FLORIDA PUBLIC HEALTH RISK ASSESSMENT TOOL (FPHRAT)

User's Guide

2021

Evaluation and Analysis Unit
Community Preparedness Section
Bureau of Preparedness and Response
Division of Emergency Preparedness and Community Support

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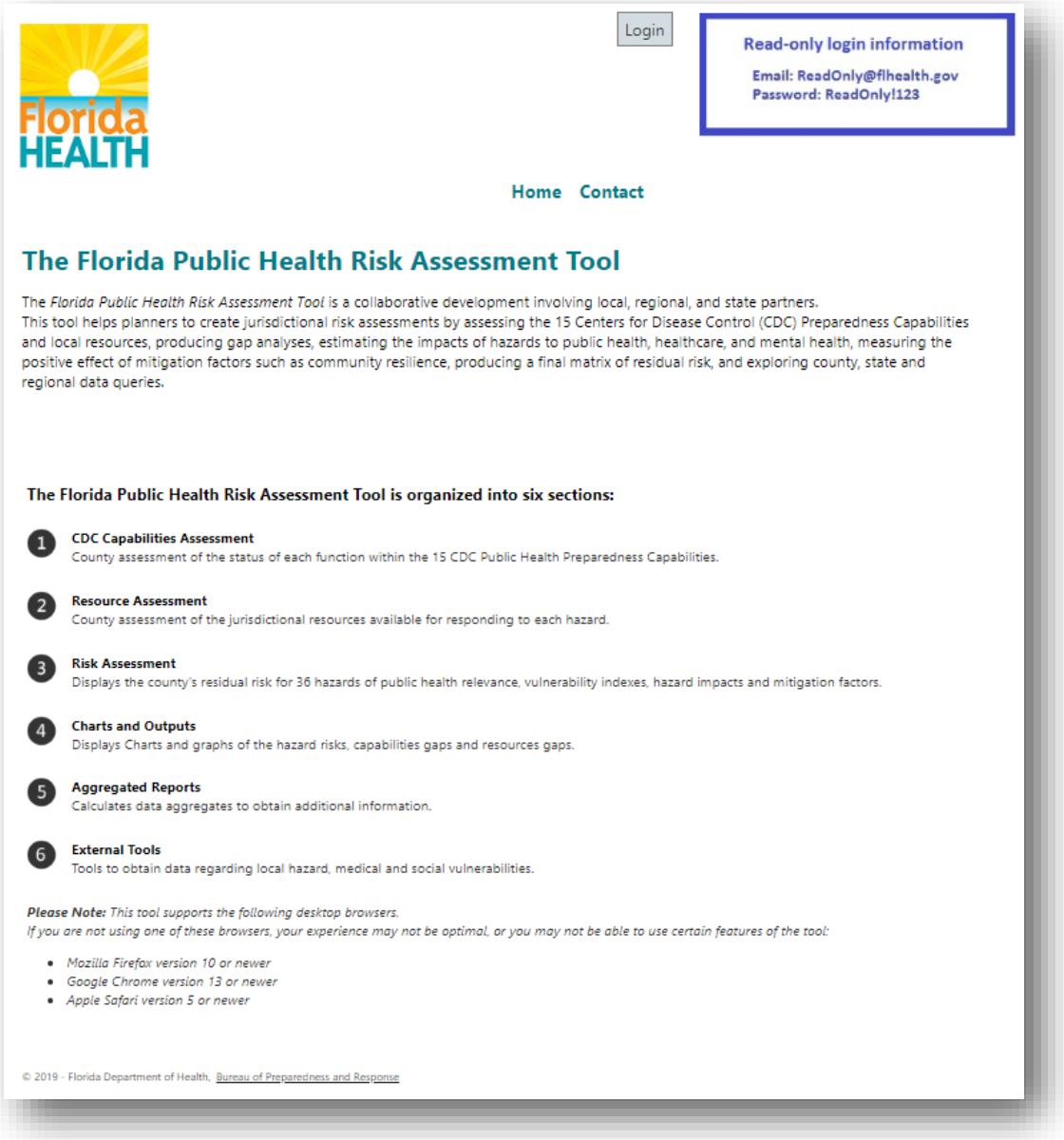
Getting to the Florida Public Health Risk Assessment Tool (FPHRAT)

Getting to the FPHRAT is fairly simple. All you have to do is open up your internet browser and enter the following website URL: https://flphrat.com

After that, you should see the following screen.



Logging In

Your login information is the email address and password created for your county, or the ones that you request.

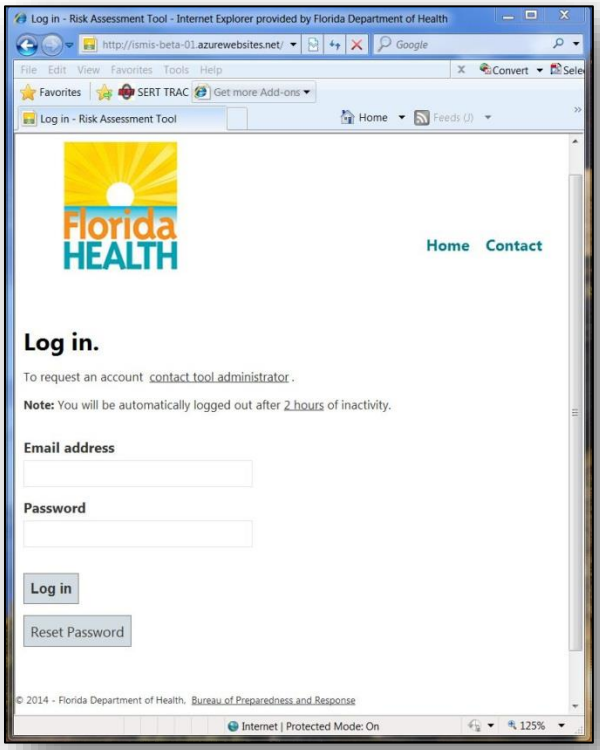
Each County Health Department has been assigned two accounts and corresponding login information:

- Data-input account (default)
- Read-only account

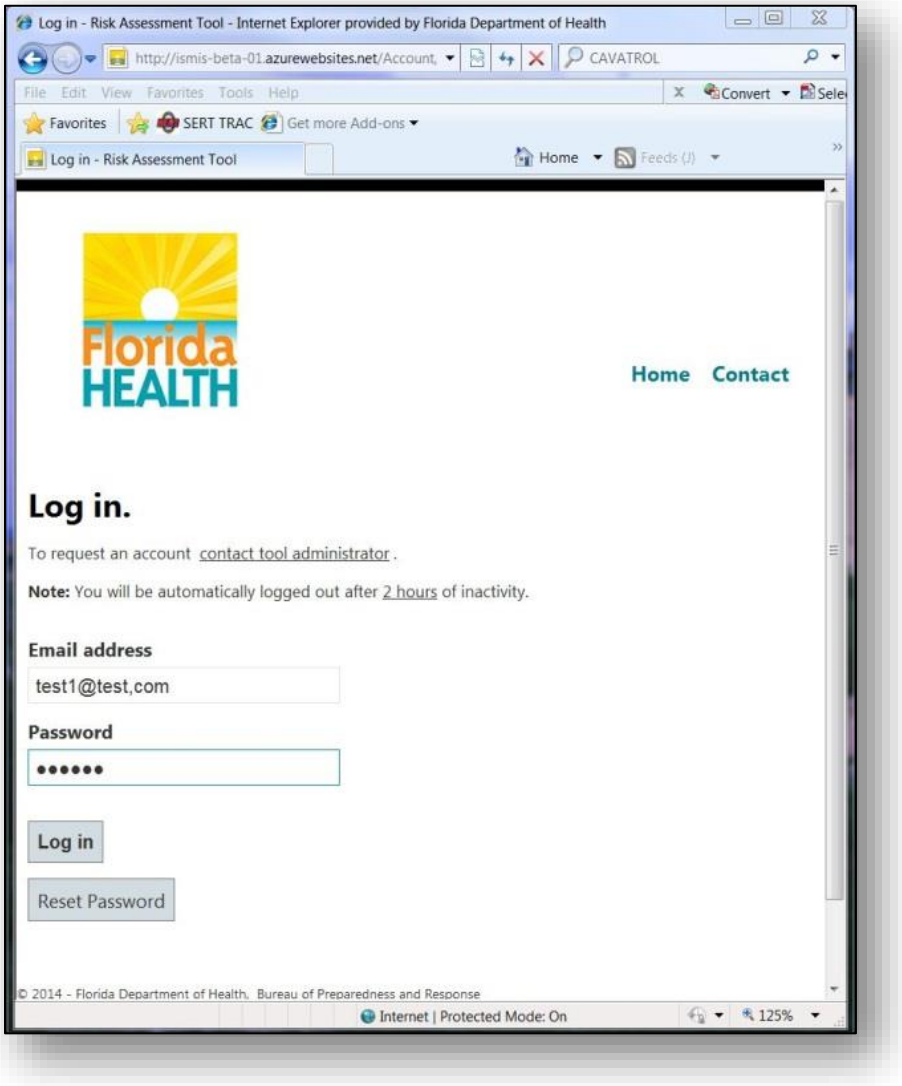
The data-input account is only used to enter data for the Capabilities Assessment and the Resources Assessment worksheets. The read-only account allows you to see the information for your own county and for other jurisdictions, and to create queries.

Click on the login button in the top right-hand corner to login to the website.

You should then see the following page.



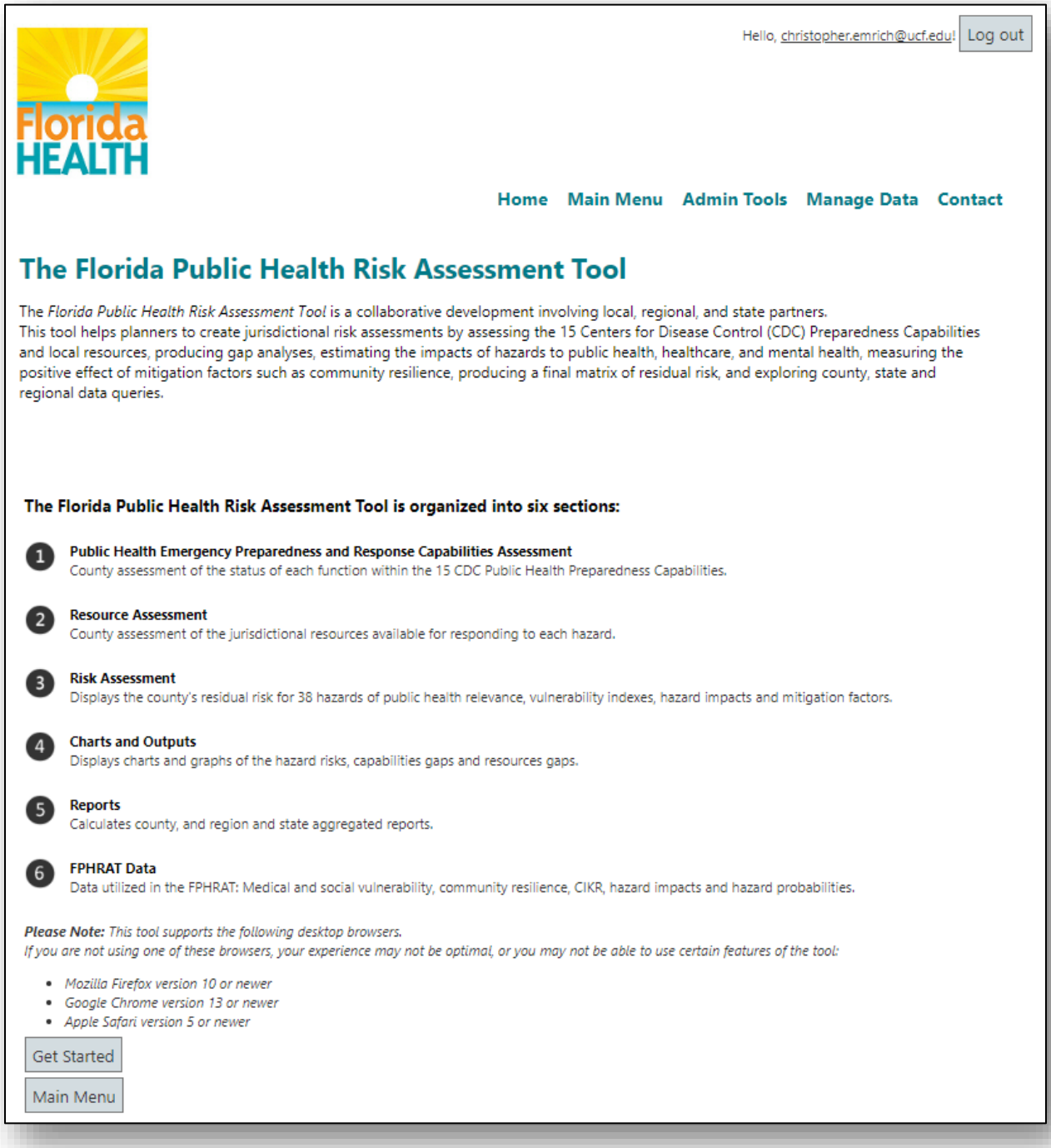
Now just enter your login information.



Click on the "Log in" button to log into the website.

In order to protect the integrity of the database, you will be automatically logged out after 2 hours of inactivity.

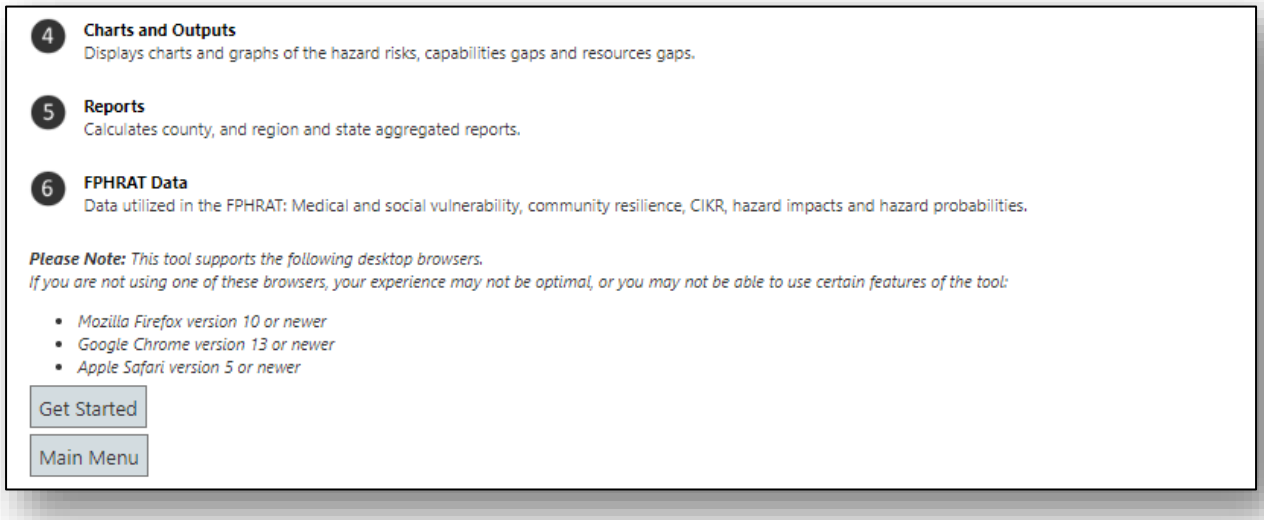
You should now see the page below with a welcome statement at the top right-hand corner welcoming you to the tool.



Using the FPHRAT

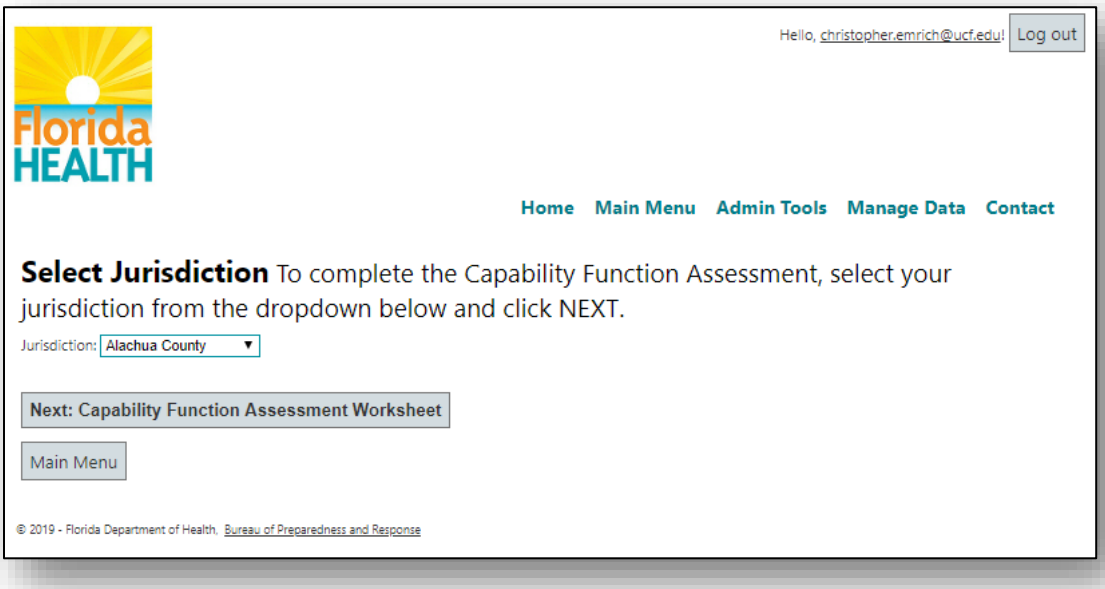
To get started, click on the "Get Started" link shown at the bottom left hand corner of the screen.

Clicking the "Get Started" link should bring you to the page below. In this page you will select the jurisdiction you would like to work on or edit.



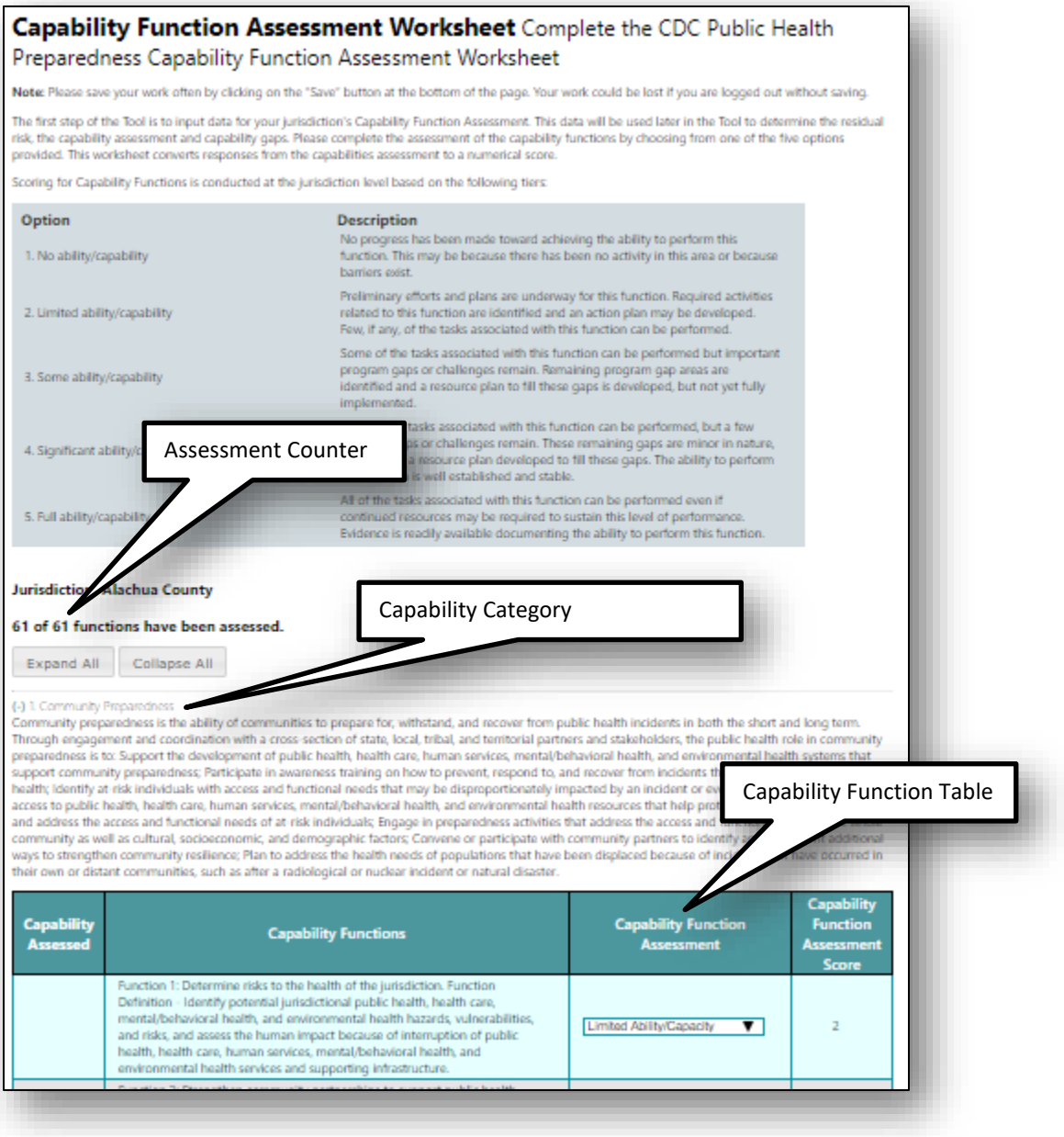
Click on the "Select one" drop down and choose the jurisdiction you would like to work on.

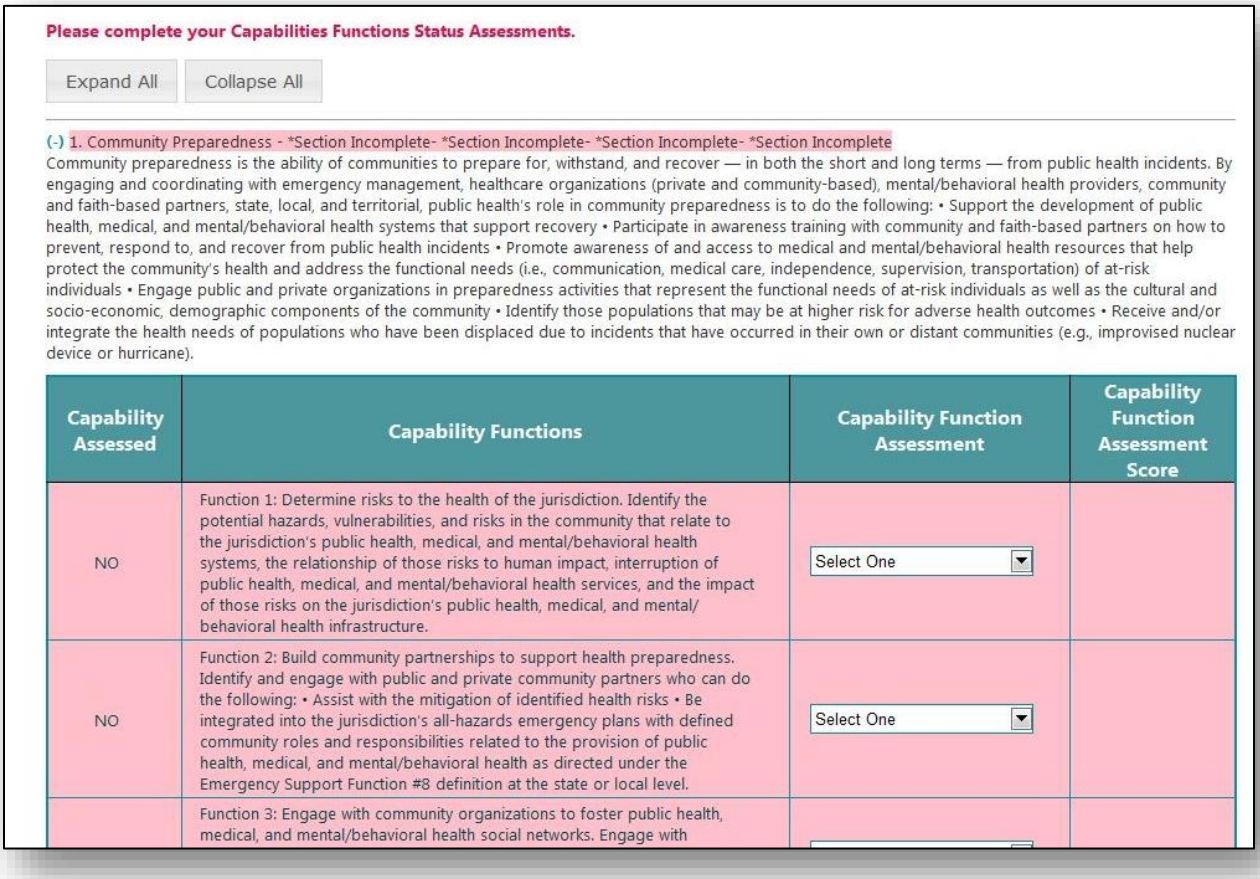
You should see the page below. Now click on the "Next: CDC Capabilities Assessment" button to move forward.



Capability Function Assessment Worksheet

You should now see the page below. In this section, you will assess and report on the capabilities of the selected jurisdiction in regard to each of the specified functions.





Please complete your Capabilities Functions Status Assessments.

Expand All | Collapse All

(-) 1. Community Preparedness - *Section Incomplete- *Section Incomplete- *Section Incomplete- *Section Incomplete

Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following: • Support the development of public health, medical, and mental/behavioral health systems that support recovery • Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents • Promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals • Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community • Identify those populations that may be at higher risk for adverse health outcomes • Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane).

Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
NO	Function 1: Determine risks to the health of the jurisdiction. Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction's public health, medical, and mental/behavioral health systems, the relationship of those risks to human impact, interruption of public health, medical, and mental/behavioral health services, and the impact of those risks on the jurisdiction's public health, medical, and mental/ behavioral health infrastructure.	Select One	
NO	Function 2: Build community partnerships to support health preparedness. Identify and engage with public and private community partners who can do the following: • Assist with the mitigation of identified health risks • Be integrated into the jurisdiction's all-hazards emergency plans with defined community roles and responsibilities related to the provision of public health, medical, and mental/behavioral health as directed under the Emergency Support Function #8 definition at the state or local level.	Select One	
	Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks. Engage with		

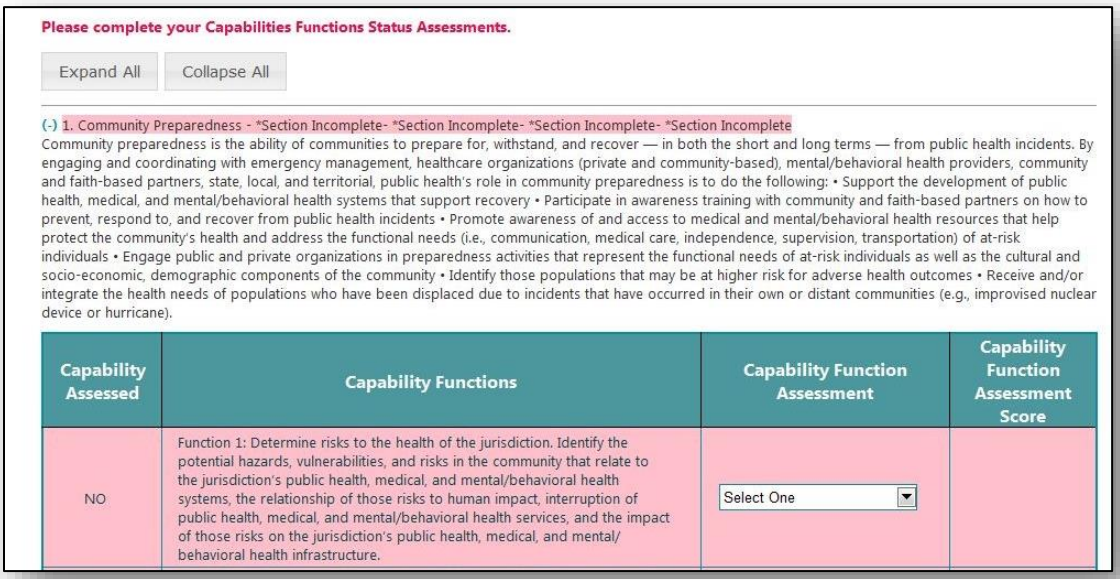
This section has 61 functions in 15 capability categories that need to be assessed for the jurisdiction. Until all 61 have been assessed, the tool will not allow you to move forward to the next worksheet. You can determine how many of the 61 functions have been assessed by looking at the assessment counter.

