



Ministry of Health & Family Welfare
Government of India



National Programme
on Climate Change
and Human Health

Climate Change and Health Indicators under India's National Programme on Climate Change and Human Health

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NPCCHH Background

- Implemented through **Ministry of Health and Family Welfare**
- Introduced under '**Mission on Health**' under Prime Minister's Council on Climate Change in 2014
- **National Action Plan on Climate Change and Human Health (NAPCCHH)** prepared by National Expert group, 2015, revised in 2021
- **Goal:** To reduce morbidity, mortality, injuries, and health vulnerability to climate variability and extreme weather

Climate Sensitive Health Issues

Prioritized

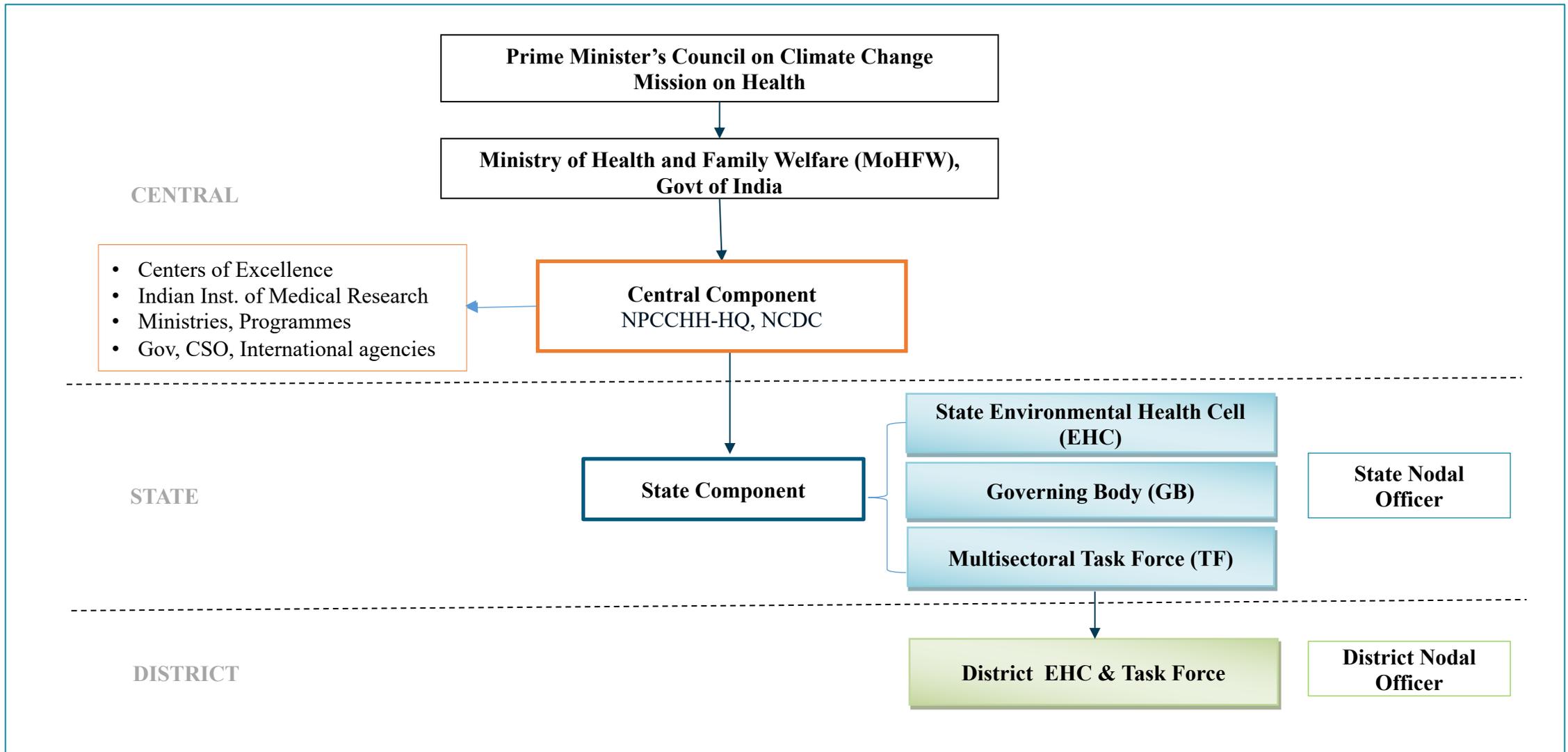
- Air pollution related illnesses (ARI)
- Heat related Illnesses (HRI)
- Green and Climate resilient Infrastructures
- Vector-borne diseases
- Extreme weather events
- WASH/Water-borne diseases
- Cardio-pulmonary Diseases
- Nutrition Diseases and Food security
- Zoonotic diseases
- Allergic diseases
- Mental Health
- Coastal and Mountain region issues
- Occupational Health

