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# Climate & Health News

Monthly Newsletter of the JHU-UPF Public Policy Center Climate Change Working Group



## Volume 1 Issue 3 March 2016

*Science and news organized  
by major category:*

ADAPTION  
AIR POLLUTION  
DROUGHT  
FLOOD, CITIES  
HEAT  
SEA-LEVEL  
VECTORS  
WATER

### *Climate and Health in the News This Month*

Climate and health news coverage over the last month has focused on taking stock of lessons from the Zika epidemic; new findings on faster-than-anticipated sea-level rise and implications for flooding in cities on the US coast (including Boston, Philadelphia, Baltimore, Washington DC, San Francisco, Honolulu) and in Europe (Copenhagen); city management of water shortages in drought settings in San Diego and Los Angeles; and a new analysis of spending on climate adaptation in 10 world mega-cities (Beijing, London, New York, Addis Ababa, Lagos, Jakarta, Paris, Mexico City, Sao Paulo and Mumbai).

Newly-published science in the climate and health field during February suggests heat remains the most frequently-studied climate-related health risk factor. Last month's published studies on heat examined variation in vulnerability by age and disease category, link to wildfires in peri-urban areas, and high prevalence of heat-induced injuries among other topics. Vector-related research focused on growing risks of dengue and malaria in China. A new approach for public health in the Sendai disaster framework and a UNEP progress report on ozone depletion and climate change were published. Among cities addressed in research were Mediterranean cities, Atlanta (US), Guangzhou and Hong Kong. Scroll down below for the latest publications.

And again, please visit the website for the Working Group with a separate [page](#) and [blog](#) for our Climate-Healthy Cities project. Your comments, news stories, links to useful resources, and blog posts are very welcome!

*Climate and Health News,  
March 2016\**

ADAPTATION

**AIR POLLUTION:**

[States ask Supreme Court to block EPA air pollution rule.](#)

[Europe slow to act on diesel dangers.](#)

**DROUGHT**

[History repeats itself in Ethiopia](#)

[As California enters 'new era' on water cities seek their own solutions](#)

**FLOOD, CITIES**

[Flood damage costs will rise faster than sea-level.](#)

**HEAT**

[Searing Heat Waves Could Become Annual Threat.](#)

**SEA-LEVEL**

[Sea level is now rising at the fastest rate in nearly 3,000 years.](#)

[Sea-level rising faster than previously thought in the US.](#)

**VECTORS:**

[In Zika epidemic, a warning about climate change.](#)

[How Forest Loss is Leading to Rise in Human Disease.](#)

**WATER**

[As California enters 'new era' on water cities seek their own solutions \(LA & SD\).](#)

*\*Source: Selected from "The Daily Climate" News Roundup; click underlined link to go to news article.*

***Upcoming events***

Mar 14-18, 2016. [Barcelona Resilience Week](#)

Mar 15-16, 2016. [The Sustainability Summit, The Economist – London](#)

May 5-6, 2016. [Climate Action 2016, UNFCCC – Washington DC.](#)

May 10-13, 2016. [Adaptation Futures 2016: Practices and Solutions, PROVIA – Rotterdam](#)

July 6-8 2016. [Resilient Cities 2016, ICLEI – Bonn](#)

Nov 30-Dec 2, 2016. [C40 Mayors Summit, C40 – Mexico City](#)

[A multi-level analysis to explain self-reported adverse health effects and adaptation to urban heat islands: a national survey in the deprived areas of 9 Canadian cities](#)  
This 3-level analysis shows the differential importance of the characteristics of residents, buildings and their surroundings on self-reported adverse health impacts and on adaptation (other than air conditioning) under hot and humid summer conditions. It also identifies indicators specific to impacts or adaptation. **HEAT, VULNERABILITY, CITIES**

[Methods to Estimate Acclimatization to the Urban Heat Island Effects on Heat- and Cold-Related Mortality](#). OBJECTIVES: To develop methods to examine and quantify the degree of acclimatization to heat- and cold-related mortality in relation to UHI anomaly, then apply to London, UK. RESULTS: The results for London suggest relatively complete acclimatization to the UHI effect on summer heat-related mortality, but less clear evidence for cold. **HEAT, CITIES**

[Climate Justice in Rural Southeastern United States: A Review of Climate Change Impacts and Effects on Human Health](#). Climate justice is a local, national, and global movement to protect at-risk populations who are disproportionately affected by climate change. The social context for this review is the Southeastern region of the United States, which is particularly susceptible to climate change because of the geography of the area and the vulnerabilities of the inhabiting populations. **VULNERABILITY**

[Mapping regional patterns of large forest fires in Wildland-Urban Interface areas in Europe](#). Over recent decades, Land Use and Cover Change (LUCC) trends in many regions of Europe have reconfigured the landscape structures around many urban areas. In these areas, the proximity to landscape elements with high forest fuels has increased the fire risk to people and property. This study proposes a method to map the extent and spatial patterns of the European WUI areas at continental scale. **HEAT, FIRES, CITIES**

[Warm season temperatures and emergency department visits in Atlanta, Georgia](#). Extreme heat events will likely increase in frequency with climate change. Heat-related health effects are better documented among the elderly than among younger age groups. We assessed associations between warm-season ambient temperature and emergency department (ED) visits across ages in Atlanta during 1993-2012. **HEAT, CITIES (Atlanta), VULNERABILITY**

