# Preparedness Plan

*Approved by CFDMC Board*
*June 16, 2020*

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# Promulgation Letter

According to the Office of the Assistant Secretary for Preparedness and Response (ASPR) Health Care Preparedness and Response Capabilities (Capability 1, Objective 3), “the HCC preparedness plan enhances preparedness and risk mitigation through cooperative activities based on common priorities and objectives.”

The CFDMC is designated as the Region 5 lead ESF-8 agency and is responsible for preparing a regional health and medical preparedness plan. This plan includes information collected on hazard vulnerabilities and risks, resources, gaps, needs, and legal and regulatory considerations and how the CFDMC addresses these.

The CFDMC preparedness plan emphasizes strategies and tactics that promote communications, information sharing, resource coordination, and operational response and recovery planning with CFDMC members and other stakeholders.

The CFDMC developed its preparedness plan to include core CFDMC members and additional CFDMC members so that, at a minimum, hospitals, EMS, emergency management organizations, public health and long-term care agencies are represented.

The Board approved the CFDMC Preparedness Plan update on June 18, 2020

Attestation:

Eric Alberts,
CFDMC 2020 Board Chair

## RECORD OF CHANGES & DISTRIBUTION

| Changes | Distribution |
|---|---|
| Original plan drafted April 2018 | Distributed to CFDMC Members for comment in April 2018 |
| Submitted to Board for approval on 6/16/18 | Posted to Website on 6/29/18 |
| Annual update approved by Board on 6/18/19 | Updated plan posted to website on 6/20/19 |
| Annual update drafted May 2020 | Distributed to CFDMC Members for comment in May 2020 |
| Annual update approved by board on 6/16/20 | Updated plan posted to website on 6/30/20 |
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# 1.0 Introduction

## 1.1 Purpose

The mission of the CFDMC is to develop and promote healthcare emergency preparedness and response capabilities in the East Central Florida Domestic Security Task Force Region 5 (RDSTF Region 5). CFDMC does this through facilitation with healthcare organizations and other key partners to work collaboratively to build, strengthen, and sustain a healthcare preparedness and response system in the region. The overarching goal is to assist Emergency Management and Emergency Support Function 8 (ESF-8) with the National Preparedness Goals mission areas: Prevention, Protection, Mitigation, Response, and Recovery as it relates to healthcare disaster operations. The purpose of this plan is to outline the preparedness activities of the CFDMC.

## 1.2 Scope

This plan applies to the CFDMC and its nine counties and does not supersede the authorities or any plans of the participating entities. This plan achieves the capability as defined in the 2017-2022 Health Care Preparedness and Response Capabilities, Capability 1, Objective 3: Develop a Health Care Coalition Preparedness Plan.

## 1.3 Administrative Support

The original plan was submitted to the working group for their review and distributed to the membership for a 30-day review period for comments (April 1-30, 2018). Upon receipt of comments, the plan was updated and submitted to the working group for final acceptance by May 30, 2018. This plan had minor updates in June 2019 and was reviewed and approved by the Board on June 18, 2019. Additional minor changes were made in 2019 and in 2020. The plan is a living document and will be reviewed after exercises and real-world incidents and updated as needed. Any new gaps should be identified and strategies to mitigate those gaps addressed in this plan

Applicable Health Care Preparedness and Response Capability 1.3; 2.1.2

# 2.0 Coalition Overview

## 2.1 Introduction/Role/Purpose of Coalition

The mission of the CFDMC is to develop and promote healthcare emergency preparedness and response capabilities in the region. The major goals of the CFDMC include the following:

- Facilitate information sharing among participating CFDMC Members and jurisdictional authorities to promote common situation awareness;
- Facilitate resource support by expediting the mutual aid process or other resource sharing arrangements among CFDMC Members and support the request and receipt of assistance from local, state, and federal authorities;
- Facilitate the interface between the CFDMC and appropriate jurisdictional authorities to establish effective support for healthcare system resiliency and medical surge; and
- Build and/or strengthen local health capacity and capabilities prior to, during, and after a disaster or emergency.

## 2.2 Coalition Boundaries

The CFDMC serves the East Central Florida Domestic Security Task Force Region 5 (RDSTF Region 5), and includes the following nine counties: Brevard, Indian River, Lake, Martin, Orange, Osceola, Seminole, St. Lucie, and Volusia.

Individuals and organizations working collaboratively across a spectrum of disciplines to develop and maintain disaster health and medical capabilities will help to clarify roles, responsibilities, and assumptions about response and recovery. Collaboration will help facilitate interoperability while leveraging existing capacity inherent throughout organizations and communities across the region. At the same time, collaboration will minimize redundant work and other inefficiencies and maximize resources. The CFDMC works closely with the ESF-8 lead agencies within the region.

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## 2.3 Coalition Members

A coalition should include a diverse membership to ensure a successful whole community response. If segments of the community are unprepared or not engaged, there is greater risk that the health care delivery system will be overwhelmed. The value of the CFDMC as a coalition is the resources represented in the collective capacity of its members. This broad membership allows the coalition to influence a higher level of disaster health and medical capability throughout organizations and communities across the region.

The CFDMC has members from the following types of agencies and facilities:

| | |
|---|---|
| Acute Care Hospitals | Hospital Associations |
| Ambulance Services | Hospital Systems |
| Assisted Living Facilities | Kidney Centers |
| Aviation | Laboratories |
| Behavioral Health Agencies | Medical Doctors |
| Council on Aging | Medical Examiners |
| County Health Departments | Medical Reserve Corp |
| Crisis Response Teams | Municipalities |
| Department of Children and Families | Nursing Services |
| Education | Outpatient Healthcare Providers |
| Emergency Management | Pharmacies |
| Emergency Medical Services (EMS) | Rehabilitation Services |
| Environmental Services | Skilled Nursing Homes |
| Fire Departments/Fire Rescues | Surgery Centers |
| Funeral Homes | Universities |
| Home Health | Vendors |
| Hospice | Non-Governmental Organizations |

Highlighted agencies are core members (The Coalition's contract with DOH specifies core members as acute care hospitals, EMS, emergency management offices, county health departments, and assisted living facilities. The CFDMC also considers skilled nursing facilities as core members.

A complete membership list as of March 31, 2020 shows 1,707 members representing 653 organizations and is available at http://www.centralfladisaster.org/about (click on Our Members button). This list is updated monthly.

The CFDMC recognizes the 17 provider types in the following list identified in the CMS rule. Future recruitment will target those providers and/or counties under-represented in the membership.

1. Hospitals
2. Critical Access Hospitals (CAHs)
3. Rural Health Clinics (RHCs) & FQHCs
4. Long-Term Care Facilities (Skilled Nursing Facilities (SNF))
5. Home Health Agencies (HHAs)
6. Ambulatory Surgical Centers (ASCs)
7. Hospice
8. Inpatient Psychiatric Residential Treatment Facilities (PRTFs)
9. Programs of All-Inclusive Care for the Elderly (PACE)

10. Transplant Centers
11. Religious Nonmedical Health Care Institutions (RNHCIs)
12. Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID)
13. Clinics, Rehab. Agencies, & Public Health Agencies as Providers of Outpatient Physical Therapy & Speech Language Pathology Services Comprehensive
14. Outpatient Rehabilitation Facilities (CORFs)
15. Community Mental Health Centers (CMHCs)
16. Organ Procurement Organizations (OPOs)
17. End-Stage Renal Disease (ESRD) Facilities

Applicable Health Care Preparedness and Response Capability 1.1.2

## 2.4 Commitment to Participate

The Board of Directors meets at a minimum at least quarterly, either face-to-face or virtually. A face-to-face meeting or virtual is held at least quarterly for all members, with one of the meetings held as a day-long conference. Board of Directors who are absent for more than one-quarter of the meetings or for three (3) consecutive meetings during a term of appointment may be replaced upon a majority vote of the Executive Committee Members and the Board Chair. Board of Directors who must miss a meeting may delegate an alternate to participate on their behalf and must provide written notice to the Executive Committee delegating their voting privileges to the designee.

All CFDMC Members are asked to review and sign the CFDMC Charter and the Code of Conduct upon joining the coalition. The CFDMC Charter and Code of Conduct are included in the CFDMC Board Bylaws and the Board reviews this annually.

Approval of this plan and other items presented to the CFDMC will be handled as follows. The plan and any supporting documents will be distributed to members to allow for their input with any comments or concerns. Any input received will be reviewed by the Executive Committee and Board of Directors with appropriate approval via voting on an agenda item at a scheduled board meeting.

Applicable Health Care Preparedness and Response Capability 1.5.2

## 2.5 Organizational Structure/Governance

The CFDMC Governance policies are updated annually and were last approved on February 18, 2020. The current approved governance document is located at http://www.centralfladisaster.org/members (click on Our Members button). The document includes the following sections:

- CFDMC Bylaws
- Charter / Code of Ethics
- Board Nominations / Elections Process
- Board Onboarding Process
- Member Recruitment and Onboarding
- Communication

- Financial Policies and Processes
- Special Projects Funding Process
- Conflict Resolutions
- Vendor Selection Process
- Independent Capacity of Contractor Attestation
- Vendor Exhibit Policy
- Public Access to Records Policy
- Document Retention & Destruction Policy
- HIPPA & Attestation
- Social Medical Policy
- Travel Policy
- Employment Policies

Applicable Health Care Preparedness and Response Capability: 1.1.3

## 2.6 Role of Leadership within Member Organizations

Membership in the CFDMC is open to all interested, applicable, and relevant parties. Individual members are solicited through various means. All members must complete the CFDMC Charter and Code of Ethics to join. There is no formal approval process for membership from either the coalition or the organization; all interested parties are welcome from the designated essential partner groups and all other stakeholders. The CFDMC Executive Committee and Board of Directors include the RDSTF Health Co-Chairs, and executive leaders and clinical leaders from all core member groups and are representative of all membership groups.

Applicable Health Care Preparedness and Response Capability 1.5.2

## 2.7 Risks

It was the consensus of our partners that CFDMC use information from each county, along with additional input from all Coalition members, to develop a regional HVA and JRA. CFDMC utilized PHRAT, emPOWER, SVI, THIRA, and member surveys in the analysis.

PHRAT:

CFDMC obtained a copy of each county's PHRAT as an input in preparing the regional HVA/JRA . The PHRAT Hazard Risk Indices showed the top risks across the region as:

Cyber technical incidents (all counties included this in their top three risks)
Large scale fires (all counties included this in their top three risks)
Mass population surge (five counties included this in their top three risks)
Biological disease outbreak (three counties included this in their top three risks)

The most significant resource readiness gaps identified by the counties were:

Cyber technical incidents (five counties ranked this as the highest gap)
Sewer failures (two counties ranked this as the highest gap)
Mass population surge (one county ranked this as the highest gap)
Hazardous materials-transportation (one county ranked this as the highest gap)

emPOWER:

Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. In December 2019, the Coalition downloaded the emPOWER data for each county, and provided these to county emergency management and ESF8 leads. We discussed how the counties use these data and the consensus was that the de-identified data provide limited data of use in planning. This was reported to and discussed during a Healthcare Coalition Task Force call and with the ASPR project officer.

SVI:

In preparing for and responding to disasters, a number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster. These factors are known as social vulnerabilities.
Annually, CFDMC pulls the CDC Social Vulnerability Index (SVI) data and shares the data with county emergency management and ESF8 leads. Although raw data is available for 2018, the latest available county level assessment data is 2016. The data were downloaded and shared with county emergency management and ESF8 on April 22, 2020.
The SVI vulnerability scores range from (lowest risk) to 1 (highest risk). The SVI vulnerability scores for the nine counties in Region 5 are:
Volusia: 0.5896 (moderate level of vulnerability)
Lake: 0.6517 (moderate to high level of vulnerability)
Seminole: 0.1786 (low level of vulnerability)
Orange: 0.6909 (moderate to high level of vulnerability)
Osceola: 0.8551 (high level of vulnerability)
Brevard: 0.4266 (low to moderate level of vulnerability)
Indian River: 0.4769 (low to moderate level of vulnerability)
St. Lucie: 0.7676 (high level of vulnerability)
Martin: 0.4416 (low to moderate level of vulnerability)

Regional THIRA:

On September 29, 2019 and October 31, 2019, the Coalition participated in meetings to develop the 2019 UASI THIRA for the Central Florida metro area. The top threats identified were:

Hurricanes
Active shooters
Cyber attacks

Member Survey:

On March 10, 2020, CFDMC sent a survey to all Coalition members requesting input in assessing threats, risks and capability gaps. Members were given 30 days to respond, and the Coalition received fifty-eight (58) responses. The results are summarized below:

Risks:

Members identified the top three risks, in priority order as:
#1 – Hurricane (43 identified this as a top three risk with the majority selecting this as the highest risk)
#2 – Pandemic (24 identified this as a top three risk)
#3 –Tie - Active Shooter (15 identified this as a top three risk)
#3 – Tie - Tornado (15 identified this as a top three risk)

Members identified the following as the most important things the Coalition can do to address these gaps:

- Continue to improve/enhance communications.
- Continue to train/educate members
- Continue to support drills and exercises
- Support and share plans across organizations

Threat/Impact:

Coalition members identified the threats below as most likely to occur:

Hurricane (35 of 58 respondents)
Extreme Temperatures (24 of 58 respondents)
Pandemic (19 of 58 respondents)
Cyber Attacks (against Data – 18 of 58 respondents; against Infrastructure – 17 of 58 respondents)
Active Shooter (16 of 58 respondents)

Coalition members also identified threats with most severe impact. In all but one of the above, the majority felt these events would have a high impact. For Extreme

Temperatures, the majority rated this type of event as having a moderate impact. Other events members rated as having a high impact include tornados, biological attacks, radiological attacks and nuclear terrorism attacks.

Applicable Health Care Preparedness and Response Capability 1.2.1

## 2.8 Gaps / Actions

Members identified the following capability gaps:

#1 – Ensure Preparedness is Sustainable (2.33 weighted average)
#2 – Train and Prepare the Health and Medical Workforce (2.24 weighted average)
#3 – Maintain Access to Non-Personnel Resources During Emergencies (2.22 weighted average)
#4 – Utilize Information Sharing Procedures/Platforms (2.21 weighted average)
#5 – Respond to Medical Surge (2.19 weighted average)

The Coalition was already actively addressing most of the issues identified through projects in the annual work plan, including:

- Hurricanes: CFDMC devotes one meeting per year to hurricane preparedness. We have used hurricanes as a focus for a Coalition Surge Test exercise. Additionally, the region has responded to Hurricanes Matthew, Irma and Dorian over the past few years. Several hospitals within the region have evacuated during these hurricanes, and lessons learned have been shared with all members. Over the past year, the Coalition sponsored an evacuation equipment assessment by MedSled. The results of the assessment were shared with the region's hospitals and Board on February 21, 2020. The outcome of that meeting was to identify a small workgroup to develop standards for hospitals and nursing home evacuation equipment.

- Pandemic: The CFDMC Emerging Infectious Disease (EID) Collaborative has been working since 2014 to assess and improve the region's ability to respond to a pandemic. During 2015 and 2016, every hospital in the region underwent either the CDC frontline hospital or assessment hospital review and a regional plan was developed. This is an ongoing effort and over the past year the EID Collaborative Workgroup has converged on PPE standards, and donning and doffing procedures. The Workgroup was working on additional protocols including screening criteria and workforce support policies when the COVID19 response began. We are capturing successes and lessons learned from COVID19 and these will be used to continue to refine and improve plans and resources.

- Active Shooter: Since 2017, CFDMC, along with emergency management in each county in the region, hosts an annual active shooter drill in September. Members are provided with resources to build an active shooter response plan prior to the drill, and an after action report is distributed.

- Tornados: Since 2018, CFDMC, along with emergency management in each county in the region, hosts the Great Tornado Drill in January. Members are provided with resources to build a shelter in place plan prior to the drill, and an after action report is distributed.

- Continue to improve/enhance communications: This is the highest priority for the Coalition and has been the number one improvement identified in exercises and events. On February 21, CFDMC hosted a Communications Workshop with emergency management, hospitals, EMS, public health and long-term care representatives. The purpose of the meeting was to finalize essential elements of information, review existing communications platforms, and identify gaps. Based on that meeting, the Coalition is putting together a communications matrix that will assist in prioritizing gaps and making decisions on platforms to close the gaps. COVID19 response has delayed completion but we anticipate finalizing the matrix by summer 2020 and the Workgroup will reconvene to make decisions on closing the gaps.

- Continue to train/educate members: An annual training needs assessment is conducted with members and results are used to prepare the Coalition's training plan. We will also use lessons learned from COVID19 to identify and provide needed training.

