

Preparing for Climate Effects at the Municipal Level: A Public Health Symposium

Tuesday, July 15, 2014

MIT Endicott House, Dedham, MA

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Director, Bureau of Environmental Health



Bureau of
BEH
Environmental Health

Outline

- I. Climate Change and Health in Massachusetts
- II. Background on CDCs Climate Ready States and Cities Initiative (CRSCI)
- III. Results of Local Public Health Climate Change Survey
- IV. Summary
- V. Questions

I. Climate and Health in Massachusetts

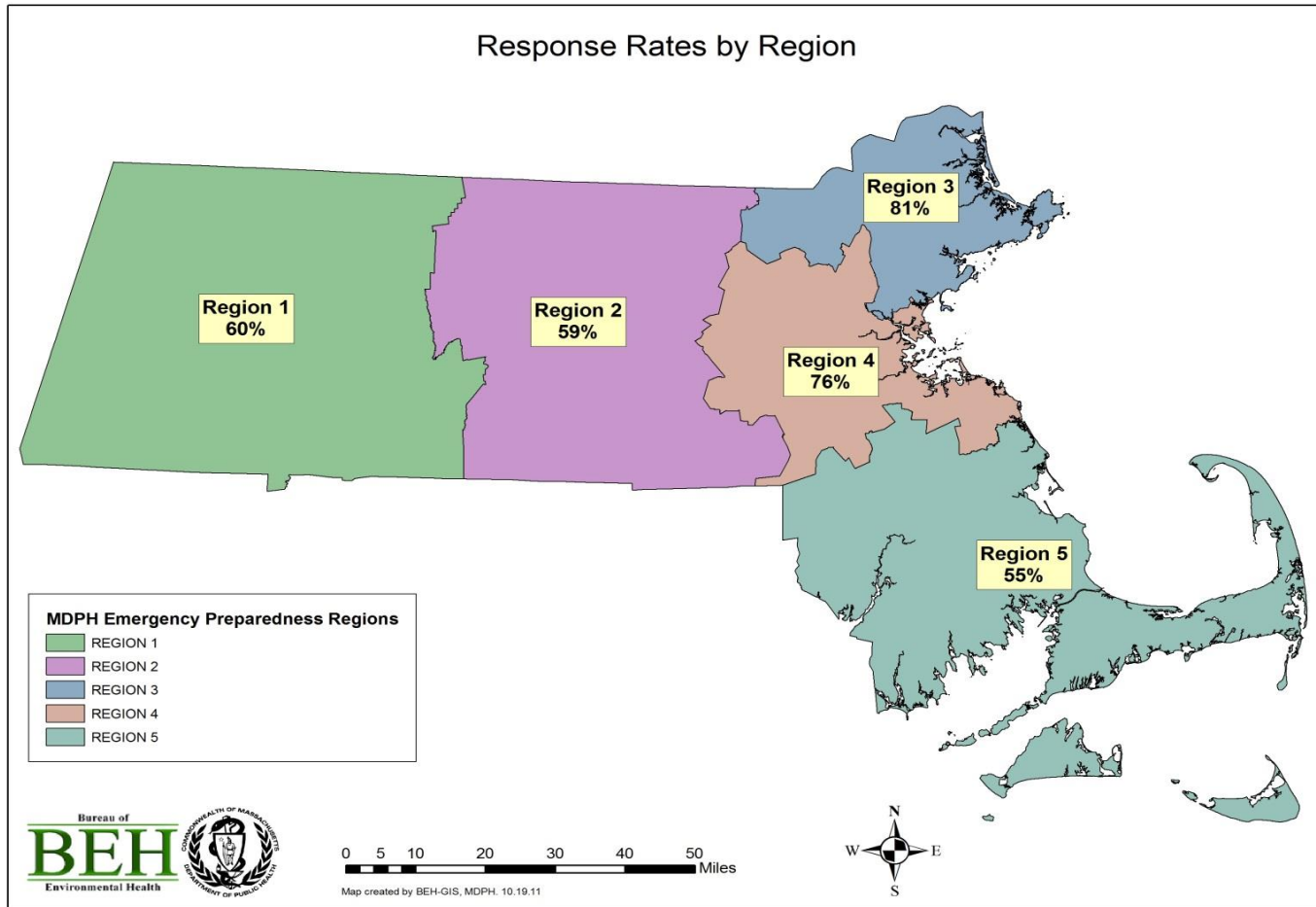
- MDPH/BEH co-chaired the Health and Human Welfare Panel of the Executive Office of Energy and Environmental Affairs (EOEEA) Climate Change Adaptation Committee

PUBLIC HEALTH	Public health infrastructure, vector-borne diseases, heat stress, allergens, respiratory and cardiovascular diseases, extreme weather events
AIR QUALITY	Ambient and indoor air quality
WATER QUALITY/SANITATION	Drinking water, algae blooms, wastewater, water-borne diseases
AGRICULTURE AND FOOD SYSTEMS	Crops and livestock, water demand, pesticide use, new or invasive pests, food transmitted illnesses, security and safety
VULNERABLE POPULATIONS	Food security, pesticides, allergens, air and water quality, vector-borne diseases, recovering from extreme weather events

II. Background on CRSCI

- In 2010 MDPH was one of ten states/cities awarded funds from US Centers for Disease Control and Prevention
- MA Goal: assess capacity of local health to respond to climate change impacts
- MDPH developed a survey to collect information from Massachusetts local health officials:
 - » Perceptions of climate change related health risks and capacity to address those risks
 - » Community's characteristics
 - » Baseline operations, emergency planning, and communication systems
- Surveys were returned from 227 (65%) of communities

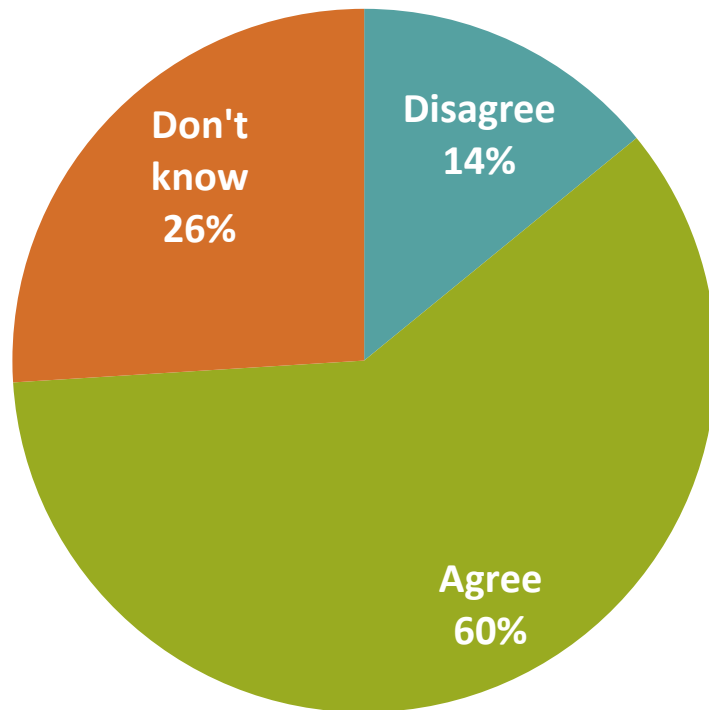
III. Results of Local Health Climate Change Survey



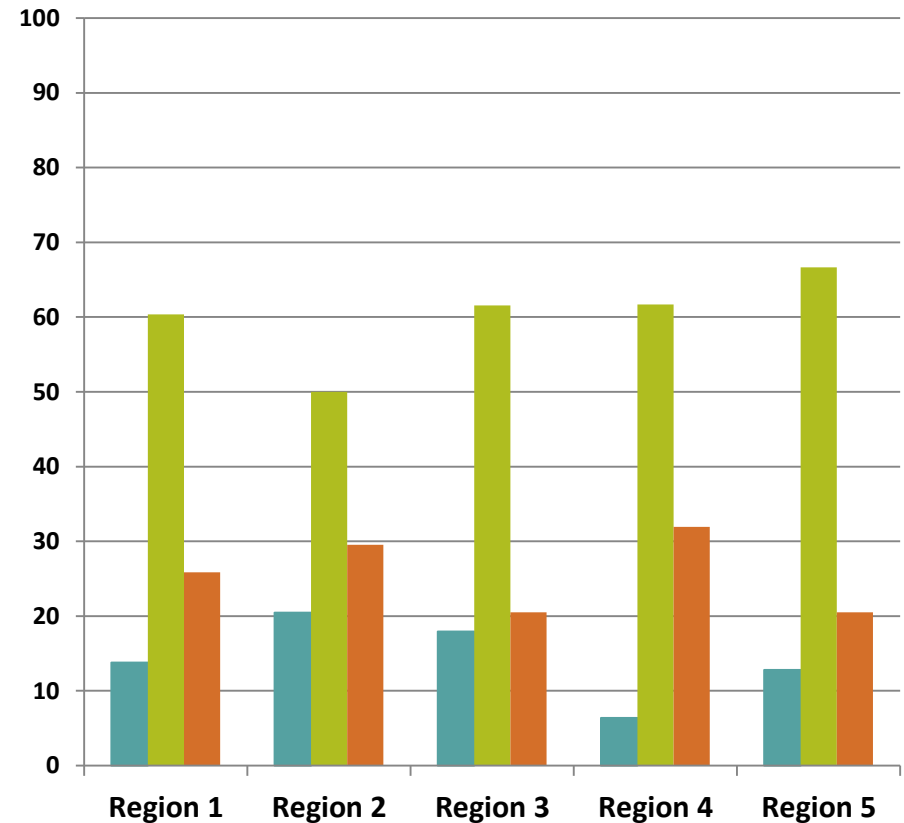
Statewide Response Rate: 65%

In the next 20 years, it is likely that your jurisdiction will experience one or more serious public health problems as a result of climate change

