



सत्यमेव जयते

Ministry of Health & Family Welfare
Government of India



National Public Health India Conference NPHICON 2024

23rd – 25th February 2024

Conference Compendium

Organized By
National Centre for Disease Control

(Directorate General of Health Services)

22, Shamnath Marg, Delhi -110054

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Press Release



Union Minister of State for Health and Family Welfare, Prof. S P Singh Baghel inaugurates three-day National Public Health India Conference

A healthy population is not only more productive but also more resilient in the face of adverse conditions. It is therefore imperative that we prioritize health as a central tenet of our development agenda: Prof. Baghel

NCDC fought like a warrior during the pandemic to contain the spread of Covid-19: Dr. V. K. Paul

Posted On: 23 FEB 2024 4:26PM by PIB Delhi

Union Minister of State for Health and Family Welfare Prof. S.P. Singh Baghel inaugurated the first National Public Health India Conference (NPHICON-2024) in the presence of Dr. V. K. Paul, Member NITI Aayog, here today. This three-day long conference is being organized from 23rd to 25th February 2024 by the National Centre for Disease Control (NCDC) under the Directorate General of Health Services.



Speaking on the occasion, Prof S P Singh Baghel highlighted the significance of the conference in advancing public health discourse and in formulating policies aligned with Hon'ble Prime Minister's vision for *Viksit Bharat*. The minister commended NCDC for its leadership and dedication in organizing this pivotal event that will contribute to the development of resilient health policies and interventions.



Prof. Baghel said, "At the heart of our vision for India's development is the recognition that health is not merely the absence of disease, but a fundamental human right and the cornerstone of sustainable development. A healthy population is not only more productive but also more resilient in the face of adverse conditions. It is therefore imperative that we prioritize health as a central tenet of our development agenda".

The Union Minister stated that "with a large population, rapid urbanization and increasing health care needs, the challenges are immense. However, amidst these challenges lie unique opportunities to innovate, collaborate, and pave the way towards a healthier and more prosperous future for all".



He also said that the conference will provide a common platform for exchanging experiences and best practices on public health concerns and relevant allied health practices in the country.

Dr. V.K. Paul applauded the NCDC for working tirelessly to contain the spread of Covid-19 during the pandemic. He said that India has to rely on its strong network of health centres especially Aashman Arogya Mandir to strengthen the health systems. He urged researchers to stick to good methodologies for research so that future health emergencies can be tackled with ease.



Sh. Apurva Chandra, Union Health Secretary conveyed a message acknowledging the importance of NPHICON 2024 in providing a forum for sharing experiences and best practices at the local level. He underscored the role of the conference in supporting policy development and interventions for the advancement of public health. He also extended his best wishes to NCDC and all participants for a successful and impactful conference.

Prof. Atul Goel, Director General of Health Services (DGHS), commended NCDC for organizing NPHICON 2024 and bringing together national experts, program implementers, and students. Dr Goel emphasized the collaborative nature of the conference, fostering innovative solutions and contributing to the larger goal of building a resilient and healthy nation.

Dr Roderico H. Ofri, WHO Representative to India, emphasized that India has the potential to become a global leader in expanding programs and resources for access to medical countermeasures, global health security preparedness and response, and digital health. "It is crucial to highlight and showcase the best practices and initiatives in the realm of public health", he stated.



Summary & Way Forward

Executive Summary

Summarized by: **Dr Sandhya Kabra**, Additional Director, NCDC Delhi

National Public Health India conference was an initiative taken by National Centre for Disease Control under Directorate General of Health Services, Ministry of Health & Family Welfare for first time to provide a platform for stakeholders from State governments and Union Territories, partner agencies, policy makers, program managers etc. for engagement and dialogue to reflect on lessons learnt and action towards building resilient public health care systems.

The conference was inaugurated by Honorable, Union Minister of State for Health & Family Welfare, (Professor SP Singh Baghel) in the presence of Member Niti Ayog (Prof. V.K Paul), Secretary Health & Family Welfare (Shri Apurva Chandra), Director General of Health Services (Prof. Atul Goel) Additional Secretary, Health & Family Welfare (Smt. L S Changsan) and WHO Representative to India (Dr Rodericco H. Offrin)

The seven session themes along with subthemes were curated thoughtfully aligning to the theme of the conference “Health Initiatives towards India’s Goal for a developed nation”.

