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Ensuring Drug Safety: Risk and realities of counterfeit and Falsified Medicines



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he World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." It also emphasizes that health is a fundamental human right, irrespective of race, religion, political beliefs, or socio-economic status. Naturally, everyone aspires to live a long and healthy life.

Modern medicine has played a crucial role in enhancing both health and longevity. However, disparities in the quality of medicines persist across the globe. Governments hold a significant responsibility in regulating healthcare standards and ensuring the consistent quality of pharmaceuticals. As consumers, we expect medicines to meet uncompromising quality standards—but unfortunately, the reality often falls short of these expectations.

A counterfeit or falsified medication is a pharmaceutical product that is deliberately misrepresented in terms of its origin, authenticity, or effectiveness. These drugs may contain incorrect amounts of active ingredients—or none at all. They may also include unlisted substances, which could be harmless or potentially dangerous. Additionally, counterfeit medicines are often distributed with false or misleading packaging and labeling, making them difficult to distinguish from genuine products.

The World Health Organization (WHO) estimates that 10.5% of medications worldwide are substandard or falsified. The prevalence of counterfeit medicines in low-and middle-income countries (LMICs) is estimated at around 13.6%, with the potential financial impact reaching up to \$200 billion globally. This growing threat affects the entire world, as counterfeit drugs compromise health outcomes and economic stability. Every drug therapy comes with a cost—whether it's the individual bearing the burden through out-of-pocket expenses (OOPE, which are highest in LMICs), or the insurer or government funding the treatment.



Impact of counterfeit medicines

1. Therapeutic categories

Antibiotics and antimicrobials are the most commonly falsified and counterfeit pharmaceutical products, comprising 28% of the global counterfeit medicine market. Between 2014 and 2016, antibiotic drugs made up 36% of all counterfeit pharmaceuticals seized by customs worldwide. Among substandard medications, amoxicillin was reported in 29 countries, ampicillin in 17 countries, tetracyclines in 11 countries, and trimethoprim-sulfamethoxazole in 10 countries. In addition to antibiotics, other commonly seized counterfeit pharmaceuticals include medications used to treat malaria, diabetes, epilepsy, heart disease, allergies, high blood pressure, cancer, and stomach ulcers, as well as local anaesthetics.

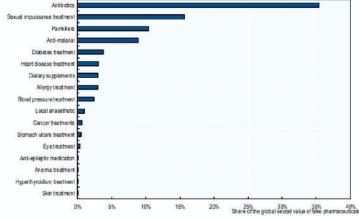


Fig 1- Therapeutic categories of counterfeit drugs seized (Source-OECD data)



2. Geographical distribution

Although counterfeit drugs are a global concern, certain countries and regions are more frequently associated with the production and distribution of illicit pharmaceuticals. The highest prevalence of the falsified and substandard medicines was registered in Africa (18.7%) and Asia (13.7%). The Sub-Saharan African region, burdened with a high prevalence of infectious diseases, has seen a substantial demand for antimalarials, antibiotics, and antiretrovirals. This heightened demand has unfortunately created fertile ground for the spread of falsified and counterfeit versions of these essential medicines. Countries such as Nigeria, the Democratic Republic of the Congo (DRC), Tanzania, and Uganda have reported numerous instances of counterfeit pharmaceuticals infiltrating their supply chains.

In India, the counterfeit drug market is expanding at an alarming rate, posing a significant threat to the legitimate pharmaceutical industry. According to estimates from the Indian Health Ministry, approximately 5% of medicines in the country are counterfeit, while 0.3% are classified as spurious. Shockingly, around 75% of counterfeit medicines distributed globally are believed to originate from India. With the Indian pharmaceutical market valued at approximately INR 40,000 crore, it is estimated that counterfeit drugs account for nearly 20% of this market.

Following closely behind India, China and Hong Kong are responsible for approximately 31% of the global share of falsified and counterfeit medications. This widespread issue impacts a wide range of drugs, from essential antibiotics to lifestyle medications and even vaccines. The scale and complexity of China's pharmaceutical manufacturing industry, along with the existence of unregulated and often hidden production units, provide fertile ground for the proliferation of counterfeit pharmaceuticals.

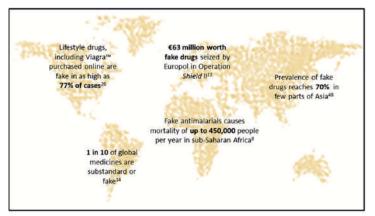


Figure 2 - Highlights of drug counterfeiting across the globe

3. Impact of Covid 19

The recent COVID-19 pandemic, which devastated countries worldwide, inadvertently created fertile ground for the illegal counterfeit medicine market, a problem that already posed a serious global threat.

The surge in COVID-19 cases led to an unprecedented demand for medicines, protective equipment, and diagnostic kits. This spike in demand, combined with disrupted global supply chains and limited regulatory enforcement capacities, gave counterfeiters ample opportunities to exploit the crisis. Across the globe, authorities reported seizures and arrests related to the sale and distribution of fake COVID-19 vaccines. In countries like Mexico and Poland, counterfeit Pfizer vaccines were reportedly sold for as much as \$1000. Meanwhile, in southern Africa, Interpol intercepted a haul of fake vaccines, medicines, masks, and fraudulent COVID-19 test certificates valued at approximately \$3.5 million, underscoring the severity and scale of the issue.

Reports indicate that the illegal drug market surged by over 400% by the end of 2021. In India, several alarming incidents were reported involving the falsification and illegal sale of critical COVID-19 treatments, such as hydroxychloroquine and remdesivir. In some cases, empty remdesivir vials were deceitfully filled with liquid paracetamol or even saline solution.