■ Disagree ■ Agree ■ Don't know

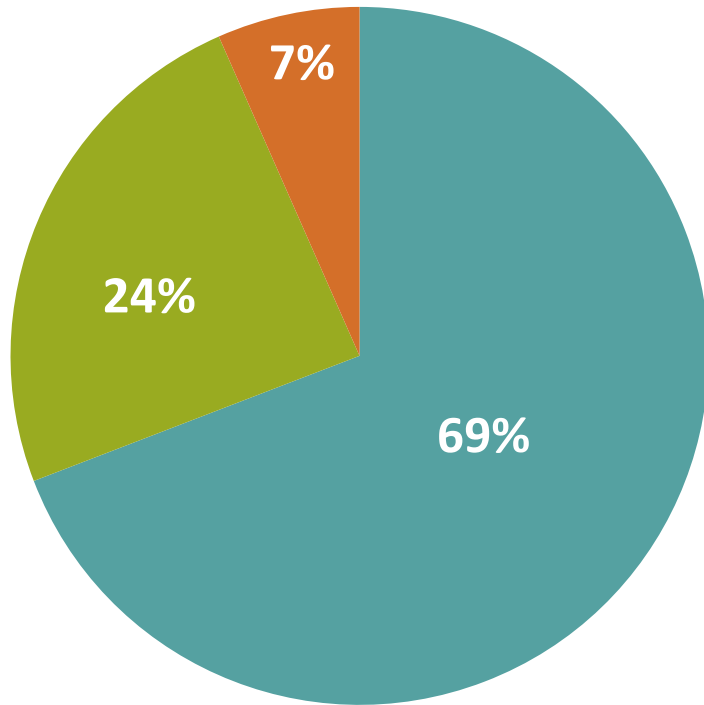


■ Disagree ■ Agree ■ Don't Know

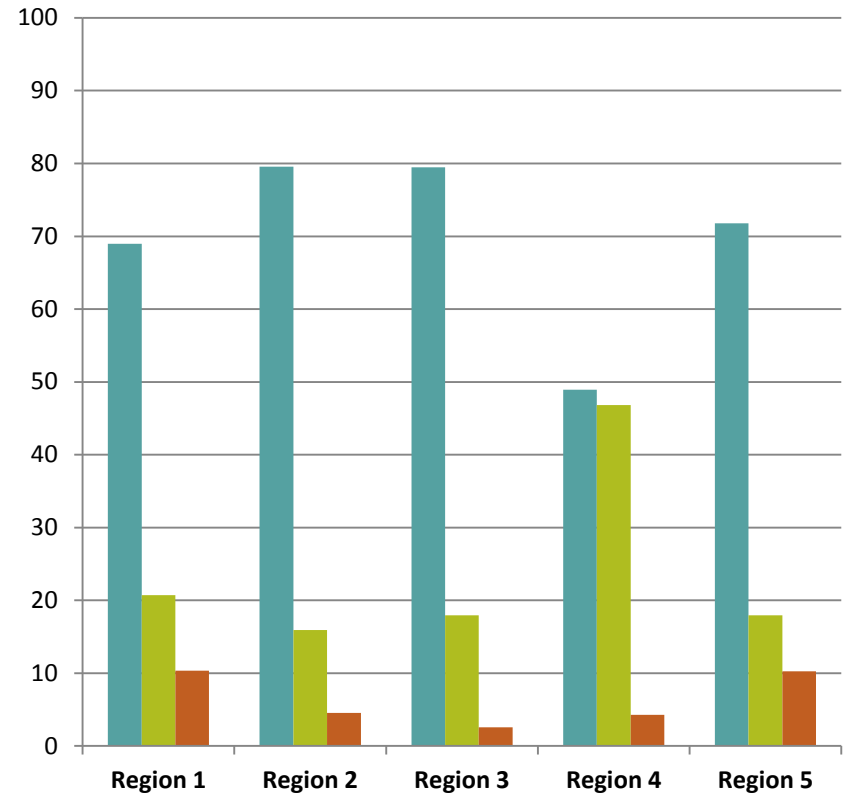


Preparation to deal with the public health effects of climate change has been identified as an important priority for your health department

■ Disagree ■ Agree ■ Don't know

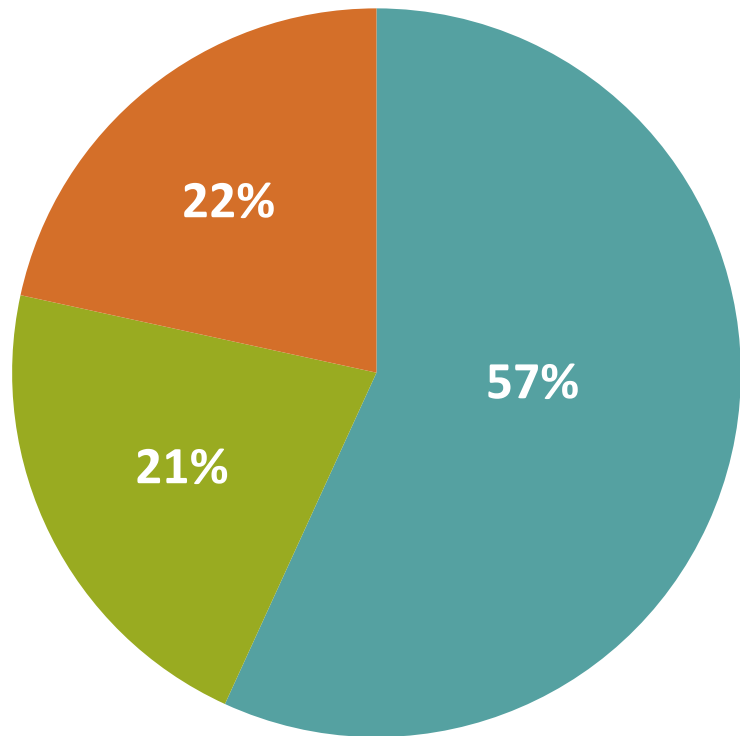


■ Disagree ■ Agree ■ Don't Know

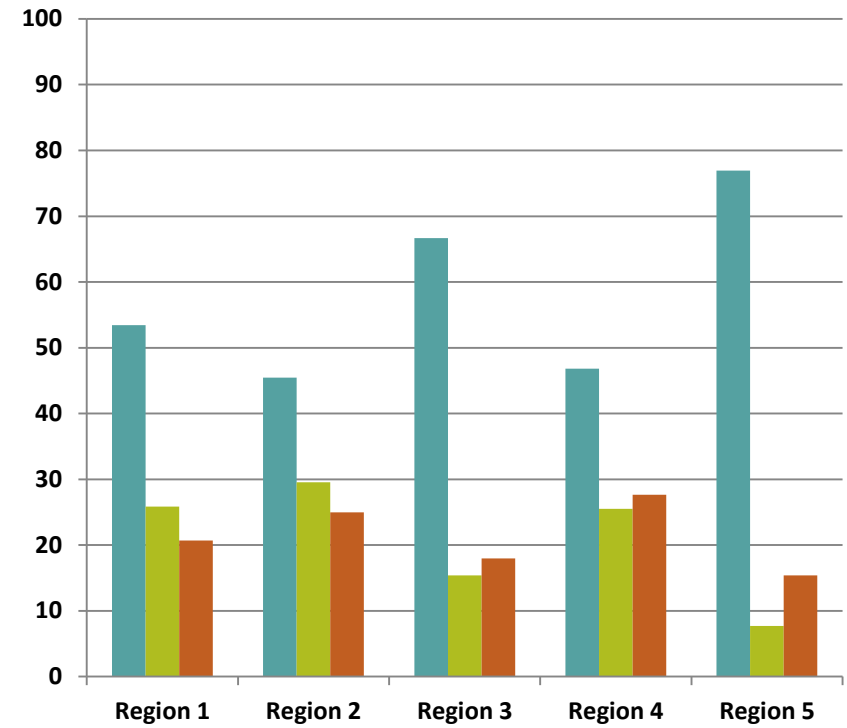


You believe your community has adequate resources to address public health as a result of climate change

■ Disagree ■ Agree ■ Don't know

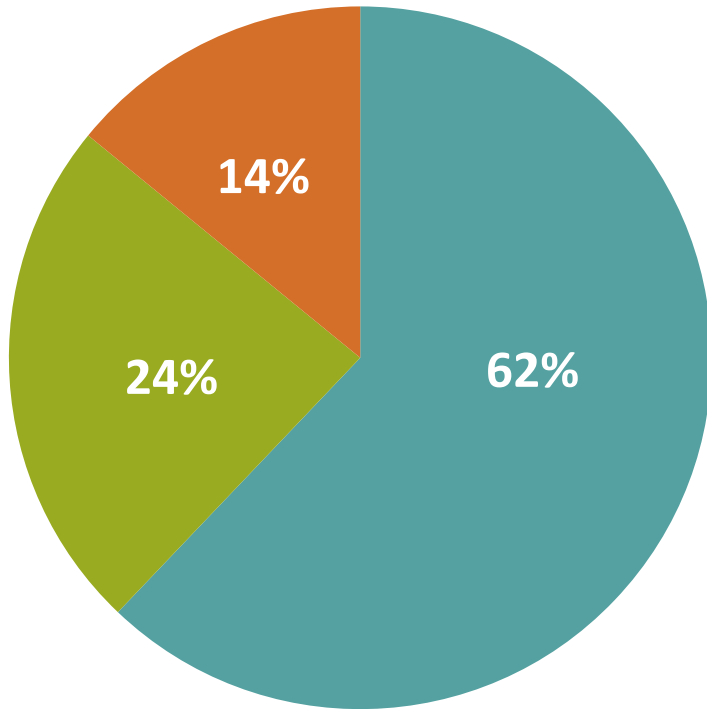


■ Disagree ■ Agree ■ Don't Know

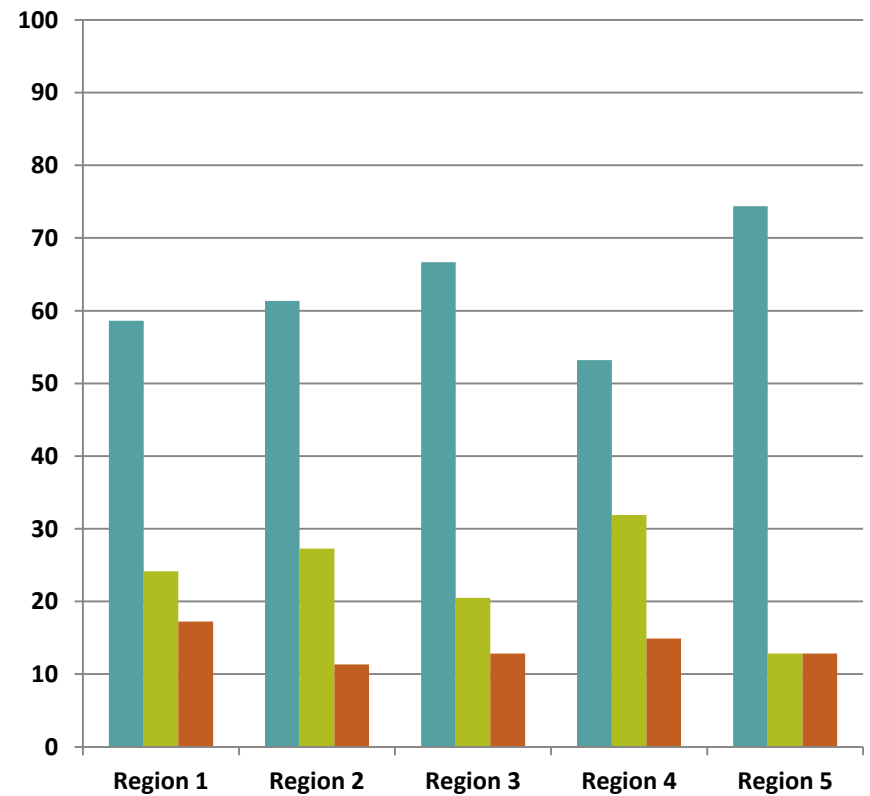


You believe your community's health department staff currently has expertise to assess the potential public health impacts associated with climate change in my community

