

NCDC Newsletter

Quarterly Newsletter from National Centre for Disease Control (NCDC)



Director's Desk



Healthcare sector contributes approximately 5.5% to the total greenhouse gas emissions worldwide. The role of the healthcare sector is essential not only in implementing various measures to adapt to the impacts of climate change but also in actively mitigating its own contribution to greenhouse gas emissions to help curb global warming. This issue of newsletter captures snapshot of efforts by Ministry of Health and Family Welfare (MoHFW) in collaboration with National Programme on Climate Change & Human Health (NPCC&HH) to reduce the impact of health sector's emission.

This issue further elaborates on the investigations conducted for outbreaks of Acute Diarrhoeal Disease (ADD) in Karnataka and Anthrax in Koraput district, Odisha to

provide actionable recommendations.

During second quarter many activities were conducted in NCDC like blood donation camp, Yoga Day celebration, workshop on state action plan for dog mediated rabies elimination. Surveillance section provides snapshot on sentinel surveillance on acute respiratory illness in context of Air Pollution, COVID-19 surveillance under Integrated Disease Surveillance Programme (IDSP), ADD & Cholera trend.

We sincerely hope that this newsletter has proven to be beneficial to you. Your valuable feedback is greatly appreciated as it helps us enhance our content to better and bring information that is useful and valuable to

Lead Story

Developing Green (Environment Friendly and Sustainable) and Climate Resilient Healthcare Facilities

Climate Change is the defining issue of our time, and an “existential threat” to humanity. World Health Organization (WHO) has identified climate change to be the biggest public health challenge. The magnitude of climate change's impact on the human population is observed to be exacerbated by existing social and economic vulnerabilities of the population which threatens to reverse the progress made under Sustainable Development Goals. Currently, due to the rise of 1.3°C temperature compared to pre-industrial levels, we are already witnessing frequent, long, early heatwaves; altered monsoon with intense rainfall events in the country. Health sector needs to play a pivotal role, not only in various adaptation measures but also in reducing its own greenhouse gas emissions. This will contribute towards limiting the warming to 1.5°C as per India's commitment under the Paris Agreement.

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GHG emissions in healthcare

Healthcare sector contributes to around 5.5% of the total global greenhouse gas (GHG) emissions as per the Health Care's Climate Footprint report. Among the top ten health care emitters that contribute to 75% of the global health care climate footprint, India's health sector ranked 7th. These emissions occur at different levels of health care service delivery i.e., direct emissions from health care facilities (Scope 1) (17%), indirect emissions from purchased energy (Scope 2) (12%), and all indirect emissions through upstream and downstream value chain (Scope 3) (71%). The largest section of these emissions is due to the use of fossil fuels in powering health facilities across the sections of energy, manufacturing, and transportation of people, and products and services.

Various efforts are being undertaken at the central and state level in order to combat this challenge.

Central-level focus

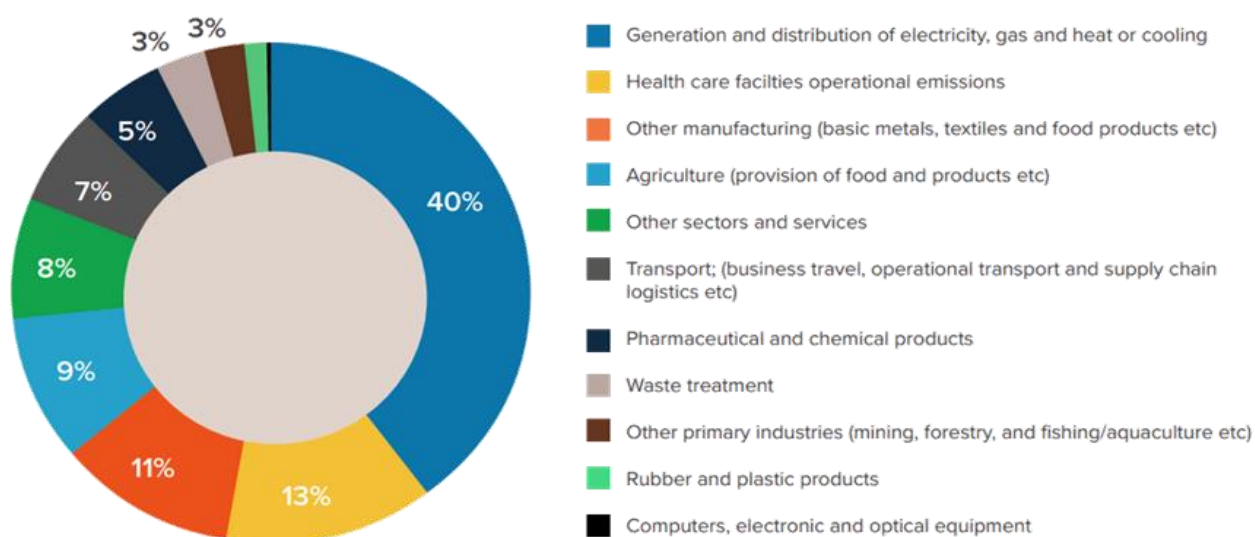
Under the National Health Mission, National Programme on Climate Change and Human Health (NPCCHH), NCDC is invested in health systems strengthening to achieve preparedness as well as better response mechanisms to climate change associated adversities.

Steps in this direction include:

- Development of Green (Environment Friendly and Sustainable) and Climate Resilient healthcare facilities (GCRHF) Guidelines. Implementation of structural and

operational measures under GCRHF aim to combine adaptation and mitigation strategies to ensure continuity of services during extreme weather events, address changing dynamics of climate-sensitive illnesses, and reduce overall carbon footprint of health sector.

- The GCRHF Guidelines published in February 2023 under NPCCHH, outlines the concepts, processes, best practices, checklists, and costed plans for different level of health facilities. It addresses the components of energy efficiency and transition, water management, smart building, green measures, and waste management.
(<https://ncdc.gov.in/showfile.php?lid=959>)
- The key capital-intensive GCRHF measures that are prioritized to be supported through funding are energy audit, replacement of non-LED to LED-lighting, solarization, and rainwater harvesting. Additionally, development of new and retrofitting of old facilities to make them climate-resilient, based on the exposure to predominant extreme weather events, is supported through central government funding under National Health Mission (NHM).
- Guidelines for Solar Powering Healthcare Facilities addresses specifics related to photovoltaic (PV) solar panel installation including details on public health facilities load considerations for installation of solar PV, different types of solarization models



Global health care emissions contributors

- (grid based/ decentralized/ hybrid systems), as well as the cost estimates for primary/secondary/tertiary level health facilities. (<https://ncdc.gov.in/showfile.php?lid=960>).
- Training modules and IEC material for capacity building of State and District Programme Officers-NPCCHH, medical officers, and community health workers in this subject area are developed. Many of the measures align with Kayakalp and Indian Public Health Standards (IPHS) standards 2022 which gives an additional push for their implementation.
- In partnership with UNICEF, National Institute of Solar Energy (NISE) has developed a mobile application “NPCCHH” for NCDC which serve as a common platform (across every state) for facilitating the data collection from the health care facilities with respect to baseline energy assessment, and planning for the solarization activity. The basic energy related data, and those pertaining to electrical parameter of the respective HCF are a part of this mobile app data points. Also, NISE is in process of imparting capacity building activities at state level (for SNAs, and nominated SNOCCs) for using this mobile app for data facilitation, and further assessment.

State-level implementation-

- Under NPCCHH, LED replacement has been initiated by Assam, West Bengal, Tamil Nadu and is being carried out in a phased manner.
- NPCCHH, with its technical and implementation partners i.e., UNICEF-National Institute of Solar Energy (NISE), Ministry of New and Renewable Energy (MNRE), and SELCO is supporting the states in identification of health care facilities (HCFs) for solarization, conduct energy assessment, develop tender specifications, protocols and standard operating procedures (SOPs) on operations and maintenance of equipment, and cost estimations.