- Continue to support drills and exercises: CFDMC supports a myriad of drills and exercises each year. In addition to the annual Coalition Surge Test exercise, the Coalition organizes an annual regional hospital mass casualty drill. The 2020 drill was planned for April 9 but has been postponed due to COVID19. The Coalition, along with emergency management in each county, sponsors three drills each year open to all members. In January, the Great Tornado Drill is used to exercise shelter in place plans. In June, the Generate Confidence drill is used to test generators in preparation for hurricane season. In September, the Operation Protect & Secure drill tests lockdown plans in response to an active shooter threat. The Coalition uses tabletop exercises to draft plans, uses functional drills to test components of plans, and incorporates plans into full-scale exercises. Examples of the use of these drills in our preparedness efforts include the mass fatality plan, the emergency infectious disease plan, the disaster behavioral health plan, the alternate care site plan, and the family assistance center plan.

- Support and share plans across organizations: CFDMC routinely shares plans with all members using Constant Contact. We post regional, state and national plans on the Coalition website under Resources. We also share plans at quarterly Coalition meetings. Based on this feedback, the Board will discuss creating a repository for facility and county plans to be shared.

Applicable Health Care Preparedness and Response Capability 1.2.2

For additional details on hazards, vulnerabilities, threats, risks, gaps and actions taken to address these, see Appendix B.

## 2.9 Compliance Requirements/Legal Authorities

The CFDMC must comply with a number of contractual and regulatory/legal requirements. The following list is a compilation but not an exhaustive list:

- Understand federal, state, or local statutory, regulatory, or national accreditation requirements that affect emergency medical care.
  - Centers for Medicare & Medicaid Services (CMS) conditions of participation, (including CMS-3178-F Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers)[1]
  - Clinical Laboratory Improvement Amendments (CLIA)[2]
  - Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule requirements[3] and circumstances when covered entities can disclose protected health information(PHI) without individual authorization including to public health authorities and as directed by laws (e.g., state law)[4]
  - Emergency Medical Treatment & Labor Act (EMTALA) requirements[5]
  - Licensing and accrediting agencies for hospitals, clinics, laboratories, and blood banks (e.g., Joint Commission[6], DNV GL – Healthcare[7]
  - Federal disaster declaration processes[8] and public health authorities[9]

[1] Available at https://www.federalregister.gov/documents/2016/09/16/2016-21404/medicare-and-medicaid-programs-emergency-preparedness-requirements-for-medicare-and-medicaid
[2] Available at https://www.cms.gov/Regulations-and-Guidance/Legislation/CLIA/index.html
[3] Available at https://www.hhs.gov/hipaa/for-professionals/index.html
[4] Available at https://asprtracie.s3.amazonaws.com/documents/aspr-tracie-hipaa-emergency-fact-sheet.pdf
[5] Available at https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/
[6] Available at https://www.jointcommission.org/emergency_management.aspx
[7] Available at http://www.dnvglhealthcare.com/
[8] Available at https://www.fema.gov/disaster-declaration-process
[9] Available at http://www.phe.gov/preparedness/support/secauthority/Pages/default.aspx

- Available federal liability protections for responders (e.g., Public Readiness and Emergency Preparedness (PREP) Act[10]
- Environmental Protection Agency (EPA) requirements[11]
- Occupational Safety and Health Administration (OSHA) requirements (e.g., general duty clause, blood-borne pathogen standard)[12]
- Executive Orders[13]
- Florida Statutes 252.35[14] and 252.36[15]
- Florida Statutes 281.00315[16]
- Selected Federal Legal Authorities Pertinent to Public Health Emergencies[17]
- National Response Framework[18]
- Emergency Management Assistance Compact[19]
- AHCA Emergency Management Criteria (add web link http://ahca.myflorida.com/MCHQ/Emergency_Activities/index.shtml )

- Understand the process and information required to request necessary waivers and suspension of regulations.
  - Processes for emergency resource acquisition (this may require coordination with the federal, state, and/or local government)
  - Special waiver processes (e.g., section 1135 of the Social Security Act waivers[20]) of key regulatory requirements pursuant to emergency declarations
  - Process and implications for Food and Drug Administration (FDA) issuance of emergency use authorizations for use of non-approved drugs or devices or use of approved drugs or devices for unapproved uses[21]
  - Legal resources[22] related to hospital legal preparedness, such as the deployment and use of volunteer health practitioners
  - Legal and regulatory issues related to alternate care sites and practices

[10] Available at http://www.phe.gov/preparedness/legal/prepact/pages/default.aspx
[11] Available at https://www.epa.gov/laws-regulations
[12] Available at https://www.osha.gov/law-regs.html
[13] Available at http://www.flgov.com/all-executive-orders/
[14] Available at http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0252/Sections/0252.35.htmlhttp://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0252/Sections/0252.35.html
[15] Available at http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0200-0299/0252/Sections/0252.36.html
[16] Available at http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0381/Sections/0381.00315.html
[17] Available at https://www.cdc.gov/phlp/docs/ph-emergencies.pdf
[18] Available at https://www.fema.gov/media-library-data/1466014682982-9bcf8245ba4c60c120aa915abe74e15d/National_Response_Framework3rd.pdf 2016 Edition
[19] Available at https://www.emacweb.org/
[20] Available at http://www.phe.gov/Preparedness/legal/Pages/1135-waivers.aspx
[21] Available at https://www.fda.gov/EmergencyPreparedness/Counterterrorism/ucm182568.htm
[22] Available at https://www.cdc.gov/phlp/publications/topic/hospital.html

  - Legal issues regarding population-based interventions, such as mass prophylaxis and vaccination
  - Processes for emergency decision making from state or local legislature

- Support crisis standards of care planning[23], including the identification of appropriate legal authorities and protections necessary to support crisis standards of care activities.
- Maintain awareness of standing contracts for resource support during emergencies.

Further information about healthcare related disaster legal, regulatory, and federal policy is available at the ASPR-TRACIE website[24]

Applicable Health Care Preparedness and Response Capability 1.2.5

[23] Available at https://www.nap.edu/read/12749/chapter/1
[24] Available at https://asprtracie.hhs.gov/technical-resources/83/healthcare-related-disaster-legal-regulatory-federal-policy/1

# 3.0 Coalition Objectives

CFDMC has the following overarching strategic goals:

- ✓ Ensure sustainability
- ✓ Increase engagement
- ✓ Increase diversity
- ✓ Build/Sustain capabilities

Each of these goals have SMART objectives that are monitoring by the Board via the monthly traffic light report. The strategic plan is posted at https://www.centralfladisaster.org/about (click on CFDMC Strategic Plan).

## 3.1 Maintenance and Sustainability

- Promote the value of health care and medical readiness (Capability 1, Objective 5, Activity 1) -The CFDMC, with support from its health care organization members, has developed a mission and vision statement to articulate its role in community preparedness and how that provides benefit (both direct and indirect) to the region. The coalition utilizes an all-hazards approach to plan for a full range of emergencies and both planned and unplanned events that could affect its community. The CFDMC has leaders who can serve as primary points of contact to promote preparedness and response needs to community leaders. Additionally, members have a shared responsibility to ensure the CFDMC has visibility into their activities in the region.
- Promote sustainability of HCC (Capability 1, Objective 5, Activity 5) - There are a variety of ways to promote greater community effectiveness and organizational and financial sustainability. Full investment in readiness includes in-kind donation of time, resources, financial support (e.g., donations fees etc.), and continued engagement with coalition members and the community. Financial strategies, including cost- sharing techniques and other funding options, enhance stability and sustainment.
- Sharing leading practices and lessons learned (Capability 1, Objective 4, Activity 6) - The CFDMC encourages its members, government partners, and other coalitions to share leading practices and lessons learned. Sharing information between coalitions will improve cross-coalition coordination during an emergency and will help further improve coordination efforts.
- This plan as part of the Maintenance and Sustainability strategy will be reviewed annually by the Board to ensure it remains in accordance with the Strategic Plan.
- The Preparedness Plan outlines how CFDMC works with members to ensure the health and medical system is ready for all hazards. CFDMC has also developed a Response/Operations Plan and subsequent review process. The Response plan governs the Coalition's role in response. Since March 2019, the Coalition and its members have been engaged in COVID19 response.

Applicable Health Care Preparedness and Response Capability 1.5

## 3.2 Engagement of Partners and Stakeholders

Efforts to increase membership and facilitate information sharing include use of the coalition Constant Contact email distribution list, website (www.centralfladisaster.org),*; quarterly meetings,* conference calls, webinars, presentations to partner and other community groups, and participation in other preparedness and response organizations. Meetings and distribution of meeting minutes further provide opportunities for outreach. A significant method in increasing membership is through the provision of drills throughout the year that meet member requirements for exercises. CFDMC and Seminole County Emergency Management presented on this practice at the April 2019 Georgia Emergency Management Association conference. The CFDMC has consistently increased its individual and organizational members through these member outreach activities.

Most of the coalition members utilize social media to varying levels of engagement and reach. Leveraging the collective impact of the members can significantly expand the ability of the coalition to broadcast and share information. The CFDMC has recently developed a social media process to further increase membership and member engagement.

In 2019, a Coalition Member of the Year and Coalition Leader of the Year recognition process was added, which kicks off each November by asking Coalition members to nominate individuals for both Member of the Year and Leader of the Year. The Board selects the member of the year and the Executive Committee selects the leader of the year. All nominees and the Leader and Member of the Year are recognized at the March meeting.

Applicable Health Care Preparedness and Response Capability 1.5.2

## 3.3 Health Care Executives

CFDMC ensures engagement from healthcare executives through its Board of Directors, which includes executives from core member and other healthcare agencies. The 2019 Board List is available at http://www.centralfladisaster.org/about (click on Our Board button).

In October 2019, the annual Coalition Surge Test exercise was held, and we were successful in increasing the number of executives engaged in the exercise (as reported in the Coalition Surge Tool performance measures).

Applicable Health Care Preparedness and Response Capability 1.5.2

## 3.4 Clinicians

CFDMC ensures engagement from clinical leaders through its Board of Directors, and through ensuring that every project workgroup includes clinical subject matter experts. Here are just a few examples: A trauma surgeon who serves on the Board also serves as the Executive Director for the Regional Trauma Advisory Board, which includes Trauma and EMS clinical leaders. A Trauma Clinical Leadership Committee has been

added with the medical directors for each trauma center and each county EMS agency. An infectious disease physician from Florida Hospital serves on the board and works with other clinical leaders from Orlando Health, the VA, Nemours, other regional hospitals, and county health departments in the Emerging Infectious Disease Collaborative. A pediatric nurse with Florida Hospital, has been the champion for the TRAIN project (Triage by Resource Allocation for IN-patient) and in standardizing decontamination for pediatric patients. Several pediatric clinicians worked with the Coalition in developing the pediatric annex.

Applicable Health Care Preparedness and Response Capability 1.5.3

## 3.5 Community Leaders

CFDMC ensures engagement of community leaders through the RDSTF Region 5 partners, and through engaging community leaders in projects. We include the community leaders as members of the coalition. For example, the Regional Trauma Advisory Board previously included an Orange County Commissioner and currently includes a City of Leesburg Commissioner. A strategic objective to increase contact with community leaders led to the Board's decision to create a CFDMC proclamation themed to National Preparedness Month in September; each Board member will engage their county or city officials to sign the proclamation.

Applicable Health Care Preparedness and Response Capability 1.2.4

## 3.6 Children, Pregnant Women, Seniors, Individuals with Access, and Functional Needs

The CFDMC is concerned with the well-being of all citizens within its boundaries but recognizes that there are special considerations for sub-groups of the population. These individuals may require additional assistance before, during, and after an emergency. Through its interaction with emergency management and ESF-8 in each of the counties, CFDMC, and its members is involved in the consideration of the Special Needs population (SpN). The membership includes representatives from behavioral health, long-term care facilities, and pediatric care facilities. Annually, the Coalition pulls and shares county data with county emergency management and ESF8 on emPower (individuals with medical needs who rely on power) and SVI (social vulnerability index), used to anticipate vulnerable populations and their needs. The Coalition partnered with the three children's hospitals within the region in 2019 to develop a grant proposal for a pediatric response network; although the grant was not successfully submitted, it provided invaluable information in the development of the Coalition's Pediatric Response Annex. A Board member from the Florida Department of Children and Families has been added to represent vulnerable populations. Through this new Board member, CFDMC is poised to address more involvement and engagement with those partners that serve the needs of those with disabilities as well as pregnant women.

Applicable Health Care Preparedness and Response Capability 1.2.4

# 4.0 Workplan

CFDMC has submitted a detailed annual work plan and budget for 2020-2021 and revises these annually. These are monitored by the Board through its Traffic Light/Project Plan Report. This report is also posted to the website to keep members updated. The Traffic Light is listed on the following page and the Project Plan is available at http://www.centralfladisaster.org/about (click on Traffic Light & Project Plan button).

Applicable Health Care Preparedness and Response Capability 1.1; 1.3; 1.4

# 5.0 Appendices

Appendix A: Glossary/Acronyms

Appendix B: CFDMC HVA/JRA

Appendix A

CFDMC Glossary & Acronyms– Updated 5-6-20

| Acronym/Term | Definition |
|---|---|
| AAR/IP | After Action Report/Improvement Plan |
| ACS | Alternate Care Site |
| AHCA | Florida Agency for Healthcare Administration, licenses hospitals, nursing homes and other healthcare entities |
| ALS | Advanced Life Support |
| AMTS | Alternative Medical Treatment Site |
| ASC | Ambulatory Surgical Center |
| ASPR | Assistant Secretary for Preparedness and Response: part of the Department of Health and Human Services; provides federal funding for healthcare preparedness |
| ASPR TRACIE | Technical Resources, Assistance Center, and Information Exchange website sponsored by ASPR |
| **$B_3$** | Bomb, Burn, Blast |
| BLS | Basic Life Support |
| BPR | Bureau of Preparedness and Response (DOH program that channels guidance and federal funding for Florida's public health and healthcare system preparedness efforts) |
| CAH | Critical Access Hospitals |
| CCP | Casualty Collection Point |
| CDC | Centers for Disease Control & Prevention (federal funding for public health preparedness) |
| CERT | Community Emergency Response Team |
| CFDMC | Central Florida Disaster Medical Coalition, a non-profit whose mission is to develop and promote healthcare emergency preparedness and response capabilities in Region 5 |
| CFDMC Board of Directors | The Board will serve as voting members of the CFDMC and are responsible for the governance of the CFDMC |
| CFDMC Executive Committee | Responsible for general management of the CFDMC, comprised of the appointed Health and Medical Co-chairs, the Board Chair, Vice-Chair, and the Treasurer. The Executive Director serves as an Ex-Officio, non-voting member of the Executive Committee and the Board. |
| CFDMC Members | Coalition members are comprised of individuals and organizations representative of the geographic diversity of the region's nine |

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|---|---|
| | counties and the discipline diversity of essential partners and other stakeholders. Members collaborate on identification of local and regional disaster preparedness needs, participate in planning, training, and exercises, assist Emergency Management and ESF8 as requested with multi-agency coordination during a response, and participate in Coalition meetings |
| CFDMT | Central Florida Disaster Medical Response Team (the regional medical assistance team) |
| CLIA | Clinical Laboratory Improvement Amendments |
| CMHC | Community Mental Health Center |
| CMS | Centers for Medicare & Medicaid Services |
| COAD | Community Organizations Active in Disaster |
| COOP | Continuity of Operations Plan |
| CORF | Outpatient Rehabilitation Facility |
| CRI | Cities Readiness Initiative (preparing selected cities for mass dispensing/vaccination) |
| Decon | Decontamination |
| DEM | Department of Emergency Management |
| DHS | Department of Homeland Security |
| DMAT | Disaster Medical Assistance Team: a federal asset that can be deployed at the request of a state to provide medical surge support |
| DMORT | Disaster Mortuary Response Team |
| DoD | Department of Defense |
| DOH | Florida Department of Health, the state agency responsible for promoting and protecting the health of Florida's citizens and visitors |
| DSOC | Domestic Security Oversight Council. Florida's preparedness governance board comprised of officials appointed by the Governor. This entity provides strategic direction to the state's preparedness efforts |
| EDICS | Emergency Disaster Incident Communications System |
| EDs | Hospital Emergency Departments |
| EM | Emergency Management |
| EMAC | Emergency Management Assistance Compact |
| EMS | Emergency Medical Services |
| EMS | Emergency Medical Service |

