

# Activity 2: Using Scenarios to Develop Solutions

## Climate Health Adaptation Planning in Michigan

flooding

Climate change will likely impact all corners of the globe. However, each community and population within that community may experience these impacts differently. Impacts of climate change vary based on time of year, relative geography, resilience of the community, public infrastructure, demographics, and emergency response measures in place. Some of these factors cannot be changed, however, many of them can.

The **GOAL** of this exercise is to develop solutions to a series of potential climate future scenarios, which include (a) an Extreme Heat Scenario, (b) a Heavy Rain and Flooding Scenario, (c) a Drought and Wildfire Scenario, and (d) a Winter Storm Scenario. As a group, please discuss short-term and long-term resilience solutions as they relate to your scenario.

### Discussion Questions

1.) Identify short-term concerns and solutions. Please consider the following:

1a) What are the most immediate needs to address?

- What are the primary public health concerns?
- Who are the most vulnerable populations?
- Is there critical infrastructure at risk?

- Because Feb. it's important to think about who would need help the most from cold

- low income elderly
- access to warming or other resources
- some heating centers open in diff. locations
- issues w/ cleanup & identifying where people were that needed the most help -> people getting hurt or poisoned from debris

### Climate Health Adaptation Planning in Michigan

Training for Local Planners and Decision Makers

- underpasses & pumping infrastructure -> hotels & hospitals too

1b) Are there overlapping areas of responsibility? How can resources, personnel, and communications be maximized to avoid duplication of services and maximize their effectiveness?

- Coordinating emergency services regionally

- identifying specific roles w/in & between entities

so info flows properly

2. Identify strategies for increasing resilience and long-term recovery. Please consider the following:

2a) What key infrastructure investments are necessary to reduce vulnerabilities?

- in poorer urban areas use cheaper land

- neighborhood level, citizen driven "bucket brigades"

2b) What community initiatives are already addressing these types of issues?

- How can these efforts be expanded?
- Who else should be included?

- barriers from unions to cross training

2c) Are there opportunities for new efforts? Consider a range of options, such as natural resources, economic impacts, health, energy, and infrastructure opportunities.

see some above answers

2d) How can our hazard mitigation planning and land use planning be better integrated?



### 3. Report Out!

Select one team member to:

- Read your group's scenario.
- Quickly summarize key strategies for increasing resilience and long-term recovery.
- List the top 3-5 projects based on your group's prioritization.



Climate Health Adaptation Planning in Michigan



## Activity 3: Guidance on the MI-CHAP Adaptation Plan

### Climate Health Adaptation Planning in Michigan

The MI-CHAP Strategic Plan was developed in 2010 to prepare the Michigan Public Health System to address the health consequences of climate change in a coordinated manner. The System includes the state and local health departments, and parts of government, academia, health care, professional organizations, non-profits and others whose work relates to public health and/or the environment. This planning effort built a statewide vision with a diverse, large group representing multiple perspectives and expertise. The original Plan's goals and priorities remain relevant. However, the 2016-2021 Plan Update will specify which health outcomes, adaptations, and vulnerable people and places will be the focus of Program activities over this time period.

#### The Plan Goals are:

Goal #1: Climate change will be recognized as a public health issue and integrated into public health practice.

Goal #2: Public health agencies will have the resources, tools and activities for responding to climate change impacts integrated/included in their existing programs.

Goal #3: Vulnerable populations and their needs will be explicitly considered in programs and policies addressing health impacts associated with climate change.

#### The Priority Health Outcomes of concern are:

- 1) Heat-related illness (and mortality)
- 2) Respiratory disease exacerbation (esp. asthma) related to poor air quality and increased pollen
- 3) Water-borne diseases (esp. related to rain events and runoff)
- 4) Vector-borne diseases (Lyme and West Nile)
- 5) Carbon Monoxide poisoning and other injuries related to extreme weather events



The **MDHHS Climate and Health Program** has monitored the magnitude and distribution of these outcomes in Michigan, identified key vulnerabilities, and characterized the current and projected changes in climate across Michigan. See *Michigan Climate and Health Report* for details (Cameron et. Al, 2015). The Program constructed maps to guide its work with Michigan communities to understand the factors influencing their risk. These maps indicate where we may find the people and places that are most vulnerable, and can help identify risk factors that may be amenable to intervention. The Program has reviewed the literature to determine which interventions have been shown to be effective.

#### Why we need your input:

Over the next year, the Program will identify and design activities meant to reduce the top three priority health outcomes in vulnerable Michigan communities. These intervention activities will be carried out over the next five years, and evaluated for their effectiveness.