- NISE is facilitating engagement of the state nodal agencies (SNA) of Ministry of New and Renewable Energy with respective state health department to establish long-term alliances as the health sector shifts towards renewable energy. HCF solarization would support:
 - Cost reduction of the electricity consumption.
 - Ensure continuous supply of electricity to critical loads for better services
 - Wellbeing of the patients and facility staff
 - Contribute to CO₂ emission reduction
- NISE, in partnership with UNICEF, is also supporting the Government of Kerala to develop a “Net Zero” strategy for public health facilities in the long term.
- Some states have taken a lead in energy transition as it reliably improves health facilities’ access to uninterrupted electricity. With NPCCHH, the efforts are boosted in states like Kerala, Assam, Meghalaya, Karnataka, Uttar Pradesh, Gujarat, Chhattisgarh, Goa, and Arunachal Pradesh

“In our facility, there was high footfall of pregnant women, but due to electricity fluctuations, the labour room was not functional at all times. Now, as we have solar power available, the labour room can be made functional at any time, helping our HCF continue to provide services according to the community needs.”

-As mentioned by a medical professional from a Primary Health Centre (PHC) in Chhattisgarh



- Efforts are being made to make health facilities resilient to ensure continuity of services.
- Family health centers in Wayanad, Kerala provide good examples of flood resilient structural and operational measures.
- Health facilities in Odisha have installed lightning rods to reduce the impact of lightening
- States like Karnataka and Haryana have installed rainwater harvesting structures to reduce the impacts of drought and dependence on piped water supply.
- Cool roofing, a measure to reflect sunlight to reduce internal temperature, is being implemented in health facilities of Gujarat and Telangana to reduce energy consumption due to cooling.

In the era of climate change, the health needs are likely to change significantly, leading to a shift in the demand for services. By integrating sustainability and climate-smart health care into Universal Health Care (UHC), we'll be able to build more robust and effective health systems.



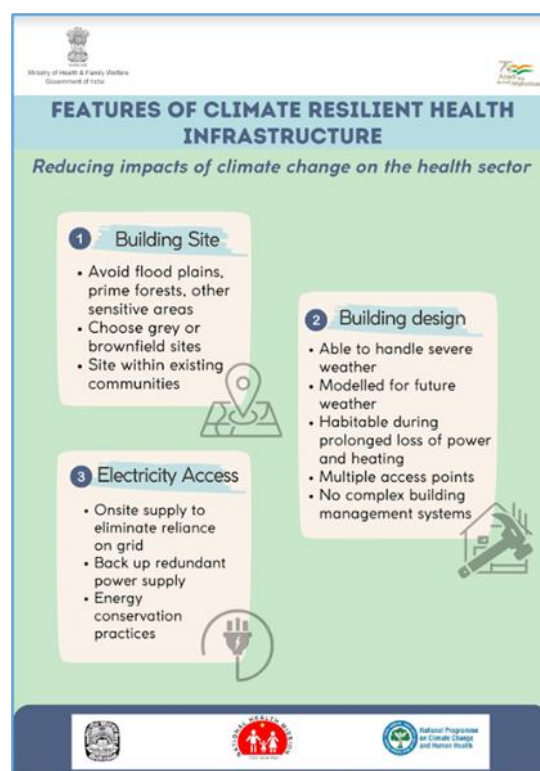
Tiled cool roof with solar panels in UPHC, Gujarat



Flood resilient Family Health Centre, Kerala

Contributed by: Ms. Chehak Ahuja, Drs. Purvi Patel, Aakash Shrivastava and NPCCHH team

Peer Reviewed by: Dr. Mainak Chatterjee, Health Specialist, UNICEF ICO, Dr. Nikhil Assistant Director, NISE (National Institute of Solar Energy)



IEC issued by NPCCHH on Green and Climate Resilient HCFs

Outbreak Section

Acute Diarrhoeal Disease Outbreak investigation in Raichur district, Karnataka, May 2023

Acute diarrhoeal disease (ADD) is a prevalent and often short-lived gastrointestinal illness characterized by frequent watery bowel movements and can result in dehydration if not managed promptly.

State Surveillance Unit (SSU) was informed by District Surveillance Unit (DSU) on the 25 May, 2023 regarding the increase in cases of ADD in Rekalamaradi village of Devadurga taluk, Raichur District, Karnataka, and the death of a 3-year-old child in Rekalamaradi apparently due to the suspected diarrhoeal disease in the village. State Rapid Response Team (RRT) accompanied by members of the district RRT visited Raichur district to verify and investigate the suspected outbreak.

State RRT	District RRT
<ul style="list-style-type: none"> Deputy Director State Epidemiologist Microbiologist Senior HIO 	<ul style="list-style-type: none"> Epidemiologist Senior Health Inspecting Officer (HIO)

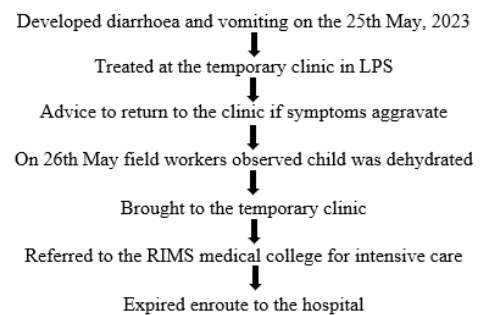
Methodology

Clinical case definition: Passage of 3 or more loose watery stools (with or without vomiting) in the past 24 hours from 20-05-2023 to 26-06-2023.

Field visit: The RRT visited Rekalamaradi village (Population: 480; PHC: Galaga) on the 30th and 31st May, 2023. The team visited the temporary clinic setup in the Govt Lower Primary School (LPS). The cases of diarrhoea in the village were spread out and not localised to any particular street or cluster of houses indicating a common source of infection. Also, there was no history of travel among the villagers nor any history of consumption of food in any feast, marriage's, e tc.

The RRT team monitored the surveillance activities being carried out in the village.

Death Case details: The team visited the house of the deceased 3 years old boy to enquired about the circumstances of death. As reported, child was not malnourished and was completely immunized as per age.



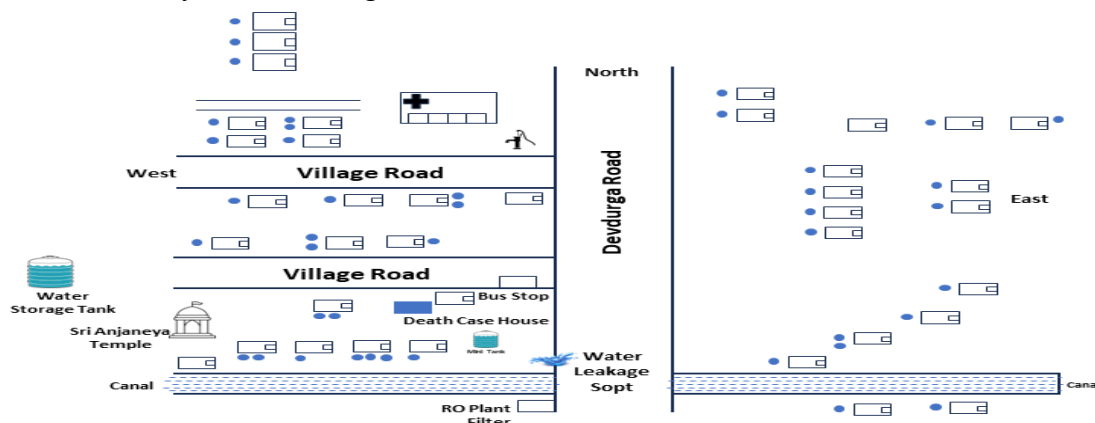
Environmental findings:

Water sources of the village

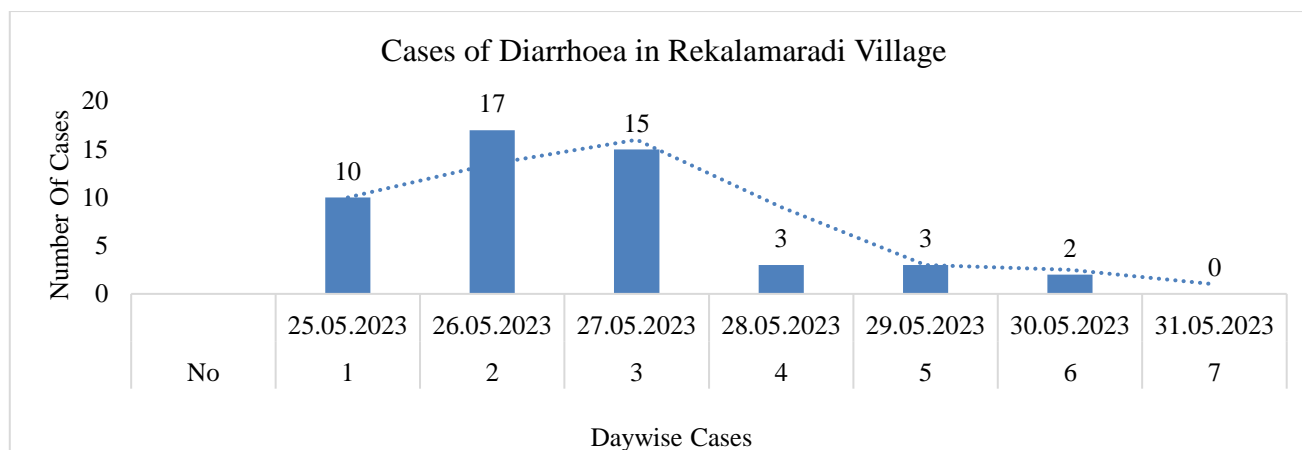
1. Two borewells 2. One hand pump 3. One water tank (ground level) situated on a hillock with in the village 4. One open well (unused) 5. One R O plant (non-functional)

Though there was piped water supply to the houses in the village, they were not maintained hygienically. The piped water being supplied was submerged in open drains at two to three places and had breakages which might have led to the contamination of drinking water with sewage water.

The RRT with the gram panchayath officials observed the chlorination and cleaning process of the tank and inspected the pipelines used in the water supply in the village. The RRT team updated the Chief Planning Officer-ZP, Raichur about the action taken towards controlling the outbreak.



Spot map of Rekalamaradi village depicting geographical distribution of cases



Epicurve depicting the distribution of cases of diarrhoea overtime in Rekalamaradi village

Laboratory Investigation:

- **Water Samples collected from Rekalamaradi for examination:** A total of 18 water samples were collected from various sources namely:
 - i. Borewell water
 - ii. Storage water tank (not an overhead tank)
 - iii. Filter water point
 - iv. Tap water
 - v. House water (house Pots and used for drinking purpose)
- **Stool samples collected from Rekalamaradi for examination:** Four Stool samples were collected from the cases admitted to the Raichur Institute of Medical Sciences (RIMS). No stool samples were collected from the field.

Results

- Out of total 50 patients, 56 % were males, and 62 % of the patients were adults.
- Out of total patients, 4 cases were below 05 Years
- Four stool samples showed no enteric bacterial pathogens
- Out of the 18 water samples 6 were found not suitable for potable purposes (NSPP)

Public Health Action:

1. A temporary clinic was established in Rekalamaradi village on the 25th May 2023 to treat cases symptomatically, those who were moderately dehydrated were administered intravenous fluids and those who were found to be severely dehydrated were referred to the

medical college in Raichur

2. The gram panchayath officials along with the officials from the Rural drinking water and sanitation department closed all the open drains, the water storage tank of the village was emptied, cleaned, and chlorinated.
3. Alternate potable water was supplied through water tankers.
4. Daily house-to-house survey was carried out to detect cases of diarrhoea by field-level health workers deputed from neighbouring sub-centers, cases were brought to the temporary clinic and treated symptomatically
5. IEC activities regarding personal hygiene, handwashing practices, food and water hygiene

Conclusion: The cases of diarrhoea in the village were likely from water contamination of common source of water supply, which was addressed, and immediate control measures were taken.

Recommendations:

Short-term Recommendations:

1. Alternate source of water to be supplied by tankers
2. Chlorination of overhead tanks
3. Correction of leakages of the pipelines supplying water to the house holds
4. ORS distribution
5. IEC regarding the hand hygiene and drinking of boiled and cooled water

Long-term Recommendations:

1. Regular (quarterly) monitoring of the drinking water pipeline system

2. Regular cleaning and chlorination of the overhead tanks and storage tanks
3. To routinely examine the water quality of the village
4. Examination of water samples from the piped water supply system of the village at 3 levels -the source, distribution point, and consumption point.
5. IEC activities especially during monsoons regarding the preventive control measures of ADD such as hand hygiene, drinking of boiled and cooled water, and chlorination of the domestic drinking water in the affected areas.



Interviews by State RRT in the field

Contributed by: Drs Padma M R, Srinivas.
S.R, Srinivas Prasad, Smt. Prameela,
Mr. Basavaraj. M.V, Sugurappa

Outbreak Investigation of Anthrax in Koraput district, Odisha, May 2023

Anthrax is primarily a disease of herbivores and humans almost invariably contract the natural disease directly or indirectly from animals or animal products. The disease is caused by bacterium *Bacillus anthracis*. In humans, the most commonly occurring form is cutaneous anthrax. Two other forms of anthrax occur from the inhalation or ingestion of *B. anthracis* spores.

The Central Surveillance Unit, IDSP received a media alert on 8 May 2023 regarding report of clustering of Anthrax cases in Dasmantpur block, Koraput district, Odisha. A team of two EIS officers and a Veterinary Epidemiologist from NCDC were deputed to investigate the outbreak. CSU received another alert on 17 May 2023 from the district IDSP regarding unusual clustering of 25 cases of gastrointestinal tract (GIT) illness and 02 cattle deaths in Sakiaguda Village, Semiliguda

block and a laboratory confirmed GI anthrax case. The team investigated the reported clustering in Sakiaguda Village.

Methodology: We reviewed the IDSP human anthrax case data for last 10 years and anthrax suspected animal death data maintained by the District Animal Husbandry department to confirm the outbreak.

We interviewed cases using a semi-structured questionnaire that contained information regarding demographic details, history of potential exposures and animal deaths, clinical presentation, treatment and outcome of cases and behavioural practices related to animal meat consumption.

We conducted an unmatched case control study based on our hypothesis. We used the following definitions for case and controls in our study:

Cases: We defined a case as a resident of Sakiaguda village with ANY of the following symptoms from 15 March to 25 May 2023: painless skin lesions (i.e., papule, vesicle, ulcer, or eschar) or fever or neck swelling/ armpit/groin or abdominal pain or vomiting or diarrhoea (with or without blood) or fever with cough or shortness of breath AND fulfilling one of the following conditions: epidemiological linkage to sudden death in livestock (cattle, sheep, buffalo, goat, pig, equine) OR biological specimen Gram-positive for spore-forming bacilli, arranged end-to-end in chains.

Control: A control is defined as absence of symptoms of fever or abdominal pain or vomiting, or diarrhoea or skin lesion in resident of Sakiaguda Village, Semiliguda block during the period from 15 March to 25 May 2023.

Sample size: For this study, all anthrax cases were included with two controls per case i.e 38 cases and 76 controls.

Results: The number of probable GI anthrax cases reported in 2023 crossed the outbreak threshold for Anthrax in the region. The threshold was set using last 10 years data and the "mean + 2SD" method as the gold standard for assessment. We identified a total of 38 probable anthrax cases, out of which 37 were probable anthrax GI cases and one patient with swelling/bulla on the thumb of the left hand. Total 38 probable GI anthrax cases were identified

from 25 households. There were 28 cases in households with livestock and 10 cases in households without any livestock. We recorded a total of 24 livestock (2 cattle and 22 sheep) deaths from 15 March 2023 to 25 May 2023 and none of the animal deaths were reported to the Animal Husbandry department. The overall attack rate for the probable anthrax case was 11%. Within the indigenous tribe, the attack rate was higher at 20%. Only 2 cases were hospitalized with no deaths reported.