Session 1: Recent Public Health Initiatives in India

(Ayushman Bharat & Aspirational Blocks, Tuberculosis and Non-Communicable Diseases)

Session 2: Advance Tools & Technologies for Public Health Surveillance and Response

(IHIP & Artificial Intelligence, Environmental Surveillance, Genomic surveillance)

Session 3: India Towards One Health

(Animal Husbandry, Wildlife, Food Safety and Standards Authority of India, Antimicrobial Resistance Climate Change and Environment, Indian Meteorological Department, Lifestyle for the Environment)

Session 4: India Towards Disease Elimination

Vaccine Preventable Diseases (Polio, Measles, Mumps & Rubella, Rabies), Vector Borne Diseases and Neglected Tropical Diseases (STH, Guinea worm, Yaws)

Session 5: Implementation of International Health Regulations in India

(Global health security, All hazard capacity building, Best practices at POEs)

Session 6: Research & Ethics

(Machine learning, Research Integrity, Ethics in Research during Humanitarian Emergencies and Disasters)

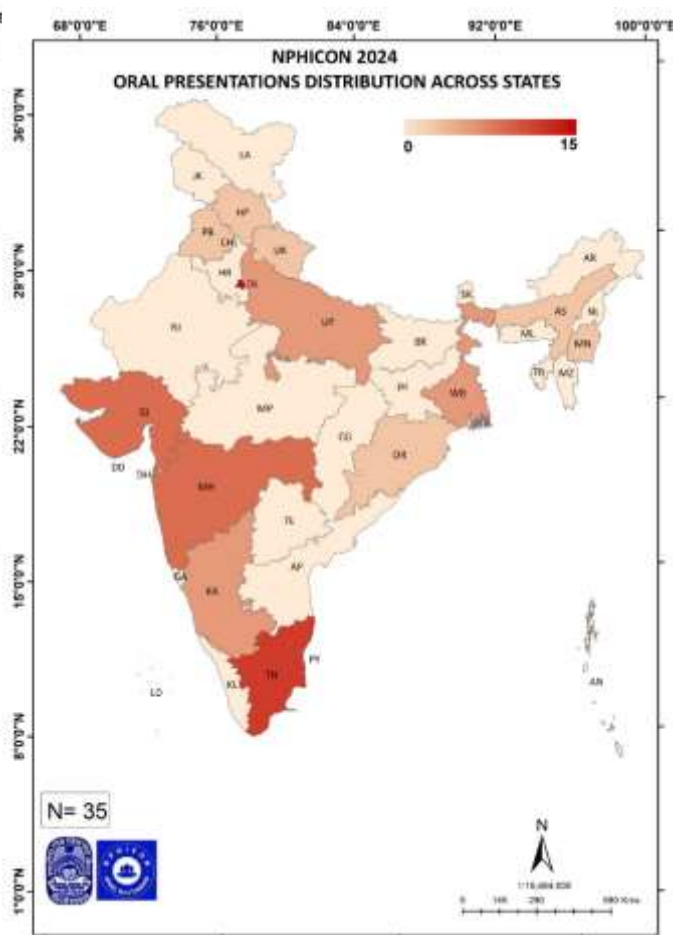
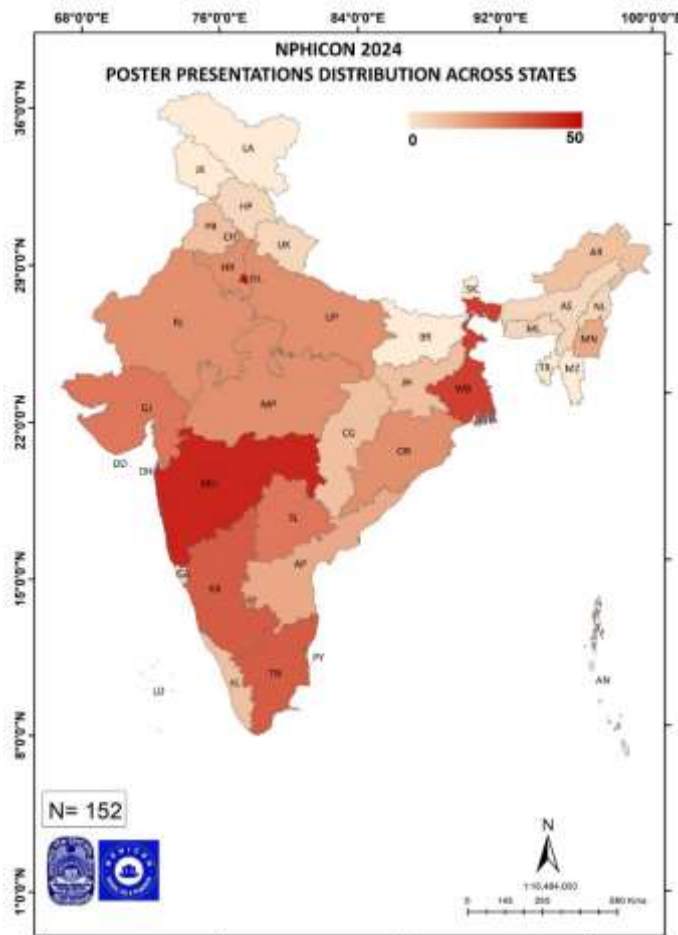
Session 7: Current Curriculum in Medical Education to Public Health Implementation in India – Barriers and Opportunities

Although the conference announcement received overwhelming registering response of around 800 delegates but around 400 delegates could be accommodated who participated in the conference. It was ensured that delegates represent the voices from grass-root level to highest level of planning.