It is possible to display or collapse all, one or several capabilities using the "Expand all" or "Collapse all" buttons or the symbols (+) or (-).

Each capability is denoted by a number and its title. There you will also find a description of the capability. Under each capability category you will find a table that lists the functions, a description of the function, and the function's assessment represented by a dropdown. To assess the function, click on the drop down and select the appropriate value. Once functions are assessed, it is indicated by a change of color in the table, the word "No" in "Capability Assessed" column disappears as well as the message near the capability title-"*Section Incomplete". The capabilities can be assessed in any order.

Note: The Capability Function Assessment may be preset to "No Ability/Capacity" and it must be updated by each jurisdiction. In version 3.0 new (or modified capabilities) are automatically scored with a value of 1 and must be reviewed by each jurisdiction.

As you can see below, selecting a value has changed the function's highlighted color from a reddish hue to blue indicating it has been assessed. You will also find that the capability function assessment score has been updated to a numeric value. This will be used by the tool later on in the summary data.



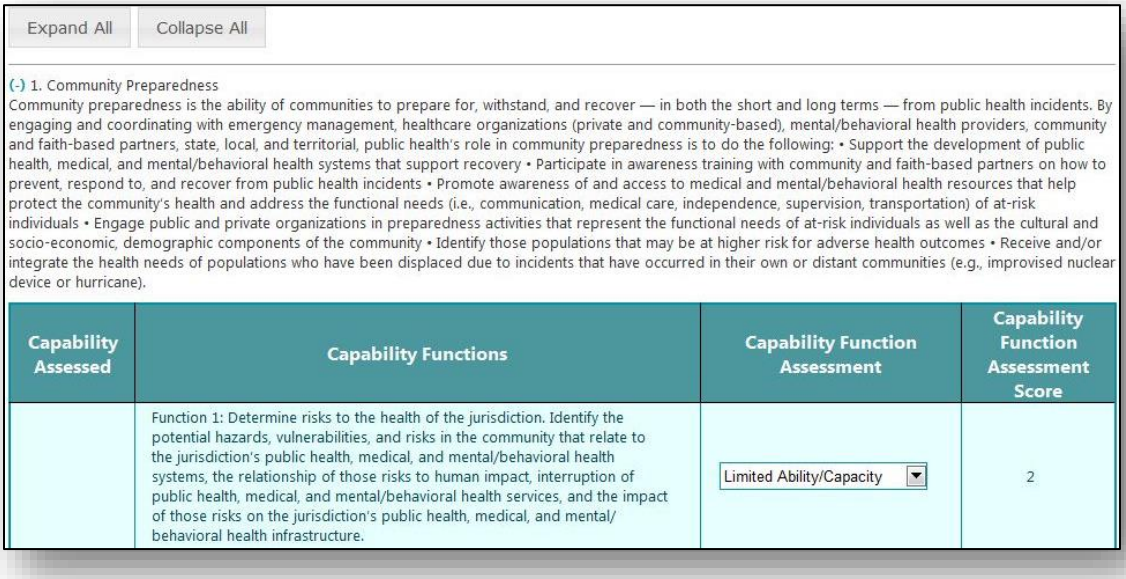
Please complete your Capabilities Functions Status Assessments.

Expand All | Collapse All

(-) 1. Community Preparedness - *Section Incomplete- *Section Incomplete- *Section Incomplete- *Section Incomplete

Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following: • Support the development of public health, medical, and mental/behavioral health systems that support recovery • Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents • Promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals • Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community • Identify those populations that may be at higher risk for adverse health outcomes • Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane).

Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
NO	Function 1: Determine risks to the health of the jurisdiction. Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction's public health, medical, and mental/behavioral health systems, the relationship of those risks to human impact, interruption of public health, medical, and mental/behavioral health services, and the impact of those risks on the jurisdiction's public health, medical, and mental/ behavioral health infrastructure.	Select One	



Expand All | Collapse All

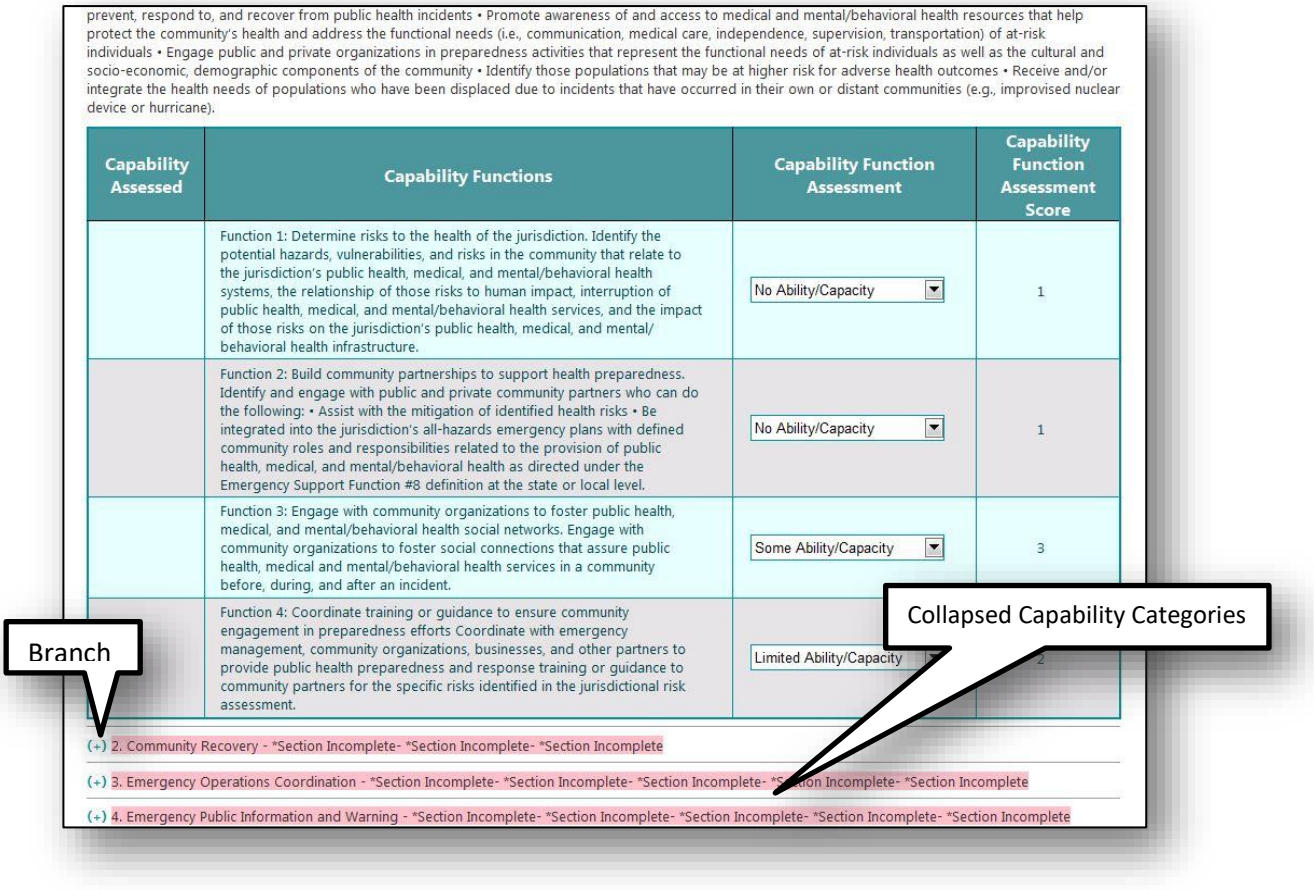
(-) 1. Community Preparedness

Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following: • Support the development of public health, medical, and mental/behavioral health systems that support recovery • Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents • Promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals • Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community • Identify those populations that may be at higher risk for adverse health outcomes • Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane).

Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
	Function 1: Determine risks to the health of the jurisdiction. Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction's public health, medical, and mental/behavioral health systems, the relationship of those risks to human impact, interruption of public health, medical, and mental/behavioral health services, and the impact of those risks on the jurisdiction's public health, medical, and mental/ behavioral health infrastructure.	Limited Ability/Capacity	2

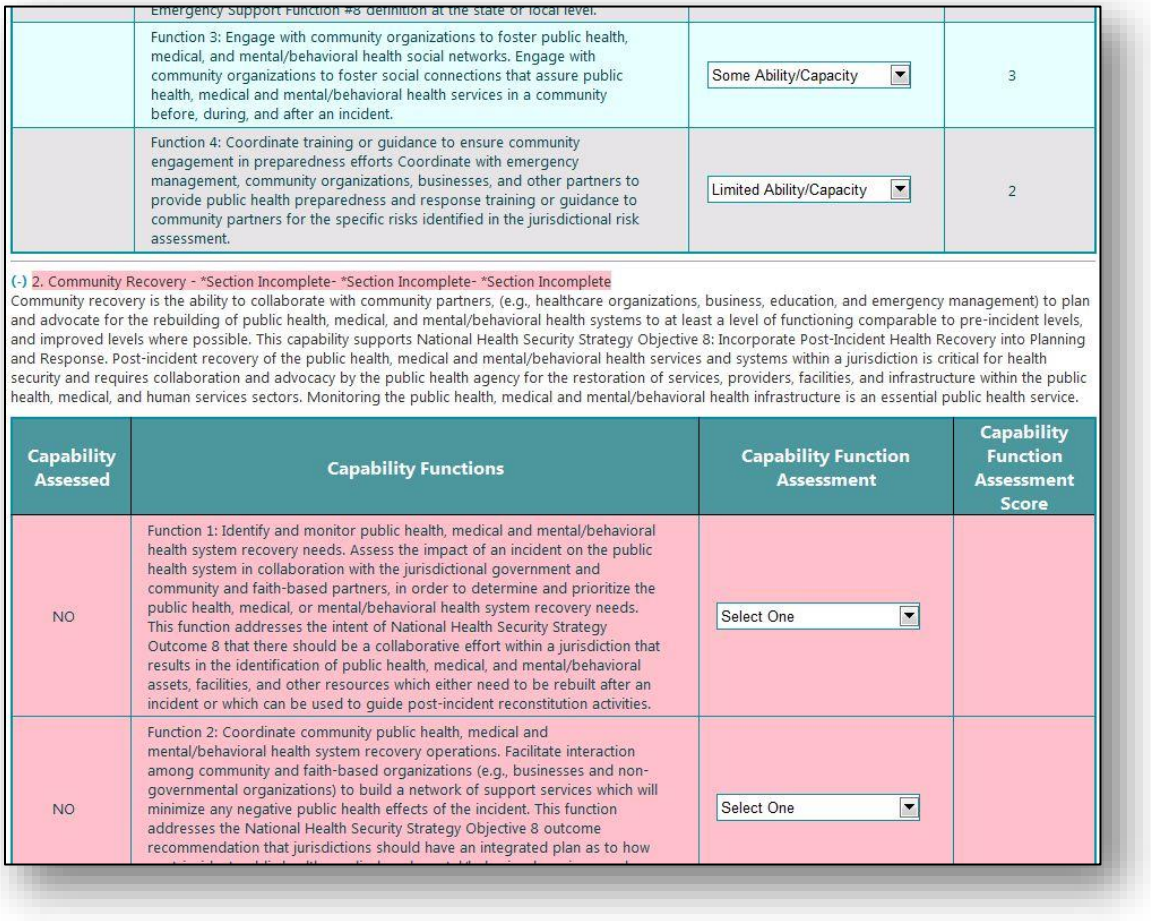
Continue assessing all the functions for this capability category.

After assessing the capability functions for the first capability category, your screen should look similar to the page below.



You should see underneath the first capability category the list of the other 14 capability categories as shown in the picture above. They are currently collapsed, hiding their content. In order to expand the first capability category for assessment, click on the branch symbol which will change the symbol from (+) to (-).

You should now see the second capability expanded, as the first is completed allowing you to continue assessing each of the 61 functions.



	Emergency Support Function #8 definition at the state or local level.		
	Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks. Engage with community organizations to foster social connections that assure public health, medical and mental/behavioral health services in a community before, during, and after an incident.	Some Ability/Capacity	3
	Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts Coordinate with emergency management, community organizations, businesses, and other partners to provide public health preparedness and response training or guidance to community partners for the specific risks identified in the jurisdictional risk assessment.	Limited Ability/Capacity	2

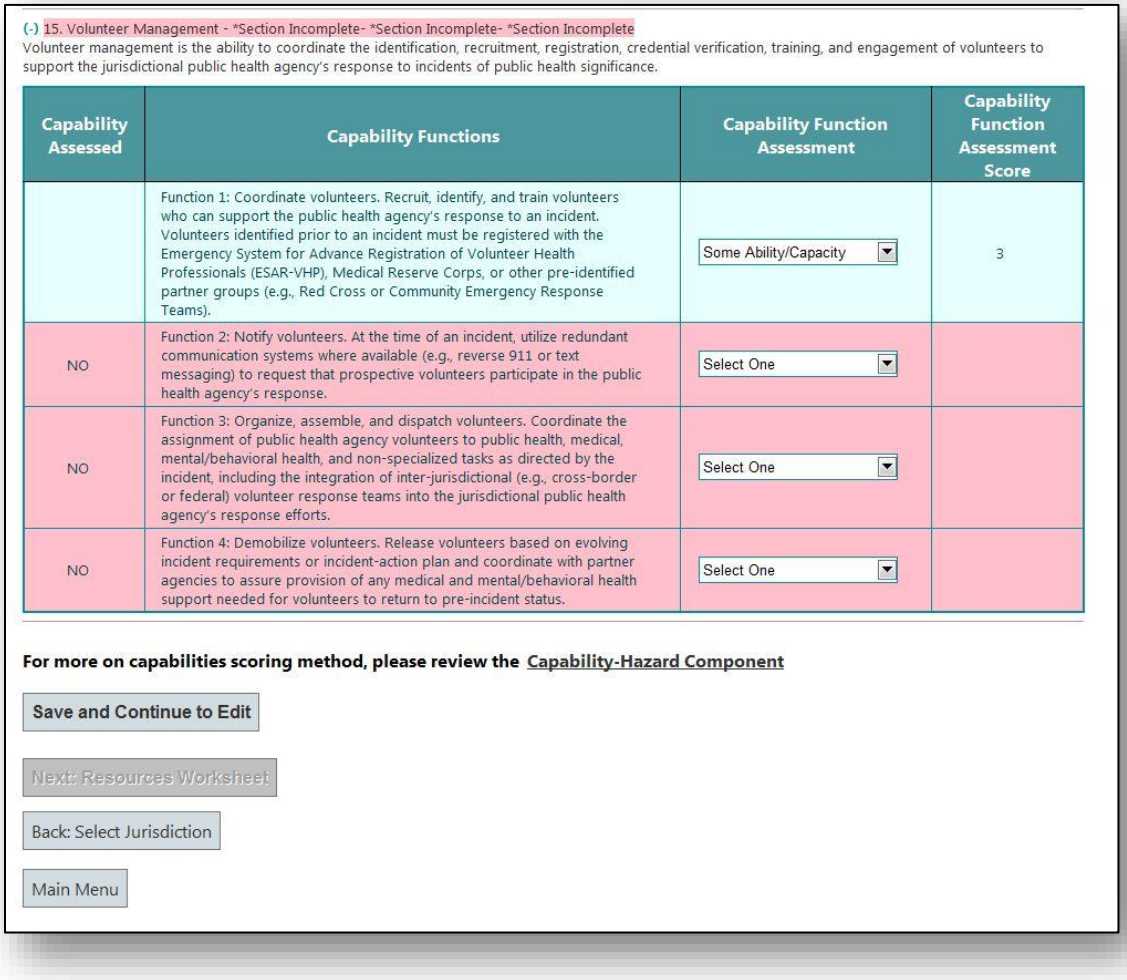
(-) 2. Community Recovery - *Section Incomplete- *Section Incomplete- *Section Incomplete

Community recovery is the ability to collaborate with community partners, (e.g., healthcare organizations, business, education, and emergency management) to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems to at least a level of functioning comparable to pre-incident levels, and improved levels where possible. This capability supports National Health Security Strategy Objective 8: Incorporate Post-Incident Health Recovery into Planning and Response. Post-incident recovery of the public health, medical and mental/behavioral health services and systems within a jurisdiction is critical for health security and requires collaboration and advocacy by the public health agency for the restoration of services, providers, facilities, and infrastructure within the public health, medical, and human services sectors. Monitoring the public health, medical and mental/behavioral health infrastructure is an essential public health service.

Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
NO	Function 1: Identify and monitor public health, medical and mental/behavioral health system recovery needs. Assess the impact of an incident on the public health system in collaboration with the jurisdictional government and community and faith-based partners, in order to determine and prioritize the public health, medical, or mental/behavioral health system recovery needs. This function addresses the intent of National Health Security Strategy Outcome 8 that there should be a collaborative effort within a jurisdiction that results in the identification of public health, medical, and mental/behavioral assets, facilities, and other resources which either need to be rebuilt after an incident or which can be used to guide post-incident reconstitution activities.	Select One	
NO	Function 2: Coordinate community public health, medical and mental/behavioral health system recovery operations. Facilitate interaction among community and faith-based organizations (e.g., businesses and non-governmental organizations) to build a network of support services which will minimize any negative public health effects of the incident. This function addresses the National Health Security Strategy Objective 8 outcome recommendation that jurisdictions should have an integrated plan as to how	Select One	

Continue through the page, expanding each capability category, and assess all functions listed. Feel free to collapse any category that you are not currently working on.

As you come to completion with your assessments, you will get to the bottom of the screen where you will find two buttons, "Save and Continue to Edit" and "Next: Resources Worksheet". As you can see, the "Next: Resources Worksheet" button is disabled. This is because all functions have not yet been assessed. Once the last function is assessed, the "Next: Resources Worksheet" will be enabled.



(-) 15. Volunteer Management - *Section Incomplete- *Section Incomplete- *Section Incomplete

Volunteer management is the ability to coordinate the identification, recruitment, registration, credential verification, training, and engagement of volunteers to support the jurisdictional public health agency's response to incidents of public health significance.

Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
	Function 1: Coordinate volunteers. Recruit, identify, and train volunteers who can support the public health agency's response to an incident. Volunteers identified prior to an incident must be registered with the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), Medical Reserve Corps, or other pre-identified partner groups (e.g., Red Cross or Community Emergency Response Teams).	Some Ability/Capacity	3
NO	Function 2: Notify volunteers. At the time of an incident, utilize redundant communication systems where available (e.g., reverse 911 or text messaging) to request that prospective volunteers participate in the public health agency's response.	Select One	
NO	Function 3: Organize, assemble, and dispatch volunteers. Coordinate the assignment of public health agency volunteers to public health, medical, mental/behavioral health, and non-specialized tasks as directed by the incident, including the integration of inter-jurisdictional (e.g., cross-border or federal) volunteer response teams into the jurisdictional public health agency's response efforts.	Select One	
NO	Function 4: Demobilize volunteers. Release volunteers based on evolving incident requirements or incident-action plan and coordinate with partner agencies to assure provision of any medical and mental/behavioral health support needed for volunteers to return to pre-incident status.	Select One	

For more on capabilities scoring method, please review the Capability-Hazard Component

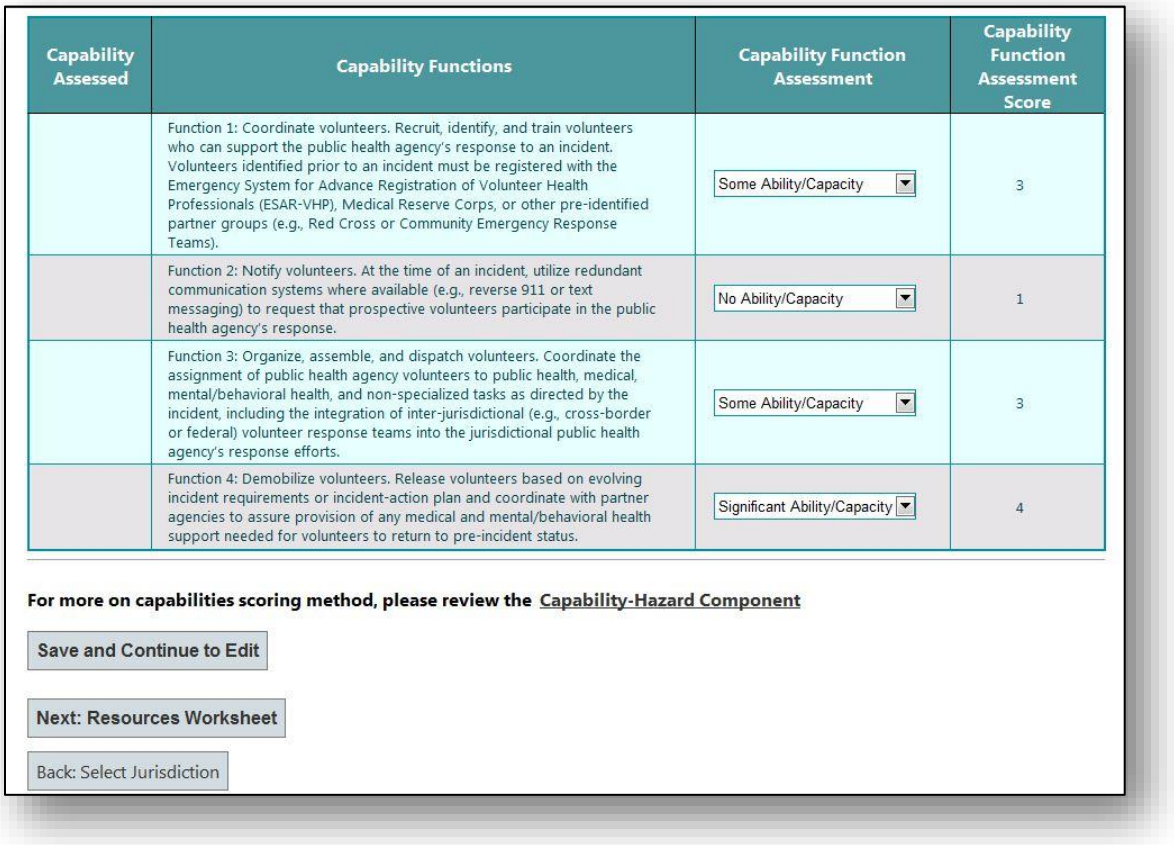
Save and Continue to Edit

Next: Resources Worksheet

Back: Select Jurisdiction

Main Menu

As you can see below, after the last assessment, the "Next: Resources Worksheet" button is now enabled.



Capability Assessed	Capability Functions	Capability Function Assessment	Capability Function Assessment Score
	Function 1: Coordinate volunteers. Recruit, identify, and train volunteers who can support the public health agency's response to an incident. Volunteers identified prior to an incident must be registered with the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), Medical Reserve Corps, or other pre-identified partner groups (e.g., Red Cross or Community Emergency Response Teams).	Some Ability/Capacity	3
	Function 2: Notify volunteers. At the time of an incident, utilize redundant communication systems where available (e.g., reverse 911 or text messaging) to request that prospective volunteers participate in the public health agency's response.	No Ability/Capacity	1
	Function 3: Organize, assemble, and dispatch volunteers. Coordinate the assignment of public health agency volunteers to public health, medical, mental/behavioral health, and non-specialized tasks as directed by the incident, including the integration of inter-jurisdictional (e.g., cross-border or federal) volunteer response teams into the jurisdictional public health agency's response efforts.	Some Ability/Capacity	3
	Function 4: Demobilize volunteers. Release volunteers based on evolving incident requirements or incident-action plan and coordinate with partner agencies to assure provision of any medical and mental/behavioral health support needed for volunteers to return to pre-incident status.	Significant Ability/Capacity	4

For more on capabilities scoring method, please review the Capability-Hazard Component

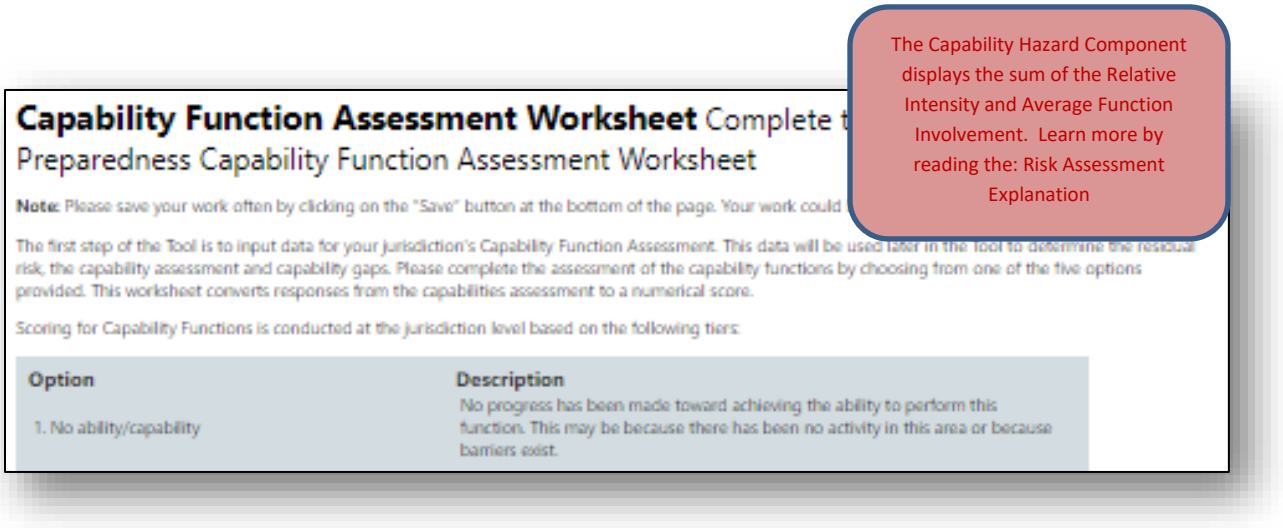
Save and Continue to Edit

Next: Resources Worksheet

Back: Select Jurisdiction

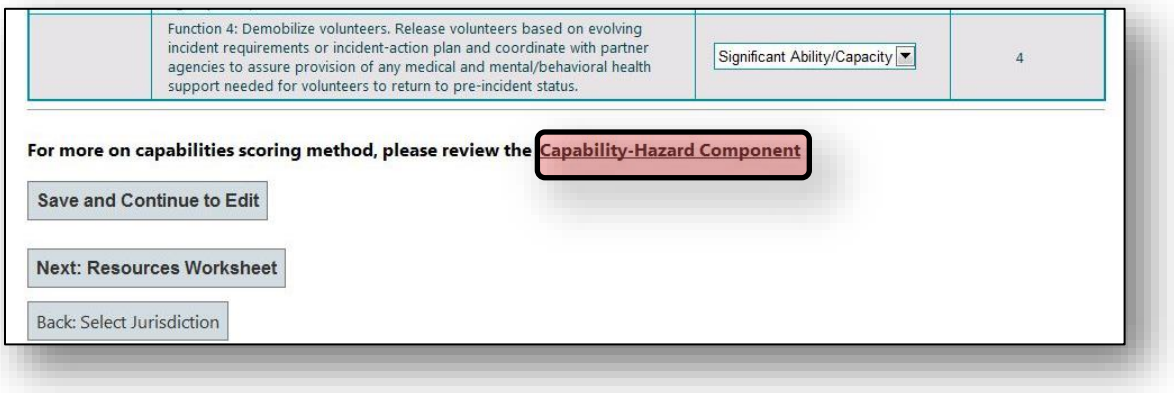
At any point and time during the assessment you can click the "Save and Continue to Edit" button to save your work so far. Until this button is selected, your work has not been saved. Please click on the "Save and Continue Edit" button.

