

### INDIAN PUBLIC HEALTH ASSOCIATION

[Founder Member, World Federation of Public Health Associations, Geneva]

Volume 02 / Issue 02

April – June '25

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#### 'Empowering Youth to Build the **Families They Want'**

Global fertility rates are falling, prompting warnings about "population collapse." World Population Day 2025 highlights this challenge, focusing on the largest-ever generation of young people. The theme, "Empowering young people to create the families they want in a fair and hopeful world," calls for ensuring youth have the rights, tools, and opportunities to shape their futures. World Population Day, which seeks to focus attention on the urgency and importance of population issues, was established by the then-Governing Council of the United Nations Development Programme in 1989, an outgrowth of the interest generated by the Day of Five Billion, which was observed on 11 July 1987.

The dramatic growth of world's population has been driven largely by increasing numbers of people surviving to reproductive age, and has been accompanied by major changes in fertility rates, increasing urbanization and accelerating migration. These trends will have far-reaching implications for generations to come.

It took hundreds of thousands of years for the world population to grow to 1 billion – then in just another 200 years or so, it grew sevenfold. In 2011, the global population reached the 7 billion mark, it stands at almost 7.9 billion in 2021, and it's expected to grow to around 8.5 billion in 2030, 9.7 billion in 2050, and 10.9 billion in 2100.

The recent past has seen enormous changes in fertility rates and life expectancy. In the early 1970s, women had on average 4.5 children each: by 2015, total fertility for the world had fallen to below 2.5 children per woman. Meanwhile, average global lifespans have risen, from 64.6 years in the early 1990s to 72.6 years in 2019.

In addition, the world is seeing high levels of urbanization and accelerating the migration. 2007 was

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#### INDIA Total population in millions, 1,463.9 Population annual doubling 79 time, years, 2025: Population aged 0-14, per 24 cent. 2025: Population aged 10-19, per 17 cent, 2025: Population aged 10-24, per 26 cent. 2025: Population aged 15-64, per 68 cent, 2025: Population aged 65 and older, 7 per cent, 2025: Total fertility rate, per woman, 1.9 Life expectancy at birth, 71 years, 2025, male: Life expectancy at birth, 74 years, 2025, female:

# Total net enrolment rate, percent Primary Secondary Education Secondary Education Education

Education

the first year in which more people lived in urban areas than in rural areas, and by 2050 about 66 per cent of the world population will be living in cities. These megatrends have far-reaching implications. They affect economic development, employment, income distribution, poverty and social protections. They also affect efforts to ensure universal access to health care, education, housing, sanitation, water, food and energy. To more sustainably address the needs of individuals, policymakers must understand how many people are living on the planet, where they are, how old they are, and how many people will come after them. [Compiled from WHO & UN Websites]

Dr. Prasad Waingankar

### The Critical Role of Digital Health Education for Health Professionals

Maj (Dr) Ashlesha Tawde- Kelkar (Retd.)<sup>1</sup>, Brig Leena Kumari (Retd.)<sup>2</sup>

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#### Introduction

Digital technologies are rapidly transforming healthcare, making digital health skills essential for modern health professionals. While these advancements improve patient care and expand access, they also highlight a pressing need for comprehensive digital health education to address the growing skills gap.

#### The Digital Health Revolution in Healthcare Current State of Digital Health

Digital health encompasses a broad range of technologies and applications that leverage digital platforms to deliver healthcare services more effectively. This includes electronic health records (EHRs), telemedicine platforms, mobile health applications, artificial intelligence and machine learning algorithms, wearable devices, and health information management systems.

The rapid adoption of these technologies has been accelerated by several factors:

- Global Health Challenges: Pandemics, aging populations, and the rise of chronic diseases have created urgent needs for innovative healthcare solutions
- ➡ Technological Advancement: Huge improvements in computing power, internet connectivity, and mobile device capabilities have made digital health solutions more accessible and powerful
- Healthcare Economics: The rising healthcare costs and resource constraints have driven the search for more efficient care delivery models
- Patient Expectations: Modern patients increasingly expect digital convenience and accessibility in their healthcare experiences

#### The Skills Gap Challenge

Despite the widespread adoption of digital health technologies, a significant gap exists between the technological capabilities available and the skills of healthcare professionals to effectively utilize them. Many health professionals find themselves working with sophisticated digital tools without adequate training or understanding of their full potential.

This skills gap manifests in several ways:

- Inefficient use of electronic health record systems
- Limited understanding of data analytics and clinical decision support tools
- Inadequate knowledge of telemedicine best practices

- Insufficient awareness of data privacy and security requirements
- Limited ability to evaluate and implement new digital health solutions

## **Core Components of Digital Health Education Essential Knowledge Areas**

A comprehensive digital health education program should cover multiple interconnected domains that reflect the multidisciplinary nature of modern healthcare technology.



#### **Benefits of Digital Health Education**

**Enhanced Clinical Decision-Making** For Individual Improved Efficiency Healthcare Career Advancement **Professionals Better Patient Engagement** Improved Implementation Success For Healthcare **Enhanced Data Quality Reduced Costs** Organizations Competitive Advantage For Healthcare Improved Access to Care Systems and **Better Health Outcomes** System Resilience **Populations** 

# **Digital Health Literacy of Nurses: A Critical Component**

 The Critical Role of Nurses in Healthcare: Nurses form the backbone of healthcare, delivering essential care and supporting patients in various settings. As healthcare evolves with digital technologies, it is vital for nurses to gain the skills and knowledge needed to adapt and lead in this digital age.

- Empowering Nurses Through Digital Health Education: Equipping nurses with digital health knowledge allows them to deliver data-driven, patient-centered care and collaborate more effectively. Specialized digital health courses, like the DHFC-N by MUHS, give nurses the tools to enhance care quality and efficiency using modern technology.
- Impact of Digital Health Education on Nursing Practice: As the largest segment of the healthcare workforce, nurses require special attention in digital health education initiatives:
  - 1. Enhanced **Nursing-Specific** Digital **Literacy:** Nurses develop comprehensive understanding of digital health technologies specifically relevant to nursing practice, patient care coordination. and clinical documentation.
  - 2. Improved Nursing Quality and Safety:
    Digital health education equips nurses
    with skills to utilize nursing-specific
    clinical decision support systems and
    quality improvement tools.
  - 3. Expanded Nursing Role in Telehealth: Trained nurses can effectively deliver nursing care through telemedicine platforms, providing patient education, monitoring, and care coordination.
  - Data-Driven Nursing Practice: Nurses learn to interpret and utilize nursingspecific health data analytics to make informed clinical decisions and improve patient outcomes.
  - 5. Enhanced Interdisciplinary Collaboration:
    Digital health literacy enables nurses to
    work more effectively with physicians,
    pharmacists, and other healthcare
    professionals using shared digital
    platforms.

#### **Practical Learning Approaches**

#### **Virtual Laboratory Experiences**

Modern digital health education must include hands-on experience with real-world systems. Virtual laboratories provide safe environments for learners to practice with:

- Electronic Health Record Systems: The Simulated patient encounters and documentation practices, and clinical workflows
- Telemedicine Platforms: The virtual consultations, remote monitoring, and patient communication tools
- Health Information Management: Data entry, retrieval, analysis, and reporting functions

 Clinical Decision Support: Working with Alpowered diagnostic tools and treatment recommendation systems

#### **Real-World Application Projects**

Capstone projects and practical applications are essential components of effective digital health education. These might include:

- Developing digital health implementation plans for specific healthcare settings
- Analyzing health data to identify quality improvement opportunities
- Creating patient education materials for digital health tools
- Evaluating and comparing different digital health solutions

#### **Blended Learning Models**

Effective digital health education combines multiple learning modalities through blended or hybrid upskilling opportunities. Health universities are now creating such learning opportunities for health professionals by developing different specialized academic courses for Digital Health Education. e.g. Maharashtra University of Health Sciences, (MUHS) has created Digital Health Foundation Course (DHFC), Digital Health Foundation Course for Nursing and Certificate course in Digital Health (CCDH) along with a Virtual Digital Health Lab in their online learning management system 'eprabodhini'.