The conference also had exhibition stalls of IEC and scientific archive material from various departments of NCDC, NCVBDC, CHEB. Apart from plenary speakers, keynote speakers and invited speakers in each session, the opportunity was also given to 35 delegates for oral presentations and 150 delegates for poster presentation in NPHICON-2024 and the abstracts of their work were also e-published.

The seven sessions were summarized in the concluding panel on day three by the officers of NCDC. The recommendations/way forward have been designed to offer effective solutions to the problems identified, but other equally effective ways are also suggested for resolving those problems from stakeholder discussions.

NCDC through this conference has attempted to build partnerships with all state holders from program implementers, academia, states and UTs, other cross cutting departments and ministries which effect health and hopes that we can all contribute in synergy towards a healthy nation.



Session - 1: Recent Public Health Initiatives in India (Agenda)

(Ayushman Bharat & Aspirational Blocks, Tuberculosis and Non-Communicable Diseases)

Plenary Session: Key Note Address on 'Newer Initiatives towards Public Health in India'

Smt. L.S. Changsan

Additional Secretary and Mission Director, National Health Mission, Ministry of Health and Family Welfare, Govt. of India

Oral Presentations

Chair: **Professor (Dr.) Atul Goel**, Director General of Health Services and Director NCDC, Ministry of Health and Family Welfare

Co-chair: **Dr. S. Venkatesh**, Former Director General of Health Services, Ministry of Health and Family Welfare

AyushmanBharat	Universal Health Care for childhood cancer through PMJAY scheme in India; Experience and Challenges
Aspirationalblocks	Morbidity and Mortality Portfolio of SNCU graduates at Aspirational District SNCUs in Odisha, India - A cross-sectional quadrennial period study
Aspirational blocks	A mixed method study on performance motivation of ASHAs: A comparison across different Incentive Systems in India
Non-Communicable Diseases	Health Technology Assessment of Breast Cancer Screening techniques in India
Tuberculosis	Advancing towards Tuberculosis Elimination: Insights from a Community-Centric Mortality Analysis of Individuals with Tuberculosis in India
	Intensified TB case finding activity among indoor patients in public sector hospitals of Himachal Pradesh, India

Session 1: Recent Public Health Initiatives in India (Summary)

Summarized by: **Dr Preeti Madan**, Joint Director, NCDC Delhi

Mrs. L.S. Changsan, Additional Secretary and Mission Director, MohFW provided an overview of National Health mission stressing upon the support from the government to states/UTs towards provision of universal access to equitable, affordable & quality health care responsive to people needs with effective inter sectoral convergent action to address determinants of health.

It was highlighted that the mission since its inception in 2005 has contributed towards health indicators outcome and paving way towards the sustainable development goal by supporting states in the gap areas

Recent initiative under various schemes including free drugs and diagnostic services, National Sickle Cell Anaemia Elimination Mission, NVHCP, The Pradhan Mantri National Dialysis Programme, Mission Indradhanush, has further scaled up health services coverage and reduction in out of pocket expenditure

Further as part of continuum of care the expenses are not only at level of ayushman arogya mandir but also at secondary and tertiary care through Ayushman Bharat, PM-ABHIM through provisioning of infrastructure & human resource.

Conclusion

1. The need of hour is that all health care providers should come together to implement various activities envisaged under Ayushman Bharat, PM-ABHIM through provisioning of infrastructure & human resource
2. Integrated approach for successful implementation of recent health initiatives priorities at various levels in Non-Communicable disease, Mental health, Communicable disease scaling down till last tier of health care facility is required
3. Training and capacity building are core essential areas for scale up of health services and it was heartening to see youth involved as task force for awareness
4. Concept for getting health services nearer to the one in need with amalgamation of Artificial Intelligence, Health and Technology
5. Impact of aspirational block program an initiative to identify areas for immediate improvement & bridge the gap and moving towards achieving the Sustainable development goals.