After clicking on the button, your work is saved, and the page will refresh bringing you back to the top of the page. At this point, you can scroll down and assess any functions or modify any assessments before moving on.



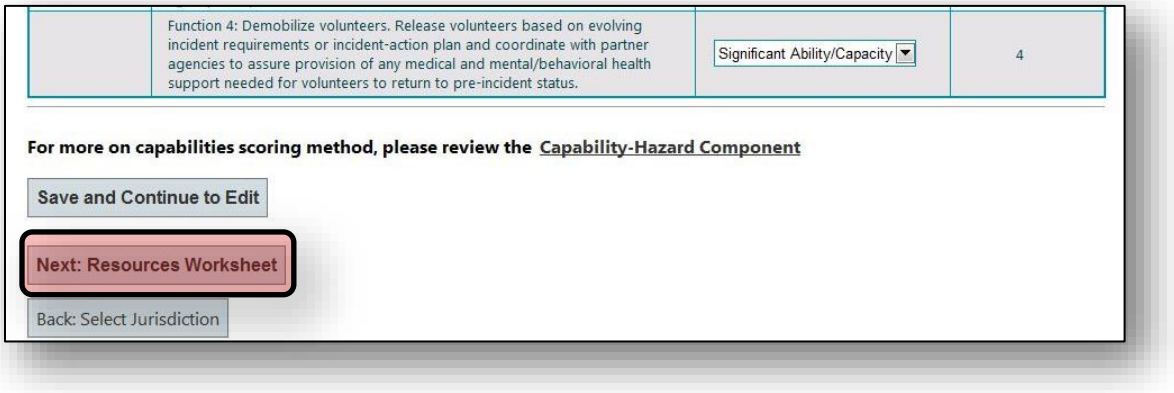
The "Risk Assessment Explanation" is a document describing all the components of the Risk Assessment including the Capability Hazard Component. The link to the document is on the Capability Assessment page. See the picture above.

At the bottom of the Capability Assessment page, there is a link to the Capability Hazard Component, which is an application that displays the capabilities' functions associated with each specific hazard.



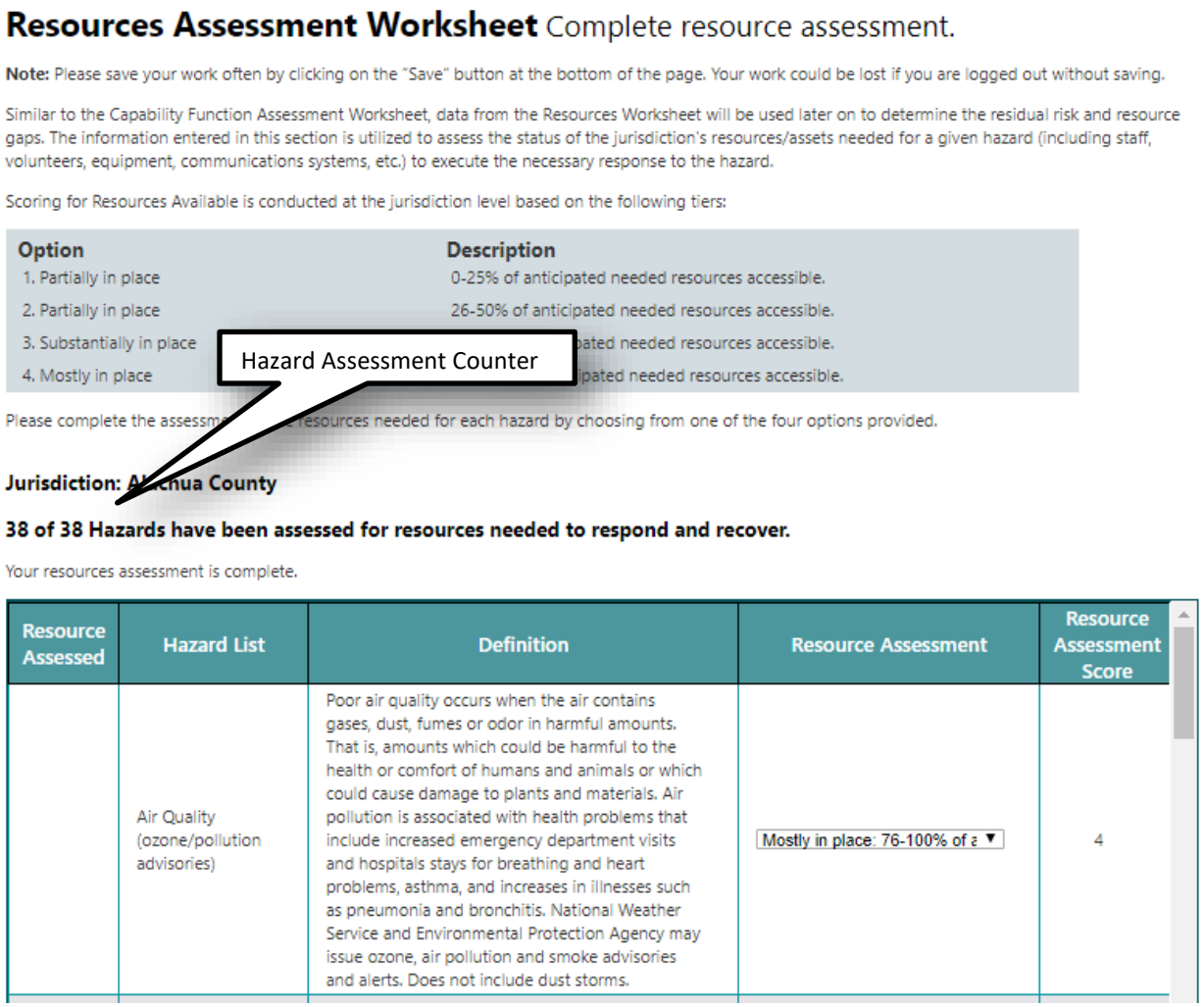
Now that all functions have been assessed, let's move on to the next step.

Click on the "Next: Resources Worksheet" button.



Resources Assessment Worksheet

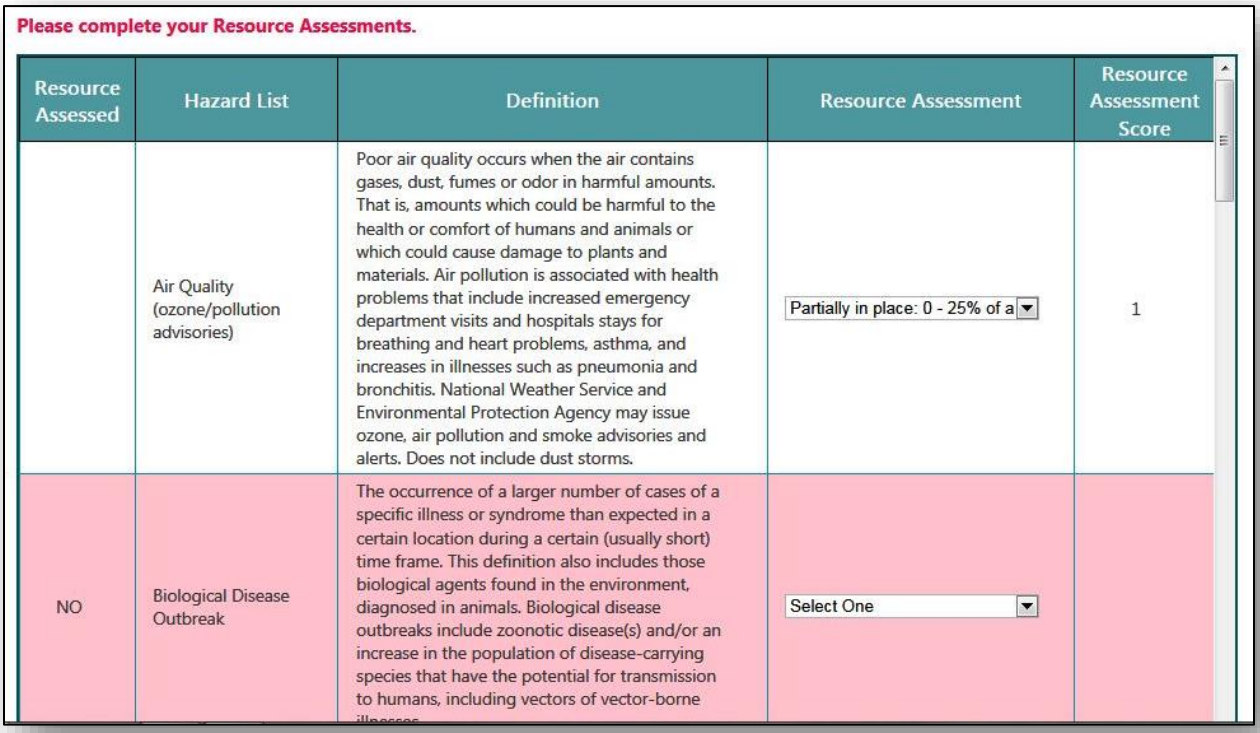
This worksheet is used to report on a jurisdictional level of access to required resources for each of the 38 hazards reported on by this tool.



Just as in the Capability Function Assessment, until all 38 hazards have been assessed, the tool will not allow you to continue. You will also find a hazard-assessment counter that lets you know how close you are to completion. On this page, you will find a scrollable window that contains a table listing 38 hazards, their definitions, the Resource Assessment and Resource Assessment Scores. Click on the first "Select One" dropdown for the first hazard and choose the appropriate assessment.

As you can see, by assessing the hazard, the record changed from a reddish hue to white to indicate the hazard's resource has been assessed and the Hazard Assessment Counter has

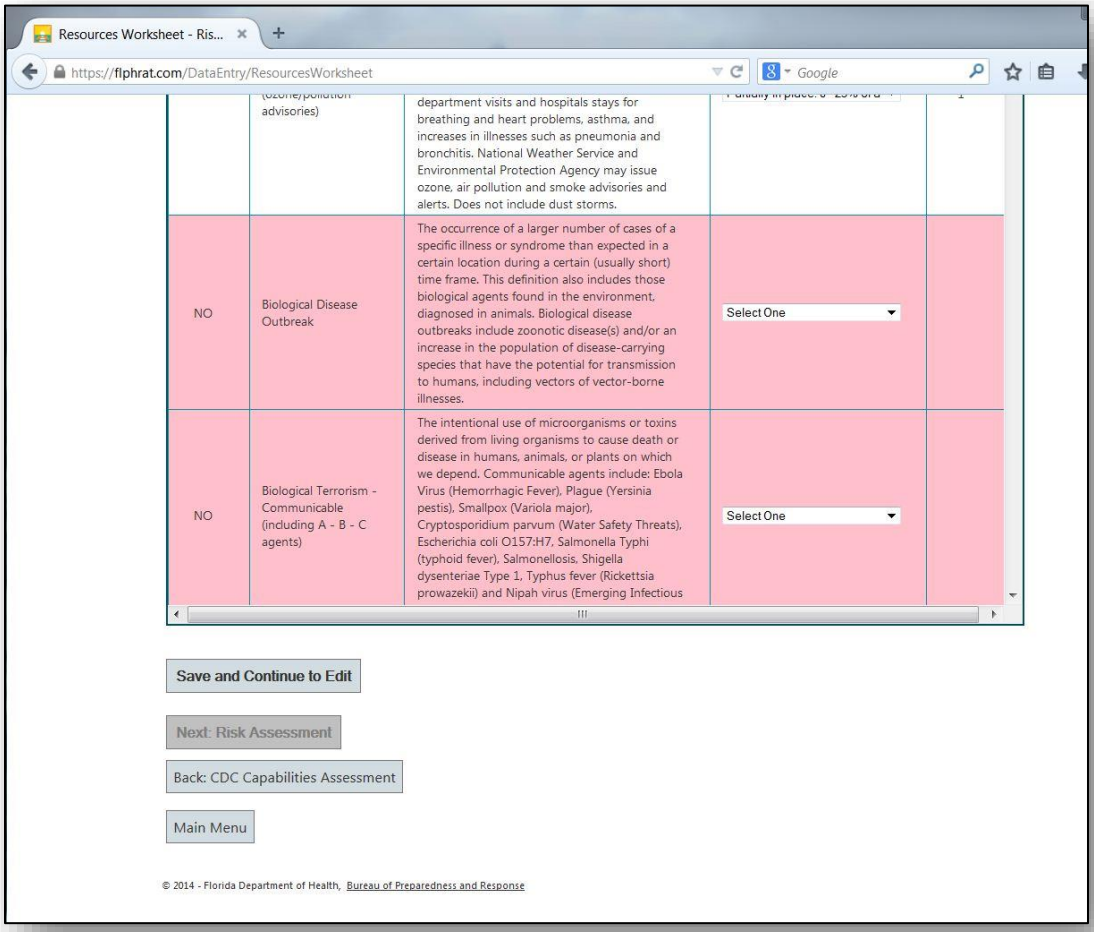
increased by 1 and the word "No" in the Resource Assessed column will disappear to indicate its completion.



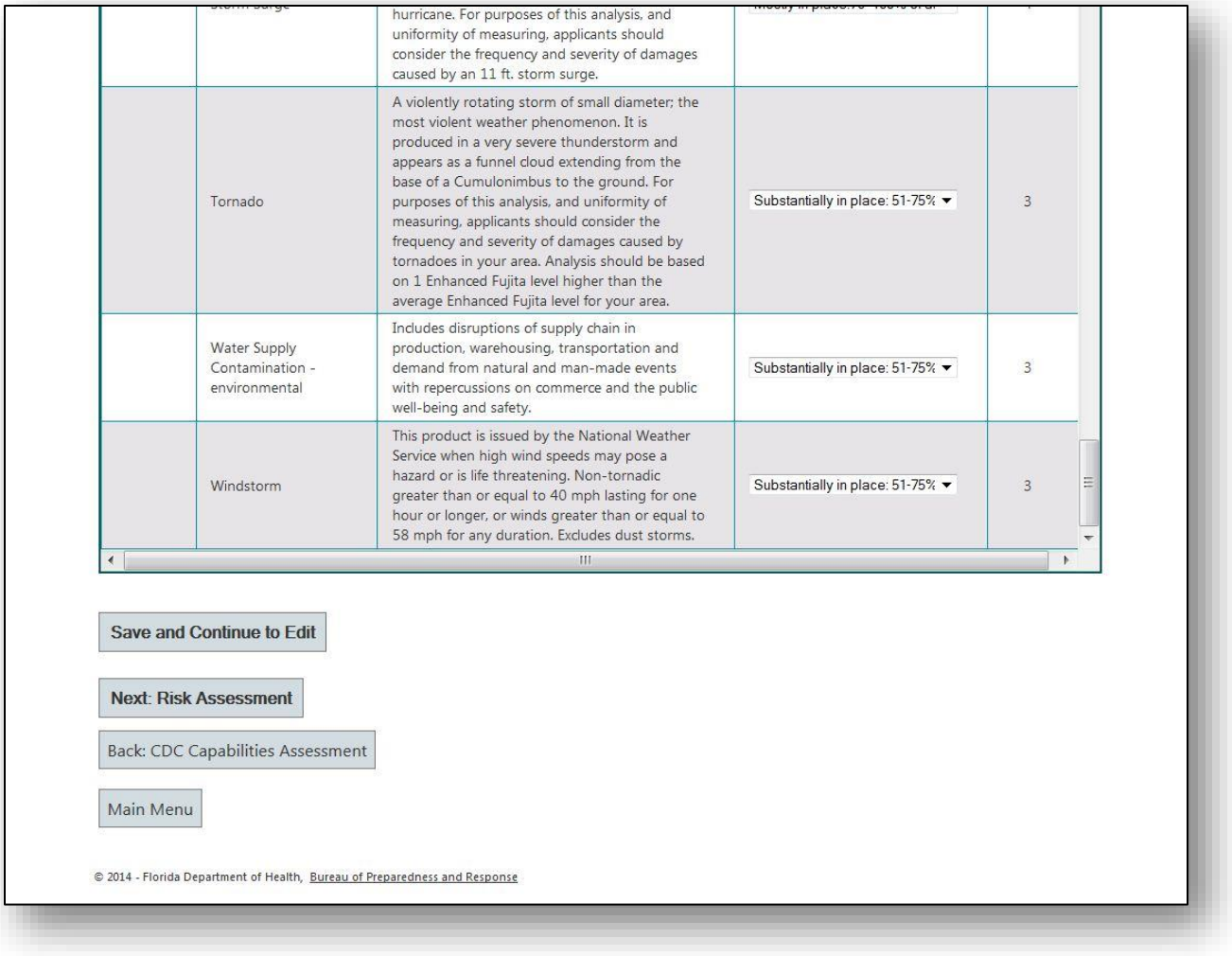
Now do the same for all 38 hazards, making sure to scroll down so you don't miss any of the listed hazards.

Note: The Needed Resources Access may be preset to "Partially in Place: 0-25%" and it must be updated by each jurisdiction.

As with the Capability Assessment, you have two buttons on the page: "Save and Continue to Edit" and "Next: Risk Assessment". As you can see, the "Next: Risk Assessment" button is disabled because all hazards have not yet been assessed. Once the last hazard is assessed, the "Next: Resources Worksheet" will be enabled.



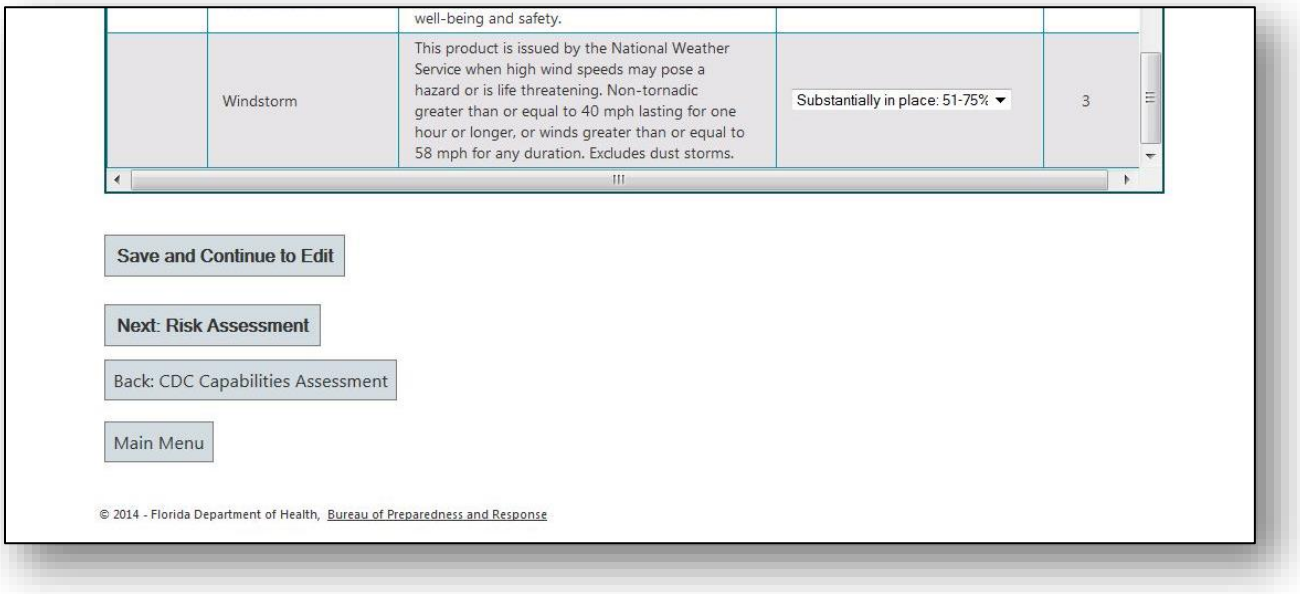
As you can see below, after the last assessment, the "Next: Risk Assessment" button is now enabled.



At any point and time during the assessment, you can click the "Save and Continue to Edit" button to save your work so far. Until this button is selected, your work has not been saved. Please click on the "Save and Continue Edit" button.

After clicking on the button, your work is saved and the page will refresh, bringing you back to the top of the page. At this point, you can scroll down and assess any hazards or modify any resource assessments you need to make before moving on.

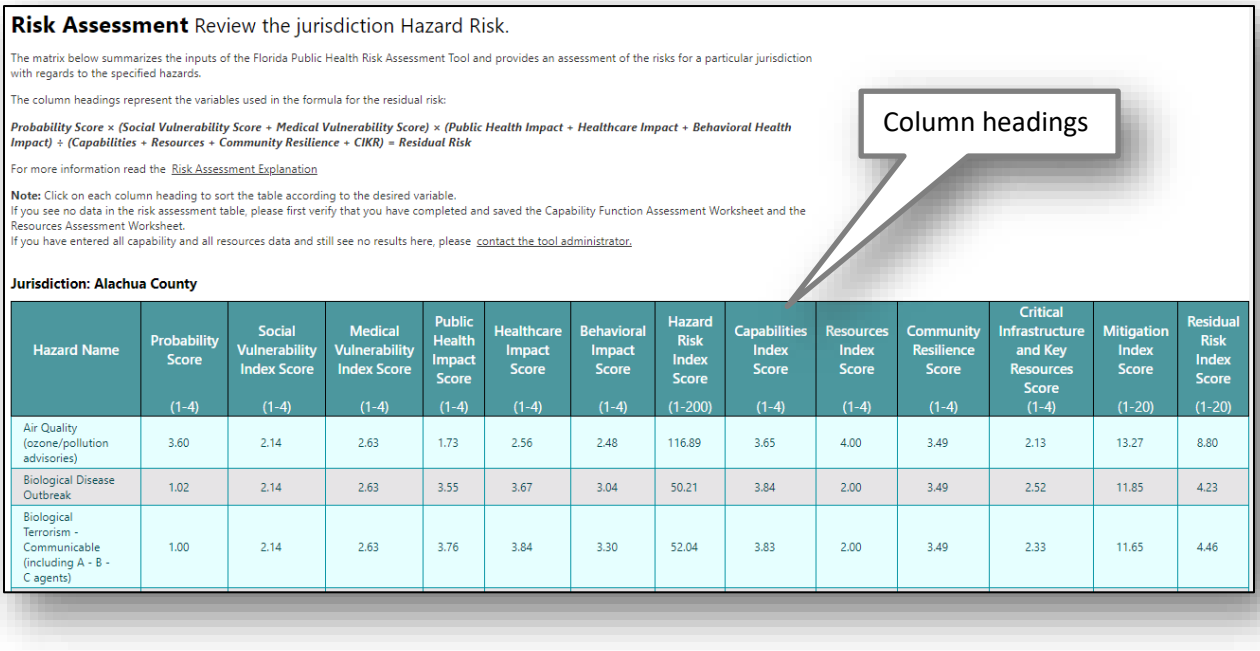
Now that all functions have been assessed, let's move on to the next step.



Click on the "Next: Risk Assessment" button.

Risk Assessment

Below is the Risk Assessment page. This page takes the assessments previously made and provides an assessment of the risks for a particular jurisdiction with regard to the specified hazards. This is a non-editable view of your data that can be sorted, in descending or ascending order, by clicking on any of the column headings.



Risk Assessment Review the jurisdiction Hazard Risk.

The matrix below summarizes the inputs of the Florida Public Health Risk Assessment Tool and provides an assessment of the risks for a particular jurisdiction with regards to the specified hazards.

The column headings represent the variables used in the formula for the residual risk:

Probability Score × (Social Vulnerability Score + Medical Vulnerability Score) × (Public Health Impact + Healthcare Impact + Behavioral Health Impact) ÷ (Capabilities + Resources + Community Resilience + CIKR) = Residual Risk

For more information read the Risk Assessment Explanation

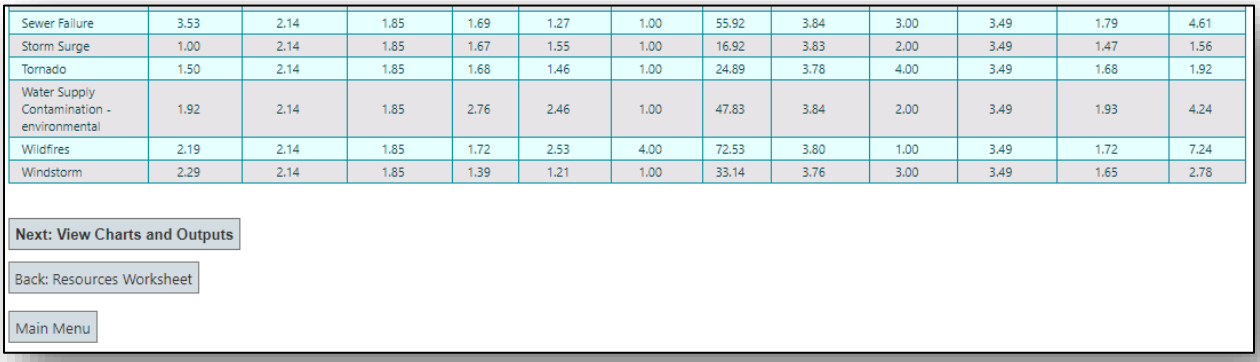
Note: Click on each column heading to sort the table according to the desired variable.
If you see no data in the risk assessment table, please first verify that you have completed and saved the Capability Function Assessment Worksheet and the Resources Assessment Worksheet.
If you have entered all capability and all resources data and still see no results here, please contact the tool administrator.

Jurisdiction: Alachua County

Hazard Name	Probability Score (1-4)	Social Vulnerability Index Score (1-4)	Medical Vulnerability Index Score (1-4)	Public Health Impact Score (1-4)	Healthcare Impact Score (1-4)	Behavioral Impact Score (1-4)	Hazard Risk Index Score (1-200)	Capabilities Index Score (1-4)	Resources Index Score (1-4)	Community Resilience Score (1-4)	Critical Infrastructure and Key Resources Score (1-4)	Mitigation Index Score (1-20)	Residual Risk Index Score (1-20)
Air Quality (ozone/pollution advisories)	3.60	2.14	2.63	1.73	2.56	2.48	116.89	3.65	4.00	3.49	2.13	13.27	8.80
Biological Disease Outbreak	1.02	2.14	2.63	3.55	3.67	3.04	50.21	3.84	2.00	3.49	2.52	11.85	4.23
Biological Terrorism - Communicable (including A - B - C agents)	1.00	2.14	2.63	3.76	3.84	3.30	52.04	3.83	2.00	3.49	2.33	11.65	4.46

Scroll to the bottom of the page.

At the bottom of the page, you will find the "View Charts and Outputs" button. This will take you to the next section that provides charts for the data collected.



