



MODULE THREE: Building Social Resilience through Outreach and Partnerships



Overview

The socioeconomic and cultural sources of vulnerability affect a community's ability to withstand and recover from flood damage. Understanding flooding's effects on health can also help a community develop a more holistic and equitable approach to resiliency. The social parameters to be assessed in this portion of the Scorecard include:

Sociodemographic Characteristics

- Assessing the social vulnerabilities of your community is essential to understanding the municipality's overall flood vulnerability.
- The most vulnerable groups in your community are the least likely to be able to access resources to prepare for or recover from a flooding emergency.

Transportation and Housing

- Members of your community, especially the most vulnerable, will need transportation to emergency facilities and/or access to emergency supplies in the case of a flood.
- The overall state of housing may influence how much damage could occur in the case of a flood. Usually, older houses are less structurally sound and were not built with intense precipitation events in mind.

Health Indicators

- Flooding can have both short-term and long-term health consequences and has the potential to affect all aspects of a person's health; therefore, access to medical care determines overall emergency flood preparedness and response.
- Knowing the capacity of your health care providers in emergency situations is crucial to determining if you will need to coordinate support for your health facilities and/or transportation to health facilities outside of your community.

Community Partnerships

- Engaging at-risk populations through local committees or advisory groups helps ensure more equitable and holistic community planning and emergency response.
- Having supportive resources available to community members can help keep them safe, financially support them, and help rebuild during and after a flood.

Education and Outreach

- Having shared language around flooding and ensuring access to the best information and educational materials available opens doors for community members to engage in flood preparedness efforts.
- Providing these spaces for community members to share their flood concerns will inform which kinds of information and support to make available to them.

Note: Many social factors relating to flood vulnerability are correlated and interconnected. We have chosen a few select topics for which data can be accessed by the public; however, knowledge of local conditions is essential for creating a full picture of your community's social vulnerability.

Health Impacts of Flooding (Du et al., 2010)
<ul style="list-style-type: none"> • Immediate Consequences <ul style="list-style-type: none"> ○ Drowning ○ Electrocutation ○ Hypothermia ○ Lack of access to medical records prescription drugs or electric medical equipment (e.g., respirators) ○ Contact with sewage-related pathogens ○ Contact with waterborne vectors (e.g., mosquitos) • Long-term Consequences <ul style="list-style-type: none"> ○ Mold induced asthma ○ Injuries while making repairs to flood damage ○ Spread of communicable diseases in shelters ○ Financial burden of recovery—strains resources for healthy food and routine healthcare ○ Physiological effects

Who should complete this assessment?

Depending on the composition of your local staff, individuals from one or more of the following groups may be appropriate to conduct this assessment:

- Urban planners
- Local public health officials
- Emergency management
- Community development staff
- Community organizers
- Representatives from community partnerships or non-profits

What will you need in order to complete this assessment?

- The Center for Disease Control's Social Vulnerability Index (SVI) rankings for your community

- Census data or the most recent demographic data for your community. Ideally, the most recent American Community Survey or decennial census data should be used when possible. This can be easily found at factfinder.census.gov
- Maps showing or local knowledge of the distribution of *priority populations* within your community
- Local knowledge of community partnerships, collaborations and outreach occurring that may support your community in the event of a flood

Definitions

Ambulatory care sensitive condition: Conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease (Agency for Healthcare Research and Quality, 2001).

Composite index: Formed when individual indicators, such as poverty and minority status, among others, are compiled into a single index on the basis of an underlying model. The composite index should ideally measure multidimensional concepts that cannot be captured by a single indicator (Organisation for Economic Co-Operation and Development, 2013). The CDC's Social Vulnerability Index is an example of a composite index.

"Cost burdened": According to the US Department of Housing and Urban Development, a household is cost burdened when over 30% of income is dedicated to housing costs. However, this measure has been contested and may not be appropriate for your community (PD&R Edge, 2014).

Culturally significant landmarks: Structures or buildings that contribute to the sense of community, history or tradition within your community. Examples may include monuments, historical buildings, or museums.

Priority populations: Populations that may be at higher risk for adverse flood outcomes based on sociodemographic features and should therefore be prioritized for financial and technical assistance. Examples include older adults, low-income individuals, and communities of color.