Session – 2: Advance Tools & Technologies for Public Health Surveillance and Response (Agenda) (IHIP & Artificial Intelligence, Environmental Surveillance, Genomic surveillance)

Invited Session: Digital Health Initiatives for Strengthening Public Health Surveillance and Response

Dr. Himanshu Chauhan, Joint Director, NCDC Delhi

Oral Presentations

Chair: **Dr. Sunil Gupta**, Principal Consultant NCDC, Delhi

Co-chair: **Dr. Ranjan Das**, Director AIIPH, Kolkata

Subtheme	Topic
Integrated Health Information Platform	Enhancing Disease Surveillance and Prevention: Gujarat's Journey with IHIP Portal Implementation
	Evaluation of Severe Acute Respiratory Infection (SARI) Sentinel Surveillance System under Integrated Disease Surveillance Program- Integrated Health Information Platform (IDSP-IHIP) in Rajasthan, India, 2023
Artificial Intelligence	Collaborative Platform for Dengue Monitoring and Control in Karnataka
Genomic Surveillance	Genomic epidemiology of ceftriaxone resistant <i>Salmonella typhi</i> from two states in the country
Environmental Surveillance	SARS CoV2 – The perspective of Environmental Surveillance in Public Health Surveillance
	Integrating Wastewater-Based Surveillance and Machine Learning Approaches for Comprehensive Understanding of SARS-CoV-2 Incidence

Session 2: Advance Tools & Technologies for Public Health Surveillance and Response (Summary)

Summarized by: **Dr Saurabh Goel**, Joint Director, NCDC Delhi

Dr. Himanshu Chauhan, Joint Director NCDC highlighted as the investment in digital health has been a 10 fold increase in last few years, global digital health market is expected to grow at fast pace. The successful initiatives under this endeavor of Ministry of Health and Family Welfare are e-sequencing, e vin, co-win, Aarogya setu, Integrated Health Information Platform (IHIP).

IHIP is a real time, case based system with mechanism for providing integrated analytics, media scanning based on Artificial Intelligence, Heat maps, line listing and capacity to integrate with multiple disease data sources. IHIP is going to remain the backbone of upcoming digital initiatives in India. It is a milestone in an era of digital transformation in public health surveillance

Conclusion

1. IHIP reporting should addressing capacity-building needs, ensure seamless daily reporting and enhance decentralized laboratory-based entries enabling systems for effective disease surveillance mechanism for early outbreak detection and response through trained Rapid Response Teams especially for outbreak prone diseases (RRTs).
2. Strengthening surveillance should also generate critical case referral mechanisms for which community sensitization of frontline workers is also required.
3. The value of problem-led research and collaborative partnerships between researchers and government health officials to generate models and must be continuously evaluated to address a public health challenge especially with reference to vector borne diseases.
4. Antibiotics being one of the last resort for treatment of severe infections with Gram negative bacteria, development of reliable molecular marker/s for rapid detection of resistance is necessity.
5. Waste-water based epidemiology can serve as an important complementary tool for public health interventions such as encouragement for increased testing in the community, preparation of hospitals, introduction/ release of restrictions.
6. Environmental Surveillance sampling is reliable sampling method for diseases and risks such as for SARS CoV-2, polio, typhoid and antimicrobial resistance etc. It can help to form decisions on and assist in measuring the effect of public health interventions.



Session – 3: India Towards One Health (Agenda)

(Animal Husbandry, Wildlife, Food Safety and Standards Authority of India, Antimicrobial Resistance, Climate Change and Environment, Indian Meteorological Department, Lifestyle for the Environment)

Panel Discussion: 'Collaboration towards One Health'

Panelists:

Dr. Sanjay Shukla IFS

Member Secretary, Central Zoo Authority, Ministry of Environment, Forest & Climate Change

Dr. Abhijit Mitra

Commissioner, Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying

Dr. Ashok Kumar

Additional Director General, Indian Council For Agricultural Research, Ministry of Agriculture and Farmers Welfare

Sh. Vijay Kumar Soni

Head, Environment Monitoring and Research Centre, Indian Meteorological Department, Ministry of Earth Sciences

Dr. Lata Kapoor

Additional Director, NCDC, Delhi

Dr. Ajeet Singh

Joint Director, Food Safety and Standards Authority of India, Ministry of Health and Family Welfare

Moderated by:

Dr. Simmi Tiwari, Joint Director NCDC Delhi

Oral Presentations

Chair: **Dr. Anil Kumar**, Principal Advisor, NCDC Delhi

Co-chair: **Dr. Tanzin Dikid**, Joint Director, NCDC Delhi

Subtheme	Topic
Zoonosis	Highly Pathogenic Avian Influenza (H5N1) infection in crows through ingestion of infected crow carcasses
	Joint Evaluation of Human and Veterinary Anthrax Surveillance System in Odisha, July 2023
	Enhancing preparedness of Kyasanur Forest Disease through cross- sectoral co-production of risk maps and decision support tools
	A study on Scrub Typhus among adults presenting with acute febrile illness at a tertiary care hospital
Environment, Climate Change & LiFE (Lifestyle for Environment)	Showcase for Best Practices of Heat Action Plan: Ahmedabad City
Anti Microbial Resistance	Empirical vs Targeted Antimicrobial Therapy for Blood Stream Infections in ICU Patients of a Tertiary Care Hospital in North India

Session 3: India Towards One Health (Summary)

Summarized by: **Dr Ajit Shewale**, Deputy Director, NCDC Delhi.

