Report

Heat-Health Preparedness & Response Activities,

National Programme on Climate Change & Human Health

2024

National Programme on Climate Change and Human Health

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1. Background

- ## Heat hazard and exposure in India

2024 is almost certain to be the warmest year on record and the first year above 1.5°C from the pre-industrial levels. Breaching of this significant milestone that the Paris agreement tried to avoid, underscores the urgent implications of human-induced climate change and its health impacts. El Nino, which began in mid-2023 and peaked in strength during late 2023 and early 2024, made some contribution to the elevated temperatures experienced in early 2024[1].

The India Meteorological Department (IMD) noted that February recorded its second-highest minimum temperature in 123 years, while May saw the fourth-highest mean temperature on record. July, August, and September also registered unprecedented minimum temperatures. 77 heatwave days are recorded in the country during summer 2024. Between March and June 2024, some 17 states and Union Territories recorded significant warm-night events. Severe warm nights were concentrated in northern India, Chandigarh, Delhi, Haryana, Punjab, and Uttar Pradesh experienced unseasonably high night temperatures mid-June. Notably, Chandigarh, Delhi, and Haryana each recorded four consecutive "severe warm nights" from June 15 to June 18, marking a new extreme as nighttime temperatures failed to drop to typical levels posing significant threat to public health.[2]

- ## Public health response to extreme heat

The National Programme on Climate Change and Human Health (NPCCHH) is a flagship health programme under the Ministry of Health and Family Welfare that addresses the health sector strengthening to various health impacts of climate change by implementing different adaptation and mitigation measures. Preparedness and response to climate-sensitive diseases, especially extreme heat, and air pollution, among others, are priority areas of action through health promotion, capacity building of the healthcare workforce, health facility preparedness, early warnings, and action plans, and multisectoral engagements.

National Action Plan on Heat-Related Illnesses, launched in 2019 under NPCCHH, guides the health impacts of heat, clinical management protocols (adult, pediatric), health facility preparedness plan (pre-, during, and post-season), and details of National Heat-related Illness and Death Surveillance. Experts from clinical field (Lady Harding Medical College, VMMC-Safdarjung hospital, ABVIMS-RML hospital, AIIMS-Delhi), public health institutes/agencies (IIPH-Gandhinagar, IIPH-Hyderabad, VNIT Nagpur, WHO) and various stakeholder departments

[1] (https://climate.copernicus.eu/copernicus-2024-virtually-certain-be-warmest-year-and-first-year-above-15degc)
[2] https://www.cseindia.org/climate-india-2024-an-assessment-of-extreme-weather-events-12460)

under other and health ministries (NDMA, IMD, EMR, DM-Cell, NCDC) are affiliated with NPCCHH to provide technical inputs in this matter.

The health sector-focused local response to heat is a vital part of **State and District Action Plans on Climate Change and Human Health (SAPCCHH, DAPCCHH).** Built on the understanding of local vulnerability and adaptive capacity**,** they allow health sector action planning in line with key objectives of NPCCHH, i.e., awareness activities including campaign days, capacity building of health care workforce, health facility preparedness, surveillance, monitoring and multisectoral engagement for early warning to response. Besides a heat-health action plan, a chapter in **SAPCCHH, DAPCCHH,** and State and District Health Departments are encouraged to develop city-specific action plans for better response based on local health impacts and the built environment. Additionally, the provision of multi-sectoral taskforces under health departments is envisioned to bring health to the center of climate action planning and implementation. Currently, 34 States/UT have completed SAPCCHH, and many districts are in the process of drafting DAPCCHH.

NPCCHH, NCDC has been making concerted efforts to **build the capacity of health care workforce** to this emerging health concern. To this effect, State NPCCHH officers were taken to Ahmedabad in 2022 to observe the implementation of the Ahmedabad Heat Action Plan first-hand and learn from the best practices of health and non-health stakeholders. The programme also works with relevant stakeholders to include heat-health in UG, PG medical & allied health curricula.

Heat stroke is primarily an out-of-hospital health issue and a true time-critical emergency. From 2024, additional focus and support will be provided in **developing heatstroke rooms** in public health facilities, Community Health Centres, and Sub-District and District Hospitals to strengthen the health system to manage the health impacts of frequent and intense heatwaves. Focused guidelines were issued to support the process, e.g., **Strengthening Health System**

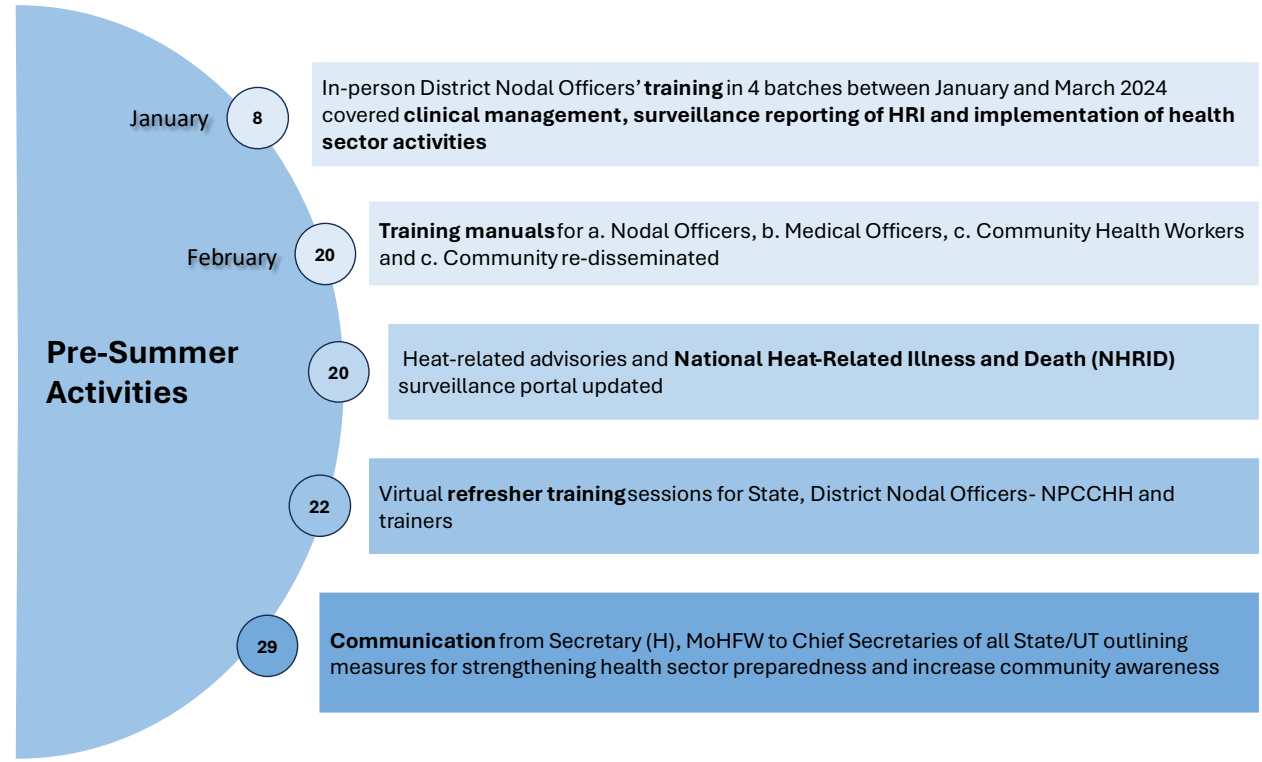
Preparedness, developed under chairmanship of Directorate General of Health Services (DGHS), and NPCCHH Programme Implementation Planning (FY 24-25, 25-26). Facilities are guided to have dedicated beds for patients of severe heat-related illnesses (HRI) (i.e., heat exhaustion, heat stroke), ensure emergency active cooling, and safeguard general cooling and hydration utilities. Primary Health Centre and Ambulances are being strengthened to assess and provide on-site rapid, active cooling using a feasible cooling method that can provide the best cooling rates, emphasizing an evidence-based "cool first, transport second" policy in managing severe HRI. Prevention of HRI is also a critical function of the health sector, which is undertaken by procuring essential medicines and providing simple over-the-counter medication by setting up ORS corners and disseminating health messages and early warnings.

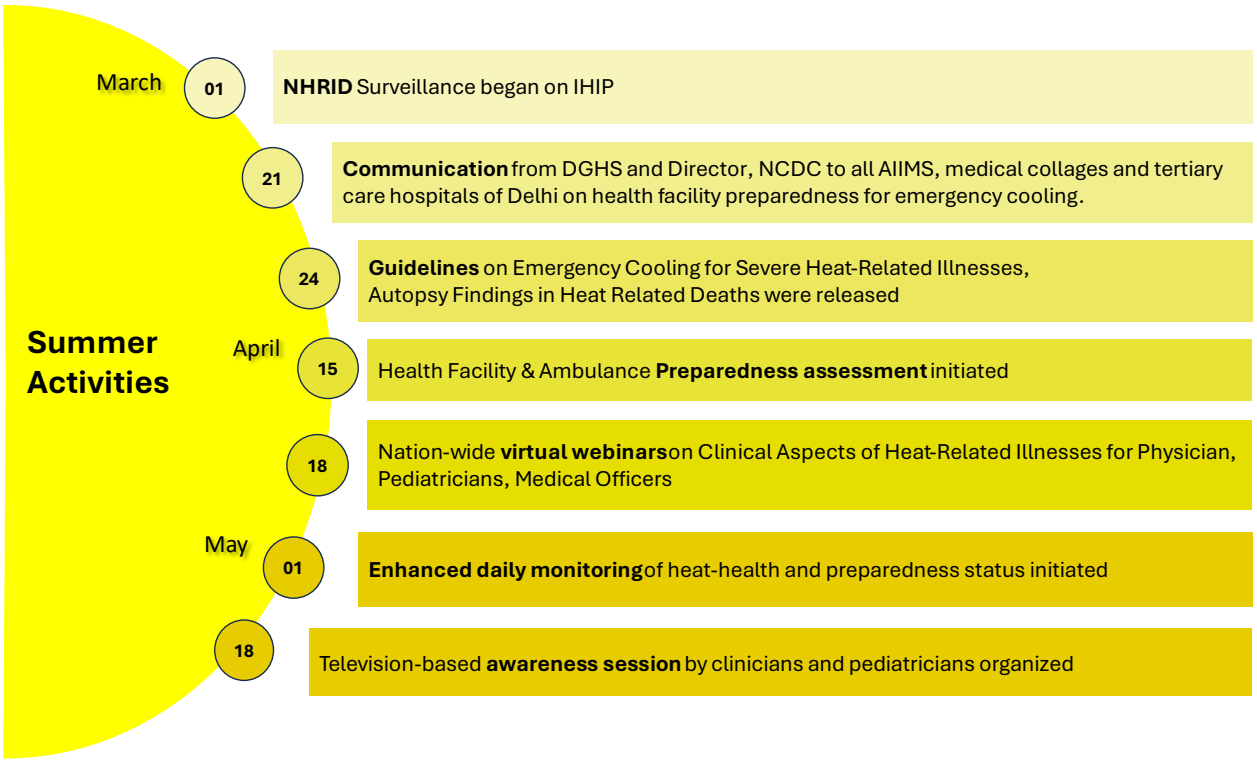
National Heat-Related Illness and Death Surveillance (NHRIDS) was established in 2015 under the Integrated Disease Surveillance Programme. In 2019, NPCCHH took over the surveillance and evaluated it at the field level. With the understanding and expert inputs, once a paper-based, weekly data submission for HRI cases from 17 heat-prone states was transformed into a daily, email-based data collection limited to diagnosing heatstroke from 23 heat-prone states. A detailed **death investigation for suspected heat-related deaths** form was also designed to facilitate a comprehensive understanding of the circumstances of death akin to a verbal autopsy, which may lead to the identification of epidemiological factors for actions. In 2023, the surveillance was digitized on the Integrated Health Information Platform (IHIP), MoHFW. Now, the system collects aggregate data on heatstroke cases and deaths, emergency department attendance, cardiovascular and total deaths from all States/UT from PHC and above and has a dashboard for monitoring by programme officers. The health dashboard is also integrated to display temperatures and relative humidity from the India Meteorology Department (IMD).

NPCCHH Central Unit (CU), NCDC takes strategic actions to support the nationwide implementation of the above health sector actions annually. It begins with pre-season (February) technical training of NPCCHH programme officers and trainers to allow further cascading training to the community level. Training modules and health promotion content are disseminated. Advisories for health departments and the public are issued with a communication from the Secretary, MoHFW, to the Chief Secretary (Health), States/UT, disseminated with IMD's summer season outlook. Advisory to prominent medical institutes were also sent by DGHS. A refresher training on clinical management of HRI and surveillance is conducted and digitally disseminated. In 2023, NPCCHH supported various national heatwave preparedness reviews by Hon'ble Union Health Minister, Secretary, MoHFW, DGHS, National Disaster Management Agency (NDMA) and participated in central teams to Uttar Pradesh and Bihar.

Activities by
NPCCHH-Central Unit (CU), NCDC

2. Timeline of Heat-health Response by NPCCHH-CU, 2024





Summer Activities

- 29 — **Comm. From DGHS, Director, NCDC to all AIIMS, medical collages and tertiary care hospitals of Delhi with fire safety checklist**
- June 02 — **Global Heat Action Day** nation-wide call for enhanced heat-health awareness activities
- 03 — **New IEC posters releasedon**
  - Children, Outdoor workers
  - School, Outdoor workplace
  - Mass gathering event
- 05 — **World Environment Day** a week-long nation-wide call for enhanced heat-health awareness activities
- 19 — **Comm. From DGHS, Director, NCDC to all State/UT, all AIIMS, tertiary care hospitals of Delhi about strengthening heatstroke room preparedness**
- July 02 — **Checklist for Criteria to Categorize Heat Stroke or HRI Deaths in ClinicalSetting** developed and disseminated
- 31 — **Continuation of reporting of routine indicators insurveillance**

Post-Summer activities

- August 6-8 — **National Review Meeting** organized with State NPCCHH. Heat-health response discussed
- 19 — **Technical Expert Group** meetings began to review surveillance system and data
- 20 — **Review of NHRID surveillance portal** and further improvements with IHIP-WHO technical unit began
- September 12 — **State NPCCHH feedback meeting** on experiences and challenges faced during planning, reporting and responding to health issues affected by extreme heat
- October 20 — 2024 NHRID Surveillance summer **data reconciliation** process completed
- 23 — **Training sessions** for health-inclusive Heat Action Plans (HAP) at District and Citi levels led by NDMA in Uttar Pradesh and Rajasthan


External Meetings/ Communications
February
13
National Workshop on Heat Wave 2024 organized by NDMA
March
21
Communication from Secretary (MoHFW) to Member and Head, NDMA regarding integration of Heat-Health Action Plans and Extreme Weather Events-Health Action Plans
April
03
Review meeting chaired by Hon'ble Union Minister of Health and Family Welfare with MoHFW, DGHS, Niti Ayog, ICMR, Central Gov Hospitals in Delhi, NDMA, IMD
04
Review meeting chaired by heat-prone states by NDMA
05
Review meeting chaired by DGHS with State Health Department officers.
08
Review meeting chaired by Member, NITI Aayog and Secretary (MoH&FW) with Addl. Chief/Principal Secretaries/Secretary
June
20
Review Meeting chaired by Hon'ble Union Minister of Health with heat prone states

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3. General Awareness Activities

Development of awareness material

This year, new vulnerable population focused IEC posters templates released. These posters aim to raise awareness about heat-related health risks and provide practical tips for managing heatwaves. They target schools, workplaces, and event organizers, focusing on keeping people safe during extreme heat by promoting hydration, proper ventilation, and heat illness prevention. The audience includes students, workers, and the general public, emphasizing safety measures for mass gatherings and outdoor activities, especially during peak heat hours. English and Hindi versions are available at https://ncdc.mohfw.gov.in/centre-for-environmental-occupational-health-climate-change-health/

Social media publications continued through out the season from NPCCHH and MoHFW accounts

Televised awareness programme

A television-based awareness session by clinicians and paediatricians available at https://www.youtube.com/watch?v=t7XZEsI1tmM

A DD Kisan program highlighted the increasing frequency and duration of heatwaves in recent years with the experts Prof. Dr. Ajay Chauhan, ABVIMS & RML Hospital, New Delhi; Surg. Capt.Dr Anuj Singhal, Paediatrician, Army Hospital Research & Referral Hospital, New Delhi; Prof. Dr. Sanjay Kumar, Lady Hardinge Medical College pitching in for the discussion. Experts offered practical advice to mitigate the impact of heatwaves, including taking frequent breaks in shaded areas, staying hydrated with water and electrolyte-rich drinks, and wearing light, loose-fitting clothing. Vulnerable populations, including the elderly, outdoor workers, pregnant women, and children, require special attention during heatwaves. This can be done through spreading awareness about heatwaves, and the do's and don'ts that come with it. The doctors mentioned that our thirst mechanism may not be reliable during extreme heat. Therefore, it's crucial to proactively stay hydrated by drinking water regularly, even if you don't feel thirsty - not drinking carbonated drinks or fruit juices.

Observation of environmental health days

Global Heat Action Day, World Environment Day 2024

A communication from Additional Director and Head, NPCCHH in late May recommended States/UTs to HRI prevention and management, especially with the forecasted severe heatwaves. It urges states to utilize the health facility and ambulance preparedness tool, develop heatstroke rooms, and submit reports via the provided surveillance formats. States are reminded to revise reporting units on the IHIP portal by May 2024, apply for new district credentials, and intensify awareness activities during Heat Action Week (June 1-8). Weekly action reports on heat-related activities are to be submitted until the end of summer. A weeklong nation-wide call for enhanced heat-health awareness encompassed World Environment Day. A report of the state level activities is in the last section.

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4. Capacity Building of Health Care Workforce

Advisories, Guidelines and Tools developed

Advisories to State Health Department: The annual advisory updated to include mass gathering preparedness guidelines.

Guidelines on Emergency Cooling for Severe Heat-Related Illnesses

The Guidelines on Emergency Cooling for Severe Heat-Related Illnesses emphasize rapid cooling techniques such as conductive, evaporative, and invasive cooling methods. It includes specific protocols for managing heatstroke in adults and children, recommended equipment, and techniques for use in various settings, including hospitals, ambulances, and field locations. It also outlines public health measures for community preparedness and emergency response during heatwaves. It has been developed by an expert committee of physicians and pediatricians under the guidance of the Directorate General of Health Services.

Available at: https://ncdc.mohfw.gov.in/wp-content/uploads/2024/03/Emergency-Cooling-for-Severe-Heat-Related-Illnesses_March2024_NPCCHH.pdf

Guidelines on Autopsy Findings in Heat-Related Deaths

Released in March 2024, Autopsy Findings in Heat-Related Deaths explains the challenges in diagnosing such deaths, the significance of scene investigations, and key autopsy findings based on the duration of heat exposure. The guidelines also provide criteria for diagnosing heatstroke or heat-related deaths and offer recommendations for forensic pathologists to enhance recognition and reporting. It has been developed by an expert committee of pathologists under the guidance of the Directorate General of Health Services.

Available at: https://ncdc.mohfw.gov.in/wp-content/uploads/2024/03/Autopsy-Findings-in-Heat-Related-Deaths_March24_NPCCHH.pdf

Criteria to Label Heatstroke/Heat-Related Deaths in Clinical Setting

Categorization of heatstroke deaths requires consideration of environmental factors. To facilitate, in clinical setting, identification and labelling of deaths that are potentially related to exposure to environmental heat, a checklist has been developed (enclosed). The criteria are envisaged to help in conformation of heatstroke deaths and labelling of suspected heatstroke deaths, especially in situations where patients' clinical assessments were not available. The categorization aligns with the reportable indicators under NHRIDS.

National Programme on Climate Change and Human Health

Criteria to Label Heatstroke/Heat-Related Deaths in Clinical Setting

- *For application of any of following criteria, **environmental criteria** (described below) must be met.*
- *Please report accordingly in Nat. Heat-Related Illness & Death surveillance at https://ihip.mohfw.gov.in/npcchh using **p-form user** credentials.*

Criteria *(for each category, all criteria should be met)*	**Identify as**
1. **Antemortem core body temperature ≥105°F (≥40.5°C)** ◯ 2. + H/O Mental status change ◯ 3. + No alternate definite diagnosis ◯ 4. + Environmental criteria met (see below) ◯ ***OR*** H/O Heat stress ◯ *(Worked in poorly ventilated space/Vigorous physical activity)*	**Confirmed Heatstroke Death**
1. **Antemortem core body temperature <105°F (<40.5°C)** ◯ 2. + H/O attempted body cooling prior to arrival ◯ 3. + H/O Mental status change ◯ 4. + No alternate definite diagnosis ◯ 5. + Environmental criteria met ◯ ***OR*** H/O Heat stress ◯ *(Worked in poorly ventilated space/Vigorous physical activity)*	(label as **Suspected Heatstroke Death** till all category criteria are confirmed)
1. Death of **suspected heatstroke case** ◯	**Suspected Heatstroke Death** until an alternate diagnosis is confirmed
1. **Antemortem core body temperature not assessed** ◯ 2. + H/O Mental status change ◯ 3. + Environmental criteria met ◯ 4. + No alternate definite diagnosis ◯	
1. **Clinical assessment not possible/Patient brought dead** ◯ 2. + H/O Pre-existing disease known to be exacerbated by heat stress ◯ *(Chronic CVD, respiratory, renal disease, DM, obesity, physical/mental disability, or use of antihistamines, antipsychotics, beta blockers, CCBs, SSRIs, Diuretics)* 3. + Environmental criteria met ◯	
1. **Patient brought dead** ◯ 2. + Environmental criteria met ◯ 3. + From ***any*** of below vulnerable groups ◯ Elderly ◯ Infant/children ◯ Farmers ◯ Homeless ◯ Outdoor laborers ◯ Vendors ◯ rickshaw pullers ◯ Chronically sick ◯ Watchman, driver ◯ Delivery persons	

Environmental criteria

Active Heatwave or Severe Heatwave alert existed at the location of symptom onset ◯
If NO active heatwave alert, check for maximum daytime temperature

Maximum daytime temperature	Plain region	Coastal region	Hilly region
	>40°C ◯	>37°C ◯	>30°C ◯

***Check IMD Warnings and temperatures at** https://mausam.imd.gov.in/*

- *District wise warning at map: https://mausam.imd.gov.in/responsive/districtWiseHeatwaveWarning.php*
- *Latest alerts issued: https://cap-sources.s3.amazonaws.com/in-imd-en/rss.xml*
- *Mausum app (IMD) or SACHET app (NDMA)*

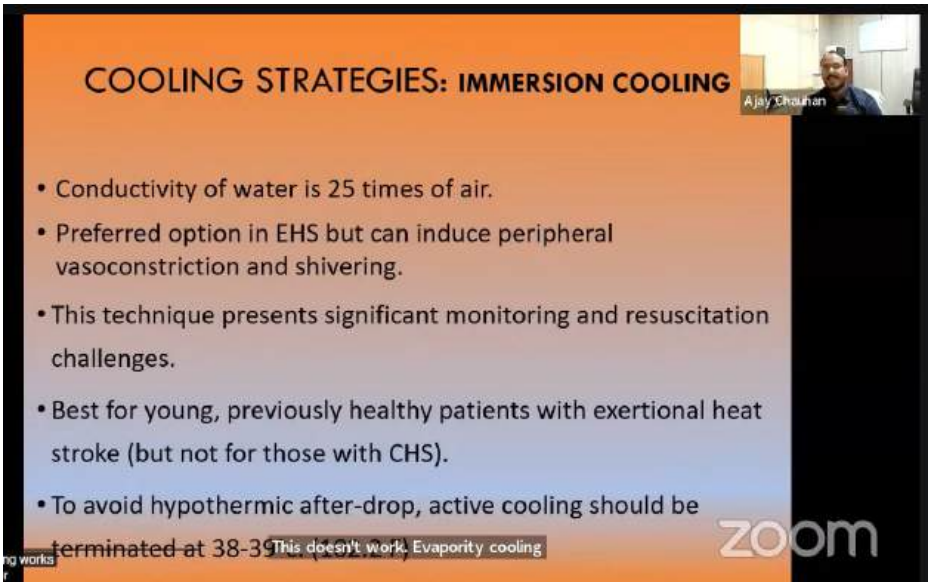
Training sessions conducted

From January to March, ,2024 In-person **District Nodal Officers' (DNO) training sessions in** 4 batches covered clinical management, surveillance reporting of HRI, and implementation of health sector activities. More than 120 DNO were trained.