A total of 38 cases and 76 controls were interviewed. The median age with IQR among cases was 38 (20- 50) years and control were 40 (28- 50) years. Male cases were 15 (40%) and male control were 39 (51%). All of the cases were from indigenous tribes, and 69 (79%) of the controls belong to same. In cases 29 (76%) were farmer whereas in control group 69 (91%) were farmer. Individuals who owned livestock were 28 (74%) in cases and 61 (80%) in controls. History of sudden death of livestock in family or neighbourhood were found in 17 (45%) cases and 25 (33%) control. Among the respondents, 12 (32%) in cases and 3 (4%) in controls were involved in disposal of dead livestock. 11 (29%) cases and 1 (1%) control were involved in slaughtering of dead livestock. Among cases 35 (92%) and controls 11 (15%) had consumed dead livestock meat. 32 (84%) cases and 7 (9%) controls were preserving and consuming dried livestock meat.

Conclusion: All the anthrax cases were from a tribal/ indigenous community. Cases started only after the first animal death and the peak of human cases correspond to animal deaths. Behavioral

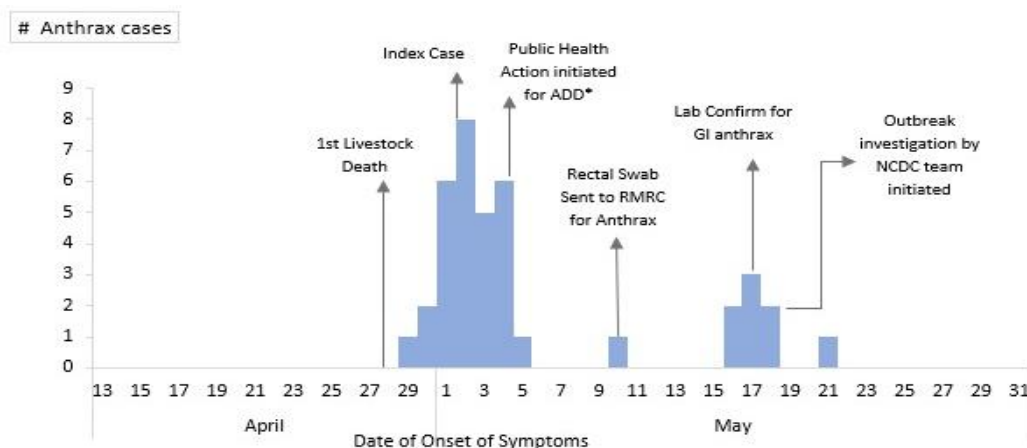
practices of the tribal community like infected carcasses, consumption and preservation of dead livestock meat, may be related to the surge of probable human GI anthrax cases.

Recommendation:

- Active surveillance for human anthrax cases may be initiated by the health department for any clustering of gastro-intestinal symptoms along with livestock deaths in the anthrax endemic areas.
- Need for development and dissemination of IEC material especially in the form of pictures and wall paintings on anthrax prevention and control.
- Changing behavioural practices of the community on dead animal meat consumption.
- Provision for fund allocation for proper burial of Anthrax suspected animal deaths in accordance with the guidelines may be facilitated by the local Panchayati Raj institutions with standardized monitoring protocol in place



Interaction with affected community member by EIS Officer and Field team



Distribution of probable human anthrax cases by date of onset of symptoms, Koraput, Odisha

Contributed by: Drs Amit Pritam Swain, Dharmesh Arya, Hanul Thukral, Ramesh Chandra, Ajit Shewale, Simmi Tiwari, Tanzin Dikid, Mohan Kumar, Satish

NCDC News

NCDC celebrates 9th International Yoga Day

Public Health Preparedness (PHP) and Non-Communicable Diseases (NCD) Division organized the celebrations of 9th International Yoga Day 2023 in NCDC on 23 June 2023. The 9th International Yoga Day, 2023 theme was "Yoga for Vasudhaiva Kutumbakam or Yoga for the Welfare of All as One World-One Family ". The officers and staffs of NCDC, Delhi attended the event. Dr Sunil Gupta, Principal Consultant, NCDC Delhi addressed the gathering and explained the numerous benefits of practicing yoga, promoting its holistic approach to health, well-being and overall quality of life. Prof. (Dr) Atul Goel, DGHS & Director, NCDC, delivered the keynote address, discussed the significance of International Yoga Day and presented the positive effects of yoga to people in a simple and understandable manner. He stressed upon the importance of yoga, nutrition and healthy eating habits in achieving optimal health.

Yoga expert Mr. Tirath (Yoga Instructor) spoke about the advantages associated with practicing Yoga and Ms. Komal (Yoga demonstrator) skillfully demonstrated various Yogasanas. The audience actively participated and observed the experts for correct techniques and postures. Both experts were from the Morarji Desai National Institute of Yoga (MDNIY), under Ministry of AYUSH, Govt. of India New Delhi.



Yoga demonstration by Yoga instructors from the Morarji Desai National Institute of Yoga

Ms. Krishna Bhattacharya, Nutritionist and Lactation Consultant, at Kalawati Saran Children's Hospital, Ms. Krishna (KSCH) spoke on Nutrition and Lifestyle diseases. She discussed the fundamentals of good eating habits, diet diversity and nutritional strategies throughout the different life stages and also elucidated the importance of balanced nutrition through "Sehat ki Thali". She highlighted the fact that microplastics are detrimental to hormonal balance and therefore plastics should be avoided as far as possible.

Contributed by: Drs Meera Dhuria Priyanka Kundra, Garima Srivastava, Staff of Public Health Preparedness and NCD Division

India Epidemic Intelligence Service Cohort 9, Second Inception Course on Epidemiology

As part of the curriculum, India Epidemic Intelligence Service (EIS) programme at NCDC, New Delhi conducted the second inception course for EIS officers of Cohort 9, from 22 May to 02 June 2023. The course was attended by 14 EIS officers and was facilitated by faculties from NCDC, South Asia Field Epidemiology and Technology Network (SAFETYNET) and Centers for Disease Control and Prevention (CDC) India.

The course began with a formal introductory session and pre-test from all the attendees. The technical sessions covered the topic on various types of basic epidemiological studies i.e., cross-sectional, cohort, case-control and hands-on exercise for each study type. Other sessions were taken on topics like measures of association, confidence interval, sample size, bias, confounding and effect modifications. EIS officers were also introduced to advanced epidemiological topics like matching, correlation-regression, measures of public health impact, and steps of an outbreak investigation, etc. Along with the technical sessions it also included hands-on



Cohort 9 EISOs with the India EIS faculty and staff, June 2023

exercises. The course provided the EIS officers a platform to present the surveillance system evaluation analysis undertaken by them as part of their core activities of learning.

The course concluded with post-test feedback and a grievance redressal session convened by the India EIS course coordinator.

Contributed by: Drs Arti Bahl, SK Jain, Tanzin Dikid, Ramesh Chandra, Anubhav Srivastava, Suneet Kaur, Shailaja Humnabadkar, Vijaypal Singh, Mr Abhishek, Jitender, Nitesh Ojha

Regional Workshop on State Action Plan for Dog mediated Rabies Elimination (SAPRE), May 2023

The National Action Plan for Dog Mediated Rabies Elimination from India by 2030 (NAPRE) was jointly launched by Hon'ble Union Minister of Health & Family Welfare and Hon'ble Union Minister of Ministry of Fishery, Animal Husbandry and Dairying (MoFAH&D), Government of India on 28 September 2021.