The panel discussion occurred on a range of issues requiring One Health approach like Food safety, drives of zoonoses emergence, illegal wildlife trade, community outreach and TB & Rabies elimination by 2025 & 2030 respectively.

1. Dr. Mitra explained the DAHD initiatives on pandemic preparedness like APPI and OHSU and stressed on the need for a IHIP like platform for Animal Health sector. He also pointed the need for addressing zoonotic TB for attaining the India's TB elimination goal.
2. Dr. Shukla explained the country's efforts in land restoration, protecting biodiversity loss and regulating illegal wildlife trade.
3. Dr. Soni took us through the IMD data collection processes and how that data can be used to predict vector-borne zoonotic diseases.
4. Dr. Ashok explained the community outreach network of ICAR and how they are leveraging this network to raise awareness on zoonotic diseases and AMR among farmers and livestock owners.
5. Dr. Lata explained the dynamics of AMR in the country differ from the Western countries and what the MoHFW is doing to tackle the emerging challenge of AMR.

The main outcome of this enriching multisectoral panel discussion was that One Health approach is required in addressing these challenges and all sectors should work in coordination, whilst honouring the sectoral priorities of each other.

Conclusion

1. The studies done on a range of zoonotic diseases like COVID-19, Salmonellosis, Anthrax and HPAI, outbreak investigations and Surveillance System Evaluations done can be useful resource material for intervention development
2. The veterinary sector focused on important endemic diseases like brucellosis and Q-fever, cat-scratch fever in animals and important in humans.
3. The understanding on various aspects of zoonotic diseases like their burden in various states, need for point-of-care diagnostics, risk factors for emerging diseases like KFD, etc. will aid in fostering multi-sectoral collaborations for future research in One Health.



Session – 4: India Towards Disease Elimination (Agenda)

Vaccine Preventable Diseases (Polio, Measles, Mumps & Rubella, Rabies), Vector Borne Diseases and Priority Tropical Diseases (STH, Guinea worm, Yaws)

Plenary Session: India Towards Disease Elimination and Eradication**Dr. Akshay Chand Dhariwal**

Former Director, NCDC and NCDVBDC, Delhi

Oral PresentationsChair: **Dr. Arti Bahl**, Additional Director & Head, Division of Epidemiology, NCDCCo-Chair: **Dr. P J Bhuyan**, Joint Director, National Centre for Vector Borne Disease Control.

Subtheme	Topic
Vaccine Preventable Diseases	Triple Elimination of Vertical Transmission of Hepatitis B, HIV and Syphilis: An integrated intervention in West Bengal
	Unveiling the Path to Improved Immunization Coverage in India: Exploring Zero Dose & Partially Immunized Children as Catalysts for Progress.
Neglected Tropical Diseases	Paragonimiasis: A continuing public health problem in the Northeast India
	Visceral Leishmaniasis elimination and resurgence: A study in compartmental modelling
Vector Borne Diseases	Changing Malaria epidemiology in the context of elimination: Evidence from one selected tribal and non-tribal district, Andhra Pradesh, India, 2023
	Dengue Control Mega campaign: A comprehensive, integrated approach for Dengue control in Uttarakhand, 2023

Session – 4: India Towards Disease Elimination (Summary)

Summarized by: **Dr Tanzin Dikid**, Joint Director, NCDC Delhi

Dr Akshay Chand Dhariwal, Former Director, NCDC and NCDVBDC, Delhi shared defining moments in India of the most ambitious goals of public health: disease elimination and eradication through his experiences in implementation of Yaws Eradication Program (YEP), Guinea Worm Eradication Program (GWEP), Polio Eradication, Neonatal Tetanus, Measles, Rubella, Malaria, Lymphatic Filariasis, Kala-azar and Leprosy Elimination.

He emphasized the importance of program guidelines based on evidence synthesis and taking our own decisions in national interest like switching from monovalent to bivalent polio vaccination, single dose amphotericin, active searches, focus on PKDL cases, integrated vector management (IVM), extensive social mobilization etc. The journey toward disease elimination and eradication is intricate, fraught with challenges, but also brimming with opportunities for innovation, collaboration, and the chance to make an indelible mark on the fabric of global health.

Conclusion:

1. The integrated approach to improve screening, capacity strengthening and awareness; standardized, optimized management and care services is a suitable launchpad in elimination of vertical transmission of HIV, Syphilis and Hepatitis B
2. Recent policy updates, like Intensified Mission Indradhanush, show promising results in reducing dropout rates and reaching underserved children and by addressing specific challenges evidence-based strategies can improve immunization coverage, aligning with the Immunization Agenda 2030 and the SDGs.
3. Public health authority and medical practitioners must be made aware about the continuing problem of paragonimiasis in north eastern states.
4. Simulations with Visceral Leishmaniasis transmission model can be used to estimate VL incidence while accounting for the PKDL reservoir in a population which may help in taking precautionary actions for case reduction.
5. There is evidence of changing epidemiology of malaria in both tribal and non-tribal districts and it is recommended that sustained disease control activities and intensified surveillance in hidden pockets must be ensured.
6. Campaign Mode activities for control of vector borne diseases like Dengue can be a effective model to mitigate transmission and impending outbreak.



