

**National Centre for Disease Control  
Directorate Health Services  
Ministry of Health and Family Welfare  
22-Sham Nath Marg, Civil Lines, New Delhi**

**Advisory for State Health Department on Heat Wave Season 2024**

The country may observe above normal seasonal maximum temperatures in-line with the observed trend of summertime temperatures. To reduce health impacts of extreme heat, health departments must ensure preparedness and timely response.

**State Nodal Officers under National Programme for Climate Change and Human Health (NPCCHH) must ensure following activities:**

**1. Dissemination of following guidelines to all districts:**

- National Action Plan on Heat Related Illnesses, MoHFW
- Strengthening Health Systems Preparedness for Heat Related Illnesses (HRI) in India
- National Disaster Management Authority (NDMA) guidelines for preparation of action plan for prevention and management of heat wave.

**2. Implement Heat-Health Action Plan**, a chapter of State Action Plan on Climate Change and Human Health at State level

- Support implementation at district-specific and city-level heat-health action plans for focused preparedness and response.

**3. Meeting with State and District Task Force on Climate Change and Human Health**

- Organize a task force meeting for update and approval of the heat-health action plan at State/District levels. This plan should detail the ‘**Standard Operating Procedures**’ which shall be in place during heat wave season.
- The health sector heat action plan prepared shall be incorporated in State Action Plan for Climate Change and Human Health (SAPCCHH) and a copy of this may be sent to State Disaster Management Authority (SDMA) or Relief Commissioner Department for incorporation in State Action Plan on heat wave.

**4. Reporting under Heat-Related Illness and Death Surveillance**

- Start daily submission of data on heatstroke cases and deaths, emergency attendance and total deaths from **March 01, 2024**, on **IHIP portal under National Programme on Climate Change and Human Health**
- Submit data from health facilities, PHC and above, through the designated form (aggregate/patient-level) using P-form level entry
- Ensure maintenance of digital line list of heatstroke cases and deaths (suspected/confirmed) at health facility/hospital level in given formats
- Undertake “**Investigation of Suspected Heat Related Illness Death**” by medical officer/epidemiologist for each suspected heat-related illness deaths (attached) (detail in

[National Action Plan on Heat Related Illnesses](#), MoHFW) to understand circumstances around a suspected HRI death.

**5. Dissemination of early warning:** of heat waves issued by India Meteorological Department (IMD) daily after 1600 hours IST with forecast for next four days should be disseminated to health facilities and vulnerable populations.

**6. Issue health advisories and plan IEC activities** from time to time to make the public aware about the precautions taken to safeguard against extreme heat. IEC material on heat wave for general and vulnerable population prepared by NCDC is available. (<https://ncdc.mohfw.gov.in/index1.php?lang=1&level=3&sublinkid=1091&lid=556>). It can be used as template to prepare IEC at State after translation in regional language, if needed.

**7. Sensitization and capacity building** of medical officers and health care staff of health facilities on HRI symptoms, case identification, clinical management, emergency cooling and surveillance reporting.

Community health workers should be trained on public awareness measures, personal cooling measures, HRI identification, first aid, referral, and reporting. Training manuals for Nodal Officer, Medical Officers, Community Health Workers and Community published by NPCCHH should be utilized for the trainings (<https://ncdc.mohfw.gov.in/index1.php?lang=1&level=2&sublinkid=922&lid=697>)

#### **8. Health facility preparedness for prevention and management of severe HRI**

- Procurement and supply of adequate quantities of ORS packs, essential medicines, IV fluids, ice-packs, and equipments to support management of volume depletion and electrolyte imbalance etc.
- Identify active cooling strategies that can be used at health facilities and field levels based on resources available, develop internal protocols, train health care staff
- Identify/procure resources at health facilities and for ambulances to ensure emergency, rapid cooling of severe heat related illness patients. (NPCCHH PIP FY 24-25, 25-26 guidelines)
- Ensure availability of sufficient drinking water at all health facilities.
- Ensure sufficient availability of general cooling appliances in waiting and patient treatment area and their functioning.
- Cases with suspected heat stroke should be rapidly assessed and actively cooled using standard treatment protocols.

#### **9. Health facility resiliency to extreme heat**

- Coordinate with electricity distribution company/corporation for uninterrupted electricity supply to hospitals for constant functioning of cooling appliances.
- Adopt measures to reduce indoor heat and energy conservation in the health facilities like cool roof/green roof, window shading, rainwater harvesting, solarization etc
- Provide shade outside the health facilities in heat-prone regions

## 10. HRI-Focused Mass Gathering/Sporting Event Preparedness

While organizing mass gathering or sporting events during summer, sufficient preparedness should be made to prevent and manage heat-related illnesses (HRI) through active engagement of health departments, other relevant departments, and local administration.

