

on  
3rd May, 2019  
at  
The Fern Residency, Rajkot

Organized by:  
Integrated Research and Action for Development  
(IRADe)  
&  
Indian Institute of Public Health Gandhinagar (IIPH-G)

## BACKGROUND

Integrated Research and Action for Development (IRADe), in collaboration with Rajkot Municipal Corporation (RMC) and Indian Institute of Public Health, Gandhinagar (IIPH G), organized a one-day workshop at The Fern Hotel, Rajkot on 3rd May, 2019.

The workshop aimed to strengthen the capacity of medical stakeholders to facilitate the implementation of the Heat Stress Action Plans in Rajkot and its long-term sustainability. This workshop aimed at increasing the preparedness of the medical officers in diagnosing and managing the heat stress related cases in the city.

The workshop had wide participation of more than 50 doctors and public health professionals from; Rajkot Municipal Corporation, Padma Kubarba Hospital, Pandit Dindayal Upadhyay Hospital, Railway Hospital and Gokul Hospital, Sterling Hospital. The discussions in the event mainly focused on heat waves and interpretation of heat alerts, diagnosis and treatment protocol for heat exhaustion & heat stroke, and overall preparedness for prevention and management of heat stress during heat wave days.

## Objectives of the workshop

- To orient Medical officers for Heat Stress Action Plan
- To enhance Capacities of Medical officers for better management of heat related illnesses
- Health Advisory for prevention & management of heat related illnesses and community awareness

## INAUGURAL SESSION

### Panelists;

- Mr. Chetan Ganatra,  
Deputy Municipal Commissioner, RMC
- Dr. P.P Rathod,  
Medical officer of Health, RMC
- Prof. Dileep Mavalankar  
Director, IIPH-G
- Dr. Manish Chunara,  
Medical Officer, RMC
- Ms Asha Kaushik,  
Sr. Research Associate, IRADe

## Session Highlights



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The training workshop was inaugurated by Mr. Chetan Ganatra, Deputy Commissioner, RMC. Mr. Ganatra said that the extreme temperature incidences have been rising in the Rajkot, and city Health department is the main stakeholder which can play crucial role in management of heat related illness. He also stressed on the fact that collective efforts from all city stakeholders are needed to manage the heat stress issue.

Dr. P.P Rathod, Medical Officer of Health, RMC stated that Rajkot is the heart & capital of Saurashtra region, and due to increasing global temperatures it is important to plan for heat stress management. He further said that this training workshop will be helpful in guiding the health professionals to prepare better for heat wave events.

Professor Dileep Mavalankar, Director, IIPH-G further added that it is important that all the city stakeholders should take equal responsibility and put substantial amount of contribution for better management of heat stress issue in the city. He further said that this training workshop aims to build the capacity of the Medical stakeholders; to recognize and respond to heat-related illnesses, particularly during extreme heat events and to effectively prevent and manage heat-related cases so as to reduce mortality and morbidity.

Ms. Asha Kaushik, Sr. Research Associate gave a brief introduction of the project background and objectives of the workshop. She said that this workshop aims to build the capacity of medical stakeholders for better management of heat related illness in the city and will sensitize them about the need of reporting heat related mortality and morbidity.

## Introduction of Heat Waves and Interpretation of Heat alerts; Introduction to Heat Action Plan and roles and responsibilities of medical officers

Prof. Dileep Mavalankar presented some global heat wave incidences and the causalities caused by them and further stated that the Heat wave deaths are like “ice-burgs” – which are only 10% visible – 90% of them are not reported. Prof. Mavalankar then highlighted that the people who are old, isolated and does not have cooling facility or support are the most vulnerable to heat related illness.

He defined the heat wave as ‘five or more consecutive days during which the daily maximum temperature exceeds the average maximum temperature by five degrees Celsius’. He continued that Heat wave in region should only be considered till maximum temperature of a station reaches at least 40°C for Plains and at least 30°C for Hilly regions. Prof. Mavalankar further explained the criterion for heat wave set by Indian Meteorological Department and clarified that the heat wave should be declared in a region when the actual maximum temperature remains 45°C or more irrespective of normal maximum temperature.