Virtual refresher training sessions for State, District nodal Officers-NPCCHH and trainers specifically focused on NHRIDS was organized. Available at: https://www.youtube.com/watch?v=6GFVqfmwuh8

Clinical management training (webinars)

Nation-wide virtual webinars on Clinical Aspects of Heat-Related Illnesses for Physician, Paediatricians, Medical Officers on Apil 18, 2024



The aim is to strengthen the healthcare sector by reinforcing early identification, rapid cooling, and supportive care of severe heat-related illnesses. The webinar was held to ensure health facility and ambulance preparedness through sensitization of medical professionals during the anticipated heatwaves, with expert faculty from central hospitals providing training.

5. National Heat-Related Illness and Death Surveillance

National Heat-Related Illness and Death Surveillance (NHRIDS) aspires to be a yardstick for climate adaptation in India. Since it began in 2015, it has evolved from a weekly, paper/email-based surveillance being carried in 17 heat-prone states into a daily, digital data collection and visualization tool allowing near-real time data transmission from health facilities PHC and above nationwide on Integrated Health Information Platform (IHIP).

Reporting status

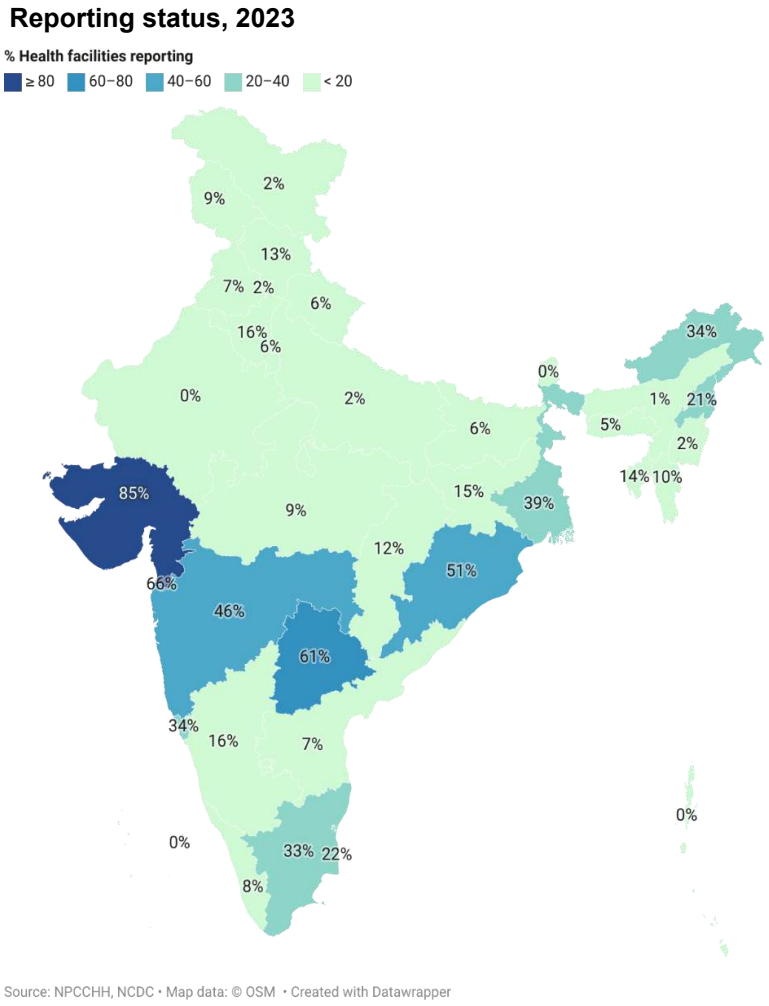
In 2024, on average 55% reporting units (RU), public health facilities PHC and above level, out of 47,477 reported in NHRIDS from March 1-July 31, 2024. Gujarat, Odisha, Telangana remained high performing states with 91%, 89% and 72% RU reporting. In 2023, on average 23% out of 40,390 RU of all 36 States reported. These states were high performing in 2023, also. Reporting from most other states, especially large states like Uttar Pradesh and Rajasthan have improved in 2024, likely owing to increased awareness of the surveillance reporting and out of demand generated by apparent increase in heat exposure and impact. (Figure 1)

Reporting began with 20% RU submitting reports in March to 40% in July. The consistency of daily reporting varied across the country. Reporting from Gujarat, Telangana, Dadra Nagar Haveli, Diu and Daman (DNH-DD) and Odisha seem to have remained consistent. (Figure 2) Nationally, maximum reporting of 62% was observed during 15 days between 15 May-10 June 2024 coinciding with peak heatwave days. Reporting follows the trend of holidays and weekends. (Figure 3)

Health impacts at population level

In 2024, 48,156 Suspected Heatstroke Cases (SHC), 269 Suspected Heatstroke Deaths (SHD) and 161 Confirmed Heatstroke Deaths (CHD). Compared to the last 2 years, SHC are reported to have increased while SHD and CHD are reduced. (Figure 4) Daily indicators, i.e emergency visits, total and cardiovascular deaths in the facilities are reported to have increased. Interpretation of these changes in reporting of these direct and indirect indicators of health impacts of heat should consider change in number of reporting units, changes in reporting trends and year-to-year changing exposure to extreme heat.

Figure 1: State-wise reporting on NHRIDS during summer (March 1-July 31), 2023 and 2024



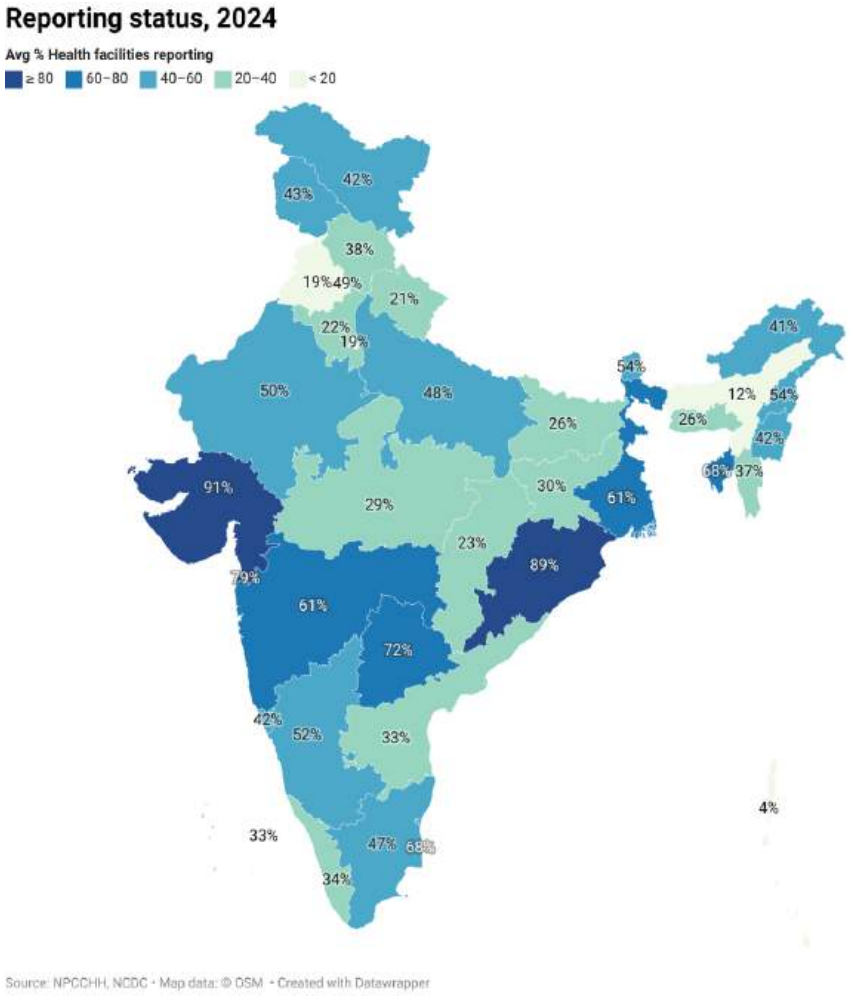


Figure 2: Daily state-wise health facility reporting (%) on NHRIDS, 2024

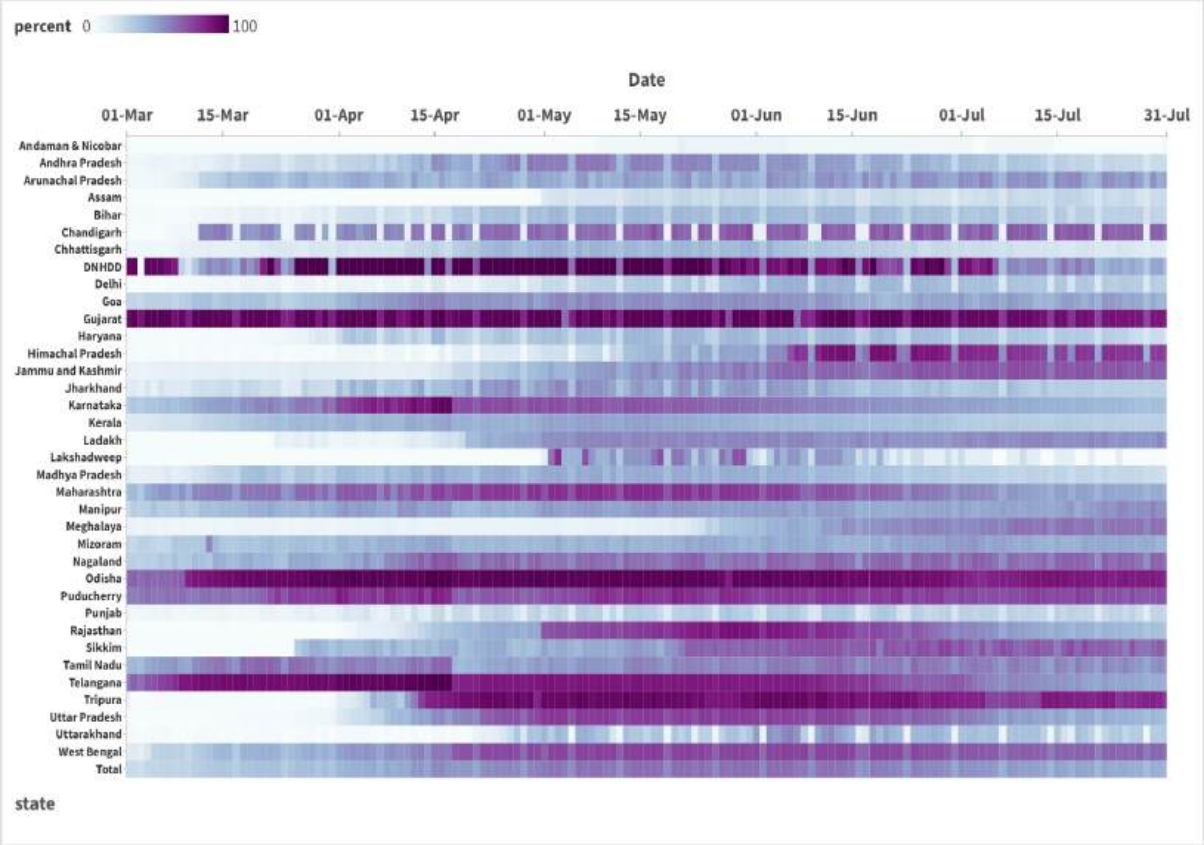


Figure 3: Daily health facility reporting (%) and reported emergency visits tends, 2024

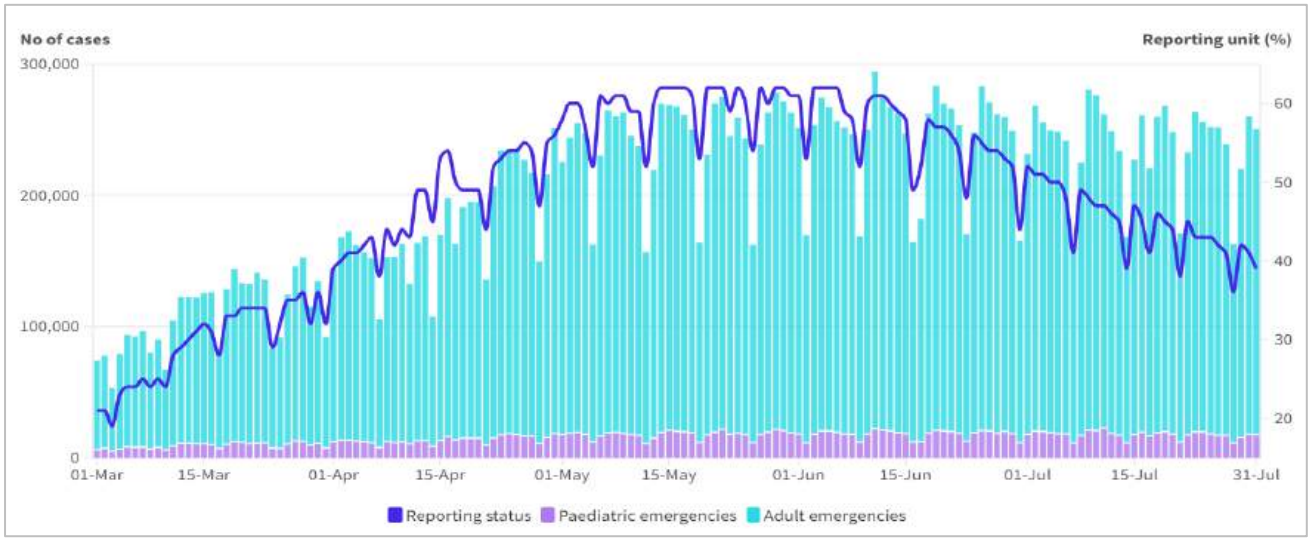
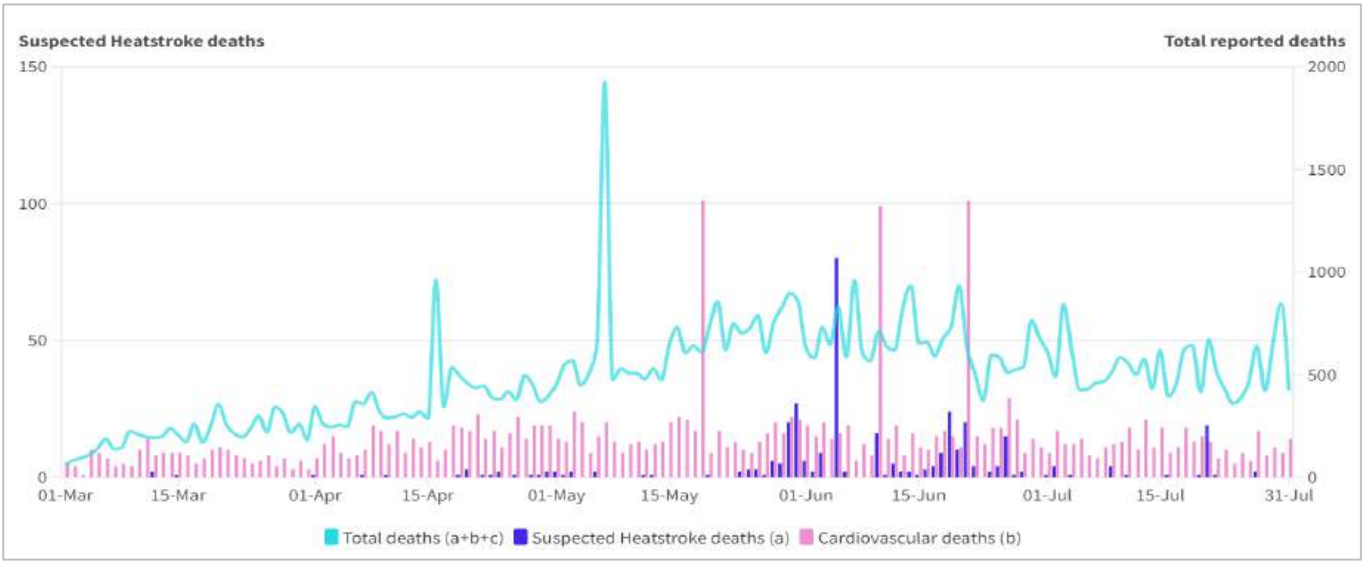


Figure 4: Year-wise cases and deaths reported in NHRDIS, 2022-24

Seasonal trends in SHD, CVD deaths and total deaths does not seem to reflect a colinear trend visually, advance analysis is required. SHD may indicate peaks coinciding with regional heatwave incidents. (Figure 5)

Figure 5: Daily suspected heatstroke, cardiovascular and all-cause deaths trends reported at health facilities, 2024



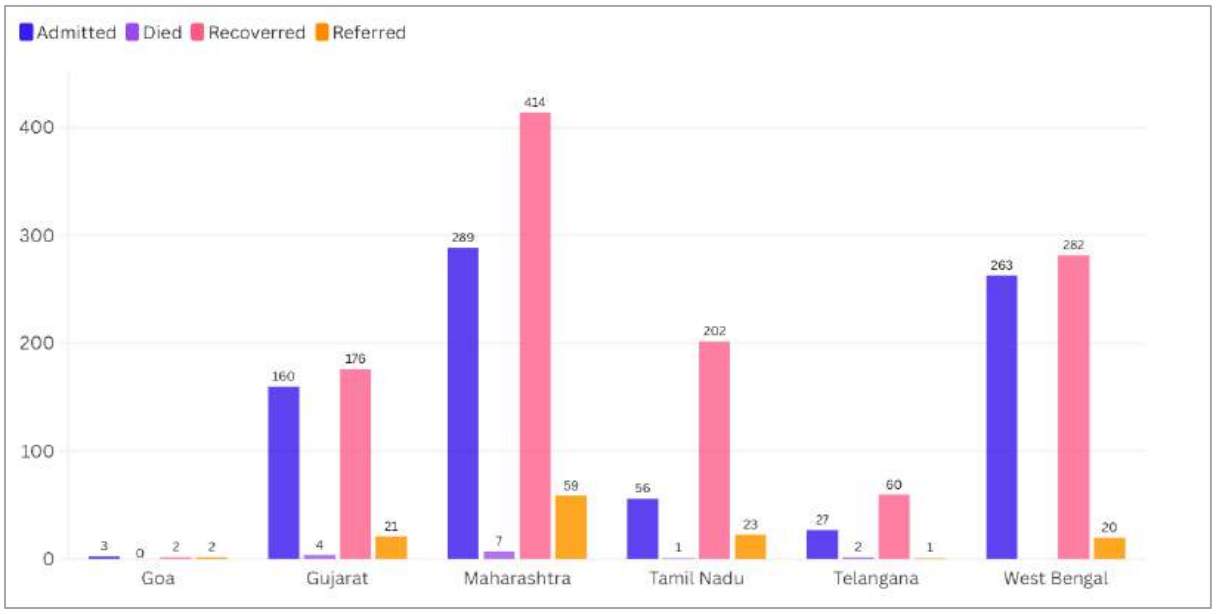
Health impacts at individual level

In 2024, six states piloted patient-level data collection on NHRIDS' IHIP portal. Total 2,074 SHC reported from Goa (7), Gujarat (361), Maharashtra (769), Tamil Nadu (282), Telangana (90) and West Bengal (565) through summer 2024 (March 1-July 31). There were 59% male, 41% female and 5 transgender persons among reported SHC. Mean age was 40±20years, for male and female without significant difference in distribution. However, the mean age was 51±41years for transgender persons. There is a significant difference in distribution gender of SHC by states.

Occupationally, 24% were unemployed, 5% skilled agriculture, fishery, shop workers or professionals and 68% reported as "other".

On the day of reporting, 38% SHC were admitted, 55% recovered, 6% referred and 0.7% had died. Among the admitted 768 SHC, 29 recovered at later date, 1 died and 1 was referred.

Figure 6: Status of Suspected Heatstoke Cases on the day of reporting on NHRIDS, 2024



Way forward

- Further analysis including time-series analysis and various associations is expected to be explored in due course
- Emphasis on reporting during holidays should be highlighted
- Updating patient level data entry with change in patient outcome status is required to complete the record of each SHC reported.

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6. Enhanced Heat-Health Monitoring

For enhanced health monitoring and reporting to stakeholders special tasks were initiated.

Operation 1 included daily appraisal of surveillance reporting and IMD heatwave forecasts with specific focus on a. top 5 States with cases and death. b. If a District reported clustering >5 suspected heatstroke cases, health facility was identified.

Operation 2 included media scanning for heat-related deaths and illnesses for a cluster of more than 5 deaths that are not picked up by NHRIDS.

Operation 3 included threshold-based action in event of an untoward incident

Action trigger: A cluster of more than 5 deaths reported in a day the HRI surveillance or linked to ambient heat as per media scanning in a day.

The following directives will be sent to the State/UT

1. State and District Nodal Officer-NPCCHH to verify with the report
2. Provide preliminary incident report within 24-hours
3. Hold an urgent meeting of the District Task Force for evaluation of the situation and response support? (to ensure shelter, power, water, transport)
4. Strengthen the preparedness of the surrounding health facilities: human resource, emergency cooling, essential medicines, basic utilities
5. Investigate suspected heat-related deaths with verbal autopsy form as per National Action Plan on Heat Related Illnesses, chapter 7 and submit a detailed report to NPCCHH, NCDC
6. Update HRI surveillance on IHIP, MoHFW portal to reflect the incidence cases and deaths and keep detailed linelists

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Through this enhanced monitoring, 24 triggers were identified and incident report requests were sent out to Bihar, Delhi, Rajasthan, Karnataka, Odisha, Uttar Pradesh and Maharashtra.

7. Health Facility Heat Preparedness Assessment

Introduction

Health facility (HF) preparedness to prevent and manage heat-related illnesses is a crucial health sector adaptation measure that is becoming exceedingly relevant and essential with increasing global warming. On the frontline of climate change impact, health facilities prepared to manage severe heat-related illnesses (HRI) i.e. heat exhaustion and heatstroke, within a critical timeframe has potential to reduce population's health risks greatly. NPCCHH, NCDC under MoHFW has provided guidance on HF preparedness planning through National Action Plan on Heat Related Illnesses. On specific aspects of funding, logistics and methods, Programme Implementation Plan (PIP) guidelines (FY: 2024-25, 2025-26) and guidelines on Strengthening Health System Preparedness and Emergency Cooling for Severe Heat-Related Illnesses were disseminated.

As emergency cooling was being introduced for the first time systematically from the PHC level and above, the questionnaire focused mainly on the availability of rapid, active cooling equipments. With the purpose of improving preparedness through sequential assessment before peak summer, a semi-structured assessment questionnaire with ~25 questions was prepared. The mobile based, online tool was filled by HF in-charge or block-level officers for independent mobile units for rapid and repeated assessments. The data collected at central level was shared with each States weekly for monitoring and necessary action.