Sewer Failure	3.53	2.14	1.85	1.69	1.27	1.00	55.92	3.84	3.00	3.49	1.79	4.61
Storm Surge	1.00	2.14	1.85	1.67	1.55	1.00	16.92	3.83	2.00	3.49	1.47	1.56
Tornado	1.50	2.14	1.85	1.68	1.46	1.00	24.89	3.78	4.00	3.49	1.68	1.92
Water Supply Contamination - environmental	1.92	2.14	1.85	2.76	2.46	1.00	47.83	3.84	2.00	3.49	1.93	4.24
Wildfires	2.19	2.14	1.85	1.72	2.53	4.00	72.53	3.80	1.00	3.49	1.72	7.24
Windstorm	2.29	2.14	1.85	1.39	1.21	1.00	33.14	3.76	3.00	3.49	1.65	2.78

Next: View Charts and Outputs

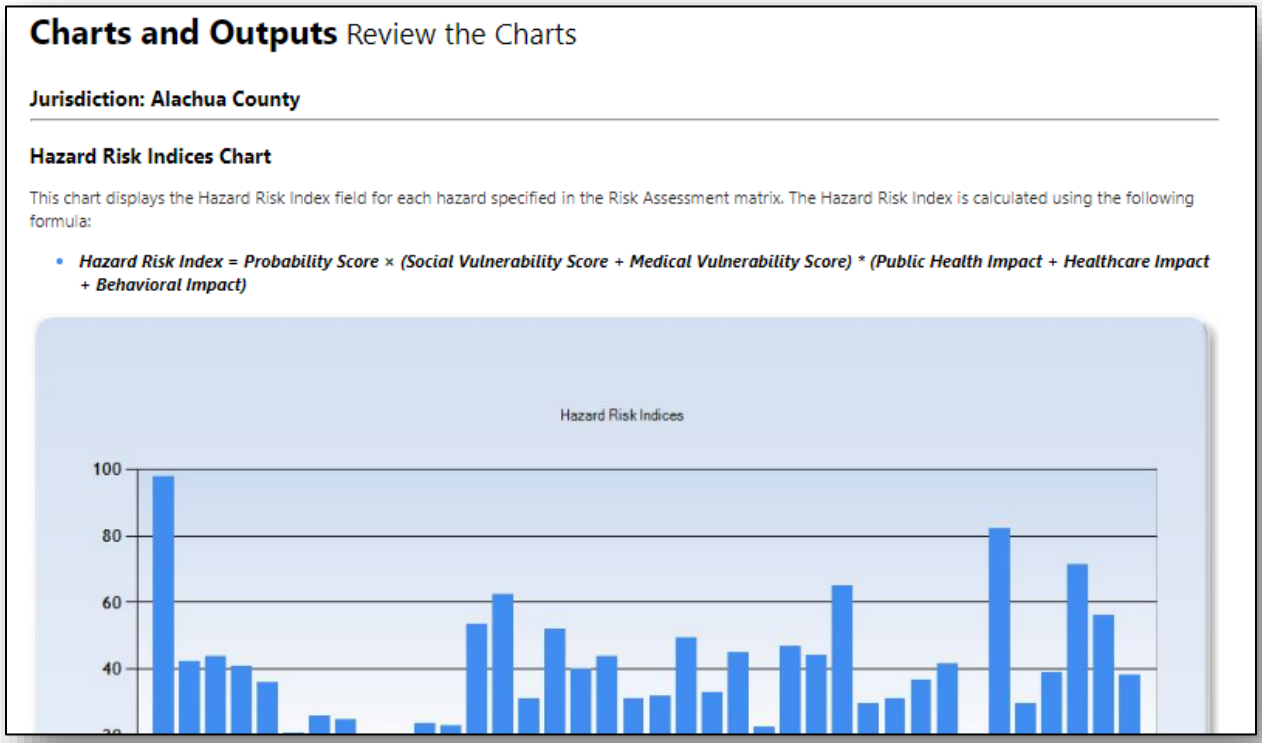
Back: Resources Worksheet

Main Menu

Click on "Next: View Charts and Outputs"

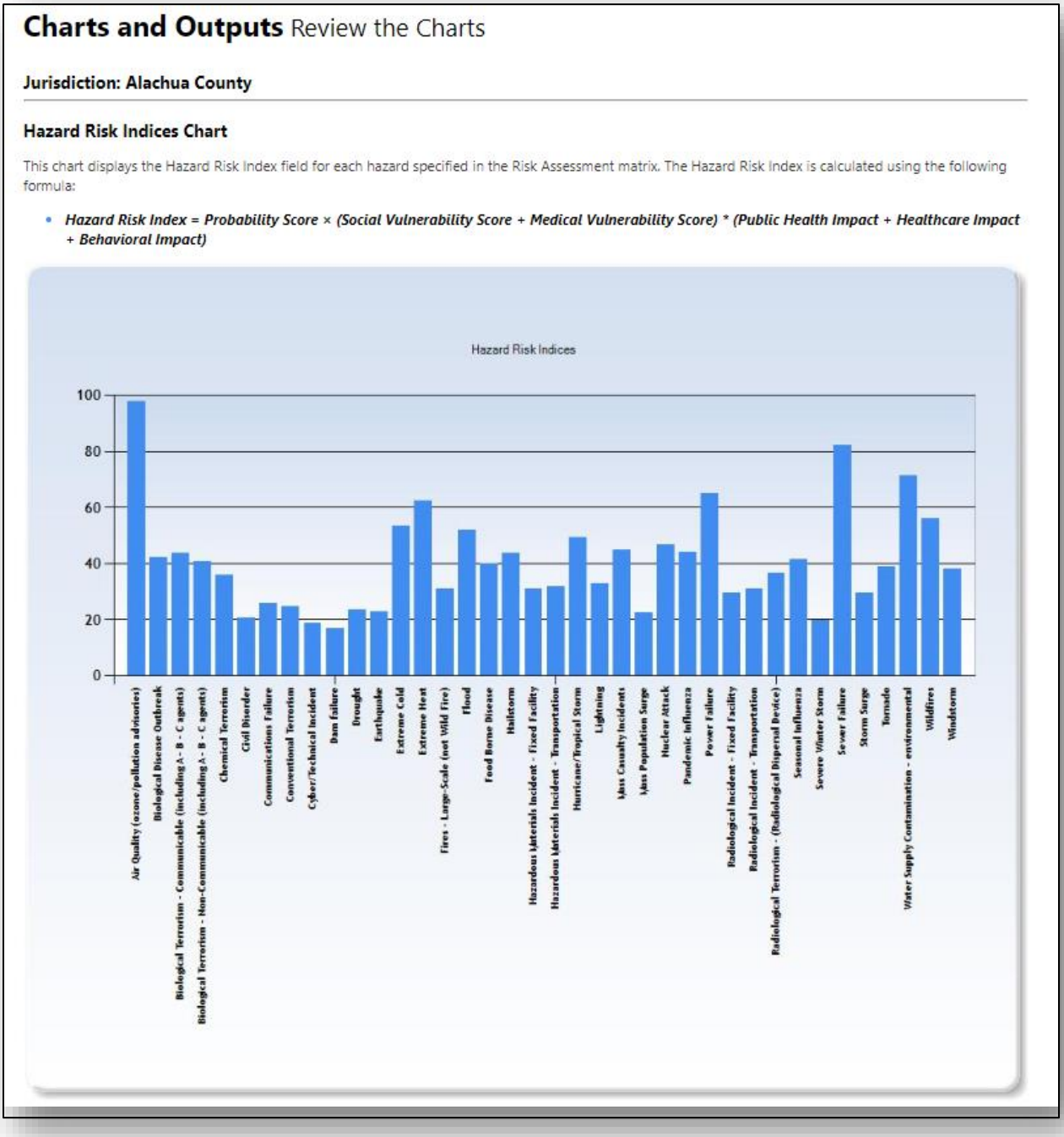
Charts and Outputs

Here you will find three charts on the data collected: the Hazard Risk Indices, Capabilities Gap Analysis, and the Resource Gap Charts.

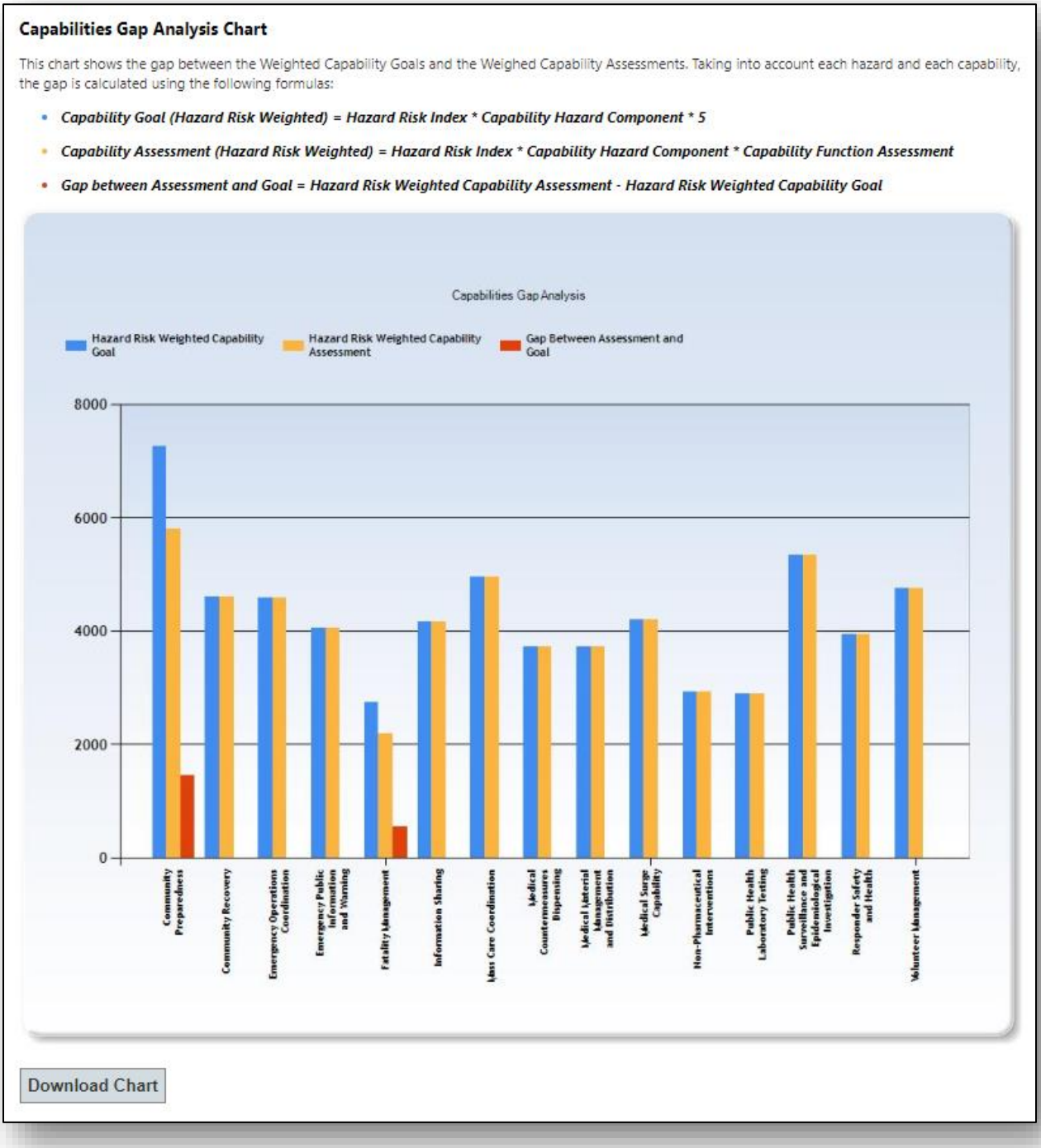


Hazard Risk Indices

The "Download Chart" button, allows you to download the chart as a JPG file.



Capabilities Gap Analysis

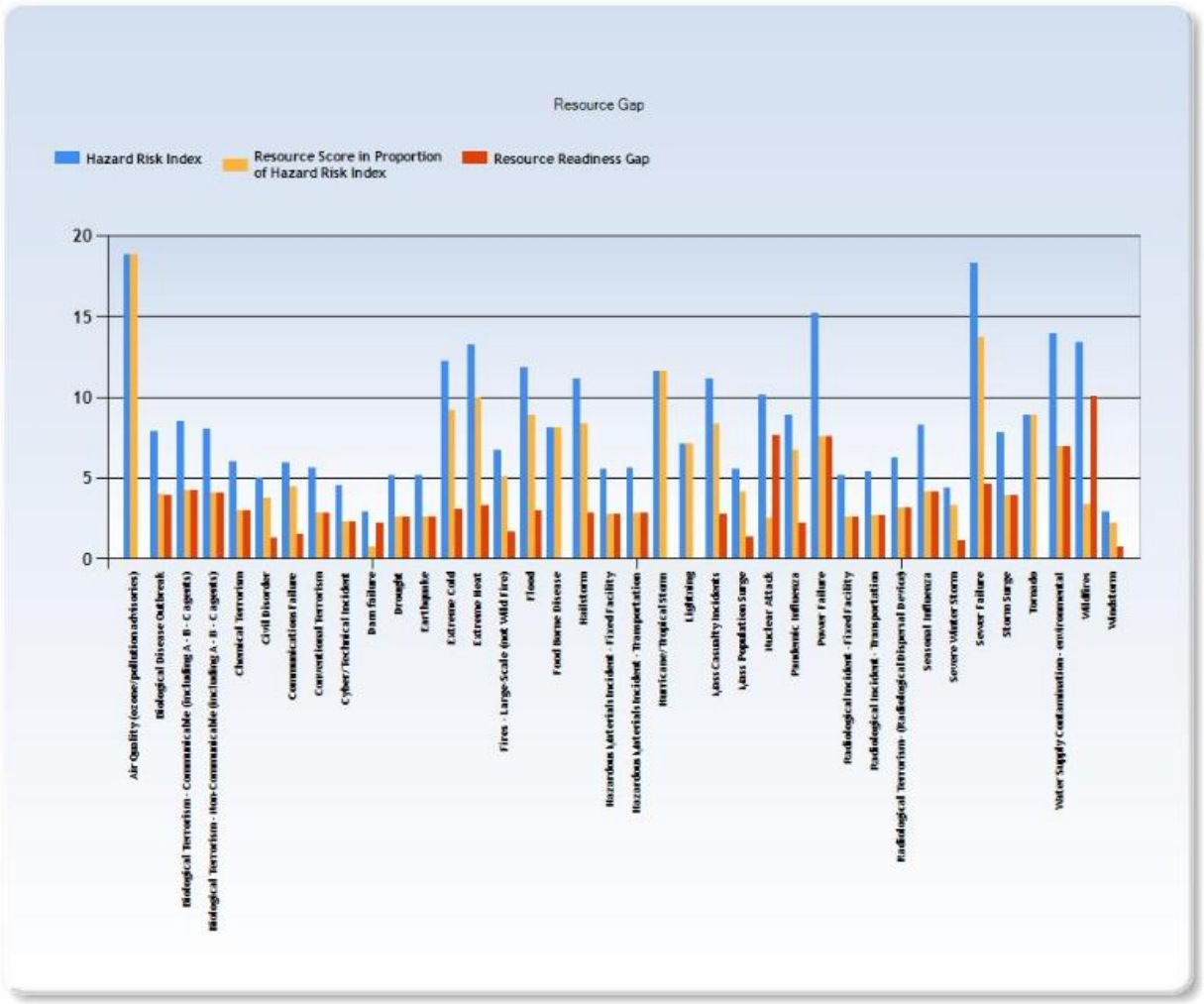


Resource Gap

Resource Readiness Gap Chart

This chart displays the Resource Readiness Gap, the Resource Assessment Score in Proportion of the Hazard Risk Index to compare to the Hazard Risk Index of each hazard. The Resource Readiness Gap is calculated using the following formulas:

- ***Hazard Risk Index = Probability Score × (Social Vulnerability Score + Medical Vulnerability Score) * (Public Health Impact + Healthcare Impact + Behavioral Impact)***
- ***Resource Score in Proportion of Hazard Risk Index = Resource Assessment / 4 * Hazard Risk Index***
- ***Resource Readiness Gap = Hazard Risk Index - Resource Score in Proportion of Hazard Risk Index***



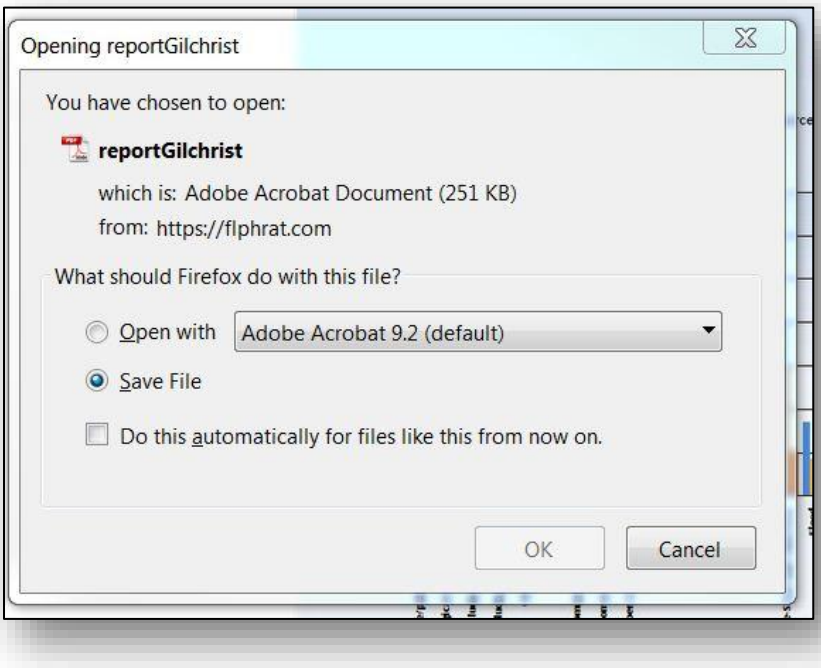
Download Chart

Download All as PDF

Scroll to the bottom of the screen. At the bottom of the page, you will find a "Download All as PDF" button. This button will allow you to either open or save all three charts as a PDF.

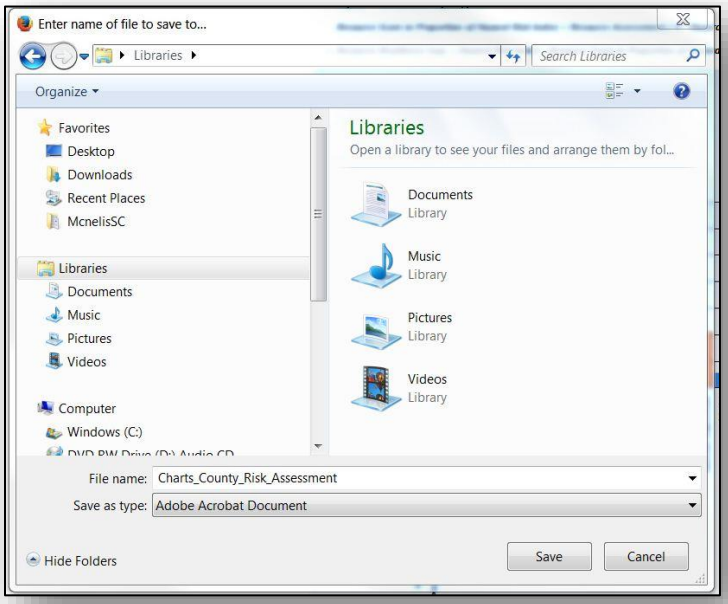
Click on "Download All as PDF".

After clicking on "Download All as PDF" a dialog box will appear. The appearance of the dialog box may vary when different internet browsers are used. The example below displays a dialog box from Mozilla Firefox.



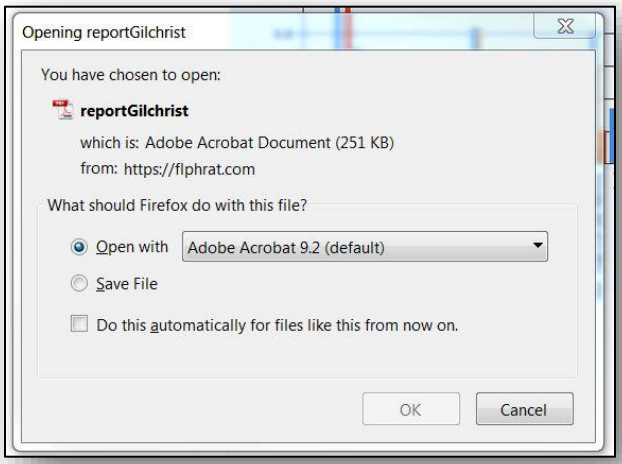
Saving Charts

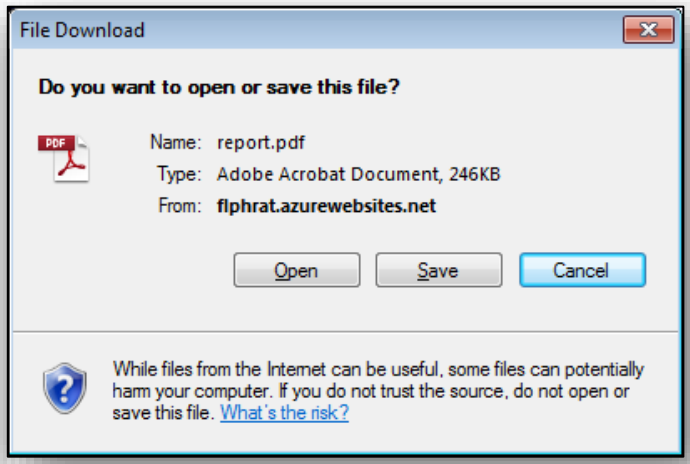
To save the PDF, click on the "Save" button, and then indicate where you would like the file saved and click on the "Save" button.



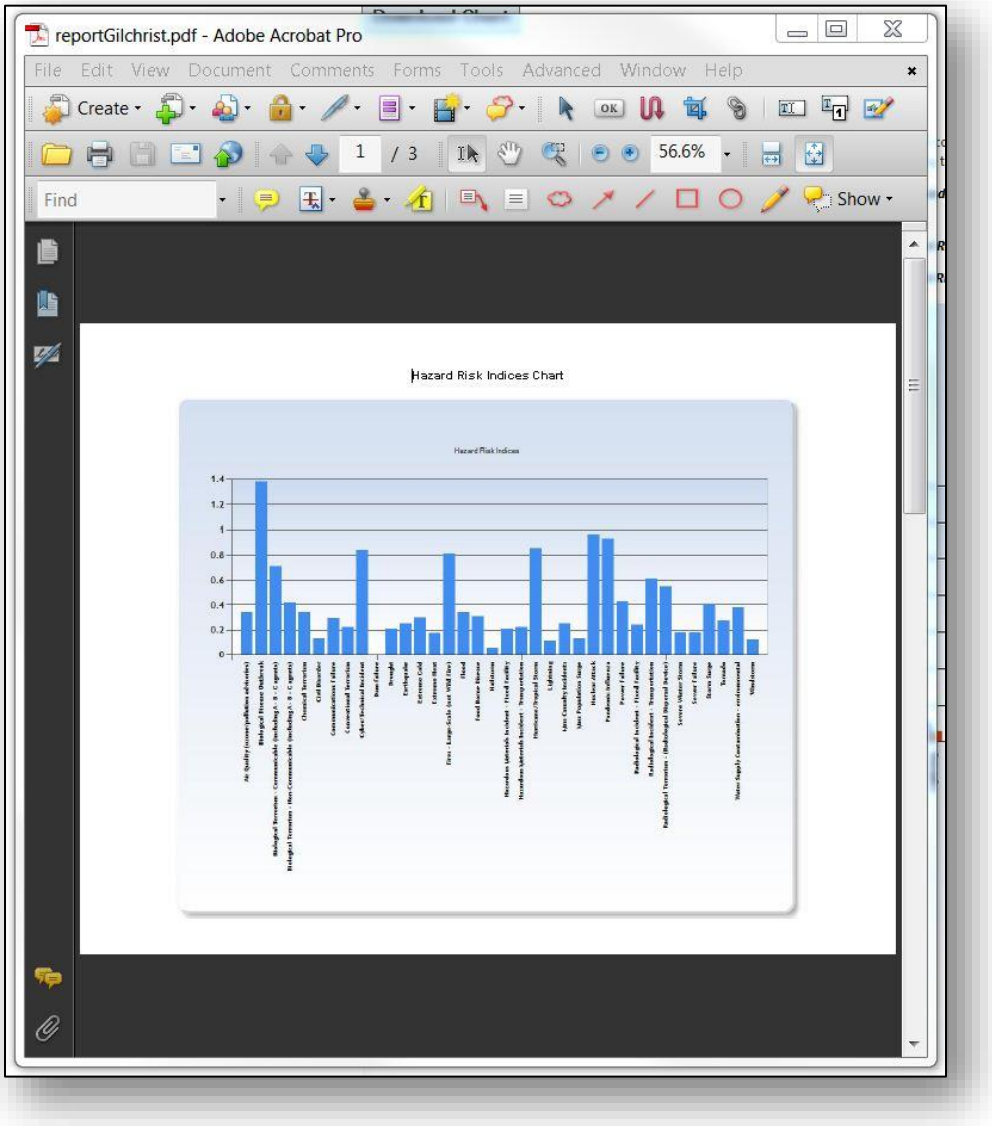
Open Charts

To open the charts as a PDF file, click on "Download All as PDF". The following dialog box should open. Now select the "Open" button (the pictures below show the dialog box as it appears in the Mozilla Firefox and Internet Explorer browsers).



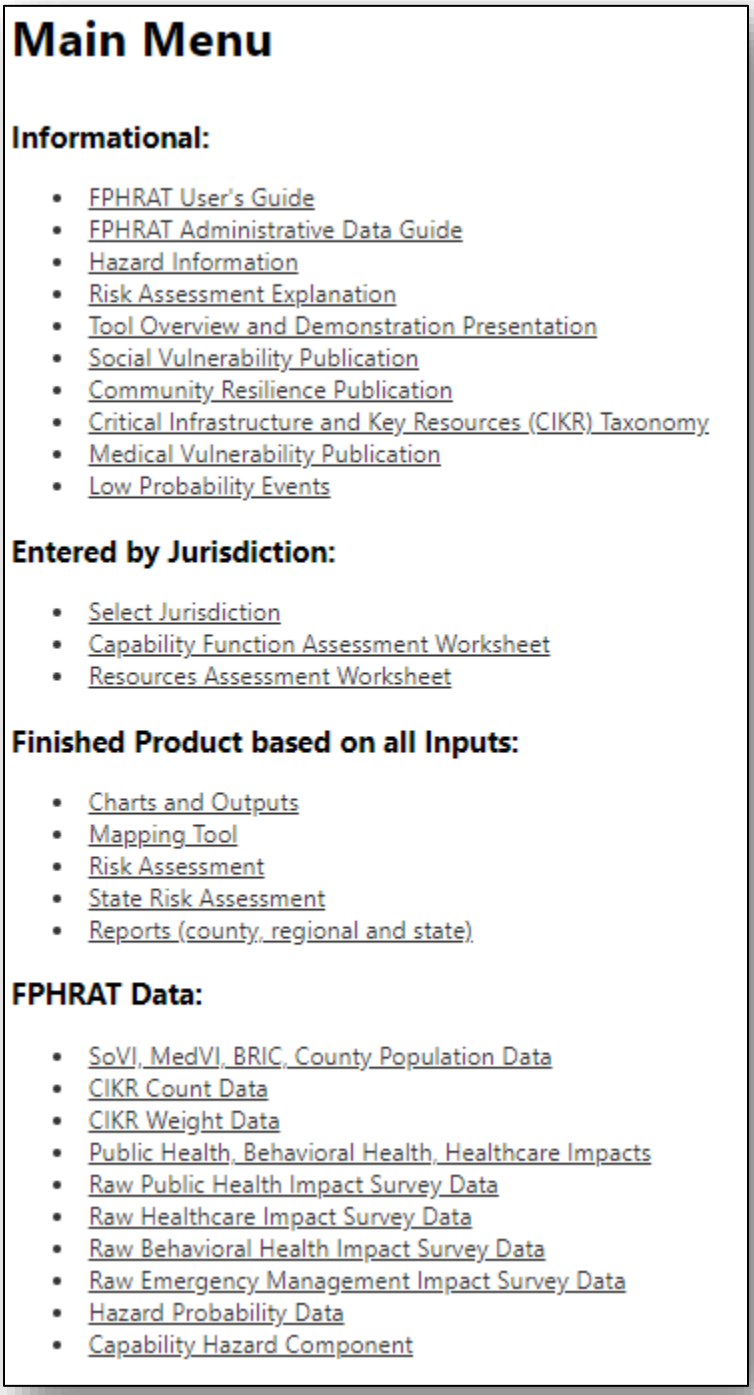


The PDF should then open in a separate window to be viewed.



