex offers a promising treatment for high-risk patients, providing better management of the disease before it becomes harder to treat. This breakthrough could change the treatment landscape for multiple myeloma, enabling earlier intervention and improved outcomes for patients at risk of developing active cancer. In addition to its impressive efficacy, Darzalex (daratumumab) represents a significant advancement in the treatment of multiple myeloma. By targeting CD38 proteins on cancerous plasma cells, the drug not only delays disease progression but also offers hope for patients with limited treatment options. This is particularly important for those with high-risk smouldering multiple myeloma, who previously had few effective ways to prevent the disease from advancing. With Darzalex showing the ability to improve survival rates and reduce progression, it could become a key therapy in managing multiple myeloma earlier, potentially enhancing overall patient quality of life and outcomes.
Link:https://www.reuters.com/business/healthcare-pharmaceuticals/health-rounds-jj-drug-helps-delay-multiple-myeloma-high-risk-patients-2024-12-18/?utm_source=chatgpt.com

6. **Flu Hospitalizations Surge in the UK**

The UK experienced a substantial increase in flu-related hospital admissions, with numbers quadrupling from the end of November to December. By December 29, over 5,000 patients were hospitalized daily, including 211 in critical care. This surge coincided with the holiday season, intensifying pressure on the National Health Service (NHS). In response, the NHS urged eligible individuals to receive vaccinations for flu, COVID-19, and respiratory syncytial virus (RSV) to mitigate the spread of these viruses.
Link: https://chatgpt.com/share/6777d725-efe8-8012-a5a1-9fea4d5a6f6b

7. **AI is trained to spot warning signs in blood tests**

Ovarian cancer is "rare, underfunded, and deadly", says Audra Moran, head of the Ovarian Cancer Research Alliance (Ocra), a global charity based in New York. Like all cancers, the earlier it is detected the better. Most ovarian cancer starts in the fallopian tubes, so by the time it gets to the ovaries, it may have already spread elsewhere too. "Five years prior to ever having a symptom is when you might have to detect ovarian cancer, to affect mortality," says Ms Moran. But new blood tests are emerging that use the power of artificial intelligence (AI) to spot signs of the cancer in its very early stages. And it's not just cancer, AI can also speed up other blood tests for potentially deadly infections like pneumonia.
Link: https://www.bbc.com/news/articles/cq8v1ww51vno

HEALTH IT BUZZ

1. **AI-Driven diagnostics make major strides**

   AI technologies in healthcare, particularly in diagnostic imaging (radiology, dermatology, etc.) and predictive analytics, were likely to make significant advancements. AI models capable of detecting diseases like cancer or cardiovascular issues more accurately than humans might have gained further regulatory approval or integration into major healthcare systems.
   Link: https://www.healthcareitnews.com

2. **Cybersecurity threats in healthcare: a rising concern**

   Cyberattacks on healthcare systems remained a critical issue in 2024. News stories regarding ransomware attacks on large health organizations or new cybersecurity standards from governments and global health agencies might have made headlines. Many healthcare systems would likely continue to invest in improving data security and privacy.
   Link: https://www.modernhealthcare.com

3. **Telehealth expansion and policy updates**

   With many countries expanding their telemedicine frameworks, policy changes (such as reimbursement rates and telemedicine licensing regulations) were anticipated. In the U.S., CMS (Centers for Medicare & Medicaid Services) and international bodies might have worked to expand access to telehealth, especially in rural or underserved areas.
   Link: https://www.thehindu.com

4. **AI and Data interoperability with FHIR standards**

   Major hospitals and health organizations worldwide were expected to adopt and implement FHIR (Fast Healthcare Interoperability Resources) standards more broadly. These standards, along with AI-powered data sharing, would facilitate greater patient data interoperability across systems.
   Link: https://www.healthcareitnews.com

5. **Digital mental health tools gain traction**

   Digital tools for mental health, including AI-powered therapy apps and virtual consultations, were becoming increasingly mainstream in response to the global mental health crisis. Regulatory developments surrounding the approval of such apps or the standardization of care would have been key topics in late 2024.
   Link: https://indianexpress.com

6. National Digital Health Mission (NDHM) implementation progress

The Indian government's National Digital Health Mission (NDHM) is expected to continue evolving with the aim of digitalizing the healthcare ecosystem. Updates on the implementation of health IDs, electronic health records (EHR), and telemedicine platforms were likely major headlines in India. Regulatory updates or funding increases to support digital health infrastructure in rural areas may have been key topics.
Link: https://www.fiercehealthcare.com

7. Telemedicine regulations and growth

Telemedicine continued to expand rapidly across India, especially with rural teleconsultation services. Any updates to regulations or new initiatives to enhance telemedicine services and reimbursement policies for online consultations would have been covered in late 2024.
Link: https://indianexpress.com

8. Rise of health startups in India's digital health ecosystem

Indian health tech startups continued to innovate in areas like digital health records, telemedicine, diagnostic tools, and wearables. The government's support for digital health innovation, including funding or new public-private partnerships, was likely an important theme in 2024.
Link: https://www.modernhealthcare.com

SYNAPSE TEAM MEMBERS

1. **Supriya**
2. **Riddhi Pandey**
3. **Ruchi Verma**
4. **Riya Pathak**
5. **Rabia Tabassum**
6. **Sudeepta Bhushan**
7. **Bhavana**
8. **Harshita Kapil**
9. **Kokil Aggarwal**
10. **Lopita Swain**
11. **Isha Sharma**
12. **Vaishnavi Rawat**
13. **Tarashi Singh**
14. **Suman Dhankar**

ANSWERS

Across:	Down:
2. Chicken	1. Lettuce
7. Potatoes	3. Bread
8. Noodles	4. Nuts
11. Apples	5. Strawberry
14. Carrot	6. Tomato
17. Yogurt	10. Rice
18. Cheese	12. Milk
19. Mango	13. Orange
20. Fish	15. Grapes
	16. Broccoli