Method

From April 12 to July 31, 2024, data was collected on the availability of basic utilities, ORS corners, diagnostic equipment, emergency cooling equipments/appliances at health facilities (HF), and ambulances. Data on training of health care staff on clinical management of HRI and reporting on National Heat-Related Illness and Death Surveillance was collected. Questions on community outreach activities and display of awareness posters in the facility were also included.

We considered the availability of functional fan/air cooler/air conditioner and cold, safe drinking water, both, as availability of basic utility in context of passive cooling for all patients and visitors. Availability of diagnostic equipment for severe HRI is considered if either rectal thermometer/s or functional continuous core temperature monitor probe/s and functional multiparameter monitor monitor/s. Number of allocated beds for treatment of severe HRI were collected.

For assessment for availability of adequate active, rapid cooling methods, we developed a framework using guidelines mentioned above. First, we compared availability of equipments with that of recommendations in PIP and logistic guidelines for a facility level (Annexure 1, table A). Next, we identified potential cooling methods that can be provided using various combinations of equipments. For example, ice cooler/ice storage boxes to store large quantity of ice cubes with a portable bath tub can allow ice water immersion. While with availability of towels and sheets, it can allow ice towel application. We mapped the effectiveness of cooling

methods with the feasibility of service delivery for each HF. (Annexure 1, table B) The effectiveness of emergency cooling methods considered in terms of cooling rate they achieved in reducing body temperature (measured in °C/min) (Ref: Guidelines Emergency Cooling for Severe Heat-Related Illnesses). Lastly, based on the most effective cooling method a facility can offer and "cool first, transport second" principle, we categorized the preparedness for emergency cooling into four levels: optimal, adequate, basic, and inadequate. (Annexure 1, table C) Emergency cooling management was counted as available if a facility had any diagnostic equipment and active cooling preparedness of optimal, adequate or basic level.

Assessment of ambulances/mobile units focused on their ability to provide on-site active cooling.

Result

A total of 8,955 assessments of various health facilities were completed between April 12 to July 31, 2024. Out of these, multiple submissions from each facility were removed (n=3,235) using a combination of state, name, survey responder, their email id, and mobile number and then by name of the HF. Total 5,720 most recent assessments from each facility were analyzed for their level of preparedness to prevent and manage HRI. Of these, 5,690 were HF assessments and 3,726 were of ambulances linked to HF including 25 mobile units attached to a block or RBSK. Tamil Nadu has the highest submissions from across the facility level. No submissions received from Ladakh, Assam and Sikkim. (Figure 1 & 2)

Figure 1: State-wise health facilities assessed for preparedness to manage and prepvent heat-related illnesses, April-July 2024

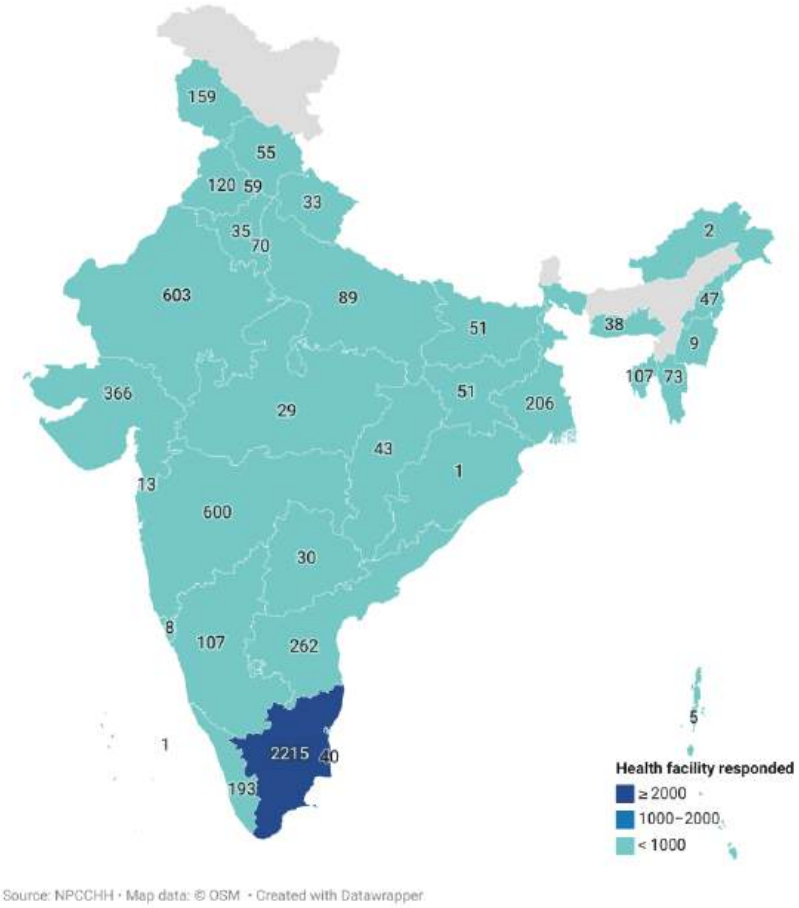
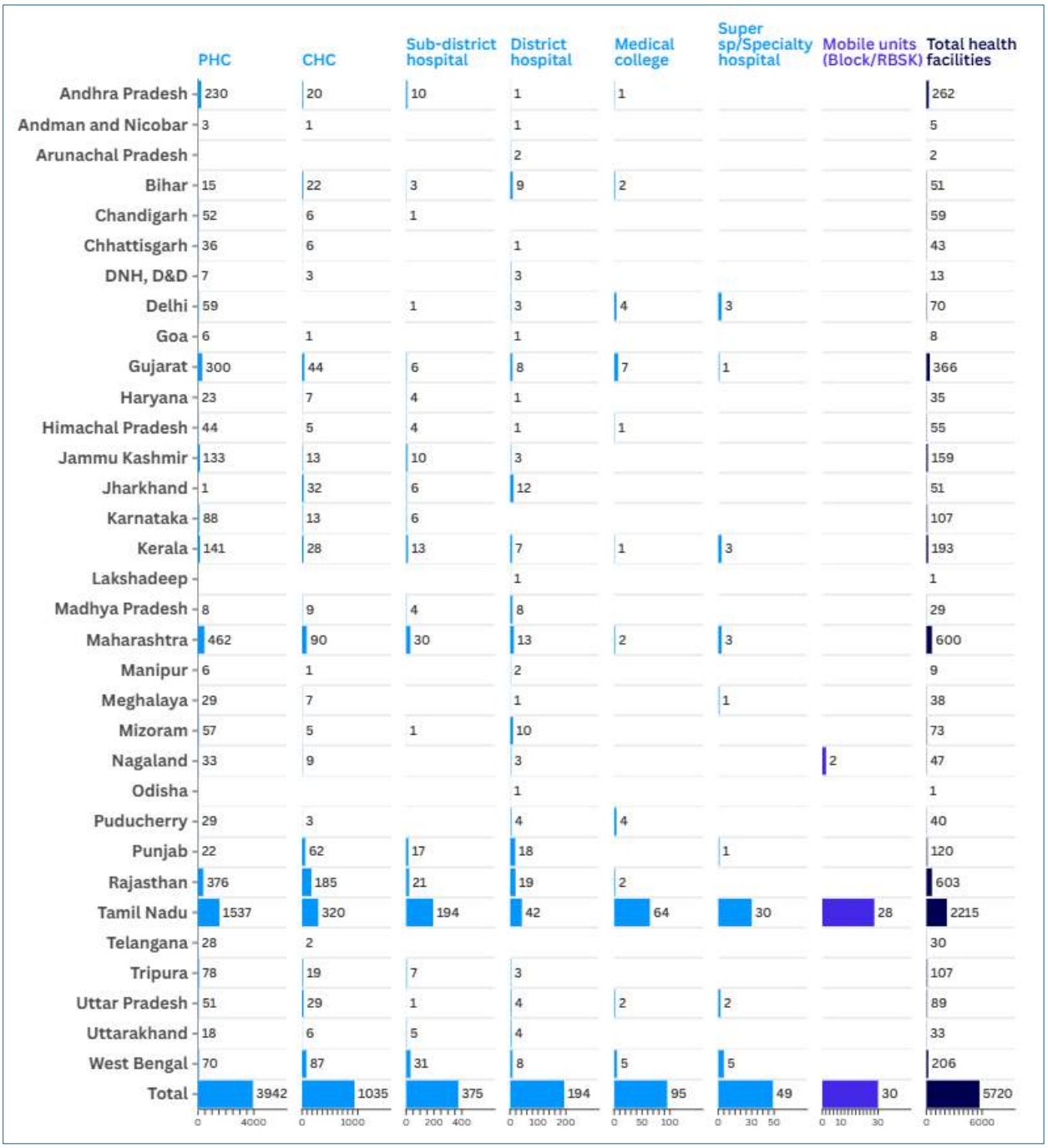


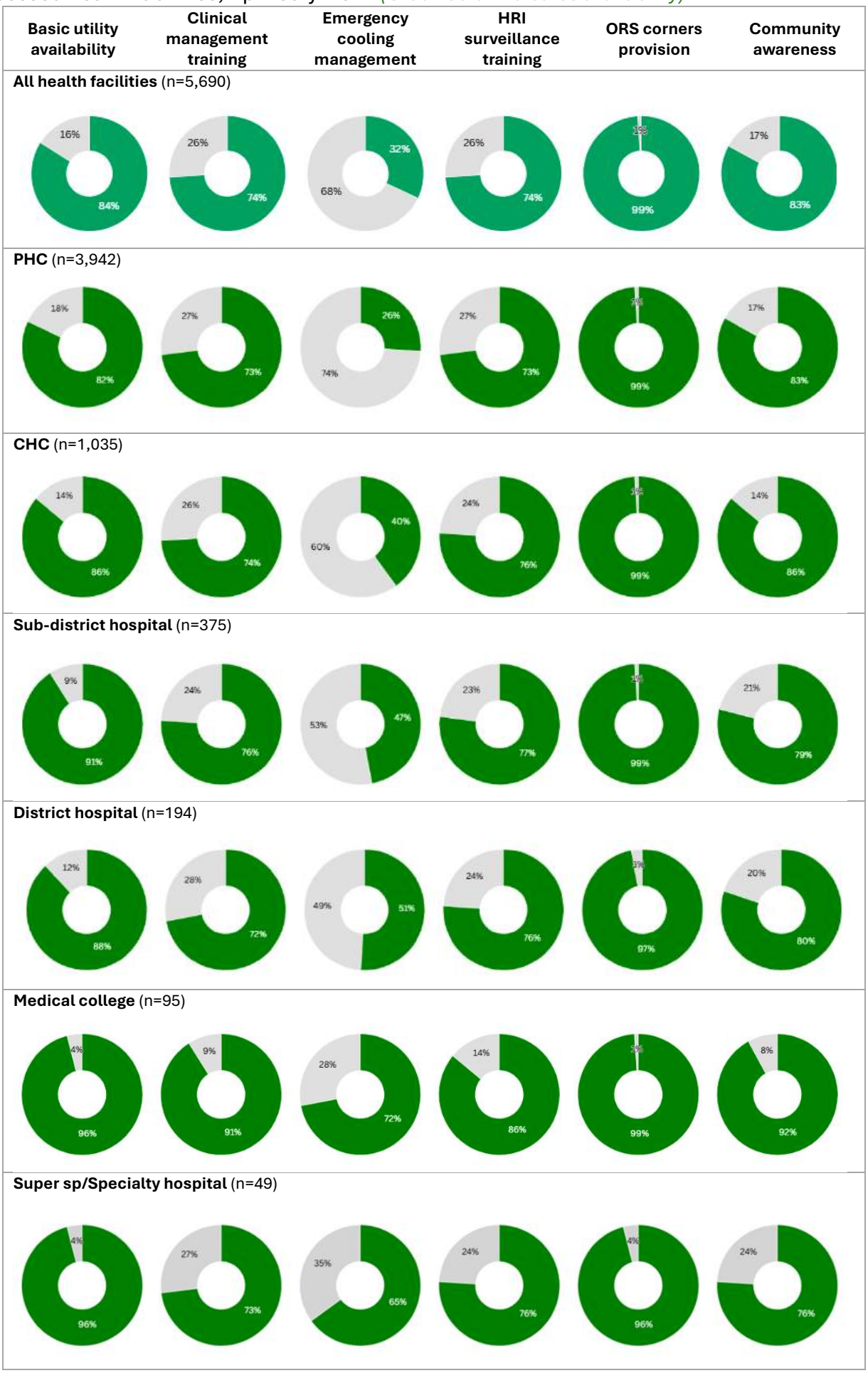
Figure 2: State-wise levels of health facilities assessed for preparedness to prevent and manage heat-related illnesses, April-July 2024



Of 5,690 assessments, primary health centres (PHC) contributed 69%, Community Health Centres (CHC) 18%, sub-district hospitals 7%, district hospitals 3%, medical colleges 2% and specialty and super specialty hospitals about 1%.

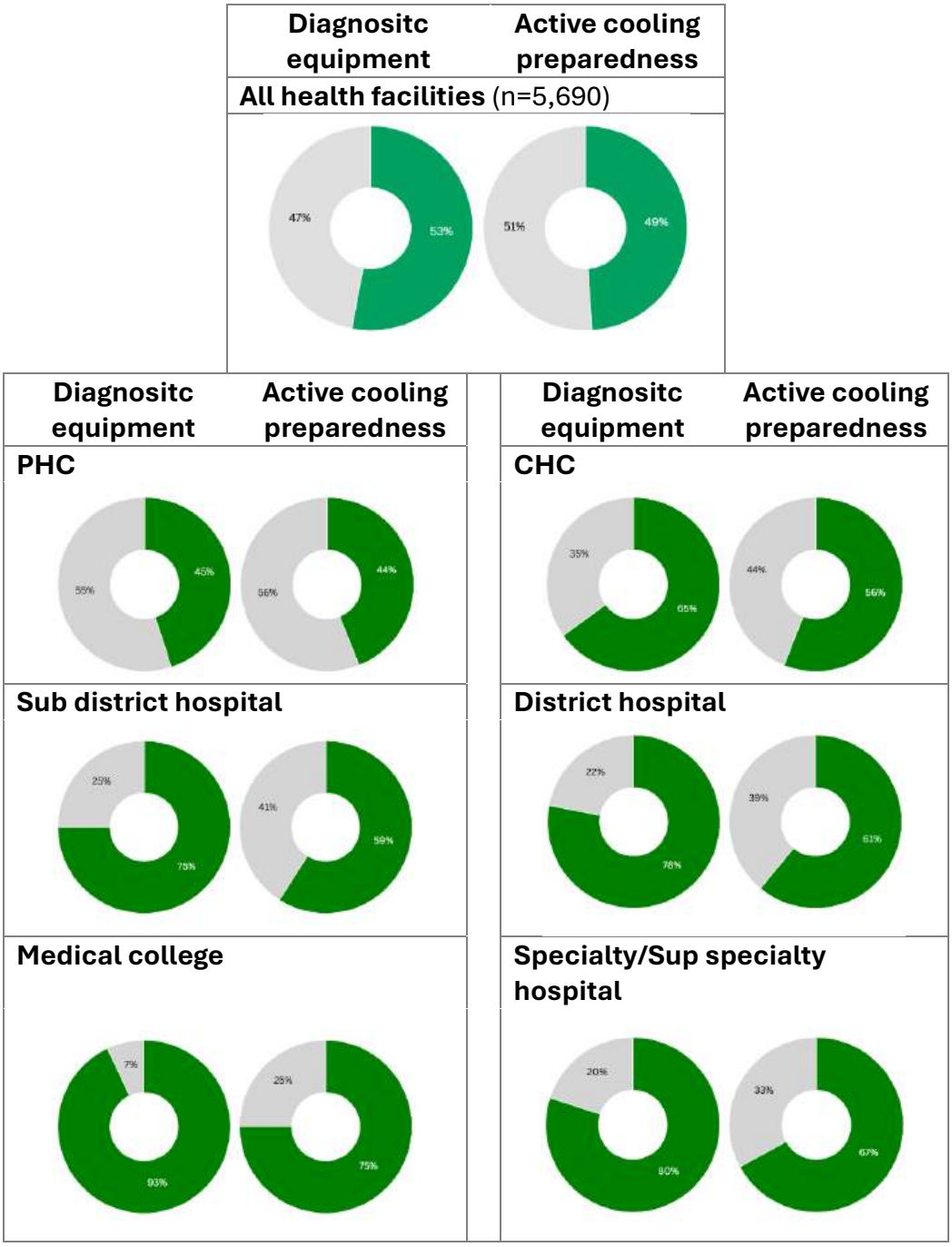
Overall, basic utility were ensured by 84%, ORS corners established by 99%, training of clinical mangement of HRI and surveillance reporting completed by 74%, community awareness activities by 83% and emergency cooling preparedness was ensured by 32% health facilities. (Figure 3).

Figure 3: Measures taken towards prevention and management of heat-related illnesses in assessed health facilities, April-July 2024 *(Green color indicates availability)*



To provide emergency cooling, diagnositic equipments were ensured by 53% HF and 49% had optimal, basic or adequate level of active cooling preparedness. (Figure 4)

Figure 4: Availbility of equipments to provide emergency cooling for severe heat-related illnesses in assessed health facilites, April-July, 2024*(Green color indicates availability)*



In terms of level of active cooling preparedness, 6% HF were found to have optimal, 32% adequate, 11% basic and 51% inadequate preparedness for their level. (Figure 5) About 44% PHC, 56% CHC, 59% sub-district, 61% district hospitals, 75% medical colleges and 67% specialty/super specialty hospitals has either optimal, adequate or basic preparedness. Overall, 49% of all facilities were prepared; optimally, adequately or had basic preparation.

About 48% of assessed ambulances/mobile units had ice packs, 39% reported having a rectal thermometer, 13% could provide conductive (Tarpaulin assisted or body bag) cooling and 63% could provide evaporative/combined cooling (garden sprayer, ice packs, ice, linen). 57% of ambulances/mobile units had their paramedic train in early detection, emergency cooling and management of severe HRI. (Figure 7)

Figure 5: Preparedness to provide best possible active cooling for server heat-related illnesses in assessed health facilities, April-July, 2024

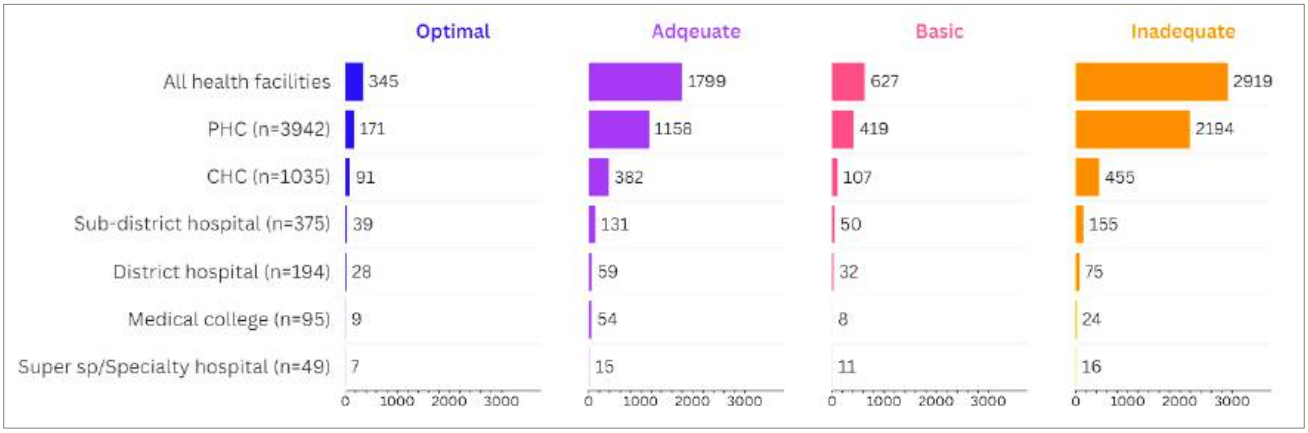


Figure 6: State-wise number of assessed health facilities that are prepared (optimal, adequate or basic) to deliver active cooling, April-July, 2024 (colours represent %)

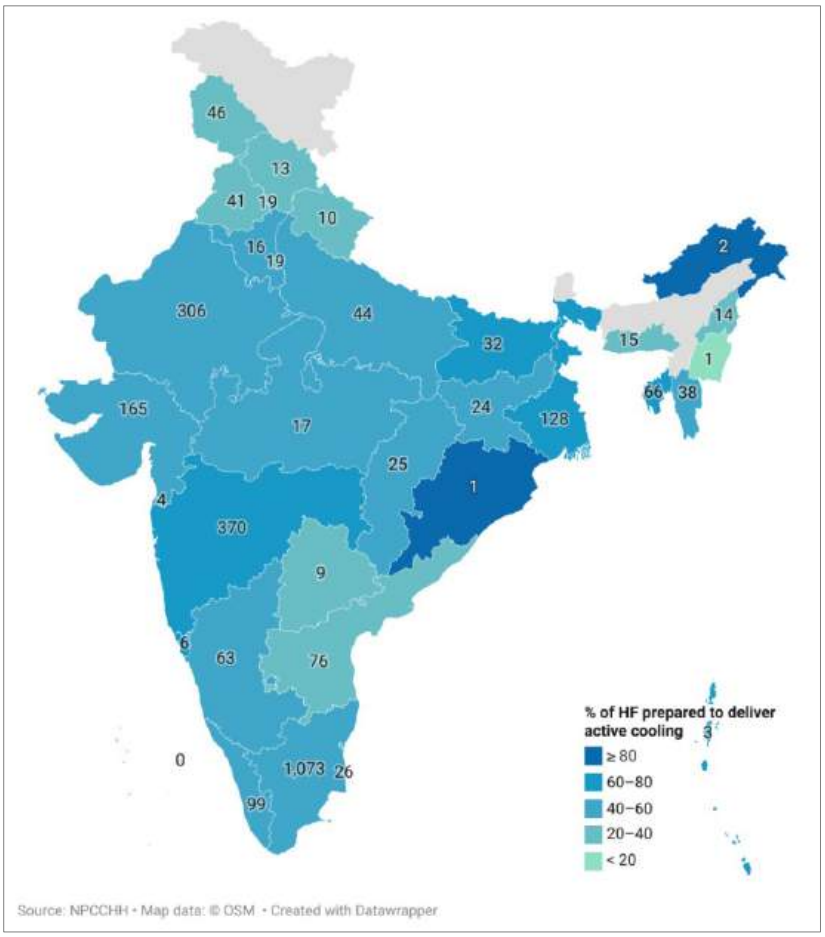
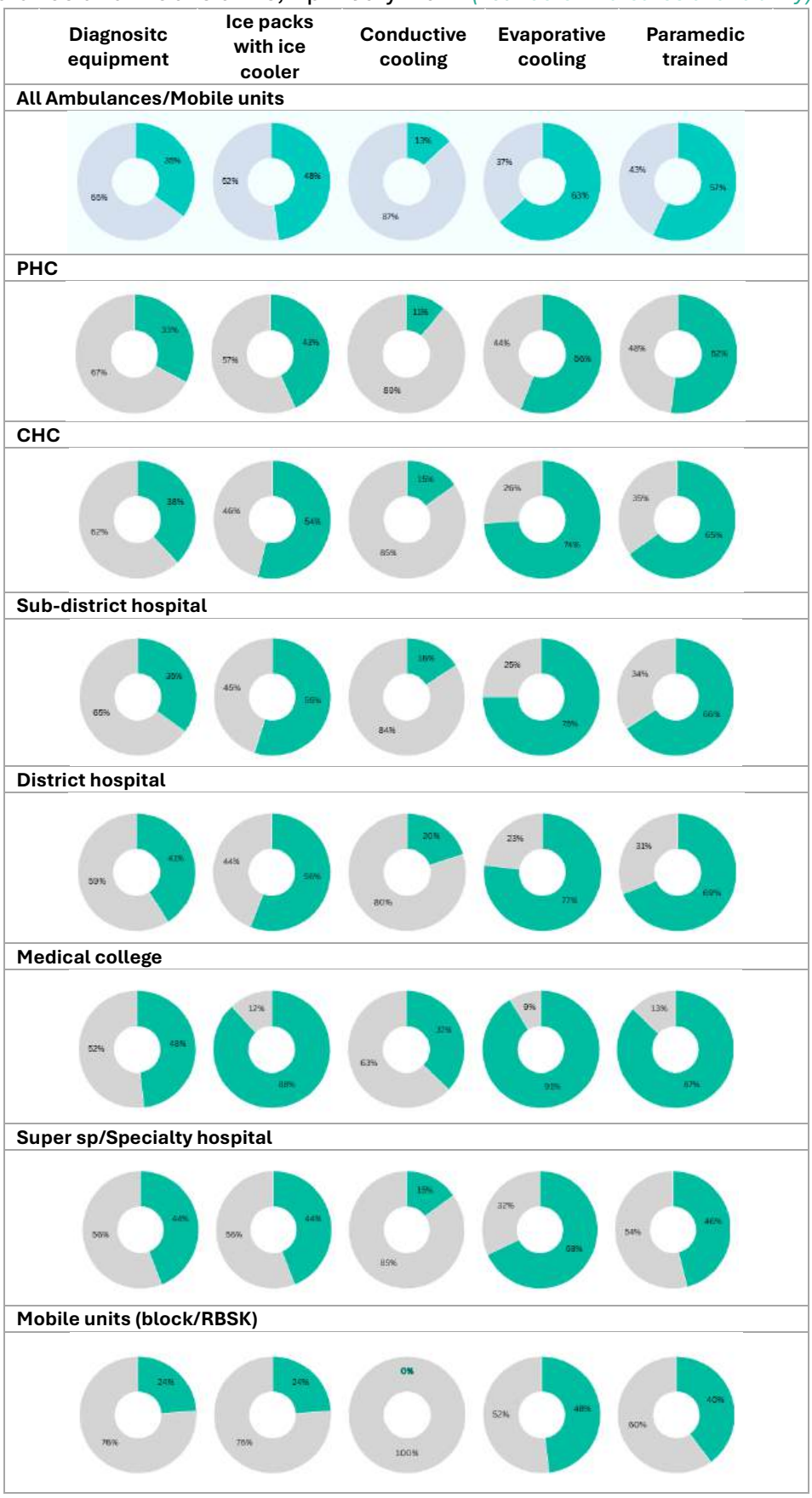


Figure 7: Measures taken towards prevention and management of heat-related illnesses in assessed ambulance and mobile units, April-July 2024 *(Teal color indicates availability)*



Conclusion

Majority of HF assessed had ensured basic utilities, ORS corners, clinical and surveillance training of staff and community awareness activities in summer 2024. Almost half of the facilities assessed were prepared to manage active and rapid cooling of server HRI. It is a commendable effort from health departments considering that it was initiated recently. However, there is scope for improvement in procurement of needed equipments and preparedness of ambulances.