#### **Career Opportunities in Digital Health**

Digital health education opens doors to numerous career opportunities for healthcare professionals at different levels in their careers. As the field is emerging and evolving swiftly, these career roles are also being developed across academia, hospital and healthcare industry, pharma and public health both in government as well as private sectors.



### **Implementation Challenges and Solutions**

Barrier	Description	Strategic Solution	Solution Description
Time Constraints	Healthcare professionals often struggle to find time for additional education due to demanding work schedules.	Flexible Learning Formats	Offering multiple learning modalities and self-paced options accommodates diverse schedules and learning preferences.
Technology Access	Not all learners have access to high-speed internet or modern computing devices required for comprehensive digital health training.	Partnership Models	Collaborating with technology vendors, academic institutions, and professional organizations can reduce costs and improve content quality.
Varying Technical Backgrounds	Healthcare professionals come from diverse educational backgrounds with varying levels of technical comfort and competency.	Progressive Skill Building	Structuring curricula to build from basic concepts to advanced applications helps learners with varying backgrounds succeed.
Rapid Technology Change	The fast pace of technological advancement can make educational content quickly outdated.	Continuous Content Updates	Implementing regular curriculum reviews and updates ensures content remains current with technological advances.
Cost Considerations	Comprehensive digital health education programs require significant investment in curriculum development, technology platforms, and expert instructors.	Partnership Models	Collaborating with technology vendors, academic institutions, and professional organizations can reduce costs and improve content quality.
Quality of the education provided		Outcome Measurement	Regular assessment of learning outcomes and career impact demonstrates value and guides program improvements.

#### **Emerging Technologies in Healthcare**

- Artificial Intelligence and Machine Learning: Training on use, interpretation, and ethical considerations of AI tools in healthcare.
- Blockchain and Distributed Health Records: Education on managing and protecting patient data using blockchain technology.
- ↓ IoT and Wearable Devices: Skills for handling data from connected devices and advising patients accordingly.
- Virtual and Augmented Reality: Competencies for applying immersive technologies in training, education, and care.
- Precision Medicine and Genomics: Understanding personalized medicine technologies and related ethical issues.

#### Conclusion

- Digital health education is crucial for preparing healthcare professionals for technology-driven care.
- Comprehensive training should cover a wide range of competencies, from basic digital skills to advanced analytics and emerging innovations.
- Blended learning—combining theory with practical, hands-on experience—is essential for effective education.
- Organizations benefit from digital health education through improved technology adoption, better patient outcomes, and increased efficiency.
- A digitally skilled workforce is vital for maximizing digital health's potential to improve public health and healthcare accessibility.
- Education programs must adapt continually to keep pace with rapid technological changes and evolving healthcare needs.
- Investing in digital health education enables healthcare professionals to lead and innovate, ensuring a more efficient and equitable healthcare system.

#### IPHA Life Membership Fee: Rs. 5000/-

- Lifetime membership validity.
- Discounts to attend IPHACON.
- Exclusive CME for members.
- IJPH Digital copy; four issues yearly and all special issues.
- Reduction in article processing charges (APCs) for member's scholarly work featuring in the esteemed indexed journal of the association, IJPH (Indian Journal of Public Health)

# IPHA HQ Organizes Webinar on World Health Day 2025

The Indian Public Health Association (IPHA) organized a webinar titled "Healthy



Beginnings, Hopeful Futures" on the occasion of World Health Day 2025, attended by members of IPHA. The webinar was held on Zoom and live-



streamed on YouTube on April 7, 2025, at 7:00 pm. Two eminent public health professionals, Dr. Arun Kumar Singh, Professor at IHFW, Kolkata, and Dr. Amrita Roy, Principal at JMN Medical College, spoke on the topic. The webinar was moderated by Dr. Arup Chakraborty and Dr. Sanjib Bandyopadhyay.

#### 18th World Congress On Public Health

Join the World Federation of Public Health Associations (WFPHA) and Public Health Association of South Africa (PHASA) in Cape Town, South Africa, on September 6-9, 2026, as we unite public health professionals to shape a healthier, more equitable future for all.

### **World Health Day 2025: Key Messages**

#### We can end preventable maternal and newborn deaths

WHO is calling for a worldwide reinvigoration of efforts to ensure access to high quality care for women and babies, especially in the poorest countries, humanitarian emergencies and fragile settings where most maternal and newborn deaths occur.

#### Beyond survival, critical investment is needed to improve women's longer-term health and well-being

Women everywhere need access to health providers who listen to their concerns and meet their needs – including in the months after pregnancy when millions lack critical support, despite enduring lasting health consequences after birth.

#### Better maternal health means improving the rights of women and girls

Better maternal health means improving the rights of women and girls so that they can plan their lives and protect their health. Their agency and empowerment are fundamental for tackling both maternal and newborn deaths and achieving health for all.

#### **High-impact investments**

- ♣ Antenatal checks: High quality antenatal services including at least eight checks with a skilled health worker and early ultrasound are essential for all women to support healthy pregnancies, reduce risks and detect possible complications. Up to 15% of pregnant women have been estimated to develop a potentially life-threatening complication during pregnancy or birth.
- Lifesaving care during and after birth: At least 70% of all maternal deaths are due to direct obstetric causes like haemorrhage and pre-eclampsia; most of these fatalities occur during labour and birth, along with more than 40% of stillbirths, or shortly after delivery. Access to quality care from skilled providers during and after childbirth is critical, including vital emergency services if dangerous complications occur.
- ♣ Address indirect causes: Infectious diseases and pre-existing health conditions like anaemias, HIV/AIDS, malaria, and diabetes underpin nearly a quarter of maternal mortality. It is vital to improve care, prevention, and early detection of these health conditions that complicate pregnancies and increase risks for millions around the world.
- Immediate newborn care: Newborn deaths account for nearly 50% of deaths among children under the age of 5 globally, resulting in 2.4 million lives lost each year. All babies need essential care at birth and in their first month of life, including breastfeeding support, so they are protected from infections, can breathe normally, and are warm and well-nourished.
- **♣ Special attention to vulnerable babies:** Complications relating to prematurity and low birth weight are the leading cause of death in newborns and children under five. Since small and sick babies require round-the-clock in-patient care, significant investment is needed in special newborn care units, quick referrals, and vital family support.
- Focus on midwives: Midwifery care models, where midwives provide ongoing support to pregnant women and babies after birth, have been shown to improve survival while reducing preterm births and unnecessary medical interventions. Investing in these models, and ensuring sufficient well-trained midwives, is a cost-effective strategy to improve maternal and newborn health.
- Access to family planning: Approximately 218 million women of reproductive age in low- and middle-income countries have an unmet need for modern contraception. Addressing this need can significantly reduce unintended pregnancies and related risks.
- Solutions for low-income contexts: Research is needed to identify cost-effective solutions that tackle the leading causes of maternal and newborn deaths, particularly targeting healthcare settings in poorer countries and fragile contexts.