These activities can only succeed if they make sense and are acceptable to the community. We need your local knowledge and expertise to advise us as we choose the activities we will commit to for the next five years. We also need your help in identifying partners who would be willing to work with us to implement the interventions in your communities.

During the activity you will: 1. Review handouts summarizing the health outcomes of most concern, potential vulnerabilities, and examples of interventions. 2. Complete an exercise to identify which interventions are most needed, why they are important, who should be involved, and how they might be implemented.



The MI-CHAP strategic plan and additional Michigan related climate and health information can be found at [www.michigan.gov/climateandhealth](http://www.michigan.gov/climateandhealth)



# Activity 3: Guidance on the MI-CHAP Adaptation Plan

## Climate Health Adaptation Planning in Michigan

### Proposed Adaptation Feedback Activity:

Respiratory

MICHAP needs your input to help determine their activities for the next five years. They must choose and implement interventions to reduce the harm to public health that can occur from the following climate-related environmental conditions: heat waves, poor air quality, and poor water quality.

Your working group will be assigned one of the health outcomes mentioned above to focus on for this exercise. **Choose one person to record your groups discussion in the spaces provided.**

For your group's Health Outcome, **consider the following and record the response from the different jurisdictions represented in your group (additional space on health outcome sheet):**

1. *Is there a need for intervention in your community related to your assigned health outcome? Explain (Consider what vulnerabilities might exist or if there are any currently ongoing activities related to those health outcomes)*

- Properly planning & citing tree canopy projects
- consider culture & language for education & alerts
- more monitoring in neighborhoods & schools

2. *If there is a need, which interventions would you support? (Indicate whether the intervention would be educational, emergency response, landscape changes, or policy and any specific intervention examples that you can think of related to that category)*

- social media & students were ahead of administrators in knowing & communicating outbreaks
- some monitoring & interventions on idling reduction have been implemented → But, where's the follow-up & report out?
- safety audit & health

3. *Are there partners willing and able to support the intervention(s)? Please list.*

- school systems - Parks & Rec. → Partnering to build infrastructure w/ health conditions
- Reporting out & including citizens in designing the intervention  
↓  
What were the results & what to do with it.

4. *Are the selected interventions feasible? (Consider political, resource, mandate, or technical capacity realities.)*

- cultural
  - community wide (good vs. bad areas)
  - municipal leadership
  - building or placing interventions where it does the most good but those neighborhoods are ~~feeling~~ seen as bad investments



## Activity 3: Guidance on the MI-CHAP Adaptation Plan

### Climate Health Adaptation Planning in Michigan

The MI-CHAP Strategic Plan was developed in 2010 to prepare the Michigan Public Health System to address the health consequences of climate change in a coordinated manner. The System includes the state and local health departments, and parts of government, academia, health care, professional organizations, non-profits and others whose work relates to public health and/or the environment. This planning effort built a statewide vision with a diverse, large group representing multiple perspectives and expertise. The original Plan's goals and priorities remain relevant. However, the 2016-2021 Plan Update will specify which health outcomes, adaptations, and vulnerable people and places will be the focus of Program activities over this time period.

#### The Plan Goals are:

Goal #1: Climate change will be recognized as a public health issue and integrated into public health practice.

Goal #2: Public health agencies will have the resources, tools and activities for responding to climate change impacts integrated/included in their existing programs.

Goal #3: Vulnerable populations and their needs will be explicitly considered in programs and policies addressing health impacts associated with climate change.

#### The Priority Health Outcomes of concern are:

- 1) Heat-related illness (and mortality)
- 2) Respiratory disease exacerbation (esp. asthma) related to poor air quality and increased pollen
- 3) Water-borne diseases (esp. related to rain events and runoff)
- 4) Vector-borne diseases (Lyme and West Nile)
- 5) Carbon Monoxide poisoning and other injuries related to extreme weather events



The **MDHHS Climate and Health Program** has monitored the magnitude and distribution of these outcomes in Michigan, identified key vulnerabilities, and characterized the current and projected changes in climate across Michigan. See *Michigan Climate and Health Report* for details (Cameron et. Al, 2015). The Program constructed maps to guide its work with Michigan communities to understand the factors influencing their risk. These maps indicate where we may find the people and places that are most vulnerable, and can help identify risk factors that may be amenable to intervention. The Program has reviewed the literature to determine which interventions have been shown to be effective.

#### Why we need your input:

Over the next year, the Program will identify and design activities meant to reduce the top three priority health outcomes in vulnerable Michigan communities. These intervention activities will be carried out over the next five years, and evaluated for their effectiveness.

