Health Sector Preparedness, Heat-Related Illness and Death Surveillance under National Programme on Climate Change and Human Health, NCDC, MoHFW
Health Sector Preparedness
National Action Plan on Heat Related Illnesses (NAPHRI)

Content

1. Health impacts of heat
2. Clinical management, protocols (adult, pediatric)
3. Health facility preparedness plan (pre, during, post-season)
4. Heat-related illness and death surveillance (formats and guidance)
Affiliated Institutes

Clinical Medicine, Pediatrics Departments
- Lady Harding Medical College
- VMMC-Safdarjung hospital
- ABVIMS-RML hospital
- AIIMS-Delhi

Institutes/Agencies
- IIPH-Gandhinagar, IIPH-Hyderabad
- VNIT Nagpur
- WHO

Government Agencies
- NDMA
- IMD
- EMR, DM-Cell, NCDC
State Level Heat-Health Action Plans

• Chapter in State Action Plan on Climate Change and Human Health*

• Identifies health sector activities
  o Awareness activities including campaign days
  o Capacity building of health care workforce
  o Health Facility Preparedness
  o Surveillance, monitoring

• Roles and responsibilities

• Inter-sectoral coordination platforms*
  o Ensure early warning, coordinated response
  o Multi-sectoral taskforce, Governing body

• Guidance on city-specific action planning

• 34 States/UT
Health Facility Preparedness

- **Heatstroke room/bed**
  - CHC and above
  - Dedicated beds in cool area
  - Emergency active cooling: equipments, methods
  - Ensuring general cooling, cold water

- **Primary care**
  - Rapid primary cooling, referral
  - ORS corners

- **Ambulance preparedness**
  - Rapid on-site cooling

- **Early warning dissemination**
  - Heatwave bulletin (email, whatsapp)

Guided by a committee of clinicians (medicine, pediatrics) under chairmanship of DGHS

NPCCHH, NCDC
## National Heat-Related Illness and Death Surveillance

Goal: To reduce heat-related morbidity and mortality by evidence-based preparedness and mitigation planning and emergency response

### 2015
- Initiated during Heatwave under IDSP
- Email form States
- All types of HRI reported
- Weekly compilation
- 17 heat vulnerable states
- May to July

### 2019
- Adopted by NPCCHH
- Centre of Excellence identified
- Technical expert group formed
- Surveillance Evaluated in field
- Standard reporting formats facility > district > state > central

### 2021
- National Action Plan on Heat-Related Illnesses launched
- Email-based, in updated formats
- Heatstroke (suspected, confirmed)
- Emergency attendance, total deaths
- Daily compilation
- Death investigation format
- 23 heat vulnerable states
- March to July
National Heat-Related Illness and Death Surveillance

2023

Digital upgradation

- Integrated Health Information Portal (IHIP)
- All States/UT
- PHC and above
- Daily aggregate data
  - Heatstroke cases and deaths
  - Emergency attendance
  - Cardiovascular, total deaths
- Temperature, relative humidity from IMD
Public Health Facilities Reported, 2023

Distribution of Public Health Facilities Reporting

<table>
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<tr>
<th>State</th>
<th>Primary Care</th>
<th>Secondary Care</th>
<th>Tertiary Care</th>
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<tr>
<td>GOA</td>
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</tr>
<tr>
<td>WEST BENGAL</td>
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<td>27%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Total units (% of public facilities reported)
- 41 (83%)
- 2,357 (98%)
- 3,359 (79%)
- 1,715 (77%)
- 3,449 (77%)
- 976 (99%)
- 1,739 (66%)
Advisory and Capacity Building

• Health Department & Public Health Advisories with IMD’s Seasonal Outlook (March)
  o Secretary (H) → Chief Secretary (H), States/UT
  o Director General Health Services (DGHS) → Hospital

• Training modules on Heat & Health
  1. Programme officers (state/district)
  2. Medical officers,
  3. Community health workers
  4. Community

• Special trainings
  o Clinical management, surveillance

• Annual cascading training begins in February

• National workshop (2022): State NPCCHH officers visited Ahmedabad to study heat action plan implementation

• Inclusion of heat-health in UG, PG medical & allied health curricula (work in progress)
• **Review of preparedness**
  o Hon’ble Union Minister (H)
  o Secretary, MoHFW
  o DGHS
  o Central team (Uttar Pradesh and Bihar)

• **Participated in reviews**
  o PMO
  o NDMA

• **Guidelines issued**
  o Strengthening Health System Preparedness
  o PIP

• **Development of guidelines/tools** (work in progress)
  o Emergency cooling
  o Autopsy findings
  o Health facility preparedness assessment tool
• District level in-person training at National-Level started in January

• Surveillance expansion
  o Shift to patient-based data collection in selected states
  o Year around

• Joint analysis with IMD

• Exploring integration options with Civil Registration System

• Exploring a composite heat index
National Heat-Related Illness and Death Surveillance
Heat-Related Illnesses: Spatial Distribution

**CASES OF HEAT RELATED ILLNESSES REPORTED IN INDIA, 2019**

**CASES OF HEAT RELATED ILLNESSES REPORTED IN INDIA, 2020**

**SUSPECTED HEATSTROKE DEATHS REPORTED IN INDIA, JULY 2022**

NPCCHH, NCDC
Age Distribution of Confirmed Heat-Related Illness Deaths, India, 2019 (n=109)

- As per the line list received from Four States
- **Linelist for Three suspected heatstroke cases included**
Confirmed Heat-Related Illness Deaths vs. Block Level Maximum Temperature, 2019
(n=113)

*As per the line list received from Four States*
• Thank You!

Trained wrapped in heat illness prevention IEC, Kerala

Health facility-based IEC activities, Delhi

Sensitization for traffic police, Municipal workers and teachers, Kangpokpi, Manipur