The NAPRE was developed under the National Rabies Control program in coordination with MoFAH&D, Ministry of Agriculture and Farmers' Welfare (MoA&FW), Ministry of Panchayati Raj (MoPR), Ministry of Housing and Urban Affairs (MoH&UA), NITI Aayog and other key stakeholders. It is based on a 'One Health' approach which provides a strategic framework for combating Rabies with well-defined roles and responsibilities

of all stakeholders.

For the next step, it is pertinent that all state level stakeholders should be sensitized about the NAPRE and handholding should be done with respective State Governments Stakeholders to prepare and plan for formulation of State Specific Action plan to ensure the achievement of Rabies Prevention and Control and Ultimate Elimination from the country.

For this, DZDP, NCDC organised a two-day Regional Level Workshops for the north-eastern states of Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura at Guwahati, Assam on 18 and 19 May, 2023. The objective was to sensitize the state level stakeholders for preparation of State Action plan on Rabies Elimination and to identify the areas of collaboration, data sharing mechanisms and methods to implement the collaboration.

State level stakeholders' (State Nodal officer NRCP, State Animal Husbandry officers, State Forest/wildlife officers, representative of Municipal corporations, regional coordinators, partners) and development partners - PATH, Jhpiego, UNDP and APRCI attended the workshop. Discussions were held on Surveillance & Data Collection, Prevention & Control, Laboratory Diagnosis, Dog population management, IEC, and Cross cutting issues. State level participants from different departments i.e medical, veterinary and wildlife etc deliberated on

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various issues related to Dog bites and Rabies. After deliberation each state presented the draft action plan for each state based on group work. The workshop concluded with identification of potential collaborating areas for each participating institute and giving a layout plan for future of actions. Regional workshop now thus has paved way for North eastern states for early finalization of State Action plan on Elimination of Dog mediated Rabies thus achieving the Goal of Rabies Free India by 2030.



Regional Workshop on State Action Plan for Dog mediated Rabies Elimination

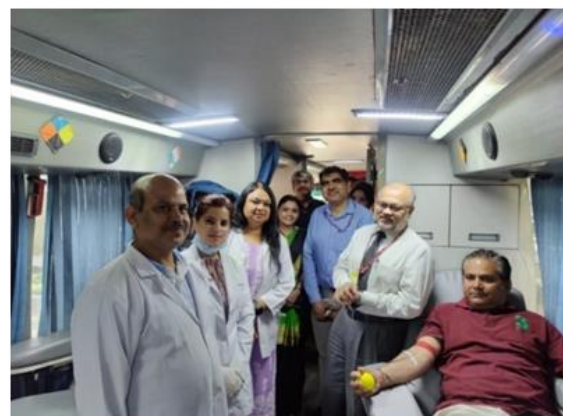
Contributed by: Drs. Simmi Tiwari, Ajit Shewale, Tushar Nale, Aastha Singh, Dipti Mishra, Nidhi Khandelwal, Gajendra Singh, Arvind Srivastava

Public Health Preparedness & NCD Division organizes Voluntary Blood Donation Camp on 23rd May, 2023

The NCDC in collaboration with the National Blood Transfusion Council (NBTC) and the Blood Transfusion Services Division, Dte. GHS, organised a Voluntary Blood Donation Camp on 23rd May, 2023 in observance of World Blood Donor Day, 14th June and in memory of late Dr. Shiv Lal, former Spl Director General of Health Services (DGHS) and Director NCDC. The theme of World Blood Donor Day 2023 was “Give Blood, Give Plasma, Share Life, Share Often”. Prof. (Dr). Atul Goel, DGHS & Director, NCDC inaugurated the blood donation camp. Blood donation was managed by doctors and staff of RML Hospital in mobile blood donation bus provided by RML Hospital. A large number of enthusiastic officers and staff from various departments of NCDC and National Center for Vector Borne Diseases Control

(NCVBDC) volunteered to donate blood. Total registrations were 65; out of which 50 were found to be fit to donate the blood. However, 15 people were considered unfit due to reasons such as low haemoglobin levels, recent alcohol or tobacco use, ongoing medication for chronic conditions, recent live attenuated vaccinations, antibiotics usage, and recent tattooing.

A total of 50 units of blood was collected by the blood mobile bus facility.



Voluntary blood donation in Blood Mobile Bus provided by RML Hospital, Delhi

Contributed by: Drs Meera Dhuria Priyanka Kundra, Garima Srivastava, Staff of Public Health Preparedness and NCD Division

Donate Blood, if you satisfy all of the following conditions

Age 18 to 65 years

Healthy & physically fit without any major illness

Weight at least 45 kg

Haemoglobin more than 12.5 g/dL

RAKTDAAAN
KAR KE DEKHO ACHHA LAGTA HAI

Donate blood at your nearest licensed blood bank or voluntary blood donation camp or visit www.naco.gov.in

National Aids Control Organisation
Ministry of Health & Family Welfare
Government of India

Ministry of Health & Family Welfare
Government of India

National Blood Transfusion Council

News From Around

India celebrates International Yoga Day

International Yoga Day was observed on 21 June 2023. On this occasion, Hon'ble Prime Minister Shri Narendra Modi conveyed his message to the nation through online platform. He emphasized on how yoga has transformed into a global phenomenon, and has become a massive movement that has united people from different nations under the spirit of Vasudhaiva Kutumbakam, which is also the guiding theme of India's G20 presidency: 'One Earth, One Family, One Future.'

It was celebrated at AIIMS, New Delhi in the presence of Hon'ble Union Minister for Health and Family Welfare, Dr. Mansukh Mandaviya, Shri Sudhansh Pant, Union Health Secretary; Shri Rajiv Manjhi, Joint Secretary, Health Ministry; Prof. M Srinivas, Director, AIIMS, New Delhi, and senior officials from the Health Ministry.

To mark the 9th International Yoga Day celebration, Hon'ble Union Minister for Health and Family Welfare, Dr. Mansukh Mandaviya, led a grand yoga demonstration with hundreds of participants at AIIMS, New Delhi. During the event, he spoke about the ancient tradition of yoga in India. He also highlighted the pivotal role played by Hon'ble Prime Minister Shri Narendra Modi in promoting and popularizing yoga worldwide and making it a significant element of India's soft power.

He underscored the numerous benefits of incorporating yoga into everyday life, noting that it helps to calm the mind and energize the body. He emphasized that yoga is synonymous with health and wellness, offering a preventive approach by enhancing immunity. He also pointed out that post-COVID, people have become more conscious of their health and wellness, leading to an increased relevance and popularity of yoga. Before the yoga event, he actively supported the 'AIIMS Go Green Initiative' by participating in a cycling ride.

He expressed gratitude to the Prime Minister for globalizing yoga and urged everyone not only to practice it but also to encourage others to embrace it.