#### **Beyond survival**

- ♣ Compassionate and respectful care: Services must not only be safe and effective, they must also ensure women, newborns and caregivers are treated with dignity, empathy and respect. This includes compassionate care for those affected by stillbirth and miscarriage requiring dedicated trainings for health workers and bereavement counselling for those in need.
- Postnatal support: Around a third of women suffer long-term health complications after childbirth, which can increase risks during future pregnancies, while up to 20% of new mothers have been estimated to experience postpartum depression or anxiety. An integrated approach to postnatal care connects physical health, mental health, and social support services in this critical period and beyond.
- Family-friendly policies: Family-friendly policies and laws are critical to ensure women have the right support to take care of their health and their babies, including paid maternity leave (at least 18 weeks, ideally 6 months or more), legal protections, and workplace support for breastfeeding.
- **↓ Empowering girls and woman:** Girls' access to education is associated with reduced likelihood of maternal death. Ensuring girls can stay in school and take decisions about their health and bodies is critical for improving their health.

## World No Tobacco Day - 2025

# Observed by IPHA – HQ & IPHA West Bengal State Branch in collaboration with

### Calcutta National Medical College, Kolkata

World No Tobacco Day was observed by Indian Public Health Association Headquarters along with West Bengal State Branch of IPHA and Dept of Community Medicine, Calcutta National Medical College on 31st May, 2025.

The program was inaugurated by respected guests like

- ♣ Prof Dr Subhra Mitra, Principal, CNMCH
- ♣ Prof Dr Arghya Maitra, MSVP, CNMCH
- ♣ Dr Sanghamitra Ghosh, President, IPHA
- Dr Surajit Ghosh, President, IPHA WB State Branch
- ♣ Prof Dr Manidipa Roy, Head Department of Community Medicine, CNMCH
- ♣ Prof Dr Kunal K Majumder, MSVP, KPCMCH

Renowned faculty and senior members like Prof Dr Aparajita Dasgupta, Dr Rama Bhunia, Dr Shuvankar Mukherjee, Dr Debjani Sengupta, Dr Sukanta Majumdar, Dr Partha Dey, Dr Satabdi Mitra graced the occasion.

Prof Dr Sanjay Saha (HOD, CM, Raiganj Medical College) described Tobacco cessation process in detail. Dr Shelly Shamim (HOD, Chest Medicine, CNMCH) elaborated the effects of smoking on lung in a lucid and effective manner. Prof Dr Kunal Kanti Majumder (MSVP, KPCMCH) explained the audience about significance of this day and its theme.

There was Quiz contest themed on Tobacco use for UG students. There was a Poster Presentation contest as well for UG students on this year's theme. Winner and Runner up were awarded with certificates and books by the dignitaries. The Program was attended by delegates from different fields and sectors.

# WORLD NO TOBACCO DAY 2025 OBSERVATION BY IPHA HQ & DEP OF COMMUNITY MEDICINE, CNMCH

















CALCUTTA NATIONAL MEDICAL COLLEGE 31.05.2025



## **World Environment Day - 2025**

# **Observed by Indian Public Health Association – HQ**

in collaboration with

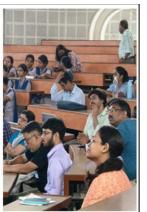
Nil Ratan Sircar Medical College, Kolkata

To celebrate World Environment Day 2025, the Indian Public Health Association, in collaboration with NRS Medical College and Hospital, organized an event at the Sister Nivedita Lecture Theatre, NRSMCH, Kolkata.

The event was attended by PGTs, nursing students, and faculty members from the Department of Community Medicine and Nursing. A debate competition on the topic

'Plastic: Game Changer or Irreplaceable?' was held, featuring participation from PG students of the college. A panel discussion on the theme 'Ending Plastic Pollution' took place, with esteemed panelists including the Dean, Principal of NRSMC, other faculty members, and IPHA's Secretary General. The event also included a mandatory tree plantation drive on the college campus.









To solve the plastic pollution emergency...

Governments, industry, and individuals must embrace a circular approach that considers the full life cycle of plastics, from production, to consumption, to waste management. This means that when plastic is introduced into the economy, it remains there, while harmful, avoidable, and unnecessary plastics are eliminated and substituted with sustainable options and practices.

WORLD ENVIRONMENT DAY
2025 MOBILIZES
COMMITMENT, ACTION TO END
PLASTIC POLLUTION
GLOBALLY

### WBIPHACON2025 3<sup>rd</sup> & 4<sup>th</sup> May 2025

64th Annual State Conference of Indian Public Health Association West Bengal State Branch & East Zone Public Health Conclave

Dr. Surajit Ghosh, President, IPHA WB Dr. Mausumi Basu, Secretary, IPHA WB Dr. Dipika Sur, Organizing Chairperson Dr. Anirban Dalui, Organizing secretary

The 64th Annual State Conference of the Indian Public Health Association (IPHA) West Bengal State Branch and the East Zone Public Health Conclave was held on May 3rd and 4th, 2025, at Stadel Hotel, Salt Lake, Kolkata. Over 300 public health professionals from across the state attended the conference as delegates, including postgraduate students from various medical institutions.

EAST ZONE PUBLIC HEALTH CONCLAVE NDIAN PUBLIC HEALTH ASSOCIATION
WEST BENGAL STATE BRANCH MAY 3-4, 2025 THE STADEL, SALT LAKE

The conference featured numerous scientific sessions, including orations, plenary discussions, oral poster paper presentations. Prof. Dr. Anand Krishnan, Professor and Head of the WHOCC, Community Medicine, AIIMS, New Delhi, delivered the Dr. S.C. Seal Memorial Oration. Dr. Sanjoy Ghosh, Professor at Santiniketan Medical College, delivered the Dr. Dharmendra Memorial Oration during the conference.



The Scientific sessions were supported by organizations such as WBSAPCS, ICMR-NITM, Belgavi, Apollo Multispecialty Hospital, WB State TB Cell, Emcure, USV, Netaji Subhas Chandra Bose Cancer Hospital, Alathea Biotech, and GSK. Sessions covered key topics like elimination of HIV, Syphilis, and Hepatitis B, Integrative Medicine, NCDs, Tuberculosis Management, Cancer, CSE, AI in Public Health, and many other relevant topics.

#### **Conference Inauguration:**

The inauguration of the conference was held in the presence of Dr. Swapan Saren, Director of Health Services, West Bengal; Prof. (Dr.) Mukul Bhattacharyya, Vice-Chancellor, West Bengal University of Health Sciences; Dr. Sanghamitra Ghosh, President- IPHA, Dr. Kaushik Mitra, Secretary General- IPHA; Dr. Surajit Ghosh, President - IPHA WB state branch, Dr. Mausumi Basu, Secretary - IPHA WB state branch; and other committee members and frontliners.





The Dr. S.P. Mukhopadhyay Lifetime Achievement Award was conferred upon Dr. Sujit

Kumar Bhattacharya, Senior Consultant and HOD, Department of Internal Medicine, Bengal Faith Hospital, and Former Additional Director-General, ICMR, for his unparalleled contribution to the field of Public Health.









This year, the IPHA WB Branch awarded the Dr. Dilip Mahalanobis Memorial Research Grant to two selected articles, each receiving Rs. 10,000/.

A total of 25 abstracts were selected for oral presentation, and 17 were selected for poster presentation. Additionally, 15 undergraduate students were nominated for poster presentation under the UG category.





On the second day, the conference concluded with the Annual General Body Meeting of the West Bengal State Branch. West Bengal Medical Council has sanctioned 5 credit hours for all attendees. The conference, especially the scientific sessions, received an overwhelmingly positive response from all delegates, making it a resounding success.



#### **Pre-Conference Workshops**

#### **Methods of Data Collection in Research**

Workshop on "Methods of Data Collection in Research" was organized with the support of the Department of Community Medicine, IPGMER, Kolkata, as part of the preconference workshop of WBIPHACON 2025 on April 29 at IPGMER, where 50 registered delegates, including PG medical and nursing students, MPH students, and faculties, learned about various quantitative and qualitative data collection methods and processes. The workshop was facilitated by eminent faculty



members from community medicine, including Prof. (Dr.) Mausumi Basu, Dr. Kuntala Ray, Dr. Sanjita Dutta, Dr. Somnath Naskar, Dr. Surajit Lahiri, Dr. Sreetama Chakrabarti, Dr. Anindita Maiti, and Dr. Moumita Mandal, who shared their expertise and provided valuable insights to the participants.