Tackling counterfeit drugs: Role of regulators

The United States Food and Drug Administration (USFDA) has implemented the Drug Supply Chain Security Act (DSCSA) to combat the circulation of counterfeit medications. This legislation mandates the development of an interoperable electronic system to trace prescription drugs at the packaging level throughout the supply chain. By enabling the identification and tracking of medications from manufacturers to dispensers, the DSCSA significantly enhances the FDA's ability to detect and prevent exposure to counterfeit, stolen, contaminated, or otherwise unsafe drugs. The FDA also electronically screens every imported shipment of FDA-regulated products. This ensures that products entering the U.S. meet safety standards, adding another layer of protection for consumers.

The International Medical Products Anti-Counterfeiting Taskforce (IMPACT) was established by the World Health Organization in 2006. This collaborative initiative brought together national governments, the pharmaceutical industry, non-governmental organizations, and law enforcement agencies like Interpol to develop coordinated strategies and actions to curb the manufacturing, distribution, and sale of falsified and substandard medical products worldwide.

The European Parliament and European Council introduced the Falsified Medicines Directive (FMD) as a key regulatory step to combat the growing issue of drug counterfeiting. This directive mandates the inclusion of safety features on the packaging of certain prescription medicines for human use. These safety features include a unique identifier (such as a 2D barcode) and an antitampering device, enabling verification of authenticity



and protection against unauthorized access, thus enhancing patient safety and supply chain integrity.

The Indian government established a dedicated task force to address the growing challenge of drug counterfeiting. After careful analysis, the task force recommended the implementation of two key measures to make the track-and-trace system effective, A unique identification number for every primary pack, enabling consumers to verify the authenticity of the medicine and a 2D barcode on each package containing complete product information, allowing for quick data retrieval throughout the supply chain. To further empower consumers, the Drug Technical Advisory Board (DTAB) has launched an SMS-based verification system - consumers can send the unique code found on a medicine pack to the DTAB's designated number and receive an authentication message directly from the manufacturer.

Novel Technologies to Tackle Counterfeit Drugs

DNA tagging involves embedding unique DNA markers within drug formulations, offering a highly secure and verifiable method to combat pharmaceutical counterfeiting. These DNA markers are extremely difficult to replicate, providing a reliable layer of authentication that enhances supply chain integrity. The technology allows quick and accurate verification using specific testing protocols, thereby reducing the risk of counterfeit drugs reaching consumers. However, despite its effectiveness, DNA tagging comes with limitations. It requires expensive, specialized equipment for detection and verification, which can limit its scalability, especially in low-resource settings.

Blockchain technology is a powerful tool in combating drug counterfeiting. Its decentralized and tamper-proof nature allows secure tracking of drugs throughout the supply chain. Blockchain provides real-time visibility into drug movements, helping to authenticate products, track origins, and quickly identify counterfeit drugs. This improves patient safety, enables rapid recalls, and minimizes financial losses for pharmaceutical companies.

Blind watermarking involves embedding binary digits (bits) onto the surface of Fused Deposition Modeling (FDM) 3D-printed tablets. The key advantage of this method is that it does not affect the appearance, weight, API content, or printing time of the medications. Detection can be performed with just a computer, an FDM 3D printer, and a paper scanner. However, this technique is limited to straight, flat tablets and works only with specific types of polymers.

Candy-Codes are edible identifiers applied to pills, tablets, or capsules, consisting of tiny nonpareil candy spheres used as dessert decorations. These identifiers are randomly applied to legitimate drugs during manufacturing, creating unique patterns that are photographed and stored in a database. To verify the authenticity of their medications, patients simply upload a photo from their phone's camera to the manufacturer's database.

The world faces unique risks related to falsified and counterfeit medicines, particularly due to the rise in global travel and cross-border pharmaceutical trade. These fake medications not only endanger individual health but also undermine trust in healthcare systems. Tackling this complex challenge requires collaborative efforts from healthcare professionals, regulatory authorities, and international organisations.

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WINNING AT PRODUCT MANAGEMENT IN THEAIERA

On March 17, 2025, a session titled "Winning at Product Management in the AI Era" was held at the Institute of Health Management Research (IIHMR), Bangalore. With an emphasis on the revolutionary potential of artificial intelligence (AI), the event, which was organized by the Management Club in partnership with The Health Club, sought to provide attendees with strategic insights into product management in the healthcare industry.

Prominent speakers at the program included Ms. Parul Aggarwal, Strategy Consultant at Decimal Health and a key member of The Healthtech Collective, and Dr. Rishi Sen, Senior Product Manager at Athenahealth. Discussions were also aided by faculty members, such as Dr. Deepashree M. R. and Mr. Shamsuzzaman Ansari.





Dr. Sen gave a summary of how artificial intelligence is transforming healthcare product management. For future product leaders, he underlined the value of flexibility, interdisciplinary education, and user-centered design. He provided examples of how AI is used in automation, patient interaction, and clinical decision support. Ms. Aggarwal emphasized teamwork, creativity, and strategic thinking while highlighting the exciting job options in digital healthcare. She urged students to embrace a growth mindset and make use of networking and mentoring, drawing on her experience with startups. The interactive event encouraged attendees to investigate AI-driven jobs in healthcare by incorporating case

discussions, Q&A, and useful insights. The goal of the workshop's conclusion was to connect industry innovation with scholarly understanding.

PHANA HOSTS FIRE SAFETY CONFERENCE FOR HOSPITALS IN BANGALORE



PGDM first year students at the event accompanied by Dr. Deepashree M R

The KMC Conference Hall hosted a Fire Safety Conference on March 18, 2025, hosted by the Private Hospitals and Nursing Homes Association (PHANA). The session addressed the implementation issues of the Karnataka government's enhanced fire safety recommendations for hospitals. The meeting brought attention to the difficulties small hospitals and assisted living facilities are having complying with the updated rules. While government representatives offered workable ways to assist smaller institutions in successfully complying, PHANA highlighted these difficulties.

Participants, including IIHMR Bangalore students, thought the seminar was enlightening and learned a lot about fire safety management in healthcare environments. In order to promote higher safety standards and better protect patients and workers in healthcare facilities throughout Karnataka, the project offered a vital forum for communication between authorities and healthcare institutions.