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|---|---|
| EMTALA | Emergency Medical Treatment and Labor Act |
| EOC | Emergency Operations Center |
| EOP | Emergency Operations Plan |
| EPA | Environmental Protection Agency |
| ESAR-VHP | Emergency System for Advance Registration of Volunteer Health Professionals (federal program – in Florida previously known as SERVE FL – transitioning to Everbridge) |
| ESF | Emergency Support Functions. EOCs are structured around 17 emergency support functions |
| ESF8 | Emergency Management Support Function 8 (Health and Medical) |
| ESRD | End-Stage Renal Disease Facility |
| ESS | AHCA's Emergency Status System (collects facility data in emergencies) |
| Essential Partners | Essential partnership groups include hospitals and health systems, local emergency management/public safety, local public health, EMS providers, long-term care, behavioral and mental health, specialty service providers (such as dialysis, pediatrics, urgent care, etc.), support service providers (such as laboratories, pharmacies, blood banks, poison control), primary care providers, community health centers, federal entities (such as NDMS, VA hospitals, DOD facilities) and private entities associated with healthcare (such as hospital associations). Other stakeholders include law enforcement, public works, private organizations, non-government organizations, non-profits, VOAD, COAD, faith-based organizations, community-based organizations, volunteer medical organizations (such as the American Red Cross) |
| Everbridge | The health alert network used by the Coalition, public health, emergency management and other response agencies |
| FDLE | Florida Department of Law Enforcement |
| FEMA | Federal Emergency Management Agency |
| FEMORS | Florida Emergency Mortuary Operations Response System (mass fatality equipment and personnel) |
| FMS | Federal Medical Station |
| FOG | Florida Incident Field Operations Guide |
| FQHC | Federally Qualified Health Clinic |
| FY | Fiscal Year (both federal grants and Florida's fiscal years are July 1 through June 30) |

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|---|---|
| HAvBED | Hospital Available Beds for Emergencies & Disasters |
| HazMat | Hazardous Materials |
| HCC | Healthcare Coalition or Health Care Coalition |
| HHA | Home Health Agency |
| HHS | Department of Health and human Services |
| HIPAA | Health Insurance Portability and Accountability Act |
| HPP | Hospital Preparedness Program (under ASPR) |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| HVA | Hazard Vulnerability Assessment |
| ICF/IID | Intermediate Care Facility for Individuals with Intellectual Disabilities |
| ICS | Incident Command System |
| IMT | Incident Command Team |
| JIC | Joint Information Center |
| LEOC | Local Emergency Operations Center |
| MAC | Multi-Agency Coordination |
| MCI | Mass Casualty Incident |
| MMRS | Metropolitan Medical Response System |
| MOA/MOU | Memoranda of Agreement/Understanding |
| MRC | Medical Reserve Corp (volunteer medical personnel registered and trained to assist in emergencies) |
| MYTEP | Multi-Year Training & Exercise Plan |
| NDMS | National Disaster Medical System |
| NHHS | National Health Security Strategy |
| NIMS | National Incident Management System |
| NRP | National Response Plan |
| OPO | Organ Procurement Organization |
| OSHA | Occupational Safety and Health Administration |
| PACE | Programs for All-Inclusive Care for the Elderly |
| PAHPA | Pandemic and All Hazards Preparedness Act |
| PH | Public Health |
| PHEP | Public Health Emergency Preparedness |
| PHHP | Public Health and Healthcare Preparedness |

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|---|---|
| PHI | Public Health Information |
| PHRAT | Public Health Risk Assessment Tool |
| PPE | Personal Protective Equipment |
| PREP | Public Readiness and Emergency Preparedness |
| PRTF | Psychiatric Residential Treatment Facility |
| RDSTF | Regional Domestic Security Task Force. Following 9/11, a functional structure for emergency preparedness within Florida was created in Florida Statute, based on the Department of Law Enforcement regions |
| RDSTF Co-Chairs | Each of the seven RDSTF regions in Florida is co-chaired by a Sheriff and the FDLE Special Agent in Charge. Additionally, there are co-chairs in each region for specific disciplines, including Health and Medical, Law Enforcement, Fire Rescue, etc. |
| Region 5 | The East Central Florida RDSTF area comprised of nine counties (Brevard, Indian River, Lake, Martin, Orange, Osceola, Seminole, St. Lucie, and Volusia Counties) |
| RERA | Regional Emergency Response Advisor |
| RHC | Rural Health Clinics |
| RMAT | Regional medical assistance team |
| RNHCI | Religious Nonmedical Health Care Institution |
| SEOC | State Emergency Operations Center |
| SHSGP | State Homeland Security Grant Program |
| SLRC | State Logistics Response Center |
| SNF | Skilled Nursing Facility |
| SNS | Strategic National Stockpile |
| SpN | Special Needs |
| SpNS | Special Needs Shelter |
| START | Simple Triage and Rapid Treatment |
| SWP | State Warning Point |
| Target Capabilities | Federally identified capabilities needed across all disciplines to effectively prepare for, respond to, and recover from a disaster (all target capabilities are outlined in Florida's Domestic Security Strategy, and healthcare target capabilities are outlined in the Florida Public Health and Healthcare Preparedness Strategic Plan |
| TRAIN | Triage by Resource Allocation for IN-patient |

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|---|---|
| VA | Veterans Administration |
| VOAD | Volunteer Organizations Active in Disaster |

# CFDMC Hazard Vulnerability Assessment (HVA) and Jurisdictional Risk Analysis (JRA)
# June 2020

**This document represents the Central Florida Disaster Medical Coalition's (CFDMC or the Coalition) annual hazard vulnerability assessment (HVA) and the CFDMC's biannual Jurisdictional Risk Analysis (JRA).**

**In October 2019, CFDMC contacted each county emergency management office within the region, along with each ESF8 lead and the Florida Division of Emergency Management, to learn about the local HVA and JRA processes and to determine how the Coalition can integrate with and/or support the local efforts. CFDMC also contacted several hospital systems to learn about their HVA process. CFDMC also obtained and reviewed the RDSTF 2017 Regional THIRA (Threat and Hazard Identification and Risk Assessment). The process and the timing of these vary widely across the nine counties in RDSTF Region 5. It was the consensus of our partners that CFDMC use information from each county, along with additional input from all Coalition members, to develop a regional HVA and JRA.**

**PHRAT:**

**CFDMC obtained a copy of each county's PHRAT (See Appendix A) as an input in preparing the regional HVA/JRA. The PHRAT Hazard Risk Indices showed the top risks across the region as:**

- **Cyber technical incidents (all counties included this in their top three risks)**
- **Large scale fires (all counties included this in their top three risks)**
- **Mass population surge (five counties included this in their top three risks)**
- **Biological disease outbreak (three counties included this in their top three risks)**

**The most significant resource readiness gaps identified by the counties were:**

- **Cyber technical incidents (five counties ranked this as the highest gap)**
- **Sewer failures (two counties ranked this as the highest gap)**
- **Mass population surge (one county ranked this as the highest gap)**
- **Hazardous materials-transportation (one county ranked this as the highest gap)**

**emPOWER:**

**Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. In December 2019, the Coalition downloaded the emPOWER data for each county, and provided these to county emergency management and ESF8 leads (See Appendix B). We discussed how the counties use these data and the consensus was that the de-identified data provide limited data of use in planning. This was reported to and discussed during a Healthcare Coalition Task Force call and with the ASPR project officer. For data updated in June 2020, see Appendix C.**

**SVI:**

**In preparing for and responding to disasters, a number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster. These factors are known as social vulnerabilities.**

**Annually, CFDMC pulls the CDC Social Vulnerability Index (SVI) data and shares the data with county emergency management and ESF8 leads. Although raw data is available for 2018, the latest available county level assessment data is 2016. The data were downloaded and shared with county emergency management and ESF8 on April 22, 2020.**

**The SVI vulnerability scores range from 0 (lowest risk) to 1 (highest risk). The SVI vulnerability scores for the nine counties in Region 5 are:**

- **Volusia: 0.5896 (moderate level of vulnerability)**
- **Lake: 0.6517 (moderate to high level of vulnerability)**
- **Seminole: 0.1786 (low level of vulnerability)**
- **Orange: 0.6909 (moderate to high level of vulnerability)**
- **Osceola: 0.8551 (high level of vulnerability)**
- **Brevard: 0.4266 (low to moderate level of vulnerability)**
- **Indian River: 0.4769 (low to moderate level of vulnerability)**
- **St. Lucie: 0.7676 (high level of vulnerability)**
- **Martin: 0.4416 (low to moderate level of vulnerability)**

**For additional details, see county maps (Appendix D)**

**Regional THIRA:**

**On September 29, 2019 and October 31, 2019, the Coalition participated in meetings to develop the 2019 UASI THIRA for the Central Florida metro area. The top threats identified were:**

- **Hurricanes**
- **Active shooters**
- **Cyber attacks**

**Member Survey:**

**On March 10, 2020, CFDMC sent a survey to all Coalition members requesting input in assessing threats, risks and capability gaps. Members were given 30 days to respond, and the Coalition received fifty-eight (58) responses. The results are summarized below:**

**Risks:**

**Members identified the top three risks, in priority order as:**
**#1 – Hurricane (43 identified this as a top three risk with the majority selecting this as the highest risk)**
**#2 – Pandemic (24 identified this as a top three risk)**
**#3 –Tie - Active Shooter (15 identified this as a top three risk)**
**#3 – Tie - Tornado (15 identified this as a top three risk)**

**Threat/Impact:**

**Coalition members identified the threats below as most likely to occur:**

1. **Hurricane (35 of 58 respondents)**
2. **Extreme Temperatures (24 of 58 respondents)**
3. **Pandemic (19 of 58 respondents)**
4. **Cyber Attacks (against Data – 18 of 58 respondents; against Infrastructure – 17 of 58 respondents)**
5. **Active Shooter (16 of 58 respondents)**

**Coalition members also identified threats with most severe impact. In all but one of the above, the majority felt these events would have a high impact. For Extreme Temperatures, the majority rated this type of event as having a moderate impact. Other events members rated as having a high impact include tornados, biological attacks, radiological attacks and nuclear terrorism attacks.**

**Capability Gaps:**

**Members identified the following capability gaps:**

**#1 – Ensure Preparedness is Sustainable (2.33 weighted average)**
**#2 – Train and Prepare the Health and Medical Workforce (2.24 weighted average)**
**#3 – Maintain Access to Non-Personnel Resources During Emergencies (2.22 weighted average)**
**#4 – Utilize Information Sharing Procedures/Platforms (2.21 weighted average)**
**#5 – Respond to Medical Surge (2.19 weighted average)**

**Most Important Actions:**

**Members identified the following as the most important things the Coalition can do to address these gaps:**

- **Continue to improve/enhance communications**
- **Continue to train/educate members**
- **Continue to support drills and exercises**
- **Support and share plans across organizations**

**See Appendix E for detailed survey results.**

**No other resources were used in preparing the HVA or JRA.**

**Actions Taken:**

**The Coalition was already actively addressing most of the issues identified through the HVA and JRA in its Preparedness Plan, Operations Plan, and the annual work plan, and actions will be added to these documents, including:**

- **Hurricanes: CFDMC devotes one meeting per year to hurricane preparedness. We have used hurricanes as a focus for a Coalition Surge Test exercise. Additionally, the region has responded to Hurricanes Matthew, Irma and Dorian over the past few years. Several hospitals within the region have evacuated during these hurricanes, and lessons learned have been shared with all members. Over the past year, the Coalition sponsored an evacuation equipment assessment by MedSled. The results of the assessment were shared with the region's hospitals and Board on February 21, 2020. The outcome of that meeting was to identify a small workgroup to develop standards for hospitals and nursing home evacuation equipment.**

- **Pandemic: The CFDMC Emerging Infectious Disease Collaborative has been working since 2014 to assess and improve the region's ability to respond to a pandemic. During 2015 and 2016, every hospital in the region underwent either the CDC frontline hospital or assessment hospital review and a regional plan was developed. This is an ongoing effort and over the past year the EID Collaborative Workgroup has converged on PPE standards, and donning and doffing procedures. The Workgroup was working on additional protocols including screening criteria and workforce support policies when the COVID19 response began. We are capturing successes and lessons learned from COVID19 and these will be used to continue to refine and improve plans and resources.**

- **Active Shooter: Since 2017, CFDMC, along with emergency management in each county in the region, hosts an annual active shooter drill in September. Members are provided with resources to build an active shooter response plan prior to the drill, and an after action report is distributed.**

- **Tornados: Since 2018, CFDMC, along with emergency management in each county in the region, hosts the Great Tornado Drill in January. Members are provided with resources to build a shelter in place plan prior to the drill, and an after action report is distributed.**

- **Continue to improve/enhance communications: This is the highest priority for the Coalition and has been the number one improvement identified in exercises and events. On February 21, CFDMC hosted a Communications Workshop with emergency management, hospitals, EMS, public health and long-term care representatives. The purpose of the meeting was to finalize essential elements of information, review existing communications platforms, and identify gaps. Based on that meeting, the Coalition is putting together a communications matrix that will assist in prioritizing gaps and making decisions on platforms to close the gaps. COVID19 response has delayed completion but we anticipate finalizing the matrix by summer 2020 and the Workgroup will reconvene to make decisions on closing the gaps.**

- **Continue to train/educate members: An annual training needs assessment is conducted with members and results are used to prepare the Coalition's training plan. We will also use lessons learned from COVID19 to identify and provide needed training.**

- **Continue to support drills and exercises: CFDMC supports a myriad of drills and exercises each year. In addition to the annual Coalition Surge Test exercise, the Coalition organizes an annual regional hospital mass casualty drill. The 2020 drill was planned for April 9 but has been postponed due to COVID19. The Coalition, along with emergency management in each county, sponsors three drills each year open to all members. In January, the Great Tornado Drill is used to exercise shelter in place plans. In June, the Generate Confidence drill is used to test generators in preparation for hurricane season. In September, the Operation Protect & Secure drill tests lockdown plans in response to an active shooter threat. The Coalition uses tabletop exercises to draft plans, uses functional drills to test components of plans, and incorporates plans into full-scale exercises. Examples of the use of these drills in our preparedness efforts include the mass fatality plan, the emergency infectious disease plan, the disaster behavioral health plan, the alternate care site plan, and the family assistance center plan.**

- **Support and share plans across organizations: CFDMC routinely shares plans with all members using Constant Contact. We post regional, state and national plans on the Coalition website under Resources. We also share plans at quarterly Coalition meetings. Based on this feedback, the Board will discuss creating a repository for facility and county plans to be shared.**

**The CFDMC HVA/JRA is distributed to members via Constant Contact and is posted under regional plans on the Coalition website.**

**APPENDICES:**

**Appendix A: Region 5 County PHRATs**

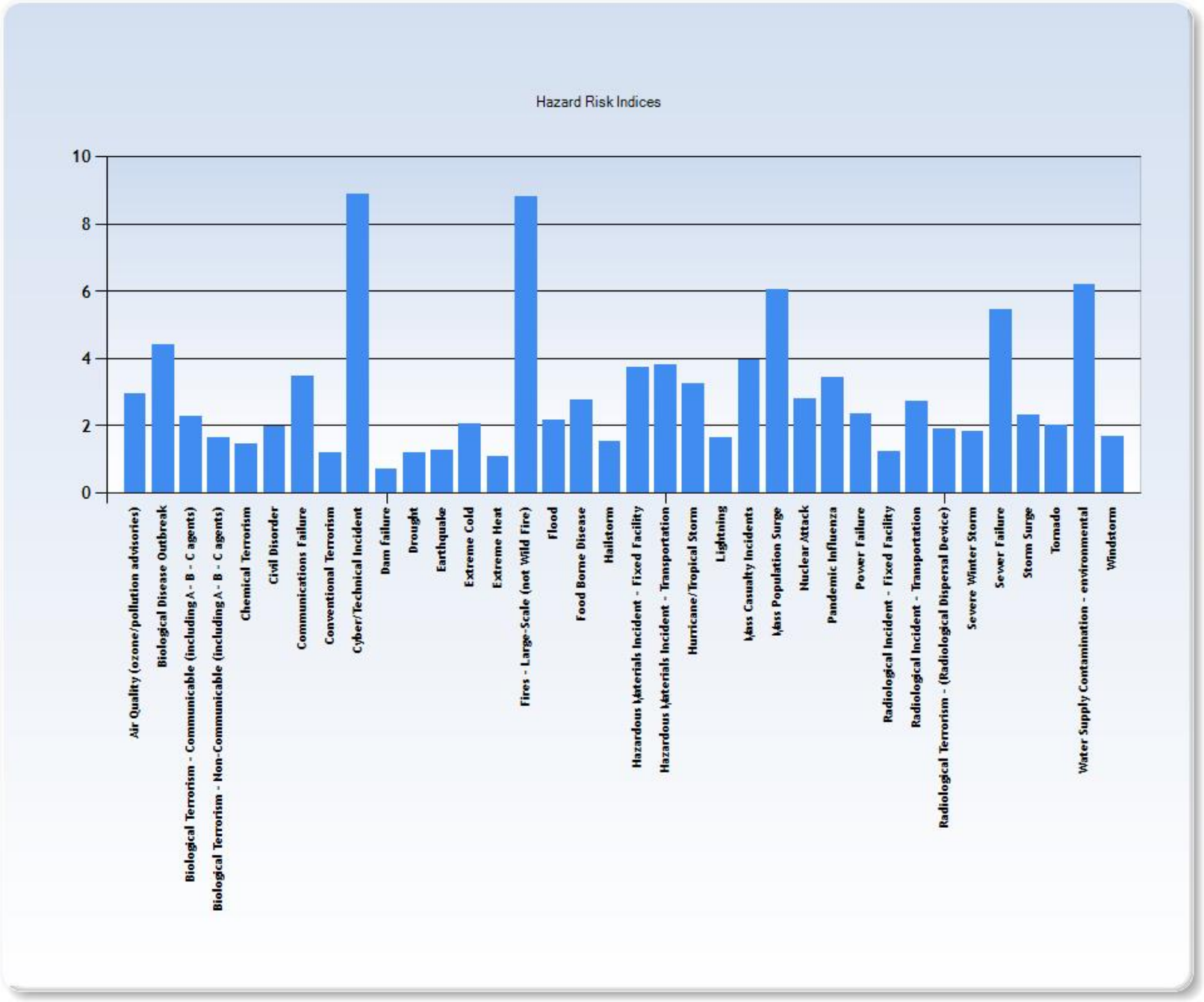
**Appendix B: emPOWER Data December 2019**