#### **Keeping Vaccines 'Fit': Essentials of Cold Chain**

IPHA West Bengal State Branch and Medical College, Kolkata, jointly organized a hands-on workshop titled "Keeping Vaccines 'Fit': Essentials of Cold Chain" on April 30, 2025. The workshop covered recent updates from the



Routine Immunization Handbook and focused on key areas like preparation, maintenance, and monitoring of cold chain systems through demonstrations, hands-on activities, and role-playing exercises. A total of 55 participants, including postgraduate doctors, nursing students, faculty members, and public health professionals, attended the workshop, gaining valuable insights and practical knowledge on effective cold chain management.



#### Managing Outbreaks: Practitioner's Approach

IPHA West Bengal State Branch, in collaboration with the All India Institute of Hygiene and Public Health (AIIH&PH), organized this workshop at the B. N. Campus of AIIH&PH on



May 1, 2025. The speakers included Dr. Manas Kundu, Prof. C.S. Taklikkar, Prof. Debasis Dutt,



Dr. Rivu Basu, Dr. S. Sadhukhan, Dr. Harikrishna B.N., Prof. Atul Raj, and Prof. Bobby Paul. The sessions covered outbreak investigation, field planning, data handling, and biosecurity, with interactive activities like preparing case report



forms and interpreting curves using Epi Collect. Over 30 senior residents and faculty members attended the workshop.



# International Day of Yoga - 2025 observation by IPHA -WB State Branch



The International Day of Yoga is a day in recognition of Yoga that is celebrated around the world annually on 21 June following its adoption by the United Nations in 2014. The initiative

for Yoga Day was taken by India's prime minister Narendra Modi in his 2014 UN address, and the related resolution received broad global support, with 177 nations co-sponsoring it in the United Nations General Assembly,



The IPHA West Bengal State Branch, in collaboration with Banchbo School of Human Skill Development, observed International Day of Yoga on June 21st, 2025, at IPHA Bhawan. Members of IPHA and Banchbo Sociocultural Association, along with students pursuing the Geriatric Yoga Diploma, attended the event.



Basic yoga training was provided by expert Mr. Ujjal Kumar Ghosh, under whose guidance members and students performed yoga. The event commenced with a brief introduction by Dr. Surajit Ghosh, President, IPHA WB State Branch, and Mr. Tapan Sen, General Secretary, Banchbo Socio-Cultural Association. Doctors from IPHA also highlighted the significance of practicing yoga in relieving various diseases.











Joint Statement on Triple Elimination of Vertical Transmission of HIV, Syphilis & Hepatitis B (TEVTHSH) Initiative of West Bengal: Indian Public Health Association (IPHA), West Bengal Academy of Paediatrics (WBAP), Neonatology Society of West Bengal (NSWB), Bengal Obstetric and Gynaecological Society (BOGS), Association of Physician of India API Indian Association of Dermatologists, Venereologists and Leprologists West Bengal (IADVL WB)

Sanghamitra Ghosh<sup>1</sup>, Swapan Kumar Ray<sup>2</sup>, Arup Roy<sup>3</sup>, Basab Mukherjee<sup>4</sup>, Jyotirmoy Pal<sup>5</sup>, Dinesh Hawelia<sup>6</sup>, Sudip Das<sup>7</sup>, Kaushik Mitra<sup>8</sup>, Mihir Sarkar<sup>9</sup> Bhaswati Ghoshal<sup>10</sup>, Amit Basu<sup>11</sup>, Suchibrata Das<sup>12</sup>, Pritam Roy<sup>13</sup>, Kalpana Datta<sup>14</sup>, Dibyendu Roychowdhury<sup>14</sup>, Devdeep Choudhury<sup>15</sup>, Runa Bal<sup>16</sup>, Soumendra Nath Haldar<sup>17</sup>, Arnab Sarkar<sup>18</sup>, Kingshuk Chatterjee<sup>19</sup>

<sup>1</sup>National President IPHA, <sup>2</sup>President WBAP, <sup>3</sup>President NSWB, <sup>4</sup>President BOGS, <sup>5</sup>National President API, <sup>6</sup>President IADVL WB, <sup>7</sup>Chairperson Academy IADVL WB, <sup>8</sup>Secretary General IPHA, <sup>9</sup>Secretary WBAP, <sup>10</sup>Secretary NSWB, <sup>11</sup>Hony. Secretary BOGS, <sup>12</sup>Hony. Secretary IADVL WB, <sup>13</sup>Managing Editor IJPH, <sup>14</sup>Central EB WBAP, <sup>15</sup>Treasurer NSWB, <sup>16</sup>Senior Member BOGS, <sup>17</sup>Member API, <sup>18</sup>Assistant Secretary IPHA WB State Branch, <sup>19</sup>Nodal Officer TEVTHSH, IADVL WB

#### **Call to Action**

We, the related professional associations, commit ourselves and call upon other stakeholders to support and facilitate, without delay, the actions to ensure that all pregnant women and newborn, especially HIV, Syphilis and Hepatitis B positive mothers and their exposed infants receive appropriate preventive and therapeutic services.

We, the professional associations, affirm our commitment as partners to the West Bengal initiative of Triple Elimination of Vertical Transmission of HIV, Syphilis & Hepatitis B by 2026.

Published on WORLD HEALTH DAY 2025 Date: 07.04.2025 Place: Kolkata

#### **Read Document on IPHA Website**

Visit: https://www.iphaonline.org/wpcontent/uploads/2025/04/Joint-Statement-TE-WHD-25.pdf

### **Activities of IPHA - Andhra Pradesh State Branch**

#### **World Glaucoma Day**



Indian Public Health Association Andhra Pradesh State Branch have conducted World Glaucoma week at Urban Health Centre Peda Jalaripeta. In the meeting the residents of that area were sensitized on Glaucoma. It was informed that people who are having hypertension and family history of Glaucoma are more prone to develop Glaucoma. They were advised to consult ophthalmologist at the earliest. Members of Indian Public Health Association have participated in these meetings.



#### **World Malaria Day**

IPHA Andhra Pradesh State Branch organized an essay writing competition on "Causative factors and remedial measures of Malaria" at KDPM High School, Peda Waltair. On World Malaria Day, April 25<sup>th</sup>, prizes were distributed to winners and runners-up.

The 1st prize was won by P. Vaishnav of  $9^{th}$  class,  $2^{nd}$  prize won by M. Gayatri of  $9^{th}$  class and  $3^{rd}$  prize won by D. Yuva Deepti of  $6^{th}$  class.



Dr. M.V.V. Murali Mohan, President of IPHA Andhra Pradesh State Branch, highlighted the importance of controlling malaria vectors. He emphasized the importance of observing dry day

to cut the transmission of Malaria parasite by controlling the vector. He also stated that students play a vital role in propagating the message. Members of IPHA and Smt. Sumati Bai Head Mistress, Smt. J. L. Satyavathi Telugu teacher, Smt. V. N. Ratnam PD along with staff have participated.

#### **World Family Doctor Day**

On 19<sup>th</sup> May World Family Doctor Day was celebrated. In the meeting Dr. M. V. V. Murali Mohan President Indian Public Health Association Andhra Pradesh State Branch sensitized the citizens of Peda Jalaripeta on the family doctor concept. He said that the out of pocket expenditure on Health care can be drastically minimized by this concept. People will get services comprehensively at a single point. Several members of Indian Public Health Association also participated.