Session 5: Implementation of International Health Regulations in India (Agenda)

(Global health security, All hazard capacity building, Best practices at POEs)

Plenary Session : International Health Regulations

Dr. Roderico H. Ofri, WHO Representative to India

Oral Presentations

Chair: **Dr. P. K. Sen**, Former Director NCVBDC, delhi

Co-chair: **Dr. S. Senthil Nathan**, CMO (SAG), Centre for International Health, DGHS

Subtheme	Topic
Global Health Security	Joint External Evaluation (JEE) - A tool for strengthening IHR competencies for pandemic preparedness: Sharing experiences from Indonesia
All Hazard Capacity Building	SectorConnect: Transition from Frontline Field Epidemiology Training Programme (FETP) to Fellowship in One Health, a multispectral Intermediate FETP in India
Best Practices at Points of Entry	Public Health Measures and challenges at the Points of Entry during the mass evacuation from a yellow fever endemic country to a non-endemic country: Operation Kaveri
	Tracking of rodents and their fleas for plague surveillance in Chennai International Seaport: A field epidemiological study
	Best Practices at PHO Tuticorin- Management of Symptomatic/Asymptomatic COVID Positive crew onboard ships called at Tuticorin Seaport through
	Crew Change Report – An innovative tool for safe and efficient way of Crewchanges of the Ships during COVID-19 Pandemic

Session 5: Implementation of International Health Regulations in India (Summary)

Summarized by: **Dr Meera Dhuria**, Joint Director, NCDC Delhi

Dr. Roderico H Ofrin, WHO Representative to India gave an overview of IHR (2005), its history and emphasized the need to strengthen its implementation. He stressed upon informing the need for multi-sectoral capability (enhancement for prevention, detection and assessment of any public health threat and highlighted the need for a strengthened National focal point – IHR. He emphasized the shared responsibility of countries, WHO until all of us are prepared no one is prepared.

He discussed the current status of IHR implementation Globally & also in India & noted the varying levels of national preparedness across in countries.

Conclusion:

1. Conducting capacity assessments at State Level to take IHR implementation to subnational level utilizing Joint External Evaluation Tool
2. Leveraging G-20 declaration & leadership for pandemic preparedness
3. Conducting Intra action review & After action review after PHE.
4. Documentation of best practices at PoEs to be readily available for use during future pandemics.
5. All hazard capacity building is need of hour



Session – 6: Research & Ethics (Agenda)

Machine learning, Research Integrity, Ethics in Research during Humanitarian Emergencies and Disasters

Plenary Session on Research Dr. Rajiv Bahl Secretary, Department of Health Research and Director General, Indian Council of Medical Research
Plenary Session on Ethics Dr. Girish Tyagi, Secretary, Delhi Medical Council
Invited Talk: Machine learning perspectives in one health; opportunities and challenges Dr. Partha Haldar Additional Professor, Centre for Community Medicine All India Institute of Medical Sciences, New Delhi

Oral Presentations Chair: Dr. Prema Ramachandran , Director, Nutrition Foundation of India Co-chair: Dr. Harish Pemde , Director Professor Pediatrics, Lady Hardinge Medical College, Delhi	
Subtheme	Topic
Machine learning	Ethics for use of Machine Learning in Research: A Review of Literature
	Digitizing Oral Pathology: Aligning with the Digital India Initiative for Revolutionizing Healthcare
Research Integrity	Modernizing Biomedical Research and Regulatory Policies to Advance Human Health
Research Ethics	Mixed method research to assess the effect of social media on cyberbullying: Action for Cyber Health Promotion
Ethics in Research during Humanitarian Emergencies and Disasters	Ensuring Ethical Research in Flood: A Framework for Ethical Considerations

Session – 6: Research & Ethics (Summary)

Summarized by: **Dr Monil Singhai**, Joint Director, NCDC Delhi

Dr. Rajiv Bahl, Secretary DHR and DG ICMR, stressed in his plenary address that before we start out research, we need to define our domain clearly, i.e. main purpose, audience & scope of our research. Research should be aligned to address the gaps, challenges & opportunities in specific domain area. Dr Girish Tyagi, Secretary, Delhi Medical Council emphasized that Ethics & Integrity are two most crucial but undermined areas in research and clinical practice. Due diligence should be done by researchers especially of eminent institutions so that they do not embroil in controversies.