These activities can only succeed if they make sense and are acceptable to the community. We need your local knowledge and expertise to advise us as we choose the activities we will commit to for the next five years. We also need your help in identifying partners who would be willing to work with us to implement the interventions in your communities.

During the activity you will: 1. Review handouts summarizing the health outcomes of most concern, potential vulnerabilities, and examples of interventions. 2. Complete an exercise to identify which interventions are most needed, why they are important, who should be involved, and how they might be implemented.



The MI-CHAP strategic plan and additional Michigan related climate and health information can be found at [www.michigan.gov/climateandhealth](http://www.michigan.gov/climateandhealth)



# Activity 3: Guidance on the MI-CHAP Adaptation Plan

## Climate Health Adaptation Planning in Michigan

Proposed Adaptation Feedback Activity:

Respiratory

MICHAP needs your input to help determine their activities for the next five years. They must choose and implement interventions to reduce the harm to public health that can occur from the following climate-related environmental conditions: heat waves, poor air quality, and poor water quality.

Your working group will be assigned one of the health outcomes mentioned above to focus on for this exercise. Choose one person to record your groups discussion in the spaces provided.

For your group's Health Outcome, consider the following and record the response from the different jurisdictions represented in your group (additional space on health outcome sheet):

1. Is there a need for intervention in your community related to your assigned health outcome? Explain (Consider what vulnerabilities might exist or if there are any currently ongoing activities related to those health outcomes)

- language barriers - open + welcome communication
- yes, especially in urban centers

2. If there is a need, which interventions would you support? (Indicate whether the intervention would be educational, emergency response, landscape changes, or policy and any specific intervention examples that you can think of related to that category)

- low allergenic tree plantings
- social media
- walking audits to incorporate health.
- SUBSIDIES for inhalers!
- walkability/urban design
- measure decisions
- air quality - school monitoring
- DATA TRACKING + TRANSPARENCY
- integrating health into EIS/NEPA processes
- ACCESS

3. Are there partners willing and able to support the intervention(s)? Please list.

- Schools, forestry,
- economic interests (often conflict - i.e. tracking
- parks and recreation
- police - climate and crime
- Schools as an obstacle w/ of buildings

4. Are the selected interventions feasible? (Consider political, resource, mandate, or technical capacity realities.)

CULTURAL obstacles

# Please give us your feedback!

1. Describe your interest in the training:

Planning Commissioner

Community planner

Student

Local Official

Public Health official

Other (Please Describe): \_\_\_\_\_

2. Did you gain any new information or ideas during the session?

Yes  No

3. What information was most useful to you?

Conversations, activities, knowledge  
planning tools

4. How could we have made this training more effective?

Trainings with translators teaming up with  
international leaders

5. How did you hear about this training?

Planning program director

**Climate Health Adaptation Planning in Michigan**  
Training for Local Planners and Decision Makers

Thank you



Climate Health  
Adaptation Planning  
in Michigan

# Please give us your feedback!

1. Describe your interest in the training:

Planning Commissioner

Community planner

Student

Local Official

Public Health official

Other (Please Describe):

personal interest and potential work

2. Did you gain any new information or ideas during the session?

Yes  No

relatedness: Environmental health and safety

3. What information was most useful to you?

Issues specific to the Great Lakes Region

4. How could we have made this training more effective?

It was very informative!

5. How did you hear about this training? MALPH



# Please give us your feedback!

1. Describe your interest in the training:

Planning Commissioner

Community planner

Student

Local Official

Public Health official

Other (Please Describe): \_\_\_\_\_

2. Did you gain any new information or ideas during the session?

Yes  No

3. What information was most useful to you?

How much planning is going on in Michigan -  
This is "Good News!"

4. How could we have made this training more effective?

We had a small group - this was fine.

5. How did you hear about this training? EMAIL FWD - Michigan State University



# Please give us your feedback!

1. Describe your interest in the training:

- Planning Commissioner  
 Public Health official

Community planner

Student

Local Official

Other (Please Describe): community activist

2. Did you gain any new information or ideas during the session?

Yes  No

3. What information was most useful to you?

The information about the actual changes to heat increases and precipitation. It was helpful to receive scenario info and discussion about interventions that make sense and help but don't spend.

4. How could we have made this training more effective?

This was a great educational opportunity, It was <sup>important</sup> great to see important connections between planning & public health. The instructors were both wonderful, knowledgeable & positive. Thank you for having this!

5. How did you hear about this training?

Email notice