EMPOWERING ACTION AGAINST TOBACCO: AWARENESS SESSION AT HMR BANGALORE

On March 26, 2025, a stimulating session on "Empowering Youth & Healthcare Professionals: Tobacco Awareness, Prevention, and Action" was held at IIHMR Bangalore campus. Seventy people attended this event, which brought attention to the urgent need for preventative tobacco use measures.

The seminar, which was led by Prof. (Dr.) Aruna D.S., a seasoned Dental Public Health Consultant and Tobacco Cessation Specialist, explored the concerning health and



societal effects of tobacco use. In her discussion of tobacco's link to cancer, respiratory conditions, and cardiovascular disorders, Dr. Aruna emphasized the importance of strong awareness, prevention, and cessation initiatives.

Dispelling myths, the dangers of secondhand smoke, tobacco usage in both urban and rural areas, and the role of medical professionals in tobacco control were among the main subjects. Early intervention, youth



involvement, and the significance of healthcare professionals serving as role models in tobacco-free advocacy were all stressed by Dr. Aruna.

Students and faculty were able to discuss effective counseling methods and approaches for raising awareness at the community level during an engaging Q&A session. Participants were urged by Dr. Aruna to support preventative efforts and join tobacco-free campaigns.





STUDENT CLUB EVENTS

Sustainable Development Goals and India by Literary Club

The Literary Club of IIHMR Bangalore hosted an interesting session called "Sustainable Development Goals (SDGs) and India" in the campus seminar hall on March 18, 2025. The event, which drew 70 people, combined cultural and artistic expressions to increase awareness of the Sustainable Development Goals (SDGs) of the UN and India's contribution to attaining them.

A painting exhibition and folk song performances that featured imaginative and cultural interpretations of sustainability issues were the highlights. Bright paintings on gender equality, clean energy, climate change, and other topics were displayed at a painting competition. Ms. Meenakshi Mahajan won First Place for her artwork, which was praised for its message of unity and symbolism.











The subject gained regional flavor from the folk music performances. Ms. Akhila Poojari and her group captivated the audience with a remarkable Kannada folk song that won First Place for its soulful portrayal of environmental responsibility. As a mark for IIHMR Bangalore's dedication to sustainability, Mr. Koushil Rana's artwork was given to the director on a momentous occasion. Through the effective blending of art, culture, and discourse, the program motivated participants to actively support sustainability and India's progress.









Entrepreneurship Club Hosts Seminar on Disruptive Technology in Healthcare

"Disruptive Tech and Opportunities in Healthcare – Learning's from the Rise of Digital Twin for Chronic Care Management" was the title of a conference held by IIHMR Bangalore on March 21, 2025. The event, which was organized by the Innovation and Entrepreneurship Development Cell (IEDC) and the Entrepreneurship Club-ADMIRE, gave 80 participants an overview of how Digital Twin technology is revolutionizing the healthcare industry.

Mr. Senthil Kumaran, CFO and Head of HR & B2B Partnerships at Twin Health, gave the keynote address and offered insights on using AI to create Digital Twin models for individualized medical care. Mr. Kumaran, who has a strong experience in entrepreneurship, innovation, and finance, described how digital twin technology is transforming the treatment of chronic diseases by digitally simulating patients' metabolic systems.

The development of digital twin technology, its potential to reverse chronic metabolic diseases, and new prospects for healthcare entrepreneurs were among the main topics of conversation. Mr. Kumaran also discussed industry trends and difficulties, highlighting the importance of young workers in the quickly changing field of digital health.

Students explored applications, ethical issues, and career opportunities in AI-driven healthcare during an interesting Q&A portion of the program. Following a vote of gratitude, the event left attendees feeling motivated and more prepared to take advantage of opportunities in the field of digital health.













IIHMR BANGALORE CELEBRATES 20TH FOUNDATION DAY & ALUMNI MEET 2025

To commemorate 20 years of excellence in healthcare management education, the Institute of Health Management Research (IIHMR) Bangalore celebrated its 20th Foundation Day and Alumni Meet on March 8, 2025. Eminent visitors, alumni, staff, and students came together for a spectacular evening of introspection, acknowledgment, and friendship at the Bangalore campus.

Distinguished guests graced the occasion, including Chief Guest Dr. Ram Milan Shukla, Executive Director-Healthcare, NGN International, and Dr. S.D. Gupta, President, IIHMR Society. The significance of the occasion was further enhanced by Mr. Neeraj Srivastava, VP-HR, and Dr. C.S. Kedar, Retd. IAS.





Photo up Lamp lighting by Mr. K.J Reddy, Mr.Ram Sukla, Mr. Neeraj Srivastava, Dr.Sarala R, Dr. Manchanda, Dr.Usha Manjunath and Dr.S. D. Gupta; Alumni Group photo (below).

Dr. Gupta in his keynote address shared IIHMR's journey of innovation and resiliency. Dr. Usha Manjunath, Director IIHMR Bangalore discussed how the institute has revolutionized healthcare education. HeartCare Connect, an online patient management system, PRAYOJN, a digital workforce planning platform, and the PGDM in Pre-Hospital Care Management, in partnership with Red Health, were among the innovative efforts introduced at the event.

The Alumni Recognition Awards honored alumni like Dr. Richa Singh and Dr. Akash Sharma for their exceptional contributions to healthcare. In addition, faculty and staff received awards such as "Most Determined and Expert Communicator" and "Salute to Loyalty" for 20 years of service in recognition of their commitment.





While activities and competitions promoted teamwork, cultural performances by student organizations such as the Literary and Management Clubs contributed energy. The 20th Foundation Day of IIHMR was a huge success, reinforcing the organization's heritage and dedication to influencing healthcare management education going forward.