As exposure to extreme heat increases, need to provide on-site cooling as well as pre-referral cooling at primary levels may increase. With this focus, ambulances, PHC, CHC may be further strengthened to provide such services.

We acknowledge delayed timing of assessment for a summer season and lack of representativeness. With inclusion of this assessment in annual heat-health training sessions and it early administration, we hope to improve preparedness in coming years.

Annexure 1: Heat Preparedness Assessment Framework for Health Facilities

A. Mapping equipment availability as per level of facilities based on recommendations in NPCCHH PIP guidelines

Questions	MC, Sp & Super sp hospitals*	DH & SDH	CHC	PHC
1. bed allocation (Y/N) 2. number of beds available	Yes + min 5 beds	Yes + min 5 beds	Yes + min 2 beds	Not applicable
1. functional rectal thermometers? (Y/N) 2. functional continuous core temperature monitor probes and functional multiparameter monitors? (Y/N)	Yes for any	Yes for any	Yes for any	Yes for 3.c
Adequate ice packs as per the number of dedicated beds available (6/bed)? (Y/N)	Yes	Yes	Yes	Yes
Garden sprayer/water spray bottles available? (Y/N)	Yes	Yes	Yes	Yes
Adequate linens or towels to cool the patients using cold/wet towel method available?	Yes	Yes	Yes	Yes
Functional deep freezer/ILR for making ice/ice packs available?	Yes	Yes	Yes	Yes
Functional refrigerator/ice box available that can be used to cool normal IV saline/fluids?	Yes	Yes	Yes	Yes
Ice coolers/ice storage boxes to store large quantity of ice cubes available?	Yes	Yes	Yes	Yes
A standing/portable fan for directed, fast air current for active cooling available?	Yes	Yes	Yes	Yes
Any of below available: *Check all that apply.* 1. Portable bathtub/s 2. Waterproof zipper/body bags 3. Tarpaulin for (TACO) 4. None of above	Any of 1, 2, 3	Any of 1, 2, 3	Any of 1, 2, 3	Any of 2 and 3

**Medical college, specialty and super specialty hospitals*

B. Recommended availability of rapid, active cooling methods as per the level of service delivery expected

Cooling methods (Most effective to least)	**Equipment mapping**	**MC, Sp & Super sp hospitals**	**DH & SDH**	**CHC**	**PHC**
1. Ice/cold water immersion	Portable bathtub (Yes) **or** Zipper/Cadaver bag (Yes**) and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	**Essential**	**Desired**	**Desired**	--
2. Ice/cold water immersion	Zipper/Cadaver bag (Yes) **or** Tarpaulin (Yes) **and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	--	**Essential**	**Essential**	**Essential** (pre-referral)
3. Ice towel application	Adequate linens or towels? (Yes) **and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	**Essential**	**Essential**	**Essential**	**Essential**
4. Ice packs application	Adequate ice packs as per the number of dedicated beds? (Yes) **and** Functional refrigerator/ice box that? (Yes)	**Essential**	**Essential**	**Essential**	**Essential** (non-quantified)
5. Evaporative cooling	Garden sprayer/water spray bottles? (Yes) **and** A standing/portable fan for directed, fast air current for active cooling? (Yes)	**Basic**	**Basic**	**Basic**	**Basic**
6. Evaporative cooling	Adequate linens or towels to cool? (Yes) **and** A standing/portable fan for directed, fast air current for active cooling? (Yes)	**Basic**	**Basic**	**Basic**	**Basic**
7. For application of cold water and cooling IV fluid	Functional refrigerator/ice box? ***or*** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes) ALONE	--	**Inadequate**	**Inadequate**	**Inadequate**

C. Assessing prepared based on the Highest level of effective cooling method available

Potential cooling method availed (Most effective to least)	**Medical college, specialty & super specialty**	**DH & SDH**	**CHC**	**PHC**
Conductive cooling method				
1. Ice Water Immersion (1-5°C water)	**Optimally** prepared (if No 1 is available + either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (Either no 1 or 2 is available+ either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (Either no 1 or 2 is available+ either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (if no 2 is available+ either of No 3 or 4 available + either of 5&6 available)
2. Colder Water Immersion (8-12°C)				
Combined cooling method				
3. Commercial Ice Packs + Ice application	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)
4. Ice Sheets and Towels				
Evaporative Cooling method				
5. Evaporative Cooling	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)
Passive/Supplementary method of cooling				
6. ONLY Cold Intravenous Fluids (4°C)	**Inadequate** preparedness (if only No 7 available of all)	**Inadequate** preparedness (if only No 7 available)	**Inadequate** preparedness (if only No 7 available)	**Inadequate** preparedness (if only No 7 available)

Activities by
NPCCHH-State/UT Health Departments

8. State Report on Heat Related Activities, 2024

Introduction

This report reviews health sector activities related to extreme heat under the National Programme on Climate Change and Human Health (NPCCHH). The assessment was conducted based on the NPCCHH PIP guidance and Guidelines on Emergency Cooling of Severe Heat-related illnesses, and it also included an evaluation of states' preparedness for extreme heat.

This report includes:

- Advisories issued to hospitals for health facility preparedness
- IEC posters/advisories and methods of dissemination
- Capacity building in management of HRI and surveillance to get the number of trained personnel in the cadre in state and the number of sessions conducted on heat health
- The number of preparedness review meetings held with the district and the participants
- Sensitization of vulnerable groups and their frequency and,
- If the state has performed any innovative health solution or best practice for preventing HRI.

Methodology

The assessment was done by a form created to facilitate the compilation to capture State/UT activities on heat health conducted from March 1 to June 30. The state was asked to provide quantitative information on IEC activities, training and meetings held related to preparedness.

Results

India has been actively addressing the challenges of heat-related illnesses through state-level initiatives and national action plans. The states have implemented various measures to address heat-related illnesses, especially during extreme heat events. This includes measures such as public awareness campaigns, providing access to shaded areas, ensuring the availability of cold drinking water, and implementing heat action plans to protect vulnerable populations. These efforts are crucial in mitigating the impact of extreme heat on public health and safety.

State-specific Initiatives:

ANDHRA PRADESH

Advisories and Do's and Don'ts were issued and disseminated to hospitals for health facility preparedness by the state to the districts on 6 March 2024.

Two circulars on Assessment of Health Facility & Ambulance Preparedness to manage heat-related illness cases - daily monitoring and follow-up issued to all DSHS, DME, and DMHOs on 24 April and 8 May 2024.

IEC posters and advisories translated and drafted in the local language were disseminated through line departments (IMD and SDMA) via radio and TV slots on the E-TV Andhra Pradesh channel on 27 May 2024.

ఆంధ్రప్రభ

వాతావరణ మార్పు, మానవ ఆరోగ్యంపై సమీక్ష

అధికారులతో మాట్లాడుతున్న కలెక్టర్ దినేష్‌కుమార్

పర్యావరణ పరిరక్షణ అందరి బాధ్యత

పోస్టరు ఆవిష్కరిస్తున్న కలెక్టర్ తదితరులు

Training of all 26 DNOs through 3 sessions on Overview of NPCCHH and Heat-Related Illnesses on IHIP Portal, symptoms, Case Definitions, Surveillance and Drafting of DAPCCHH. Two sessions were held in hybrid mode to train 800 MOs and ambulance medical officers. All community health officers were also trained in HRI management and surveillance.

The district task force on heat health conducted One Meeting in each district under the Chairmanship of District Collectors.

The vulnerable groups were sensitized weekly through Even Fortnight Zoom meetings held by C.S. to the District Collectors and District Collectors Coordination.

The instructions were given to the schools, PR Department, ZP CEO and Team, MHO Commissioners of Municipalities and Police Departments and the Messages and Instructions issued in the DC.

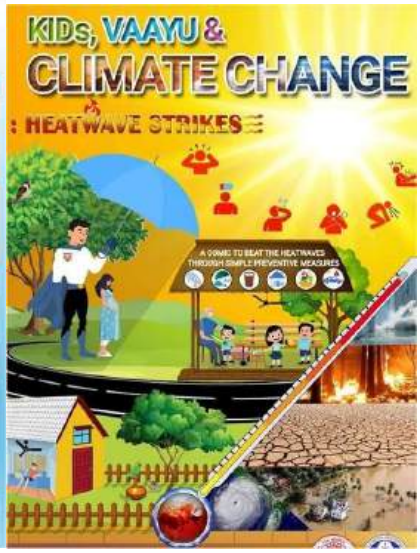
Any innovative health solution or best practice:

- All requisite drugs made available up to the Sub-center level and ORS packets at ASHA / Anganwadi workers / Village level with Panchayat Secretaries.

- Ensured availability of Safe drinking water in all the Health Facilities and also ORS corners in Sub-centers and PHCs.
- Immunization sessions are being conducted early from 7 to 11 AM.
- Special care was provided for the most vulnerable age groups i.e. pregnant women, infants, old age people and children and advised not to expose themselves to Hot Sun.
- In the urban areas and municipalities special vigilance is kept to ensure quality of safe Drinking water in Chalivendrams conducted by NGOs.
- Cycling was initiated in some healthcare facilities to reduce carbon consumption.
- Plantation activities were carried out in all healthcare facilities across the state and in respective nearby local parks/community areas.

ARUNACHAL PRADESH

The advisories with Do's and Don'ts were distributed to the districts, and official communication occurred once every three months in all districts. IEC posters and advisories were disseminated monthly in newspapers and social media through WhatsApp, Twitter, and Facebook.



The state-level training has trained 26 DNOs, 75 MOs, 30 master trainers, 104 out of 1102 nurses, and 75 out of 913 community health officers.

A state task force on heat health convened, and the Principal Secretary rejected the Heat Stroke room but agreed to formulate a Cool Roof policy by September 2024.

The district task force on heat health conducted 26 sessions to decide the Formulation of the District Heat action plan.

During World Environment Month, all the vulnerable groups, including school children, were sensitized once in three months. The state has also participated in TV Talk shows on Climate Change and Human Health and plans to target schools and colleges as priority in the next year for IECs on Climate Change and Human Health.

ASSAM

A letter was issued by the state advisories for Heat Stroke Rooms/Dedicated Beds for preparedness during the heat wave season.

IEC Posters/advisories were translated and drafted in the local language to disseminate through radio/TV slots and social media like Facebook and (NHM, Assam). 36 hoardings in 33 districts, 1000 standees in workplaces/community places, and 6050 posters for schools have been installed.

All medical colleges and district hospitals have been instructed to take necessary action to strengthen the facility on suspected heat-related cases (heat stroke room) and dedicate at least two beds in each hospital.

Capacity building of 80 DNOs, 1200 MOs, 66 master trainers, and 800 ambulance medical officers was done on HRI management and surveillance.

The state conducted 3 Review meetings in April, May, and June 2024 and Discussed the importance of ARI and HRI reporting and actions to be initiated for heat situations (deviation of Normal Temperature to > 4.5 C or max Temperature cross 40° C).

Districts have conducted sensitization of schools/Anganwadi/teachers and children by conducting sessions on World Environment Day, World Health Day, and Earth Hour 2024. A partial Heat Health Action Preparedness plan is completed.

States surveillance Report:

- Percentage of HCF who participated in HRI reporting: 25.5%
- Avg. % of HRI reporting from Apr to June: 14.5%

- Challenge: Network and manpower issues (no guideline circulated regarding the responsibility of HRI reporting at the HCF level).
- Dedicated beds for HRI cases in HCF (PHC and above).
- In Tertiary Care HCF, including AIIMS Guwahati, the establishment of a Heat Stroke Room is in progres

Any innovative health solution:

1. Regular monitoring of IMD Temp data at state environment health cell, NHM Assam and an alert generated to districts for necessary action as per guideline if deviation of Normal Temperature to > 4.5° C or max Temperature crosses 40° C.

2. Tracking each HRI case through WhatsApp group (NPCCHH Assam) and coordination with specialist doctors at different medical colleges.

BIHAR

Officials issued hospital advisories for health facility preparedness in the district MCH on June 3, 2024. Information, Education, and Communication (IEC) posters were distributed through six different types of HRI IEC and displayed at all districts and MCH. HRI IEC was broadcast frequently on local FM channels from April to June. Additionally, HRI IEC was frequently published in leading newspapers during the same period. Regular IEC activities were also conducted through social media (Facebook) at the state and district levels. All personnel in the state cadre were trained as nodal officers, including over 200 medical officers and 45 specialists in HRI surveillance and certification of heat-related deaths.

Meetings were held to conduct a joint review with SDMA to plan for support in inter-departmental coordination at the district level and to plan for the capacity building of Medical Officers and FHW. Preparedness review meetings were conducted at the district

level, and timely video call reviews were held from April to June under the chairmanship of ACS and Executive Director, SHS.

Sensitization of vulnerable groups such as schools, Anganwadi centers, teachers, children, outdoor workers, municipal workers, vendors, delivery boys, police, traffic police, and fire departments was conducted for 3-4 months. The districts organized special awareness activities for these target groups on World Environment Day (5th Jun 24). IECs were also adapted to special events:

The state has also improved its reporting of HRI in IHIP from 5% in 2023 to 90% in 2024. They have also jointly collaborated with the Disaster Department on the development of the HRI Dashboard.

Any innovative health solution or best practice:

1. Early Preparedness through Heat Wave Shock Room Creation in each District Hospital.

2. IMD Alerts are shared with all districts regularly (Audio Alerts)

CHHATTISGARH

Various steps were taken, including the issuance of official communications and advisories to the districts, dissemination of Information, Education, and Communication (IEC) posters/advisories through newspapers and social media, and the training of all district Nodal officers in Human Rights and Inclusion (HRI) management and surveillance. Additionally, 2000 Panchayati Raj Institution (PRI) members were sensitized through training on Climate Change and its impact on human health, which is conducted once a year.

Exhibition in Chhattisgarh Climate Change Conclave organized by State Center for Climate Change and Forest and Climate Change Department, Government of Chhattisgarh

The state organised the training of TOT's for Districts at State level on Climate Sensitive Diseases - Heat and Respiratory Illnesses in March.

कार्यालय मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी,
जिला– उत्तर बस्तर कांकेर (छ.ग.)

क्रमांक / आई.डी.एस.पी / 2024 / कांकेर, दिनांक / /2024

जिले में ग्रीष्म ऋतु में तापमान में वृद्धि होने के कारण लू (Heat Stroke) की संभावना अधिक होती है. लू से बचाव व उसके प्रबंधन संबंधी निम्न गतिविधियां की गयी है –

- कलेक्टर महोदय की अध्यक्षता में में गौरमयी बीमारियों से बचाव, रोकथाम एवं नियंत्रण के लिये अंतिविभागीय समन्वय बैठक आयोजित कर लू के लक्षण व बचाव हेतु जनहितार्थ निर्देश दिये गये है।
- समाचार पत्रों के माध्यम से लू के लक्षण व बचाव संबंधी एडवायजरी जारी की गयी है।
- बाह्य रोगी विभाग में आने वाले सभी मरीजों में लू के लक्षण की जांच अनिवार्य रूप से की जा रही है।
- स्वास्थ्य संस्थाओं में 02 बिस्तर लू के मरीजों के लिए आरक्षित किया गया है।
- वार्ड में शीतलता हेतु कूलर की व्यवस्था की गयी है।
- बाह्य रोगी कक्ष में बैठने के उचित प्रबंधन के साथ ठंडे पेयजल की व्यवस्था की गयी है।
- समस्त स्वास्थ्य संस्थाओं में ओ.आर.एस. कार्नर बनाये गये है।
- समस्त स्वास्थ्य संस्थाओं में पर्याप्त मात्रा इन्ट्रा वेनस फ्लूड, ओ.आर.एस. पैकेट, बुखार के दवाईयों की उपलब्धता सुनिश्चित किया गया है।
- अत्यधिक गर्मी से पीड़ित बच्चों, वृद्धों, गर्भवती महिलाओं एवं गंभीर रूप से बीमार व्यक्तियों के ईलाज हेतु अस्पताल में पर्याप्त व्यवस्था किया गया है।

GUJARAT

The advisories, with Do's and Don'ts, were disseminated to the district through official communication and radio/TV slots on social media. There were also several hoardings and precaution of heat waves in public places.

In the capacity building program for HRI management and surveillance, all 33 nodal officers and 18 master trainers were trained in six and two sessions, respectively. The training of 2400 medical officers was conducted in 41 sessions. Additionally, 100% of nurses and community health workers, including ASHA, MPHW, ANM, and AWW, received training in the management of HRI.

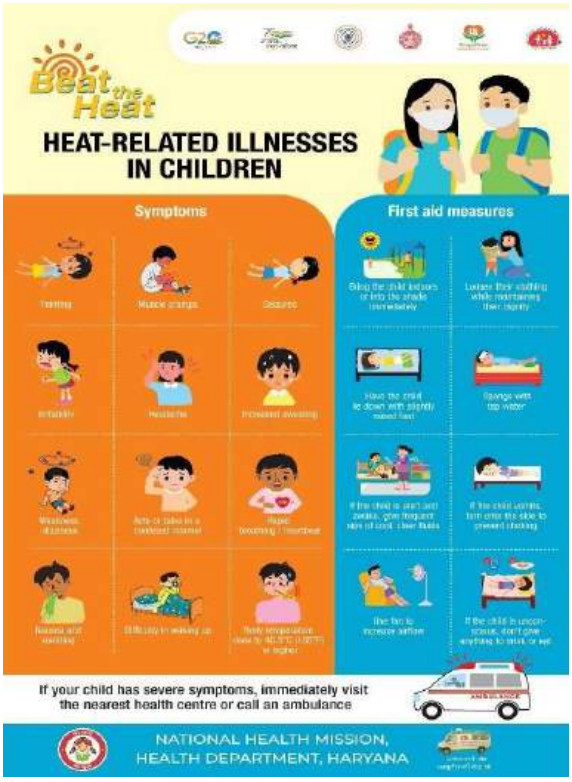
The following activities took place:

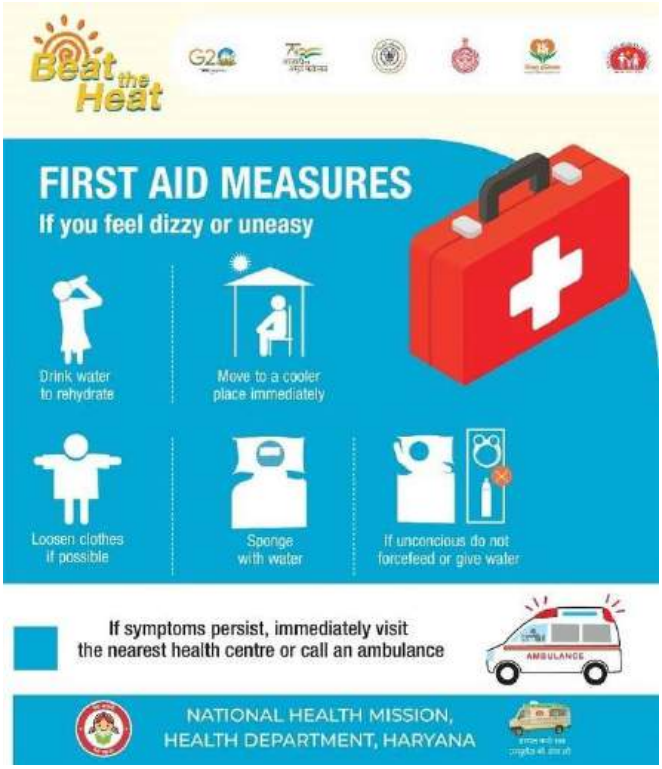
- A meeting to discuss program activities, HRI reporting, and surveillance with the state task force on heat health.
- There were 5 joint review meetings with SDMA for forecasting, preparedness, and coordination with other departments.
- 19 district review meetings were conducted for evaluation and monitoring in preparation for potential events.
- Weekly sensitization of PRI and school/Anganwadi teachers on heat advisories: Do's and Don'ts during the heat wave season.
- Monthly sensitization of outdoor workers and municipal workers.

Precautionary work and preparedness against heat wave in Election – 2024.

HARYANA

Advisory was issued to hospitals for health facility preparedness and Directions through email/Video Conference by W/ACS (Health). IEC posters were disseminated through official communication with the districts, newspapers, and social media.





All 22 DNOs were trained in the management and surveillance of HRI. A total of 22 sessions were held in the training of 1000/1887 MOs and All 23 master trainers including state and district were trained with 614 community health officers in monthly review meetings.

District task force on heat health held one meeting in each 22 districts for preparation and awareness. The state conducted 4 meetings for Joint review with SDMA and Preparedness Review meetings with districts.

