**Part 2. Extreme Heat Monitoring and Forecasting Tools useful for Health Risk Assessment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk Monitoring Tools | | Global | Regional | National | Health |
| [Heat-Health Watch – UK](http://www.metoffice.gov.uk/public/weather/heat-health/%20-%20?tab=heatHealth) | Service operates annually between June and mid-September to forecast maximum day and nighttime temperatures and monitor temperatures. Once a heat threshold is passed, warnings are sent to health professionals and updated on their website |  |  | ● | ● |
| [France’s Heat Health Watch Warning System](http://vigilance.meteofrance.com/) | Advisories and monitoring of high temperatures occurs in France between June and August. The Met service coordinates and collaborates with the Ministry of Health to issue warnings about potential heatwaves. |  |  | ● | ● |
| [Heatwave Service for Australia – Bureau of Meteorology](http://www.bom.gov.au/australia/heatwave/) | National heatwave monitoring and forecasting service for Australia. Provides monitoring from the past two three day periods and forecasts heatwaves for the next three to five days. |  |  | ● | ● |
| [National Weather Service – National Oceanic and Atmospheric Administration](http://www.nws.noaa.gov/om/heat/ww.shtml) | Heat-health warning system for the U.S. Each NWS Forecast Office issues a specific one for their region. They also provide a contiguous [U.S. forecast map](http://graphical.weather.gov/sectors/conus.php) of maximum and minimum temperatures in real-time and [maximum heat index forecasts](http://www.wpc.ncep.noaa.gov/heat_index_MAX.shtml). |  |  | ● |  |
| Risk Forecasting Tools | | **Global** | **Regional** | **National** | **Health** |
| [Extreme Heat Risk Map (EEA)](http://www.un-spider.org/links-and-resources/data-sources/extreme-heat-risk-map-eea) | Online interactive GIS map of the heatwave risk of European cities based on historical data and climate change projections. |  | ● |  |  |
| [EuroHEAT](http://www.euroheat-project.org/dwd/index.php) | Medium range heatwave forecasts for Europe for 1-9 day lead times. Forecasts are updated each day and issued for the next 9 days. The forecasts from the past nine days are also available so users can monitor the development of the event. |  | ● |  |  |
| [Meteoalarm](http://www.meteoalarm.eu/?lang=en_UK) | Provides extreme heat warnings and alerts for Europe. Information is displayed on an interactive map with available reports and warnings that can be downloaded for each country that have high alerts. |  | ● |  |  |
| [Climate Prediction Center - NOAA](http://www.cpc.ncep.noaa.gov/products/predictions/threats/threats.php) | Provides forecasts for excessive heat and above normal temperatures for the United States at 3-7 day lead times. |  |  | ● |  |