HOLI CELEBRATION AT IIHMR BANGALORE

IIHMR Bangalore joyfully celebrated the vibrant festival of Holi on 12th March. The event was marked by enthusiastic participation from students, faculty, and staff, who came together to celebrate the festival of colours with joy, laughter, and a spirit of togetherness.

The event took place in a safe and organized manner, adhering to a set of well-communicated guidelines. Participants used only organic colours, promoting ecofriendliness and preventing skin or eye irritation. To maintain order and hygiene, the use of water was restricted, and designated dustbins were provided for waste disposal.









A strong emphasis was placed on mutual respect and safety, with clear instructions to avoid applying colours to unwilling participants and suggestions for contact lens users to wear protective glasses. The celebration created a festive atmosphere filled with colours, music, and cheerful interactions, leaving participants with fond memories. The event concluded successfully with full cooperation from the attendees and the organizing team.

IFTAR CEREMONY

IIHMR Bangalore hosted a warm and inclusive Iftar Ceremony on 20th March 2025 on campus, bringing together faculty, staff and students in a spirit of unity, reflection, and celebration during the holy month of Ramadan. The ceremony provided a meaningful opportunity for the IIHMR community to come together and share in the values of compassion, gratitude, and togetherness. The event began with a brief welcome, followed by the traditional breaking of the fast (Iftar), and was accompanied by a thoughtfully prepared meal shared in a friendly and respectful atmosphere.



The gathering was marked by engaging conversations, mutual respect, and an appreciation for cultural and spiritual diversity within the institution. The Iftar Ceremony successfully fostered a sense of community and harmony at IIHMR Bangalore. It stood as a reflection of the Institute's inclusive values and its efforts to recognize and celebrate important cultural and religious occasions.

HEALTH CHECK-UP CAMP – WORLD HEALTH DAY

As part of the World Health Day celebrations, IIHMR Bangalore, in collaboration with Mithra Multispeciality Hospital, successfully organized a Free Health Check-Up Camp on 7th April 2025. The event was designed to promote health awareness and encourage proactive wellness practices among faculty, staff, and the wider community. The health camp offered a range of essential screenings and consultations, including Blood Pressure Monitoring, Blood Sugar Testing, Comprehensive Eye Examination, Anthropometric Assessment (Height & Weight Measurement), Doctor Consultation and Diet & Nutrition Counselling.





Ms. Sristi Agarwal Associate Manager PrimEra Medical Technologies

"When work gets intense, I write. It helps me reset and approach problems with a fresh perspective."

From Biotechnology to Healthcare IT: A Journey of Grit, Growth, and Guiding Others

In this special feature of Pulse e-newsletter we spotlight Ms Sristi Agarwal, a 2011–2013 alumni of IIHMR Bangalore, who is currently working as Associate Manager in the Pharmacy Revenue Integrity Team at Primera Medical Technologies. With over 12 years of experience in the U.S. healthcare IT landscape, she now leads revenue integrity operations across 50+ hospitals in the United States.

Sristi's journey began with a BSc in biotechnology, but the limited opportunities in the field led her to seek more dynamic avenues. Her curiosity and desire to blend science with practical application brought her to IIHMR Bangalore for a PGDM in Hospital Management. It was here that she discovered the world of healthcare IT, a field she hadn't previously considered. She credits the programme for shaping her strategic thinking and opening her up to diverse career paths.

Sristi started her professional journey at Dell as a business technology analyst, gaining early exposure to U.S. healthcare EMRs. Her move to Deloitte was a turning point. She earned the EPIC Pharmacy Certification and gained hands-on experience with pharmacy workflows and hospital billing systems. Her current role at Primera Medical Technologies is multifaceted—she works closely with CMS regulations to resolve denials, minimize revenue leakage, and ensure compliance across hospitals. She explains, "Revenue integrity is like detective work—each claim tells a story that needs to be understood and optimized."

What makes Sristi's journey even more unique is her ability to balance her analytical mindset with creative expression. She is the author of "Udaan Ek Panchi Ki", a Hindi poetry collection available on Amazon and Flipkart. Writing, for her, is a way to unwind and reflect. She shares, "When work gets intense, I write. It helps me reset and approach

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Participants benefitted from one-on-one interactions with medical professionals and received personalized advice to support their health goals. The camp was well attended and received positive feedback for its organization, accessibility, and the professionalism of the healthcare team.

CHILD PROTECTION POLICY SESSION HIGHLIGHTS CHILD RIGHTS AWARENESS AT IIHMR BANGALORE

To raise awareness of the important facets of child rights and protection, IIHMR Bangalore organized an insightful discussion on the Child Protection Policy on April 14, 2025. The event, which was held in hybrid style, was open to both online and in-person participants.

A renowned authority on child welfare, Mr. Nagasimha G. Rao, Director of the Child Rights Trust (CRT), led the discussion. Mr. Rao started up by outlining the background of child rights, including how international conflicts have affected children and how protective frameworks like the 1989 United Nations Convention on the Rights of the Child (UNCRC) have developed.





ALUMNI 🛜 SPEAK

problems with a fresh perspective."

Sristi has faced her share of challenges. Switching from operations to revenue cycle management meant learning coding systems, payer policies, and compliance frameworks from scratch. She spent late nights studying CPT codes and mastering U.S. billing regulations. Through perseverance and the support of mentors, she became a domain expert. Outside of work, she is a marathon runner and a certified life coach, emphasizing the importance of mental and physical balance.

One of her most impactful projects was during the COVID-19 pandemic when she helped to design a billing workflow to track vaccine administration and align reimbursements—a project that contributed directly to pandemic response efforts. She also played a key role in building Primera's Revenue Integrity Team from the ground up.

Sristi's advise to the young professionals is "Start early. Apply for internships even in your first year. Rejections are just feedback that helps you grow. Connect with alumni, join webinars, and stay curious."