Main Menu

The Main Menu provides quick links to different areas of the tool, excluding management sections that are only accessible by admin users. At times, a particular link may require to select a jurisdiction first and will first bring you to the "Select Jurisdiction" page before continuing to a particular page.



Main Menu

Informational:

- FPHRAT User's Guide
- FPHRAT Administrative Data Guide
- Hazard Information
- Risk Assessment Explanation
- Tool Overview and Demonstration Presentation
- Social Vulnerability Publication
- Community Resilience Publication
- Critical Infrastructure and Key Resources (CIKR) Taxonomy
- Medical Vulnerability Publication
- Low Probability Events

Entered by Jurisdiction:

- Select Jurisdiction
- Capability Function Assessment Worksheet
- Resources Assessment Worksheet

Finished Product based on all Inputs:

- Charts and Outputs
- Mapping Tool
- Risk Assessment
- State Risk Assessment
- Reports (county, regional and state)

FPHRAT Data:

- SoVI, MedVI, BRIC, County Population Data
- CIKR Count Data
- CIKR Weight Data
- Public Health, Behavioral Health, Healthcare Impacts
- Raw Public Health Impact Survey Data
- Raw Healthcare Impact Survey Data
- Raw Behavioral Health Impact Survey Data
- Raw Emergency Management Impact Survey Data
- Hazard Probability Data
- Capability Hazard Component

Informational Section

This section contains informational materials for the user.

FPHRAT User's Guide

The user's guide for the tool (this document) describes each component of the tool and how to work through the process of building a public health risk assessment.

FPHRAT Administrative Data Guide

Guide for administrators on how to update state level and administrator only datasets.

FPHRAT Version 3.1 Release Notes

Notes on important updates to FPHRAT between previous version and current version.

Risk Assessment Explanation

This document describes the concepts and equations utilized to estimate the risk assessment and its measures for each county and hazard.

Hazard Information

The Hazard Information is a downloadable spreadsheet that contains information regarding 38 hazards with public health significance in Florida. The information in the table includes the Hazard Definition, Hazard Category, and the Source of the data utilized in the tool.

Social Vulnerability Publication

The *Social Vulnerability to Environmental Hazards* is an article published by members of the Hazards and Vulnerability Research Institute (HVRI). It describes the factors affecting a jurisdiction's social vulnerability and the methodology used to estimate it and provides evidence and scientific support for the tool.

Community Resilience Publication

Disaster Resilience Indicators for Benchmarking Baseline Conditions (Cutter et al. 2010), an article published by members of the HVRI, and it describes the role that community resilience plays on mitigating consequences of disasters, and the methodology to determine a community's resilience.

Critical Infrastructure and Key Resources (CIKR) Taxonomy

Each of the critical infrastructure assets used in the critical infrastructure portion of the tool are defined and discussed in the CIKR taxonomy.

Medical Vulnerability Publication

Morath's (2010) Master's thesis, completed through a collaboration with the Florida Department of Health's Bureau of Preparedness and Response, provides the baseline medical vulnerability index structure utilized in the FPHRAT.

Low Probability Events

An explanation of selected low probability events is provided to contextualize the risks from these event types across the state.

Entered by Jurisdiction Section

Select Jurisdiction

This application of the tool allows users to select the jurisdiction to enter or edit information.

Capability Assessment Worksheet

The Main Menu allows selecting the *Capability Assessment Worksheet* in addition to the *Get Started* button at the home page.

Resources Worksheet

The Main Menu allows selecting the *Resources Worksheet* in addition to the *Get Started* button at the home page.

Finished Product Based on All Inputs

Charts and Outputs

This feature is described previously in this document. Users can access it from the *Main Menu* or from the button at the bottom of the **Risk Assessment** page.

Mapping Tool

The mapping tool allows you to quickly visualize FPHRAT data for every county in the state. From this page users can download or print map images for reports and presentations.

Risk Assessment

From the *Main Menu*, users can access the Risk Assessment table created after completing the Capability Assessment and Resources worksheets.

State Risk Assessment

From the *Main Menu*, users can access the State Risk Assessment table created based on the information from the local risk assessments.

Reports (county, regional and state)

The *Aggregated Reports* application allows users to see and export customized reports at the county, multicounty, regional, and state level.

Reports and Data Interpretation

The *Reports* application allows users to customize queries at the county, multicounty, regional, and state levels. The application is found in the section of the *Main Menu* called *Finished Product based on All Inputs*. Aggregated reports may take longer to download because the information is calculated on demand.

The data displayed in the pictures and reports is for educational purposes only. The *Aggregated Reports* are:

Capability Assessment Aggregated

Description: Display of the aggregated values of the capability assessment worksheet for selected counties as an average, where average or mean average is the sum of data divided by the number of items in the data. It also displays the maximum and minimum values for a specific selection.

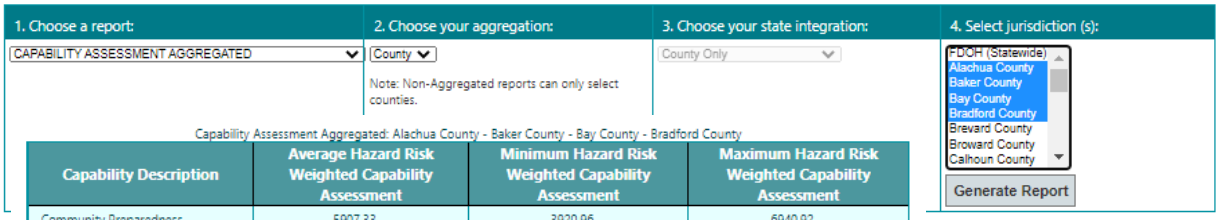
Aggregation Levels: County, region, and state.

State Integration: Not Integrated.

Data: County (Selecting only one county will not generate a chart and the values will be similar to the non-aggregated Capability Assessment), region (aggregated data for one or more regions) and state (aggregated data for all counties).

Display / Downloads: This application displays a chart and a table. The chart is downloadable as a JPG file, and the table as a CSV file.

Reports

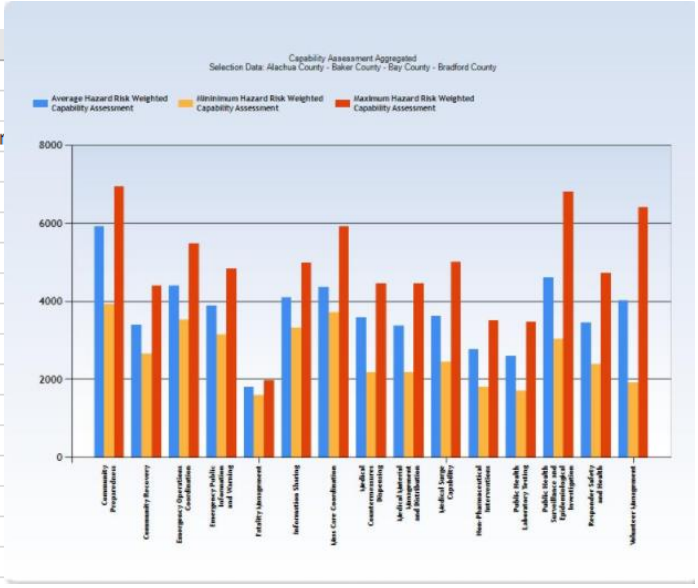


Capability Assessment Aggregated: Alachua County - Baker County - Bay County - Bradford County

Capability Description	Average Hazard Risk Weighted Capability Assessment	Minimum Hazard Risk Weighted Capability Assessment	Maximum Hazard Risk Weighted Capability Assessment
Community Preparedness	5907.33	3920.96	6940.92
Community Recovery	3381.76	2654.94	4395.08
Emergency Operations Coordination	4393.86	3516.04	5468.48
Emergency Public Information and Warning	3890.05	3150.55	4836.36
Fatality Management	1799.18	1575.76	1966.59
Information Sharing	4083.73	3316.60	4978.25
Mass Care Coordination	4354.89	3702.20	5921.20
Medical Countermeasures Dispensing	3570.88	2182.59	4444.90
Medical Material Management and Distribution	3377.09	2182.59	4444.90
Medical Surge Capability	3610.10	2432.97	5007.20
Non-Pharmaceutical Interventions	2752.67	1784.37	3504.00
Public Health Laboratory Testing	2598.45	1698.87	3455.35
Public Health Surveillance and Epidemiological Investigation	4599.75	3035.34	6813.80
Responder Safety and Health	3444.11	2374.73	4712.93
Volunteer Management	4009.65	1899.26	6410.80

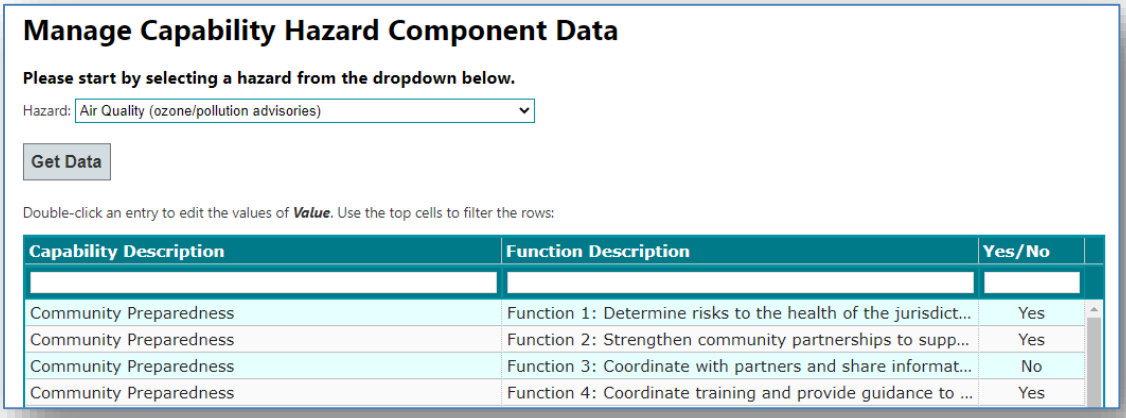
Interpretation: Average measure of how well each capability is assessed by each county by group of counties. The higher numbers reflect higher assessed capability.

	A	B	C	D	E
1	Selection	Alachua C	Baker Cou	Bay Count	Bradford C
2					
3		capability	Avg_asses	MIN_asse	MAX_assessr
4	1	Communi	5907.33	3920.96	6940.92
5	2	Communi	3381.76	2654.94	4395.08
6	3	Emergenc	4393.86	3516.04	5468.48
7	4	Emergenc	3890.05	3150.55	4836.36
8	5	Fatality M	1799.18	1575.76	1966.59
9	6	Informatic	4083.73	3316.6	4978.25
10	7	Mass Care	4354.89	3702.2	5921.2
11	8	Medical C	3570.88	2182.59	4444.9
12	9	Medical M	3377.09	2182.59	4444.9
13	10	Medical S	3610.1	2432.97	5007.2
14	11	Non-Pharı	2752.67	1784.37	3504
15	12	Public Hea	2598.45	1698.87	3455.35
16	13	Public Hea	4599.75	3035.34	6813.8
17	14	Responde	3444.11	2374.73	4712.93
18	15	Volunteer	4009.65	1899.26	6410.8



Capability Assessment Risk Weighted

Description: Display of the aggregated values of the capability assessment for selected counties accounting for their applicability (used or not used) for a specific hazard type. Here, because each capability function has a different relationship (or involvement) with the 38 hazards, the risk weighted capability accounts for all hazards and all RIE scores. An example (below) shows that Community Preparedness has four (4) functions that are not always engaged for each hazard. Here, in relation to air quality threats, only three (3) of the four capabilities are engaged. The RIE is static but different for each hazard type and is determined by the system administrator.



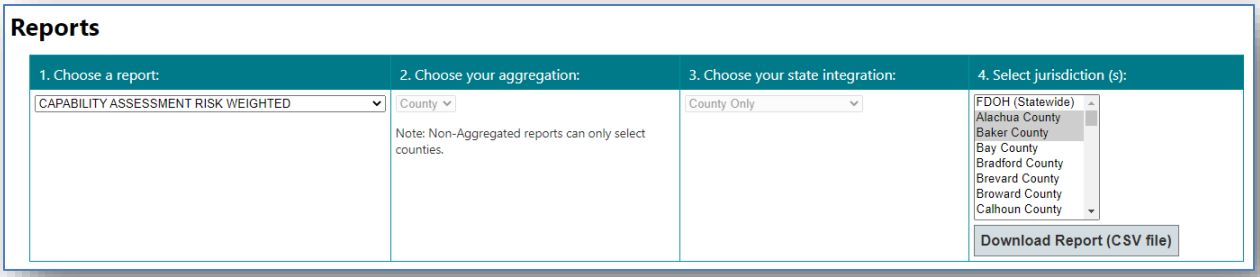
Aggregation Levels: County. This data is not aggregated.

State Integration: Not Integrated.

Data: One, multiple or all counties.

Display / Downloads: This application displays a chart and a table. The chart is downloadable as a JPG file, and the table as a CSV file.

Interpretation: Higher Capability Assessment Risk Weighted values reflect a county's (or aggregate) capability readiness across all hazards. In the example below, Alachua County has higher risk weighted capability assessment scores for all capabilities compared to Baker county.



	A	B	C
1		Alachua County	Baker County
2	Community Preparedness	6940.92	3920.96
3	Community Recovery	4395.08	2654.94
4	Emergency Operations Coordir	5468.48	3516.04
5	Emergency Public Information	4836.36	3150.55
6	Fatality Management	1966.59	1774.11
7	Information Sharing	4978.25	3316.6
8	Mass Care Coordination	5921.2	3702.2
9	Medical Countermeasures Disp	4444.9	2182.59
10	Medical Material Management	4444.9	2182.59
11	Medical Surge Capability	5007.2	2432.97
12	Non-Pharmaceutical Intervent	3504	1784.37
13	Public Health Laboratory Testir	3455.35	1698.87
14	Public Health Surveillance and	5102.56	3035.34
15	Responder Safety and Health	4712.93	2374.73
16	Volunteer Management	5683.3	1899.26

Capability Gap

Description: Display of the gap between a "capability goal" and a "capability assessment". This report does not aggregate data. The reference for the capability goal is the maximum score attainable; the "capability goal" is expressed as the Hazard Risk Weighted Capability Goal, and the "capability assessment" as the Hazard Risk Weighted Capability Assessment, both values are mathematically calculated.

Aggregation Levels: County.

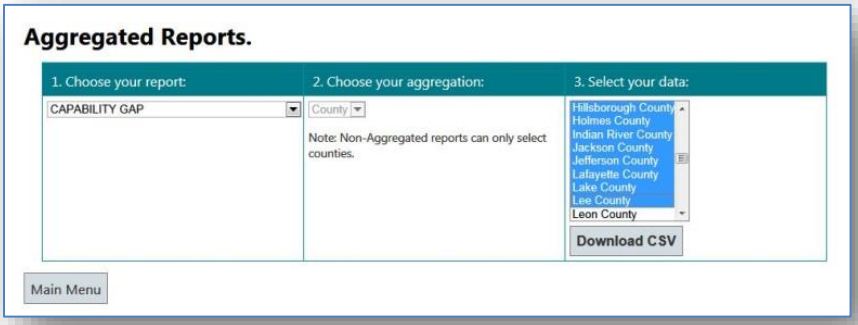
State Integration: County Only or County and State Integration County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state capabilities.

Data: One, multiple or all counties.

Display / Downloads: CSV file.

Interpretation: Gap between how a capability is performed and the maximum level of performance. The gap takes into account the capability scores, assigned by a jurisdiction, in a complex mathematical equation.

The largest gap is represented by the highest value. In the example, the community preparedness capability in Hillsborough County has the highest gap: 679.53.



	A	B	C	D	E	F	G	H	I
1		Hillsborough	Holmes Cour	Indian River	Jackson Cour	Jefferson Co	Lafayette Co	Lake County	Lee County
2	Community Preparedness	3072.28	1780.55	1762.91	0	1888.52	0	1687.08	4207.66
3	Community Recovery	1932.53	1209.52	1208.58	0	1294.18	0	1116.12	4282.22
4	Emergency Operations Coordination	1887.06	1240.64	1194.46	0	0	625.79	0	1373.74
5	Emergency Public Information and Warning	1664.22	1105.17	1068.64	0	1153.19	1123.43	0	3696.25
6	Fatality Management	1130.01	2547.21	2395.74	895.26	1712.48	1246.47	2130.78	2660.19
7	Information Sharing	0	2369.96	0	0	0	1193.02	1030.26	2573.18
8	Mass Care Coordination	2042.1	2642.08	1268.9	1412.6	0	1322.52	1148.14	1540.28
9	Medical Countermeasures Dispensing	1483.57	2058	0	0	0	1526.4	0	1090.32
10	Medical Material Management and Distribution	1483.57	2058	0	1083.13	1041.13	1526.4	0	1090.32
11	Medical Surge Capability	1806.89	2278.96	2263.64	1197.36	2368.28	1708.86	2001.8	2640.46
12	Non-Pharmaceutical Interventions	1290.53	1706.54	0	883.44	847.27	1234.62	727.37	924.87
13	Public Health Laboratory Testing	0	758.88	0	791.53	2245.29	1111.77	0	0
14	Public Health Surveillance and Epidemiological Investigation	2221.23	1432.18	0	0	0	2165.73	0	0
15	Responder Safety and Health	1626.12	1125.67	0	1193.49	1141.54	1670.48	0	1198.39
16	Volunteer Management	2088.1	4059.75	5174.4	1455.41	4281.66	2060.88	0	1516.3

Capability Gap Aggregated

Description: This report aggregates the capability gap data for selected jurisdictions and calculates a unique value for all, expressed as average, where average or mean average is the sum of data divided by the number of items in the data. It also displays the maximum and minimum values for a specific selection.

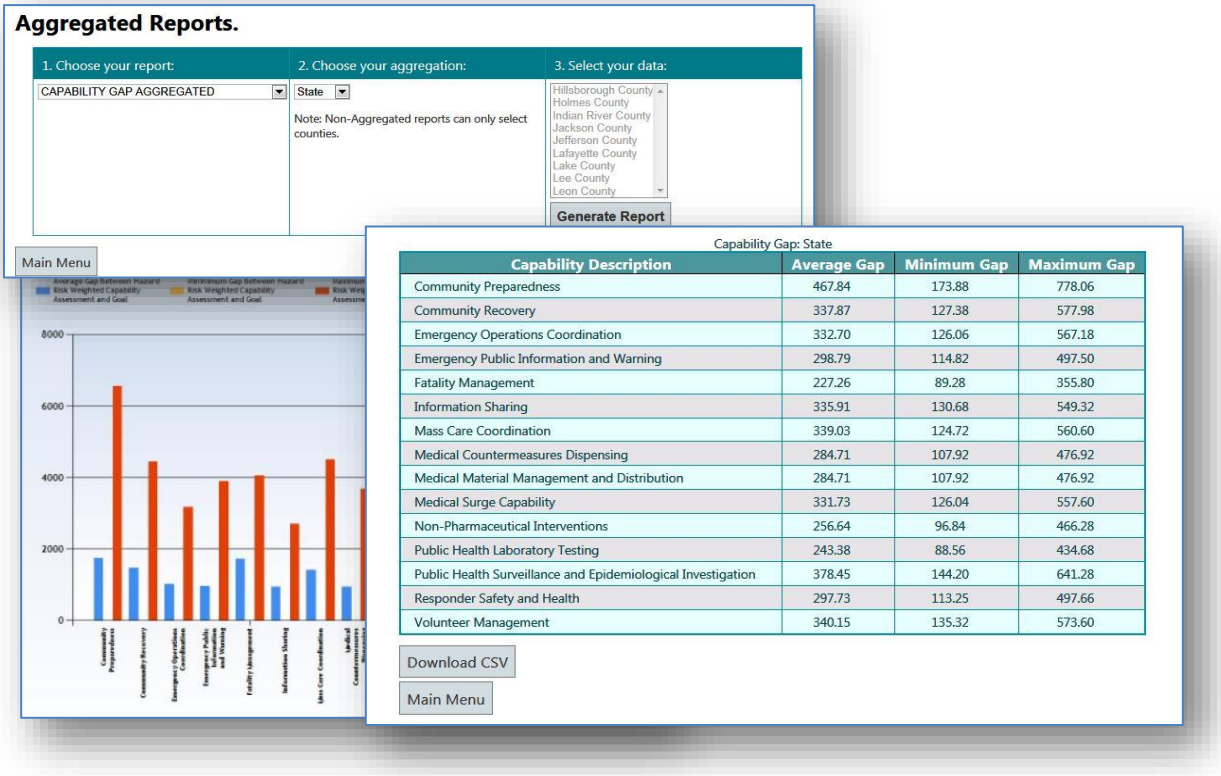
Aggregation Levels: County, region, and state.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state capabilities.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.

Interpretation: Average of the gap values between the current capability's performance and the maximum level of performance attainable. The largest gap is represented by the highest value. In the example below, the community preparedness capability has the highest gap average at the state level: 467.84.



Capability Hazard Component

Description: It is a non-aggregated report. This report provides information for each county summarizing the relationship between the capability functions and their relationship or involvement with the 38 hazards, the capability's Relative Intensity of Engagement (RIE) score, the Community Preparedness Capability Hazard Component, and the Average of the Capability Assessment Score assigned by the jurisdiction.

Aggregation Levels: County.

State Integration: Not Integrated.

Data: One, multiple or all counties (non-aggregated).

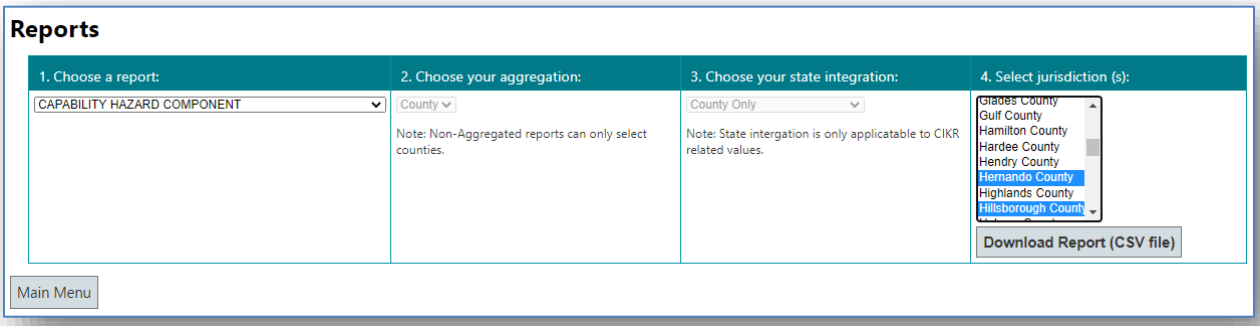
Display / Downloads: Generates a report exportable as a CSV file.

Interpretation: *Capability functions* are assigned a value of 1 if they are directly related to preparedness and response for each specific hazard, and a value of 0 if the functions are not involved in the response to a specific hazard.

Preparedness Relative Intensity of Engagement (RIE): has a value of 0-4 for each capability and hazard. It measures the public health relevance of a capability to a hazard response. The scores are: 0 (very limited intensity level of this public health preparedness capability engagement for this hazard), 1 (low intensity level), 2 (moderate intensity level), 3 (high intensity level), and 4 (extreme intensity level).

Community Preparedness Capability Hazard Component: it is the sum of the RIE and Average Function Involvement. For example, in Hernando County, the Community Preparedness Hazard Component for Air Quality is 4 + (1+1+0+1/4) = 4 + 0.75 = 4.75.

Capability Assessment: is the average of the scores assigned to the functions of each capability.



	A	B	C	D	E	F	G	H	I
1		hazard_name	Community Preparedness-Function 1	Community Preparedness-Function 2	Community Preparedness-Function 3	Community Preparedness-Function 4	Community Preparedness-RIE	Community Preparedness-Capability Hazard Component	capability_1_assessment
2	Hernando County	Air Quality (ozone/pollution	1	1	0	1	4	4.75	1
3	Hernando County	Biological Disease Outbreak	1	1	1	1	4	5	1
4	Hernando County	Biological Terrorism - Communicable (including A - B - C agents)	1	1	1	1	4	5	1
5	Hernando County	Biological Terrorism - Non-Communicable (including A - B - C agents)	1	1	1	1	4	5	1
6	Hernando County	Chemical Terrorism	1	1	1	1	4	5	1
7	Hernando County	Civil Disorder	1	0	1	1	4	4.75	1
8	Hernando County	Communications Failure	1	1	1	1	4	5	1
9	Hernando County	Conventional Terrorism	1	1	1	1	4	5	1
10	Hernando County	Cyber/Technical Incident	1	0	0	0	4	4.25	1
11	Hernando County	Dam failure	1	0	1	1	4	4.75	1
12	Hernando County	Drought	1	0	1	1	4	4.75	1
13	Hernando County	Earthquake	1	1	1	1	4	5	1
14	Hernando County	Extreme Cold	1	1	1	1	4	5	1
15	Hernando County	Extreme Heat	1	1	1	1	4	5	1
16	Hernando County	Fires - Large-Scale (not Wild Fire)	1	0	0	0	4	4.25	1

CAPABILITY_HAZARD_COMPONENT

Capability Score Aggregated

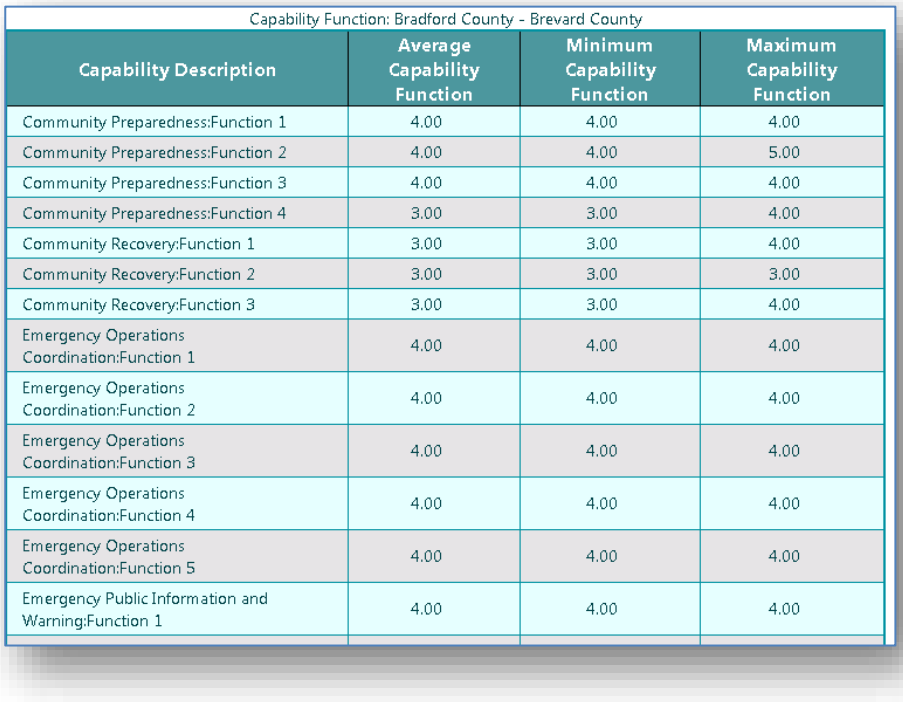
Description: Display of the aggregated values of the capability score for selected counties as an average, where average or mean average is the sum of data divided by the number of items in the data. It also displays the maximum and minimum values for a specific selection.