**Appendix C: emPOWER Data June 2020**

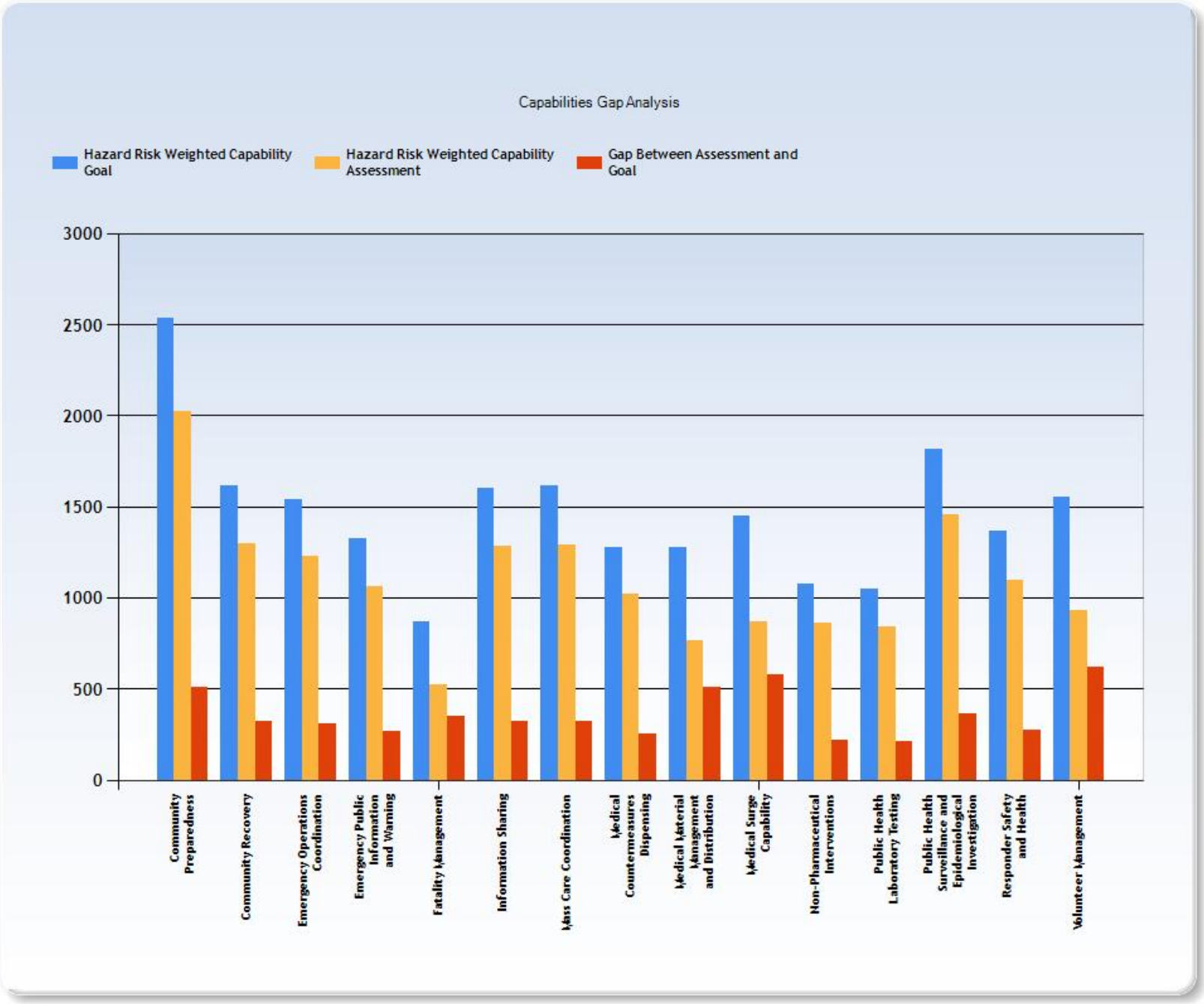
**Appendix D: Region 5 County SVIs**

**Appendix E: CFDMC HVA-JRA Survey Results**

# Brevard County Hazard Risk Indices Chart



# Capabilities Gap Analysis Chart



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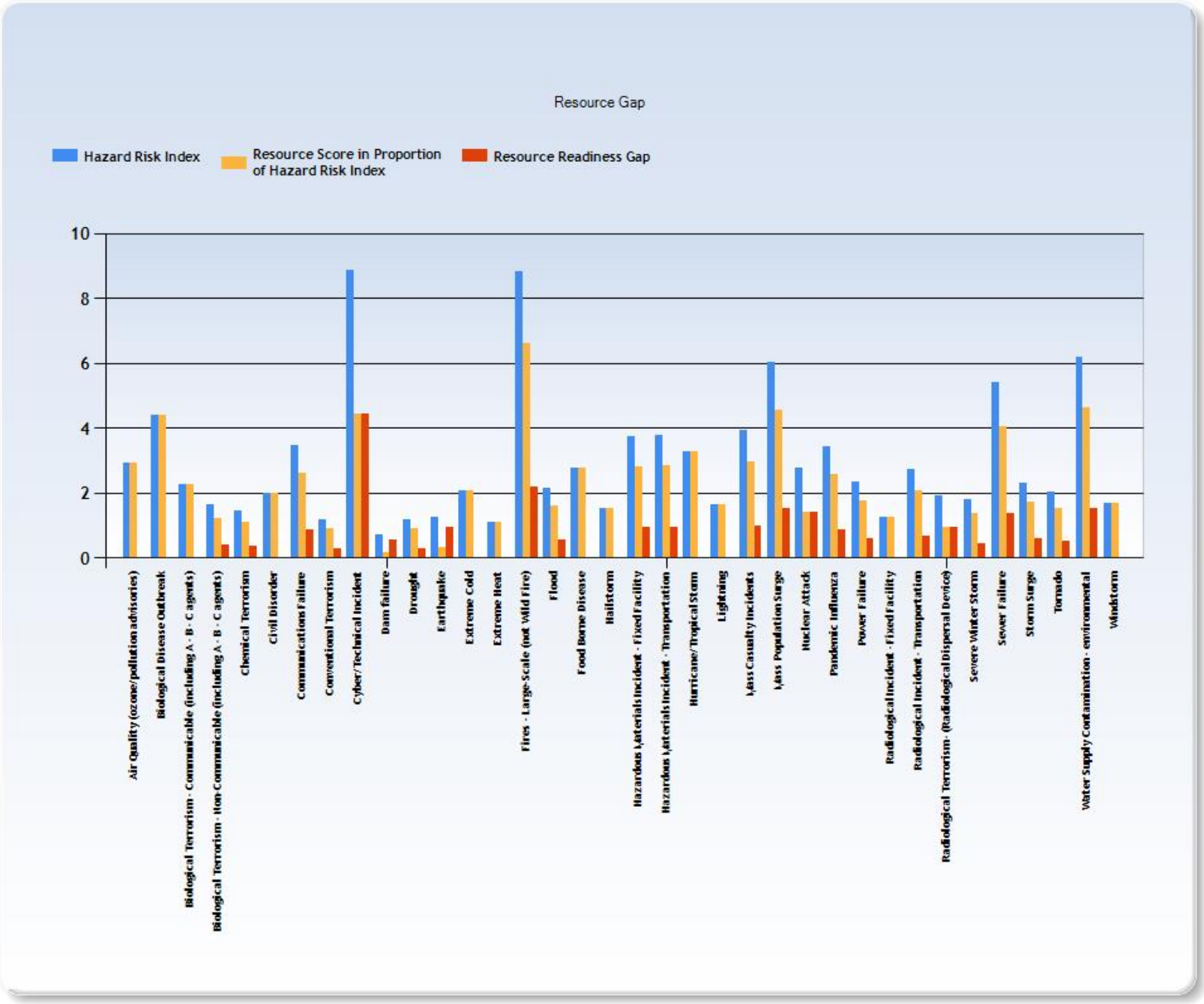
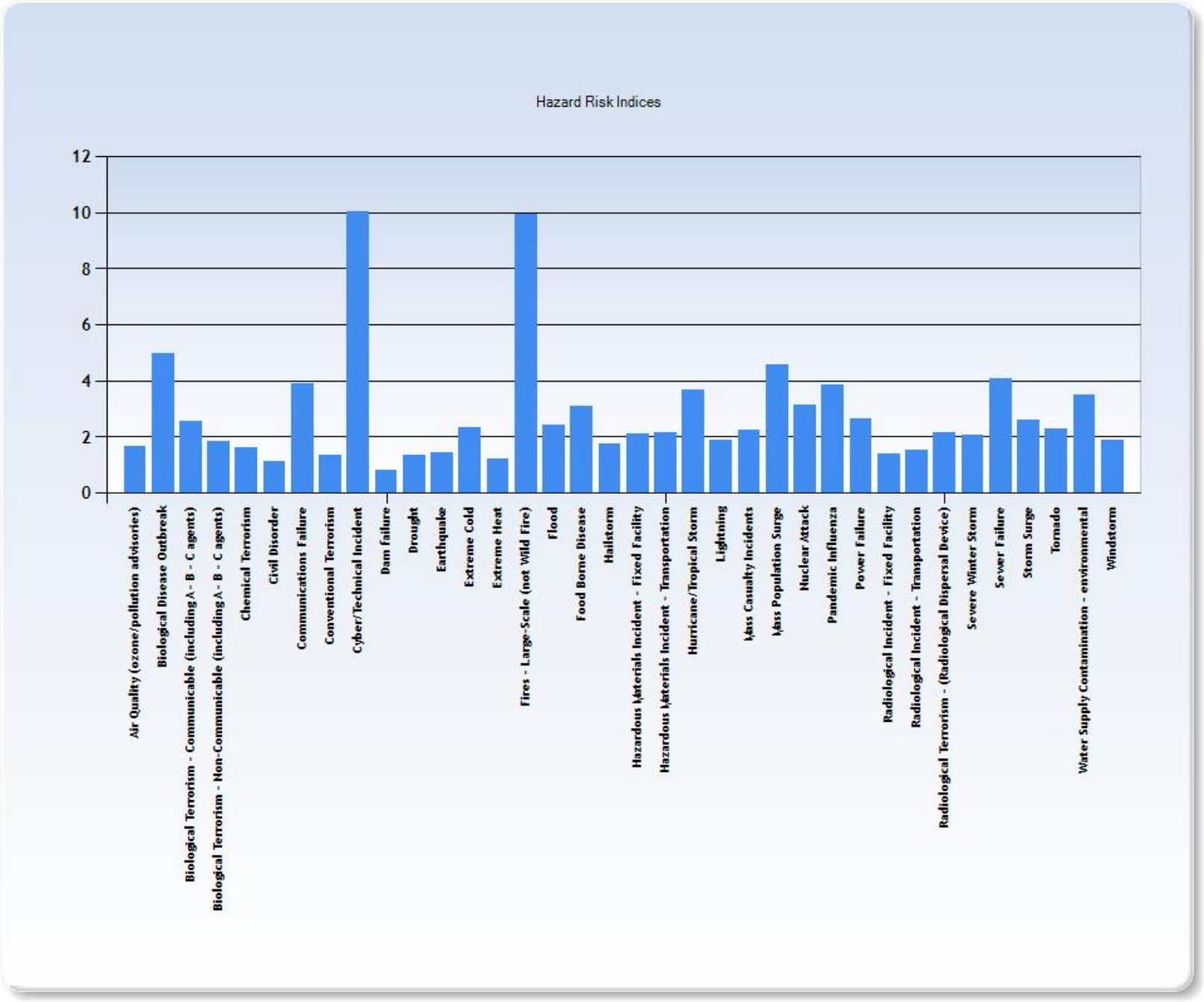


# Indian River County Hazard Risk Indices Chart



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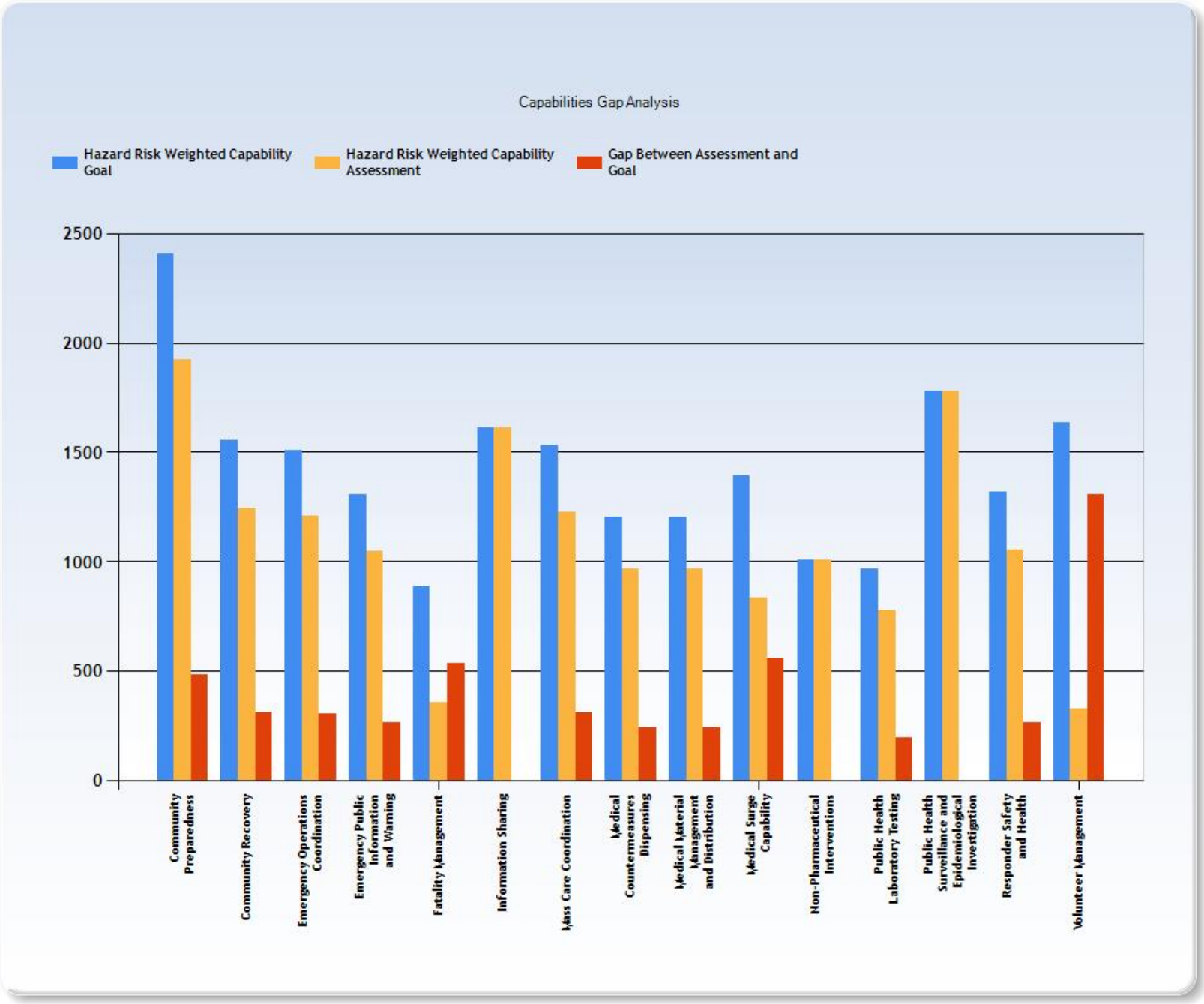