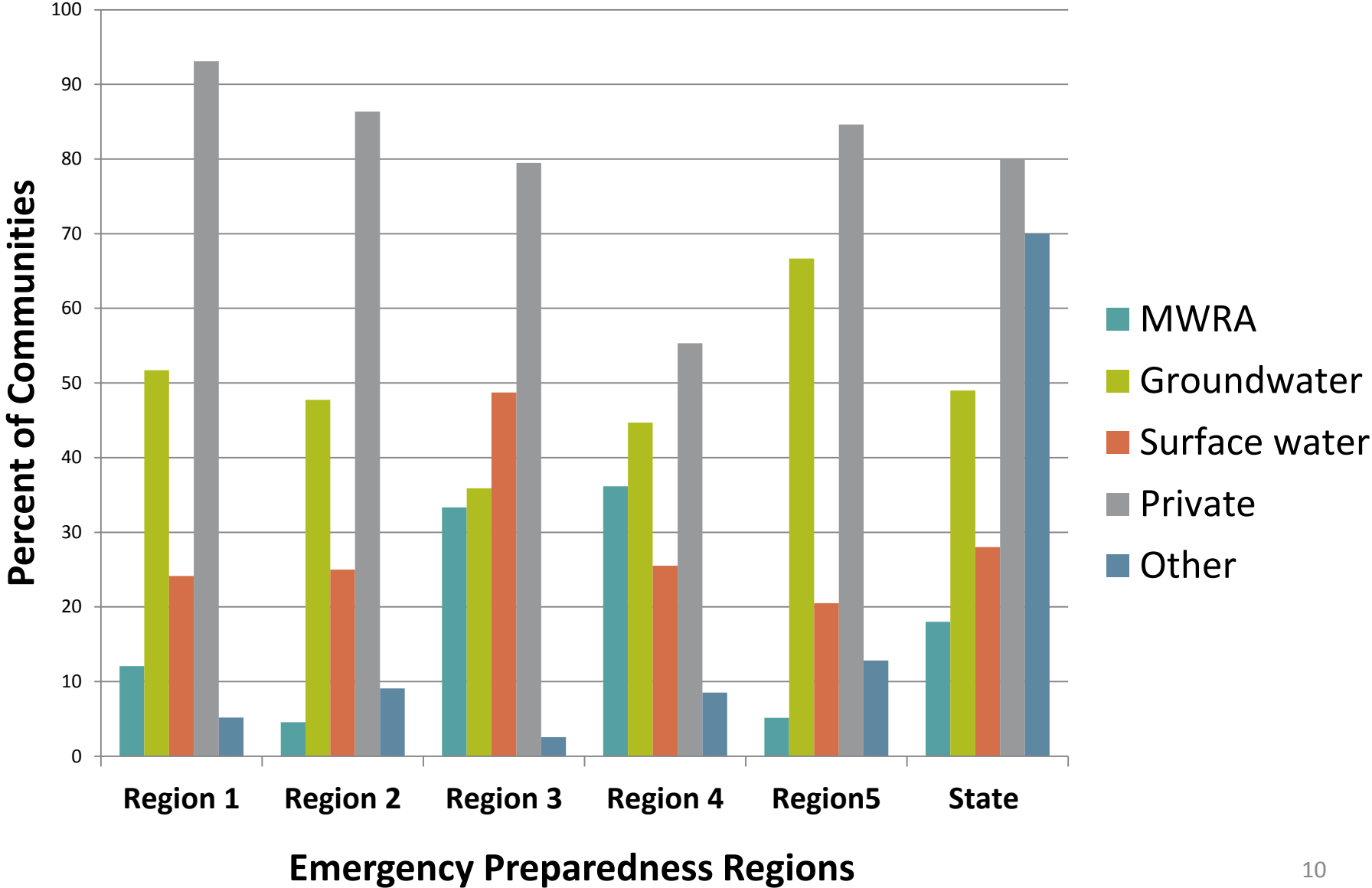
■ Disagree ■ Agree ■ Don't know



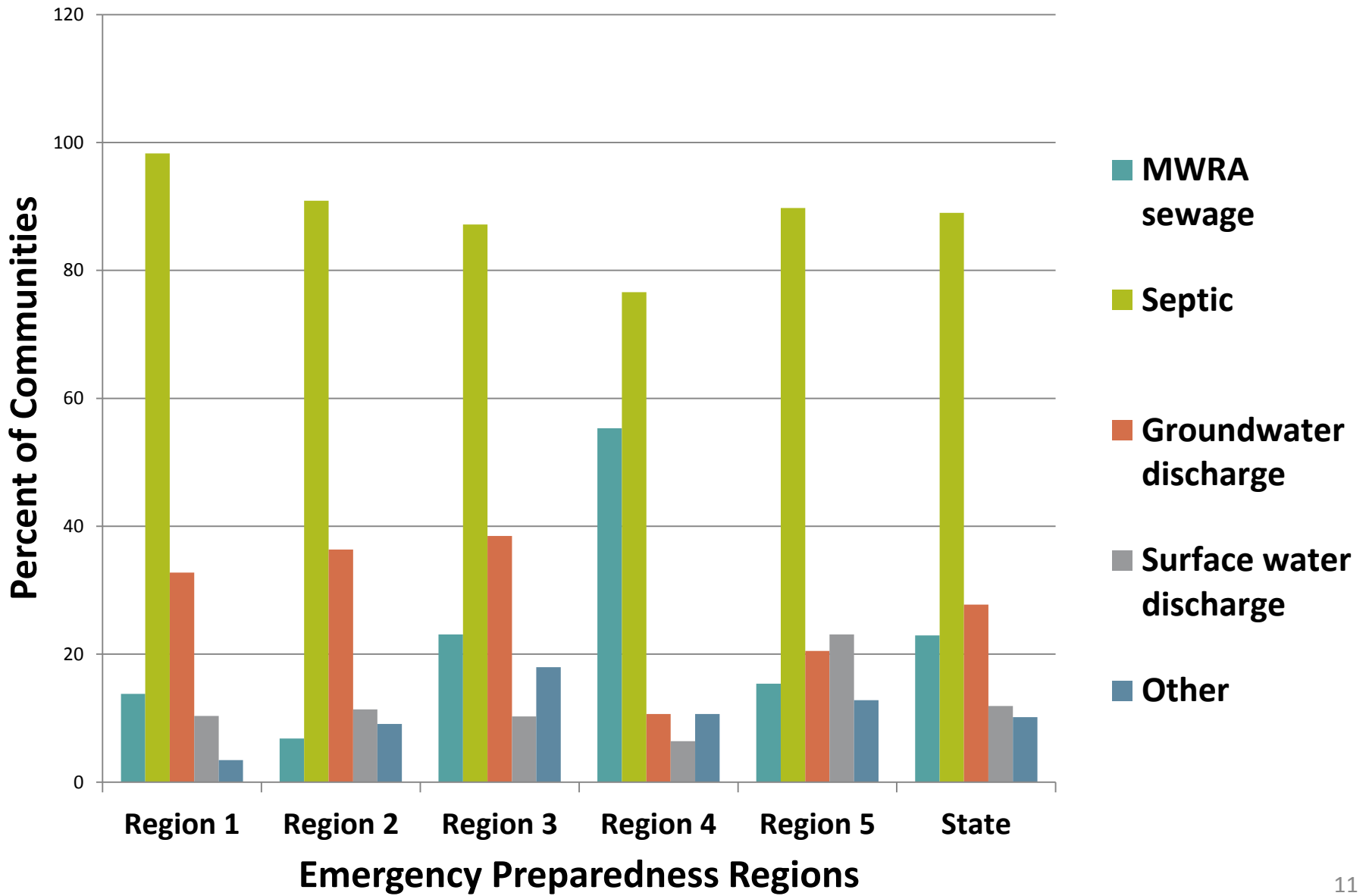
■ Disagree ■ Agree ■ Don't Know



Sources of Drinking Water in Massachusetts



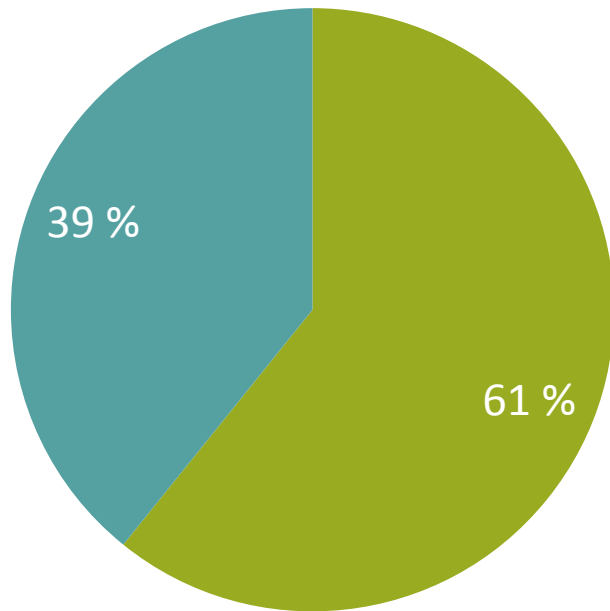
Sewage Treatment Methods in Massachusetts



Estimate of Air Conditioning Availability in Homes and Schools

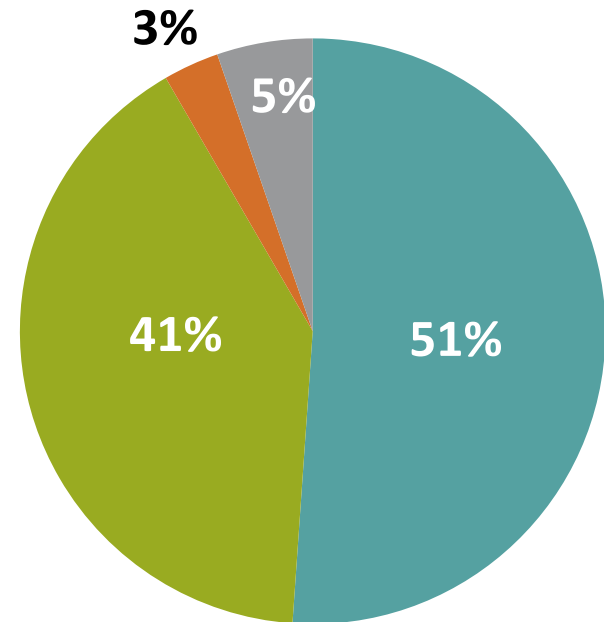
- Knowledge of air conditioning availability in residences:

■ Don't know ■ Know

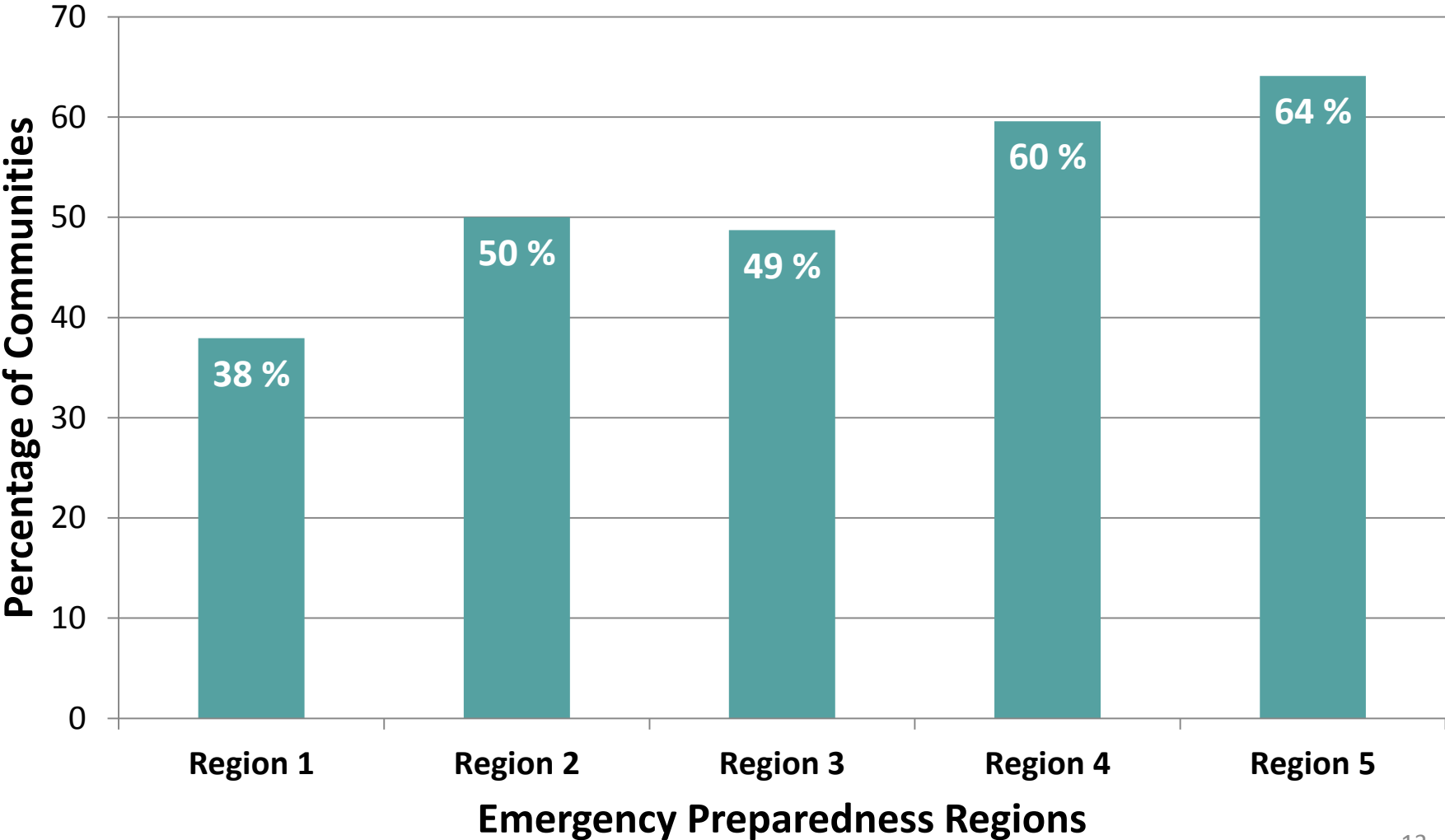


- Knowledge of air conditioning availability for schools:

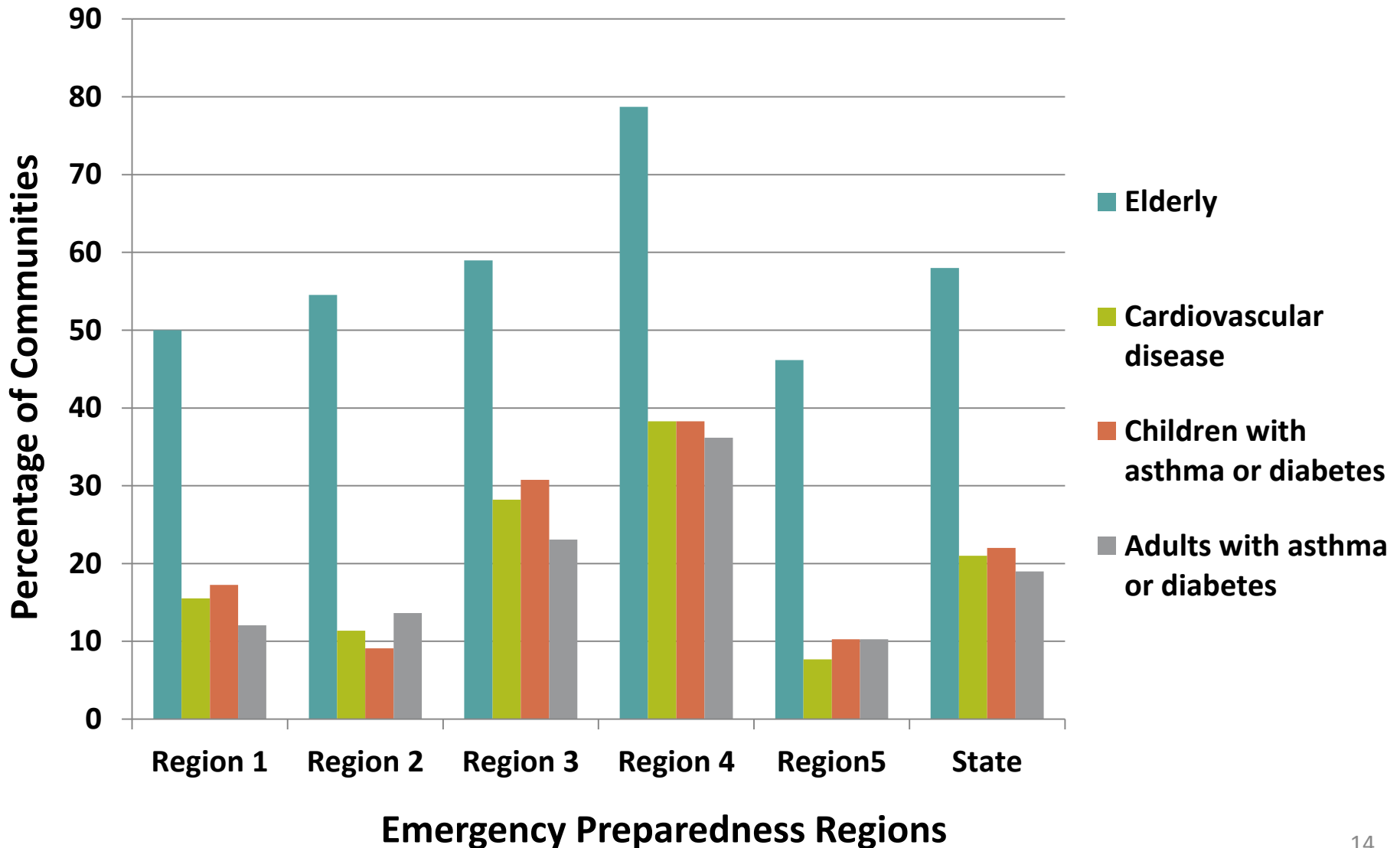
■ Yes ■ No ■ Don't know ■ No response



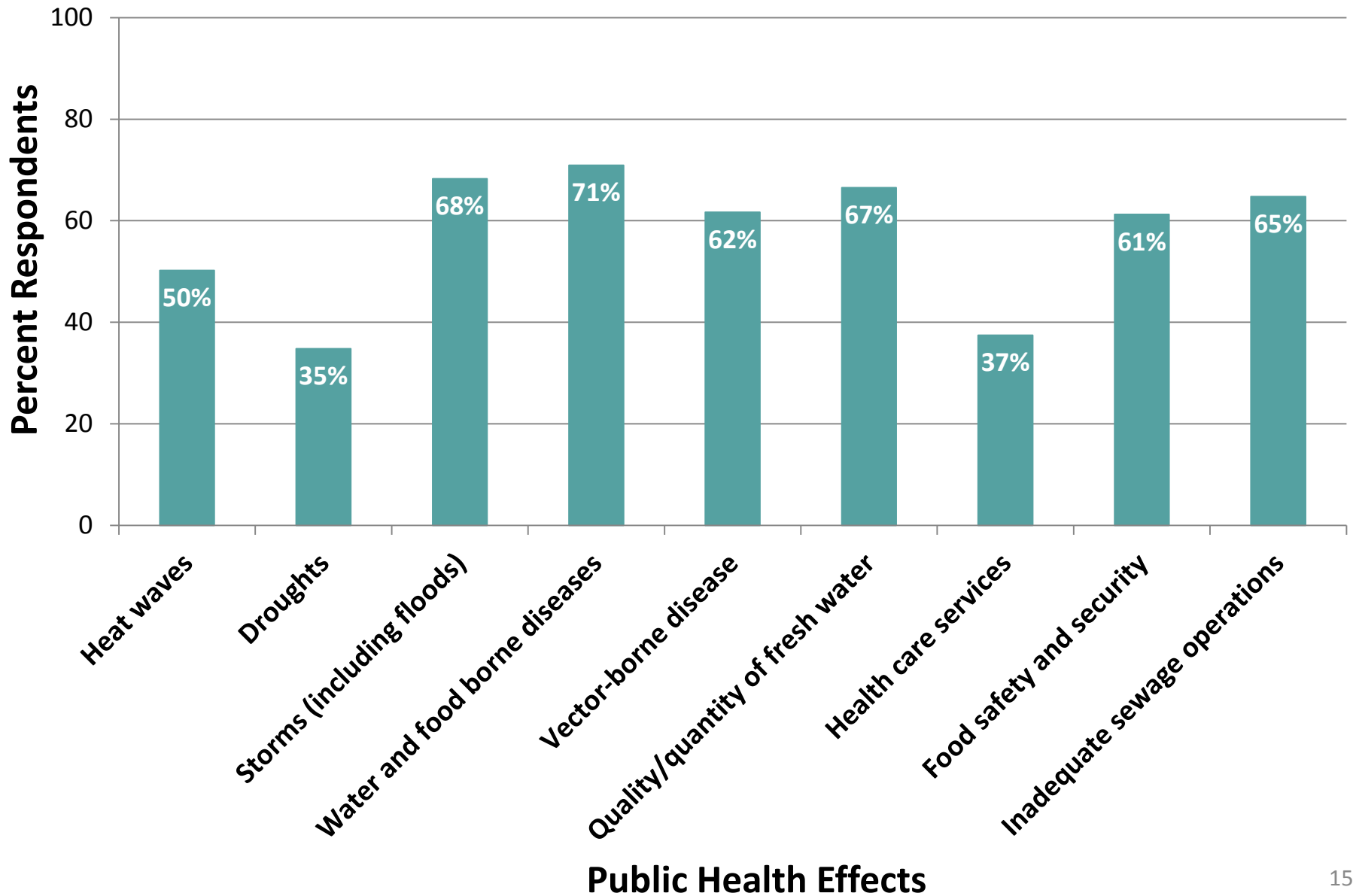
Estimate of Air Conditioning Availability in Schools