Social vulnerability: The sociodemographic characteristics of a person or community, such as access to a vehicle or English language proficiency, that affect their capacity to anticipate, confront, repair and recover from the effects of a disaster.

Sociodemographic: A combination of socioeconomic and demographic characteristics

Sociodemographic Characteristics

For this section, you will be using the **Center for Disease Control's SVI**. This is an interactive, online tool that can assess the vulnerability of your census tract or county in five different ways: 1) overall vulnerability, 2) socioeconomic theme, 3) household composition/disability theme, 4) minority status/language theme and 5) housing/transportation theme.

This tool is intended to provide a broad view of *social vulnerability* at a population level. For a more specific understanding of your vulnerable communities and how they are spatially distributed, you may choose to download the SVI data from svi.cdc.gov and conduct a GIS analysis to isolate variables of interest as well as estimated counts for individual variables constituting each theme.

This section uses the socioeconomic theme, household composition/disability theme and minority status/language themes specifically.

Steps for completion:

1. Go to svi.cdc.gov.
2. Click on the “interactive map” icon.
3. Enter your community’s name in the search bar in the upper right-hand corner of the map.
4. In the legend tab to the left, uncheck “overall vulnerability.”

For questions 1 and 2, check “socioeconomic theme” on the legend, making sure all other categories are unchecked. For questions 3 and 4, check “household composition/disability theme,” making sure all other categories are unchecked. For questions 5 and 6, check “minority status/language theme,” making sure all other categories are unchecked.

The maps will show all four SVI themes, which should correspond to the four categories of questions in the Scorecard. Here, you will be able to see how vulnerable your community is as compared to others in Wisconsin. If your community encompasses multiple census tracts, you may have to take the average for the purposes of this assessment.

This tool only provides a broad understanding of *social vulnerability*. To complete this section, you will also need **a map or local knowledge of the spatial distribution of priority populations**. For a more specific understanding of your vulnerable populations and how they are spatially distributed, you may choose to download the SVI data from svi.cdc.gov and conduct a GIS analysis to isolate variables of interest.

Socioeconomic Features

In the CDC's SVI map, the variables included in the socioeconomic theme are persons below poverty line, persons unemployed, persons over 25 with no high school diploma and per capita income. These variables will be aggregated together into one composite value.

1. Using the CDC's SVI map, what is your community's socioeconomic vulnerability?

- a. Lowest (bottom 4th)
- b. Second lowest
- c. Second highest
- d. Highest (top 4th)

2. Has your community determined how these *priority populations* (those who are unemployed or of low income/education attainment) are spatially distributed?

- a. Yes, the community has quantitatively identified where *priority populations* are concentrated in our community using mapping technology
- b. No, but the community has anecdotal evidence or local knowledge about where these populations may lie
- c. No, but the community has the staff and resources to complete such a project
- d. No, and the community does not have the staff and resources to complete such a project

2a. If your community has found particular neighborhoods or communities in which these risk factors are concentrated, have efforts been made to expand services in those areas?

- a. Yes, the community has worked directly with neighborhood representatives or leaders and have both determined which services/amenities would bolster their resilience and provided them
- b. Yes, the community has reached out to neighborhood representatives or leaders and has begun the process of determining their needs
- c. No, the community has not made efforts to expand services in *priority population* communities

2b. If your community has found particular neighborhoods or communities in which these risk factors are concentrated, have community engagement practices been utilized, neighborhood emergency procedures been created and/or supplies been secured?

- a. Yes, community engagement practices are fully utilized, neighborhood emergency procedures and supplies have been secured for all of the community's major population centers, using input from individuals who live within those neighborhoods
- b. Yes, some community engagement practices have been utilized and/or the community has general emergency procedures for all neighborhoods, but they are not tailored to individual neighborhood needs
- c. Yes, some neighborhoods have been engaged or have their own emergency procedures, but not all
- d. No, neighborhoods have not made these plans themselves and the community also has not provided them

Household Demographics

In the CDC's SVI map, the variables included in the household composition/disability theme are persons aged 65 or older, persons aged 17 or younger, noninstitutionalized civilians with disability and single-parent households. These variables are aggregated together into one value.