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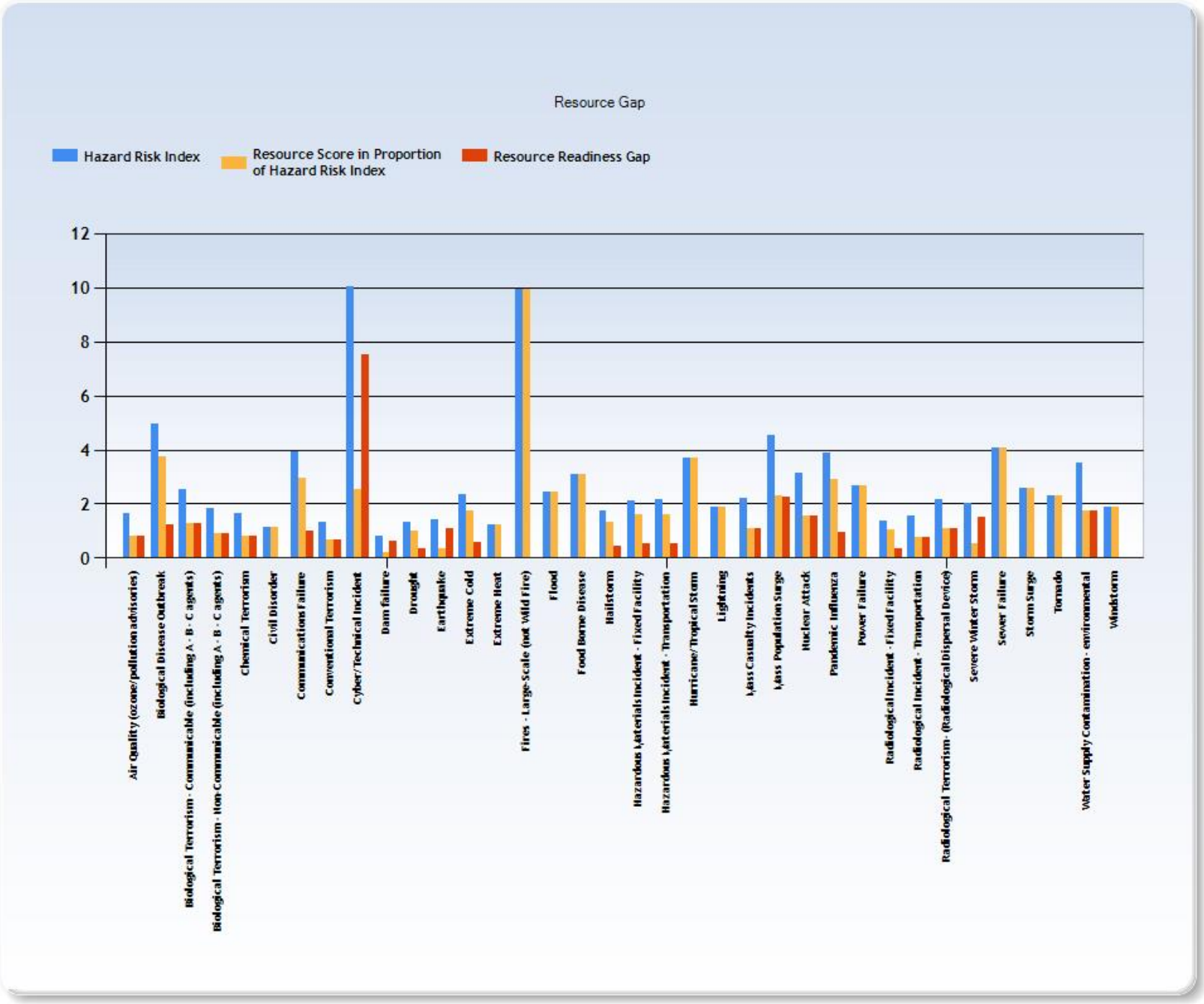
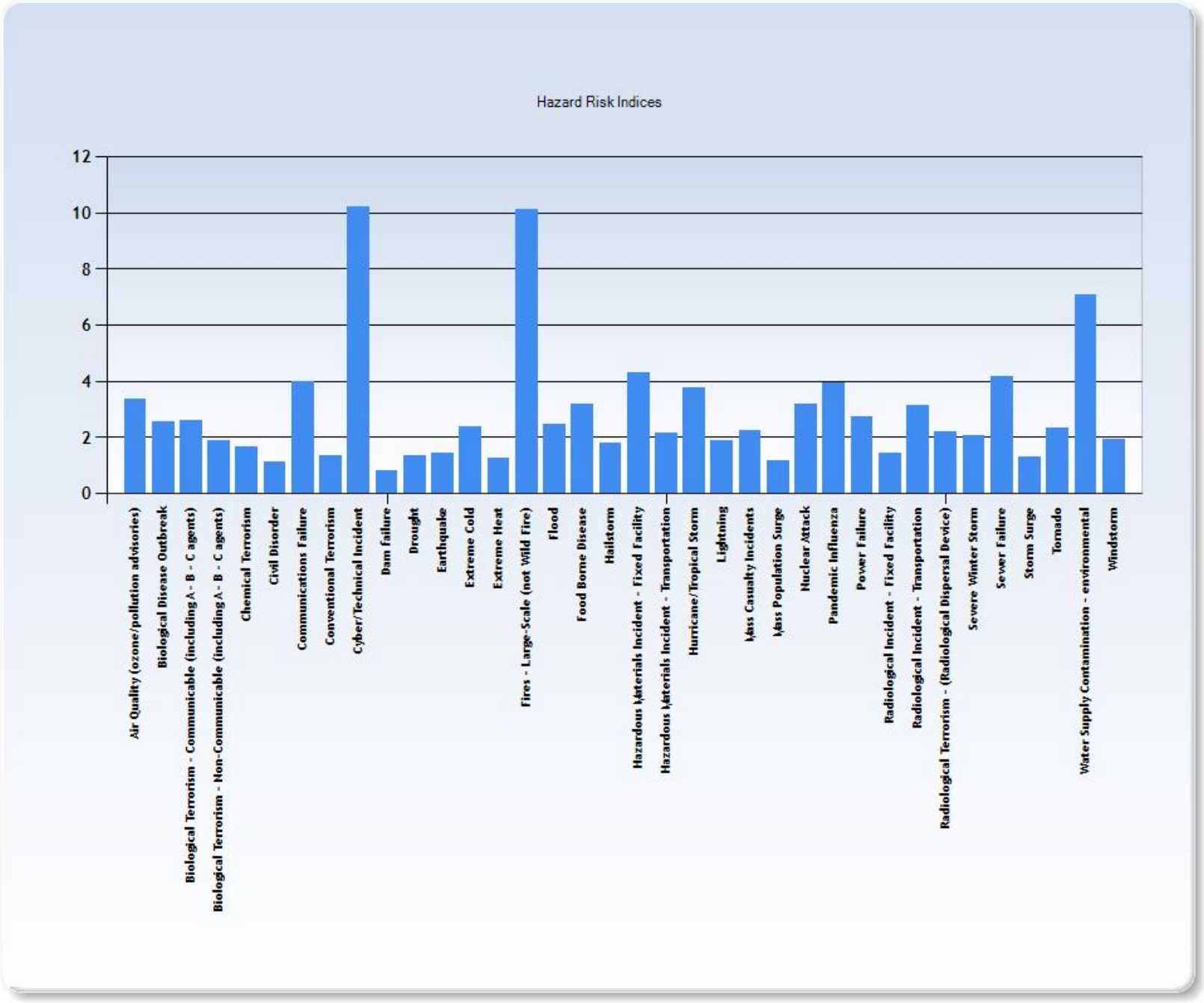


# Lake County Hazard Risk Indices Chart



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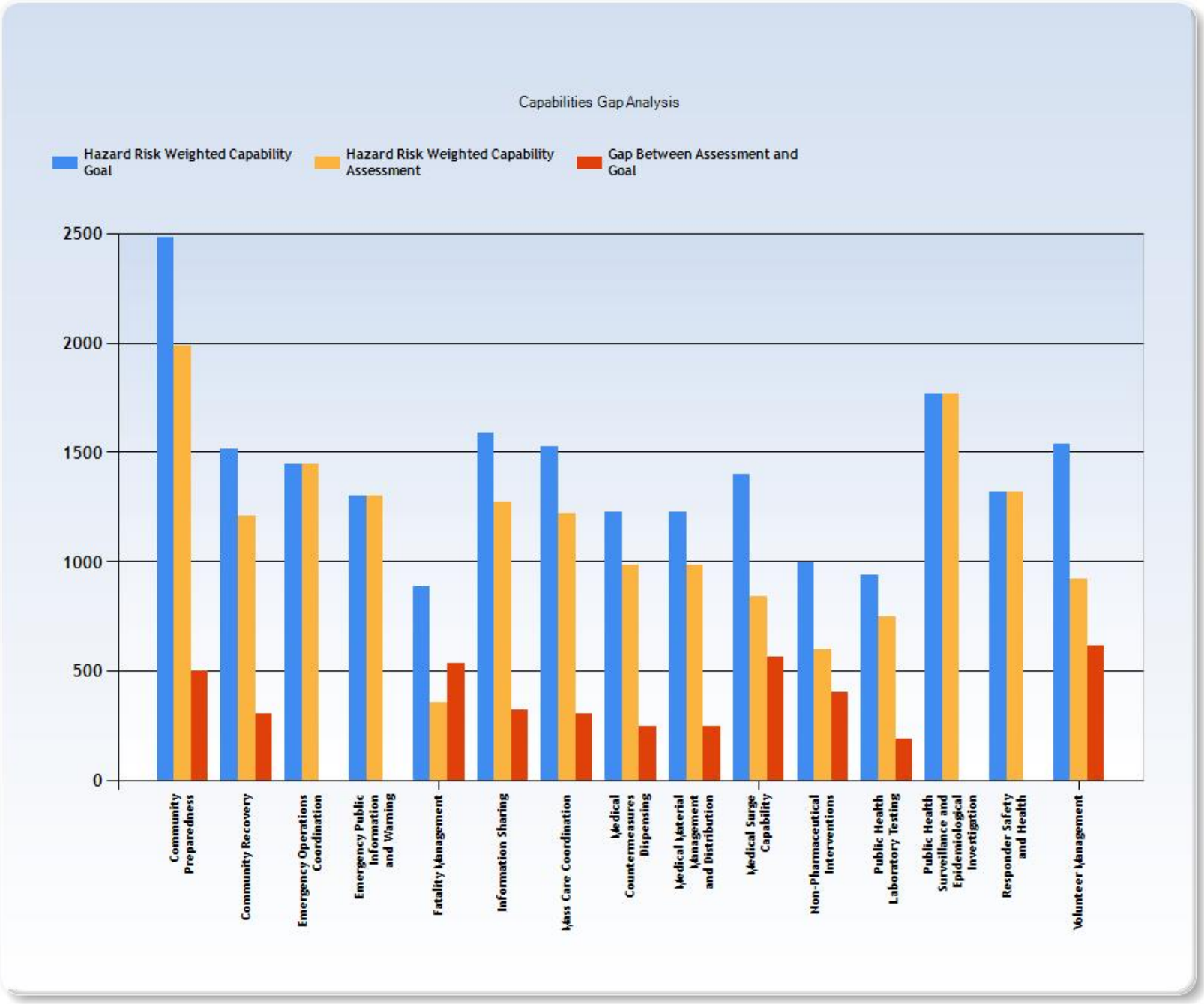

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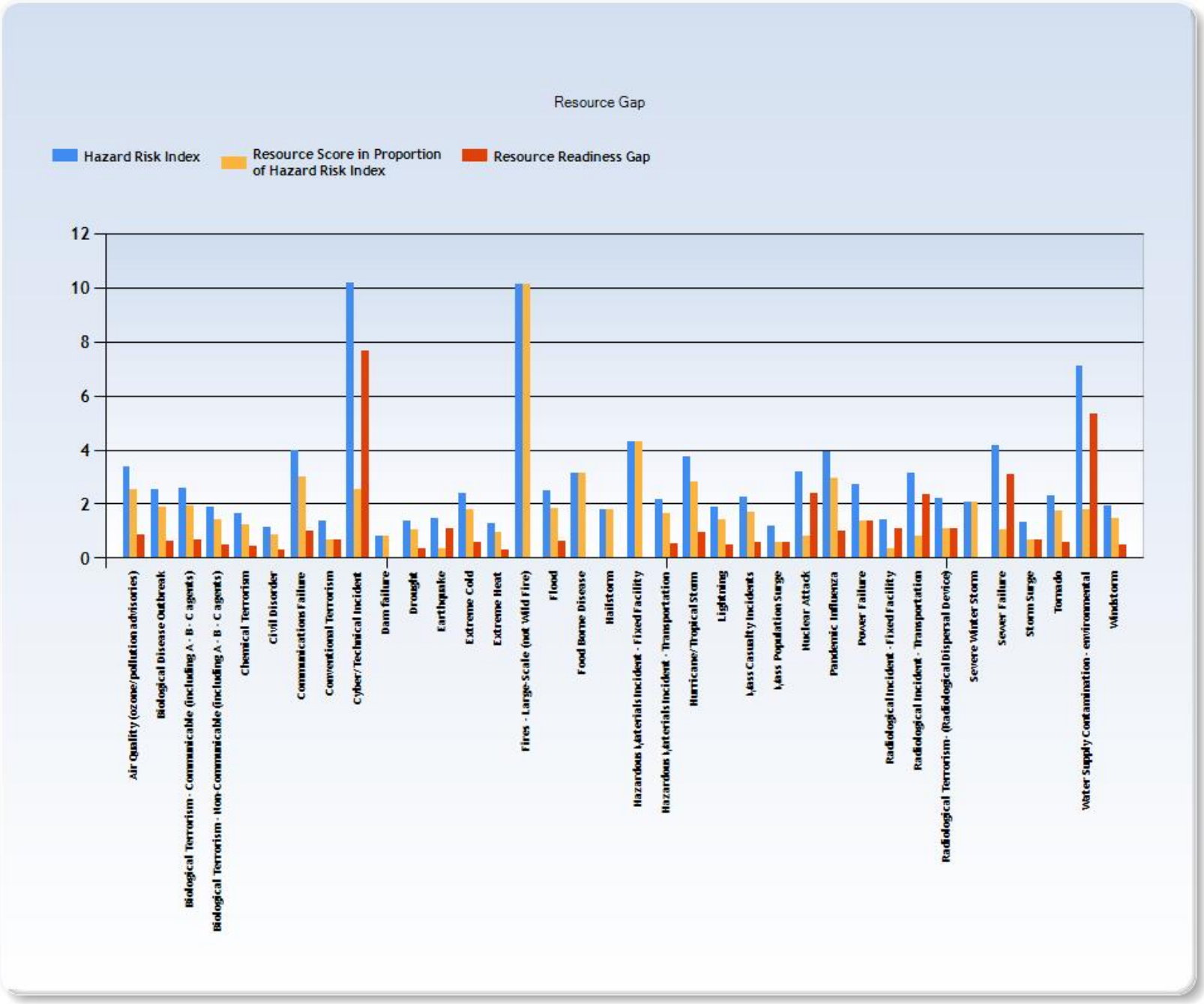

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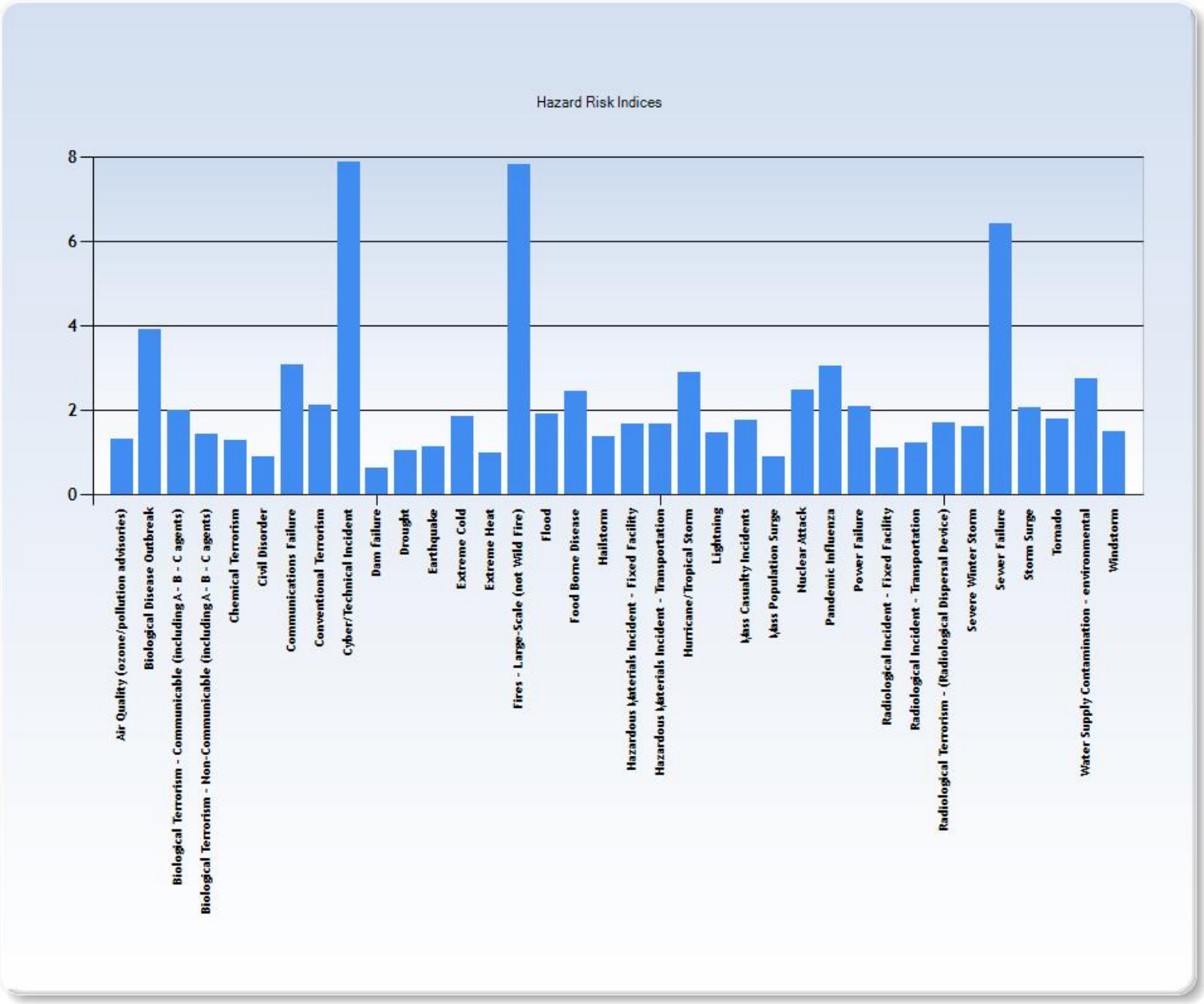