The sensitization of the vulnerable groups (School/Anganwadi/teachers/children/Police/traffic police/Fire department) was done twice.

JHARKHAND

Advisory was issued to hospitals for health facility preparedness: yes (if possible, provide date/a copy of the order)- NPCCHH/27/2021-181(MD), DATED-01/03/2024.

- Communicated to all civil surgeons on the wide publicity of do's and don'ts on the advisory on the prevention of heat waves released by NDMA (National Disaster Management Authority) vide letter no. 239(MD), dated 05.04.2024.
- Communication was sent to the Director, IPRD, for a paper advertisement on the advisory of prevention of heat waves from 5 April to 31 July 2024 at weekly intervals, and the same was displayed on LED screens located in the districts through DPRO vide letter no. 240(MD), dated 05.04.2024.
- Communication was made to all civil surgeons for a fire safety audit in the healthcare facilities to avoid fire vide letter no. 285(MD), dt 25.04.2024
- Concerning the letter from the Secretary of Health, GOI, received on 15th April, A direction was sent to all Districts regarding the readiness of 108 Ambulance with ORS, Cold water Ice Packs, etc. to transport severe patients to the nearest equipped healthcare facilities to minimize the morbidity and mortality due to extreme heat in the summer season vide letter no. 286(MD), dt 25.04.2024.
- In context to the ongoing Parliamentary election, a direction was sent to the districts to keep Do's and Don'ts slip-on prevention of heat wave along with first aid medical kit during election duty vide letter no 265(MD), dt 19/04/2024.

2 days State level Training of District Action Plan on Climate Change and Human Health (DAPCCHH) under NPCCHH conducted on 8 and 9 July 2024 at IPH Conference Hall, Namkum, Ranchi, Jharkhand.

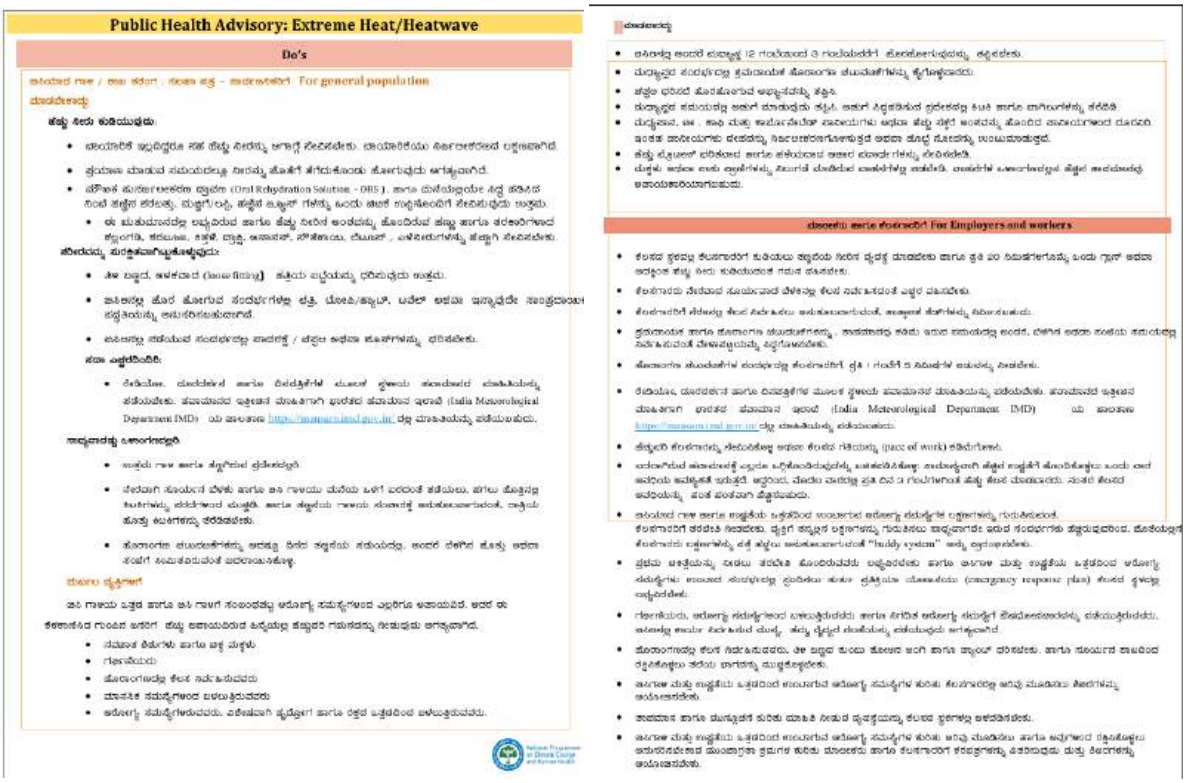
IEC posters and advisories were disseminated through paper weekly, and hoarding and flex banners were placed in all health facilities. Heat Action Day is celebrated on 2 June 2024 across the State. In Radio/TV slots through FM 92.7, Jingles of 7.4 minutes on prevention of heat wave were played. Newspaper At weekly intervals by IPRD, on LED Screen in districts and social media on Facebook, NHM, Twitter, NHM district and block WhatsApp.

In Capacity building in HRI management and surveillance, 24 DNOs were trained. 488/1736 medical officers and all community health workers were trained on HRI surveillance and preparedness. HRI surveillance has strengthened over the year, with the number of facilities reporting increasing from 111 to 359/771 facilities. There were several field visits and orientations carried out on heat waves and their health implications:

Heat stroke rooms in Tata Motors Hospital.

KARNATAKA

An advisory was issued by the Director of Health & F W Services to the general public on 2nd March 2024 regarding Do's & Don'ts during the extreme heat situation.



Heat-related illness (HRI) reporting started from 1st March 2024 on the Integrated Health Information Portal (IHIP) from all the Health Care Facilities (HCFs) daily to capture data on suspected heat stroke cases & deaths. HRI reporting is being monitored at the District & State levels to ensure timely data entry for taking necessary steps.

Heat Stroke Management Rooms were set up (5 beds at District hospitals & 2 beds at Sub-district level) with necessary facilities to manage the cases due to related Illness. This set-up was also utilized for management of cases Heat rashes, Heat cramps & Heat Exhaustion. Circular in this regard was issued by MD – NHM, dated: 16th March 2024.

An orientation session (virtual mode) was conducted on 13th March 2024 to District Nodal Officers – CCHH regarding the implementation of activities as per the circulars & guidelines issued by this office.

Necessary training sessions were conducted by DNOs to AMOs, MO – PHCs, who in turn train their staff, including ASHA.

As soaring temperatures may result in fire accidents, a Circular (Dated 23rd March 2024) was issued regarding steps to be taken for the prevention of fire accidents in Hospitals.

One case of confirmed Heat Stroke (85 Years / Male) was reported on 4th April 2024 from the Mysore district (PHC Hosur Gate, Hunsur Tq). The patient was referred to GH Hunsur after initial management at PHC & discharged after recovery on 5th April 2024.






Heat stroke management rooms have been established in Vijayanagara, Uttara Kannada, Mulki, Belthangady, Bantwal, Mysuru, Sringeri, Gundlupet, Chamarajanagar, Hangal, Haveri, Bagalkot, Hassan

Two deceased cases, one each at Kalaburagi & Bagalkot, were suspected of death due to Heat Stroke. The same has been verified by the district authorities and confirmed that death is due to Cardiac Tamponade & Myocardial infarction, respectively. Hence, there are no Heatstroke deaths reported in the State. 'Autopsy Findings in Heat-Related Deaths' issued by GoI is circulated to all the districts for utilization as reference material.

IEC material, both in English & Kannada, is shared with all the districts to disseminate the same through available platforms for the information of the General Public.

A review meeting with the U/c of the Principal Secretary to the government Dept. of Health & Family Welfare was convened to DNOs on 3.4.2024 to review the status of the steps taken wrt Heat-Related Illnesses in the districts.

Media briefing by the Commissioner of Health was conducted on 5th April 2024 regarding steps taken to mitigate any health event due to extreme heat situation in the State.

A review meeting by DGHS – GoI was convened on 5.4.2024 to take stock of the situation. Necessary instructions are given to State's to ensure regular reporting of HRI on IHIP, preparedness to manage HRI cases at Health care facilities, to be vigilant in view of election rallies & campaigns.

Circular was issued by Commissioner – Health on the points emphasized during the meeting conducted U/c of Member (Health), NITI Aayog on 8th April 2024, including additional steps

for preparedness to tackle Extreme Heat Situation in the State, with special focus to General Elections – 2024.

Communication regarding ambulance preparedness for HRI surveillance is shared with the districts.

Systems at appropriate levels are kept vigilant to manage the HRI cases due to the prevailing extreme heat situation, if any, in the coming days.

KERELA

Official communications to districts through radio/TV slots, newspapers, and social media were performed.

Twice a month, from March to May, there were 8 TV slots and 10 radio slots dedicated to public health in the state. The sessions were conducted by various health officials, including the Additional Director of Public Health, SNO NPCCHH, Consultant NPCCHH, Assistant Director of Public Health, State Resource persons, etc. The updates on the current status and preventive measures were regularly communicated through newspapers and targeted campaigns on social media platforms like WhatsApp, Facebook, and YouTube. Additionally, weekly new messages and digital posters, comprising over 50 specific messages, were developed to raise awareness about the indirect impacts of heat.
In the process of building state capacity, all 14 district nodal officers received training from 100% specialists on HRI surveillance and certification for heat-related deaths. Sensitization was provided to almost all ASHAs, MPHWs, and ANMs through both online and offline modes.

Some pictures of the meetings held in the state for awareness:

Kerala Health dept. issues advisory to prevent heatstroke, dehydration

People told to avoid going out in the sun between 11 a.m. and 3 p.m. and increase fluid intake

Kerala issues heat-related health advisory

The Health department has issued a health advisory urging people to avoid direct sunlight between 11 a.m. and 3 p.m. and stay hydrated at all times

As the State has stepped into the second half of February, mercury is showing signs of beginning its summer climb. The India Meteorological Department (IMD) here on Saturday forecast that maximum temperatures are very likely to be around 37°C in Kannur, Kottayam, and Kozhikode districts, and 36°C in Alappuzha on Sunday, around 3 to 4°C above the normal temperature during the season.

source: SNO office.

MADHYA PRADESH

Following instruction from Mission Director (MD) -NHM-Bhopal to all C.M. & H.O. & DNO of Madhya Pradesh are given for prevention and management of Heatwave –

- District task force (DTF) meeting under the chairmanship of the District Magistrate for preparation of Heat-related Illness (HRI) and Health action plan for heat to all the districts.
- Share health advisory related to Heat-Related Illness (HRI) with the tourist department of your district.
- Complete the training of medical officers & Health workers (GNMs, ANMs, MPW) for the prevention & management of HRI.
- Sensitize ASHA, and AWWs for dissemination of IEC materials for HRI
- Coordination with the education department to sensitize the school teachers & students to Heat-related illness.

- Sitting arrangement & drinking water, discharge the patient before 9 AM and in the evening after 4 PM, counselling corners for patients, ORS Corners at Health facilities to prevent morbidity and mortality due to HRI.
- ORS corners and first aid kit related to HRI management at overcrowded places like Bus stands, Railway stations etc.
- HRI ward, dedicated beds (2 beds dedicated for HRI), emergency medicine/kit, equipment for prevention and Management of HRI.

IEC Posters/advisories were disseminated through radio/TV slots, newspapers, and social media.


जल संरक्षण व बिजली के सदुपयोग से जलवायु के परिवर्तन के खतरे को किया जा सकता है कम


जलवायु परिवर्तन एवं मानव स्वास्थ्य विषय पर डिस्ट्रिक्ट टास्क फोर्स की बैठक एवं मल्टी-डिपार्टमेंटल मल्टी-सेक्टोरियल प्रशिक्षण आयोजित

टीकमगढ़ जिले में सुरक्षा गार्ड भर्ती कैम्प 6 से 12 मार्च तक
विकासखण्ड पलेरा में विकासखण्ड स्तरीय रोजगार मेला 6 मार्च को


जलवायु परिवर्तन के मद्देनजर स्वास्थ्य सेवाओं के प्रबंधन पर हुई कार्यशाला


झाबुआ 29-02-2024
जिले के 10 स्वास्थ्य केंद्रों के चिकित्सा अधिकारियों को जलवायु परिवर्तन व जल प्रबंधन की जानकारी दी

Health facilities preparedness, including drug and logistics availability, dedicated beds, seating arrangements, drinking water, and emergency ambulance transport, is actively being reviewed by District nodal officers under the guidance of C.M. & H.O.

In addition to the usual activities, steps to preserve water sources such as cleaning ponds and rivers, as well as caring for birds and animals, are also being communicated through print media. The state office is sharing IMD alerts and other necessary IEC instructions regularly. Guidelines to celebrate World Environment Day are also being shared with district nodal officers.

Any innovative health solution or best practice:

The Madhya Pradesh government has taken several steps to raise awareness among the public about the extremely hot weather conditions being experienced currently.

In collaboration with the Railway Department, the government of Madhya Pradesh has initiated a campaign at the Rani Kamla Pati/Habib Ganj Railway station in Bhopal. This station is one of the busiest railway stations in Madhya Pradesh, with a daily passenger count of more than 13,000. The campaign aims to raise awareness among the public and reduce the incidence of heat-related illnesses (HRI) to lower morbidity and mortality rates.

Orientation of Multidepartment and their role & district-level orientation on Heat-Related Illnesses & Death Surveillance on the IHIP portal under the National Programme on Climate Change and Human Health (NPCCHH) are being conducted in various districts of Madhya Pradesh.

MAHARASHTRA

The state issued an Advisory to the hospitals for health facility preparedness and during the official communication regarding Health facility and ambulance preparedness to prevent and manage heat-related illness (HRI). The state issued 5 letters and advisories to districts.

Heat Wave Advisory for General Population

Stay Hydrated: Drink plenty of water throughout the day, even if you don't feel thirsty. Avoid beverages that contain caffeine or alcohol, as they can lead to dehydration. Take juicy fruits & avoid high intake of proteins.

Stay Cool: Stay in homes or shaded places during the hottest parts of the day (typically late morning to early evening) mostly 11 am to 4 pm.

Dress Appropriately: Wear lightweight, loose-fitting clothing made of breathable fabrics like cotton. Avoid dark colours, as they absorb more heat.

Limit Outdoor Activity: Try to minimize outdoor activities, especially during the hottest parts of the day (typically late morning to early evening). If you must be outside, take frequent breaks in the shade or indoors. For farmers, avoid working in farms during afternoon time. Do outdoor activities starting from early morning.

Protect Yourself from the Sun: Wear a wide-brimmed hat and sunglasses to protect your face and eyes from the sun.

Check on Vulnerable Individuals: Keep an eye on children, elderly family members, as they are more susceptible to heat-related illnesses. Make sure they're staying hydrated and cool.

Know the Signs of Heat-Related Illness: Familiarize yourself with the symptoms of heat exhaustion and heatstroke, such as heavy sweating, weakness, dizziness, nausea, and confusion. Seek medical attention immediately if you or someone else experiences these symptoms.

Use Fans and Cool Compresses: If you don't have air conditioning, use fans to circulate air and cool down your living space. You can also apply cool compresses to your body or take cool showers to lower your body temperature.

Stay Informed: Pay attention to local weather forecasts and heat advisories issued by authorities. Follow their recommendations and stay updated on any changes in the weather conditions.

Avoid social gatherings during hottest part of the day: Avoid social gatherings during hottest part of the day., try to arranged programs early in the morning or late evening. If programs are arranged during afternoon time pay attention on providing shades and proper hydration of the people.

Heat Wave Advisory for Medical staff & District health Authorities

Prepare Medical Facilities: Ensure that medical facilities are adequately equipped to handle an influx of patients with heat-related illnesses. This includes having sufficient supplies of IV fluids, electrolyte solutions, and medications to treat dehydration, heat exhaustion, and heatstroke.

Train Staff: Provide training to medical staff on recognizing and treating heat-related illnesses. Make sure they understand the signs and symptoms of conditions like heat exhaustion and heatstroke, as well as appropriate treatment protocols.

Monitor High-Risk Populations: Keep a close eye on high-risk populations, such as the elderly, young children, individuals with chronic medical conditions, and outdoor workers. These groups are more susceptible to heat-related health issues and may require additional monitoring and support.

Educate the Public: Offer guidance to the public on how to stay safe during the heat wave, including tips for staying hydrated, avoiding prolonged exposure to the sun, and recognizing the signs of heat-related illness. Consider disseminating this information through public service announcements, social media, and community outreach programs.

Coordinate with Emergency Services and other departments: Maintain open communication with emergency services and other healthcare providers to ensure a coordinated response to heat-related emergencies. Be prepared to collaborate with these agencies to provide timely and effective care to patients in need. Coordinate with departments to change in school timet to avoid hottest part of the day. To keep public gardens open to rest homeless people and bankers.

Provide Cooling Centers: Consider setting up cooling centers in areas where vulnerable populations may gather, such as senior centers, community centers, homeless shelters and public gardens. These facilities can provide a safe refuge from the heat and access to cold water.

Stay Informed: Stay updated on weather forecasts and heat advisories issued by local authorities. Monitor the situation closely and be prepared to adjust your response accordingly based on changing conditions.

Document Cases: Keep thorough records of 1) heat stroke cases 2) suspected heat stroke deaths and 3) confirmed heat stroke deaths through IHIP - NPCCHH portal using link given to all P-Heats users. 'https://ihip.mohfw.gov.in/public'. this information must be correct as data is present to National Level and information can help for future preparedness and response effort.

A Google sheet for hospital preparedness was shared with the districts. IEC posters were published in the local newspaper and all social media (WhatsApp groups).

The state trained all 70 DNOs, 200 MOs, and 35 master trainers in HRI management and surveillance.

Meetings were held with the governing body to review districts by MD, director-DH, and 1, MH.

4 meetings were held to review preparedness with the districts.

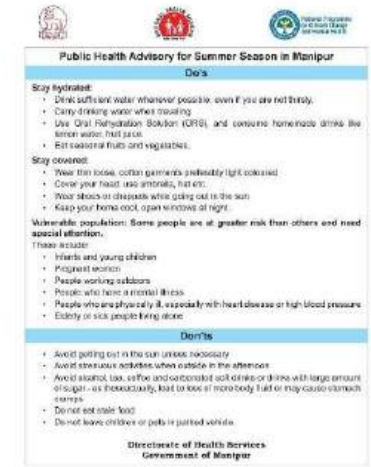
Heat wave preparedness actions carried out at the state level:

- On 22nd February 2024, training for the Heat Stroke Survey was conducted for District Nodal Officers
- On 27th February 2024, heat stroke preparedness and heatwave advisory were discussed at the district level
- On 28th February 2024, training for heat stroke survey was conducted for District Surveillance Officers, District Epidemiologists, Data Managers, Resident Medical Officers, and Nodal Officers at the Municipal Corporation level
- Review of Institutional level preparedness and data collection

MANIPUR

The state issued advisories and official communication was done with the districts on 20 March, 2024.

The information and education campaign (IEC) was delivered in the local language through radio discussions on May 12th and May 28th, 2024. There was a TV slot from May 23rd to June 6th, 2024, which focused on heat advisory. The State Natural Resources Office (SNO) participated in a panel discussion on extreme weather on May 25th, 2024. Currently, there is an ongoing process to advertise in two local newspapers, providing information on the do's and don'ts for the summer season.



Public Health Advisory for Summer Season in Manipur

Do's

Stay Hydrated:

- Drink sufficient water whenever possible, even if you are not thirsty.
- Carry drinking water when traveling.
- Use Oral Rehydration Solution (ORS), and consume home-made drinks like lemon water, fruit juice.
- Eat seasonal fruits and vegetables.

Stay covered:

- Wear thin loose, cotton garments preferably light coloured.
- Cover your head: use umbrella, hat etc.
- Wear shoes or chappals while going out in the sun.
- Keep your home cool, open windows at night.

Vulnerable population: Some people are at greater risk than others and need special attention.

These include:

- Infants and young children
- Pregnant women
- People working outdoors
- People who have a mental illness
- People who are physically ill, especially with heart disease or high blood pressure
- Elderly or sick people living alone

Don'ts

- Avoid getting out in the sun unless necessary.
- Avoid strenuous activities when outside in the afternoon.
- Avoid alcohol, tea, coffee and carbonated soft drinks or drinks with large amount of sugar - as these actually lead to loss of more body fluid or may cause stomach cramps.
- Do not eat stale food.
- Do not leave children or pets in parked vehicle.

Directorate of Health Services
Government of Manipur

HRI interview on radio in Churachadpur district

One day Awareness on HRI in Pherzawl District

Orientation Programme on HRI reporting using IHIP portal at NHM Conference Hall, CMO Complex Thoubal and Churachandpur.

Through social media- A Press meeting on 22/2/2024 & sharing the heat advisory in WhatsApp groups/ Facebook etc. during April-June, 2024.

Ambulance preparedness for HRI, Kamjong district

During the capacity building in HRI management, 100% of district nodal officers and 246 out of 1100 medical officers were trained. 21 master trainers, including 5 in virtual mode and 16 in person, were attended by 3 state trainers along with 2 state and 16 district nodal officers.

During the meetings with the governing body, the Chief Secretary directed the focus to be on raising awareness about heat-related issues in schools and on assisting displaced persons in relief camps. Review meetings with the district officials stressed the importance of setting up heat response centres and ensuring that ambulances are prepared, as well as educating the public about preventive measures.

Sensitization sessions were conducted once in each district for vulnerable groups, including municipal workers, traffic police, and women vendors from 3 markets. Additionally, 10 schools and 4 relief camps were established.


Awareness of heat at the Relief camp, Manipur College concerning World Environment Day, 5th June 2024

Any innovative health solution or best practice:

Awareness campaign on HRI, Preventive and management measures among the street vendors and vendors of 3 women Markets in the Imphal district and religious centres and also in relief camps and on VHNS Days will be a source of motivation to the family and community as a whole in preventing HRI. Tree plantation drives by the Hon'ble Health Minister and Dignitaries from the Health Department also will be a source of motivation to the public to plant more trees and help in reducing global warming.


State Level Sensitization of DPHN, PHNS & MPW on NPCCHH on 3rd July 2024



Awareness to the women vendors of IMA Market regarding Do's and Don'ts related to Heat by DPHNs under NPCCHH, Manipur along with dissemination of leaflets on heat advisory and ORS sachets.

Awareness campaign by DPHN & PHNS on Do’s & Don’ts for Summer Season

SNO-NPCCHH addressing the inmates of Relief Camp, Manipur College on World Environment Day, 2024

MEGHALAYA

The state issued an Advisory to the hospitals for health facility preparedness. During the official communication a Letter was issued to CMOs regarding Health facility and ambulance preparedness to prevent and manage heat-related illness (HRI).

IEC Posters and advisories were translated into the local language and published in local newspaper in Bengali language Khasi and Garo on May 1, 2024.

The Mission Director has formed and approved the reconstitution of the Governing Body during meetings with a heat-health focus. The letter has been sent to the Government of Meghalaya, and we are now awaiting approval.

MIZORAM

The state issued an Advisory to the hospitals for health facility preparedness on heat-related illness and its management and surveillance.

