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Workshop on the Development of Climate Information Systems for Heat Health Early Warning:

July 28-30, 2015 | The Palmer House | Chicago, Illinois

Tuesday, July 28 (8:00am - 5:00pm) - Crystal Room

All sessions take place in the Crystal Room (3rd floor) unless otherwise noted.

8:00-9:00 **Registration and Morning Refreshments**

9:00-9:15 **Welcome and Meeting Goals**
Juli Trtanj - NOAA One Health and Integrated Climate Research Lead, NOAA Climate Program Office

9:15-9:45 **Opening Plenary - Chicago Heat Plan**
Gary Schenkel - Executive Director, Chicago Office of Emergency Mgmt. and Communications

Panel 1: Extreme Heat Events - From Weather to Climate Scale Prediction

9:45-10:30 **Panel Presentations**
This session will review the current state and skill of projections, as well as near-future capacity currently being developed to predict extreme heat events at various temporal and spatial scales.
Moderator: Tom Karl - Director, NOAA National Centers for Environmental Information (NCEI)

- From Heat Warnings to Heat Pre-Information: The German Experience
  Paul Becker - Vice-President, Head of Business Area for Climate and Environment, Deutscher Wetterdienst (DWD)
- Global Framework for Climate Services: Heat-Health Perspectives
  Rupa Kumar Kolli - Chief, World Climate Applications and Services Division, World Meteorological Organization (WMO)
- Spanning the Weather-Climate Continuum
  Jon Gottschalck - Chief Meteorologist, Operational Prediction Branch, NOAA Climate Prediction Center (CPC)

10:30-10:45 **Break**

10:45-11:45 **Panel Discussion and Q & A**
What can we currently predict at national and sub-national levels, and how does this vary by country? What are the current limitations and opportunities for improving projections?

11:45-1:00 **Lunch - Wilson Room, Palmer House**

Panel 2: Public Health Decisions Across Time Scales

1:00 -2:00 **Panel Presentations**

This session will explore the heat health decisions that health agencies must make, the spatial and temporal scale they make them on, and related information needs.

Moderator: Kris Ebi - Professor, Departments of Global Health and Occupational and Environmental Health Sciences, University of Washington

- Arizona Case Study
  Matt Roach - University of Arizona
- Canadian Experience with Heat Health Early Warning
  Speaker.
- Experience with the German Heat Health Warning System in the City of Frankfurt
  Ursel Heudorf - Office of Public Health, Department of Medical Services and Hygiene, Frankfurt
- Presentation Title
  Dileep Mavalankar - Director, Indian Institute of Public Health, Gandhinagar

2:00 -3:00 **Panel Discussion and Q & A**

How is risk assessed and managed by public health agencies? What weather and climate information are you currently using, and what additional information is needed in the future?

3:00-3:15 **Break**

Panel 3: Heat Exposure Parameters and Health Outcomes

3:15-4:15 **Panel Presentations**

Given previous discussions on climate and weather forecasting capabilities, and on public health needs to manage heat risk, this session explores the indicators that are currently used for heat health early warning and why they are used - including a consideration of how needs may differ based on demographics and geography, suggesting a need for variable prediction capabilities.

Moderator: Rupa Kumar Kolli - Chief, World Climate Applications and Services Division, WMO

- CDC National Environmental Public Health Tracking Network
  Shubhayu Saha - Health Scientist, Climate and Health Program, National Center for Environmental Health, CDC
- Sub-Heat Wave Health Effects
  Thomas Matte - Assistant Commissioner, New York City Department of Health and Mental Hygiene
- Indices for Heat Health Warning Systems – General Considerations
  Christina Koppe - Deutscher Wetterdienst, Germany
- The 1995 Heat Wave - Forecasting and Using New Synoptic System
  Jan Semenza - Stockholm Environment Institute

4:15-5:00 **Panel Discussion and Q & A**

Given the range of population vulnerability to extreme heat, what physical science data and predictions are required to achieve the desired health outcomes? What parameters should be used, under which conditions, and for which population types? What are the gaps and what are the highest priority areas for the research communities represented here to focus on? (Incl. forecasts, observation and surveillance, raw data and prepared information products.)

5:00 **Adjourn**

5:30-7:30 **Reception**

Cresthill Room, Palmer House

Wednesday, July 29 (8:00am - 4:30pm) - Crystal Room

8:00-9:00 **Morning Refreshments**

9:00-9:45 **Opening Plenary**
Yuri Hosokawa - Director of Communication and Education, Korey Stringer Institute

9:45-10:00 **Recap of Day 1 Discussion & Preview of Today's Sessions**

Panel 4: Developing a National Integrated Heat Health Early Warning System

10:00-10:30 **Panel Presentations**
Moderator: Wayne Higgins - Director, NOAA Climate Program Office
This session will explore the heat-health parameters and methods currently being employed in various Heat Health Early Warning Systems around the world and their applicability to longer (climate) timescales.