Knowledge of Local Health Departments About Percentage of Vulnerable Residents

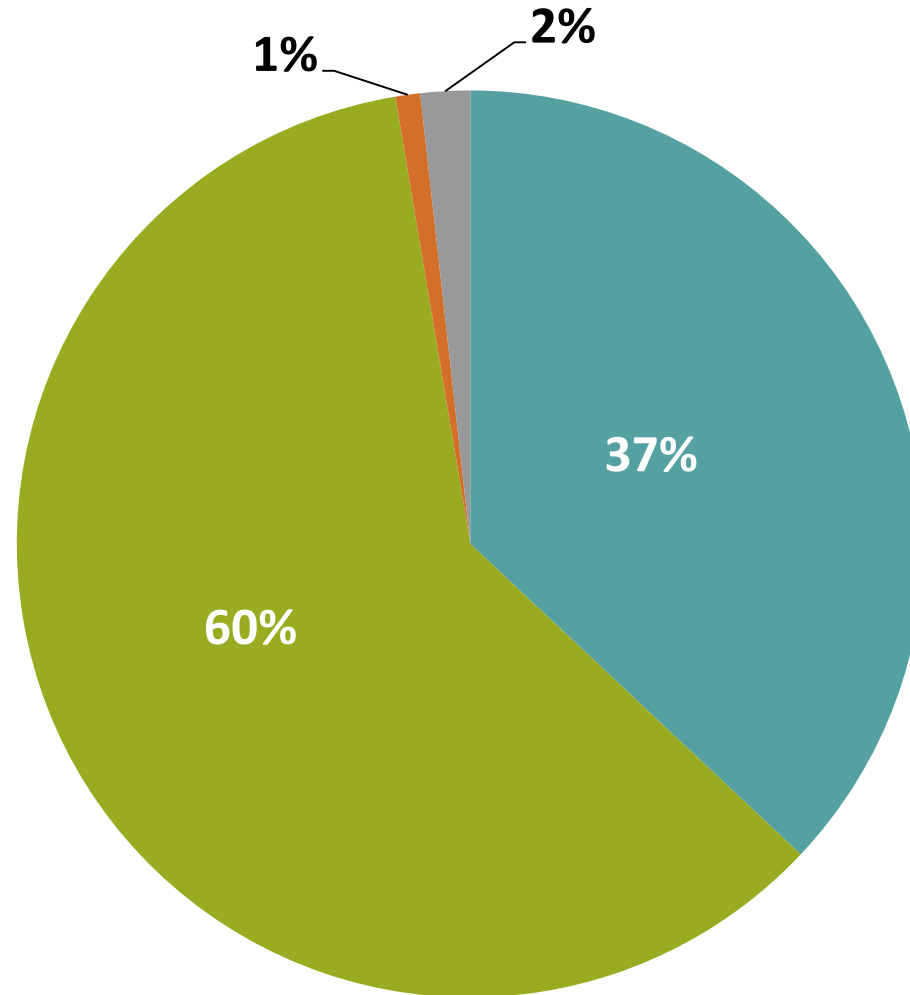


Adequate Capacity of Local Health Departments to Address Public Health Effects of Residents in Massachusetts