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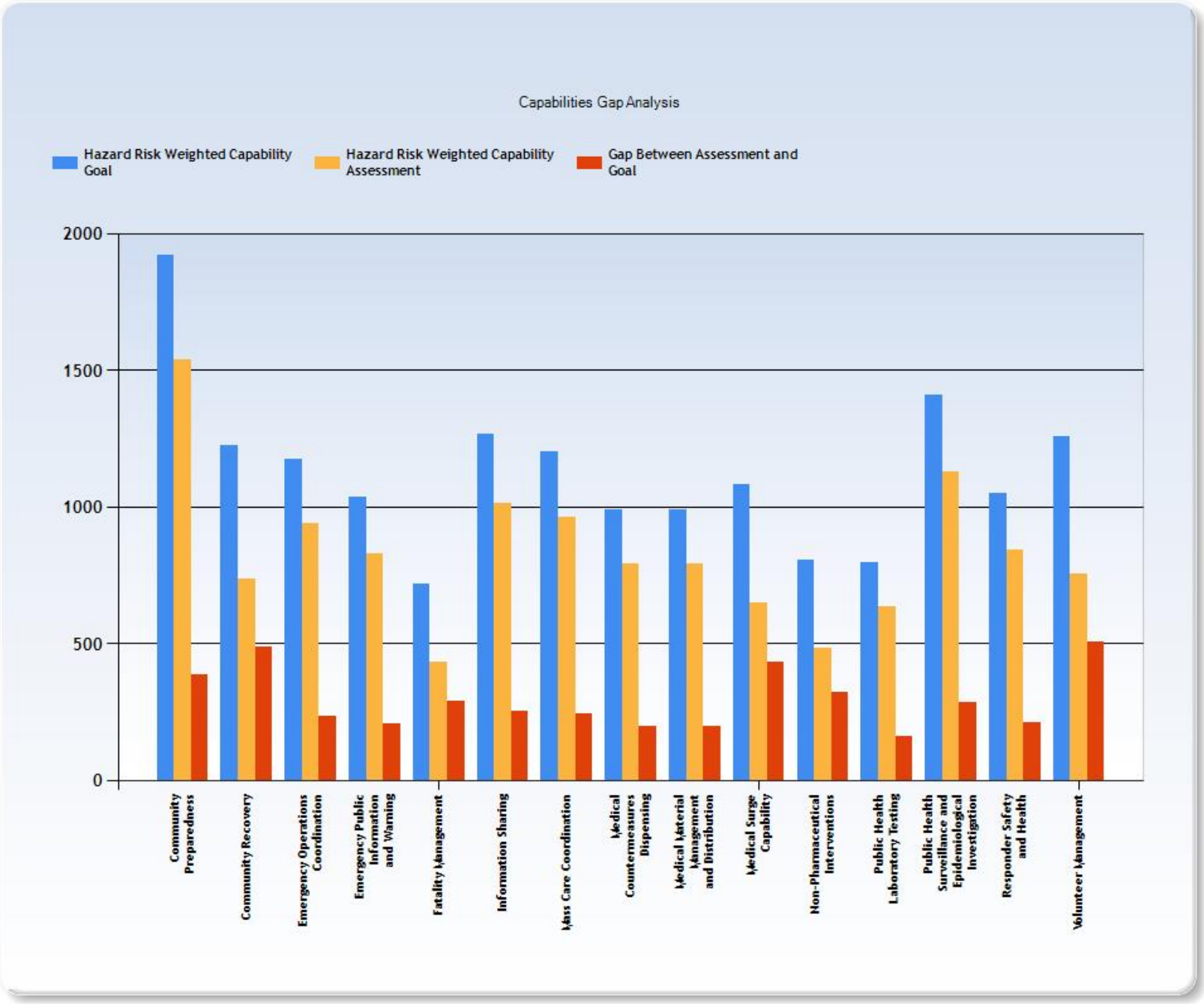

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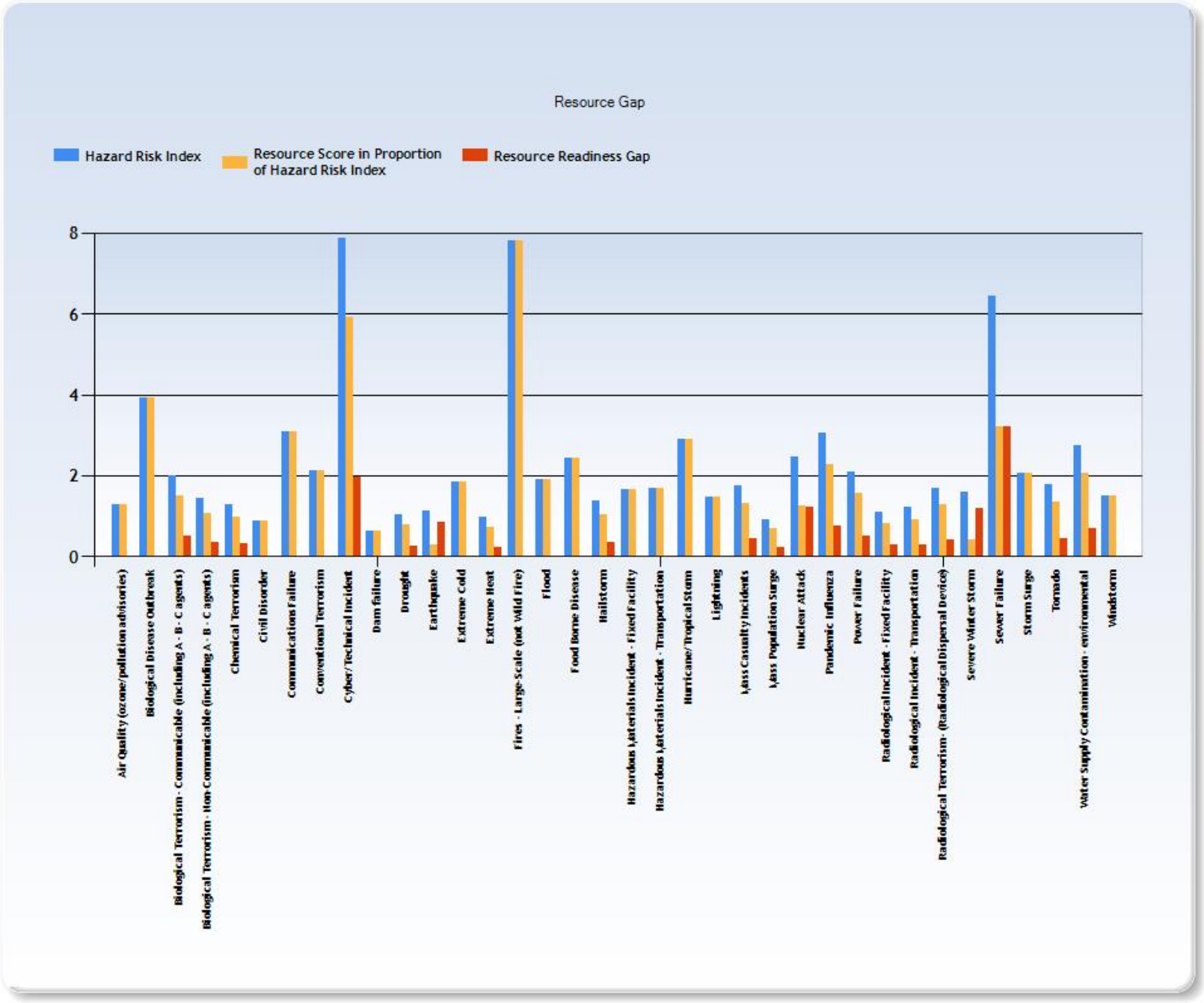
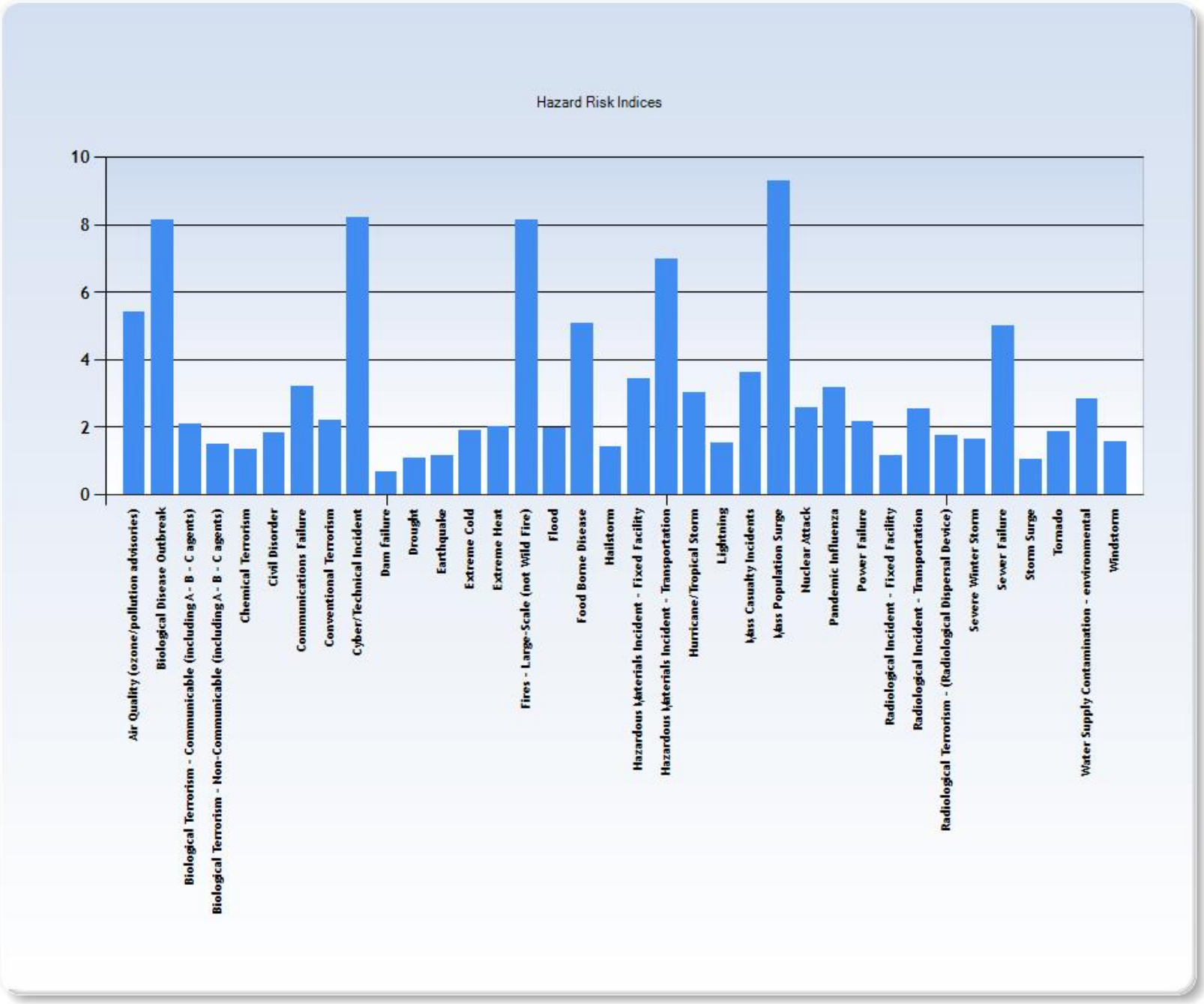


# Orange County Hazard Risk Indices Chart



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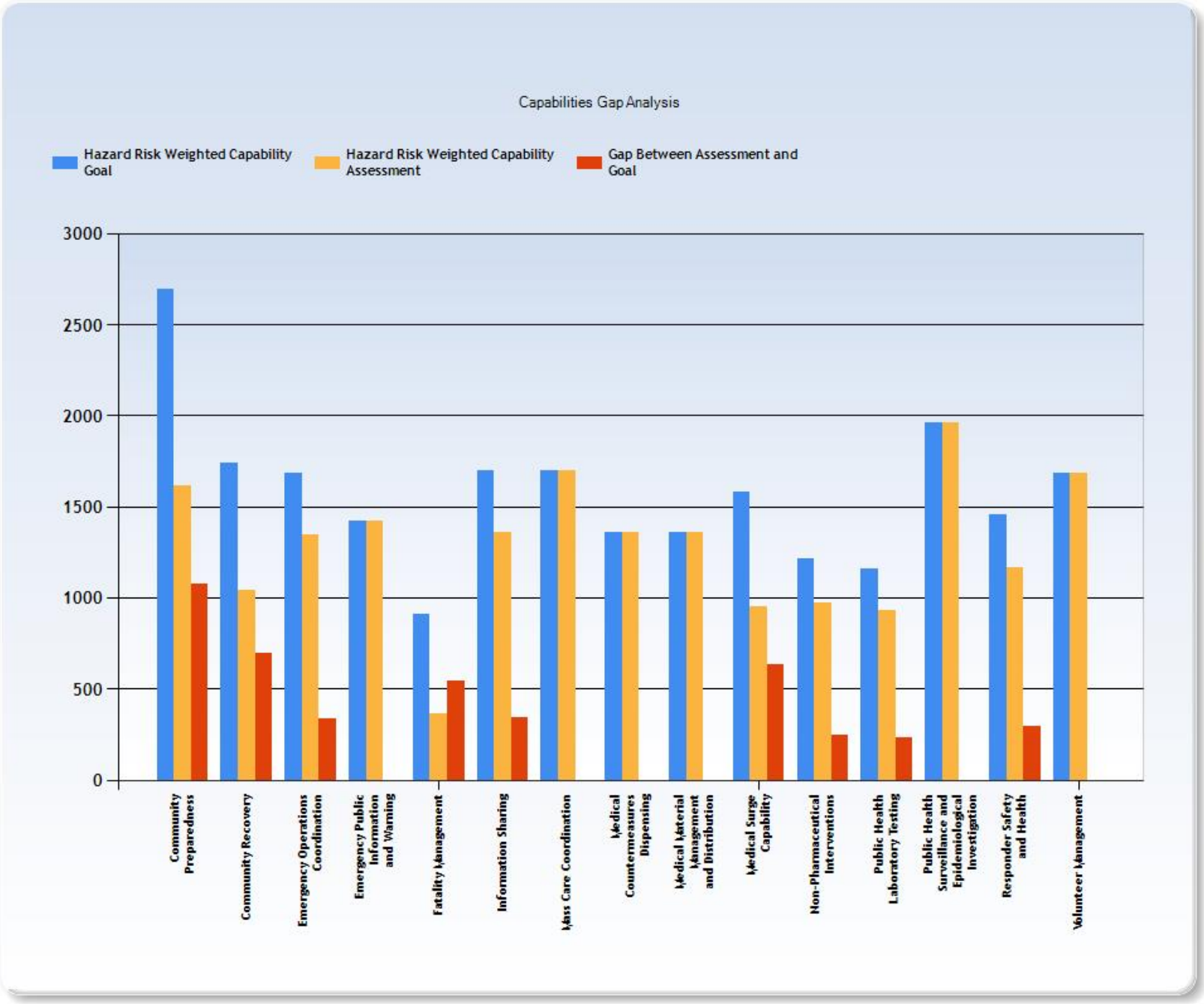