Aggregation Levels: County, region, and state.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state capabilities.

Data: County (Selecting only one county will not generate a chart and the values will be similar to the non-aggregated Capability Assessment), region (aggregated data for one or more regions) and state (aggregated data for all counties).

Display / Downloads: This application displays a chart and a table. The chart is downloadable as a JPG file, and the table as a CSV file.



Capability Function: Bradford County - Brevard County

Capability Description	Average Capability Function	Minimum Capability Function	Maximum Capability Function
Community Preparedness:Function 1	4.00	4.00	4.00
Community Preparedness:Function 2	4.00	4.00	5.00
Community Preparedness:Function 3	4.00	4.00	4.00
Community Preparedness:Function 4	3.00	3.00	4.00
Community Recovery:Function 1	3.00	3.00	4.00
Community Recovery:Function 2	3.00	3.00	3.00
Community Recovery:Function 3	3.00	3.00	4.00
Emergency Operations Coordination:Function 1	4.00	4.00	4.00
Emergency Operations Coordination:Function 2	4.00	4.00	4.00
Emergency Operations Coordination:Function 3	4.00	4.00	4.00
Emergency Operations Coordination:Function 4	4.00	4.00	4.00
Emergency Operations Coordination:Function 5	4.00	4.00	4.00
Emergency Public Information and Warning:Function 1	4.00	4.00	4.00

Interpretation: Average measure of how well each capability is performed by a selected group of counties. The higher numbers reflect higher performance. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

Capability Score Worksheet

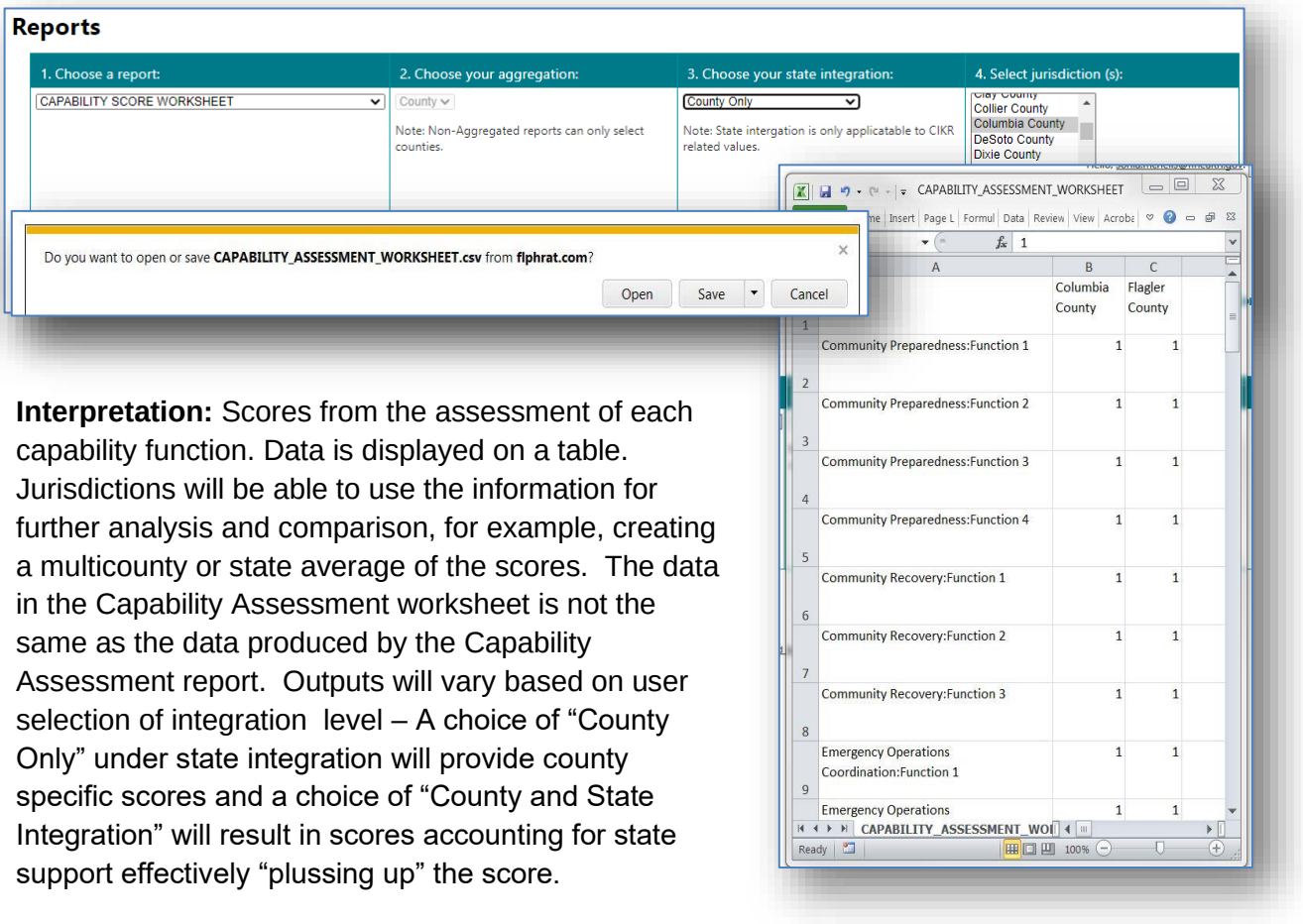
Description: Display of the scores assigned by jurisdictions to the capability functions. This report does not aggregate data. The picture below depicts scores preset to the minimum value: 1. No ability / capacity. Jurisdictions will assess each capability function and assign a true score.

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state capabilities.

Data: One, multiple, or all counties.

Display / Downloads: CSV file.



Interpretation: Scores from the assessment of each capability function. Data is displayed on a table. Jurisdictions will be able to use the information for further analysis and comparison, for example, creating a multicounty or state average of the scores. The data in the Capability Assessment worksheet is not the same as the data produced by the Capability Assessment report. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

CIKR Counts

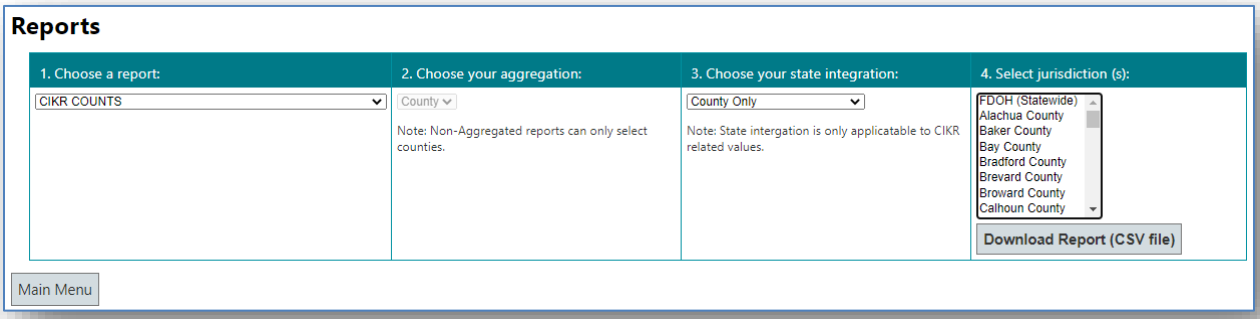
Description: The values in this report represent the count of critical infrastructure and key resources (CIKR) for the selected county of interest.

Aggregation Levels: County

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state CIKR assets.

Data: One, multiple, or all counties.

Display / Downloads: Generates an exportable CSV file.



	Volusia County	Wakulla County	Walton County	Washington County
Ambulatory Healthcare Facilities - Ambulatory Surgery Centers	12			
Ambulatory Healthcare Facilities - Kidney Dialysis Centers	9		1	1
Ambulatory Healthcare Facilities - Outpatient Mental Health and Substance Abuse Centers	18	1	4	
Extended Care Facilities - Assisted Living Facilities (ALF)	93		3	8
Extended Care Facilities - Nursing Homes	29	1	2	1
Extended Care Facilities - Residential Treatment Facilities and Centers	2		2	
Health Practitioner Offices and Clinics - Health Care Clinics	28		2	
Health Practitioner Offices and Clinics - Mental Health Practitioner Offices	42		2	1
Health Practitioner Offices and Clinics - Physician Offices	185		10	1
Health Practitioner Offices and Clinics - Rural Health Clinic	3	2	5	6
Hospitals - Children's Hospitals				
Hospitals - Crisis Stabilization Units	1			
Hospitals - General Hospitals	7		2	1
Hospitals - Psychiatric and Substance Abuse Hospitals	1			
Hospitals - Specialty Hospitals				
Laboratories and Blood Banks - Blood/Blood Component Banks				
Laboratories and Blood Banks - Public Health Laboratories				
Laboratories and Blood Banks - Stand-Alone (Independent) Medical and Diagnostic Laboratories	7		2	
Medical Supplies/Devices/Equipment Storage and Stockpiles - Home Medical Equipment Provider	31		1	1
Medical Supplies/Devices/Equipment Storage and Stockpiles - Local Stockpiles (Emergency Preparedness)				
Other Direct Patient Healthcare - County Health Department Facilities /Clinics	9	1	4	2
Other Direct Patient Healthcare - EMS Apparatus	163	7	27	5
Other Direct Patient Healthcare - Fatality/ Mortuary Facilities (Morgues) / Medical Examiner Offices	1			
Pharmaceutical/Biopharmaceutical Storage and Stockpiles - Community Pharmacies	113	4	13	4
Pharmaceutical/Biopharmaceutical Storage and Stockpiles - Local Stockpiles for Emergency Preparedness	4		1	1
Registries and Information Networks - Information Network Data Centers and Systems (Poison Control Centers)	1	1	1	1
Registries and Information Networks - Information Network Data Centers and Systems (Public Health Data Centers)	1	1	1	1
Registries and Information Networks - Medical Practitioner Registries And Referral Centers (Home Health Agency)	39	1	2	2

CIKR Counts Aggregated

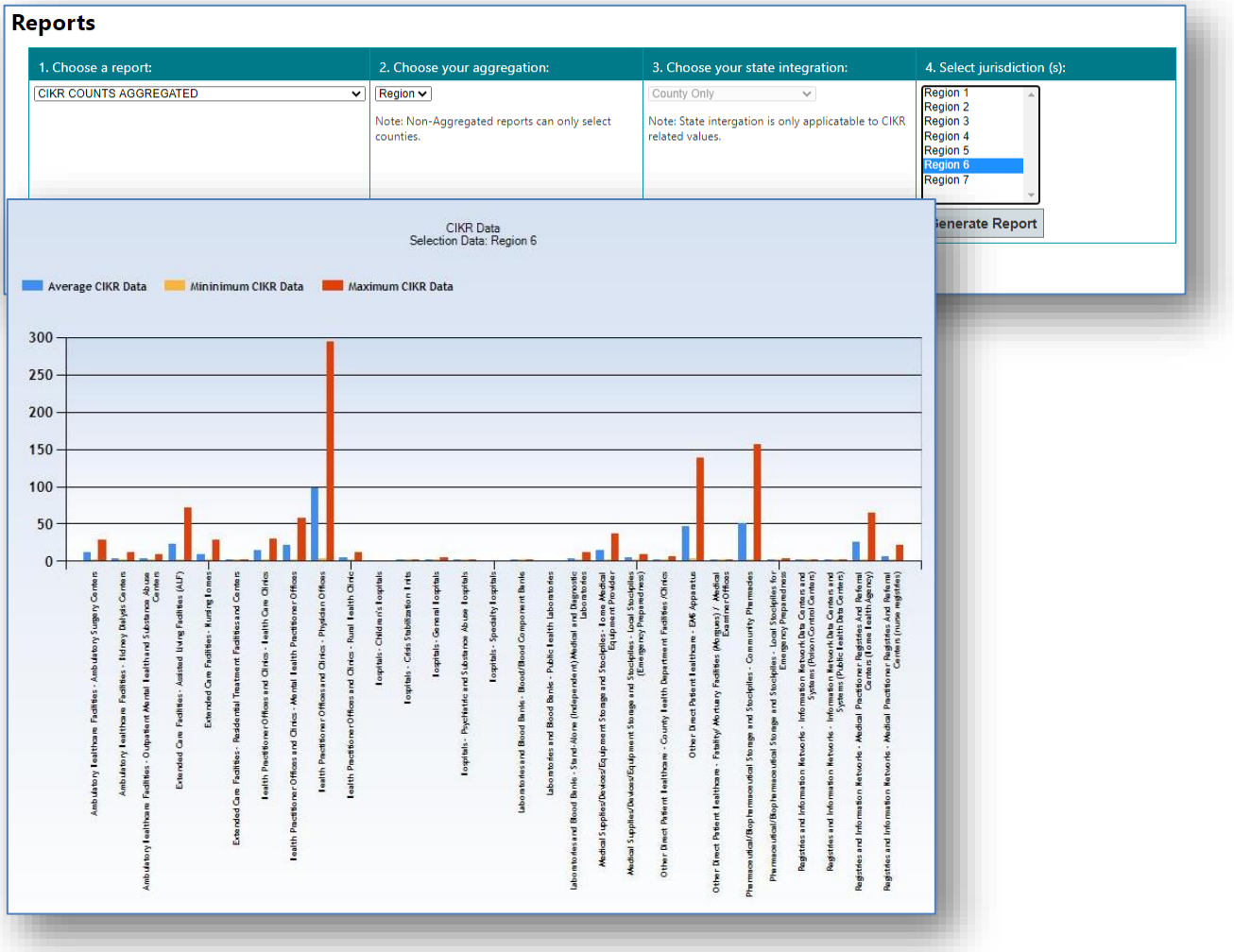
Description: The values in this report represent the count of critical infrastructure and key resources (CIKR) for multiple counties, region or state are aggregated as an average. Also, the maximum and minimum values are calculated.

Aggregation Levels: County, region, and state.

State Integration: Not Integrated.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.



Interpretation: The aggregated CIKR data indicate the status of each county's CIKR resources. Higher numbers indicate more CIKR assets.

CIKR Score

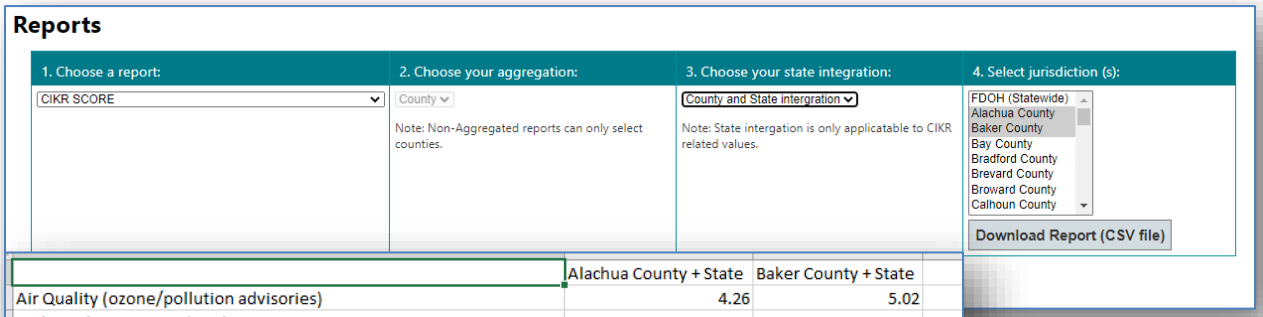
Description: The values in this report represent the critical infrastructure and key resources (CIKR) score for each hazard type based on the importance and existence of each infrastructure component in the area of interest.

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state CIKR assets.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



	Alachua County + State	Baker County + State
Air Quality (ozone/pollution advisories)	4.26	5.02
Biological Disease Outbreak	2.52	3.35
Biological Terrorism - Communicable (including A - B - C agents)	2.33	2.63
Biological Terrorism - Non-Communicable (including A - B - C agents)	2.03	2.44
Chemical Terrorism	1.88	2.36
Civil Disorder	2.21	3.08
Communications Failure	1.87	2.26
Conventional Terrorism	2.24	2.54
Cyber/Technical Incident	1.91	2.76
Dam failure	2.56	3.6
Drought	1.97	2.64
Earthquake	2.43	3.25
Extreme Cold	2.46	3.38
Extreme Heat	2.72	3.81
Fires - Large-Scale (not Wild Fire)	2.03	2.58
Flood	2.43	2.83
Food Borne Disease	2.29	2.71
Hailstorm	2.24	3.11
Hazardous Materials Incident - Fixed Facility	2.72	3.41
Hazardous Materials Incident - Transportation	1.95	2.69
Hurricane/Tropical Storm	2.03	2.58
Lightning	1.55	1.93
Mass Casualty Incidents	2.27	3.12
Mass Population Surge	2.01	2.91
Nuclear Attack	2.56	2.85
Pandemic Influenza	2.27	2.97
Power Failure	1.96	2.22
Radiological Incident - Fixed Facility	2.03	2.33
Radiological Incident - Transportation	2.22	2.89
Radiological Terrorism - (Radiological Dispersal Device)	2.5	3.07
Seasonal Influenza	2.25	2.76

Interpretation: Higher values indicate that the combination of utility and existence of all CIKR assets within the county has a relatively higher utility for one hazard than another. In the

example below, CIKR is more important in mitigating extreme cold events than in Air Quality disasters in Alachua county, but nearly equally important in mitigating effects from the same type of event in Baker county. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

CIKR Score Aggregated

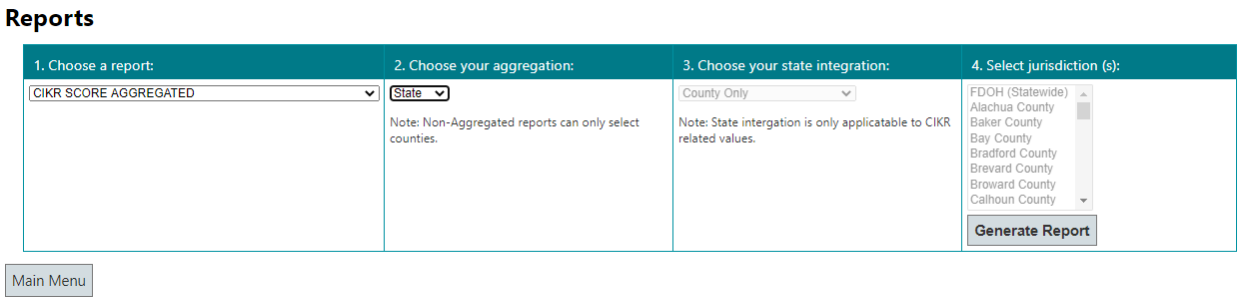
Description: The values in this report represent the critical infrastructure and key resources (CIKR) score for multiple counties, region or state aggregated as an average. Also, the maximum and minimum values are calculated.

Aggregation Levels: County, region, and state.

State Integration: Not Integrated.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.



Interpretation: The aggregated CIKR scores indicate the status of each county's CIKR resources and utility for each hazard type. Higher scores indicate either more CIKR assets or a higher utility for a lower number of assets in a given area.

Hazard Risk Index

Description: It is a value (score) of the overall risk for each county hazard. This score is a component of the Risk Assessment matrix. It is different from the Residual Risk Index which includes mitigation factors. This score is calculated as follows:

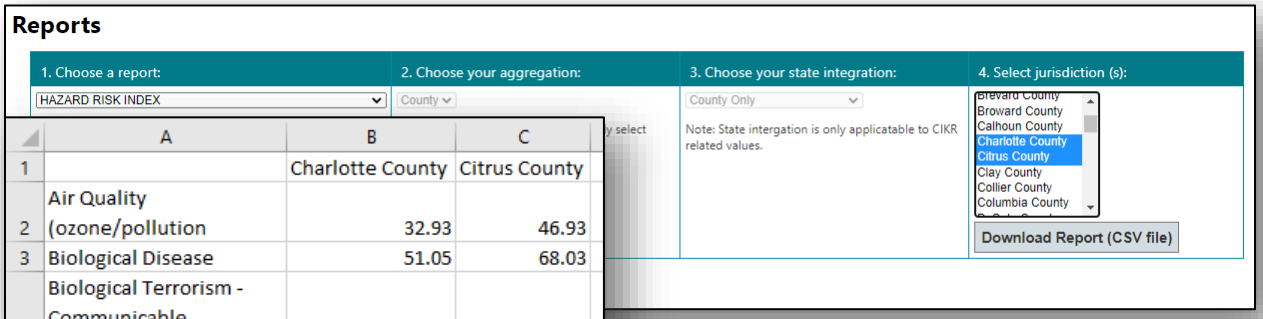
> ***Probability* × *Social Vulnerability* × *CIKR* × *(Public Health + Healthcare Impact + Behavioral Health Impact)***

Aggregation Levels: County

Data: Displays non-aggregated data for one, multiple, or all counties.

State Integration: Not Integrated.

Display / Downloads: Generates a CSV file.



	A	B	C
1		Charlotte County	Citrus County
2	Air Quality (ozone/pollution	32.93	46.93
3	Biological Disease	51.05	68.03
4	Biological Terrorism - Communicable (including A - B - C	52.91	63.06
5	Biological Terrorism - Non-Communicable (including A - B - C	49.22	58.66
6	Chemical Terrorism	43.54	51.89
7	Civil Disorder	24.77	29.53
8	Communications Failure	28.22	31.05
9	Conventional Terrorism	28.81	34.33
10	Cyber/Technical Incident	22.77	27.14
11	Dam failure	20.18	24.05
12	Drought	28.33	33.76
13	Earthquake	27.58	32.86
14	Extreme Cold	30.63	63.32
15	Extreme Heat	90.17	105.98
16	Fires - Large-Scale (not Wild Fire)	34.24	40.13
17	Flood	81.84	102.03
18	Food Borne Disease	45.49	52.82
19	Hailstorm	35.13	51.06
20	Hazardous Materials Incident - Fixed Facility	39.94	50.11
21	Hazardous Materials Incident - Transportation	35.93	42.53

Interpretation: Hazard Risk is the likelihood of a given hazard of a given level causing a particular level of loss or damage. The hazard risk index is a complex value that takes into account the hazard probability for a given county, the social vulnerability of the county, and the combined scores from the public health impact, healthcare impact, and behavioral health impact at a state level. The index's scores range from 1 - 225, where 225 represents the highest possible risk.

Hazard Risk Index Aggregated

Description: Hazard Risk indexes for multiple counties, region or state are aggregated as an average. Also, the maximum and minimum values are calculated.

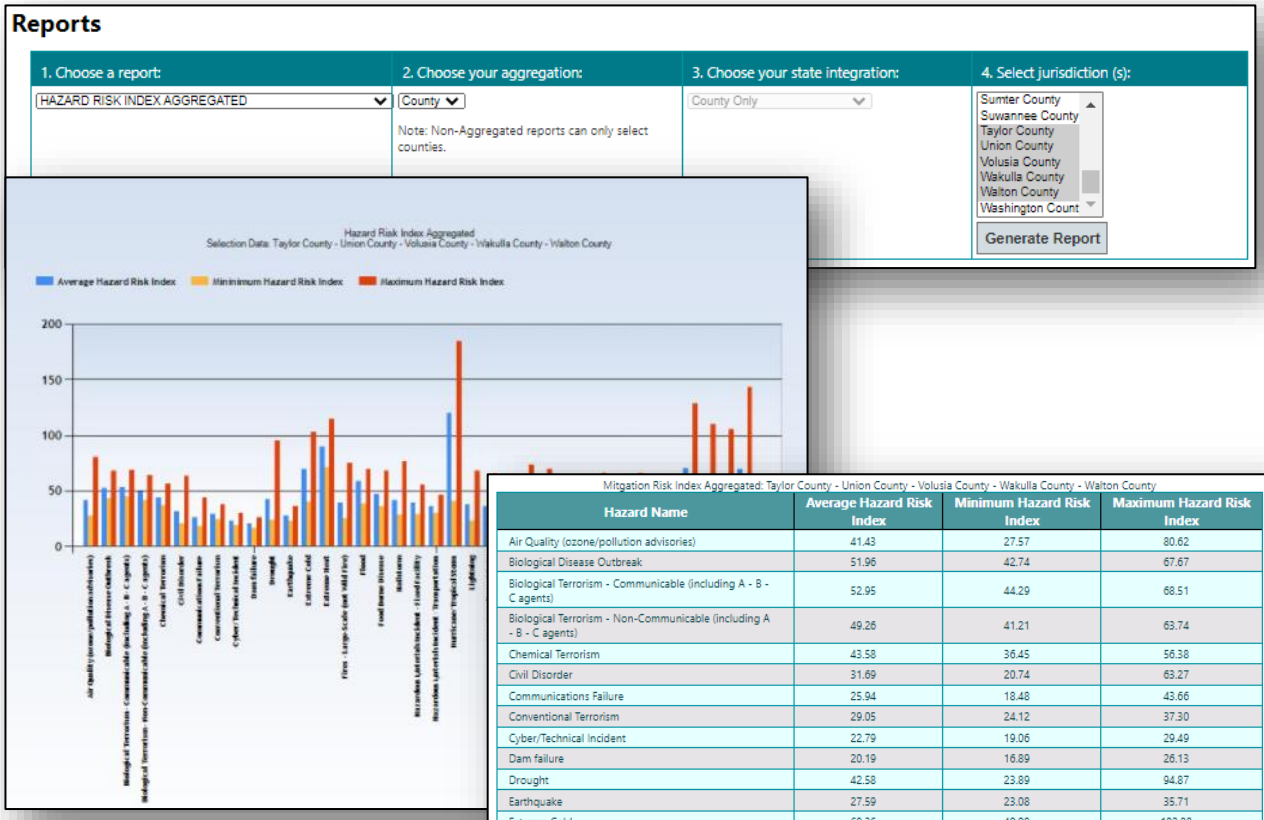
Aggregation Levels: County, region, and state.

State Integration: Not Integrated.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.

Interpretation: The aggregated indexes represent the likelihood that a given hazard will cause a certain level of loss or damage in the selected jurisdictions. The aggregated index scores can range from 1-225, where 225 represents the highest risk average.