Details of the official communication provided by the state:

1. Office Order No D.12016/1/2019-NHM/CLIMATE CHANGE and Dated Aizawl the 9 April 2024 to the Senior CMOs/ Medical Superintendent of all districts regarding Health Sector Preparedness and Heat Advisory 2024.
2. Office Order No D.12016/1/2019-NHM/CLIMATE CHANGE Dated 29 April 2024 to Senior CMOs/ Medical Superintendent of all districts regarding Assessment of Health Facility & Ambulance Preparedness to Prevent and manage Heat-Related Illnesses.
3. Office Order No D.12016/1/2019-NHM/CLIMATE CHANGE Dated 30 April regarding Online Training of Medical Officers, Staff Nurses, District Program Manager and District Data Manager.
4. Office order No D.12016/1/2019-NHM/CLIMATE CHANGE Dated 3 May 2024 regarding Online Training of Health Supervisor, Health and Wellness Officer, and Health Worker.
5. Office Order No D.12016/1/2019-NHM/CLIMATE CHANGE Dated 17 May 2024 to all Senior Medical Officers/ Medical Superintendent regarding Urgent measures to prevent Hospital Fires during the Summer months and Prevention and Mitigation of fire incidents during the Summer Season in Health Facilities.

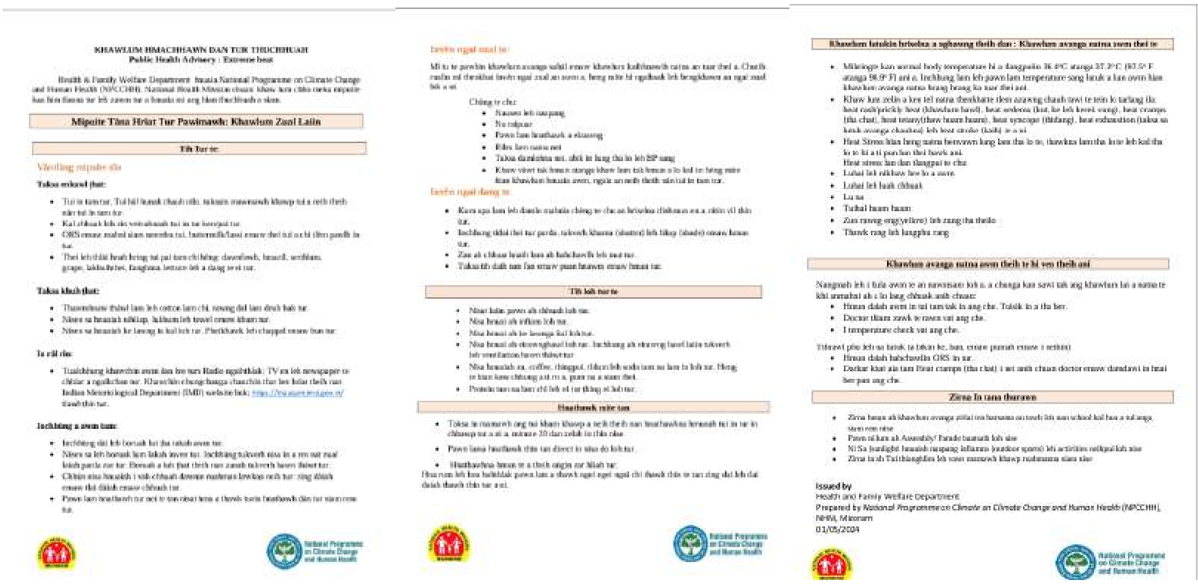
6. Office Order No D.12016/1/2019-NHM/CLIMATE CHANGE and Dated Aizawl the 11 May 2023 regarding dissemination of IEC Poster on Heat in the local language to all districts.
7. Office Order No. G.27033/6/2024-DHS/NRCP and Dated Aizawl the 11 June 2024 regarding Training of Medical Officers on Climate Change and Human Health (Heat Related Illnesses etc.)
8. Translation of Extreme Heat/Heatwave Advisories in the local language.
9. Office Order No.D.12016/1/2019-NHM/CLIMATE CHANGE-General Dated Aizawl the 4 June 2024 regarding Observance OF World Environment Day and campaign activities during June with a focus on Heat and Health during weeks 1-2.
10. Office Order No.D.12016/1/2019/NHM/CLIMATE CHANGE -GENERAL Dated Aizawl the 31 May 2024 regarding Observance of Heat Action Day on June 2, 2024, and the week between June 1 and 8, 2024.
11. Office Order No.D.12016/1/2019-NHM CLIMATE CHANGE-GENERAL Dated Aizawl, the 5 July 2024 regarding Checklist for Categorization of heatstroke/heat-related deaths in clinical settings.

An Official Letter was sent out to all district Senior Chief Medical Officers and Medical Superintendent on Heat-Related Preparedness and Heat Advisory on 9 April 2024.

Radio communication by SNO and Consultant speech on Heat and Health broadcasted on AIR, Aizawl on 30 TH April 2024. The Do's and Don'ts on Heat and Health was telecasted on the local news channel, LPS Vision Production by SNO and Consultant on 1 May 2024. A Live interview on Climate Change and Health (Heat and Health, Do's and Don'ts etc.) telecast at Doordarshan Kendra, Aizawl on 10 June, 2024.

Live telecast on 10th June 2024 at Doordarshan, Aizawl by SNO & Consultant, NPCCHH, Mizoram on Climate Change and Human Health (Hear related etc.)

IEC (Poster on Heat) translated into local language (Mizo) and disseminated to all districts (Sub Centre and above) and Public Health Advisory into local language published in NHM official website and other social media like Facebook , Whatsapp etc:



KHAWLUM HMACHHAWN DAN TUR THUCHHUAH
Public Health Advisory : Extreme heat

Mipuite Tina Hriat Tur Pawimawh: Khawlum Zual Laiin

Khawlum avanga natna awm theih te hi ven theih ani

Zirna In tana thurawn

Issued by
Health and Family Welfare Department

7 DNO from Aizawl West, Champhai, Kolasib, Lawngtlai, Lunglei, Kolasib and Serchhip districts have attended National Level Training during Jan-March, 2024.

Approximately 108 medical officers, 125 Nurses and approx. 302 community health workers were trained during Capacity building in HRI management and surveillance.

Review meetings with the governing body are in process.

The schools, Residential associations, and Patients/women/pregnant women at health facilities were sensitized on heatwave alerts and awareness.


Observance of Heat Action Day by Senior Chief Medical Office, Champhai District, Mizoram


Sensitization of Traffic Police Personnel on Climate Change and Human Health (HRI & ARI) under NPCCHH, Mizoram, on 31st July, 2024

Any innovative health solution or best practice:

Solar power systems were installed in more than 331 healthcare facilities in Mizoram under the Health & Family Welfare Department, Mizoram, in collaboration with SELCO Foundation.

These facilities spread across all the districts in Mizoram include Sub Centres (SCs), Health & Wellness Centres (HWCs), and Primary Health Centres (PHCs), serving as the first point of care for communities in the state's remote and hilly regions.

The use of solar technology not only provides uninterrupted power for medical services but also contributes to Mizoram, energy independence, and climate change mitigation. The program has added over 690 KWp of solar energy capacity, reducing CO2 emissions by 9,100 tons over 20 years and supporting India's Net Zero goals. It also enhances the resilience of these health facilities to climate risks like landslides and heavy rains that could otherwise disrupt electricity and healthcare services.

NAGALAND

The state issued an official communication discussing Heatwave preparedness with the districts. The communication covered topics such as Heat Advisory on Beating the Heat, Do's & Don'ts, HRI Surveillance & Reporting, Health Facility & Ambulance Preparedness, Establishing ORS Corners, and identification and designation of Heat Stroke Rooms. This information was shared through official communication, AIR radio, and disseminated via local daily newspapers, Twitter, Instagram, Facebook, and local channels.

All the 12 district nodal officers were trained in HRI management and surveillance along with medical officers, master trainers, nurses and all community health workers.

Review meetings were held with the district task force on heat health with the agenda of Health Facility Preparedness on Heat. DSOs sensitized the SMOs, MOs, DPOs, and DPMs on HRI Reporting, setting up of Heat Stroke Rooms and setting up of ORS Corners.

A Preparedness Review meeting was conducted with all 12 District DNOs sensitized to the Health Facility Heat Preparedness, and health units should identify a room/designated space as a Heat Stroke Room.

Heat-related management and intervention are to be initiated in all health units, and ambulances must be equipped with cooling measures.

Sensitization of the vulnerable groups (Schools/Anganwadi/teachers/children) on Health talks and awareness programs and observance of significant Health Days on topics such as water & energy conservation measures and the impact of climate change on water quality and quantity. Beating the heat, safe drinking water, reducing plastic waste, and plantation drives.

Sensitization of the schools through awareness camps.

ODISHA

The state has been regularly sending out heat alerts, heat related IECs, has a heat preparedness plan as well as a hospital preparedness plan. The state has also been reporting on the IHIP portal. IECs have been going around in the local language and training for health professionals and workers in the state on HRI has been completed.

The state has also kept up with the training of the health officers – especially when it comes to heat and heat related illnesses.

Training of Medical Officers on Heat related illness management in SIHFW, Odisha on 03.04.2024

PUNJAB

Official communication from the Chief Secretary of the Government of Punjab stated that a meeting was convened with all administrative secretaries to discuss heat wave preparedness on April 29, 2024. All 23 districts have regularly issued heat advisories in local newspapers to warn the public about the heatwave alert. Additionally, every 10 days in May and June 2024, the Department of Health and Family Welfare, Punjab, will post updates on social media regarding heatwave conditions. The state has also improved its capacity by providing training to all 23 nodal officers and medical officers.

In each district, 10 specialists were trained. All nurses and 100% of ambulance medical officers and community health workers received emergency duty training. The state held 2-3 meetings with the district task force on heat health, conducted a joint review with SDMA, and held preparedness review meetings with districts. They also received compliments for their overall preparedness.

Any innovative health solution or best practice:

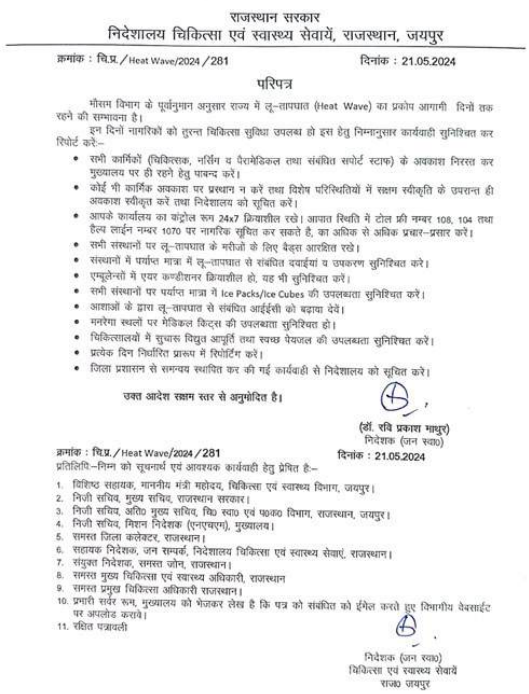
- District Nodal officer, Patiala – Dr. Sumeet Singh has repeatedly given interviews regarding sensitizing the public about heat wave preparedness and precautions. Those interviews were shared on YouTube and were widely viewed. Moving to newer mediums of communication like YouTube, especially in the era when the internet is so affordable and easily accessible to every section of society, is a much better mode of sensitization and awareness. Online sources have shown better outreach capacity, especially when harsh heat gathers people to create awareness among the general public.

- Worthy MD-NHM, Punjab, also directed posting regular heat wave alert messages on government sites to make people aware.

- Civil surgeons also regularly use local print media to alert people regarding heat wave dos and don'ts. Repeated messages have shown that people took heat wave alerts seriously.

RAJASTHAN

Advisories were issued to hospitals for health facility preparedness by the state to all districts.



राजस्थान सरकार
निदेशालय चिकित्सा एवं स्वास्थ्य सेवायें, राजस्थान, जयपुर

क्रमांक : चि.प्र./Heat Wave/2024/281 दिनांक : 21.05.2024

परिपत्र

मौसम विभाग के पूर्वानुमान अनुसार राज्य में लू–तापघात (Heat Wave) का प्रकोप आगामी दिनों तक रहने की सम्भावना है।

इन दिनों नागरिकों को तुरन्त चिकित्सा सुविधा उपलब्ध हो इस हेतु निम्नानुसार कार्यवाही सुनिश्चित कर रिपोर्ट करें:–

- सभी कार्मिकों (चिकित्सक, नर्सिंग व पैरामेडिकल तथा संबंधित सपोर्ट स्टाफ) के अवकाश निरस्त कर मुख्यालय पर ही रहने हेतु पाबन्द करें।
- कोई भी कार्मिक अवकाश पर प्रस्थान न करें तथा विशेष परिस्थितियों में सक्षम स्वीकृति के उपरान्त ही अवकाश स्वीकृत करें तथा निदेशालय को सूचित करें।
- आपके कार्यालय का कंट्रोल रूम 24x7 क्रियाशील रखें। आपात स्थिति में टोल फ्री नम्बर 108, 104 तथा हैल्प लाईन नम्बर 1070 पर नागरिक सूचित कर सकते है, का अधिक से अधिक प्रचार–प्रसार करें।
- सभी संस्थानों पर लू–तापघात के मरीजो के लिए बैड्स आरक्षित रखे।
- संस्थानों में पर्याप्त मात्रा में लू–तापघात से संबंधित दवाईयां व उपकरण सुनिश्चित करे।
- एम्बुलेन्सों में एयर कन्डीशनर क्रियाशील हो, यह भी सुनिश्चित करें।
- सभी संस्थानों पर पर्याप्त मात्रा में Ice Packs/Ice Cubes की उपलब्धता सुनिश्चित करें।
- आशाओं के द्वारा लू–तापघात से संबंधित आईईसी को बढ़ाया देवें।
- मनरेगा स्थलों पर मेडिकल किट्स की उपलब्धता सुनिश्चित हो।
- चिकित्सालयों में सुचारू विद्युत आपूर्ति तथा स्वच्छ पेयजल की उपलब्धता सुनिश्चित करें।
- प्रत्येक दिन निर्धारित प्रारूप में रिपोर्टिंग करें।
- जिला प्रशासन से समन्वय स्थापित कर की गई कार्यवाही से निदेशालय को सूचित करें।

उक्त आदेश सक्षम स्तर से अनुमोदित है।

(डॉ. रवि प्रकाश माथुर)
निदेशक (जन स्वा0)

क्रमांक : चि.प्र./Heat Wave/2024/281 दिनांक : 21.05.2024

प्रतिलिपि–निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है:–

1. विशिष्ट सहायक, माननीय मंत्री महोदय, चिकित्सा एवं स्वास्थ्य विभाग, जयपुर।
2. निजी सचिव, मुख्य सचिव, राजस्थान सरकार।
3. निजी सचिव, अति0 मुख्य सचिव, चि0 स्वा0 एवं प0क0 विभाग, राजस्थान, जयपुर।
4. निजी सचिव, मिशन निदेशक (एनएचएम), मुख्यालय।
5. समस्त जिला कलेक्टर, राजस्थान।
6. सहायक निदेशक, जन सम्पर्क, निदेशालय चिकित्सा एवं स्वास्थ्य सेवाएं, राजस्थान।
7. संयुक्त निदेशक, समस्त जोन, राजस्थान।
8. समस्त मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी, राजस्थान
9. समस्त प्रमुख चिकित्सा अधिकारी राजस्थान।
10. प्रभारी सर्वर रूम, मुख्यालय को भेजकर लेख है कि पत्र को संबंधित को ईमेल करते हुए विभागीय वेबसाईट पर अपलोड करावे।
11. रक्षित पत्रावली

निदेशक (जन स्वा0)
चिकित्सा एवं स्वास्थ्य सेवायें
राज0 जयपुर

IEC posters and advisories were translated into the local language and disseminated through official communication to the districts, radio/ TV slots at FM, Akashwani, etc., and local newspapers and social media platforms. Several informational videos for public awareness, as well as training of healthcare workers, have also been uploaded on YouTube.

Two sessions were held to train all 50 DNOs during capacity building in HRI management and surveillance. All MOs, specialists, nurses, ambulance medical officers, and community health officers were also trained through video conferences.

Regular meetings with the governing body, state task force, and district task force were held to ensure preparedness. 10 joint review meetings and 15 Preparedness Review meetings with districts were conducted in the state.

90% of health facilities have dedicated heat stroke rooms, essential equipment, medicines and protocols. 93% of health facilities regularly report heat wave-related cases and deaths on IHIP.

The state regularly conducted online video conferences for the sensitization of vulnerable groups.

SIKKIM

The state issued an advisory to hospitals on health facility preparedness. During the official communication, a Letter was issued to CMOs regarding Health facility and ambulance preparedness to prevent and manage heat-related illness (HRI).

All 4 DNOs, 4 master trainers (state + district), and 23 MOs were trained in HRI management and surveillance.

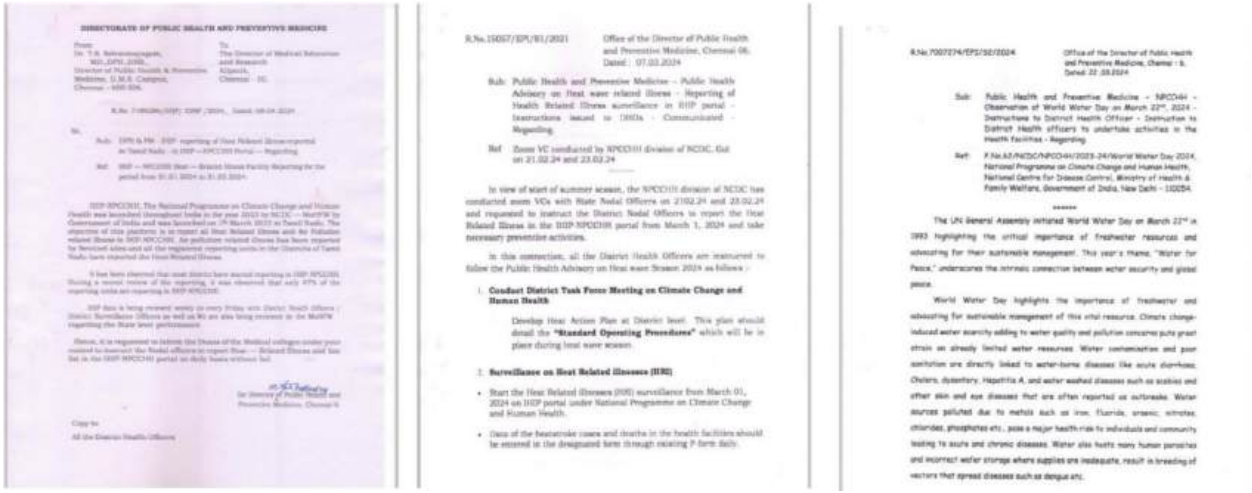
A meeting was conducted with the state task force, and a plan was made to launch a state action plan on climate change and human health and reframing the state task force committee members.

TAMIL NADU

The state has 25% of its centres reporting HRIs. Advisories have been issued to hospitals for health facility preparedness along with Do's and Don'ts being disseminated.

DHOs have developed a heatwave preparedness plan. IECs are consistently circulated among the public through print, hoardings and social media platforms. These IECs are in both the regional language and English.

Official communications regarding heatwaves are sent to DHOs, DME, DMS and private hospitals.



DIRECTORATE OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

R.No.15057/EPI/S1/2021 Office of the Director of Public Health and Preventive Medicine, Chennai-06. Dated: 07.03.2024

Sub: Public Health and Preventive Medicine – Public Health Advisory on Heat wave related illness – Reporting of Health Related Illness surveillance in IHIP portal – Instructions issued to DHOs – Communicated – Regarding.

Ref: Zoom VC conducted by NPCCHH division of NCDC, Ed on 21.02.24 and 23.02.24

In view of start of summer season, the NPCCHH division at NCDC has conducted zoom VCs with State Nodal Officers on 21/02.24 and 23.02.24 and requested to instruct the District Nodal Officers to report the Heat Related Illness in the IHIP NPCDH portal from March 1, 2024 and take necessary preventive activities.

In this connection, all the District Health Officers are instructed to follow the Public Health Advisory on Heat wave Season 2024 as follows :

1. **Conduct District Task Force Meeting on Climate Change and Human Health**

Develop Heat Action Plan at District level. This plan should detail the **"Standard Operating Procedures"** which will be in place during heat wave season.

2. **Surveillance on Heat Related Illnesses (HRI)**

- Start the Heat Related Illnesses (HRI) surveillance from March 01, 2024 on IHIP portal under National Programme on Climate Change and Human Health.
- Data of the heatstroke cases and deaths in the health facilities should be entered in the designated form through existing P form daily.

R.No.7007274/EPI/S2/2024 Office of the Director of Public Health and Preventive Medicine, Chennai - 6. Dated: 22.03.2024

Sub: Public Health and Preventive Medicine – NPCCHH – Observation of World Water Day on March 22nd, 2024 – Instructions to District Health Officer – Instruction to District Health officers to undertake activities in the Health Facilities – Regarding

Ref: F.No.A2/NCDC/NPCCHH/2023-24/World Water Day 2024, National Programme on Climate Change and Human Health, National Centre for Disease Control, Ministry of Health & Family Welfare, Government of India, New Delhi - 110054.

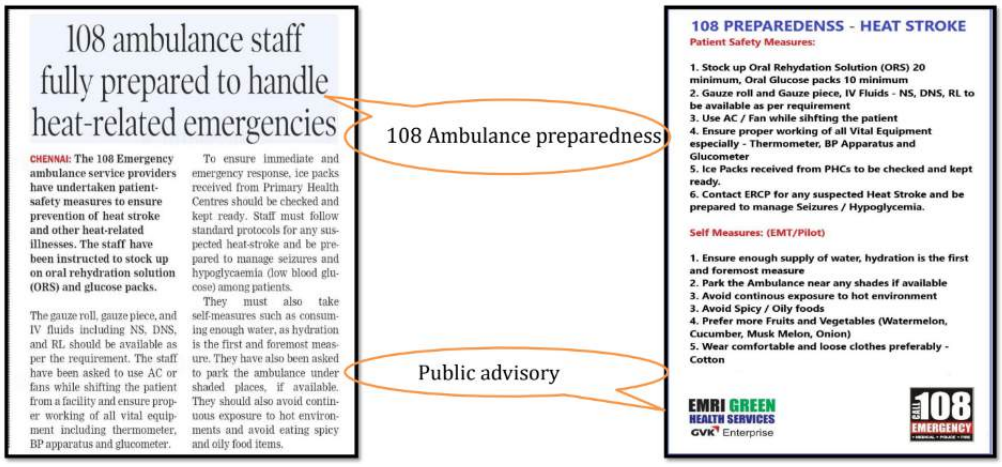
The UN General Assembly initiated World Water Day on March 22nd in 1993 highlighting the critical importance of freshwater resources and advocating for their sustainable management. This year's theme, "Water for Peace," underscores the intrinsic connection between water security and global peace.

World Water Day highlights the importance of freshwater and advocating for sustainable management of this vital resource. Climate change-induced water scarcity adding to water quality and pollution concerns puts great strain on already limited water resources. Water contamination and poor sanitation are directly linked to water-borne diseases like acute diarrhoea, Cholera, dysentery, Hepatitis A and water washed diseases such as scabies and other skin and eye diseases that are often reported as outbreaks. Water sources polluted due to metals such as iron, fluoride, arsenic, nitrates, chlorides, phosphates etc., pose a major health risk to individuals and community leading to acute and chronic diseases. Water also hosts many human parasites and incorrect water storage where supplies are inadequate, result in breeding of vectors that spread diseases such as dengue etc.

The State takes up the initiative for online and offline capacity-building training for heatwave preparedness and HRI. There have been workshops by the State Planning Commission to discuss the Tamil Nadu Heat Mitigation Strategy, Sensitization and capacity building for the Fire and Rescue Department, and capacity building for District Level Officers, among others.