3. Using the CDC's SVI map, what is your community's household composition/disability vulnerability?

- a. Lowest (bottom 4th)
- b. Second lowest
- c. Second highest
- d. Highest (top 4th)

4. Has your community determined how these *priority populations* (persons aged 65 or older, persons aged 17 or younger, persons with disabilities and single-parent households) are spatially distributed?

- a. Yes, the community quantitatively identified where *priority populations* are concentrated using mapping technology
- b. No, but the community has anecdotal evidence or local knowledge about where these populations may lie
- c. No, but the community has the staff and resources to complete such a project
- d. No, and the community does not have the staff and resources to complete such a project

4a. If your community has found particular neighborhoods in which these risk factors are concentrated, have efforts been made to expand services such as medical care in those areas?

- a. Yes, the community has worked directly with neighborhood representatives or leaders and have both determined which services/amenities would bolster their resilience and provided them
- b. Yes, some community engagement practices have been utilized and/or the community has reached out to neighborhood representatives or leaders and has begun the process of determining their needs
- c. No, the community has not made efforts to expand services in *priority population* neighborhoods

4b. If your community has found particular neighborhoods in which these risk factors are concentrated, have community engagement practices been utilized, neighborhood emergency procedures developed and/or supplies been secured?

- a. Yes, community engagement practices have been utilized, neighborhood emergency procedures have been created and supplies have been secured for all of our major population centers, using input from individuals who live within those communities
- b. Yes, some attempts at community engagement have been made and the community has general emergency procedures for all neighborhoods, but they are not tailored to individual neighborhood needs
- c. Yes, some neighborhoods have their own emergency procedures, but not all
- d. No, neighborhoods have not made these plans themselves and the community also has not provided them

Minority Status and Language

In the CDC's SVI map, the variables included in the minority status and language theme are minorities (all persons except white, non-Hispanic) and persons aged 5+ who speak English "less than well." These variables will be aggregated together into one value.

5. Using the CDC's SVI map, what is your community's minority status and language vulnerability?

- a. Lowest (bottom 4th)
- b. Second lowest
- c. Second highest
- d. Highest (top 4th)

6. Has your community determined how these *priority populations* (minorities and persons who speak English “less than well”) are spatially distributed?

- a. Yes, the community has quantitatively identified where *priority populations* are concentrated in our community using mapping technology
- b. No, but the community has anecdotal evidence about where these populations may lie
- c. No, but the community has the staff and resources to complete such a project
- d. No, and the community does not have the staff and resources to complete such a project

6a. If your community has found particular neighborhoods in which these risk factors are concentrated, have efforts been made to expand services in those areas?

- a. Yes, the community has worked directly with neighborhood representatives or leaders and have both determined which services/amenities would bolster their resilience and provided them
- b. Yes, the community has reached out to neighborhood representatives or leaders and has begun the process of determining their needs
- c. No, the community has not made efforts to expand services in *priority population* communities

6b. If you have found particular neighborhoods in which these risk factors are concentrated, have community engagement practices been utilized, neighborhood emergency procedures been created and/or supplies been secured?

- a. Yes, community engagement practices have been utilized, neighborhood emergency procedures have been created and/or supplies have been secured for all of our major population centers, using input from individuals who live within those communities
- b. Yes, the community has general emergency procedures for all neighborhoods, but they are not tailored to individual neighborhood needs
- c. Yes, some neighborhoods have their own emergency procedures, but not all
- d. No, neighborhoods have not made these plans themselves and the community also has not provided them

Scoring Sociodemographic Characteristics

Number of "a" answers: _____

Number of "b" answers: _____

Number of "c" answers: _____

Number of "d" answers: _____

If you answered "c" or "d" for three or more questions, please refer to the [Sociodemographic Characteristics](#) recommendations section on page 29.

Transportation and Housing

For this section, you will be using the **CDC's SVI**. This is an interactive, online tool that can assess the vulnerability of your census tract or county in five different ways: 1) overall vulnerability, 2) socioeconomic theme, 3) household composition/disability theme, 4) minority status/language theme, and 5) housing/transportation theme.

This section uses the housing/transportation theme specifically. Steps for completion:

1. Go to svi.cdc.gov.
2. Click on the "interactive map" icon.
3. Enter your community's name in the search bar in the upper right-hand corner of the map.
4. In the legend menu to the left, uncheck "overall vulnerability" and check "housing/transportation theme."