#### **World No Tobacco Day**

On 31<sup>st</sup> May World No Tobacco Day was observed. In the meeting Dr. M. V. V. Murali Mohan President, Indian Public Health Association, Andhra Pradesh state branch said that World Health Organization passed a resolution that World No Tobacco Day will be observed on May 31st.

He said that people start smoking when they were teenagers and by the influence of



friends and parents. Some are influenced by cinema. There are 70 number of compounds in Tobacco with confirmed carcinogenic activity. 90 percent of all lung cancers can be avoided by eliminating Tobacco use.

The solution for this is increasing the price, ban on the sale to minors, ban on Tobacco advertisement and to educate children in schools and educating community. Benefits of not taking tobacco are good health, prevent different types of diseases, long survival and lower risk of infections, easier breathing and better quality of life. At the end, pledge was administered by all citizens stating that they will not smoke and they

will propagate the message of quit smoking. The meeting was attended by several members of Indian Public Health Association and junior doctors of GITAM Medical College.

#### **World Environment Day**

World Environment Day Event was conducted in old Council Hall of the Greater Visakhapatnam Municipal Corporation. In the meeting Dr. M. V. V. Murali Mohan, President Indian Public Health Association Andhra Pradesh State Branch have said that the theme of this year World Environment Day "Beat Plastic Pollution" is apt for discussion. Recently evidence came to



light that Micro Plastics are seen in the circulation and in the brain also. It is emphasized that taking food in Plastic containers causes cancers. It is stressed that single use Plastic should be



banned. In the meeting Sri. Ramana Murty Additional Commissioner GVMC, Dr. Srinivas Rajamani Head of SRU, Professor Trinad from Andhra University, Sohan Hattangadi Environmentalist and number of representatives from various voluntary organizations have attended.



#### **Activities of IPHA Andaman Nicobar Islands Branch**

Health Camp Conducted at Bamboo flat - II: Brings Vital Medical Services to the Community May 23, 2025

A successful health camp was organized by the Department of Community Medicine of Andaman and Nicobar Islands Institute of Medical Sciences and Govind Ballabh Pant Hospital, in association with the IPHA, at the Gram Panchayat Hall of Bambooflat-2 on 23<sup>rd</sup> of May 2025. It was conducted under the supervision and guidance of Dr Ajay Raj, Head of the Department of Community Medicine and President of IPHA of Andaman and Nicobar Islands Branch and Dr Samar Hossain, Assistant Professor of Dept of Community Medicine & Vice-President of IPHA-A&N Islands Branch.

The camp witnessed enthusiastic participation from the local residents, with around 50 patients benefiting from expert medical consultations and services. Specialists from Pediatrics, Obstetrics & Gynecology, and otorhinolaryngology extended their services, providing much needed care and advice to patients, many of whom do not have easy access to specialist care.

The initiative was whole heartedly supported by the people of Bamboo flat. Mrs. Naseema Bibi, the Pradhan of the Panchayath and Dr. Sagar, medical officer of CHC Bamboo flat, extended their active cooperation throughout the planning and implementation phases of the camp, reflecting a commendable collaboration between local governance and healthcare professionals. The members of the community took active part in arranging venue.

The preventive measures played a vital role in early detection and timely intervention as when two previously undiagnosed hypertensive patients were diagnosed. Moreover, those requiring further care were referred to the nearest tertiary healthcare facilities, ensuring continuity of care beyond the camp setting.



The camp was also supported by a Delhi based NGO- Little Hearts, founded by Dr. Samar Hossain, which caters to the needs of underprivileged sections of the society, especially children.

This health camp served as a fine example of community outreach and integrated healthcare delivery, demonstrating the impact in strengthening public health at the grassroot level.

### MHIAPSMIPHACON2025

#### 26th Annual Maharashtra State Joint Conference of IAPSM & IPHA

Dr. Prashant Solanke, Organizing Chairperson, Vice President IPHA MH



Dr. Ulhas Patil Medical College, Jalgaon. Kh.

MHIAPSMIPHACON 2025 was a premier event held in Jalgaon from 16th to 18th January 2025. The pre-conference workshops on 16th January were attended by over 100 participants from across states, while the conference on 17th and 18th attracted over 300 participants, including medical professionals, policymakers, esteemed leaders of healthcare industries, and medical students from premier institutes. It was organized by the Department of Community Medicine of Dr. Ulhas Patil Medical College, Jalgaon.

Aptly titled "Bridging Gaps and **Expanding Boundaries Towards the Right to** Health" many esteemed speakers emphasized the importance of serving underserved, remote areas and focused on expanding healthcare access. The conference featured sessions on innovative healthcare delivery models, the role of technology in healthcare, and the importance of health equity. Experts also highlighted the need collaborative efforts between various stakeholders to address healthcare challenges and improve access to quality health services for all. The event served as an excellent platform to exchange ideas, discuss emerging trends, and explore new opportunities in the healthcare sector, fostering a deeper understanding how to effectively address gaps in healthcare systems. The interactions between participants provided valuable insights into overcoming the challenges faced by healthcare providers and communities, encouraging a unified approach toward advancing healthcare for all. The conference successfully ignited meaningful discussions and inspired future initiatives aimed at promoting a more inclusive, accessible, and equitable healthcare system.

#### **Pre-Conference Workshops:**

The pre conference workshops were held on 16th January 2025 by experts of the respective field. The 4 Workshops included: 'Systematic Review & Meta-Analysis', 'How to Write a Research Paper', 'Basics of Bibliometric Analysis', 'Anthropo-metric Analysis using WHO Anthro Software'.

#### **Inauguration:**

Conference was gracefully inaugurated by lamp lighting by the Dignitaries.

- Padmashree Dr. Ravindra Kolhe
- Padmashree Dr. Smita Kolhe
- ♣ Dr. Ulhas Patil (Former MP, Jalgaon) President Godavari Foundation
- ♣ Dr. Subhash Salunkhe, Senior Advisor PHFI
- ♣ Dr. Prasad Waingankar, President IPHA MH
- ♣ Dr. Purushottam Giri. President IAPSM MH
- 🖶 Dr. Deepak Khismatrao, Secretary IPHA MH
- Dr. Harshal Pandve, Secretary IAPSM MH
- ♣ Dr. Prashant Solanke Vice President IPHA MH Dean Dr. Ulhas Patil Medical College, Jalgaon
- Dr. Aniket Patil



It was followed by releasing the Souvenir of the Conference. All the dignitaries were welcomed with Mementos, floral bouquet. This was followed by enlightening speeches by the Chief Guest, Guest of Honor and other dignitaries. Inauguration was concluded with National Anthem.



IPHA MAHARASHTRA NEWSLETTER RELEASE

#### **Orations & Scientific Sessions:**

Conference Started with the session of Dr. Subhash Salunkhe on the Topic of Integration of Medical Education and Public Health: Need of the Hour. It was Chaired by Dr. Sushma Thakare and Dr. Bharat Chavhan. It was followed by Session of Dr. J V Dixit on 'Dixit Lifestyle' for weight loss and Diabetes reversal. It was chaired by Dr. Sarika Patil.

This session was followed by the conference's main attraction "Interview of Padmashree Dr. Ravindra Kolhe and Padmashree Dr. Smita Kolhe. The interview was orchestrated by Dr. J V Dixit.



The session of 'Bridging Digital Divides in Public Health: Expanding Access to Health Services through Technology' was conducted by Dr. Meenal Thakare.

Padma Bhushan, Dr. Banoo Jahangir Coyaji IPHA Maharashtra State Branch Oration on the topic of 'Reaching underserved senior



citizens – need to set exemplary functioning at RHTCs and UHTCs' was given by Dr. Gajanan Velhal. It was chaired by Dr. Deepak Khismatrao, Secretary IPHA MH and Dr. Madhura Asturkar.

