CDC Site Visit: Climate-Ready States and Cities Initiative

Maryland Public Health Strategy for Climate Change

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Prevention and Health Promotion Administration

August 28, 2013
Baltimore, MD
Site Visit Agenda

- Welcome/Introductions
- Year 1 Update
- Year 2 Work Plan
- Budget and Fiscal Issues
- Lunch
- Follow Up from U MD Modeling Meeting
- Local Partners
- Technical Issues
- Wrap-Up
Welcome and Introductions

- PROJECT TEAM
  - Maryland Department of Health and Mental Hygiene
  - University of Maryland College Park
  - CDC
  - Other Partners
Climate Change Project

PI
Clifford Mitchell

Support
Tanisha Knight

Program Manager
Crystal Romeo

Epi
Ann Liu

Outreach
Nancy Servatius and Katie Moore
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
Climate Forecast/Vulnerability Assessment

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 Environmental Public Health Tracking

Maryland Climate Change Action Plan

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></td>
<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>
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<td></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>3. Develop and Evaluate Public Health Interventions</td>
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<td></td>
<td>3.1 Develop interventions</td>
<td>1/1/2014 – 8/31/2014</td>
<td>Detailed written description of interventions</td>
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<td>4. Develop Maryland Public Health Climate Strategy</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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<td>5. Evaluation of Maryland Public Health Climate Change Strategy</td>
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<td></td>
<td>5.1 Develop evaluation framework using common evaluation tools and framework</td>
<td>9/1/2014 – 8/31/2016</td>
<td>Evaluation using criteria adopted by DHMH, Maryland Climate Change Commission</td>
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Year 01 Project Review
Administrative

- Partnership, MOU with University of Maryland School of Public Health at College Park
  - Project Manager (Crystal Romeo)
  - Forecasting/Modeling Team
  - Outreach
Working Group Meetings

- Consists of stakeholders in the Climate Change project
  - 26 professionals from 11 different state, federal, and academic entities

- November 2012
- February 2013
- November 2013, expected
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
Preparation of Climate Forecasts

- MOU with University of Maryland at College Park
  - Develop climate forecast and vulnerability assessments
- Collaboration with NOAA on forecasts for harmful algal blooms and *vibrio* in Chesapeake Bay
Environmental Justice Forum

- Co-sponsored meeting with the University of Maryland School of Public Health: April 11-13, 2013
- Focused on regional approaches to climate change and environmental justice in the Mid-Atlantic Region
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**
Year 02 Project Update
Summary of Year 02

- Survey results
- Environmental Justice forum
- Modeling and forecast meeting
- Baseline health assessment
- Data acquisition
- Community engagement
- Local Public Health Department mini-grants
Summary of Year 02

- Local Public Health Department site visits
- Staff Additions
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%)
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
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
Climate Forecast and Modeling Meeting

- Hosted meeting with Modelers on June 28, 2013
- Objectives:
  - To brainstorm about the procedures for the forecast models and obtain comments regarding best practices and general ideas
  - To educate local public health officials about climate forecasting
  - To educate modelers about the temporal and spatial confines of public health responses
Climate Forecast and Modeling Meeting

- **Attendees:**
  - Maryland Local County Health Departments (Wicomico, Washington County, Prince Georges counties, and Baltimore City)
  - Federal Entities (CDC, NOAA, EPA)
  - Academia (UMD SPH, ESSIC)

- **Main Presentations**
  - Climate Change and Asthma
  - About MPHSCC
  - Asthma in Wicomico County
  - CDC Brace Framework
  - Climate Forecasting
Climate Forecast and Modeling Meeting

Take away

- Forecast models will be both long- (15 to 50 yrs) and short-term (5 to 10+ yrs) at the the county level
- For immediate changes (1-5 yr) a stress test matrix for each county is best or emergency preparedness, i.e. the probability that an extreme event will happen such as localized sea level rise
- Public health decisions are made on an annual temporal scale
Baseline Health Assessment

- Environmental Public Health Tracking templates
- Work on hydraulic fracturing/ Marcellus Shale
- State, local health improvement processes
Community Engagement

- Some through local health departments, mini-grants
Local Public Health Department Mini-grants

- Enable public health professionals in local health departments (LHDs) to utilize climate forecast projections
- Help LHDs implement climate mitigation and/or adaptation strategies necessary to protect public health
- Evaluate the mitigation and/or adaptation strategy used to determine the quality of improvement and to incorporate refined inputs
Local Public Health Department Projects

- Proposals due on September 1, 2013
  - Wicomico County: Asthma Outreach
  - Prince Georges County: unknown
  - Washington County: unknown
  - Baltimore City: unknown

- Regionalism and DC Initiative
  - MD is hosting DC tracking for asthma
  - Look at cross borderer outcomes such as discharges in DC for respiratory outcomes for Maryland residents
Local Public Health Department Site Visits

Site visits will be completed by November 2013

Purpose
- Review goals of the climate project and the proposed county projects
- Review summary of forecast and health data available for the projects
- Discuss other climate change related activities and products
Staff Additions

- Ann Liu, PhD, MPH
- Mickey Wu, MPH