Here, you will be able to see how vulnerable your community is as compared to others in Wisconsin. If your community encompasses multiple census tracts, you may have to take the average for the purposes of this assessment.

You will also need to find **your community's walkability score**. Use the website walkscore.com for questions 3 and 4. Visit the website and type in the name of your community in the large white search bar.

Household Demographics

In the CDC's *SVI map*, the variables included in the housing/transportation theme are multiunit structures, mobile homes, crowding, no access to a vehicle and group quarters. These variables will be aggregated together into one value.

1. Using the CDC's SVI map, what is your community's housing/transportation vulnerability?

- a. Lowest (bottom 4th)
- b. Second lowest
- c. Second highest
- d. Highest (top 4th)

2. Has your community determined how these vulnerable households are spatially distributed?

- a. Yes, the community has conducted GIS analysis or other mapping to determine where vulnerable households are located
- b. No, but the community has anecdotal evidence about where these populations are located
- c. No, but the community has the staff and resources to complete such a project
- d. No, and the community does not have the staff and resources to complete such a project

2a. If yes, has your community made plans to expand transportation and housing options for these communities?

- a. Yes, the community has expanded public transit options, improved bikeability or built new housing to accommodate this need
- b. No, but the community has dedicated staff and funding to address this issue
- c. No, the community has not taken action on this issue

2b. If yes, has your community secured emergency supplies and created procedures for transportation in isolated and/or densely populated areas?

- a. Yes, neighborhood emergency procedures and supplies have been secured for all of our major population centers, using input from individuals who live within those communities
- b. Yes, the community has general emergency procedures for all neighborhoods, but they are not tailored to individual community needs
- c. Yes, some neighborhoods have their own emergency procedures, but not all
- d. No, neighborhoods have not made these plans themselves and the community also has not provided them

3. Using Walkscore.com, what is the average walkability score for your community?

- a. 75 to 100 (very walkable to walker's paradise, daily errands do not require a car)
- b. 50 to 74 (somewhat walkable to very walkable, most errands can be accomplished on foot)
- c. 25 to 49 (car-dependent, most errands require a car)
- d. Less than 25 (car-dependent, almost all errands require a car)

4. Using Walkscore.com, what is the average transit score for your community?

- a. 75 to 100 (excellent transit to rider's paradise, world-class public transportation)
- b. 50 to 74 (good to excellent transit, many nearby public transportation options)
- c. 25 to 49 (some transit, a few nearby public transportation options)
- d. Less than 25 (minimal transit, it is possible to get a bus)

5. What is the average age of housing structures in your community?

- a. Built after 2000
- b. Built 1980 to 2000
- c. Built between 1960 and 1979
- d. Built between 1940 and 1959
- e. Built before 1940
- f. Unknown

Scoring Transportation and Housing

Number of "a" answers: _____

Number of "b" answers: _____

Number of "c" answers: _____

Number of "d" answers: _____

Number of "e" answers: _____

Number of "f" answers: _____

If you answered "c," "d," "e" or "f" for three or more questions, please refer to the [Housing and Transportation](#) recommendations section on page 29.

Health Indicators

American Community Survey Questions

For this section, you will need to access your **community's census data**. This can be found through the American Factfinder page of the United States Census Bureau. If you know how to access this information on your own, use methods comfortable to you. If you are not familiar with accessing census data, follow the below instructions:

1. Navigate to data.census.gov/cedsci/?g=0100000US&tid=ACSDP1Y2018.DP05
2. Scroll down to "tables" and click the tab "view tables."
3. Click the tab "customize table."
4. Click the "geographies" tab.
5. Choose "tract."
6. In "within state" choose "Wisconsin."
7. In "within county," choose the county in which your community is located.
8. Select all of the boxes for the census tracts in which your community is located.
 - a. If you do not know the number of your census tract, you may go to census.gov/geo/maps-data/maps/2010tract.html and download a map that includes this information.
9. Make sure your community's census tracts are the only "selected geographies" at the bottom of the "geographies" window. Close the "geographies" tab.
10. Click the "topics" tab.
11. Click to check the "disability" box and the "health insurance" box.
12. Close the "topics" tab.
13. In the resulting table, you will find total population estimates also divided into age groups with and without disabilities. You will need to convert these to percentages for our questions.