Dr. Satish Pawar was conferred the Padmashree Dr. Suhaschandra Mapuskar



Oration on topic of 'Urban Health Challenges and Solutions'. It was chaired by Dr. Prasad Waingankar and Dr. Swarupa Mahore.

The conference included following IAPSM MH Orations - Padmashri Dr D N Pai Oration by Dr Sangita Adchitre, Dr PSN Reddy Oration by Dr Duryodhan Chavhan, Dr D K Ramadwar Oration by Dr Subodh Gupta & Dr Mrunalini Pathak Oration by Dr. Jitendra Bhavalkar.



The session on "Air pollution and health impact - what we know? what we need to do?" was conducted by Dr. Harshal Salve while the session of 'Role of Artificial Intelligence in Epidemiology and Public Health was taken by Dr. Purushottam Giri.

General Body Meetings (GBMs) of IPHA Maharashtra & IAPSM Maharashtra were conducting in the evening of 17<sup>th</sup> Jan 2025.

#### **Scientific Paper Presentation:**

A competition of Scientific Paper presentation was carried out in Oral & Poster categories. Over 80 delegates participated in Oral presentations, of which 8 winners were awarded prizes based on the subject of paper. Over 18 Delegates participated in Poster category.



IPHA Maharashtra Prize for the Best Paper by Undergraduate Student was awarded to Uditngshusingh Bahure, of Dr. D Y Patil Medical College, Navi Mumbai. The IPHA Best Poster award won by Dr. Kiran Keni of MGM Medical College, Vashi in Male Category and Dr. Prachi Ingle of IGGMC, Nagpur in Female Category.



# Antenatal Mental Health: A Review of Screening & Intervention Dr. Riya Ghosh<sup>1</sup>, Dr. Nisha Relwani<sup>2</sup>

<sup>1</sup>JR, <sup>2</sup>Professor, Community Medicine, MGM Medical College, Kamothe, Navi Mumbai

#### **Abstract:**

Antenatal mental health refers to the emotional and psychological wellbeing of a woman during pregnancy. Psychiatric evaluation during pregnancy is an essential component of Maternal mental health antenatal care. profoundly influences pregnancy outcomes, fetal development, and postpartum adjustment. Despite increasing awareness, mental health assessment is often neglected in routine prenatal visits, especially in low-and-middle-income countries. This review article explores the prevalence of psychiatric disorders among antenatal women, highlights the consequences of untreated psychiatric illness, discusses validated screening tools and intervention strategies, identifies barriers to care, and emphasizes the need for integrated perinatal mental health services.

#### Introduction:

Pregnancy is a dynamic physiological and psychological process marked by hormonal, emotional, and social changes. While most women adapt well, a significant proportion experience psychiatric symptoms or develop mental health disorders, particularly depression and anxiety [1,2]. Historically, antenatal care has prioritized physical health, often overlooking mental health concerns. Untreated maternal mental illness can have severe implications for both mother and child, including poor maternal self-care, obstetric complications, adverse neonatal outcomes, and impaired mother-infant bonding [3,4]. This underscores the importance of routine psychiatric evaluation as part of comprehensive antenatal care.

## **Epidemiology of Psychiatric Disorders in Pregnancy:**

Risk factors influencing the prevalence of psychiatric disorders in pregnancy include a family history of mental illness, lack of social support, unwanted pregnancy, domestic violence and poverty. Research indicates that 10-20% of pregnant women experience significant depressive symptoms, while 15–20% experience anxiety disorders [5,6]. Anxiety symptoms include generalized anxiety, panic disorders and obsessive-compulsive symptoms. These conditions may often co-occur with depression. Bipolar disorder affects approximately 1-2% of pregnant women, and

schizophrenia, though less common, poses serious management challenges [7]. Post-traumatic stress disorder, antenatal psychosis and substance use disorders also occur in this population. Despite high prevalence, these conditions often remain undiagnosed, especially in settings where mental health services are scarce.

### Consequences of Untreated Psychiatric Illness:

The consequences of untreated maternal mental illness are profound. Women may neglect sleep, nutrition and prenatal care, thus increasing the risk of obstetric complications. Depression and anxiety increase the risk of preterm birth, low birth weight, gestational hypertension, and poor maternal weight gain [8,9]. Severe psychiatric disorders, including psychosis and bipolar disorder, are associated with heightened suicide risk, which is a leading cause of maternal mortality in some countries [10,11]. For the child, maternal mental illness can negatively affect neurodevelopment, emotional regulation and social functioning [12]. Untreated substance use during pregnancy can result in fetal alcohol syndrome, neonatal abstinence syndrome & long-term developmental delays [13].

#### **Screening Tools and Assessment:**

Effective psychiatric evaluation involves systematic screening and comprehensive assessment using culturally and linguistically appropriate tools. Validated tools such as the Edinburgh Postnatal Depression Scale [EPDS], [PHQ-9], Questionnaire-9 Patient Health Generalized Anxiety Disorder-7 [GAD-7], and the Mood Disorder Questionnaire [MDQ] are practical for use in antenatal clinics [14,15]. EPDS is a 10-item self report questionnaire for depression screening during and pregnancy. A score of > 13 indicates probable depression and warrants further evaluation. These instruments help identify women at risk and guide referrals for specialized care. A thorough clinical interview should explore psychiatric symptoms. history, current psychosocial stressors, substance use and support systems. Non-verbal cues such as affect, eye contact and overall demeanor should also be taken into consideration. Repeat screening during each trimester should be done, especially if risk factors are present. Privacy and confidentiality should be ensured at all times.

#### **Interventions and Management:**

Management of antenatal psychiatric disorders requires a multidisciplinary approach. Non-pharmacological interventions, such as cognitive-behavioral therapy [CBT], interpersonal therapy [IPT], and mindfulness-based therapies, have demonstrated efficacy in treating antenatal depression and anxiety [16,17]. CBT helps to identify and modify negative thoughts and behaviors, while IPT focusses on improving relationships interpersonal and conflicts. Group therapy is helpful for women with limited social networks. Pharmacotherapy may be necessary for moderate to severe cases, particularly in women with bipolar disorder or psychotic disorders. Selective serotonin reuptake inhibitors [SSRIs] are generally considered safe, although risks and benefits must be weighed carefully [18]. Lithium requires close monitoring due to its teratogenic potential. Hospitalization may be necessary for psychiatric emergencies. Coordination between obstetricians, psychiatrists and primary care providers ensures optimal outcomes.

#### **Barriers to Psychiatric Evaluation:**

Multiple barriers hinder psychiatric evaluation in antenatal care. These include stigma surrounding mental illness, lack of provider training, limited access to mental health specialists, cultural beliefs and time constraints in clinical settings [19,20]. In low-resource additional challenges settings, include inadequate health infrastructure and competing healthcare priorities. Addressing these barriers requires policy-level interventions, provider education, public awareness campaigns and task-shifting approaches where non-specialist health workers are trained to deliver basic mental health services.

#### **Recommendations:**

To improve maternal mental health outcomes, healthcare systems should prioritize routine psychiatric screening in antenatal care. Developing integrated care models, enhancing referral pathways, and expanding access to evidence-based interventions are critical. Further research is needed to evaluate culturally adapted screening tools and interventions, especially in diverse and underserved populations. Policymakers must allocate resources and create supportive frameworks to ensure that maternal mental health becomes an integral part of maternal and child health programs.

#### **Conclusion:**

Psychiatric evaluation is a cornerstone of antenatal care, crucial for safeguarding maternal and fetal health. Routine screening, timely intervention, and integrated care can prevent adverse outcomes, enhance maternal well-being and support optimal child development. Overcoming barriers and investing in maternal mental health should be a global priority to promote healthier pregnancies and stronger families.