### Event planning considerations

- **Environmental heat**
  - Check heatwave forecasts, high humidity, active heatwave warnings, consult local IMD centre
  - Avoid days when active heatwave warnings, high humidity are expected
  - Avoid planning outdoor events in the hottest time of day (12PM-3PM)
- **Event ground amenities/infrastructure**
  - Plan assessment of event venue/ground with a medical team from local health facilities for set up medical camps, cooling areas, water
- **Safe, Drinking Water Provision**
  - Adequate and safe water supply and convenient access for all attendees must be arranged.
  - Suggested amount of water required per person are 20 Liters/day with 4 Liters for drinking.
  - For all day events water provision can be calculated based on following
    1. A minimum of 2 litres of free drinking water available/person or a rate calculated at 500ml/hour, whichever is the greater *and*
    2. One water outlet per 500 people.
    3. Water outlets should be reviewed and approved for safety, water quality and hygiene.
  - Water quantity for emergency cooling/dousing/spraying should be considered separately.
- **Shade/shelter:** to reduce open exposure of attendees to the sun.
- **Cooling shelters:** Provision/ establishment of well, actively ventilated/cooled rooms/ misting areas.
- **Health promotion and risk communication**

Ensure adequate arrangement for frequent communication in local language for attending population, (in advance and during the event) through social media, on-site posters, video clips/announcements about measures e.g.

  - avoiding dehydration/adequate water intake
  - wearing appropriate clothing and protective measures like sunscreen, hat, umbrella etc
  - reducing risk of heat- related illnesses
  - identifying primary signs-symptoms of HRI, first-aid and ways to contact first responders

### Health sector preparedness

- Consider heat-related illnesses in health surveillance, medical management and response planning

- Have a general understanding of possible vulnerable population based on event type e.g. in mass sporting events exertional heatstroke may be observed, in pilgrimage related mass gathering classic heatstroke may be common.
- Prevent heat related illness (HRIs) through provision of ORS packs, essential medicines, IV fluids, icepacks, and equipments to support management of volume depletion and electrolyte imbalance etc.
- Prioritize rapid assessment and rapid cooling of severe heat-related illnesses
- Designate safe, accessible area for rapid whole-body cooling of heat exhaustion and heatstroke patients
- Identify suitable rapid cooling method based on access to water, shade, venue topography and access, procure equipments (rectal thermometer, ice boxes, ice cubes, cold water, tarp, ice coolers, fans, towels/sheets) and set-up cooling area accordingly
- Ensure training of attending medical staff and relevant first-responders in triage, rapid assessment, rapid cooling, medical record keeping, referral and surveillance
- Designate and inform nearest referral health facilities that can provide adequate HRI management and cooling facilities.
- Keeping ambulance with ice packs and cold water etc to transport serious patients to the nearest equipped health care facility.

### **During the event consideration**

1. Ensure adequate air circulation, avoid overcrowding pockets at the event site.
2. Identify and monitor the vulnerable population at the event with check points at entry and within the event area; monitoring with help of volunteers/cameras on site.
3. Uniformed medical aid teams with appropriate portable ice boxes, cold water, ORS packets should be mobilised in crowd.
4. Continue good public communication (in terms of broadcast, posters) regarding effects of heat and reminders to stay hydrated and cool.
5. Guide public towards medical check posts, nearest exits through detailed map of event site and directions on display
6. Proper management and documentation of all patients treated for HRI and their follow up after first aid administration.
7. Report heatstroke cases and deaths in Heat-Related Illness and Death surveillance under NPCCHH
8. Keep effective communication between the healthcare team and event stakeholders.

### **Resources**

1. National Health Action Plan on Heat Related Illnesses. Available at: <https://ncdc.gov.in/WriteReadData/linkimages/NationActionplanonHeatRelatedIllnesses.pdf>
2. NPCCHH PIP Guidelines FY 24-25, 25-26 <https://ncdc.gov.in/showfile.php?lid=1570>
3. Guidelines for preparation of action plan- prevention and management of heat wave, 2019. National Disaster Management Authority, Government of India. Available at: <https://ndma.gov.in/sites/default/files/PDF/Guidelines/heatwaveguidelines.pdf>

4. Ahmedabad heat action plan 2019. Guide to extreme heat planning in Ahmedabad, India. Amdavad Municipal Corporation. Available at:  
<https://www.nrdc.org/sites/default/files/ahmedabad-heat-action-plan-2018.pdf>
5. World Health Organization. Public Health Advice on Heatwave  
Available at: [https://www.who.int/health-topics/heatwaves#tab=tab\\_1](https://www.who.int/health-topics/heatwaves#tab=tab_1)
6. Public Health Advisory: Extreme Heat/ Heatwave <https://ncdc.gov.in/showfile.php?lid=847>
7. IEC posters related to heat-related illness prevention and first-aid:  
<https://ncdc.gov.in/index1.php?lang=1&level=3&sublinkid=1091&lid=556>
8. Water quality at public events | NT.GOV.AU <https://nt.gov.au/industry/hospitality/public-events/water-public-events>
9. World Health Organization. Public health for mass gatherings: key considerations. 180 p.  
<https://www.who.int/publications/i/item/public-health-for-mass-gatherings-key-considerations>

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