For question 1:

(Total Under 18 Years, No Health Insurance Coverage + 18 to 64 Years, No Health Coverage + 65 Years and Over, No Health Coverage)/ Total Population

For question 2:

(Total Under 18 Years With a Disability + Total 18 to 64 years With a Disability)/ (Total Under 18 Years + Total 18 to 64 Years)

1. What is the percentage of persons without health insurance in your community? (For reference: The Wisconsin state average in 2015 was 5.7%, according to the Wisconsin Council on Children and Families)

- a. 0-4%
- b. 4.1-6%
- c. 6.1%-10%
- d. Over 10%

2. What is the percent of persons under 65 years with a disability? (For reference: state average in 2015 was 7.4%, according to American Community Survey data)

- a. 0-5%
- b. 5.1%-7.5%
- c. 7.6%-10%
- d. Over 10%

County Health Rankings & Roadmaps

For this section, you will need your **community's health rankings**. You can access them through the [County Health Rankings & Roadmaps Web interface](#).

Here you will find information at a county level concerning health factors, clinical care quality of life and more. While many of these variables are relevant to flooding, here we will be focusing on those that relate to local capacity for providing clinical care: mental health providers, preventable hospital stays and primary care physicians.

Keep in mind this data is at a broader scale than individual communities. If you have local knowledge, please supplement this analysis with it. Not all communities within one county may have the same conditions.

Directions for completion:

1. Navigate to countyhealthrankings.org.
2. Scroll down the page to the gray map of the United States. Click on Wisconsin.
3. Click the "measures" tab near the top of the newly opened page.
4. Use the orange box on the left side of the screen under "select a measure," navigate health factors > clinical care > primary care physicians, mental health providers, and preventable hospital stays (to answer questions 3, 4 and 5 below, respectively).
5. For each of the above three variables, you can hover your mouse over the county in which your community exists. That value is what you will use for the below questions.

3. What is the ratio of population to primary care physicians in your county?

- a. 500 or fewer: 1
- b. Between 501 and 1000: 1
- c. Between 1001 and 3000: 1
- d. Between 3001 and 6000: 1
- e. Over 6000: 1
- f. Missing data

4. What is the ratio of population to mental health providers in your county?

- a. 500 or fewer: 1
- b. Between 501 and 1000: 1
- c. Between 1001 and 3000: 1
- d. Between 3001 and 6000: 1
- e. Over 6000: 1
- f. Missing data

5. What is the number of hospital stays for *ambulatory care* sensitive conditions per 100,000 Medicare enrollees in your county?

- a. Fewer than 4,000
- b. Between 4,000 and 5,500
- c. Between 5,600 and 7,000
- d. Over 7,000
- e. Missing data

Local Knowledge

For this section, because publicly accessible data may not be available, you should rely on **local knowledge of health facilities within your community** to determine these particular vulnerabilities, using either precise values or your best educated guess. An additional resource that may be helpful is the Centers for Disease Control and Prevention (CDC). Review the resources listed in the “Module Recommendations” section for more information.

6. Are there hospitals or community medical facilities within your community?

- a. Yes, there are several, and they are distributed well throughout the community
- b. Yes, there are several, but some parts of the community may have trouble accessing them
- c. There are one or two such facilities in our community, but they may have limited resources or accessibility
- d. The community relies on medical facilities in another community entirely

7. What is the average drive time to a hospital or a medical facility from the community's most populous residential areas?

- a. Medical facilities are within 10 minutes of driving or less for the average resident
- b. Medical facilities are within 30 minutes of driving or less for the average resident
- c. Medical facilities are between 30 and 45 minutes of driving for the average resident
- d. Medical facilities are 45 minutes or farther for the average resident

8. Are there assisted living facilities or nursing homes within your community?

- a. The community has multiple assisted living facilities or nursing homes
- b. The community has at least one assisted living facility or nursing home
- c. The community has no assisted living facilities or nursing homes in our community, but some of our residents rely on such facilities outside of our community limits
- d. No, the community has no assisted living facilities or nursing homes in our community

8a. If yes, are assisted living facilities or nursing homes equipped with emergency supplies and generators to maintain care in the event of a flood?