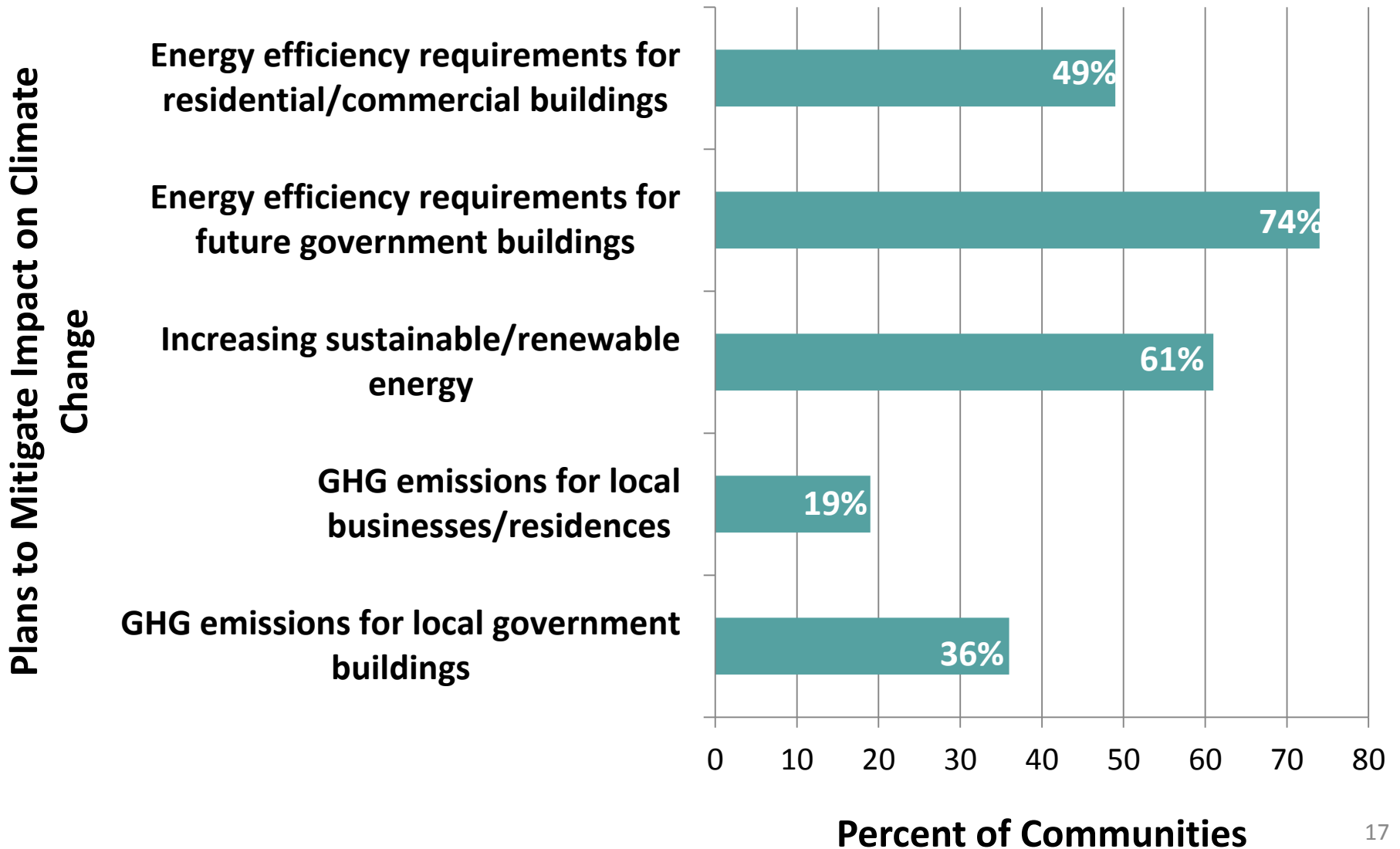


Specific Plans in Place to Address Mitigation of Climate Change in Communities

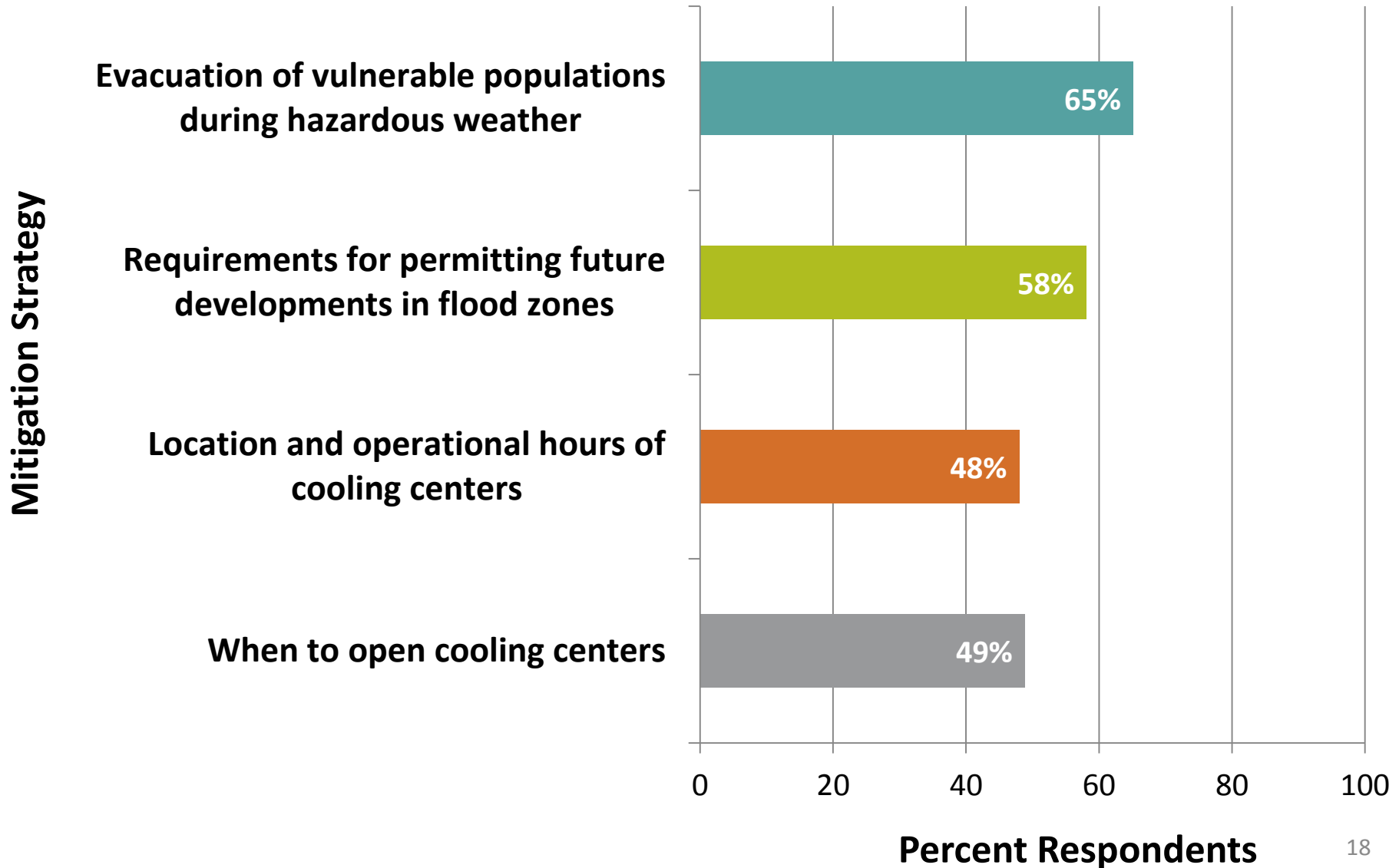
■ Yes ■ No ■ Don't know ■ No response



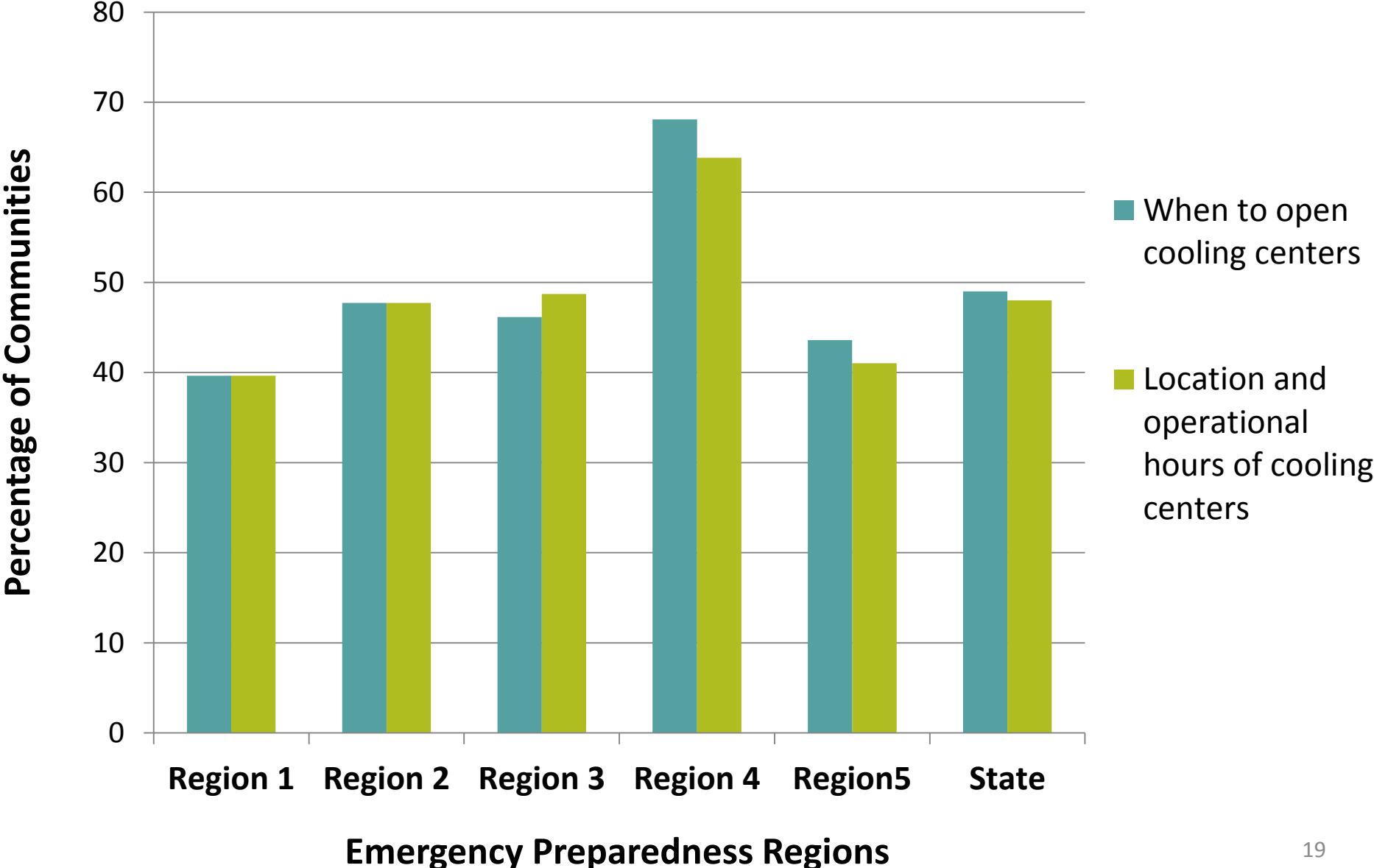
Types of Plans to Mitigate Community's Own Impact on Climate Change



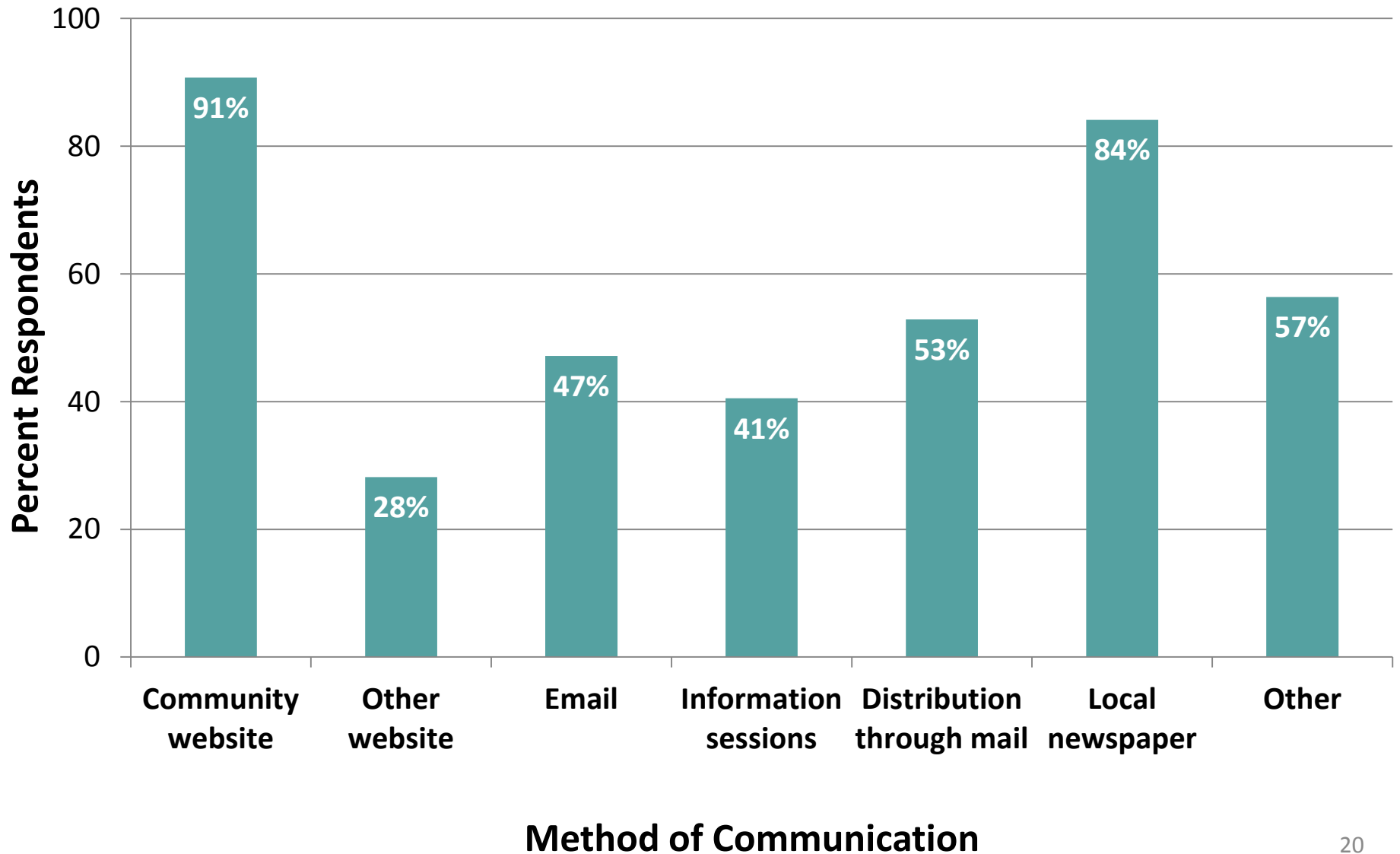
Communities with Plans or Developing Plans to Reduce Public Health Impacts of Climate Change



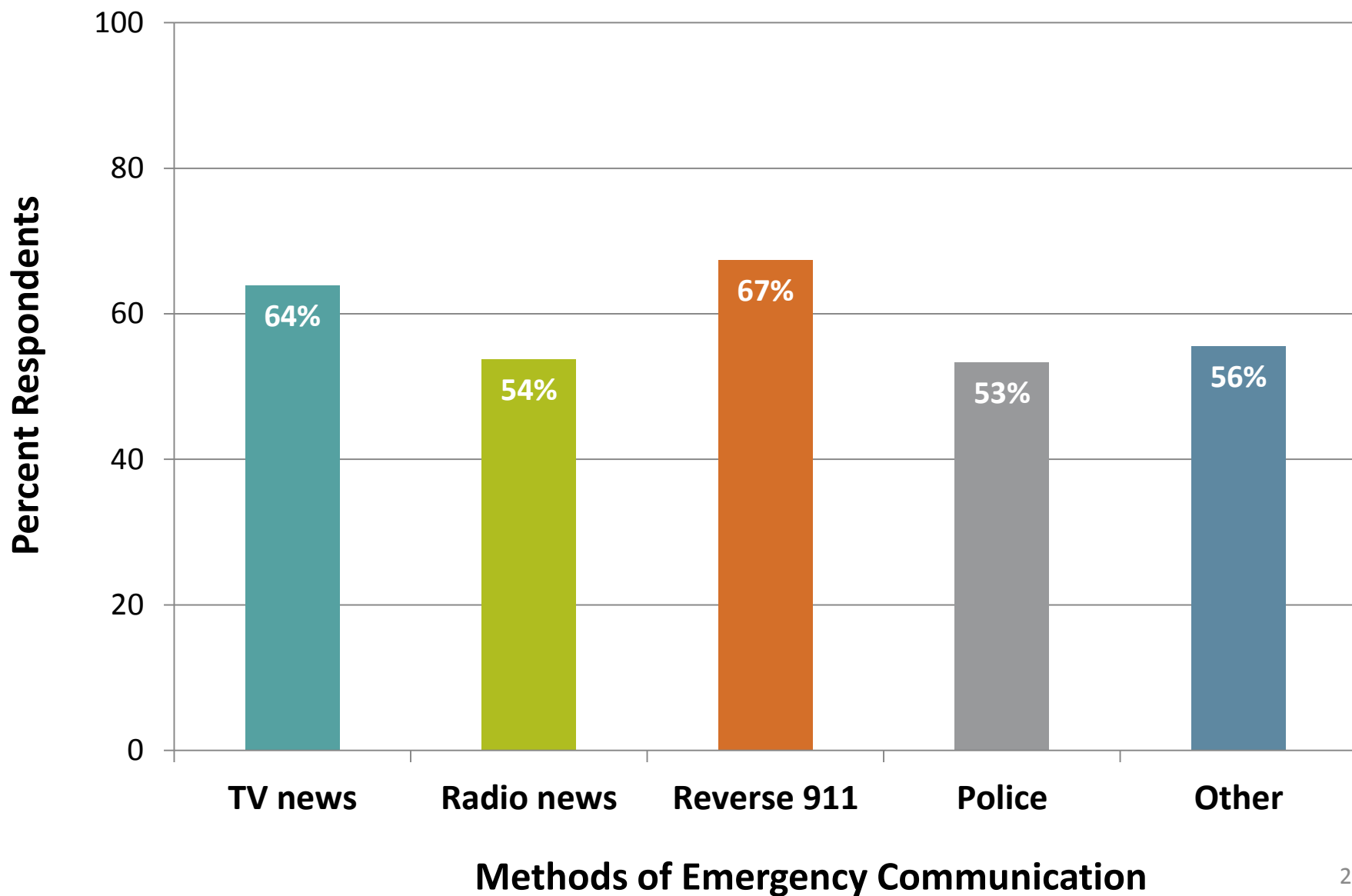
Communities with Plans to Reduce Public Health Impacts of Heat Waves