Additionally, 38 district nodal officers, 12,455 medical officers, all 45 master trainers, all 9955 nurses/other allied professionals, all 1281 ambulance medical officers, all 4848 community health officers, 7216 ASHAs, 2056 ANMs, 265 CHNs, and 45,637 AWWs have had capacity building in HRI management, surveillance etc., with all attending at least 4 sessions on heat-health.

The hospitals, ambulances and staff are well-trained in handling heat related emergencies. Advisories on availing the same have been spread out to the public:



108 ambulance staff fully prepared to handle heat-related emergencies

CHENNAI: The 108 Emergency ambulance service providers have undertaken patient-safety measures to ensure prevention of heat stroke and other heat-related illnesses. The staff have been instructed to stock up on oral rehydration solution (ORS) and glucose packs.

The gauze roll, gauze piece, and IV fluids including NS, DNS, and RL should be available as per the requirement. The staff have been asked to use AC or fans while shifting the patient from a facility and ensure proper working of all vital equipment including thermometer, BP apparatus and glucometer.

To ensure immediate and emergency response, ice packs received from Primary Health Centres should be checked and kept ready. Staff must follow standard protocols for any suspected heat-stroke and be prepared to manage seizures and hypoglycaemia (low blood glucose) among patients.

They must also take self-measures such as consuming enough water, as hydration is the first and foremost measure. They have also been asked to park the ambulance under shaded places, if available. They should also avoid continuous exposure to hot environments and avoid eating spicy and oily food items.

108 Ambulance preparedness

Public advisory

108 PREPAREDENSS - HEAT STROKE

Patient Safety Measures:

1. Stock up Oral Rehydation Solution (ORS) 20 minimum, Oral Glucose packs 10 minimum
2. Gauze roll and Gauze piece, IV Fluids - NS, DNS, RL to be available as per requirement
3. Use AC / Fan while sihfting the patient
4. Ensure proper working of all Vital Equipment especially - Thermometer, BP Apparatus and Glucometer
5. Ice Packs received from PHCs to be checked and kept ready.
6. Contact ERCP for any suspected Heat Stroke and be prepared to manage Seizures / Hypoglycemia.

Self Measures: (EMT/Pilot)

1. Ensure enough supply of water, hydration is the first and foremost measure
2. Park the Ambulance near any shades if available
3. Avoid continous exposure to hot environment
3. Avoid Spicy / Oily foods
4. Prefer more Fruits and Vegetables (Watermelon, Cucumber, Musk Melon, Onion)
5. Wear comfortable and loose clothes preferably - Cotton

EMRI GREEN HEALTH SERVICES
GVK Enterprise

108 EMERGENCY

The state has carried out heat awareness programmes with schools, prevention of HRI activities outside in municipalities, with farmers, residential associations, as well as with patients, women, and pregnant women at health facilities. There are also exclusive wards for HRI management in government hospitals in Chennai.

Special initiatives:

- ORS corners established in all PHCs, HSCs, GHs and medical colleges to beat heat.

- 1000 rehydration points have been established across the State for the use of the public.

TELANGANA

The state issued public health advisories on extreme heatwaves and HRI to the districts through official communication:

- Two circulars issued on Heat-Related Illness preparedness by MD-NHMN (One is on 7th March & another on 4 April,2024
- Letter to Commissioner, TVVP on HRIs preparedness in Community Health Centres and District Hospitals by MD-NHM,
- Fire safety Circular is given to Health care facilities on 20.04.2024 by MD-NHM
- Assessment of Health Facility and Ambulance Preparedness to prevent and Manage Heat-Related Illness by SNO.

1st Circular was issued on 7 March 2024 to Districts on Heatwave preparedness to District Collectors & DMHOs and 2nd Circular was issued on 3 April 2024 to District Collectors and DMHOs, Director of Medical Education& Commissioner, TVVP

Health department issues heatwave advisory

The Hindu Bureau
HYDERABAD

In the midst of a yellow heatwave alert issued by India Meteorological Department (IMD) across 18 districts of Telangana and with temperatures soaring up to 44° Celsius, the Director of Public Health and Family Welfare has issued an advisory to stay safe during the heatwave.

The advisory urges individuals to prioritise hydration by consuming ample water regularly and incorporating oral rehydration solution (ORS) into their routine. Additionally, it recommends the consumption of seasonal fruits and vegetables with high water content. People are advised to dress in light, breathable cotton attire and shield their heads with umbrellas, hats, or caps. The advisory encourages minimising outdoor activities, suggesting that such activities be confined to the cooler hours of the morning and evening.

Migrant workers engaged in work on an under-construction flyover under the hot sun in Hyderabad. NAGARA GOPAL

While everyone is susceptible to heat stress and related illnesses, certain groups are particularly vulnerable and require heightened attention. These include infants, young children, individuals engaged in outdoor work, pregnant women, those with mental health conditions, and individuals with pre-existing medical conditions such as heart disease or hypertension.

In anticipation of potential emergencies, the State government has implemented measures, ensuring the availability of special beds, IV fluids, essential medications, and ORS sachets at all public health facilities.Medical attention should be sought if symptoms such as hot, dry, and reddened skin, severe headache, muscle weakness, nausea, vomiting, rapid heartbeat, or a body temperature equal to or exceeding 104° Fahrenheit are observed.

As per IMD data, Mahabubnagar saw the highest maximum temperature on Saturday at 43.5° Celsius, followed by Bhadrachalam at 42.6° C, Ramagundam at 42.4° C, Adilabad at 42.3° C, and Nalgonda at 41.5° C.

THE HANS INDIA

Special sunburn ward setup

HANS NEWS SERVICE
NAGARKURNOOL

IN the wake of rising temperatures and persistent heat wave, a special ward has been set up by the medical and health department officials at the government general hospital here.

The ward was set up on the orders of the district collector and was inspected by District Medical and Health Officer Dr K Sudhakar Lal along with Superintendent Raghu of Government Hospital on Thursday.

Speaking on the occasion, Dr Lal said that high temperatures are being recorded in the districts. "People should be alert in such situations, take care not to get sun stroke, and consult medical experts immediately if they face problems due to hot winds and sun."

He said that all arrangements have been made at the primary health center so that no one need worry if symptoms of sunburn are felt. "In case of emergency, a special ward with 20 beds has been set up for heat wave treatments at the government general hospital of the district," he said.

Moreover, ice packs have been made available for special treatment in 108 vehicles for transportation to the district hospital.

IEC Posters/advisories were translated/drafted in the local language and disseminated on 7 March 2024 through Posters and Pamplates weekly. Official communication to districts was done through Circulars sent to District Collectors and DMHOs. The IEC material was posted on Social media(WhatsApp and other social media platforms).

The state trained all 33 district nodal officers on Heat-Related Illness –Preparedness, Symptoms, Case Definitions, Treatment, Surveillance(IHIP Data entry) and IEC in 2 sessions. Medical officers, 97 master trainers and 489 emergency technicians in ambulances were trained in HRI management. All community health workers were also trained in the management and awareness of the HRI.

Training Manual for Community Health Workers in Telugu.

Review meetings were organised and held with the chief secretary, govt of Telangana, District Collectors, DMHOs Secretary of Health and CHFW, MD-NHM attended and Principal Secretaries of Line departments for the preparedness during the heat wave season.






Sensitization of the vulnerable groups(School/Anganwadi/teachers/children Outdoor/ Muni. Workers/Vendors/Delivery boys) and PRI on Heat-Related Illness symptoms, treatment Does and Don’ts were performed weekly.










There were several district outreach programs creating awareness about heatstrokes along with setting up of ORS and Zinc corners in hospitals.

Surveillance and reporting were done by setting up 1022 reporting units in the state till 21 April 2024.

The state reported that the health facility preparedness was not up to the mark as Patient level entry and line list of Cases and other details were not visible in the IHIP Portal, and despite suspecting exclusive HRI and Confirmed cases, the list was not updated.

TRIPURA

The state issued an Advisory issued to the hospitals for health facility preparedness and during the official communication, a letter was issued to CMOs regarding Health facility and ambulance preparedness to prevent and manage heat-related illness (HRI).

IEC Posters and advisories were translated into the local language and Published in a Local News Paper in the Bengali language – 4 times. IEC material was posted periodically on social media platforms by the NHM Tripura handle. One post every 15 days.

The state held 4 sessions to train all 8 DNOs in HRI management, surveillance and 12 sessions for 234 medical officers, 6 sessions for 32 master trainers (state + district), 2 sessions for 10 Specialists (on HRI surveillance and certification of heat deaths) and 14 Pharmacist at Sepahijala District was trained in one session. The state has also reported 100% reporting of HRIs in IHIP portal. Heat stroke rooms exist in climate-resilient healthcare facilities and State/District hospitals.

A meeting was held to monitor the preparedness, and TREDA was instructed to expedite solar plant implementation. Mass awareness, Awareness at school level. The state task force on heat health instructed all medical district task forces on heat health and district officers on health facility preparedness during the Observation of heat wave day at the health facility. Also, NGOs and CBOs implemented the provision of drinking water in public hot spots.

During school health training, the state Sensitized nearly 2000 School Health Wellness ambassadors on HRI. ASHA distributed 4000 leaflets at the village level to sensitize Outdoor/Municipality Workers/Vendors/Delivery boys.

Advocacy made at the State level for department awareness of traffic police. 8 meetings were held, and Advocacy was made at the District Taskforce for awareness of Farmer and NREGA workers regarding precaution of HRI.

UTTARAKHAND

Advisories were given to all districts on HRI and Fire Safety from the state health secretary.

The state issued advisories on Fire Safety to all the Hospitals of the state and an advisory on water-borne diseases keeping in view the heat and increasing risk of water-borne diseases.

Posters are placed as public hoardings in important public places, especially in the heatwave-vulnerable districts of the state.

District Magistrates and CMOs issued on 30th April on Heat preparedness and 28th May on Fire Safety.

In Radio/TV slots Radio Jingles on HRI and, Don'ts were carried out on all local radio channels in June in Hindi.

Multiple Advertisements in newspapers on HRI and Do's and Don'ts in Hindi and English related to HRI were carried out in popular Hindi Newspapers of the state in May and June. Multiple social media posts are done regularly from the state's NHM media handles on Facebook and Twitter.

Online refresher training of DNOs and Mos was conducted on HRI diagnosis and management in June.

Online training of Specialists (on HRI surveillance and certification of heat deaths) on HRI reporting on the IHIP platform was conducted in May.

Sensitization was carried out on heat alongside the monthly meetings for ASHA workers at the district level every month.

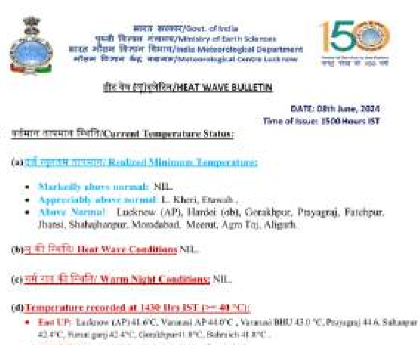
Review meeting taken by DG Health, Uttarakhand with all district CMOs and CMSs on Heat and heat stroke room preparedness and the status of fire safety in the healthcare facilities.

Sensitization activities were carried out in June (Heat Action Week from 2nd to 8th June) with school children, teachers and local community health workers by the districts.

UTTAR PRADESH

IEC dissemination through House-to-House preventive messaging at More than 40 million houses covering around 180 million persons through more than 150 thousand front-line workers trained between April 6-10. WHO/UNICEF and PATH independently evaluate this activity in all state districts. Evaluation coverage shows FLWs have delivered messages effectively in 78% of households being assessed.

The Health Minister and officials from the Health Department will lead tree plantation drives to encourage the public to plant more trees and help reduce global warming. Additionally, there will be state-level orientation sessions for DPHN, PHNS, and MPW on NP.


Govt. of India
Ministry of Earth Sciences
India Meteorological Department
Meteorological Centre Lucknow

HEAT WAVE BULLETIN

DATE: 08th June, 2024
Time of Issue: 1500 Hours IST

1) Current Temperature Status:

(a) Realized Minimum Temperature:

- Markedly above normal: NIL.
- Appreciably above normal: L. Kheri, Etawah.
- Above Normal: Lucknow (AP), Hardoi (ob), Gorakhpur, Prayagraj, Fatehpur, Jhansi, Shahjahanpur, Moradabad, Meerut, Agra Taj, Aligarh.

(b) Heat Wave Conditions NIL.

(c) Warm Night Conditions: NIL.

(d) Temperature recorded at 1430 Hrs IST (>= 40 °C):

- East UP: Lucknow (AP) 41.6°C, Varanasi AP 44.0°C, Varanasi BHU 43.0 °C, Prayagraj 44.6, Sultanpur 42.4°C, Fursatganj 42.4°C, Gorakhpur 41.8°C, Bahraich 41.8°C.
- West UP: Jhansi 42.0°C, Agra 42.4°C, Bareilly 40.8 °C.

LED IECs hoardings on heatwaves could also be displayed in Prayagraj.

Health nodal teachers' sensitivity to students is included in the state's month-long Sanchari Rog Niyantran Campaign. Master trainers of the health department train the teachers. An independent evaluation of this activity is being conducted by WHO/UNICEF and PATH in all state districts. The evaluation shows that 88% of households reported that students have been effectively sensitized in schools.

Training of Medical officers and Paramedical staff in all hospitals across the state, Front line workers (ANM, ASHA, CHOs) - More than 150 thousand were trained across the state between April 06-10, 2024

Preparation of Cold rooms in Hospitals 6-10 beds in Divisional and District hospitals and 4-6 beds in CHCs/ Block level hospitals.

Preparedness evaluation of more than 4000 Hospitals carried out by independent monitors (WHO/UNICEF/PATH), review of gaps and strengthening of hospital preparedness in all Districts by PS, MHFW in an online meeting

Preparation of ambulances- A Letter issued by MD NHM, UP to 108 Ambulance services for ensuring the availability of logistics as per GOI communication. CMOs/DNOs/MOICs were instructed to monitor ambulances for the availability of logistics as per the MD NHM letter.

Training of approximately 1500 master trainers for HRI-related preparedness and messaging. Mass orientation of 2.1 lakh frontline health workers on HRIs was carried out.

Newspaper clippings of activities carried out in districts of Uttar Pradesh in order to take action against heat wave.

Under the door-to-door project DASTAK, sensitization of approximately 4 crore households on HRIs and sensitization on HRIs in all primary, middle and secondary schools in the state. Entire sensitization activity was monitored by independent agencies such as UNICEF, WHO and PATH. 91% of families from monitored households informed that school-going children were educated on the prevention of heatwaves by school teachers, and 76% of the families reported that ASHA educated the family on prevention from heatwaves.

Review meetings at various levels- 3 Orientation and Review meetings chaired by PS MHFW - All ADs, CMOs, and CMSs participated.

Review meeting By CS UP - Top officials from concerned departments at the state and all Divisional Commissioners and DMs participated

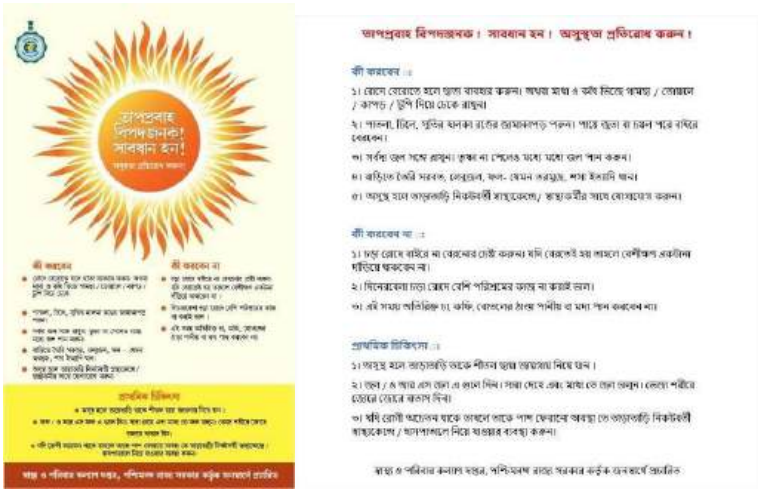
Inspection of facilities was done by independent monitors (WHO, UNICEF, PATH), Divisional officers (ADs/JDs), and State level officers (SNO In 11 Districts).

To improve reporting on HRI (Health Resource Indicators) through the IHIP (Integrated Health Information Platform), targeted review meetings of districts were organised. Each review meeting was chaired by the Secretary of the Ministry of Health and Family Welfare (MHFW) and focused on 10 districts with poor reporting. All Assistant Directors, Chief Medical Officers, Chief Medical Superintendents, Block Medical Officers-in-Charge, and even Primary Health Center Medical Officers-in-Charge were invited to participate in these meetings. As a result of these efforts, the number of facilities reporting HRIs on IHIP has increased significantly. More than 3500 facilities are reporting HRIs on IHIP, whereas the number was only in double digits until the 2nd week of March. Moreover, over the past 3 days, more than 900 new facilities have started reporting on IHIP as a direct result of these review meetings.

WEST BENGAL

On April 9, 2024, hospitals received advisory and do's and don'ts for health facility preparedness in districts. In April, there was an official communication block for the MIES meeting to discuss HRI management and the dissemination of the IEC (local language leaflet) to ANM and CHO.

On 30 April 2024, the local newspaper published a set of Do's and Don'ts related to the management and surveillance of HRI (Heat-Related Illness). In support of this initiative, a national-level capacity-building workshop was conducted for 12 district nodal officers, 1 state epidemiologist consultant, and 13 officials. Additionally, around 110 specialists received training in HRI surveillance and heat-related death certification. The training also extended to community health workers such as ASHAs and ANMs through multiple sessions held during block MIES and public health meetings. This concerted effort aims to enhance the critical skills needed to manage and monitor heat-related illnesses in the community effectively.



For preparedness, 3 review meetings were held to gradually increase the number of health force preparedness in the state- 136 Health forces with 1 designated HRI ambulance.

Sensitization of vulnerable groups through advisories and extension of summer vacation at schools.

Any innovative health solution or best practice:

- Daily weather data from the Regional Meteorological Centre (RMC), Alipore Kolkata are shared with DNO-CC.
- Heat-wave alerts from IMD are communicated to the district's official WhatsApp group.

<u>Union territories:</u>

ANDAMAN AND NICOBAR ISLAND

During the official communication, the state issued an advisory to the hospitals regarding health facility preparedness.

IEC Posters and advisories were emailed to all districts regarding HRI and advisory for necessary action. The SNO and senior doctor (public health) conducted a TV and radio program regarding HRI. The Do's and Don'ts advisories were published in the local newspaper. The department website and doctors' group were used to disseminate important information regarding HRI.

Orientation was conducted regarding reporting with IDSP, and nodal staff were designated to report in the IHIP-NPCCHH portal.

Due to different topography and remote areas, reporting to check preparedness is a significant challenge.

Nodal officers and master trainers were trained in HRI management for adults and children for reporting in the IHIP-NP portal.

Any innovative health solution or best practice:

Online orientation was conducted and local radio was used to disseminate information. Police signal used to report.

CHANDIGARH

An advisory was issued to the hospitals for health facility preparedness, and activities were carried out for World Environment Day for the entire month.

IEC Posters and advisories were displayed in all AAM clinics and disseminated to doctors, MPHWs, and ANMs through WhatsApp groups.

HRI Preparedness Activities in AAMs Clinics.

On 14 June 2024, 50 medical officers were trained in HRI surveillance, reporting case detection, and steps for hospital preparedness and ambulance preparedness. Community health workers MPHWs were acquainted/ oriented for climate change of vector-borne diseases, and ANMs were trained on VBDs during training of NCD.

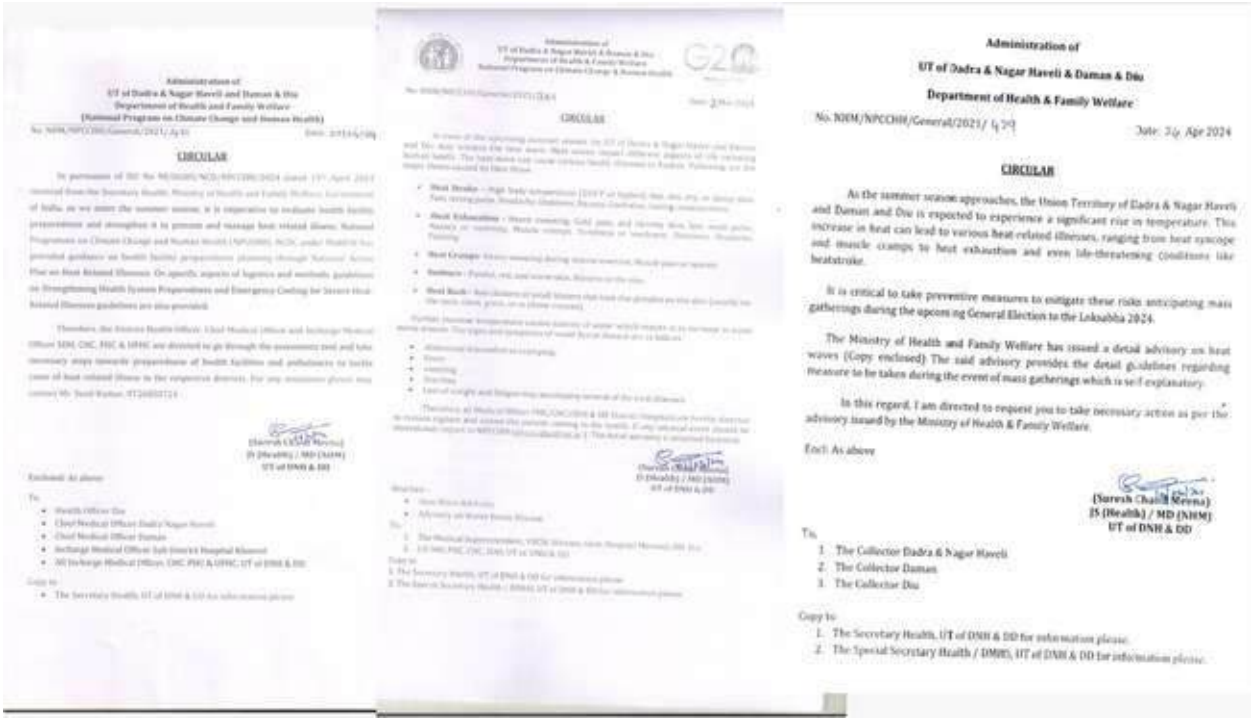
State task force on heat health has been formed and revised this year (vide File No.-GMSH_V_22/2/2024_GMSS_NPCCHH-HEALTH DEPARTMENT P-421210, DATED:12/6/2024)

A Joint review meeting with SDMA by DC attended by NPCCHH PO and environment day during May.

Regularly Sensitization of vulnerable groups, patients and pregnant women at health facilities.

DADAR NAGAR HAVELI

Advisories, Do's, and Don'ts were issued and disseminated to hospitals for health facility preparedness.



Administration of
UT of Dadra & Nagar Haveli & Daman & Diu
Department of Health & Family Welfare

No. NHM/NPCCHH/General/2021/ 479 Date: 24 Apr 2024

CIRCULAR

As the summer season approaches, the Union Territory of Dadra & Nagar Haveli and Daman and Diu is expected to experience a significant rise in temperature. This increase in heat can lead to various heat-related illnesses, ranging from heat syncope and muscle cramps to heat exhaustion and even life-threatening conditions like heatstroke.

It is critical to take preventive measures to mitigate these risks anticipating mass gatherings during the upcoming General Election to the Lokshbha 2024.

The Ministry of Health and Family Welfare has issued a detail advisory on heat waves (Copy enclosed) The said advisory provides the detail guidelines regarding measure to be taken during the event of mass gatherings which is self explanatory.