- a. Yes, such facilities are provided ample food, potable water and generators so that care is not disrupted during extreme weather events
- b. Yes, we provide some food, water and generators, but not necessarily in abundance or to every facility
- c. Yes, some facilities have access to some of these amenities, but largely through their own means of funding
- d. No, a majority of facilities are lacking in either food, potable water, generators or multiple of these

Scoring Health Indicators

Number of "a" answers: _____

Number of "b" answers: _____

Number of "c" answers: _____

Number of "d" answers: _____

Number of "e" answers: _____

Number of "f" answers: _____

If you answered "c," "d" or "e" for four or more questions, please refer to the [Health Indicators](#) recommendations section on page 29.

Community Partnerships

For this section, you should use **local knowledge** and **experts** to answer questions about community partnerships and collaborations with populations that may experience greater flood vulnerability.

1. Are any *culturally significant landmarks* found within floodplain boundaries?

- a. No, no such structures or landmarks are within floodplain boundaries
- b. One such structure/landmark is within floodplain boundaries
- c. Multiple *culturally significant structures/landmarks* are within floodplain boundaries

Does your community maintain regular committees/advisory groups that represent these groups?

Population	a. The community regularly meets with representatives from this group in 1+ advisory groups	b. The community does not meet with this population regularly, but we work closely with another group that does	c. The community does not make special efforts to engage with this community	d. N/A (this group does not exist in our community)
2. African American community				
3. Hmong community				
4. Hispanic community				
5. Native American/tribal community				
6. Older adults (aged 65 and				

older)				
7. Individuals with disability				
8. Other _____				

9. Do the committee or advisory groups listed above meet regularly and proactively, or only after a flooding event has occurred?

- a. Yes, this committee has regularly scheduled meetings multiple times a year
- b. Yes, this committee has regularly scheduled meetings approximately once a year
- c. No, this committee only meets after a flooding event has occurred
- d. No, no such committee exists

10. Are community partners involved in the development of community plans?

- a. Yes, community partners such as those listed in the table above are involved
- b. Yes, community partners review the plans, but do not help develop them
- c. No, community partners are not involved in the development of community plans

11. Do you have neighborhood plans?

- a. Yes, all neighborhoods have their own plans including development regulations and other flood-relevant information
- b. Yes, some neighborhoods have plans with flood-relevant information
- c. No, our community has one plan that is generalized for all neighborhoods to use

12. Are all plans in your community (including emergency evacuation) made available in multiple languages?

- a. Yes, plans are translated into all languages identified in our community
- b. Yes, plans are translated into some, but not all of the languages identified in our community
- c. No, plans are only available in English

13. Does your community partner with local charities or nonprofits to support flood-damage victims?

- a. Yes, including financial and technical support
- b. Yes, but these partners are responsible for their own financial and technical needs
- c. No, the community does not have local partners for flood recovery or support

14. Are there local shelters, schools or churches that can provide temporary housing for flood-damage victims?

- a. Yes, there are multiple shelters that provide temporary housing for flood-damage victims and they are sited in areas closest to priority populations
- b. Yes, there is at least one shelter, but it may or may not be sited in an area close to *priority populations*
- c. No, there are no such shelters in our community

Scoring Community Partnerships

Number of "a" answers: _____

Number of "b" answers: _____

Number of "c" answers: _____

Number of "d" answers: _____

If you answered "c" or "d" for seven or more questions, please refer to the [Community Partnerships](#) recommendations section on page 29.

Education and Outreach

For this section, you will use **local knowledge about education and public outreach in your community**. This information may be described in policies and plans or is known by staff members.

1. Does your community have dedicated funding for water education or staff members whose duties include water education?

- a. Yes, the community has full-time staff responsible for water education and has secured funding for these efforts
- b. Yes, the community has part-time staff responsible for water education and has secured funding for these efforts
- c. No, the community has no permanent staff or funding, but it has temporary/seasonal positions dedicated to outreach and education or relies on regional or county scale programs
- d. No, the community does not have any staff members responsible for water education, but some funding is allocated for potential projects
- e. No, the community does not have staff or funding for water education

2. Does your community have and publicize a list of contacts that the public can reach out to about water and stormwater questions?