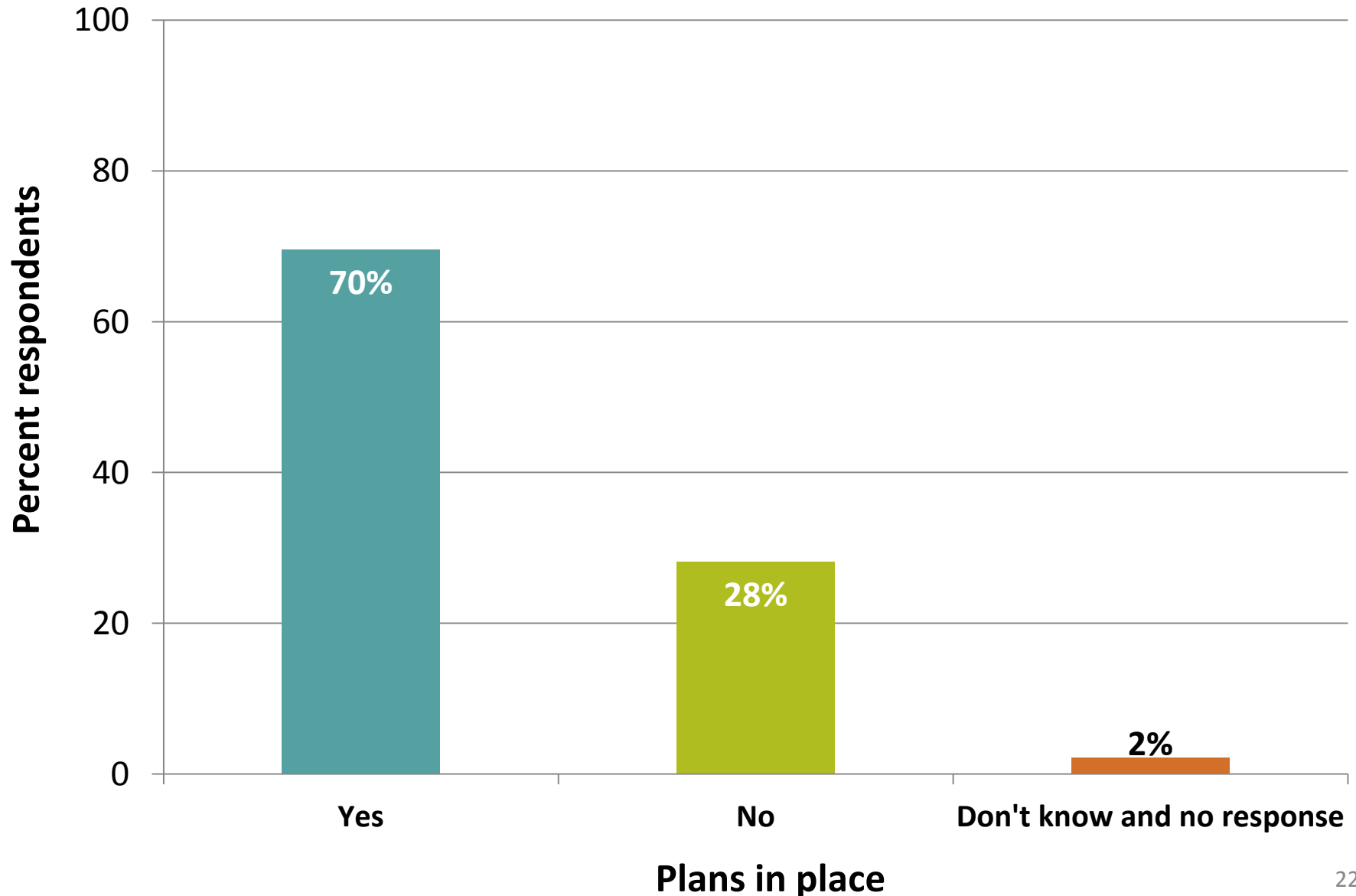
Methods Used by Local Health Departments to Communicate About Health Information to the General Public



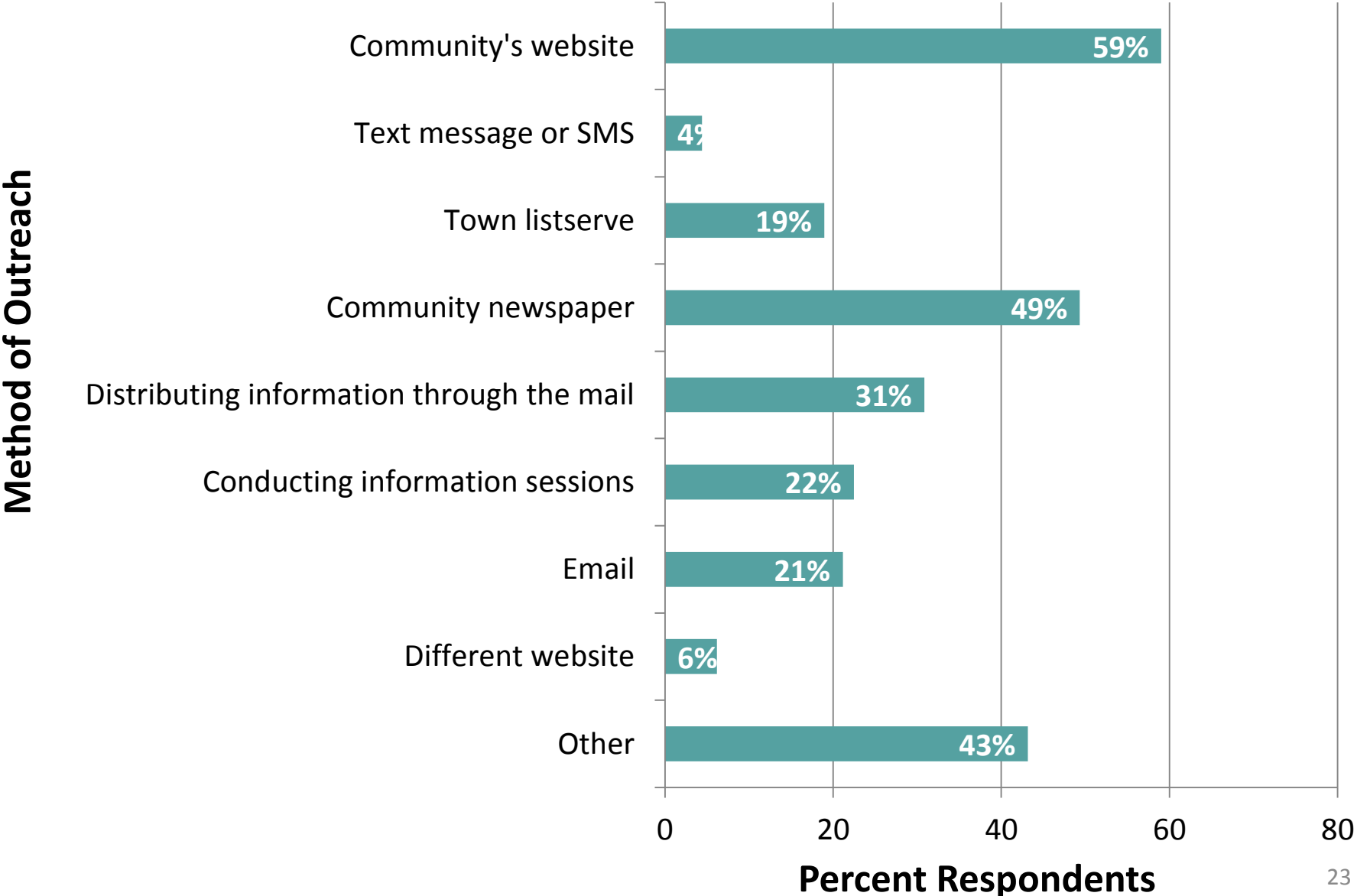
Methods Used by Local Health Departments to Communicate with Residents During Public Health Emergencies



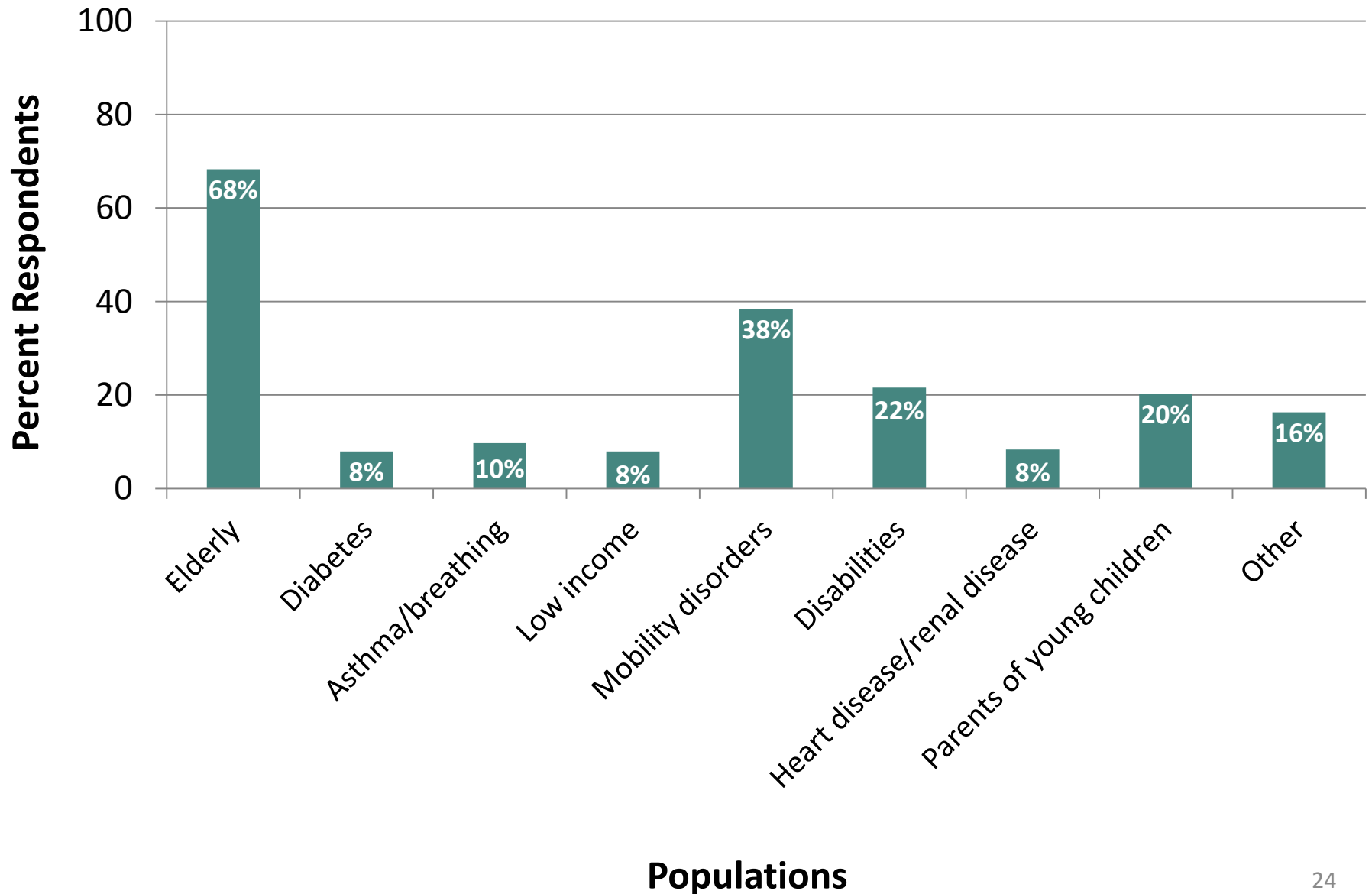
Communities With Outreach Programs in Place for Vulnerable Populations During Emergencies