She believes that the future of healthcare lies in the integration of AI with human intelligence, especially in denial management. While AI will improve speed and accuracy, human judgement and empathy remain irreplaceable. Her message to students: "Don't confine yourself to a narrow path. Explore your interests, be it tech or poetry. Each skill adds to your unique story."

Sristi Agarwal is a shining example of how resilience, lifelong learning, and a balanced mindset can lead to a fulfilling and impactful career in healthcare IT.



He spoke on crucial national legislation, such as the Juvenile Justice Act 2015 and the POCSO Act 2012, highlighting their provisions for child protection and rehabilitation. The significance of organizational Child Protection Policies (CPP) was underlined in the conversation, which also included key elements such as risk assessment, employee education, and reporting procedures. Participants were further empowered to take effective action in protecting children by an entertaining portion on identifying indicators of abuse and comprehending acceptable behavior. An lively Q&A at the end of the workshop gave participants useful knowledge and reaffirmed IIHMR's dedication to creating safe spaces for kids.





Poshan Pakhwada: Focus on First 1000 Days of Life, Popularization of Beneficiary Module, Management of Malnutrition through implementation of the CMAM module and Healthy Lifestyle to Address Obesity in Children

IIHMR Bangalore, through the Uday HCLF-ECCD Project, successfully conducted Poshan Pakhwada from March 10–17, 2025, in the urban slums of Anandapuram, Mayabazar, and Pillaganahalli to promote nutrition awareness and healthy practices. The initiative engaged women, children, ASHA workers, and local stakeholders, emphasizing balanced nutrition for young children and pregnant/lactating mothers. A Poshan Mela showcased affordable, nutritious recipes using local ingredients, with women participating in cooking demonstrations to learn protein-rich, millet-based, and iron-fortified dishes to address malnutrition. A Pick and Speak competition encouraged mothers to discuss healthy eating and dietary diversity, while a community rally and Rangoli competition creatively raised awareness. Medical experts from the Primary Health Centre and Nutrition Rehabilitation Centre, alongside nutritionists and a paediatrician from Vanivilasa Hospital, provided insights on infant nutrition, exclusive breastfeeding, anaemia prevention, and low-cost dietary modifications, reinforcing the importance of iron, calcium, protein intake, and early childhood growth monitoring.







Identification and Enrollment of 6 months -3 years children in Pillaganahalli-Baseline Assessment Survey

IIHMR Bangalore conducted a targeted survey in Pillaganahalli to identify and enroll children aged 6 months to 3 years for creche services. Staff visited households, using checklists to gather comprehensive data, including child details, parental occupations, and monthly household income. Anthropometric measurements were performed to evaluate the nutritional and health status of the children. The survey successfully identified 300 children, their parents, 18 pregnant women, and 20 lactating mothers along with their spouses, facilitating tailored health and nutrition interventions.













CENTRE FOR LEARNING & DEVELOPMENT

APPLICATION OF QUALITATIVE RESEARCH INNUTRITION

IIHMR hosted a 2-day workshop on Qualitative Research in Nutrition, in collaboration with Mount Carmel College, Bengaluru. Thirty-four participants, who had the opportunity to interact with our resource persons and gain immense knowledge from the workshop. This workshop was focused on the role of qualitative research in addressing malnutrition and preventing & managing lifestyle diseases with expert-led interactive sessions. Participants were trained on NVivo software for qualitative data analysis.









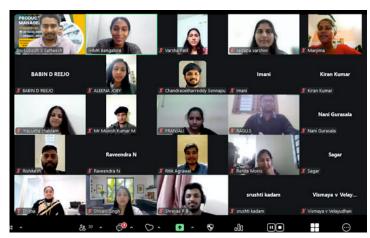




PHARMACEUTICAL PRODUCT MANAGEMENT

IIHMR successfully completed the online training program on Pharmaceutical Program Management on March 26th 2025. The program was designed to empower professionals with the essential knowledge and skills needed to excel in managing pharmaceutical programs efficiently.

This comprehensive training was led by Dr. Subodth S. Satheesh, Assistant Professor, with the external resource persons Dr. Sainath and Mr Sachin Bhat, Assistant Professor IIHMR Bangalore. Forty-five enthusiastic participants were trained on Strategic Planning & Implementation, Regulatory Compliance & Quality Control, Financial Planning & Resource Optimization, Risk Management & Decision-Making Strategies, Performance Monitoring & Future Trends.





DATA MANAGEMENT AND STATISTICAL ANALYSIS USING SPSS

A 3-day online training program on Data Management and Statistical Analysis using SPSS was conducted during March 26th to 28th 2025 with 12 participants. This program was designed to provide hands-on training in data handling, statistical techniques, and result interpretation using SPSS software by including Data entry, cleaning, and management in SPSS, Descriptive and inferential statistical techniques, Hypothesis testing and regression analysis, Expert guidance and interactive sessions exclusively for researchers, students, academicians, healthcare professionals, and anyone interested in learning statistical analysis using SPSS. Dr.Jyoti Vijay, Assistant Professor coordinated the program, The sessions were conducted by IIHMR faculty Dr.Usha Manjunath, Dr.Gyan Chandra along with Dr.Ranjan K. Prusty, Scientist-C from ICMR-NIRRCH.



MANAGING DIGITAL AND CONNECTED HEALTH, POWERED BY AI

The new cohort of the Managing Digital and Connected Health (MDCH) program commenced on April 9th 2025, with 25 participants. This cohort includes a dynamic mix of doctors, health IT professionals, and healthcare practitioners. The program is designed to equip healthcare professionals with the knowledge and skills needed to navigate the evolving landscape of digital health technologies. The key Highlights of this program will be Understanding digital health transformation, Implementing connected health solutions, Leveraging AI, IoT, and big data in healthcare, Strategies for effective health IT management, Real-world case studies and expert insights for Health care administrators, digital health professionals, IT specialists, policymakers, and executives looking to enhance their expertise in managing digital and connected health solutions.