- a. The community both has and publicizes a list of contacts for public use
- b. The community has a list of contacts, but it is not publicized
- c. The community does not have a list of contacts for public use

3. Does your community host any events/workshops to educate the public on stormwater issues or green infrastructure?

- a. Yes, the community regularly hosts events that are well advertised for the public
- b. Yes, the community has had events in the past that were well advertised
- c. Yes, the community has had events in the past, but they were not well advertised or attended
- d. No, the community has not had such events, but plans have been made for the future
- e. No, the community has not had such events, and there are no plans to do so in the future

4. Does your community host an annual water-focused community educational event, like a Lake Day, that incorporates flood information?

- a. The community organizes, promotes and sponsors such an event each year
- b. The community publicizes and supports efforts for such an event each year
- c. The community had such an event in the past, but there are no plans to repeat it
- d. The community does not have such an event

5. Does your community host public participation events at which members of the community can express their concerns about or desires for flood planning?

- a. Yes, the community regularly hosts public participation events that include flood topics
- b. Yes, the community occasionally hosts public participation events that include flood topics
- c. Yes, the community hosts such events after a flood event has already occurred
- d. No, the community does not host such events, but the regional or county level does and we promote them
- e. No, public participation related to flooding does not exist in our community

6. Has your community created any brochures, signs, posters, websites or videos to educate the public on stormwater issues?

- a. Yes, the community has created multiple types of outreach materials and made them publicly available
- b. Yes, the community has created one or two of the above outreach materials and made them publicly available
- c. Yes, the community has outreach materials, but they are not easily accessed by the public
- d. No, but the community has outreach materials developed by another organization to suit this purpose
- e. No, the community has no stormwater outreach materials for public use

7. Has your community posted signs designating the boundaries of watersheds, floodplains or bodies of water on roadways, trails and public spaces?

- a. The community has posted signs on all major streams, lakes and boundaries of watersheds and floodplains
- b. The community has posted some signs of this nature
- c. The community relies on signs of this nature posted by the Department of Natural Resources
- d. The community has no such signs

8. Does your community reach out to and distribute information to waterfront property owners about shoreline management and flood protection?

- a. Yes, the community regularly reaches out to waterfront property owners to provide information on best practices
- b. Yes, the community reaches out to waterfront property owners when they first move into their homes with some information
- c. No, but there is another organization within our community that provides this service
- d. No, but there is information on our website that a resident could find if they sought it out
- e. No, there is no information for waterfront property owners on our website or elsewhere
- f. N/A, the community does not have any waterfront property owners

9. Does your community provide any residential incentive programs to promote stormwater conservation practices like rain gardens or downspout disconnection?

- a. Yes, the community has multiple incentive programs that are both well-funded and well-advertised
- b. Yes, the community has one or two incentive programs that are both well-funded and well-advertised
- c. Yes, the community has one or two programs, but they are only available some of the time due to funding restrictions
- d. No, we used to have such programs, but no longer offer them
- e. No, the community does not offer incentive programs at a municipal level, but residents are directed to other federal or state level programs
- f. No, the community does not offer any incentive programs
- g. No, some stormwater conservation practices such as downspout disconnection are actively prohibited in our community

10. Does your community offer a program providing stormwater runoff audits for private property owners?

- a. Yes, the community has such a program that is well-funded, advertised and free
- b. Yes, the community has such a program that is well-funded and advertised, but at a fee
- c. Yes, the community has such a program, but it is only available some of the time due to funding restrictions
- d. No, the community does not offer stormwater runoff audits at a municipal level, but we direct residents to other federal or state level programs
- e. No, the community does not offer any stormwater runoff audits nor advertise other programs

11. Does your community give water-themed presentations at schools, organize water themed activities for schools or assist in curriculum-building around water?