In this regard, I am directed to request you to take necessary action as per the advisory issued by the Ministry of Health & Family Welfare.

Encl: As above

(Suresh Chand Meena)
JS (Health) / MD (NHM)
UT of DNH & DD

To,
1. The Collector Dadra & Nagar Haveli
2. The Collector Daman
3. The Collector Diu

Copy to
1. The Secretary Health, UT of DNH & DD for information please.
2. The Special Secretary Health / DMHS, UT of DNH & DD for information please.

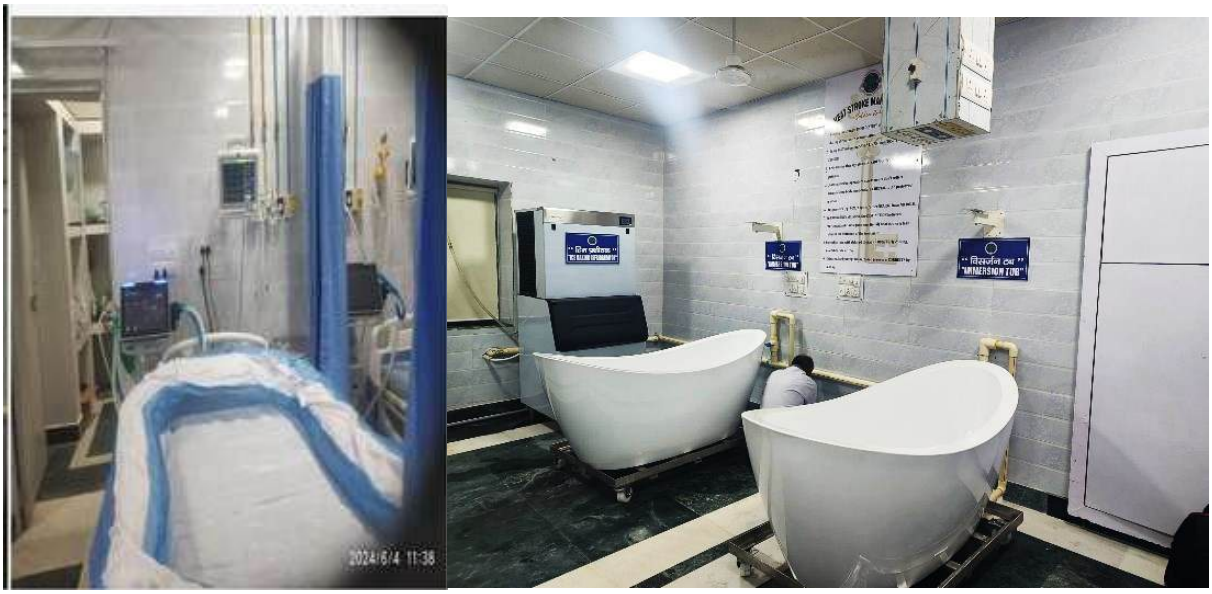
IEC posters/advisories were translated and drafted in the local language to disseminate through official communication; press notes were released in local newspapers and social media on WhatsApp and Facebook.

Capacity building in HRI management and surveillance training of all 3 DNOs and 15 MOs, 3 master trainers. The UT aimed to ensure that 100% of the officers had the necessary skills to manage, prevent, and control heat-related illnesses. Additionally, 30 Police and Traffic personnel were sensitized to prevent heat-related illness. PHC-wise training is completed on Heat-Related Illnesses in April for MO, CHO, ANM, ASHA & MPW.

Regular sensitization by the medical officers and CHOs to pregnant women, elderly populations, and children during visits to hospitals.

DELHI

Advisories were issued to the state on April 29, 2024, and Do's and Don'ts were disseminated on March 8, 2024. Official communication with districts occurred on April 19, May 16, May 21, and June 4, 2024. Communications have been sent to several organizations to take measures to prevent and mitigate heat waves and prevent and manage heat-related illnesses in Delhi.

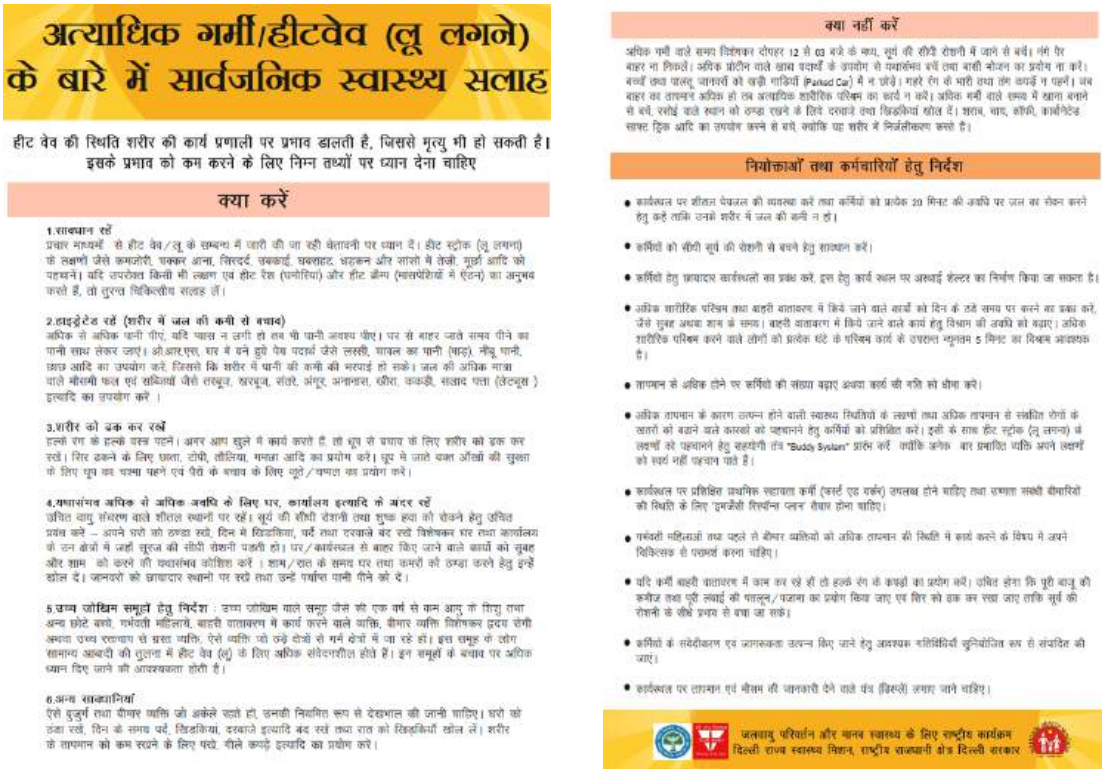


HRI Cool room at RML Hospital.

During the capacity building for HRI management and surveillance, 9 out of 11 DNOs were trained along with 12 MOs, 11 master trainers, and 12 specialists on HRI surveillance and certification of heat deaths. 1430 ASHAs, 380 ANMs, and 50 AWWs were also trained.

The district task force on heat health held 4 meetings to review and assess the situation. Health talks/awareness (East District) and sensitization meeting of teachers on 26.12.2023 (North East) were conducted two times in schools/Anganwadi centers.

Awareness and Health talks were conducted in the East District to sensitize Outdoor/Municipal Workers/Vendors/Delivery boys (Urban focus) and Police/traffic police/ Fire Department.



अत्याधिक गर्मी/हीटवेव (लू लगने) के बारे में सार्वजनिक स्वास्थ्य सलाह

हीट वेव की स्थिति शरीर की कार्य प्रणाली पर प्रभाव डालती है, जिससे मृत्यु भी हो सकती है। इसके प्रभाव को कम करने के लिए निम्न तथ्यों पर ध्यान देना चाहिए

क्या करें

1.सावधान रहें
प्रचार माध्यमों से हीट वेव/लू के सम्बन्ध में जारी की जा रही चेतावनी पर ध्यान दें। हीट स्ट्रोक (लू लगना) के लक्षणों जैसे कमजोरी, चक्कर आना, सिरदर्द, उबकाई, थकावट, धड़कन और सांसों में तेजी, मूर्छा आदि को पहचानें। यदि उपरोक्त किसी भी लक्षण एवं हीट रैश (पानीपिया) और हीट क्रैम्प (मांसपेशियों में ऐंठन) का अनुभव करते हैं, तो तुरन्त चिकित्सीय सलाह लें।

2.हाइड्रेटेड रहें (शरीर में जल की कमी से बचाव)
अधिक से अधिक पानी पीएं, यदि प्यास न लगी हो तब भी पानी अवश्य पीएं। घर से बाहर जाते समय पीने का पानी साथ लेकर जाएं। ओ.आर.एस, घर में बने हुये पेय पदार्थ जैसे लस्सी, शिकंजा का पानी (छाछ), नींबू पानी, छाछ आदि का उपयोग करें, जिससे कि शरीर में पानी की कमी की भरपाई हो सके। जल की अधिक मात्रा वाले मौसमी फल एवं सब्जियां जैसे तरबूज, खरबूज, संतरे, अंगूर, अनानास, खीरा, ककड़ी, सलाद पत्ता (लेटयूस) इत्यादि का उपयोग करें ।

3.शरीर को ढक कर रखें
हल्के रंग के हल्के वस्त्र पहनें। अगर आप खुले में कार्य करते हैं, तो धूप से बचाव के लिए शरीर को ढक कर रखें। सिर ढकने के लिए छाता, टोपी, तौलिया, गमछा आदि का प्रयोग करें। धूप में जाते समय आँखों की सुरक्षा के लिए धूप का चश्मा पहनें एवं पैरों के बचाव के लिए जूते/चप्पल का प्रयोग करें।

4.यथासंभव अधिक से अधिक जगहों के लिए घर, कार्यालय इत्यादि के अंदर रहें
उचित वायु संचरण वाले शीतल स्थानों पर रहें। सूर्य की सीधी रोशनी तथा शुष्क हवा को रोकने हेतु उचित प्रबंध करें – अपने घरों को ठण्डा रखें, दिन में खिड़कियां, पर्दे तथा दरवाजे बंद रखें विशेषकर घर तथा कार्यालय के उन क्षेत्रों में जहाँ सूरज की सीधी रोशनी पड़ती हो। घर/कार्यस्थल से बाहर किए जाने वाले कार्यों को सुबह और शाम को करने की यथासंभव कोशिश करें । शाम/रात के समय घर तथा कमरों को ठण्डा करने हेतु इन्हें खोल दें। जानवरों को छायादार स्थानों पर रखें तथा उन्हें पर्याप्त पानी पीने को दें।

5.उच्च जोखिम समूहों हेतु निर्देश : उच्च जोखिम वाले समूह जैसे जो एक वर्ष से कम आयु के शिशु तथा अन्य छोटे बच्चे, गर्भवती महिलायें, बाहरी वातावरण में कार्य करने वाले व्यक्ति, बीमार व्यक्ति विशेषकर हृदय रोगी अथवा उच्च रक्तचाप से ग्रस्त व्यक्ति, ऐसे व्यक्ति जो ऊंचे क्षेत्रों से गर्म क्षेत्रों में जा रहे हों। इस समूह के लोग सामान्य आबादी की तुलना में हीट वेव (लू) के लिए अधिक संवेदनशील होते हैं। इन समूहों के बचाव पर अधिक ध्यान दिए जाने की आवश्यकता होती है।

6.अन्य सावधानियां
ऐसे वृद्धजन तथा बीमार व्यक्ति जो अकेले रहते हों, उनकी नियमित रूप से देखभाल की जानी चाहिए। घरों को ठंडा रखें, दिन के समय पर्दे, खिड़कियां, दरवाजे इत्यादि बंद रखें तथा रात को खिड़कियाँ खोल लें। शरीर के तापमान को कम रखने के लिए पतले, गीले कपड़े इत्यादि का प्रयोग करें।

क्या नहीं करें

अधिक गर्मी वाले समय विशेषकर दोपहर 12 से 03 बजे के बीच, सूर्य की सीधी रोशनी में जाने से बचें। नंगे पैर बाहर ना निकलें। अधिक प्रोटीन वाले खाद्य पदार्थों के उपयोग से यथासंभव बचें तथा बासी भोजन का प्रयोग ना करें। बच्चों तथा पालतू जानवरों को खड़ी गाड़ियों (Parked Car) में न छोड़ें। गहरे रंग के भारी तथा तंग कपड़े न पहनें। जब बाहर का तापमान अधिक हो तब अत्याधिक शारीरिक परिश्रम का कार्य न करें। अधिक गर्मी वाले समय में खाना बनाने से बचें, रसोई वाले स्थान को ठण्डा रखने के लिये दरवाजे तथा खिड़कियां खोल दें। शराब, चाय, कॉफी, कार्बोनेटेड साफ्ट ड्रिंक आदि का उपयोग करने से बचें क्योंकि यह शरीर में निर्जलीकरण करते हैं।

नियोक्ताओं तथा कर्मचारियों हेतु निर्देश

- कार्यस्थल पर शीतल पेयजल की व्यवस्था करें तथा कर्मियों को प्रत्येक 20 मिनट की अवधि पर जल का सेवन करने हेतु कहें ताकि उनमें शरीर में जल की कमी न हो।
- कर्मियों को सीधी सूर्य की रोशनी से बचने हेतु सावधान करें।
- कर्मियों हेतु छायादार कार्यस्थलों का प्रबंध करें, इस हेतु कार्य स्थल पर अस्थाई शेल्टर का निर्माण किया जा सकता है।
- अधिक शारीरिक परिश्रम तथा बाहरी वातावरण में किये जाने वाले कार्यों को दिन के ठंडे समय पर करने का प्रबंध करें, जैसे सुबह अथवा शाम के समय। बाहरी वातावरण में किये जाने वाले कार्य हेतु विश्राम की अवधि को बढ़ाएं। अधिक शारीरिक परिश्रम करने वाले लोगों को प्रत्येक घंटे के परिश्रम कार्य के उपरान्त न्यूनतम 5 मिनट का विश्राम आवश्यक है।
- तापमान के अधिक होने पर कर्मियों की संख्या बढ़ाए अथवा कार्य की गति को धीमा करें।
- अधिक तापमान के कारण उत्पन्न होने वाली स्वास्थ्य स्थितियों के लक्षणों तथा अधिक तापमान से संबंधित रोगों के खतरों को बढ़ाने वाले कारकों को पहचानने हेतु कर्मियों को प्रशिक्षित करें। इसी के साथ हीट स्ट्रोक (लू लगना) के लक्षणों को पहचानने हेतु सहयोगी तंत्र "Buddy System" प्रारंभ करें क्योंकि अनेक बार प्रभावित व्यक्ति अपने लक्षणों को स्वयं नहीं पहचान पाते हैं।
- कार्यस्थल पर प्रशिक्षित प्राथमिक स्वास्थ्य कर्मी (फर्स्ट एड वर्कर) उपलब्ध होने चाहिए तथा रुग्णता संबंधी बीमारियों की स्थिति के लिए 'इमर्जेंसी रिस्पॉन्स प्लान' तैयार होना चाहिए।
- गर्भवती महिलाओं तथा पहले से बीमार व्यक्तियों को अधिक तापमान की स्थिति में कार्य करने के विषय में अपने चिकित्सक से परामर्श करना चाहिए।
- यदि कर्मी बाहरी वातावरण में काम कर रहे हों तो हल्के रंग के कपड़ों का प्रयोग करें। उचित होगा कि पूरी बाजू की कमीज तथा पूरी लंबाई की पतलून/पजामा का प्रयोग किया जाए एवं सिर को ढक कर रखा जाए ताकि सूर्य की रोशनी के सीधे प्रभाव से बचा जा सके।
- कर्मियों के संवेदीकरण एवं जागरूकता उत्पन्न किए जाने हेतु आवश्यक गतिविधियों सूचियोंजित रूप से संचालित की जाए।
- कार्यस्थल पर तापमान एवं मौसम की जानकारी देने वाले पंप डिस्प्ले लगाए जाने चाहिए।

जलवायु परिवर्तन और मानव स्वास्थ्य के लिए राष्ट्रीय कार्यक्रम
दिल्ली राज्य स्वास्थ्य मिशन, राष्ट्रीय राजधानी क्षेत्र दिल्ली सरकार

IEC material was disseminated in the state through social media.

JAMMU AND KASHMIR

The state issued an Advisory to the hospitals for health facility preparedness and, during the official communication, set up heatstroke rooms and solar panels and rainwater harvesting installation.

In radio channels, heat-related audio spots are broadcast regularly. The IEC material was uploaded to NHM's official website. The IECs were also passed on to the public.

The DNOs and community health workers were trained in HRI management and surveillance.

Sensitization of the vulnerable groups by training for air pollution, heat-related illness and green and climate resilience was conducted at the district level.

Under the able guidance of worthy DHS Jammu Dr.Rakesh Magotra and directions CMO Mam and supervision of DHO, BMOs of distt. Samba Heat action day activities observed in distt.Samba where blocks participated actively in various awareness and prevention from HRI and distribution of ORS Pkts to needed people of their respective institutions

Any innovative health solution or best practice:

- HRI surveillance reporting on the IHIP portal has been improved from 9% in April 2024 to 65% in July 2024.
- All 6 sentinel hospitals are reporting actively on the NOADS App with 100% reporting.
- During heat action day, week-long activities were organized in the districts.
- Work Environment Day was celebrated with information on heat-related activities.
- Heat-related radio programs were broadcasted.

Under the guidance of the respected DHS Jammu and Dr Rakesh Magotra, the direction of the CMO, and the supervision of the district's DHO and BMOs, heat action day activities were observed in district Samba. The various blocks actively participated in raising awareness about and preventing heat-related illnesses, as well as distributing ORS packets to those in need within their respective institutions.

LADAKH

Advisory and Do's and Don'ts were issued and disseminated to hospitals for health facility preparedness on 20 April 2024.

IEC posters/advisories were regularly disseminated through official communication and social media on Twitter, NHM, and Instagram.

Capacity building in HRI management and surveillance of all 2 DNOs, 110 MOs 12 Master trainers, 30 Specialists on HRI surveillance and certification of heat deaths. Additionally, 120 Nurses and 288 community health Officers. A training session was conducted at the district level to train the respective Medical Officers of PHCs for further training in ASHAs, MPHWs, ANMs and AWWs.

Sensitization of vulnerable groups once a year through training on climate-sensitive diseases.




Status of surveillance reporting:

• HRI reporting is almost 95% in Leh District, but HRI reporting is not done in the district of Kargil.

• Re-sensitization of the Health Officials needs to be done for the district Kargil a physical training mode is planned in the coming month.

Any innovative health solution or best practice:

• Developed a State-Specific Heat Action Plan in the context of UT Ladakh.

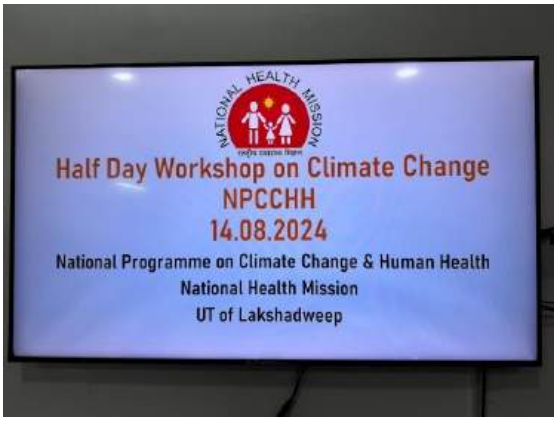
• In Ladakh summer season is of short duration so we have to focus more on IECs and capacity building.

• During the Summer season we have trained health professionals for disaster risk also during summer there are incidences of flood in certain areas due to the rapid melting of snow which leads to flood-like situations in certain areas.

LAKSHADWEEP

The state issued an advisory to the hospitals for health facility preparedness on heat and other official communication to disseminate Do's and Don'ts during the heat wave season.

IEC posters and advisories were translated into the local language was disseminated through official communications to all 10 islands. Heat-related illness Talk in All India Radio Kavaratti and on all social media platforms.
Capacity building training of medical officers, master trainers (state +district), Nurses, Ambulance medical officers and Community health officers on Heat-Related Illness, Pre-monsoon activities, Fire and safety measures, BLS training and Trauma care.



Meetings were conducted on heat health focus on the review of Health Sector Activities related to Extreme Heat with the Governing body, State task force, District task force and Joint review with SDMA.

Sensitization of the vulnerable groups: The school reopened on June 6th, and HRI activities were incorporated into the school health program.

Any innovative health solution or best practice:

Fire and Safety Training has been given to all staff nurses and ambulance drivers along with the fire and safety department.

As a part of pre-monsoon source reduction activities fogging started in all 10 islands.

PUDUCHERRY

The state disseminated advisories, Do's and Don'ts to the districts on 28 Feb 2024. A heat health advisory was distributed to all line department heads on 18 April 2024. IEC posters/advisories were translated and disseminated through official communication, newspaper, social media and a live program on Doordarshan TV by SNO on 2 May 2024.

All District nodal officers, medical officers, master trainers, nursing officials, ANMs and community health workers (ANM, DEO, MRD staff) were trained in HRI management and surveillance.

Preparedness review meetings were held with the Chief Secretary and Health Secretary on 17 April 2024.

Sensitization of the vulnerable groups such as schools was done at the PHC and Sub-Centre level and the medical officers of PHC sensitized MNREGA workers in all areas.

Discussion

The states performed well in preparing for heat-related illnesses by disseminating advisories, building capacity, and conducting timely review meetings. Two states, Mizoram and Manipur, overachieved and did extremely well in preparedness by implementing innovative solutions to combat heat exposure and prevent heat-related illnesses.

The improvements in reporting on platforms like the IHIP portal and NOADS app demonstrate a commitment to enhancing data collection and monitoring. Additionally, the use of various channels such as radio, TV, newspapers, and social media for disseminating information reflects a comprehensive approach to reaching the public.

It is encouraging to note the collaboration between different stakeholders, such as the healthcare department, district authorities, and community health workers, to raise awareness and implement preventive measures. The engagement of schools, teachers, and local community health workers in sensitization activities is a positive step towards building a resilient community.

The innovative practices, such as using local radio for information dissemination and police signals for reporting, underscore the importance of leveraging available resources effectively, especially in remote areas.

Overall, the efforts made by the states in addressing heat-related challenges and promoting climate resilience are admirable. This comprehensive approach involving multiple stakeholders and innovative practices set a strong example for other states to follow in their efforts to mitigate the impact of heat waves on public health.

Conclusion

In conclusion, the initiatives taken by states and union territories in India to address heat-related illnesses (HRI) and prepare their healthcare facilities have been commendable. They issued advisories, training of healthcare workers, sensitization activities, and various communication channels such as radio, TV, and social media, which have increased awareness and preparedness for HRI. Furthermore, the collaborative efforts of government bodies, health departments, and local communities have played a crucial role in ensuring a comprehensive approach to managing the risks associated with heat waves. The improvement in HRI surveillance reporting and the active participation of healthcare facilities and the community demonstrates a positive trend toward building resilience against heat-related challenges. It is essential to sustain these efforts to safeguard public health and mitigate the impact of extreme heat events in the future.

Based on the information provided, it seems that Mizoram, Manipur, Uttarakhand, Meghalaya, Jammu and Kashmir, and Chandigarh have all performed well in addressing heat-related illnesses (HRI) and have taken proactive measures to prepare healthcare facilities. These states have demonstrated a strong commitment to issuing advisories, conducting training programs for healthcare workers, using various communication channels to raise awareness, and carrying out sensitization activities. Furthermore, their emphasis on HRI surveillance reporting and active participation of healthcare facilities indicates their comprehensive approach to addressing the challenges associated with heat waves.