ADVANCING EXCELLENCE IN CLINICAL NUTRITION

IIHMR Bangalore successfully completed the Advancing Excellence in Clinical Nutrition (AECN) Cohort-2 on April 30th, 2025, coordinated by Dr. Jyoti Vijay. This cohort brought together a passionate and diverse group of doctors, clinical nutritionists, and professors of food technology, committed to enhancing their knowledge and practice in the field of clinical nutrition. This program was designed to empower participants with advanced skills and innovative approaches to clinical nutrition, fostering impactful contributions to health and wellness.







HealthXChange-MIND MATTERS

The 'HealthXChange – Mind Matters' meetup was organized as a branding and visibility initiative by IIHMR Bangalore in collaboration with YourDOST, a leading emotional wellness platform. The event aimed to break the stigma around mental health and spark meaningful conversations on well-being, psychology, and digital innovations in healthcare.





The objective of the meetup was to create a safe, inclusive space for students, professionals, and mental health advocates to engage in insightful dialogue around emotional wellness. It also aimed to explore the role of therapy and psychological support in everyday life, while integrating conversations around digital solutions in mental healthcare.

Thought-provoking discussions such as "Is therapy only for the unwell?" encouraged attendees to rethink common myths surrounding therapy. Expert-led sessions on brain hacks for peak performance offered practical tips and mental wellness strategies. Interactive 'Speed Therapy' segments shared quick, implementable insights for managing stress and emotional health.

Sonali Bhattacharjee, a dedicated clinical psychologist with over four years of experience, was the keynote speaker. Her practice focuses on building safe spaces that empower individuals to navigate stress, anxiety, grief, and depression through evidence-based therapeutic techniques. Sonali guided attendees through the nuances of mental health care, self-awareness, and resilience,

while also discussing personalized care plans for emotional growth.

The event was well-received by all 25 participants, who appreciated the open dialogue, practical tips, and the approachable nature of the speaker. It successfully contributed to IIHMR Bangalore's mission of promoting holistic healthcare education and expanding the scope of mental health conversations within academic and professional circles.







'HealthXChange – Mind Matters' exemplified the power of collaborative, informal learning environments in destigmatizing mental health. It marked a step forward in IIHMR Bangalore's ongoing commitment to blending healthcare education with emotional well-being and real-world relevance.





Pharma-Tech Converge 2025: Powering the Future of India's Pharmaceutical Sector

On April 11, 2025, IIHMR-B hosted an impactful industry-academia meet "Pharma-Tech Converge 2025" in Guntur, Andhra Pradesh. The event served as a vibrant platform to bring together government officials, academicians, and industry experts to discuss the evolving landscape of the pharmaceutical sector in India. The central theme revolved around the transformation of the Indian pharmaceutical industry, propelled by innovation, digital technologies—especially Artificial Intelligence (AI)—and stronger collaborations between academia and industry.

Dr. Usha Manjunath, Director, welcomed the guests and participants. In her address Dr.Usha highlighted the growing demand for skilled professionals and shared an overview of IIHMR Bangalore's four core pillars—Academics, Research & Consultancy, Training, and the Centre for Advancing Digital Health (ADMIRE).

Dr. C. S. Kedar, IAS (Retd.) – Former Director General, ESIC, spoke about the healthcare workforce shortage in India and emphasized the urgent need for policy-level attention to address these gaps. Describing India as the "Pharmacy of the World," he highlighted the nation's responsibility to maintain global leadership through faster innovation, better infrastructure, and enhanced educational systems.

The event was graced by the presence of Chief Guest, Sri G. veerapandian, IAS, Commisioner, Health & Family Welfare & MD, NHM, Andhra Pradesh. Sri G. Veerapandian, reminded the audience that healthcare goes beyond numbers and emphasized the need for human-centric innovation. He pointed out the strategic advantages India holds, like exemption from U.S. tariffs and a major role in global vaccine distribution and urged the pharma industry to embrace digital transformation to improve accessibility and affordability. He also cited initiatives from the Andhra Pradesh government supporting pharma R&D and local manufacturing..

Guest of honour, Sri Pattanshettu Ravi Subash, IAS, CEO, Dr. NTR Vaidya Seva Trust & In-charge Director General - Drugs Control, Andhra Pradesh, conveying a message from the Honourable Chief Minister of Andhra Pradesh, "Let the kitchen be the pharmacy, and food be the first medicine," stressing the role of preventive healthcare. He called for action to improve access to quality healthcare and affordable medicines and emphasized the use of technology and AI to enhance the efficiency and reach of the pharma sector. He reiterated that the Andhra Pradesh government is a ready partner for collaboration with both industry and academia.

Dr. Subhrangshu Banerjee, Business Unit Head at Cipla Ltd., as the keynote speaker delivered an insightful presentation on the topic "Changing Landscape of Indian



Pharma in the Age of AI." Dr. Banerjee elaborated on the transformative applications of Artificial Intelligence across the pharmaceutical value chain—ranging from drug discovery and development, clinical trials optimization, personalized medicine, and drug repurposing to manufacturing, supply chain, and sales & marketing. He also addressed the key challenges facing AI adoption in the Indian pharmaceutical industry, including regulatory compliance, data privacy, financial constraints, and workforce competency.

In his closing remarks, he emphasized the importance of collaboration, strategic planning, responsible AI practices, upskilling, regulatory support, and fostering a data-driven culture to fully realize the potential of AI in pharma. He concluded with a powerful message: "The future of Indian Pharma in the Age of AI isn't a passive observation; it's an active creation."

The event was further enriched by thought-provoking insights from esteemed industry leaders, including Dr. Shaik Gouse Sadak (IQVIA), Mr. Virendra Kumar (AdametNext), Mr. Indraneel (Medtronic), and Dr. Himanshu Verma (Ingenious e-Brain). This event marked an important step in bridging the divide between what the pharmaceutical industry needs and what academic institutions offer, reaffirming IIHMR Bangalore's commitment to shaping future-ready pharma professionals. Students from various pharmaceutical colleges participated with great enthusiasm in the event.