Mitgation Risk Index Aggregated: Taylor County - Union County - Volusia County - Wakulla County - Walton County

Hazard Name	Average Hazard Risk Index	Minimum Hazard Risk Index	Maximum Hazard Risk Index
Air Quality (ozone/pollution advisories)	41.43	27.57	80.62
Biological Disease Outbreak	51.96	42.74	67.67
Biological Terrorism - Communicable (including A - B - C agents)	52.95	44.29	68.51
Biological Terrorism - Non-Communicable (including A - B - C agents)	49.26	41.21	63.74
Chemical Terrorism	43.58	36.45	56.38
Civil Disorder	31.69	20.74	63.27
Communications Failure	25.94	18.48	43.66
Conventional Terrorism	29.05	24.12	37.30
Cyber/Technical Incident	22.79	19.06	29.49
Dam failure	20.19	16.89	26.13
Drought	42.58	23.89	94.87
Earthquake	27.59	23.08	35.71
Extreme Cold	69.36	40.09	102.88
Extreme Heat	89.97	70.86	114.30
Fires - Large-Scale (not Wild Fire)	39.20	25.51	75.04
Flood	58.74	38.47	69.40
Food Borne Disease	47.18	36.32	68.05
Hailstorm	41.21	28.27	76.60
Hazardous Materials Incident - Fixed Facility	38.83	29.11	55.25
Hazardous Materials Incident - Transportation	36.30	29.47	45.93
Hurricane/Tropical Storm	120.05	40.72	184.10
Lightning	37.36	22.86	67.83
Mass Casualty Incidents	36.20	24.49	64.89
Mass Population Surge	26.69	21.28	35.78

Incomplete Capability Assessment

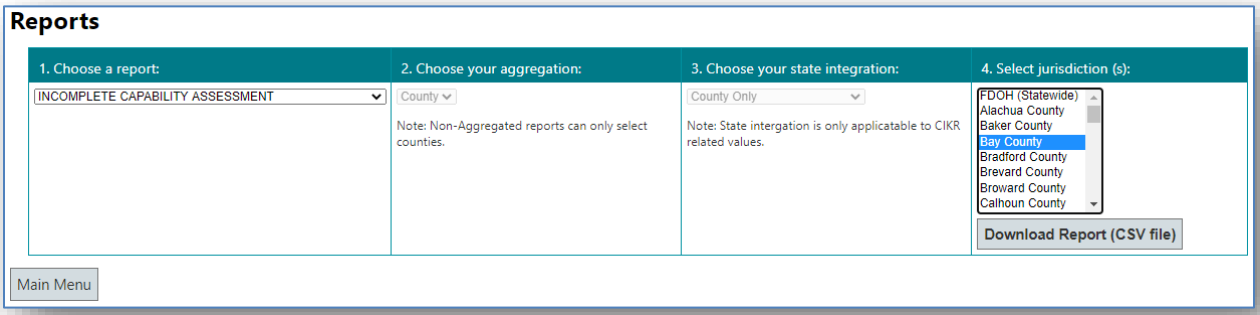
Description: The values in this report identify counties that have yet to complete portions of their capability assessment.

Aggregation Levels: County.

State Integration: Not Integrated.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



Incomplete Resource Assessment

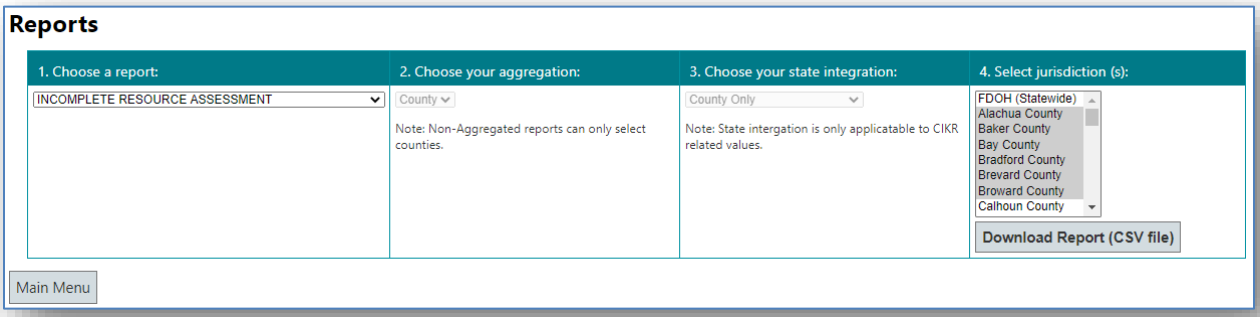
Description: The values in this report identify counties that have yet to complete portions of their resource assessment.

Aggregation Levels: County.

State Integration: Not Integrated.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



Mitigation Index

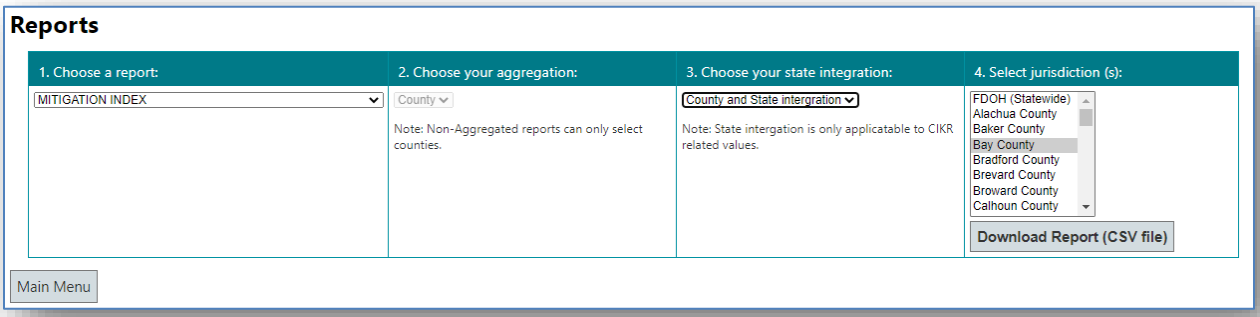
Description: The values in this report represent hazard mitigation index score (Capability Index Score + Resources Index Score + Community Resilience Score + Critical Infrastructure and Key Resources Score for each county hazard combination.

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state mitigation (resources, capabilities, CIKR) support.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



Interpretation: The mitigation Index score is the quantitative sum of all elements reducing overall risk to a county. Higher mitigation scores will result in lower residual risk scores on a hazard by hazard basis. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

Mitigation Index Aggregated

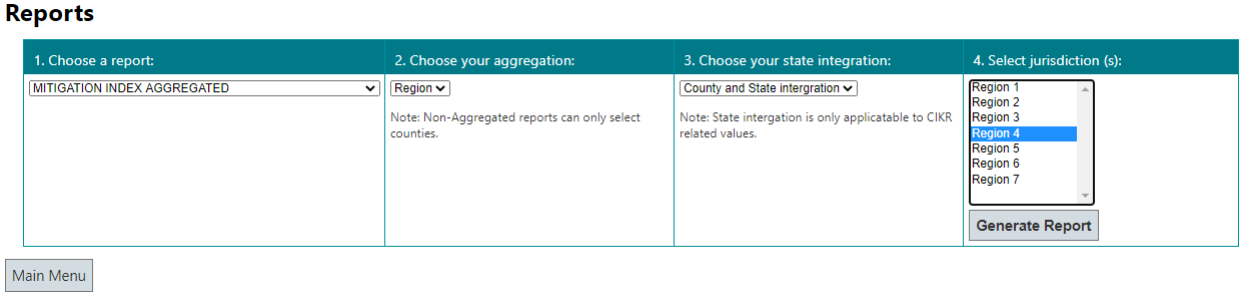
Description: The values in this report represent hazard mitigation index score (Capability Index Score + Resources Index Score + Community Resilience Score + Critical Infrastructure and Key Resources Score for each county hazard combination. Here, mitigation scores for multiple counties, region or state are aggregated as an average. Also, the maximum and minimum values are calculated.

Aggregation Levels: County, Region, State

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state mitigation (resources, capabilities, CIKR) support.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a CSV file.



Interpretation: The mitigation Indexscore is the quantitative sum of all elements reducing overall risk to a county. Higher mitigation scores will result in lower residual risk scores on a hazard by hazard basis. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

Probability

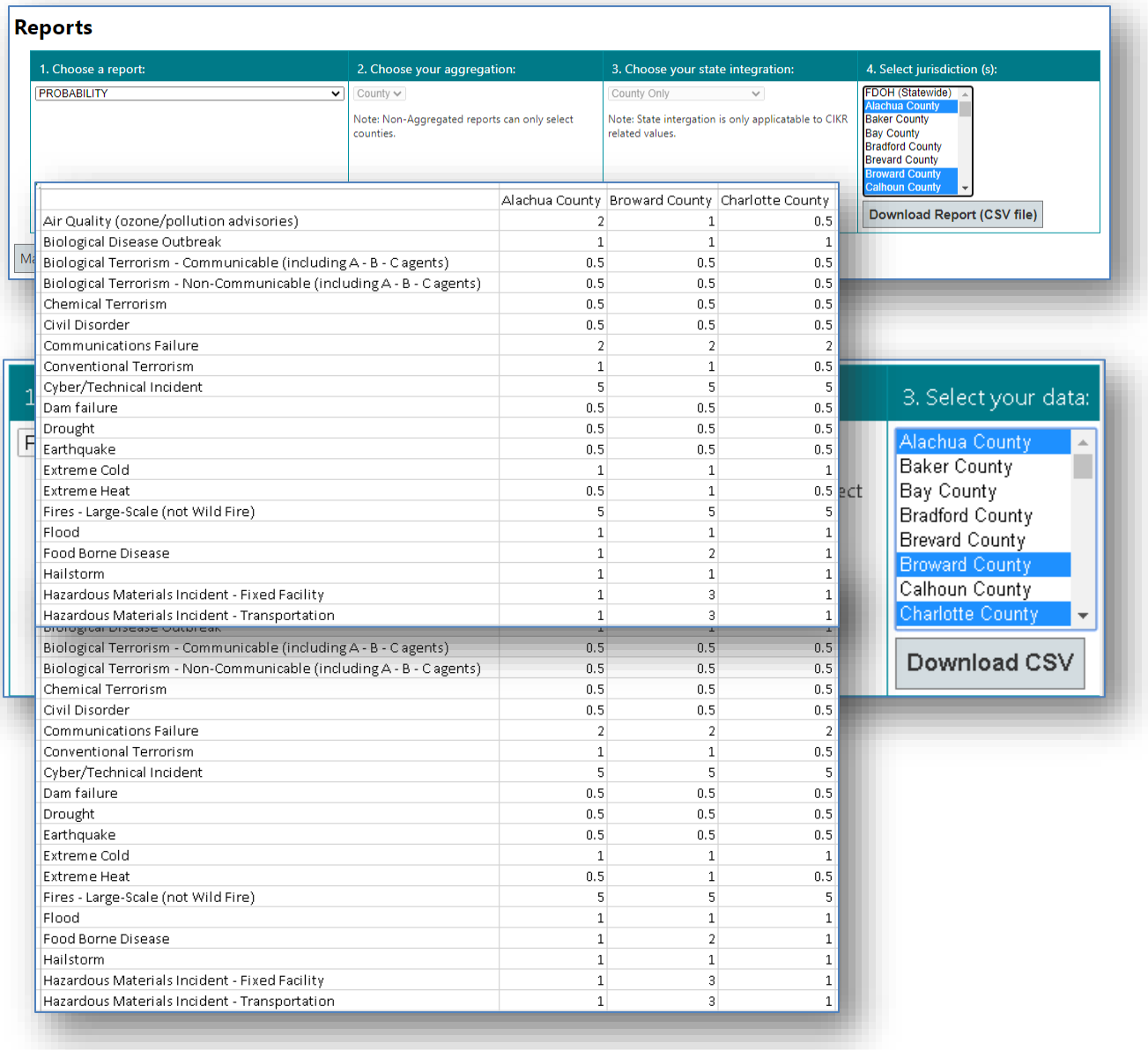
Description: The values in this report represent hazard probability scores for counties.

Aggregation Levels: County.

State Integration: Not Integrated.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



	Alachua County	Broward County	Charlotte County
Air Quality (ozone/pollution advisories)	2	1	0.5
Biological Disease Outbreak	1	1	1
Biological Terrorism - Communicable (including A - B - C agents)	0.5	0.5	0.5
Biological Terrorism - Non-Communicable (including A - B - C agents)	0.5	0.5	0.5
Chemical Terrorism	0.5	0.5	0.5
Civil Disorder	0.5	0.5	0.5
Communications Failure	2	2	2
Conventional Terrorism	1	1	0.5
Cyber/Technical Incident	5	5	5
Dam failure	0.5	0.5	0.5
Drought	0.5	0.5	0.5
Earthquake	0.5	0.5	0.5
Extreme Cold	1	1	1
Extreme Heat	0.5	1	0.5
Fires - Large-Scale (not Wild Fire)	5	5	5
Flood	1	1	1
Food Borne Disease	1	2	1
Hailstorm	1	1	1
Hazardous Materials Incident - Fixed Facility	1	3	1
Hazardous Materials Incident - Transportation	1	3	1
Biological Terrorism - Communicable (including A - B - C agents)	0.5	0.5	0.5
Biological Terrorism - Non-Communicable (including A - B - C agents)	0.5	0.5	0.5
Chemical Terrorism	0.5	0.5	0.5
Civil Disorder	0.5	0.5	0.5
Communications Failure	2	2	2
Conventional Terrorism	1	1	0.5
Cyber/Technical Incident	5	5	5
Dam failure	0.5	0.5	0.5
Drought	0.5	0.5	0.5
Earthquake	0.5	0.5	0.5
Extreme Cold	1	1	1
Extreme Heat	0.5	1	0.5
Fires - Large-Scale (not Wild Fire)	5	5	5
Flood	1	1	1
Food Borne Disease	1	2	1
Hailstorm	1	1	1
Hazardous Materials Incident - Fixed Facility	1	3	1
Hazardous Materials Incident - Transportation	1	3	1

Interpretation: Hazard probability is a quantitative description of the likely occurrence of a particular event represented by the percent chance something will occur. This is also known as likelihood of occurrence. It is important for all users to understand not all events lend themselves to frequencies (e.g. terrorism) so subject matter experts used

proxies. For example, subject matter experts identified other types of funding that were provided for different threat assessments, and that information was used to determine the likelihood of occurrence. Frequency scores can be modified by the jurisdiction, with documentation to support these changes. Frequencies were normalized to the scale (1-Low to 4-High) where hazards with either zero or the lowest historical frequency were scored 1 because no hazard has an absolute zero chance of occurrence.

Probability Aggregated

Description: The values in this report represent average hazard probability scores for selected jurisdictions. This report also provides the maximum and minimum values.

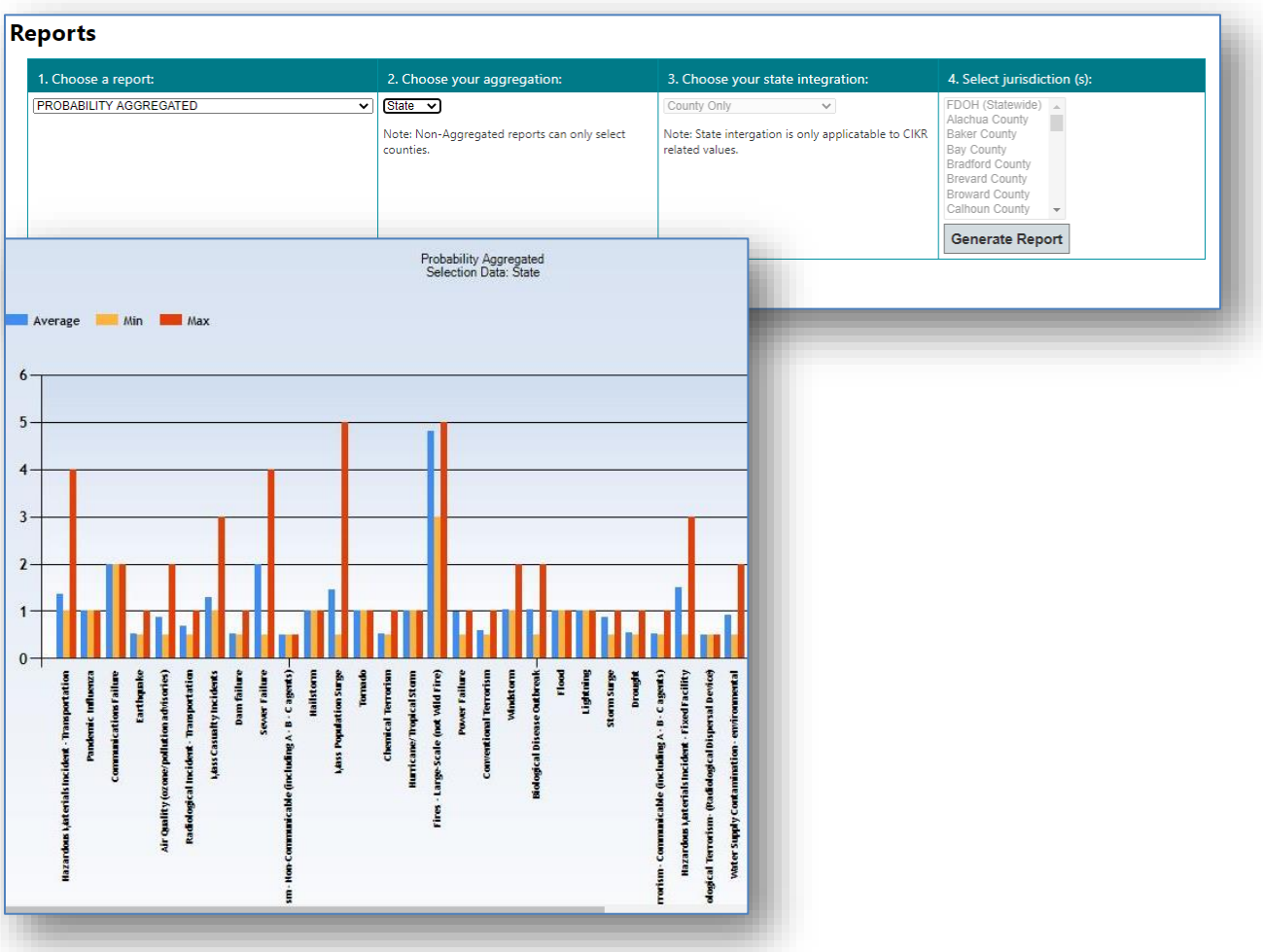
Aggregation Levels: County, region, and state.

State Integration: Not Integrated.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.

Interpretation: Hazard probability is a quantitative description of the likely occurrence of a particular event represented by the percent chance something will occur. This is also known as likelihood of occurrence. It is important for all users to understand not all events lend themselves to frequencies (e.g. terrorism) so subject matter experts used proxies. For example, subject matter experts identified other types of funding that were provided for different threat assessments, and that information was used to determine the likelihood of occurrence.



Frequency scores can be modified by the jurisdiction, with documentation to support these changes. Frequencies were converted to the Likert scale (0-5) below.

Hazards with a real probability of 0 (zero) based on historical events are scaled to 1-4 because a real score of 0 (zero) will cause errors in the subsequent equations.

Residual Risk

Description: The values in this report represent the residual (remaining) risk after accounting for all capabilities, resources, resilience, and CIKR.

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state mitigation (resources, capabilities, CIKR) support.

Data: Displays non-aggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.

Interpretation: Higher scores indicate that even after accounting for resources and capabilities, said jurisdiction still has elevated risk from "x" hazard event

Residual risk scores incorporate both pre-populated information and information provided by jurisdictions. The residual risk score incorporated the mitigation factors present in jurisdictions and is represented by the CDC PHP Capabilities Assessment and resources scores.

Residual Risk = (Hazard Probability * Severity of Consequences) / Mitigation

Severity of Consequences

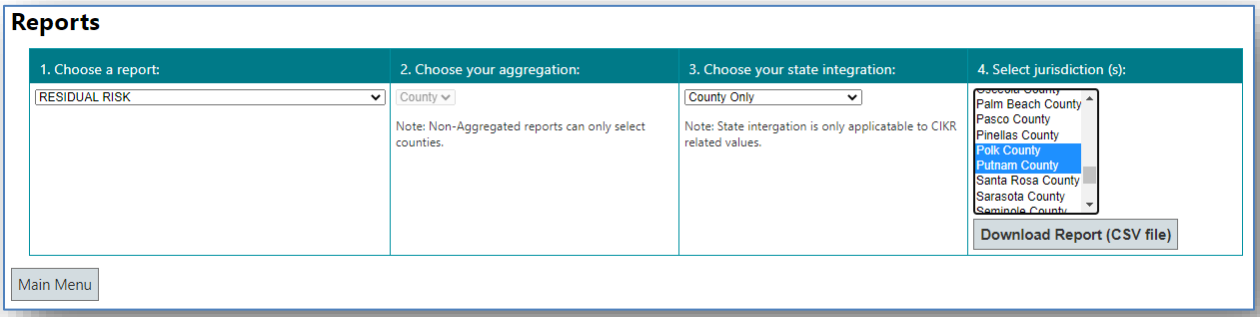
Severity of consequences factors the hazard vulnerability and impact on health, both pre-populated elements of the FPHRAT.

Severity of Consequences = Hazard Vulnerability × Impact on Health

Mitigation

Mitigation is the sum of three elements: Capability to Respond, Available Resources, Critical Infrastructure and Key Resources, and Community Resilience. Theoretically, the score can range from 4 to 16.

Mitigation = Capability Preparedness Index + Available Resources + CIKR + Community Resilience



	Polk County	Putnam County
Air Quality (ozone/pollution advisories)	4.15	1.94
Biological Disease Outbreak	6.73	5.97
Biological Terrorism - Communicable (including A - B - C agents)	3.38	3.04
Biological Terrorism - Non-Communicable (including A - B - C agents)	2.42	2.2
Chemical Terrorism	1.71	1.96
Civil Disorder	1.18	1.35
Communications Failure	4.12	4.7
Conventional Terrorism	1.44	1.61
Cyber/Technical Incident	12.83	11.98
Dam failure	1.07	0.96
Drought	1.51	1.54
Earthquake	1.91	1.71
Extreme Cold	2.44	2.74
Extreme Heat	2.87	1.47
Fires - Large-Scale (not Wild Fire)	10.62	11.85
Flood	2.62	2.89
Food Borne Disease	3.29	3.7
Hailstorm	2.3	2.08

Residual Risk Aggregated

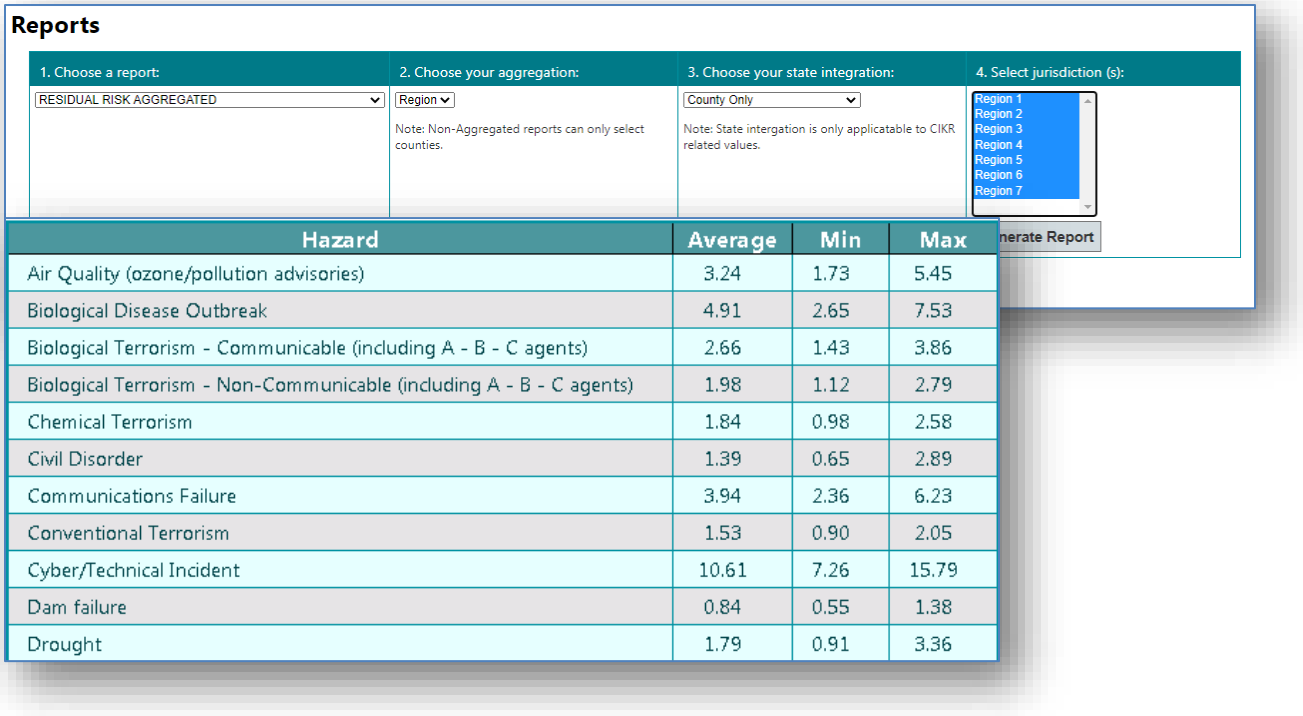
Description: The values in this report represent the average residual (remaining) risk after accounting for all capabilities, resources, resilience, and CIKR for selected jurisdictions. This report also provides the maximum and minimum values.

Aggregation Levels: County, region, and state.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state mitigation (resources, capabilities, CIKR) support.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.



Hazard	Average	Min	Max
Air Quality (ozone/pollution advisories)	3.24	1.73	5.45
Biological Disease Outbreak	4.91	2.65	7.53
Biological Terrorism - Communicable (including A - B - C agents)	2.66	1.43	3.86
Biological Terrorism - Non-Communicable (including A - B - C agents)	1.98	1.12	2.79
Chemical Terrorism	1.84	0.98	2.58
Civil Disorder	1.39	0.65	2.89
Communications Failure	3.94	2.36	6.23
Conventional Terrorism	1.53	0.90	2.05
Cyber/Technical Incident	10.61	7.26	15.79
Dam failure	0.84	0.55	1.38
Drought	1.79	0.91	3.36

Interpretation: Higher scores indicate that even after accounting for resources and capabilities, said jurisdiction still has elevated risk from "x" hazard event. Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state integrated mitigation potentially decreasing a county's score.