## 3. Resources for Health Risk Management during Extreme Heat

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Risk Management and Communication Tools | | Global | | Regional | National | Health |
| Guidance Documents |  |  |  | |  |  |
| [Communicating the Health Risks of Extreme Heat Events](http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/climat/heat-chaleur/heat-chaleur-eng.pdf) | Document for health professionals and emergency managers about how to best communicate the risks of extreme heat. |  |  | | ● | ● |
| [Heatwave Plan for England](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/429384/Heatwave_Main_Plan_2015.pdf) | Provides information about extreme heat and health in England so that people can prepare for, know where to find alerts, and prevent health issues associated with heatwaves. |  |  | | ● | ● |
| [Heatwave Plan Ahmedabad India](http://www.nrdc.org/international/india/extreme-heat-preparedness/files/ahmedabad-heat-action-plan.pdf) | Document discusses how to build awareness, initiate warnings and coordination, build capacity in the health sector, and reduce heat exposure in India. |  |  | | ● | ● |
| [WHO/WMO Heatwaves and Health: Guidance on Warning-System Development](http://www.who.int/globalchange/publications/heatwaves-health-guidance/en/) | Guidance document for practitioners, National Meteorological and Hydrological Services (NMHSs), and National Health Services (NHSs) surrounding extreme heat and how to prepare for and develop heat health warning systems. | ● |  | |  | ● |
| [WMO Guidelines on Biometeorology and Air Quality Forecasts](https://www.wmo.int/pages/prog/amp/pwsp/pdf/TD-1184.pdf) | Guidance document for NMHSs on methods of incorporating biometeorology and air quality forecasts into their products and services. | ● |  | |  |  |
| [WHO/WMO Atlas of Health and Climate](http://www.who.int/globalchange/publications/atlas/report/en/) | Provides scientific information on the connection between weather and climate and health challenges. |  |  | |  |  |
| [WHO Heat Health Action Plans](http://www.euro.who.int/en/publications/abstracts/heathealth-action-plans) | Guidance document for improving public health response to heatwaves through the development of heat-health action plans. | ● | ● | | ● | ● |
| [CDC’s Climate Change and Extreme Events](http://www.cdc.gov/climateandhealth/pubs/ClimateChangeandExtremeHeatEvents.pdf) | Provides information of how to prepare and respond to extreme events, including extreme heat. |  |  | | ● | ● |
| Web Resources |  |  |  | |  |  |
| [Extreme Heat Toolkit for Health Sector (HealthCanada)](http://www.hc-sc.gc.ca/ewh-semt/pubs/climat/index-eng.php#toolkit) | Provides information about extreme heat and health including brochures, reports, and guidebooks. | ● |  | | ● | ● |
| [CDC's Extreme Heat and Your Health](http://www.cdc.gov/extremeheat/index.html) | Supplies information on how individuals can protect themselves from extreme heat as well as provides resources for public health professionals. | ● |  | | ● | ● |
| [Disaster Information Management Research Center](https://sis.nlm.nih.gov/dimrc/extremeheat.html) | Provides resources and information pertaining to extreme heat and health. | ● |  | | ● | ● |
| [Environmental Protection Agency](http://www.epa.gov/natural-disasters/extreme-heat) | Tips and resources for preparing for and dealing with extreme heat. |  |  | | ● | ● |
| [National Oceanic and Atmospheric Administration](https://toolkit.climate.gov/topics/human-health/extreme-heat) | U.S. Climate Resilience Toolkit – Extreme Heat. Presents information on the background of extreme heat in the U.S. and its impacts on health. Provides links to featured tools and case studies in the U.S. |  |  | | ● | ● |
| [Natural Resources Defense Council (NRDC) – Extreme Heat](http://www.nrdc.org/health/climate/heat.asp) | Provides information on extreme heat and health, along with maps of the U.S. depicting heat exposure, and resources on the topic. [Future risks to health](http://www.nrdc.org/globalwarming/killer-heat/). |  |  | | ● | ● |
| Key Relevant Programs and Partners |  |  |  | |  |  |
| [World Meteorological O](https://www.wmo.int/pages/themes/climate/applications_health.php)rganization | Supports the health sector with weather and climate science tools, services, and resources. | ● |  | |  |  |
| [World Health O](http://www.who.int/topics/climate/en/)rganization | Provides support to improve health outcomes for countries around the world. | ● |  | |  | ● |
| [Centers for Disease Control and Prevention](http://emergency.cdc.gov/disasters/extremeheat/) | Provides health information in relation to extreme heat and guidance on how to prepare, respond, and stay safe during heatwaves |  |  | | ● | ● |
| [Health Canada](http://www.hc-sc.gc.ca/index-eng.php) | Provides sound scientific knowledge and communicates public health threats to promote and support healthier lives. |  |  | | ● | ● |
| [National Oceanic and Atmospheric Administration](http://cpo.noaa.gov/AboutCPO/IntegratedInformationSystems/NIHHIS/NIHHISResources.aspx) | Climate Program Office seeks to understand, communicate, and educate the risks associated with extreme heat. |  |  | | ● | ● |
| [UK MET Office](http://www.metoffice.gov.uk/health/public) | Provides health forecasts for health conditions that are affected by weather in order to help people take preventative action. |  |  | | ● | ● |

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