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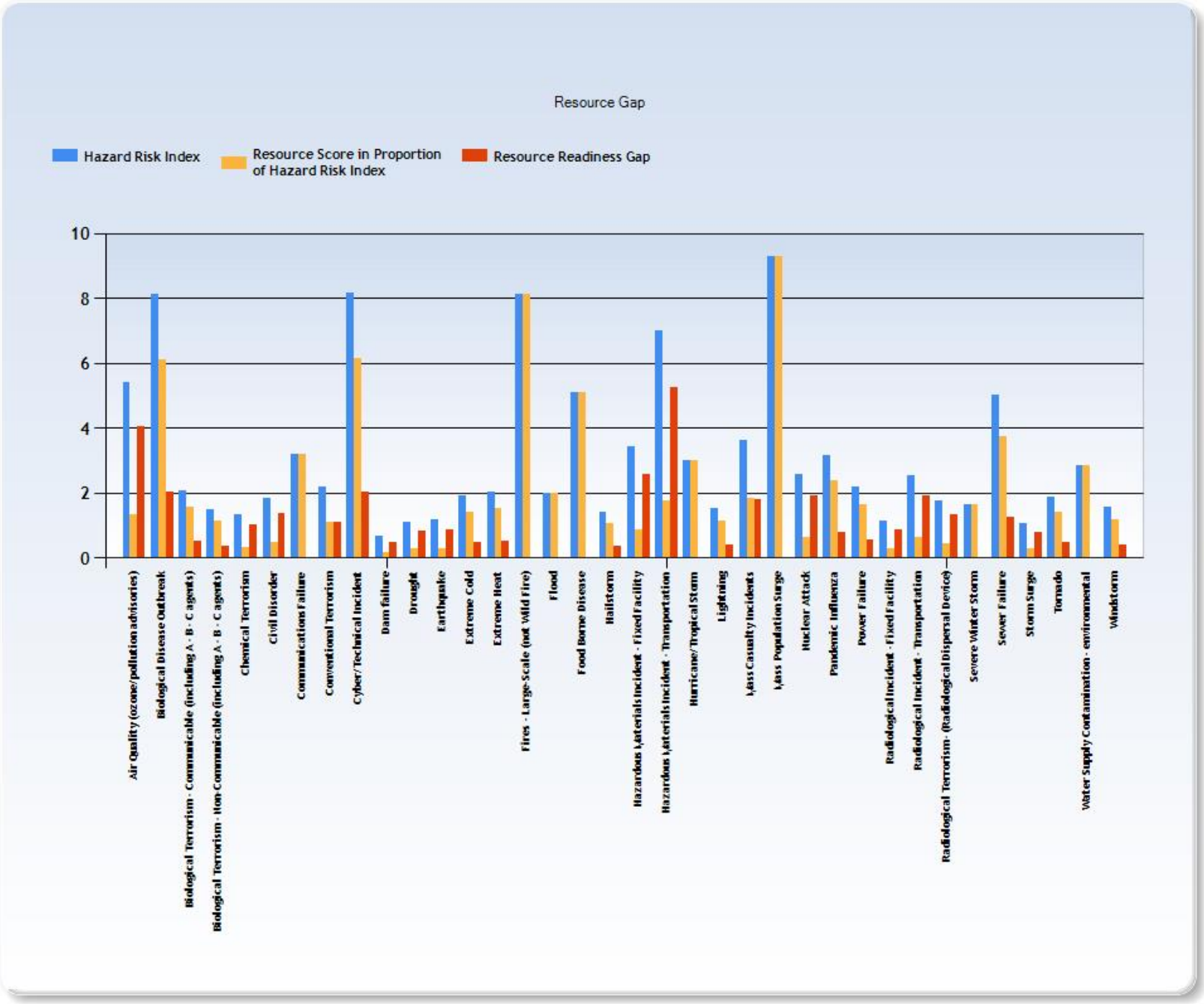

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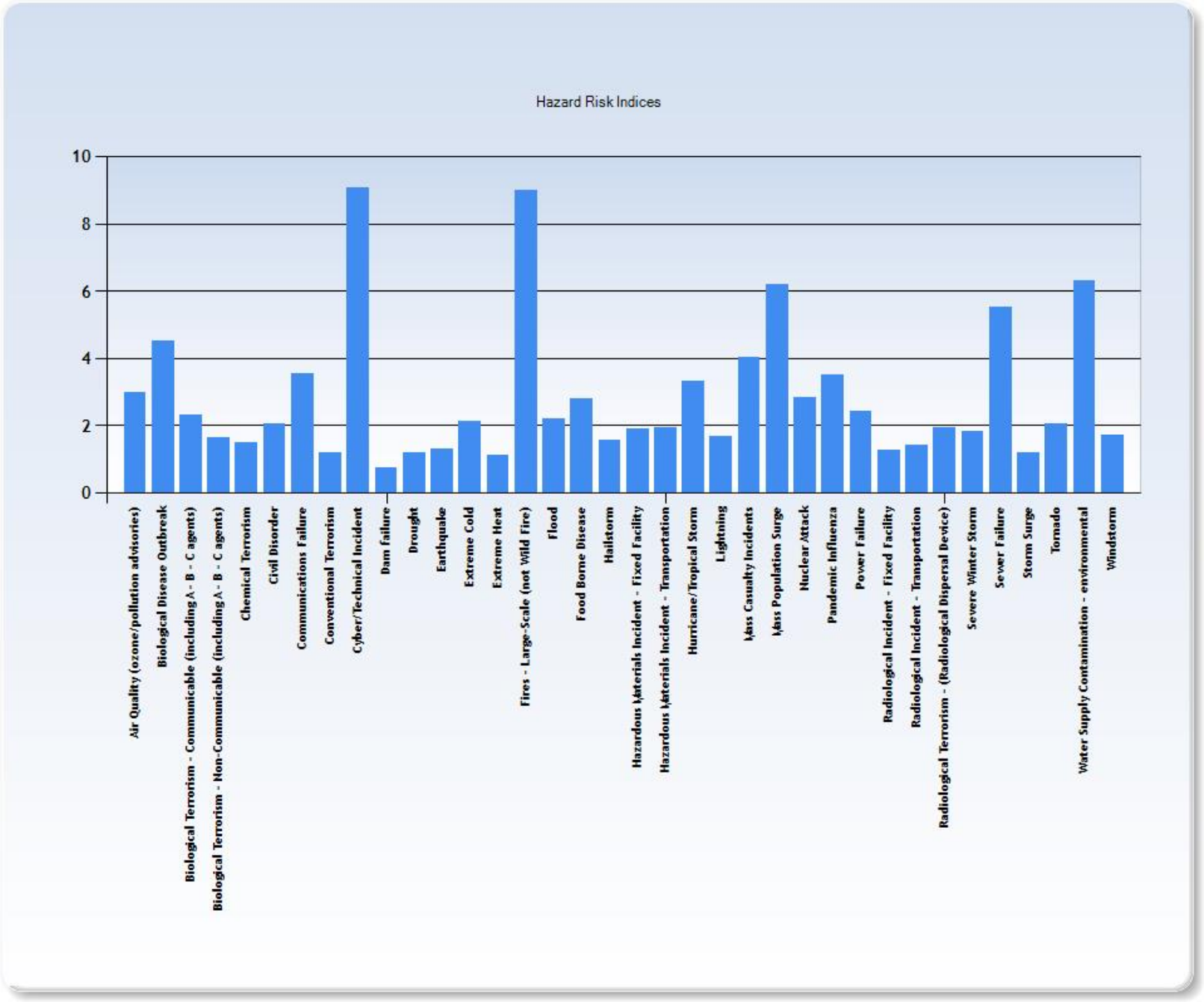

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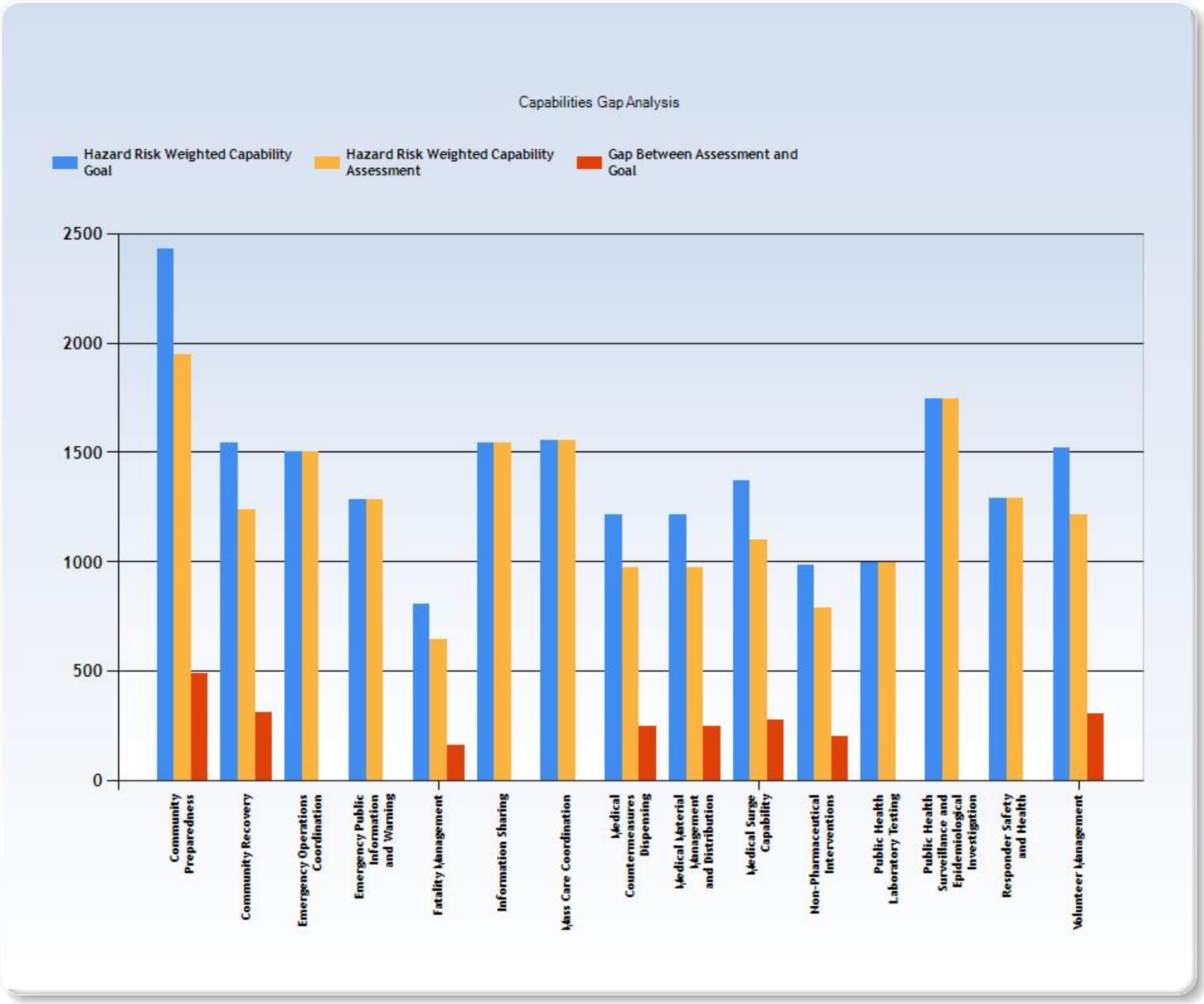
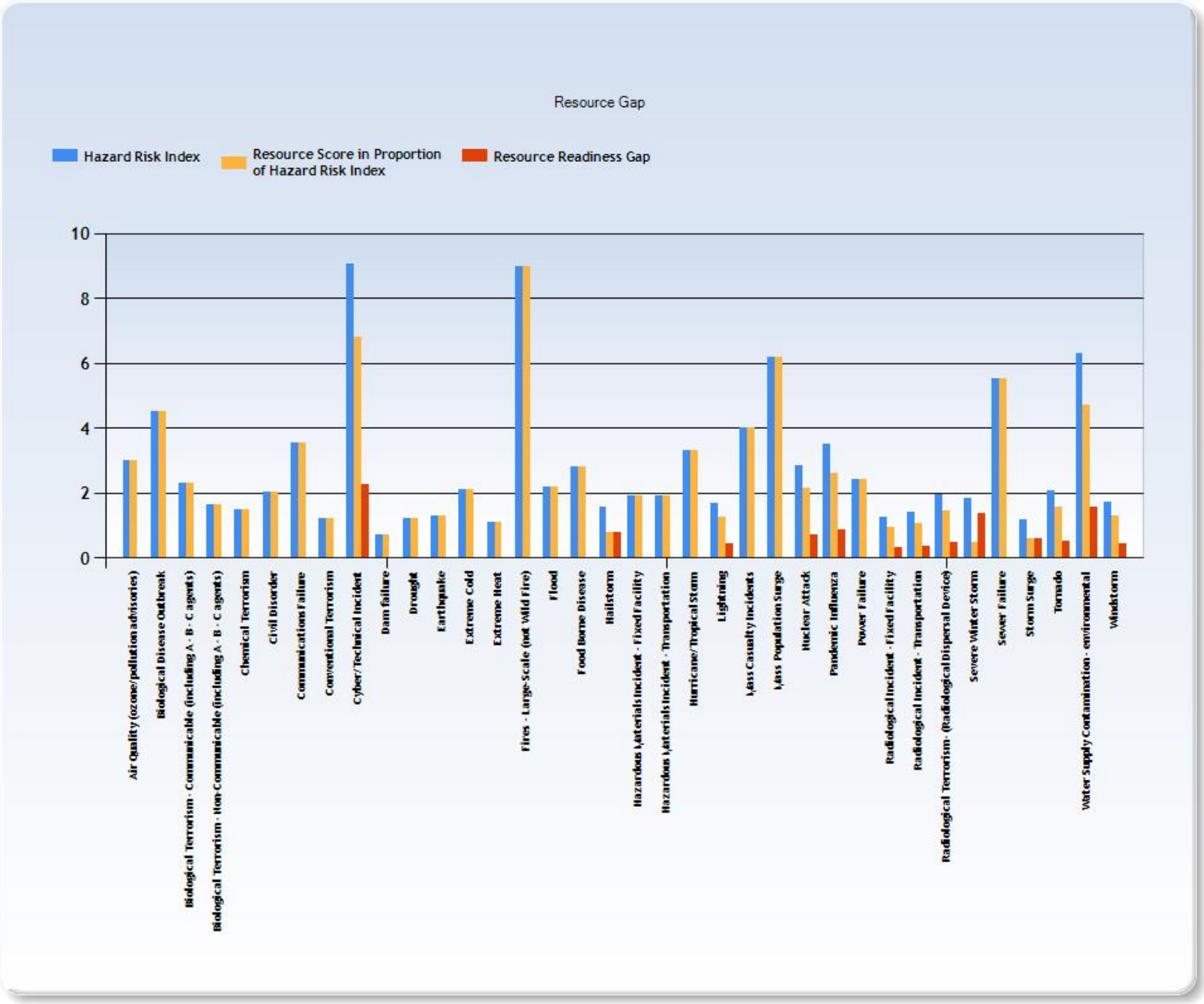
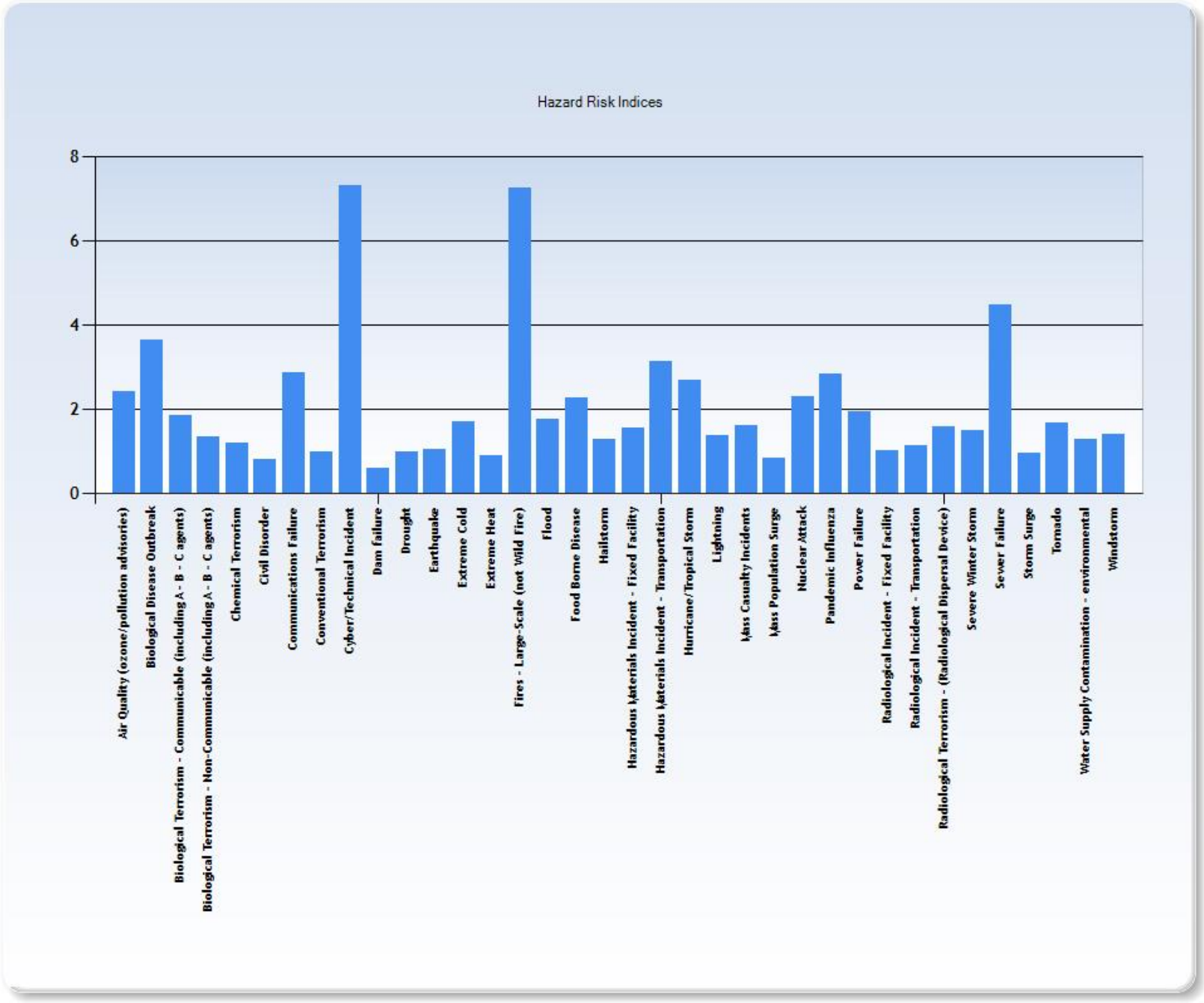