Resource Gap (resource readiness gap)

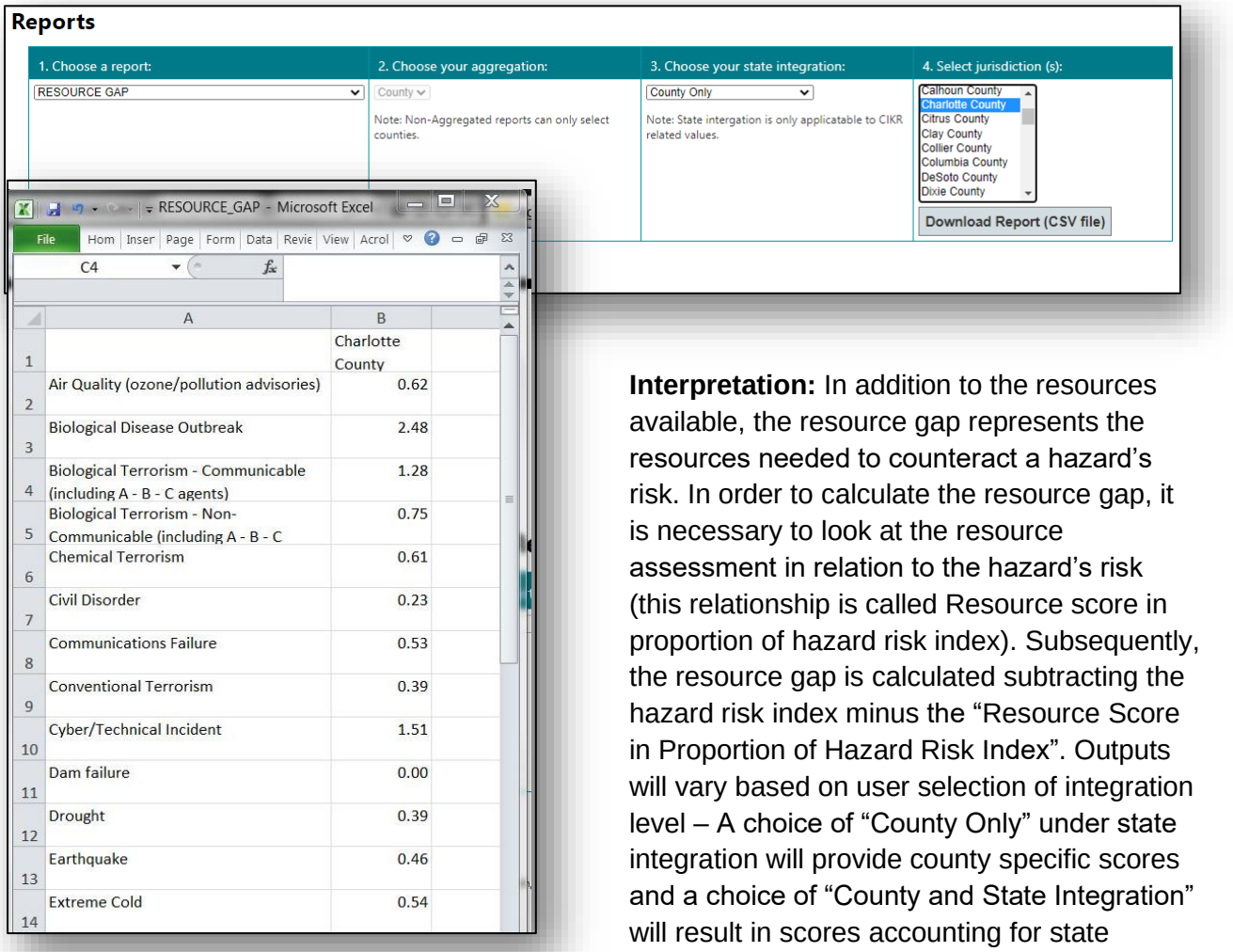
Description: The values in this report represent the relationship between each hazard's risk index and the resources needed to address the hazard (represented by the resource assessment score).

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state resources.

Data: Displays nonaggregated data for one, multiple, or all counties.

Display / Downloads: Generates a CSV file.



	A	B
1		Charlotte County
2	Air Quality (ozone/pollution advisories)	0.62
3	Biological Disease Outbreak	2.48
4	Biological Terrorism - Communicable (including A - B - C agents)	1.28
5	Biological Terrorism - Non-Communicable (including A - B - C	0.75
6	Chemical Terrorism	0.61
7	Civil Disorder	0.23
8	Communications Failure	0.53
9	Conventional Terrorism	0.39
10	Cyber/Technical Incident	1.51
11	Dam failure	0.00
12	Drought	0.39
13	Earthquake	0.46
14	Extreme Cold	0.54

Interpretation: In addition to the resources available, the resource gap represents the resources needed to counteract a hazard's risk. In order to calculate the resource gap, it is necessary to look at the resource assessment in relation to the hazard's risk (this relationship is called Resource score in proportion of hazard risk index). Subsequently, the resource gap is calculated subtracting the hazard risk index minus the "Resource Score in Proportion of Hazard Risk Index". Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state integrated resources potentially increasing a county's resources index score.

Resource Gap Aggregated

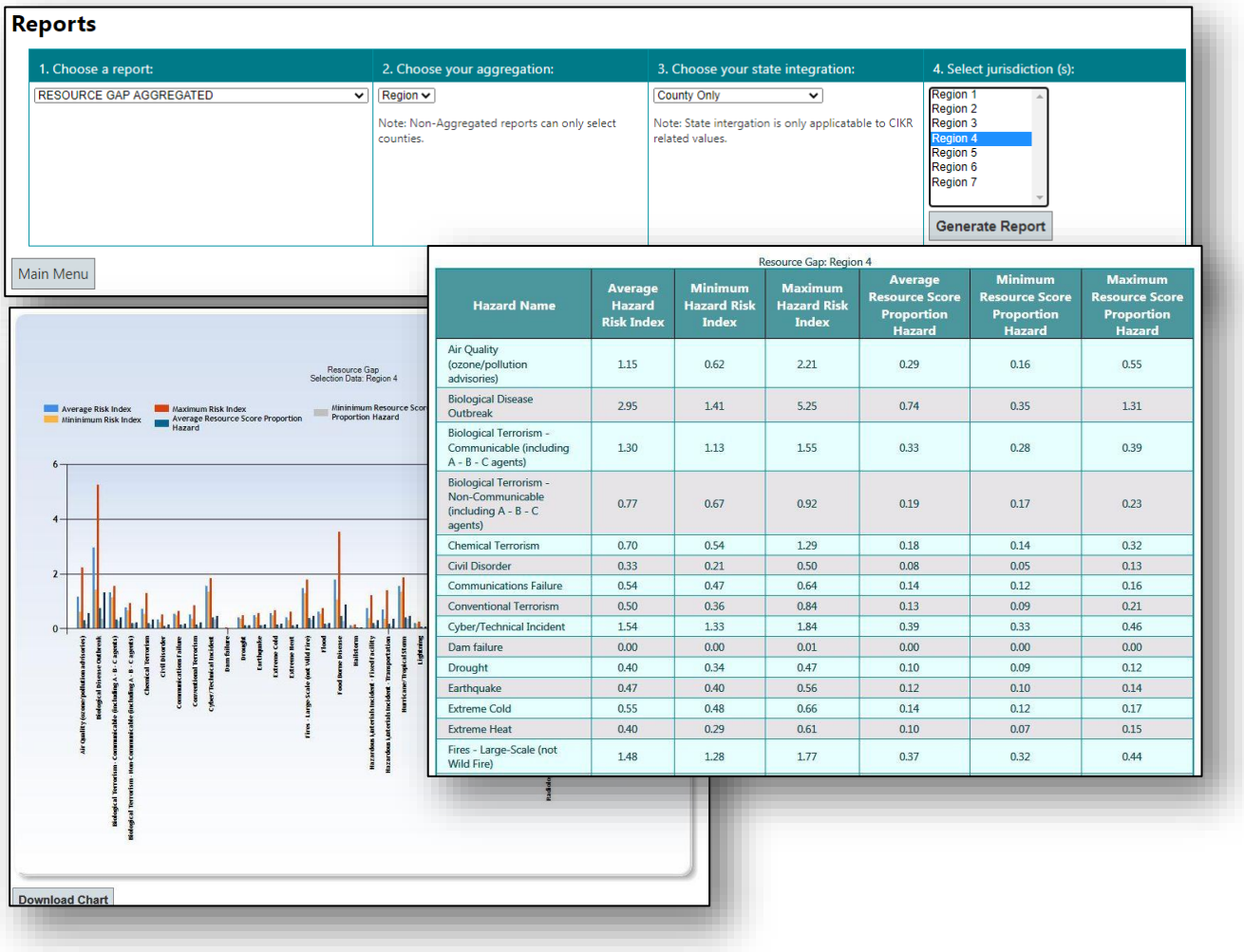
Description: Average of the resource score in proportion of the hazard risk index for the selected jurisdictions. This report also provides the maximum and minimum values.

Aggregation Levels: County, region, and state.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state resources.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.



Interpretation: Average value of the resource assessment in relation to the hazard's risk (this relationship is called Resource Score in Proportion of Hazard Risk Index). Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration

will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state integrated resources potentially decreasing a county's resource gap.

Resources Assessment Worksheet

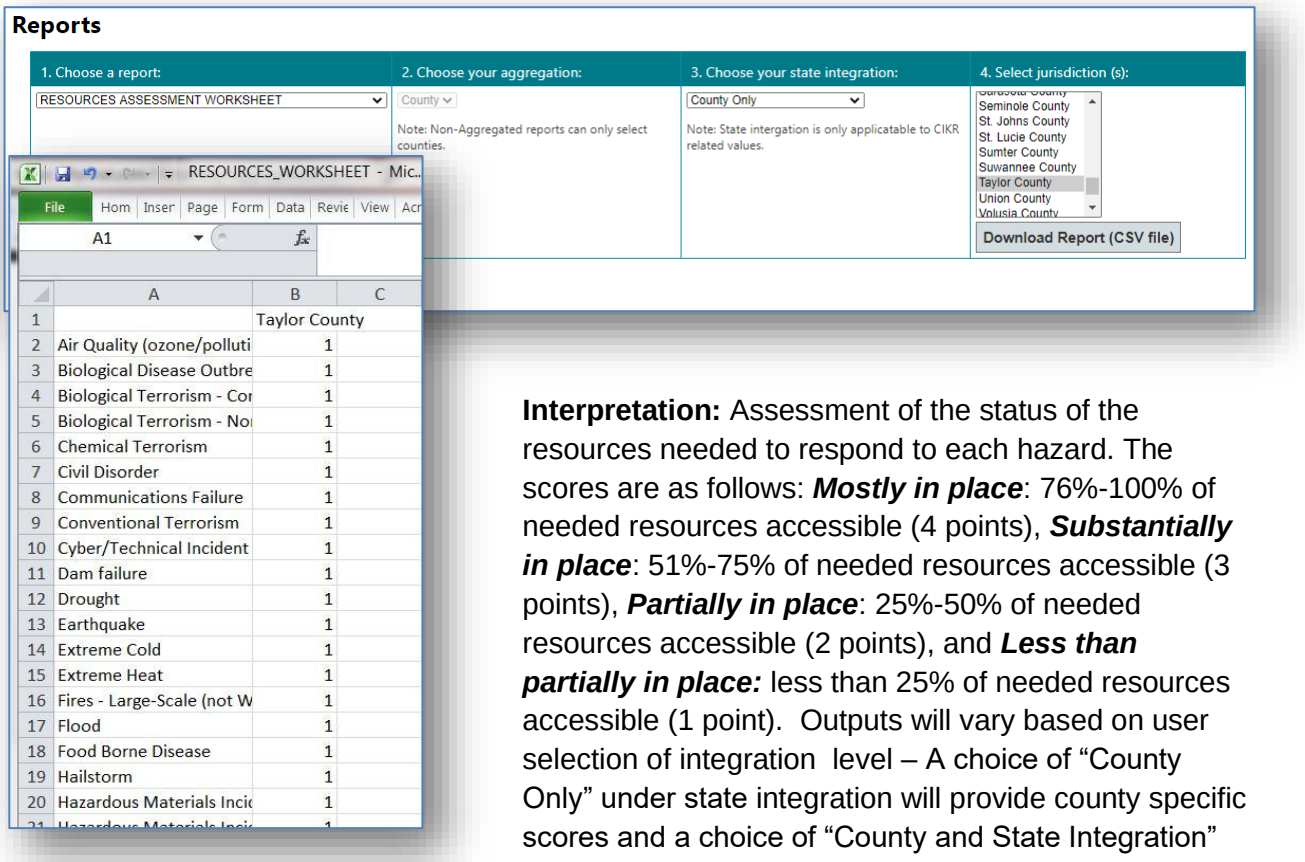
Description: This report displays the scores entered into the Resources Worksheet. Each jurisdiction assigned a "Needed Resource Score" to each of the 38 hazards. This data is not aggregated but allows displaying data to compare counties.

Aggregation Levels: County.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state resources.

Data: Displays non-aggregated data for one, multiple or all counties.

Display / Downloads: Generates a CSV file.



Interpretation: Assessment of the status of the resources needed to respond to each hazard. The scores are as follows: ***Mostly in place***: 76%-100% of needed resources accessible (4 points), ***Substantially in place***: 51%-75% of needed resources accessible (3 points), ***Partially in place***: 25%-50% of needed resources accessible (2 points), and ***Less than partially in place:*** less than 25% of needed resources accessible (1 point). Outputs will vary based on user selection of integration level – A choice of "County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

Resources Assessment Worksheet Aggregated

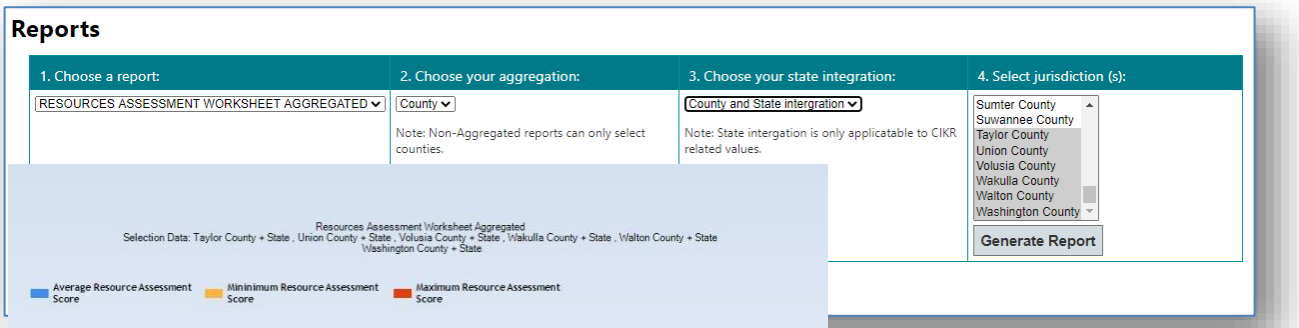
Description: Average of the Resources Worksheet scores entered in the worksheet for a selected group of jurisdictions.

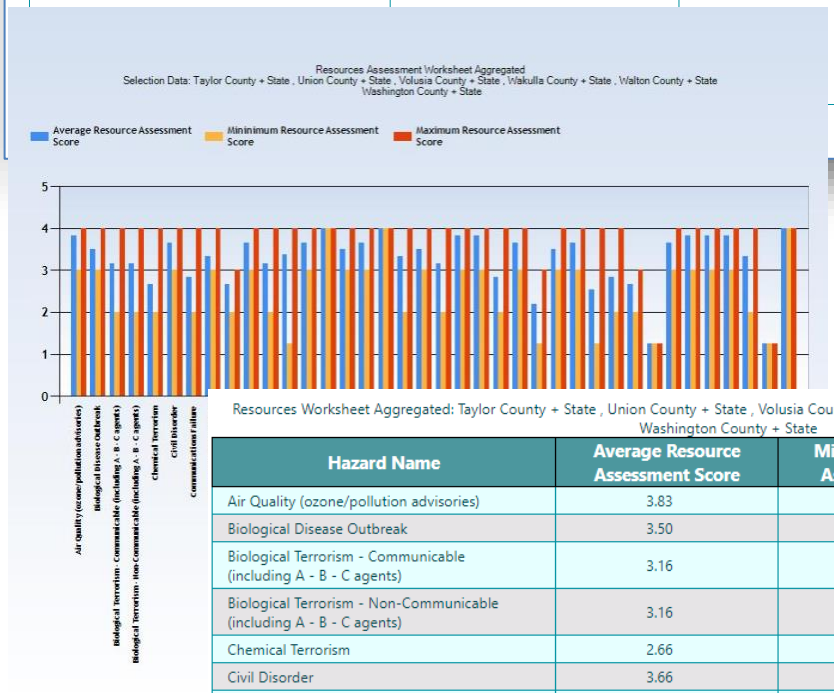
Aggregation Levels: County, region, and state.

State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state resources.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.





Resources Worksheet Aggregated: Taylor County + State , Union County + State , Volusia County + State , Wakulla County + State , Walton County + State Washington County + State

Hazard Name	Average Resource Assessment Score	Minimum Resource Assessment Score	Maximum Resource Assessment Score
Air Quality (ozone/pollution advisories)	3.83	3.00	4.00
Biological Disease Outbreak	3.50	3.00	4.00
Biological Terrorism - Communicable (including A - B - C agents)	3.16	2.00	4.00
Biological Terrorism - Non-Communicable (including A - B - C agents)	3.16	2.00	4.00
Chemical Terrorism	2.66	2.00	4.00
Civil Disorder	3.66	3.00	4.00
Communications Failure	2.83	2.00	4.00
Conventional Terrorism	3.33	3.00	4.00
Cyber/Technical Incident	2.66	2.00	3.00
Dam failure	3.66	3.00	4.00
Drought	3.16	2.00	4.00
Earthquake	3.37	1.25	4.00
Extreme Cold	3.66	3.00	4.00
Extreme Heat	4.00	4.00	4.00

Interpretation: Average value of the *Needed Resource Scores* entered in the Resources Worksheet by jurisdictions. In this report, the values are interpreted as the *Average Resource Status Assessment*. Outputs will vary based on user selection of integration level – A choice of

"County Only" under state integration will provide county specific scores and a choice of "County and State Integration" will result in scores accounting for state support effectively "plussing up" the score.

Risk Assessment

Description: Displays the Risk Assessment Matrix.

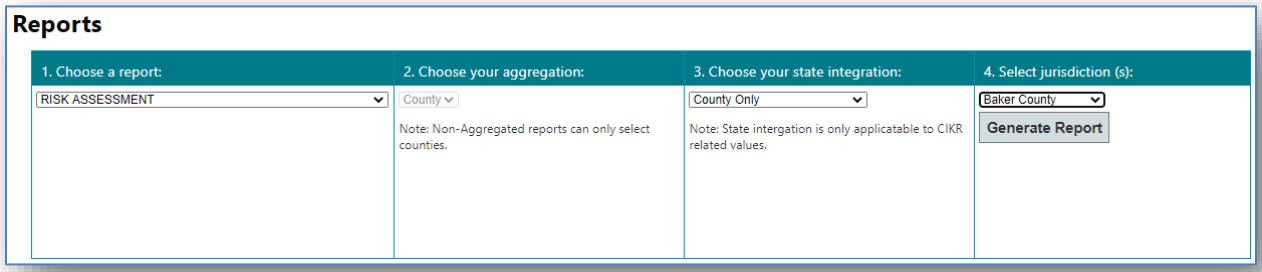
Aggregation Levels: County or State

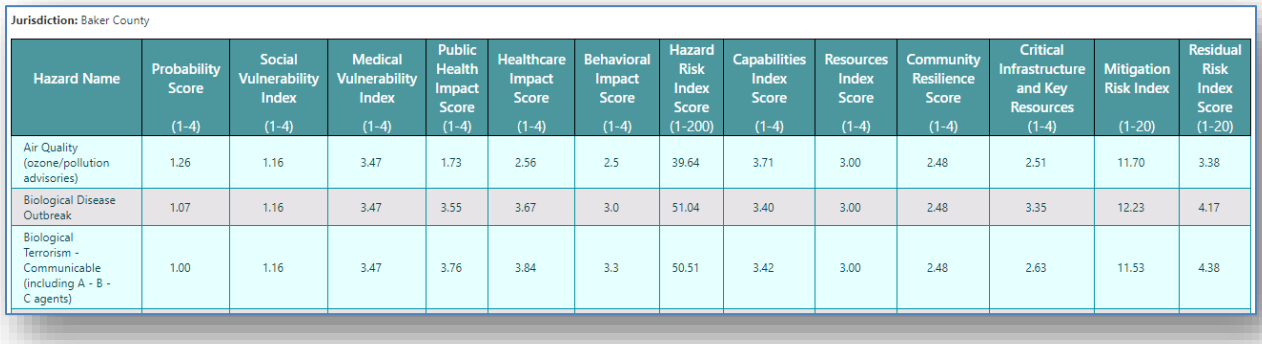
State Integration: County Only or County and State Integration. County only selection will produce results only for the county(ies) selected. County and State Integration will show county score(s) accounting for additional state mitigation (resources, capabilities, CIKR) support.

Data: Displays non-aggregated data for one, multiple or all counties or the state.

Display / Downloads: Matrix is downloadable as a CSV file.

Interpretation: Each component of the Risk Assessment Matrix is described in the Risk Assessment Explanation available on the FPHRAT Main Menu.





Jurisdiction: Baker County

Hazard Name	Probability Score (1-4)	Social Vulnerability Index (1-4)	Medical Vulnerability Index (1-4)	Public Health Impact Score (1-4)	Healthcare Impact Score (1-4)	Behavioral Impact Score (1-4)	Hazard Risk Index Score (1-200)	Capabilities Index Score (1-4)	Resources Index Score (1-4)	Community Resilience Score (1-4)	Critical Infrastructure and Key Resources (1-4)	Mitigation Risk Index (1-20)	Residual Risk Index Score (1-20)
Air Quality (ozone/pollution advisories)	1.26	1.16	3.47	1.73	2.56	2.5	39.64	3.71	3.00	2.48	2.51	11.70	3.38
Biological Disease Outbreak	1.07	1.16	3.47	3.55	3.67	3.0	51.04	3.40	3.00	2.48	3.35	12.23	4.17
Biological Terrorism - Communicable (including A - B - C agents)	1.00	1.16	3.47	3.76	3.84	3.3	50.51	3.42	3.00	2.48	2.63	11.53	4.38

SoVI MedVI Community Resilience

Description: Displays the Social Vulnerability Index (SoVI®) score, Medical Vulnerability Index (MedVI) score, and Baseline Resilience Indicators (BRIC) score for selected county.

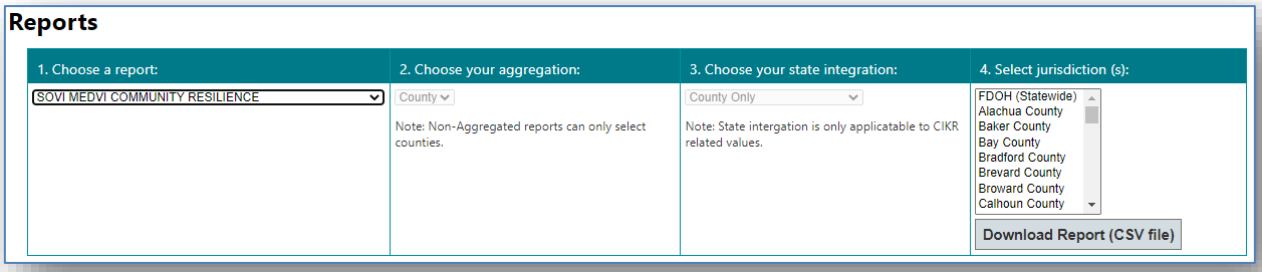
Aggregation Levels: County.

State Integration: Not Integrated.

Data: Displays non-aggregated data for one, multiple or all counties.

Display / Downloads: Matrix is downloadable as a CSV file.

Interpretation: SoVI, MedVI, and BRIC scores.



	SoVI	MedVI	BRIC
Flagler County	2.6	2.65	2.91
Franklin County	2.34	2.68	2.94
Gadsden County	3.36	4	2.55

SoVI BRIC MEDVI Aggregated

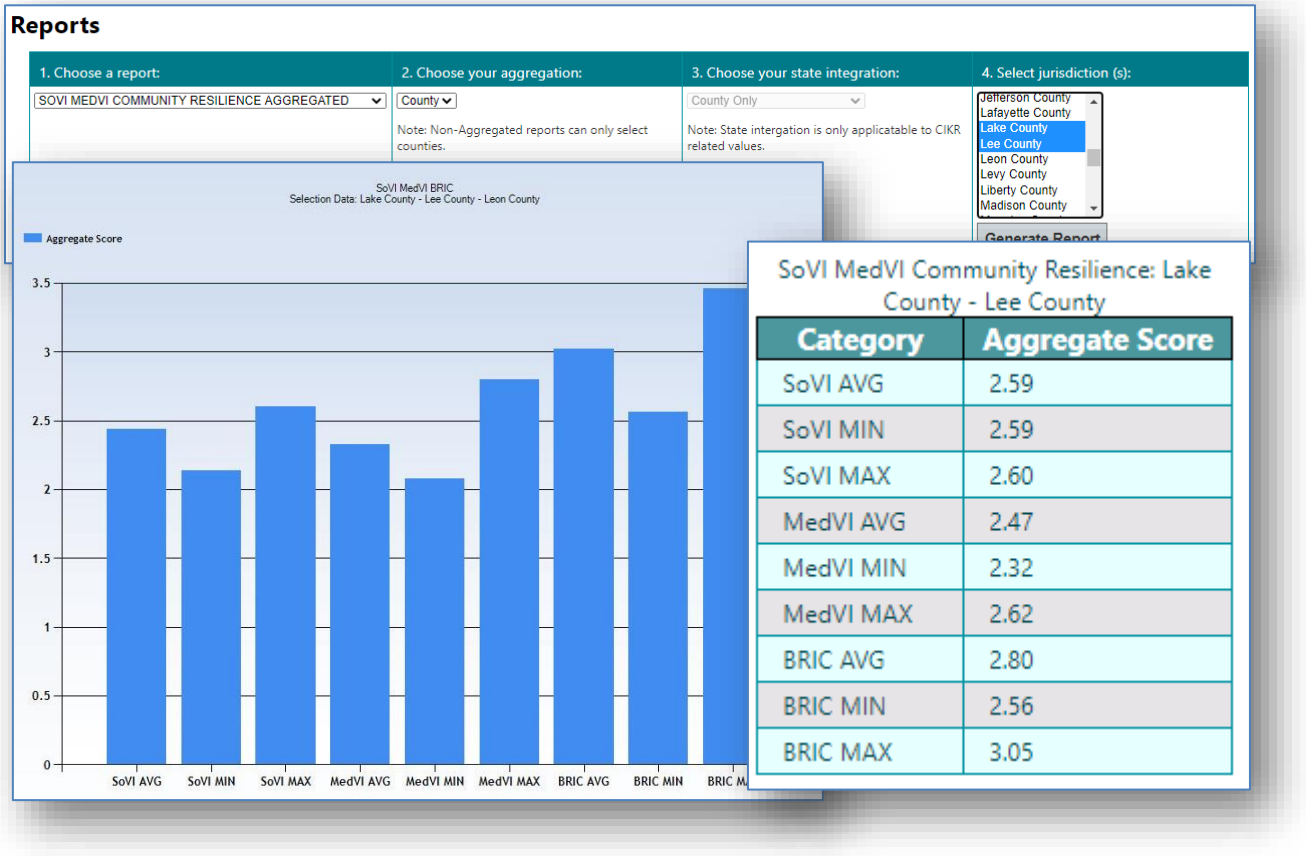
Description: Displays the average, minimum, and maximum social Vulnerability Index (SoVI®) score, Medical Vulnerability Index (MedVI) score, and Baseline Resilience Indicators (BRIC) score for selected county or for a selected group of jurisdictions.

Aggregation Levels: County, region, and state**.**

State Integration: Not Integrated.

Data: Aggregates data for multiple counties, one or more regions, and state.

Display / Downloads: Generates a chart downloadable as a JPG file, and a report exportable as a CSV file.



Interpretation: Average value of the SoVI, MedVI, and BRIC *Scores* by jurisdictions.

FPHRAT Data Section

The data section provides access to all the underlying data utilized in creating the Florida Public Health Risk Assessment Tool.

SoVI, MedVI, BRIC, County Population Data

Scores for social vulnerability, medical vulnerability, resilience, and population information for each county.

CIKR Count Data

All critical infrastructure and key resource counts for each county.

CIKR Weight Data

Weight data for critical infrastructure and key resources showing the importance of each asset in relation to each hazard and county population type (low, medium, high, extreme).

Public Health, Behavioral Health, Healthcare Impacts

Aggregated survey data for public health, behavioral health, and healthcare impacts from disasters.

Raw Public Health Impact Survey Data

Raw public health impact survey data.

Raw Healthcare Impact Survey Data

Raw healthcare impact survey data.

Raw Behavioral Health Impact Survey Data

Raw behavioral health impact survey data.

Raw Emergency Management Impact Survey Data

Raw emergency management impact survey data.

Hazard Probability Data

All hazard probability data used in FPHRAT.

Capability Hazard Component

All capability hazard component function engagement in relation to hazard types.