Energy and Climate Change: Public Health Impact on Rural Maryland

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GOALS

- Overview of Maryland Public Health Strategy on Climate Change
- Recent Data on Climate Change and Public Health in Maryland
- Public Health Strategies for Climate Change in Rural Maryland
Maryland Public Health Strategy for Climate Change

- Based on CDC BRACE framework (building resistance against climate effects)
- 4 year cooperative agreement
- Also operates within context of Maryland Climate Change Action Plan
Disease/Outcome Burden Estimates

- Injuries and temperature-related health events
- Respiratory diseases
- Water borne illness and injuries
- Food borne illnesses
- Vector borne disease

Develop and Evaluate Interventions

Maryland Climate Change Action Plan

Maryland Environmental Public Health Tracking

Climate Forecast/Vulnerability Assessment

Develop Maryland Public Health Climate Change Strategy

Evaluation, Feedback, Dissemination
<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Timeline</th>
<th>Performance Metric(s)</th>
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<tbody>
<tr>
<td>1. Prepare a Climate Forecast and Vulnerability Assessment</td>
<td>1.1 Prepare climate forecast</td>
<td>9/1/2012 – 8/31/2013</td>
<td>Forecast products for selected regional, local jurisdictions</td>
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<td>1.2 Vulnerability assessment</td>
<td>11/1/2012 – 8/31/2013</td>
<td>Mapping of vulnerable populations, quantitative vulnerability assessment</td>
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<td>2. Project Disease/Outcome Burden</td>
<td>2.1 Injuries and Temperature-Related Health Events</td>
<td>9/1/2013 – 3/31/2014</td>
<td>Metrics for each selected disease or outcome</td>
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<td>2.2 Respiratory Diseases</td>
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<td>2.3 Water Borne Illness</td>
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<td>2.4 Food Borne Illness</td>
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<td>2.5 Vector Borne Disease</td>
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<td>4.2 Obtain feedback from key stakeholders</td>
<td>9/1/2015 – 2/29/2016</td>
<td>Written feedback incorporated in strategy document</td>
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<td>4.3 Adopt and promulgate strategy</td>
<td>3/1/2016 – 8/31/2016</td>
<td>Promulgation on DHMH website, other media</td>
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Survey of Maryland Residents

- Initiative of GMU, Maryland Climate Change Consortium
- Survey of 6,400 randomly selected Maryland residences
- Knowledge and attitudes regarding climate change and public health, alternative energy, hydraulic fracturing, and other public health issues
Challenges/Opportunities

- **Administration**
  - Expand Technical Advisory Group to include more public stakeholders

- **Surveillance Data**
  - Data access for hospitalization data
  - Data gaps

- **Local Health Departments**
  - Workforce constraints
  - Great interest

- **Regional Approaches**
Survey of Maryland Residents on Climate Change

- Initiative of George Mason University, Maryland Climate Change Consortium
- Survey response of 1,600 Maryland residents
- Knowledge and attitudes regarding climate change and public health, alternative energy, hydraulic fracturing, and other public health issues
- Report published Summer 2013 – results available to provide guidance to public health efforts
Survey Results

- Air pollution is viewed as the top personal health risk
  - 70% say air pollution is a major or moderate risk to their health

- Obesity, storms and climate change are seen as increasing problems in communities
  - 53% say that obesity has become a more prominent issue in recent years

- Violent Storms and Climate Change
  - 52% and 48% say that both are become more common health problems in their communities
Survey Results

- Extreme weather is seen by most as a health risk (79%)
- Protecting water and human health from extreme weather are top priorities that state and local government should make a high priority
  - Public water supplies (86%)
  - People’s health (80%)
- Renewable energy sources are seen as healthier
  - Coal, oil and nuclear power are seen as most damaging to people’s health (68%, 59%, and 58%)
How high of a priority, if at all, should protecting each of the following from extreme weather and other environmental threats be for your state and local governments? (Unweighted base 2,126)
Survey Results

- Majority say that Americans are already harmed by climate change (52%)
- Those most vulnerable to climate change harm are somewhat more likely to feel at risk
- Most significant effects seen as respiratory, followed by injuries, heat-related effects, and others
When do you think climate change will start to harm people in the United States? (Unweighted base 2,126)
Figure 11 | Perceived types of health problems affected by climate change

Which — if any — of the following health problems will become more common in Maryland in the future because of climate change? (Please check ALL THAT APPLY) *(Unweighted base 2,126)*
What actions — if any — have you taken to prepare for or respond to extreme weather events? (Unweighted base 2,126)
Environmental Justice and Climate Change

- Forum on regional approaches to climate change and environmental justice in the Mid-Atlantic Region
Environmental Justice and Climate Change

- Great interest in vulnerable populations
- Maryland Commission on Environmental Justice and Sustainable Communities
DISCUSSION

- Implications of climate change for rural areas – what is different (or the same)?
- What type of preparation is needed?
- Role of local health departments, state, other entities