IIHMR-B IN MEDIA

Pioneering Change in India's Pharma Landscape

SURYA



ఆరోగ్య శాఖ కమిషనర్ వీరవ

Digital innovation must drive pharma sector'

The Hindu Bureau GUNTUR

Healthcare must embrace human-centric innovation, said G. Veerapandian, commissioner of Health & Family Welfare, while in-augurating Pharma-Tech Converge 2025 hosted by IIHMR Bangaluru.

He called for digital transformation and stron-ger R&D in the pharma sec-tor. The conclave, held in Guntur, brought together leaders from government, academia, and industry to address the skill gap, ex-plore AI integration, and promote industry-acade-mia partnership.



පරි්රු సంరక్షణలో ఫాರ್ತ್ತಾ ರಂಗಂ ತೆಲಕಂ

రాష్ట్ర వైద్య అరోగ్య, కుట్టుంబ నంక్షేమ శాఖ



జ్యోతి ప్రజ్వలన చేస్తున్న ఆరోగ్య శాఖ కమిషనర్ వీరపాండియన్ తచితరులు

గుంటూరు మెడికల్: ఆరోగ్య సంరక్షణలో ఫార్మా రంగం ఎంతో కీలకమని రాష్ట్ర వైద్య ఆరోగ్య, కుటుంబ సంక్షేమ శాఖ కమిషనర్ జి. వీరపాండియన్ అన్నారు. శుభవారం గుం టూరు కేపిటల్ హోటల్లో బెంగళూరు ఇని స్టిట్యూట్ ఆఫ్ హెల్త్ మేనేజ్మెంట్ రీసెర్స్ ఆధ్వర్యంలో ఫార్మాటెక్ కన్వర్ట్ 2025 కార్యక్ర మానికి వీరపాండియన్ ముఖ్య ఆతిథిగా హాజ రయ్యారు. ఆయన మాట్లాడుతూ ఫార్మా రం గం విశిష్టతను వివరించారు. గౌరవ అతిథి, డాక్టర్ ఎస్టీఆర్ వైద్య ట్రస్టు సీఈఓ పి.రవి శుభాష్ మాట్లాడుతూ ఆరోగ్య సంరక్షణలో ఫార్మా పాత్ర ఎంతో ఉందన్నారు. ఇంకా పలు వురు వక్తలు ప్రసంగించారు.

12/04/2025 | Guntur(Guntur Main) | Page : 10 Source: https://epaper.sakshi.com/





WHO conference: Over 50 countries pledge to reduce air pollution health impacts by 50 pc by 2040

At the Second WHO Global Conference on Air Pollution and Health in Cartagena, over 50 countries, including India, committed to reducing the health impacts of air pollution by 50% by 2040. India's pledge aligns with its National Clean Air Programme, which focuses on cleaner cooking energy for vulnerable populations and enhanced disease surveillance. The conference emphasized the urgency of transitioning to clean energy and sustainable transport to combat air 1 pollution, responsible for approximately 7 million premature deaths annually.

Link - https://www.ptinews.com/story/national/who-conference-over-50-countries-pledge-to-reduce-air-pollution-health-impacts-by-50-pc-by-2040/2417232

Haystack Analytics gets NABL-accreditation for clinical genomics meeting international standards for quality, reliability

HaystackAnalytics, a Bengaluru-based genomics diagnostics firm, has received NABL accreditation under ISO 15189:2022 for its Navi Mumbai sequencing facility. This certification validates the lab's competence in next-generation sequencing (NGS) diagnostics for infectious diseases and human genomics, including tests like TB-ONE-NGS, Flu-NGS, Infexn-NGS, whole exome sequencing, and pharmacogenomics. The accreditation enhances the company's credibility among clinicians and research institutions, aligning with its mission to provide high-quality, accessible, and scalable diagnostics solutions in India.

Link - https://www.pharmabiz.com/NewsDetails.aspx?aid=177594&sid=2

HT Madras-Led Team Develops New Biosensor For Early Detection Of Pre-eclampsia

A multi-institute team led by IIT Madras has developed a rapid, affordable biosensor for early detection of preeclampsia in pregnant women. The device uses fiber optic technology to measure placental growth factor (PIGF) levels from a small blood sample, delivering results within 30 minutes. Validated through clinical trials, this point-of-care solution aims to improve maternal and neonatal outcomes, especially in resource-limited settings.

Link - https://www.bwhealthcareworld.com/article/iit-madras-led-team-develops-new-biosensor-for-early-detection-of-pre-eclampsia-555167

Philips launches new AI-enabled Elevate Platform upgrade on the EPIQ Elite ultrasound imaging platform

Philips has introduced its AI-powered Elevate Platform upgrade for the EPIQ Elite ultrasound imaging system, unveiled at UltraFest 2025 in India. This enhancement aims to streamline clinical workflows and improve diagnostic accuracy through features like Quick Launch presets, CEUS AutoScan for enhanced image quality, and Auto ElastQ for non-invasive liver stiffness assessment. Additionally, the platform offers remote system monitoring and support, enabling clinicians to deliver high-quality care more efficiently.

Link - https://www.philips.co.in/a-w/about/news/archive/standard/about/news/press/2025/20250425-philips-launches-new-ai-enabled-elevate-platform-upgrade-on-the-epiq-elite-ultrasound-imaging-platform.html

Smart brain implants are helping people with Parkinson's and other disorders

Smart brain implants are revolutionizing treatment for neurological disorders like Parkinson's disease by adapting stimulation based on real-time brain activity, significantly reducing symptoms. These advancements, including devices like Synchron's Stentrode and Elon Musk's Neuralink, enable patients to control digital devices through thought, restoring independence for individuals with paralysis or ALS.