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# Seeking True CBR (Crude Birth Rate) Estimates: The Case for Local-Level Studies in Urban India

### **Dr. Vipul Kubavat**

Ex - Consultant Epidemiologist (MCGM - NHM) & Ex- State IPHS Consultant (NRHM - Maharashtra)

Accurate measurement of the CBR is foundational for public health planning, yet disparities between India's two primary data sources—the Sample Registration System (SRS) and the Civil Registration System (CRS)—raise concerns about reliability. In Mumbai, a 25% variance between SRS (15.9 for Maharashtra, 2016) and CRS (11.83 for MCGM, 2019) underscores systemic gaps in demographic reporting. This article highlights the implications of such discrepancies, advocates for localized studies to reconcile data differences, and emphasizes the need for context-specific solutions to strengthen birth registration systems.

Demographic indicators like the Crude Birth Rate (CBR) shape policies for maternal and child health, education, and resource allocation. In India, CBR estimates rely on the SRS, a sample survey, and the CRS, a universal registration system. While SRS provides macro-level estimates, CRS offers granular, real-time data. However, significant variances between these systems—such as the 25% gap observed in Mumbai—compromise the accuracy of public health targets. This article examines the causes of these disparities and argues for localized research to validate CBR estimates and improve data systems.

#### **SRS-CRS Divide: Causes and Consequences**

#### 1. Methodological Differences

- ♣ SRS: A household survey designed for state/national estimates; prone to sampling errors and limited by infrequent updates
- CRS: Legally mandated registration of births/deaths; potential underreporting due to administrative inefficiencies or low public awareness

#### 2. Urban Challenges

In Mumbai, despite high institutional delivery rates and digitized registration since 2017, CRS-derived CBR remains lower than SRS estimates. Possible explanations include:

Residential vs. Occurrence-Based Data: SRS captures births by residence, while

- CRS records them at the place of occurrence (e.g., hospitals), leading to mismatches in migrant-heavy cities
- Awareness Gaps: Even with mandates (e.g., birth certificates for school enrollment), marginalized populations may face barriers to registration

#### 3. Policy Implications

Discrepancies distort per-capita funding, immunization targets, and infrastructure planning. For example, MCGM's health budgets rely on CRS data, which may underestimate true beneficiary numbers if births are underreported.

#### The Case for Local-Level Studies

National datasets often mask regional nuances. A 2023 study in Pune found CRS underreported births by 18% due to delayed registrations—a trend likely replicated in other urban centers. Local studies can:

- Identify Contextual Barriers (e.g., bureaucratic hurdles, migration patterns)
- Improve CRS Completeness by targeting gaps in awareness or enforcement
- Align SRS and CRS Methodologies to reconcile residence- vs. occurrencebased reporting

**Example:** Let's take any Metro / Major City where the Record Keeping is systematic and in good shape.

A pilot in three wards (covering >10% of the population) would:

- Quantify SRS-CRS variance through birth tracking and parent surveys.
- Assess awareness via questionnaires (e.g., "Was your child's birth registered within 21 days?")
- Audit Institutions (schools, ration shops) to evaluate compliance with birth certificate mandates

#### **Broader Lessons for Public Health Systems**

 Data Integration: Link CRS with health facility records (e.g., delivery logs) to reduce underreporting

SRS	CRS
Designed to provide reliable estimates at National and State Level only, as requirement of large sample size and variety of resultant factors such as controlling of non-sampling errors, etc prohibits vital rates at District & Taluk level on annual basis	CRS is the only source for providing vital rates at district and taluk/block level. It is continuous permanent and compulsory recording of the occurrence and characteristics of vital events as derived in and as provided through a decree or regulation in accordance with the legal requirements of a country.
SRS is a product of the technique of sample survey Sample is defined to be residential for the occurrence of vital event	CRS is a product of real-time registration process Vital Events are registered for the place of occurrence of vital event
Provides reliable estimates for decision making Reliability of the statistics obtained depends sample size, sampling & non-sampling errors, etc	Valued as legal documents Reliability of the statistics obtained depends much on the completeness, promptness & accuracy of the information in the registration records which in turn is critically dependent on how much importance is attached to the data by the respective administrative units at different levels and the level of awareness among the public about the utility of birth / death certificate

- Community Engagement: Leverage ASHA workers to promote timely registration, especially among migrants
- 3. **Policy Advocacy:** Use local evidence to advocate for CRS reforms, such as automatic birth registration at hospitals

#### Conclusion

The Mumbai case exemplifies how SRS-CRS disparities can undermine public health planning. Localized studies are critical to diagnose systemic gaps, improve data accuracy, and ensure equitable resource allocation. As India aims for SDG 3.2 (reducing neonatal mortality), investing in robust birth registration systems—validated by context-specific research—must become a priority.

#### **Key Recommendations**

- Fund municipal-level studies to audit CRS completeness
- Harmonize SRS/CRS definitions (e.g., residential criteria)
- Scale Mumbai's digitized registration model to other cities

#### Why This Matters?

This article shifts the discourse from "measuring shortfalls" to "identifying disparities" & "solutions-oriented advocacy," aligning with global health priorities like data equity (SDG 17.18 / capacity-building for reliable data availability).

#### It provides:

Novelty: Focus on urban India's unique challenges (migration, institutional deliveries)

- Actionability: Clear steps for policymakers (e.g., integration of health/CRS databases)
- Generalizability: Framework applicable to other cities with similar gaps

#### **Conflict of Interest:**

None declared

#### **Keywords:**

Crude Birth Rate, civil registration, health policy, data quality, urban health, India



# From Need to Deed: The Journey of Organ Donation in India Dr. Marita Mendes<sup>1</sup>

<sup>1</sup>MPH Student, Department of Public Health, Jawaharlal Nehru Medical College, KAHER Belgavi

#### **Abstract:**

Organ transplantation is a critical medical intervention for patients with end-stage organ failure. Despite advancements, India faces a significant gap between organ demand and availability. This article explores the historical evolution, current status, legal frameworks, recent innovations, and challenges in India's organ donation landscape. It also outlines strategic interventions and stakeholder roles necessary to strengthen the organ donation system. Recent policy reforms and technological poised advancements are enhance tο transparency, accessibility, and efficiency in organ transplantation across the country.

#### Introduction:

Every year, nearly half a million Indians lose their lives due to the unavailability of life-saving organ transplants. Despite remarkable strides in medical technology and surgical expertise, the shortage of donor organs remains one of the most pressing challenges in India's healthcare landscape.

Organ donation is defined as the voluntary process by which healthy organs and tissues are retrieved from a living or deceased donor and transplanted into a recipient with endstage organ failure, with the aim of restoring physiological function and prolonging life<sup>1</sup>. Organ transplantation provides a crucial therapeutic option for patients with irreversible organ damage, significantly improving survival and quality of life. In India, both living and deceased donations contribute to transplantation programs; however, the scale of need far exceeds the resources available.

Globally, only about 10% of the demand for organ transplants is fulfilled annually, with India accounting for only a minimal fraction of this figure<sup>1</sup>. Approximately 180,000 patients in India require kidney transplants each year, but merely 6,000 procedures are performed<sup>2</sup>. Similarly, liver, heart, and lung transplantation needs remain largely unmet. India's deceased organ donation rate remains critically low at 0.65 per million population, starkly contrasting with countries like Spain, where the rate exceeds 35

per million<sup>3</sup>. The reasons behind this persistent shortfall are multifactorial. Cultural myths, religious reservations, lack of public awareness, infrastructural deficiencies, and inconsistencies in the legal and regulatory environment all impede the expansion of organ donation programs. Although the Transplantation of Human Organs Act (THOA), enacted in 1994, provided a critical legislative framework, challenges in enforcement and gaps in public education continue to affect donor registration and deceased donation rates<sup>4</sup>.

