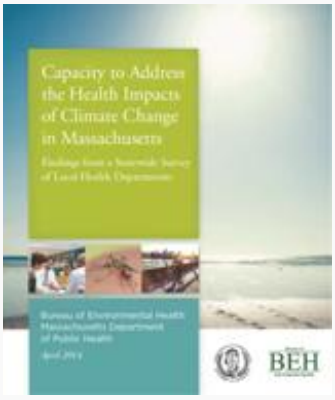
Massachusetts Surveys Climate Readiness of Public Health Departments

Climate change threatens human health through a variety of pathways including more frequent extreme weather events, decreased air quality, and increased spread of vector-borne diseases. Massachusetts, recognizing this risk, surveyed its local boards of public health to gauge the state's level of public health preparedness for climate change. The Massachusetts Department of Health was interested in the local boards' current understanding, level of preparedness, and response capabilities for projected climate change risks. The survey covered surveillance, planning, and intervention activities associated with heat stress, hazardous weather events, indoor air quality, food supply/agricultural issues, vector-borne diseases, and water quality issues. The survey helped identify communities that may be more vulnerable to projected climate change risks. State and local communities can use this knowledge to increase resiliency and adaptive capacity by more effectively guiding and targeting resources and actions to vulnerable health departments.



Massachusetts Public Health Survey Report Cover.

How Did They Do It?	Applicable EPA Tools
Assessed the state public health system's current perceived capacity to deal with projected climate risks • The Massachusetts Department of Health worked with the regional coordinators of the five Massachusetts public health regions and the 15 Emergency Preparedness Regional Coalitions to survey the 351 municipalities in the commonwealth. • Less than a quarter (24%) of responding health departments identified climate change preparations as a priority, yet only a fifth (21%) felt they had adequate resources to address climate risks.	CDC's Health Vulnerability: Climate Change Guide For Health Departments helps communities assess capacity and vulnerability to climate risks. Health Vulnerability: Climate Change Guide For Health Departments ** (This is a non-EPA resource from the Centers for Disease Control and Prevention.)*

How Did They Do It?	Applicable EPA Tools
• Only a small minority of respondents identified and systematically tracked many of the threats projected to be exacerbated by climate change such as indoor and outdoor air quality, respiratory conditions, and extreme heat. • Half the respondents identified current efforts to increase resiliency to extreme heat events, such as having developed or in the process of developing plans for siting cooling centers for operation during heat events.	
Identified knowledge gaps on vulnerable populations • The majority of health departments focused vulnerable population outreach to the elderly, and to a much lesser extent, those with mobility challenges; outside of those two vulnerable populations, outreach was infrequent. • The Department of Health report highlighted a lack of outreach and knowledge gap of vulnerable populations as a key issue to help increase adaptive capacity of local health departments.	EPA's EJ Screen combines environmental and demographic indicators to help highlight places that may be vulnerable to human health impacts on climate change (example demographic indicators include elderly, extremely young, low-income, linguistically isolated communities) and may warrant further review as environmental justice communities. EJ Screen

How Did They Do It?	Applicable EPA Tools
Prepared a final report with recommended steps to increase public health system's adaptive capacity • The Department of Public Health "should create region-specific vulnerability maps identifying and quantifying specific environmental and public health threats". • The survey can be used in combination with Massachusetts' Environmental Public Health Data Tracking (EPHT) portal to help communities better prepare for future health impacts. ◦ Massachusetts' Environmental Public Health Data Tracking (EPHT) portal Exit	EPA's Climate Impacts on Health Page provides information to better increase knowledge of the expected human health risks from climate change. Climate Impacts on Health Page

Similar Cases and More Information

Massachusetts acknowledged that while the survey has helped identify prospective vulnerabilities, they are unable to tie this data to projected vulnerabilities without further research. To see an example of how a community has identified projected public health vulnerabilities, see the Minnesota Climate Health case study. To see an example of specific steps to reduce vulnerabilities and adapt to changing conditions, view Chicago's Adaptation to Extreme Heat Events, or for how to increase adaptive capacity of vulnerable populations, view Chicago's Heat Emergency Response.