- a. Yes, the community provides curriculum and local training opportunities for teachers to incorporate water into their lesson plans
- b. Yes, the community provides either curriculum or training, but not both
- c. No, but the community promotes other local and regional partners who do such activities
- d. No, such activities are not done

12. Can both elected officials and the general public access stormwater reports and water resources management plans?

- a. Yes, such reports exist and are easily accessed electronically by both the public and elected officials
- b. Yes, such reports exist but are only available by request during business hours
- c. No, such reports do not exist

13. Can both elected officials and the general public access flood hazard maps?

- a. Yes, maps are available online and include a description of how they should be interpreted and understood
- b. Yes, maps are available online but have no information as to how they should be interpreted and understood
- c. Yes, maps are available, but only by request during business hours
- d. No, maps are not available to both officials and the public
- e. No, maps do not exist

Scoring Education and Outreach

Number of "a" answers: _____

Number of "b" answers: _____

Number of "c" answers: _____

Number of "d" answers: _____

Number of "e" answers: _____

Number of "f" answers: _____

Number of "g" answers: _____

If you answered "c," "d," "e," "f" or "g" for six or more questions, please refer to the [Education and Outreach](#) recommendations section on page 30.

RECOMMENDATIONS

In this section, you will find recommendations, resources and contacts to learn more about how to improve your community's resilience to flooding. Recommendations are grouped into the same sections as the guide itself. **Keep in mind that you may benefit from recommendations in a variety of sections, not just those that you were suggested for you based on your scoring during the assessment.** It may be valuable to review all or many suggestions below before choosing the best course of action. **Please note that this list of recommendations is not exhaustive and does not represent the full spectrum of possibilities for your community.**



Module Three

Sociodemographic Characteristics

- Evaluate, using GIS, where priority populations are concentrated.
 - Once such an evaluation is conducted, prioritize emergency supply and shelter locations to be sited near these populations.

Housing and Transportation

- Evaluate, using GIS, where priority populations are concentrated.
 - Use this to inform where public transit stops need to exist and to prioritize emergency supply and shelter locations.
- Ensure that all new housing meets building standards beyond those required by state standards.
 - For more information about building requirements in the [Uniform Dwelling Code](#) for Wisconsin.

Health Indicators

- Provide educational materials to local public health officials.
 - Provide these in all languages spoken by residents.
- Create an emergency plan for medical facilities and nursing homes to be in place before an emergency takes place.
- If possible, determine potential sites for new medical facilities closer to identified priority populations.
 - If not possible, determine a location in which basic medical supplies can be stored in case of emergency.

Community Partnerships

- Create and publicize a list of community organizations that may provide assistance to their neighbors during and after flood events.
- Create an advisory committee representing priority populations.
 - Allow this committee to review all flood-relevant community plans to ensure that their needs are met.
 - Create neighborhood-scale evacuation and emergency action plans that are appropriate for these populations' needs.
 - Determine a regular schedule to meet and reevaluate these plans or other flood-relevant needs this group may have.
 - Advisory committee members can serve as points of contact for their neighborhoods to disseminate information.

Education and Outreach

To determine which groups may be important to engage with, and what messaging strategies could be useful, consult the CDC's [Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups](#).

- Hire at least one full-time staff member whose duties include water education.
 - If that is not possible, hire an intern or provide college credit to a student to perform these duties.
- Publicize, both electronically and in printed copies, a list of contacts that the public can reach out to about stormwater related questions.
- Plan an annual water-focused community educational event to spread the word about how individuals can better plan for flooding.
- Create a communication plan to be used in the event of hazardous event.
 - The Wisconsin DHS also includes messaging guidance in their [Flood Toolkit](#).
- Host public participation events to learn what questions and concerns exist in the community concerning flooding (these might be well attended following a storm event).
- Have open houses where your community's flood maps are available and residents can attend and receive professional guidance on how to interpret them.
- Participate in [StormReady](#), a National Weather Service program to guide communities on how to communicate with their residents and strengthen safety programs.
- Create brochures, signs, posters, websites or videos to educate the public on stormwater issues.
 - You may be able to adapt existing materials.
- Post signs designating the boundaries of floodplains to raise public awareness about hazard-prone areas.
- Work with local schools to build flood-relevant curricula and projects.
- Provide incentive programs for homeowners to install green infrastructure or to conduct stormwater runoff audits.
 - Consider identifying one neighborhood as a pilot community before creating a municipal-wide project.
- Redesign your municipal website to be public friendly, with clear and obvious links to flood-relevant resources, incentive programs, flood hazard maps and water resource management plans.
 - [Calumet City](#) is an example.