[Mortality attributable to extreme temperatures in Spain: A comparative analysis by city](#). The Low Temperature Days (LTD) have attracted far less attention than that of High Temperature Days (HTD), though its impact on mortality is at least comparable. The effect of extreme temperatures on daily mortality was similar across the study period for Spain overall. The lower number of days with LTD meant, however, that daily cold-related mortality was higher than daily heat-related mortality, thereby making prevention plans against LTD more "profitable" prevention plans against HTD in terms of avoidable mortality. **HEAT, CITIES**

[Impact of heatwave on mortality under different heatwave definitions: A systematic review and meta-analysis](#). Heatwave effects on human health and wellbeing is a great public health concern, especially in the context of climate change. However, no universally consistent heatwave definition is available. City- or region-specific heat health early warning systems based on identified local heatwave definitions may be optimal for protecting and preventing people from the adverse impacts of future heatwaves. **HEAT, CITIES**

[Estimating the burden of heat illness in England during the 2013 summer heatwave using syndromic surveillance](#). The burden of heat illness on health systems is not well described in the UK. These findings support the monitoring of heat illness (symptoms of heat/sun stroke) as part of the Heatwave Plan for England, but also suggest that specifically monitoring heat illness in children, especially those of school age, would provide additional early warning of, and situation awareness during heatwaves. **HEAT, VULNERABILITY**

[Impact of high ambient temperature on unintentional injuries in high-income countries: a narrative systematic literature review](#). The present review describes a broader range of types of unintentional fatal and non-fatal injuries (occupational, trauma hospital admissions, traffic, fire entrapments, poisoning and drug overdose) than has previously been reported. Our review confirms that hot weather can increase the risk of unintentional injuries and accidents in high-income countries. The results are useful for injury prevention strategies. **HEAT, INJURIES**

[Vulnerability of Coastal Communities from Storm Surge and Flood Disasters](#). Disasters in the form of coastal storms and hurricanes can be very destructive. This paper presents a quantitative framework for vulnerability measurement that incorporates both socioeconomic and flood inundation vulnerability. The approach is demonstrated for three coastal communities in Mississippi with census tracts being the study unit. The vulnerability results are illustrated as thematic maps for easy usage by planners and emergency

Assessment of the Casualty Risk of Multiple Meteorological Hazards in China. A study of the frequency, intensity, and risk of extreme climatic events or natural hazards is important for assessing the impacts of climate change. The results of this study can be used as references for the management of meteorological disasters in China. The model can be used to quantitatively calculate the risks of casualty, direct economic losses, building collapse, and agricultural losses for any hazards at different spatial scales. **DISASTERS; CITIES (China)**

Climate and the Timing of Imported Cases as Determinants of the Dengue Outbreak in Guangzhou, 2014: Evidence from a Mathematical Model. As the world's fastest spreading vector-borne disease, dengue was estimated to infect more than 390 million people in 2010, a 30-fold increase in the past half century. The results suggested that an early imported case was the most important factor in determining the 2014 outbreak characteristics. Early detection and response to imported cases in the spring and early summer is crucial to avoid large outbreaks in the future. **VECTORS**

Spatial and temporal variation in emergency transport during periods of extreme heat in Japan: A nationwide study. **HEAT**

An Overview of Occupational Risks From Climate Change. **HEAT**

Daily temperature change in relation to the risk of childhood bacillary dysentery among different age groups and sexes in a temperate city in China. **HEAT, WATER**

Predicting malaria vector distribution under climate change scenarios in China: Challenges for malaria elimination. **VECTORS**

Effect of temperature and relative humidity on the development times and survival of *Synopsyllus fonquerniei* and *Xenopsylla cheopis*, the flea vectors of plague in Madagascar. **VECTORS**

Flood-Exposure is Associated with Higher Prevalence of Child Undernutrition in Rural Eastern India. **FLOODS**

Impacts of Climatic Variability on *Vibrio parahaemolyticus* Outbreaks in Taiwan. **WATER**

Spatial Modelling Tools to Integrate Public Health and Environmental Science, Illustrated with Infectious Cryptosporidiosis. **WATER**

Influence of Climate Extremes and Land Use on Fecal Contamination of Shallow Tubewells in Bangladesh. **STORMS, WATER**

Protecting the Health and Well-being of Populations from Disasters: Health and Health Care in The Sendai Framework for Disaster Risk Reduction 2015-2030. **DISASTERS**

Development and Application of a Next Generation Air Sensor Network for the Hong Kong Marathon 2015 Air Quality Monitoring. **AIR POLLUTION, CITES (Hong Kong)**

Environmental effects of ozone depletion and its interactions with climate change: progress report, 2015. (United Nations Environment Programme Environmental Effects Assessment Panel). **AIR POLLUTION, CO-BENEFITS**

Climate Justice in Rural Southeastern United States: A Review of Climate Change Impacts and Effects on Human Health. **ADAPTATION, VULNERABILITY**

*\*Source: New entries in PubMed; click on underlined link to go to journal article abstract. Those with asterisk (\*) published in the International Journal of Health Services Special Section on Climate Change and Health.*



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