Dr Partha Haldar, Addl Professor AIIMS Delhi in his guest talk informed that machine learning is a computer program which runs on algorithm and learns from experience. Internet of things & Digital twinning can be useful to mine patterns & trends from the complex data and the processing of data requires careful, scrutinized inputs to have better outcomes

Conclusion:

1. Machine learning can help us in development of automated systems but these systems must be crucially examined as even though they are an asset to users but operators must be confident that available counter measures are useful, cost effective & security barriers are robust.
2. The aim must be to develop applications based on these patterns & trends. Deep learning algorithms also can to have spatial-temporal based recommendations especially helpful for outbreak management
3. We should delve into cultural, religious and regional sensitivities and due consideration of conducting research especially during disaster settings must be given.
4. Issues of Cyberbullying affects mental health of the person which is translated into physical melodies and ethical use of social media must be promoted.
5. Cultural differences between researchers & participants may be associated with biases that reduce reliability & validity of studies & negativity impact target communities. We require standards for cultural sensitivity especially with regards to tribal health.
6. Funding agencies must gauge on research impact on health care policy/ health care delivery /knowledge gain in epidemiology of disease



Session7: Current Curriculum in Medical Education to Public Health Implementation in India– Barriers and Opportunities

Chairs:

Lt. Gen (Dr.) Madhuri Kanitkar

Vice Chancellor

Maharashtra University of Health Sciences, Nashik

Dr. B. N. Gangadhar

Acting Chairman,

National Medical Commission, Delhi

Panelists:

Prof. B. S. Garg

Department of Community Medicine,

Mahatma Gandhi Institute of Medical Sciences, Wardha

Dr. Anurag Agrawal

Dean, Biosciences and Health Research,

Trivedi School of Biosciences, Ashoka University, Sonipat

Dr. Nalin Mehta

Director, NEIGRIHMS, Shillong

Dr. P.K. Sen

Public Health Specialist, Former Principal Advisor NCDC & Former Director NCVBDP, Delhi

Dr. Mohd. Shaukat

Public Health Specialist, Former Advisor – NCD, DGHS, MoHFW, Delhi

Prof. Anand Krishnan,

Centre for Community Medicine, AIIMS, Delhi

Dr. Jugal Kishore

Director Professor, Department of Community Medicine VMMC & Safdarjung Hospital, Delhi

Prof. Rajib Das Gupta ,

Head, Centre for Social Medicine & Community Health, School of Social Sciences, Jawaharlal Nehru University, Delhi

Session 7: Current Curriculum in Medical Education to Public Health Implementation in India–Barriers and Opportunities

Summarized by: **Lt Gen Madhuri Kanitkar** (Retd), Vice-Chancellor, Maharashtra University of Health Sciences, Nashik and **Dr BN Gangadhar** Acting Chairman National Medical Commission, Delhi

The gist of the discussion by panelist and a feedback recommendations by chairs are as follows: -

Panelist: Dr Jugal Kishore

Question: What is the scope in the PG curriculum to accommodate relevant topics of Public Health to enable the PG students to contribute and explore a possible career in Public Health?

Gist of talk: Public health encompasses Community Medicine & all specialties but there is a confusion of nomenclature. There is a need to educate for newer needs with skilling our postgraduates with real world problem solving. It was suggested that MD/DM can be integrated with Public Health Departments.

Suggestion: Professors of practice from the Health Department especially those working on National missions with a rotation for PGs with State Health departments to understanding the functioning and rejuvenate with working hands down to the grassroots at PHC/CHC.

Panelist: Dr.Nalin Mehta

Question: What kind of exposure the current curriculum provides to PG students in terms of implementation of PH program and can this be improvised?

Gist of talk: Almost none with the result the strict NMC norms are adhered to but learning outcomes not measured

Suggestion: Provide electives to choose from and compulsory Rotation with state PHC's & Central and State Public Health institutions

Panelist: Dr. Anand Krishnan

Question: What is the feasibility of aligning PG level research for the purpose of implementing and monitoring of ongoing public health programs?

Gist of talk: PG level training needs competencies in domains which can be aligned to evolving needs to provide Competencies in Biostatistics, Health systems, Community health

Suggestion: Evaluation of the PG and faculty should not be only on publications but include participation and supporting National Program based research both qualitative and quantitative. National Institutes and State Health Dept need to collaborate closely with research needs and help colleges design the studies

Panelist: Dr. P. K. Sen

Question: Prospects and limitations of a career in public health services?

Gist of talk: Described the role of Public Health with community participation. Suggested the need for new courses data analysis, Artificial intelligence and machine Learning etc

Suggestions: Opportunities and Courses need to align with Career prospects and a career path. Public Health is mostly a federal responsibility and hence they need to collaborate with Health Universities and other health education institutions to design tailor made courses

Panelist: Prof. Dr. B. S. Garg

Question: What are Scope and opportunities for specialization and super-specialization in Public health in India?