Link - https://uk.news.yahoo.com/smart-brain-implants-helping-people-124135211.html?guce_referrer=a <a href="https://uk.news.yahoo.com/smart-brain-implants-helping-people-124135211.html?guce_referrer=a <a href="https://uk.news.yahoo.com/sm



Pharma and healthcare deals in Q1 2025 remain stable amid shift to scalable global models

In Q1 2025, India's pharma and healthcare sector maintained stable deal activity, with major transactions like Dr. Reddy's \$633 million acquisition of Haleon Plc and Sun Pharma's \$348 million merger with Taro Pharmaceuticals. Private equity investments totaled approximately \$1.9 billion, focusing on healthtech, medical devices, and specialty hospitals, indicating a shift toward scalable, global business models. This trend reflects the industry's emphasis on innovation, market expansion, and operational efficiency.

Link - https://www.expresspharma.in/pharma-and-healthcare-deals-in-q1-2025-remain-stable-amid-shift-to-scalable-global-models/

Transformative potential of AI to enhance coronary heart disease detection

Artificial intelligence (AI) is increasingly enhancing the detection of coronary heart disease (CHD) by improving diagnostic accuracy and enabling personalized treatment strategies. By integrating multimodal data, AI addresses limitations of traditional methods, though challenges remain in data diversity and ethical considerations. Ongoing research aims to bridge the gap between AI advancements and clinical applications to empower CHD diagnosis within modern healthcare systems.

 $Link - \underline{https://www.news-medical.net/news/20250402/Transformative-potential-of-AI-to-enhance-coronary-heart-\underline{disease-detection.aspx}$

Narayana Health Launches Aarogyam For Fast, Preventive Screening In Bengaluru

Narayana Health has launched 'Aarogyam', a preventive screening center in Bengaluru's Prestige Tech Park, Kadubeesanahalli, offering fast and affordable health check-ups. The initiative aims to promote early detection and proactive healthcare among urban professionals.

Link - https://www.bwhealthcareworld.com/article/narayana-health-launches-aarogyam-for-fast-preventive-screening-in-bengaluru-553018

Germany Declared Free of Foot-and-Mouth Disease, Says Ministry

Germany has been officially declared free of foot-and-mouth disease (FMD) by the World Organization for Animal Health (WOAH) as of April 14, 2025, following the successful containment of a January outbreak in Brandenburg. This reinstatement has led to the lifting of international trade restrictions, including the UK's import ban on German livestock and animal products. The outbreak, Germany's first since 1988, was limited to a single case in water buffalo, with no further spread reported.

 $\label{link-https://www.medscape.com/s/viewarticle/germany-declared-free-foot-and-mouth-disease-says-ministry-2025a10008xv?form=fpf$

Expanding Access to IVF: Goa Medical College's Pioneering Role in Public Health

Goa Medical College (GMC) has launched India's first government-funded IVF program, offering free fertility treatments to couples in Goa through a public health initiative. The program, supported by the Government of Goa, aims to alleviate the financial burden of infertility and has already seen over 100 registrations. Equipped with advanced facilities, including a state-of-the-art embryology lab and specialized operation theaters, GMC's initiative sets a precedent for inclusive fertility care in the country.

Link - https://health.economictimes.indiatimes.com/news/industry/expanding-access-to-ivf-goa-medical-colleges-pioneering-role-in-public-health-and-fertility-care/120341049



From Code to Care: How India's AI Prescription Is Rewiring Access and Affordability

India is leveraging artificial intelligence (AI) to revolutionize healthcare accessibility and affordability, aiming to establish a global benchmark by 2030. AI technologies are being integrated into diagnostics, treatment planning, and medical education, particularly in underserved regions, to enhance patient care and clinical efficiency. Experts emphasize the need for scalable, transparent, and innovative AI solutions to ensure equitable healthcare delivery across the country.

Link - https://health.economictimes.indiatimes.com/news/health-it/from-code-to-care-how-indias-ai-prescription-is-rewiring-access-and-affordability-for-scalable-healthcare/120519311

CAR-T cell therapy sees promising results in cancer treatment at PGI

The Postgraduate Institute of Medical Education and Research (PGIMER) in Chandigarh has successfully administered Chimeric Antigen Receptor T-cell (CAR-T) therapy to patients with acute lymphoblastic leukemia and lymphoma, yielding promising results. This achievement positions PGIMER as the first public hospital in India to implement CAR-T cell therapy, marking a significant advancement in cancer treatment.

Link - https://www.tribuneindia.com/news/chandigarh/car-t-cell-therapy-sees-promising-results-in-cancer-treatment-at-pgi-542986/

Gene therapy for blood cancer shows 73 per cent response rate in clinical trials: Lancet study

A recent study published in The Lancet Haematology has demonstrated a 73% response rate for an Indian-developed gene therapy targeting blood cancers, including acute lymphoblastic leukemia and lymphoma. This promising outcome positions the therapy as a potential treatment option for patients with limited access to conventional therapies.

 $Link - \underline{https://www.indiatvnews.com/health/gene-therapy-for-blood-cancer-shows-73-per-cent-response-rate-in-clinical-trials-lancet-study-2025-03-18-981054$

Out of the lab and into the streets, researchers and doctors rally for science against Trump cuts

On March 7, 2025, researchers, doctors, patients, and supporters across the U.S. participated in the "Stand Up for Science" rallies to protest the Trump administration's significant cuts to health, climate, and scientific research funding. The central event in Washington, D.C., drew thousands and featured speakers like former NIH Director Francis Collins and cancer survivor Emily Whitehead, highlighting the potential threats to advancements in diseases such as Alzheimer's, cancer, and diabetes. Similar demonstrations occurred in over 30 cities nationwide, emphasizing the scientific community's commitment to defending evidence-based policy and research integrity.

Link - https://www.kunc.org/news/2025-03-07/out-of-the-lab-and-into-the-streets-researchers-and-doctors-rally-for-science-against-trump-cuts









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