- National Weather Service Perspective
  Andrea Bair - Physical Scientist, NWS Western Region, Climate Services Division
- Canada's Heat Alert and Response Systems (HARS)
  Sharon Jeffers - National Air Quality Outreach Coordinator, Environment Canada

10:30-10:45 **Break**

10:45-11:20 **Resume Panel Presentations**

- Extreme Heat Response in South Australia
  John Nairn - Bureau of Meteorology, South Australia, Australia
- India's Experience with Extreme Heat
  Brahm Yadav - Director, India Meteorological Department
- Heatwaves and Health: WMO/WHO Guidance on Warning-System Development
  Glenn McGregor - Professor of Climatology and Principal of Ustinov College, Department of Geography, Durham University, United Kingdom

11:20-12:15 **Panel Discussion and Q & A**
How is the transition from weather to climate time scales being accomplished? How are health data being integrated? What improvements in prediction capability are needed at climate timescales and decision relevant spatial scales to predict public health outcomes from extreme heat events? What are the lessons learned and common challenges and opportunities for implementing a national integrated system at spatial scales relevant to decision making?

12:15-1:30 **Lunch on your own**

1:30-1:45 **The Role of Research and Environmental Intelligence for Building Public Health Resilience**
Rick Spinrad - Chief Scientist, NOAA

1:45-2:45 **Breakout Session on Research Needs**
Breakout rooms: Marshfield Room, Madison Room, Indiana Room
What are the research needs for modeling, exposure risk, and prediction by priority order?

2:45-3:00 **Break**

Panel 5: Stakeholder Engagement, Risk Perception, and Communication

3:00-4:00 **Panel Presentations**
How is heat health information communicated, including risk characterization, roles and responsibilities, and varied media and messaging tool strategies.
Moderator: George Luber - Associate Director for Climate Change, Division of Environmental Hazards and Health Effects, Centers for Disease Control and Prevention (CDC)

- WHO Heat Action Plan
  James Creswick - Technical Officer, WHO Regional Office for Europe
- CDC Heat Messaging and Heat Probability Tools
  Speaker
- Climate Resilience Toolkit and Climate Data Initiative
  Ned Gardiner - Executive Producer of Video & Sr. Visualizer, NOAA Climate Program Office
- SIMMER Project - Modeling of Extreme Heat Risk
  Olga Wilhelmi - NCAR Research Applications Laboratory

4:00-4:30 **Panel Discussion and Q & A**
Assessment of current communication efforts and outcomes, as well as communication needs and gaps. How effective are existing communication plans and tools, who is using them, and how do we make them more effective? How can we best target most vulnerable groups? Is there a common comm/tool platform, and if not, should there be?

4:30 **Adjourn**

5:00-5:30 **Transport to Field Museum for Town Hall Event**
Field Museum: 1400 S Lake Shore Dr, Chicago, IL 60605
Bus leaves at 5pm from The Palmer House

5:30-8:30 **Reception and Town Hall on Community Resilience and Public Health at Field Museum**
See separate agenda for Town Hall. Register at [climate-and-extreme-heat-town-hall.eventbrite.com].

Thursday, July 30 (8:00am - 12:30pm) - Crystal Room

8:00-9:00 **Morning Refreshments**

9:00-9:15 **Recap of Day 2 Discussion Sessions & Preview of Today's Sessions**

9:15-9:45 **Opening Plenary**
Integrated Information Systems and Applications for Heat Health
Roger Pulwarty - Senior Advisor for Climate, Climate Program Office, NOAA

9:45-10:30 **Discussion Session 6: Strategic Planning for Integrated Information Systems**
What else is needed to create a full integrated information system for heat health at global, national, and local levels? How do needs differ by timescale (operational/weather scale to climate/projection scale)?

10:30-10:45 **Break**

10:45-11:15 **Report-Outs from Breakouts**

11:15-11:30 **Summit Recap - Key Takeaways from Panel Sessions**

11:30-12:30 **Discussion Session 7: Next Steps, Key Research Needs, & Strategic Partnerships**
What are the next steps to creating climate information systems and services for heat health early warning - pilots? What are the key research and monitoring needs and gaps and how are we going to address them? What are the upcoming activities and critical partnerships that need to be enhanced or built?

12:30 **Adjourn**