Technical support from subject specific Centers of Excellence

Key Objectives



Organizational Framework



Climate Change and Health Indicators

Heat & Health

National Heat-Related Illness (HRI) Surveillance

- Initiated in 2015
- Currently, expanded to 23 heat-vulnerable states
- March 1-July 31
- Reporting units: Primary, secondary, and tertiary care health facilities

Data collected (daily)	Indicators
<ul style="list-style-type: none">○ All heat-related illness cases (mild to severe form)○ Suspected heatstroke deaths○ Confirmed heatstroke deaths	<ul style="list-style-type: none">• HRI morbidity, mortality incidence

Heat & Health

- Surveillance evaluation found case definition too broad to achieve reliable data and ensure acceptability
- with emerging global evidence, surveillance formats updated in 2021

Data collected (daily)	Indicators
<ul style="list-style-type: none">○ Suspected heatstroke cases○ Suspected and confirmed heatstroke deaths	<ul style="list-style-type: none">• HRI morbidity, mortality incidence
<ul style="list-style-type: none">○ Emergency admissions○ All-cause deaths○ Confirmed cardiovascular deaths	<ul style="list-style-type: none">• Excess admissions and mortality
<ul style="list-style-type: none">○ Death investigation (social autopsy) for suspected heatstroke deaths only	<ul style="list-style-type: none">• % classic/exertional HRI mortality

Air Pollution & Health

National Acute Respiratory Illness (ARI) Surveillance

- Initiated in 2017 in Delhi
- Sentinel surveillance
- Reporting units: tertiary care health facilities
- Priority sites: 122 non-attainment cities identified under National Clean Air programme
- Expanded to 58 cities of 17 states

Data collected (daily)	Indicators
<ul style="list-style-type: none">○ Total emergency visits○ Respiratory emergency visits, admissions○ Respiratory treatment delivered<ul style="list-style-type: none">• Nebulization• Invasive/non-invasive ventilation	<ul style="list-style-type: none">• % respiratory emergency visit and admissions• % invasive ventilation

Upgraded soon

- To include cardiovascular and cerebrovascular emergencies

Challenges

- Complete and timely availability of surveillance data
- Ability to assess health impact of environmental factors in real-time
- Validity of suspected heatstroke cases
- Associating acute respiratory admissions with air pollution levels
- Utility limited to time and place distribution

} Digitalization, integration
is under progress

Programme Implementation Indicators

- % health facilities that have adopted recommended green and climate-resilient measures in a state
 - Energy audit
 - LED lights
 - Solar panels
 - Rainwater harvesting
 - Sewage, Effluent, Water, Solid waste treatment plants
 - Flood and Cyclone resilient infrastructure
- No. of states launched State Action Plan on Climate Change and Human Health
- National Health Adaptation Plans published for identified climate-sensitive illnesses

Challenges

- Resource Intensive
- Guidelines and Blueprints
- Retrofit existing structures
- Mainstreaming into policies to make it sustainable – Principles incorporated into Indian Public Health Standards 2022
- Finding innovative solutions specific to place and context