Gist of talk: Public Health cannot be taught from ivory towers and need a connect with grass roots and teachers need to be working in the field themselves. He suggested a Public Health Council to coordinate all training and services. Practice before preaching

Suggestion: Public Health council may fragment things further by creating another silo. The need is to build bridges and connections with porous walls rather than create another fortress.

Training needs can be fulfilled through certificate and fellowship courses curated for specific needs such as Clinical epidemiology, Biostatistics, Big data, Health economics, Health technology assessment, Adolescent health, Medical sociology, Disaster medicine.

Panelist: Dr. Mohamad Shaukat

Question: What are Challenges in implementation of public health programs in India?

Gist of talk: Disconnect between curriculum and implementation of Public Health initiatives, MPH by people with no insight but become leaders. No independence to work in Public Health. Public health service is like mopping the floor with a running tap

Suggestion: There is a disconnect between Centre & State as Health is a state subject not in concurrent list. At State level very often there is a disconnect between Medical education and health. Requires policy changes to bring in better continuum of care

Panelist: Dr. Rajib Das Gupta

Question: What is your take on inclusion of social sciences in the current public health training for post graduate students?

Gist of talk: Courses of inequalities & social injustice & social epidemiology important

Suggestion: Medicine is a science but practice is an art hence sensitization of the students is important. AETCOM modules attempt the same but a dedicated faculty and role models need commitment and encouragement provided to faculty. Incentivisation of model behavior needs to be considered. Access to health care and disparity in the same requires community and social participation.

Panelist: Dr. Anurag Agarwal

Question: Feasibility of fostering collaboration and partnerships between various research institutes including medical colleges with public health programs in India?

Gist of talk: People take up ownership in silos, need to bring in technology, Respect has to be foundation for collaboration. Loss of diversity in medical schools

Suggestion: Policy changes to develop institutionalized collaborations between Research and Public Health care institutions on a region wise basis with medical colleges so as to nurture better research and participation of postgraduates, faculty is important. We need to make walls porous to permit free movement on deputation between research institutions and medical colleges/health universities

Recommendations by the Chairs

1. Improvement of Public health education needs at all levels
 - a. Primordial- Sensitization at school through volunteering services in holidays with public hospitals
 - b. Primary- AT UG level by ensuring the family adoption program envisaged by NMC is implemented in letter and spirit
 - c. Secondary- At PG level through electives offered for rotation with other institutions
 - d. Tertiary- Fellowships and DM programs that are need based with career paths
2. SANGAM is a way forward for better public health- Synergy of Academia Networking with Government Allied Health and Medical Professionals at every level is State and Centre
3. Many initiatives for encouraging a change in behavior among UG PG and faculty through Research for Public Needs Program has been taken by universities/academic institutions such as Maharashtra university of health sciences which may be analysed and evaluated for adoption
4. NMC is taking great pains to see how to increase the faculty pool so as to have people who are qualified and Skilled as against some qualified but not skilled and some skilled but not qualified with degrees.



Recommendations/Way Forward

By: **Prof (Dr.) Atul Goel**, DGHS, MoHFW

Session 1: Recent Public Health Initiatives in India

- The campaign mode initiatives taken for Ayushman Bharat, PMJAY, Tuberculosis, Non-Communicable Diseases etc are effective designs to foster focus and considerable outreach to the under-served regions of country

Session 2: Advance Tools & Technologies for Public Health Surveillance and Response

- The application of the latest advance tools and technologies in the management of huge data and its analysis enlighten policy makers for taking timely decisions, but the quality and security of these applications must be thoroughly maintained

Session 3: India Towards One Health

- National/Regional/ state Public Health Organizations need to influence the thinking of public towards primordial and primary prevention by adopting one Health Approach towards Human Health too. Also human health may be looked at as one health rather than dividing it into specialties and subspecialties.

Session 4: India Towards Disease Elimination

- The effective modalities such as fortification of food, mass drug administration, chemoprophylaxis, immunoprophylaxis etc must be effectively evaluated when marching towards targeted disease elimination goals. We may examine universal fortification minutely before bringing it into practice.

Session 5: Implementation of International Health Regulations in India

- A coordinated approach from different stakeholders within & outside Point of entries (POE) is crucial for effective implementation of IHR. A public health emergency contingency plan (PHECP) must be developed, maintained and mock-drilled from time to time in designated POE for responding to events.

Session 6: Research & Ethics

- Research & Publications in medicine should align with patient care and with utmost integrity and ethics. Scientific discoveries need to come back to Institutions in form of cost-effective and indigenous counter measures which can strengthen health care delivery.

Session 7: Current Curriculum in Medical Education to Public Health Implementation in India –Barriers and Opportunities

- Curriculum in Medicine should be shortened so that it is relevant, practical and sensitive to primary clinical practice and public health needs of the country. Further focus should be on quality from now on. Increase in Medical Seats should be kept on hold for now.

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Glimpses







Feedback Wall