Dr. Mavalankar also discussed the Heat Wave Action Plan with the medical stakeholders and said that this plan aims to provide a framework for implementation, coordination and evaluation of extreme heat response activities in cities/town in India that can reduce the negative impact of extreme heat. He concluded by saying that the primary objective of the plan is to alert the populations which are vulnerable to heat stress and to take appropriate precautions.



## Classification of heat stress - clinical symptoms and treatment, Heat Exhaustion and Heat Stroke- Diagnosis and treatment protocol; management of heat Related illnesses in vulnerable groups

Dr. Aarti Trivedi, Head, Department of Medicine, PDU Medical College, Rajkot. She discussed the classification of heat stress – the Clinical symptoms and the required treatment, heat Exhaustion and Heat Stroke –Diagnosis and treatment protocol; management of heat related illness in vulnerable groups. Dr. Trivedi explained it well that Balancing body heat production with heat loss is achieved by a combination of Physiologic al mechanisms, behavioral mechanisms and Environmental conditions. She further described the five stages of heat related illness (Heat Rash, Heat Cramp, Heat Exhaustion, Heat Syncope and Heat stroke) and explicitly discussed the respective treatments.



Dr. Trivedi emphasized that to combat any heat related illness it is important to understand and sensitize the medical stakeholders about the same and elaborated on the topics; difference between heat stroke and heat exhaustion, people at the high rate of heat illness, differential diagnostics and adverse effects. In the end she elaborated on type of treatment required for different heat related health issues and also listed some simple preventive measures that can be taken to avoid heat related illness.

## Health Advisory for prevention and management of heat stress and Emergency Preparedness for the hospitals/clinics/health centres

Prof. Dileep Mavalankar discussed on Health Advisory for prevention and management of heat stress and Emergency Preparedness for the hospitals/clinics/health centers. He explained that factor affecting heat stress in a city is not limited to excruciating heat but also the amount of humidity. To combat heat, it is important to derive a real time and accurate temperature which accounts both heat and humidity. This was very well elaborated by Prof. Mavalankar with the help of Heat Index chart.

Further Prof. Mavalankar emphasized on heat stress prevention and awareness, considering both community awareness as well as health advisory. He said that heat stress sensitization plays a vital role in tackling heat related illness and demonstrated comprehensive do's and don'ts of the preventing/managing heat stress. This included explicit understanding of methods for body cooling, namely - Body immersion, evaporative cooling, Gastric lavage using cold water / ice, bladder, or peritoneal lavage, heat stress treatment room, practical cooling of heat stroke patient and cooling gloves. Prof. Mavalankar discussed in brief about emergency Preparedness for the hospitals/ clinics/ health centers which explained the need for expeditious actions. It was well received that the method and monitoring framework for data collection Heat morbidity and mortality is an essential step towards mitigation of a city.



## Agenda

Friday, 3<sup>rd</sup> May, 2019

Venue: The Fern, Kuvadava Road, Rajkot, Gujarat

S. No.	Timing	Topic	Speaker
1	10:00-10:30 AM	Registration and Tea	
1	10:30-10:35 AM	Welcome Address	Dr. P P Rathod, MoH, Rajkot Municipal Corporation
2	10:35-10:40	Introduction about the workshop	Mr. Rohit Magotra, Deputy Director/ Ms. Asha Kaushik, Sr. Research Associate, IRAD
3	10:40-11:40 AM	Introduction of Heat wave and interpretation of heat alerts; Introduction to Heat Action Plan and roles and responsibilities of medical officers	Prof. Dileep Mavalankar, Director, IIPH-Gandhinagar
4	11:40-1:10 PM	Classification of heat stress - clinical symptoms and treatment, Heat Exhaustion and Heat Stroke- Diagnosis and treatment protocol; management of heat Related illnesses in vulnerable groups	Dr. Aarti Trivedi, Head, Department of Medicine, PDU Medical College, Rajkot
5	1:10- 2:00 PM	Lunch Break	
6	2:00- 2:30 PM	Health Advisory for prevention and management of heat stress and Emergency Preparedness for the hospitals/clinics/health centres	Prof. Dileep Mavalankar, Director, IIPH-Gandhinagar
7	2:30-3:00 PM	Open Session/Discussion	
8	3:00-3:10	Vote of thanks	Dr. Mahaveer Goleccha
11	3:10- 3:30 PM	Tea Break- End	

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