Address by Hon'ble Union Minister for Health and Family Welfare, Dr. Mansukh Mandaviya

Source: PIB press release
Contributed by: Dr. Shikha Yadav



Participants doing Yoga along with Hon'ble Union Minister for Health and Family Welfare, Dr. Mansukh Mandaviya

Surveillance Section

COVID-19 surveillance under IDSP

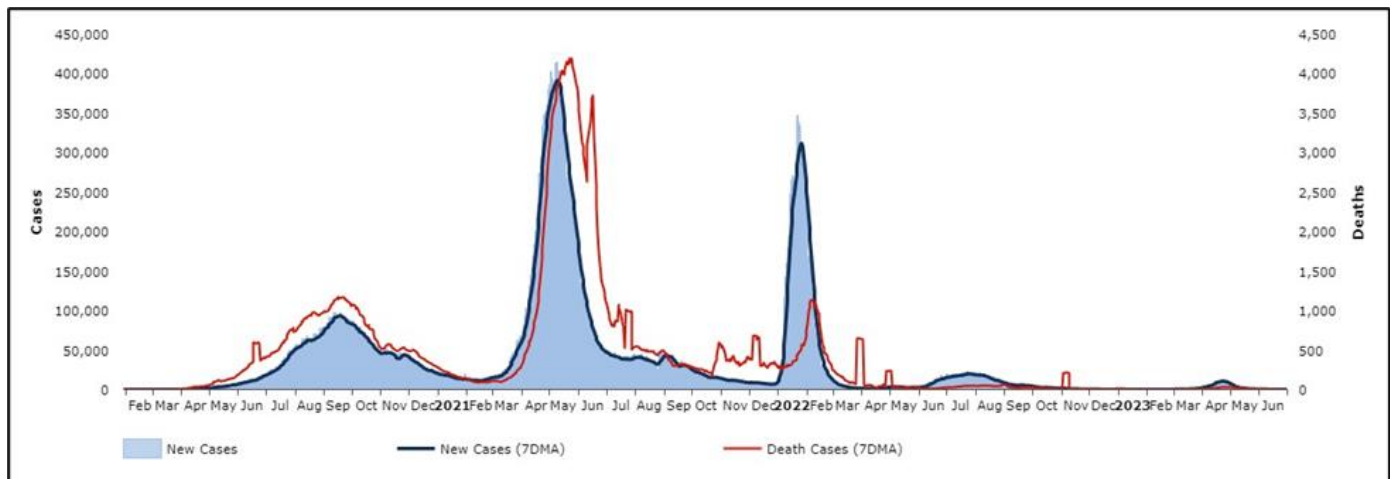


Fig 1: Newly reported Covid 19 cases (cumulative till June 30)*

As on 30 June, 2023 the total number of confirmed cases were 4,49,95,469 with 1,533 active cases and 5,31,905 total deaths. A total of 4,44,60,750 cases were discharged/ cured.

- India's 1st peak started around April 2020, with peak in September 2020, and it lasted till February 2021 when the cases declined to reach very low 7-Daily moving average (DMA).
- 2nd peak started in March 2021 with cases surging in May 2021.
- 3rd peak started in December 2021 with a surge in January 2022, thereafter cases started to decline with decreased number of new cases of 7-DMA in April 2022.
- Subsequently there was a rise in new cases (7 DMA) in July 2022 followed by decline in September 2022, reaching a maximum recorded of 21,880 new cases per day in July.
- A slight rise in cases was seen in April 2023, with maximum recorded new cases per day of 12,591.

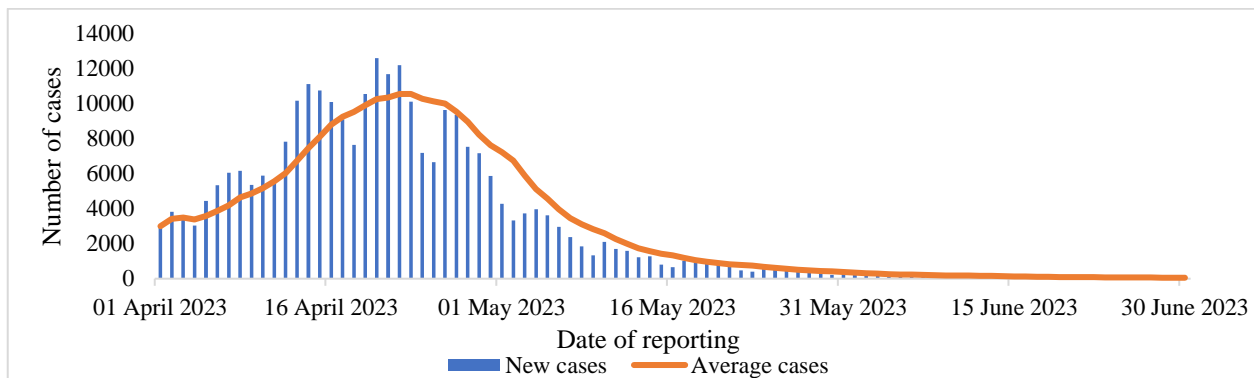


Fig 2: Newly reported COVID 19 cases in India (April-June 2023)*

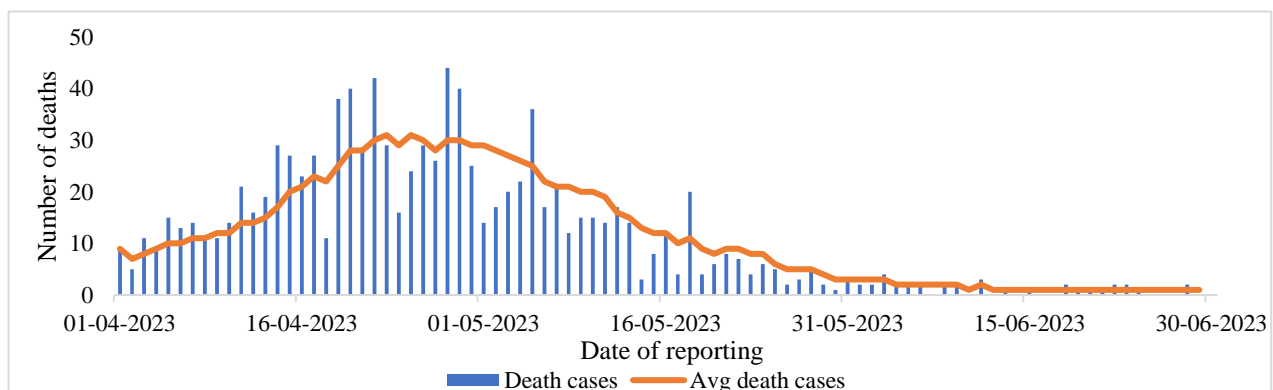


Fig 3: Deaths in COVID 19 cases in India (April-June 2023)*

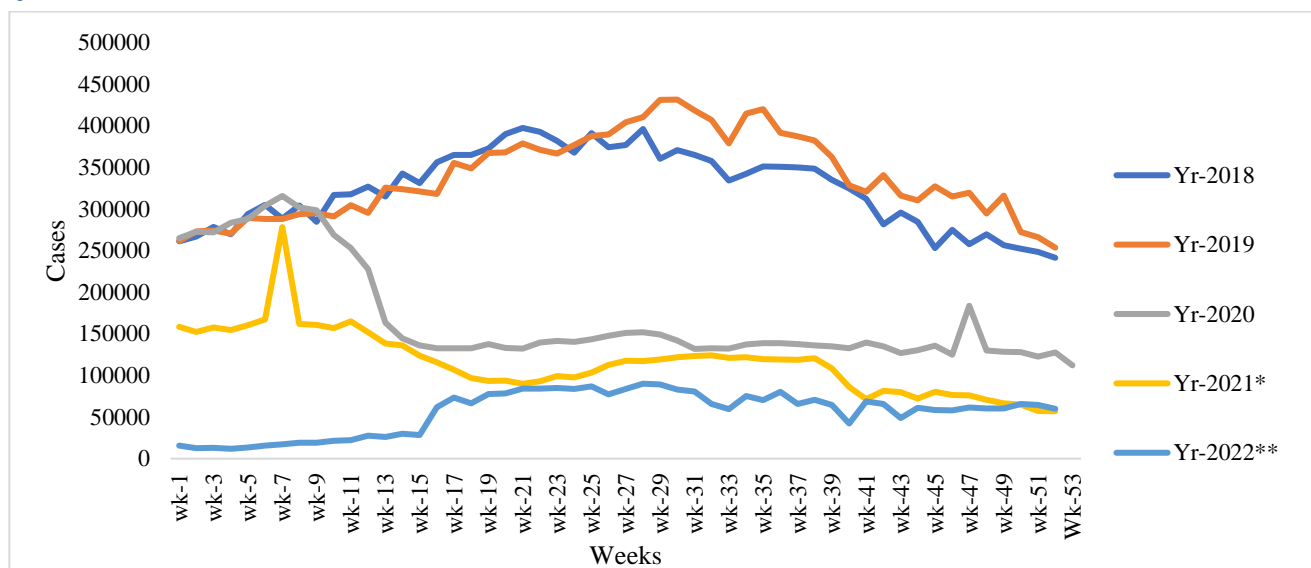
*Source: IHIP

- Figures 2 and 3 show the trends in newly reported Covid-19 cases and deaths, for the first quarter of 2023, i.e., January to March 2023.
 - A rise is seen in newly reported cases in the last two weeks of March and first two weeks of April, reaching a peak in third week of April and followed by a decline in May and consistently low cases in June.
 - Deaths in Covid 19 cases also show a rise in April, with a maximum of 44 recorded deaths per day and a 7DMA (average deaths per day) of 31. This was followed by a decline in May and consistently low deaths reported in June.