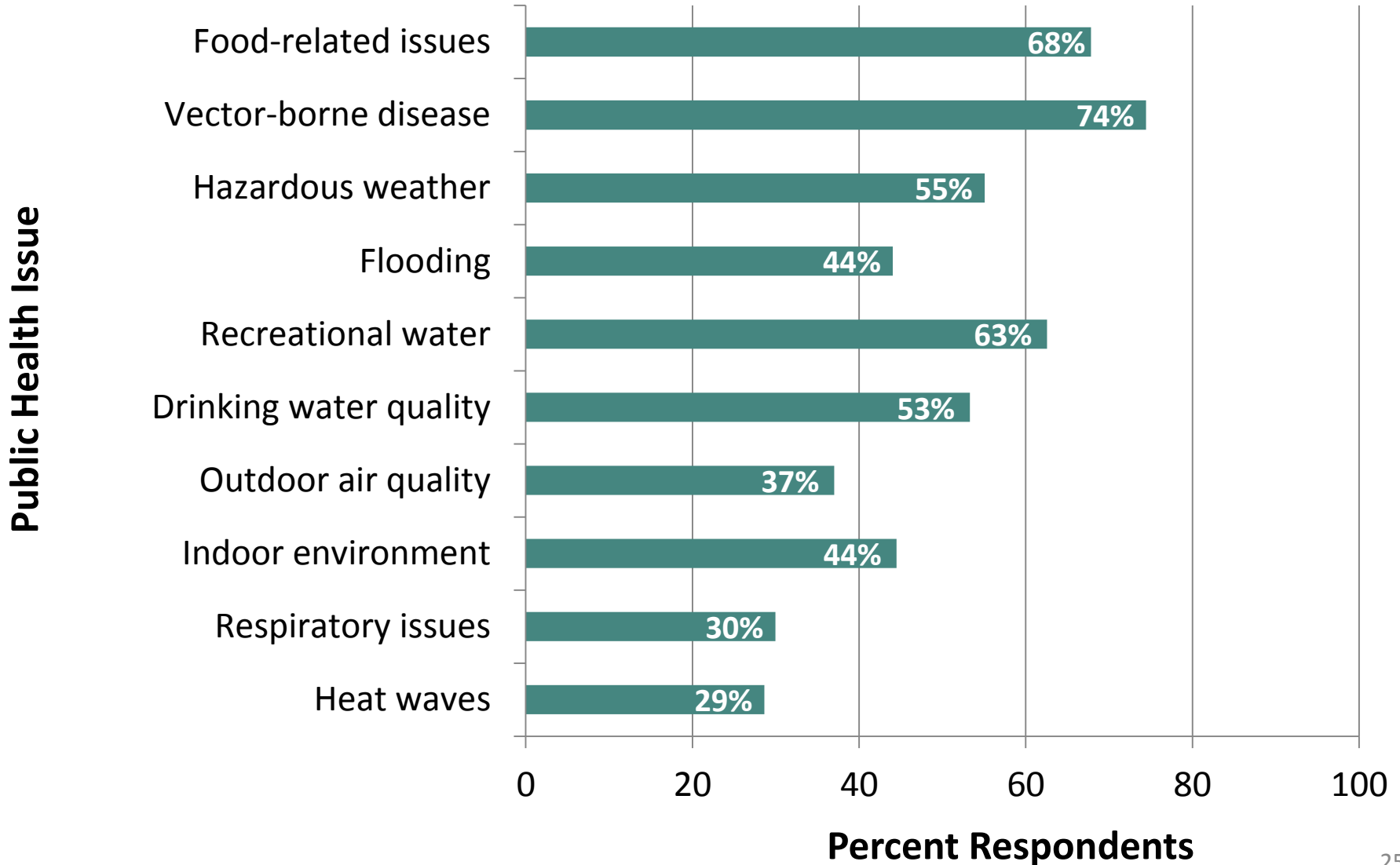
Method of Outreach to Vulnerable Populations During an Emergency



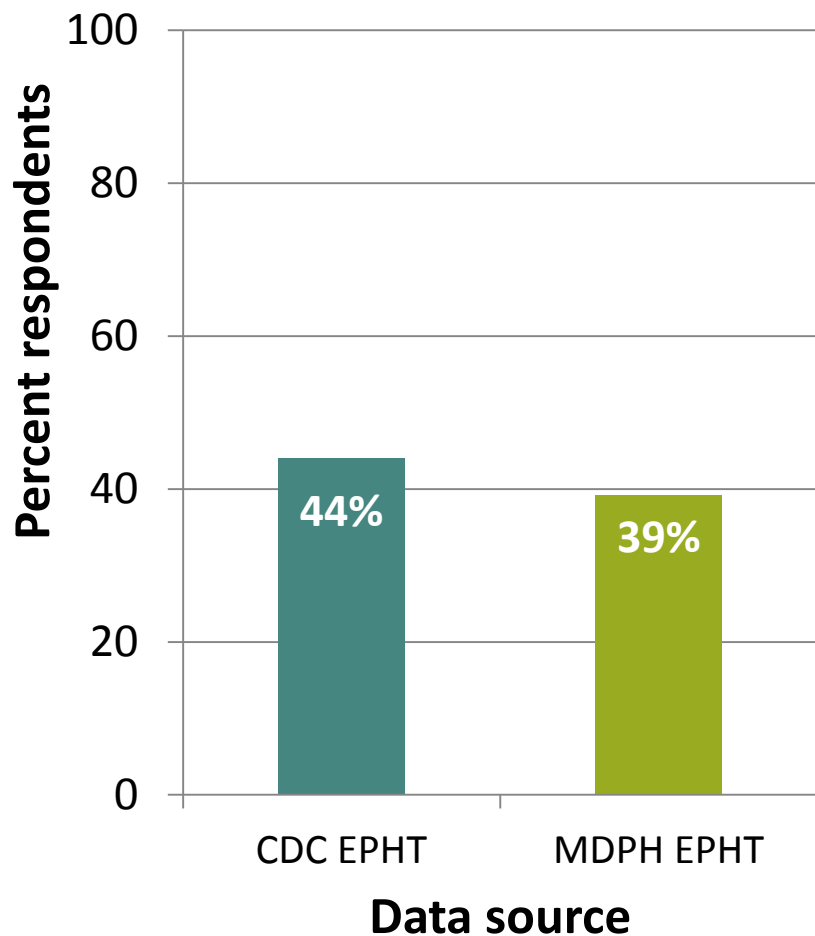
Capacity of Communities to Contact Vulnerable Populations



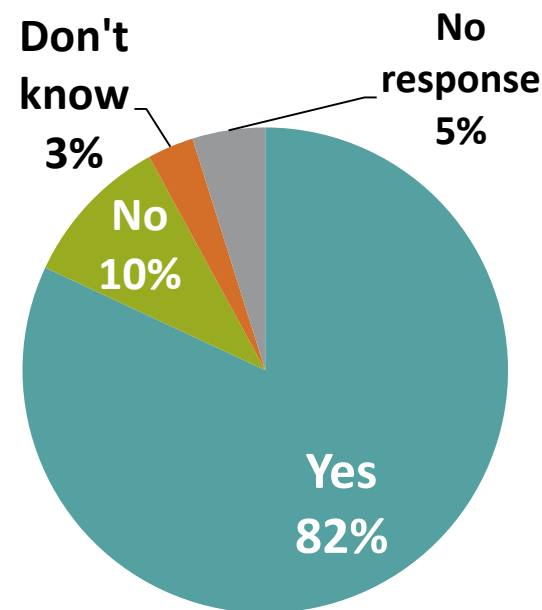
Regularity Local Health Departments are Contacted or Take Action on Public Health Issues Associated with Climate Change



Local Health Department's Familiarity with Sources of Public Health Surveillance Data



Will Access to Public Health Surveillance Data be Useful to Local Health Departments?



<http://matracking.ehs.state.ma.us/>

Highlights of Existing Capacity And Areas In Need Of Enhancement, Cont.

- About half of LBOH reported that they have, or are developing, specific adaptation plans including development of local flood zone regulations, and plans in place for evacuation of vulnerable populations during hazardous weather events
- However, there is an overall belief that local health departments are unprepared and under-resourced and/or lack the expertise to adequately respond to extreme weather events
- About one-third of respondents indicated that their community had an initiative in place to mitigate the impacts of climate change; however, there is a need to coordinate local government officials and better integrate local public health in planning, preparedness, and adaptation strategies

Highlights of Existing Capacity and Areas in Need of Enhancement

- Over two-thirds of participating LBOH had plans, or felt they had the capacity to develop plans, to address food/water borne diseases, storm responses and freshwater availability and safety
- However, plans for populations that may be impacted by climate change effects (e.g. young and old with respiratory disease, young and old with diabetes) need further attention.
- About half the LBOH that responded to the survey believe they have adequate resources to address heat waves in their community.
- Over 50% of school systems have air conditioning however disparities exist across the state
- Half of responding LBOH had plans, or were drafting plans, for cooling centers in the event of heat waves

Development of Tools

- Upcoming Trainings and Symposia
 - » Fall 2014 Symposium in Springfield, MA
 - » Enhanced training on data access and MDPH's Environmental Public Health Tracking portal at statewide local health meetings
- Review of information with MDPH Office of Preparedness and Emergency Management
- Enhancing the climate change webpage on MDPH website
 - » Implement BRACE framework
 - Develop climate profile and population vulnerability maps
 - Assess potential health burden
 - Develop evidence-based interventions in partnership with local health
- Promote use of HIAs to address climate effects

IV. Summary

- Local Health Departments have made significant progress in preparing for and responding to public health emergencies; however, plans in all areas of the state will need enhancements to address impacts of climate change
- Data and information from MDPH will help to enhance these plans to better address climate impacts on health
- Training programs are important for furthering these efforts

V. Questions?