In response to these challenges, a series of policy and technological innovations have been introduced to reform and strengthen the organ donation system. Key developments include the institution of a unique NOTTO-ID for each transplant case, removal of domicile and age restrictions on cadaveric transplant registration, establishment of a centralized digital registry, release of national Standard Operating Procedures (SOPs) for organ transport, and the rollout of the "One Nation, One Organ Allocation" policy 56789.

Organ donation and transplantation in India thus face both profound opportunities and critical challenges. Bridging the gap between the pressing need for organs and their limited availability requires not only regulatory and infrastructural reforms but also a concerted societal shift toward embracing organ donation as a shared humanitarian responsibility. Strengthening ethical practices, expanding access to services, and fostering a national culture of altruism remain imperative for transforming India's organ donation landscape.

#### **Historical Background and Evolution:**

References to transplantation date back to ancient civilizations, with early accounts appearing in Chinese and Roman texts describing rudimentary attempts to replace human tissues 10. Modern advancements in transplantation, however, began only in the 20th century, following scientific breakthroughs in surgical techniques and immunosuppressive therapies. In India, the journey of organ transplantation officially began with the first successful kidney transplant performed in 1965

at the King Edward Memorial (KEM) Hospital, Mumbai. This landmark surgery involved a living donor transplant between identical twins, significantly reducing the risk of immune rejection and establishing the feasibility of organ transplantation in the Indian context.

Recognizing the ethical, legal, and operational complexities involved in organ transplantation, the Indian government enacted the Transplantation of Human Organs Act (THOA) in 1994<sup>4</sup>. This law provided the legal foundation organ donation and transplantation, recognized brain death as a criterion for deceased organ donation, and aimed to regulate and promote ethical practices in the field. amendments Subsequent strengthened introduced regulatory frameworks, stricter penalties for commercial trading, and facilitated the establishment of structures such as the Organ and Tissue Transplant Organization (NOTTO) to oversee and coordinate national efforts.

To promote awareness and honor the spirit of organ donation, India observes National Organ Donation Day every year on 3<sup>rd</sup> August. This day commemorates India's first successful deceased donor heart transplant and serves as a platform to celebrate donor families, spread awareness about the importance of organ donation, and encourage public participation. Activities on this day include public campaigns, donor appreciation events, educational seminars, and mass pledge drives coordinated by NOTTO and other stakeholder organizations.

#### **Current Scenario in India:**

India's burden of organ failure is substantial. Annually, approximately 180,000 patients require kidney transplants, yet only about 6,000 are performed<sup>2</sup>. Liver diseases account for around 2 million deaths each year, with a small fraction eligible for transplantation. Heart and corneal transplants also fall short of demand. Despite ranking second globally in total transplants in 2019, India's deceased organ donation rate remains critically low at 0.65 per million population<sup>3</sup>.

#### **Legal and Ethical Framework**

THOA provides the legal structure for organ donation in India, recognizing brain death and regulating donations. Amendments have aimed to promote ethical practices and reduce commerce. Challenges persist such as inconsistent implementation, lack of integration

into the Registration of Births and Deaths Act, and ethical concerns in allocation and consent<sup>11</sup>.

#### **Recent Innovations and Policy Reforms:**

- 1. Unique NOTTO-ID for Organ Transplants -To enhance transparency and curb the menace of organ commercialization, the National Organ and Tissue Transplant Organization (NOTTO) introduced a unique NOTTO-ID system for every transplant case<sup>5</sup>. Each donor and recipient pair is linked through this unique identification, ensuring a traceable, auditable, and tamper-proof record of the transplant journey — from organ allocation to postoperative outcomes. This innovation strengthens regulatory oversight, prevents manipulation of organ waitlists, and reassures the public about the fairness of the allocation process. The move aligns with global best practices recommended by WHO and the Declaration of Istanbul Custodian Group.
- 2. Removal of Age and Domicile Restrictions -In 2023, India removed age and domicile barriers for cadaver organ transplant registration<sup>6</sup>. Previously, age limits and domicile conditions led to discrimination, restricted access for elderly patients, and complicated interstate organ sharing. With these restrictions lifted, any individual, irrespective of age or state of residence, can register for a cadaver transplant, fostering equity and inclusivity across the organ transplant ecosystem. This reform is particularly crucial as India's elderly population rises, ensuring older individuals receive fair consideration for life-saving transplants without bureaucratic hurdles.
- 3. Creation of a Centralized Digital Registry under Ayushman Bharat Digital Mission- A major leap toward data-driven healthcare, the Ministry of Health initiated a centralized digital organ transplant registry integrated under the Ayushman Bharat Digital Mission<sup>7</sup>. The platform consolidates donor and recipient databases nationwide, promoting interoperability, real-time access, unified documentation. This ensures that organs are allocated based on objective, transparent criteria rather than regional biases. Moreover, digital registries facilitate advanced analytics on transplant outcomes, donor demographics, and waitlist trends enabling evidence-based policy-making and early detection of bottlenecks in the system.

- Standard Operating Procedures (SOPs) for Organ Transport - Recognizing the critical importance of rapid organ transportation, released National NOTTO Standard Operating Procedures (SOPs) for safe and efficient transport in 20248. These SOPs standardize protocols for coordination among hospitals, transplant teams, law enforcement, and aviation services during organ transfer. They cover essential aspects like green corridors, documentation norms, preservation methods during transit, time limits, and roles of all stakeholders. By minimizing ischemic time and ensuring the viability of transported organs, these SOPs aim to improve transplant outcomes and optimize resource utilization.
- 5. "One Nation, One Organ Allocation" Policy - The Health Ministry proposed the "One Nation, One Organ Allocation" policy in 2023, aiming to create a uniform organ sharing mechanism across all Indian states and territories<sup>9</sup>. union Historically, organ allocation was largely localized within states, leading to disparities in access, particularly disadvantaging patients from states with lower deceased donation rates. This national framework ensures that organs are allocated based on medical urgency, waitlist time, and blood group compatibility, irrespective of geographical boundaries. It promotes equity, standardization, and optimal utilization of available organs while reducing wastage and redundant waitlists. Successful implementation will require strong IT infrastructure, interstate collaboration, and public trust in the fairness of the system.

#### **Challenges**

Despite progress, challenges remain including:

- Limited ICU infrastructure, especially in public hospitals
- Low public awareness and persistent myths about organ donation<sup>12</sup>
- Underutilization of trained transplant coordinators and ICU doctors<sup>13</sup>
- Concerns over transparency and ethical allocation, especially involving foreign nationals<sup>14</sup>

#### **Strategic Interventions**

Addressing these issues involves:

- IEC activities targeting myths through mass media and community outreach
- Integrating donation options in driver's license applications
- Creating more NTORCs to allow organ retrieval even in non-transplant centers
- Institutionalizing transplant procurement managers in all major ICUs
- National-level digital monitoring systems to track waitlists, outcomes, and allocation

#### Stakeholder Roles and Collaborative Models

Government bodies, NGOs (e.g., MOHAN Foundation, Donate Life), healthcare professionals, and civil society must work in synergy. Tamil Nadu's structured cadaveric donation program serves as a model, while newer states must be supported through resource allocation and capacity building 15.

#### **Recommendations and Way Forward**

Recommendations include:

- 1. Establishing a unified national allocation policy
- 2. Strengthening documentation of outcomes and donor follow-up
- 3. Funding hospital infrastructure for donation logistics
- 4. Integrating organ donation with Aadhaarlinked health records
- 5. Promoting donor families through healthcare incentives and recognition

#### Conclusion

India is witnessing promising developments in organ donation reforms. However, consistent policy enforcement, enhanced infrastructure, community education, and stakeholder collaboration are essential for long-term success. Transforming organ donation into a mainstream, ethically governed public health initiative can save countless lives and foster a compassionate, responsive healthcare system.

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