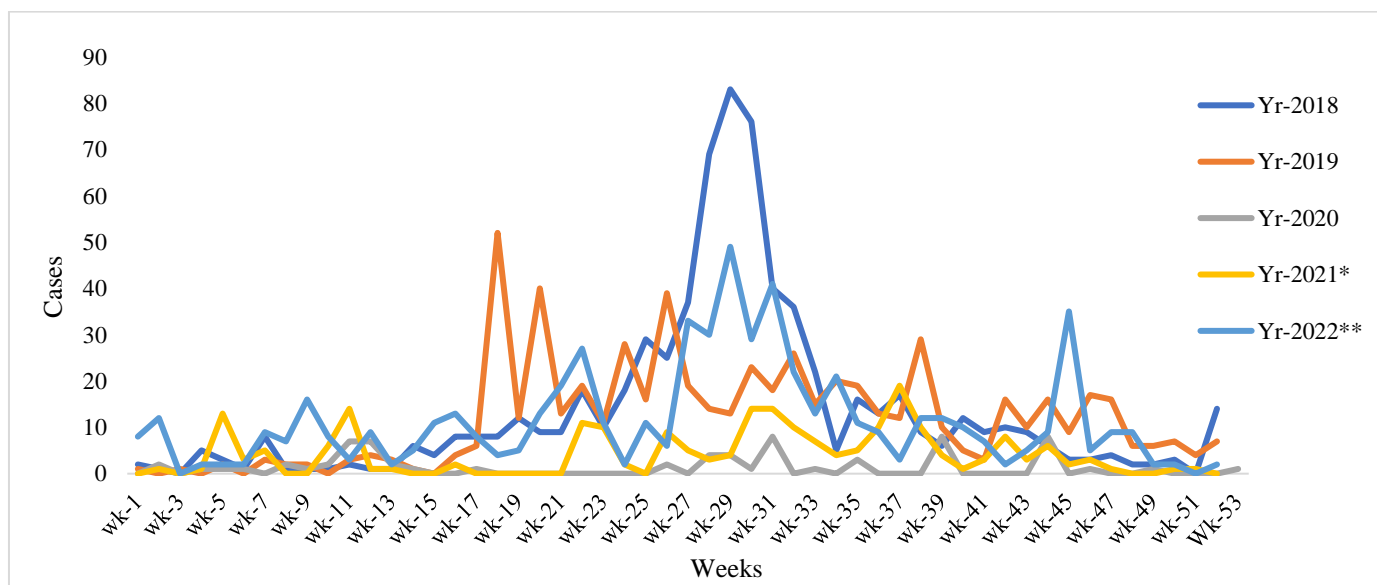
IDSP continues to monitor the trends closely and takes necessary action when required.

Contributed by: Drs Himanshu Chauhan, Sanket Kulkarni, Arushi Ghai

Six-year trends of ADD and Cholera under IDSP



Week wise cases of ADD reported under IDSP during 2018-2022*(P form)
*2018-2021: data from the IDSP portal** 2022: data retrieved from the IDSP-IHIP



Week wise confirmed cases of Cholera reported under IDSP during 2018-2022 (L form)
*2018-2021: data from the IDSP portal** 2022: data retrieved from the IDSP-IHIP

Maximum cases of ADD were reported in 2019 during week 31. A mid-year rise in ADD cases is seen from week 13 onward. In 2020, week 11 onward reporting declined due to COVID-19 lockdown. There is also a decline in the year 2021 from week-41 as the Phase-1 states were Migrating from IDSP portal to IDSP-IHIP. In 2022, Phase 2 and 3 states were migrating from IDSP portal to IDSP-IHIP, therefore an increase in reporting in the second half of 2022. An increase in ADD cases on P form does not correspond to an increase in cholera cases on L form, as diarrheal diseases of other aetiologies would also be contributing to these cases.

Maximum lab confirmed cases of Cholera were reported in 2018 during week 30. A rise is seen in mid-year (week 18 onward). There is a decline in the year 2021 from week-41 in disease trends as the Phase-1 states were Migrating from IDSP portal to IDSP-IHIP.

Reporting on IDSP portal (in 2020) was affected due to COVID-19 lockdown and reporting on IDSP-IHIP in 2021 and 2022 was less due to ongoing migration of states from IDSP portal to IDSP-IHIP. Therefore, fewer outbreaks of ADD and Cholera were reported in 2020 due to COVID-19 but reporting of ADD and Cholera outbreaks in 2021 and 2022 was improved due to early identification and reporting of outbreaks on the new platform (IDSP-IHIP)

No. of ADD & Cholera Outbreaks Reported during (2018-2022)						
	2018	2019	2020	2021	2022	Total
ADD	316	341	76	195	356	1284
Cholera	36	27	5	33	22	123

Contributed by: Drs Himanshu Chauhan, Arushi Ghai & Ms Sujata Malhotra

Sentinel Surveillance on Acute Respiratory Illness (ARI) in Context of Air Pollution, Delhi

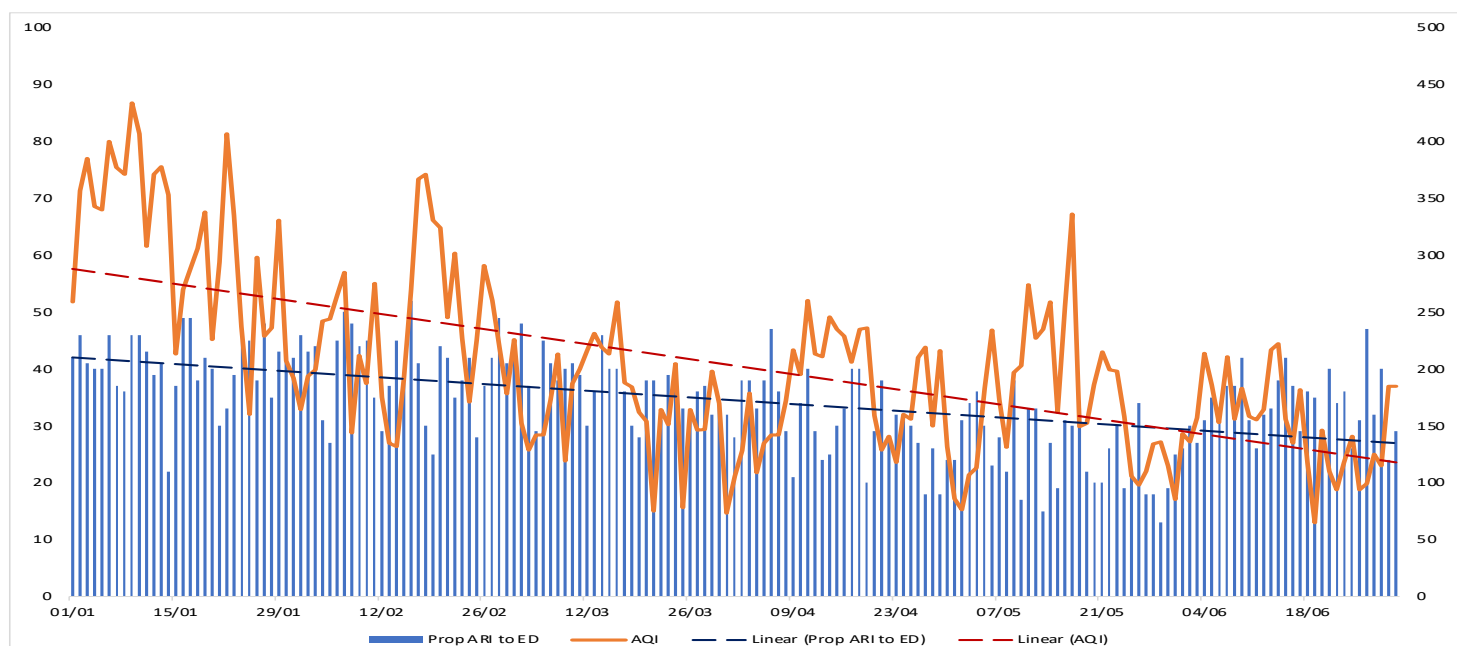
The present analysis is a comparison about the acute respiratory emergencies, its intervention required as reported from the sentinel hospitals of Delhi and the air quality data reported from Central Pollution Control Board (CPCB) monthly in the year 2022 and 2023.

	Jan 2022 – June 2022						Jan 2023 – June 2023					
	Jan	Feb	Mar	Apr	May	Jun	Jan	Feb	Mar	Apr	May	Jun
Total respiratory emergencies reported (as monthly Median number of cases) (n, IQR)												
All Emergency	347 (81)	342 (147)	487 (104)	478 (100)	488 (102)	454 (86)	516 (124)	558 (88)	561 (88)	498 (88)	432 (62)	529 (142)
ARI Emergency	110 (35)	122 (82)	184 (52)	174 (60)	187 (46)	208 (50)	231 (68)	230 (78)	219 (74)	146 (88)	102 (50)	178 (64)
ARI In-patient	24 (7)	26 (12)	28 (12)	25 (7)	33 (8)	28 (10)	39 (16)	36 (10)	34 (10)	22 (10)	14 (8)	21 (8)
Total respiratory emergencies reported (as Monthly Total Cases) in 2022 and 2023												
All Emergency(n)	11095	10882	15092	14369	15163	14055	16965	15346	17160	15478	13526	15132
ARI Emergency (n, % of All Emergency)	3555 (32)	3621 (33)	5591 (37)	5590 (39)	5982 (39)	6137 (44)	6981 (41)	6163 (40)	6461 (38)	4865 (31)	3506 (26)	5131 (34)
ARI In-patient (n, % of ARI Emergency)	749 (21)	730 (20)	893 (16)	839 (15)	977 (16)	874 (14)	1298 (19)	1039 (17)	1090 (17)	749 (15)	477 (14)	682 (13)
Interventions reported among respiratory emergencies (n, % of Total ARI Emergency Cases) in 2022 and 2023												
Nebulization	1435 (40)	1580 (44)	2840 (51)	3226 (58)	3783 (63)	3498 (57)	4582 (67)	4137 (67)	4178 (65)	3120 (64)	2082 (59)	3288 (64)
Non-invasive ventilation	232 (6)	279 (8)	268 (5)	386 (7)	335 (6)	269 (4)	475 (9)	358 (6)	314 (5)	250 (5)	72 (2)	214 (4)
Invasive ventilation	87 (2)	87 (2)	92 (2)	74 (1)	103 (2)	87 (1)	115 (2)	90 (1)	73 (1)	67 (1)	25 (1)	61 (1)

Table 1: Comparison of month wise respiratory emergencies and its interventions as reported from the Sentinel Hospitals, Delhi (2022 and 2023)

	2022						2023					
	Jan	Feb	Mar	Apr	May	Jun	Jan	Feb	Mar	Apr	May	Jun
Comparison of the Median Daily Air Quality Index (AQI) month-wise in Delhi in 2022 and 2023												
Monthly Median & IQR	264 (88)	233 (92)	218 (73)	255 (33)	206 (80)	196 (81)	331 (73)	234 (88)	170 (56)	176 (76)	162 (95)	154 (63)
Comparison of number of days of AQI category level as reported month-wise as per CPCB in 2022 and 2023												
0-50 (Good)												
51-100 (Satisfactory)	2	1			1	3			3		4	4
101-200 (Moderate)	3	9	12		9	14	2	10	20	17	18	22
300 (Poor)	12	14	19	29	21	10	11	13	8	13	8	4
301-400 (Very Poor)	13	4		1		3	15	5			1	
401-500 (Severe)	1						3					

Table 2: Comparison analysis of air quality data (AQI) as reported from CPCB in Delhi, (2022 and 2023)



Graph 1: Comparison of daily average AQI and Proportion of ARI cases to Emergency department (%) between Jan – Jun, 2023

Interpretation:

Air Quality: The daily AQI started improving in the month of March 2023, and continued to improve until June 2023. There was an overall improvement of the daily AQI in April – June 2023 compared with April – June 2022. During April – June 2023, more days (78) were in Satisfactory and Moderate categories.

Respiratory Emergencies: The ARI emergencies started decreasing by 7% in the month of April (31%) compared to March. ARI cases in 2023 also decreased compared to 2022. Other interventions like Admission, Nebulisation, Invasive and Non-invasive ventilation also decreased in April and remained low until June 2023. The Graph shows the trend of AQI and ARI over the three months and both decrease towards end of June. Overall, the surveillance data followed the seasonal trends of Delhi for both the AQI as well as ARI emergencies.

Contributed by: Drs. Nivethitha N, Rameshwar Sorokhaibam, Aakash Shrivastava and NPCCHH team

Event Calendar NCDC

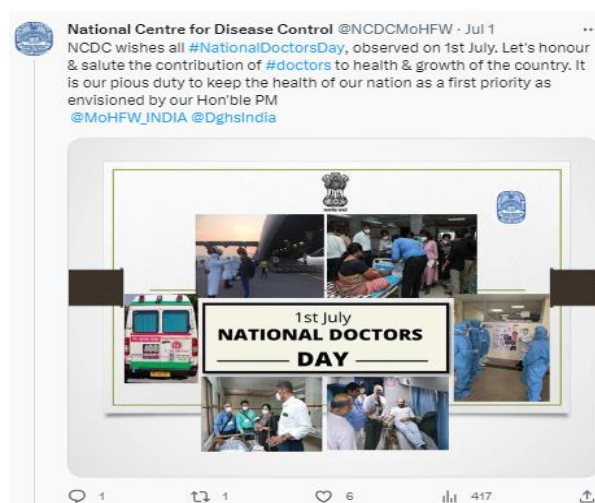
July – Sep 2023

July 12-13	Training Workshop on Epidemiology & National Health Programmes for Regional Health Officers at NCDC
July 12-14	Capacity building workshop on "Climate change and health: Driving local action" for District programme officers at NCDC
July 17–Oct 13	24th Regional Field Epidemiology Training (FETP) programme for Health Personnel of South East Asia Region at NCDC
July 19-21	3x3 Frontline Epidemiology Training to develop Outbreak Investigation and Surveillance skills of Public Health Workforce- Bihar second Contact session.
July 26-28	Public Health Emergency and Disaster Management- Professional Development Programme (PHEDM-PDP) Tier III training in Udaipur, Rajasthan
August 24-26	National Consultation for IDSP-IHIP Expansion and Annual Review Meeting for IDSP in Visakhapatnam, Andhra Pradesh.
September 26-28	3x3 Frontline Epidemiology Training to develop Outbreak Investigation and Surveillance skills of Public Health Workforce in Bihar – Third Contact Session

Important Health Days

7th April	World Health Day
24th-30th April	World Immunization Week
25th April	World Malaria Day
5th May	World Hand Hygiene Day
16th May	National Dengue Day
18th May	World AIDS Vaccine Day
31st May	World No Tobacco Day
5th June	World Environment Day
21st June	International Day of Yoga

NCDC Buzz



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