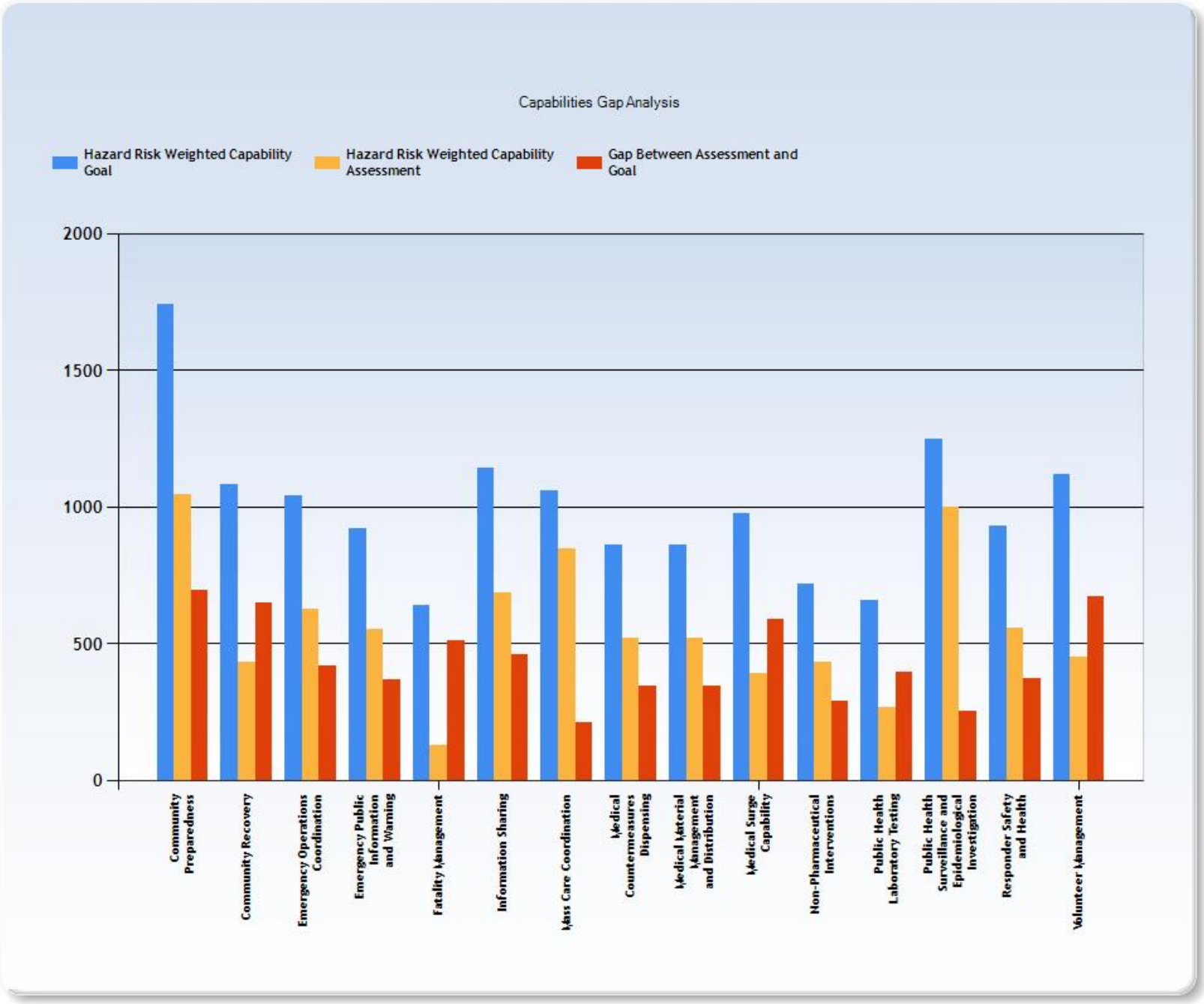
# Resource Gap Chart



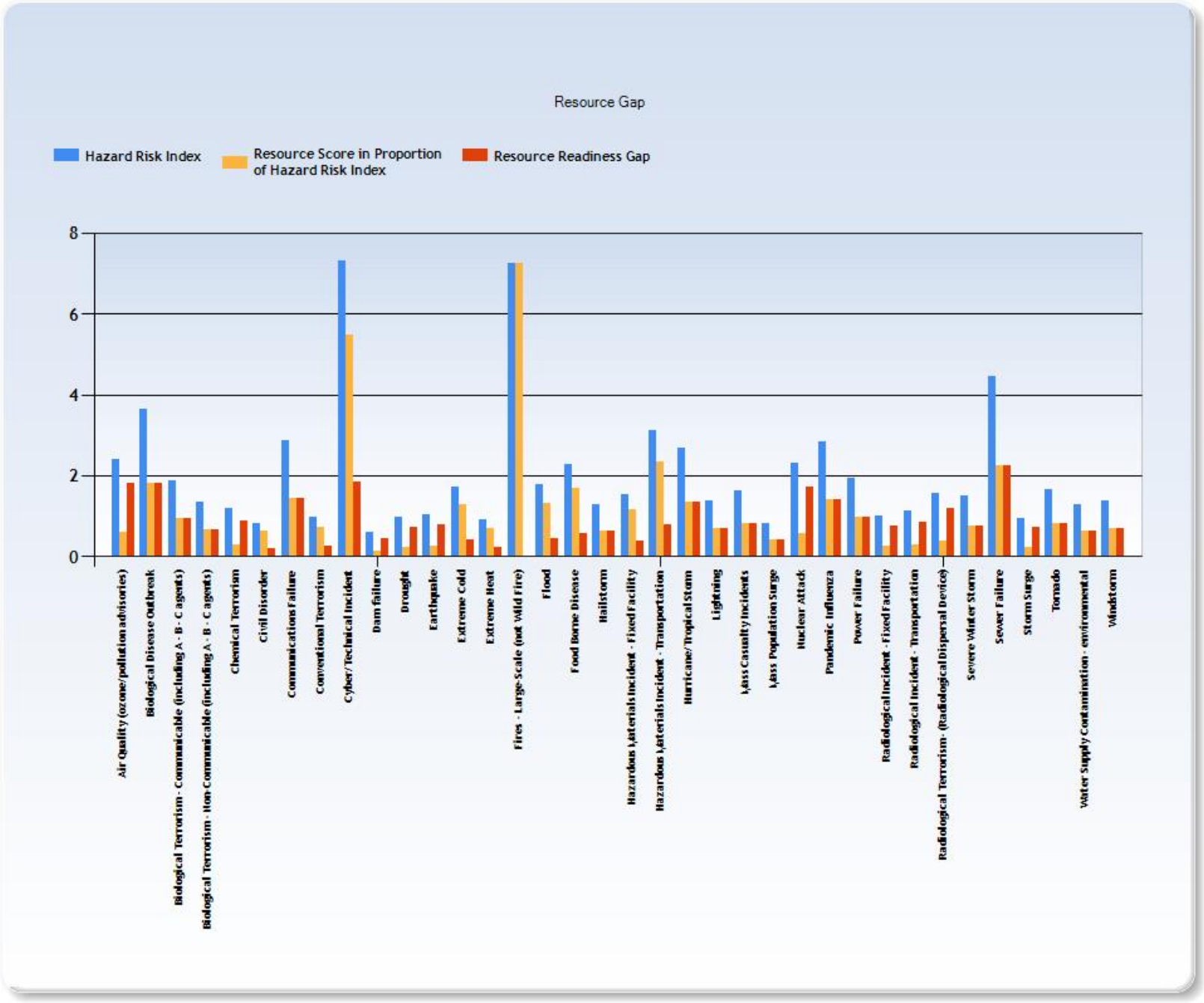
# Seminole County Hazard Risk Indices Chart



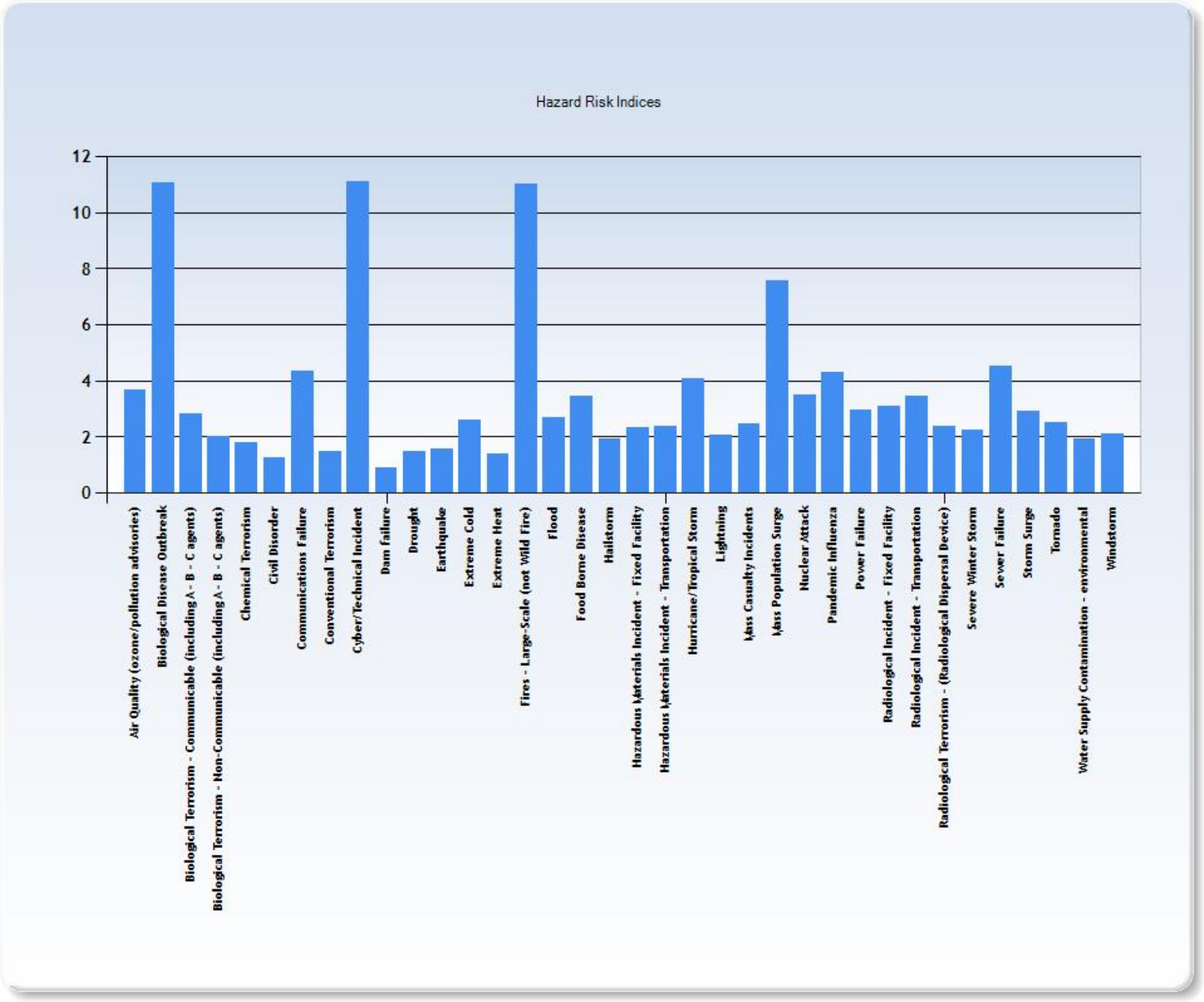
# Capabilities Gap Analysis Chart



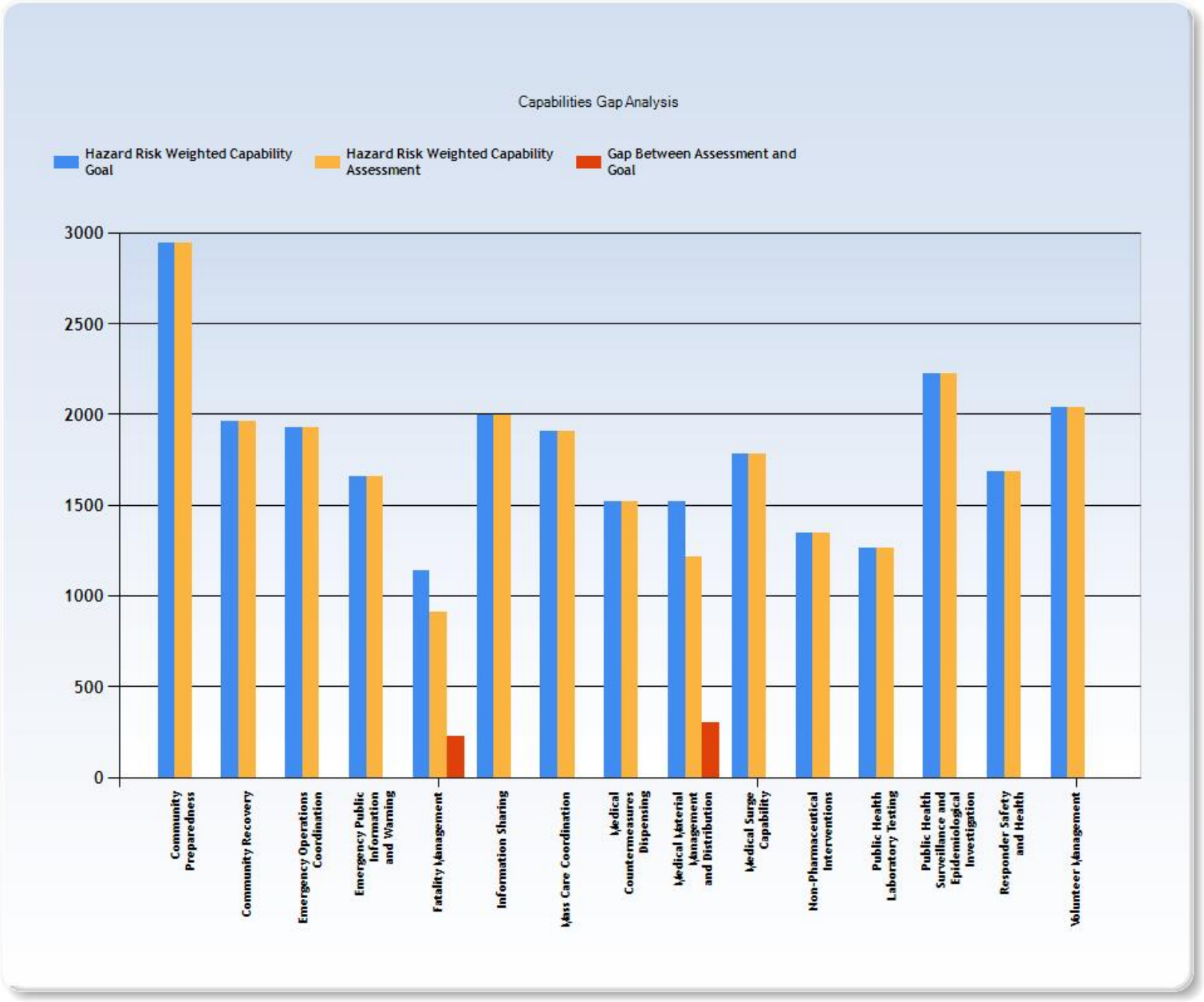
# Resource Gap Chart



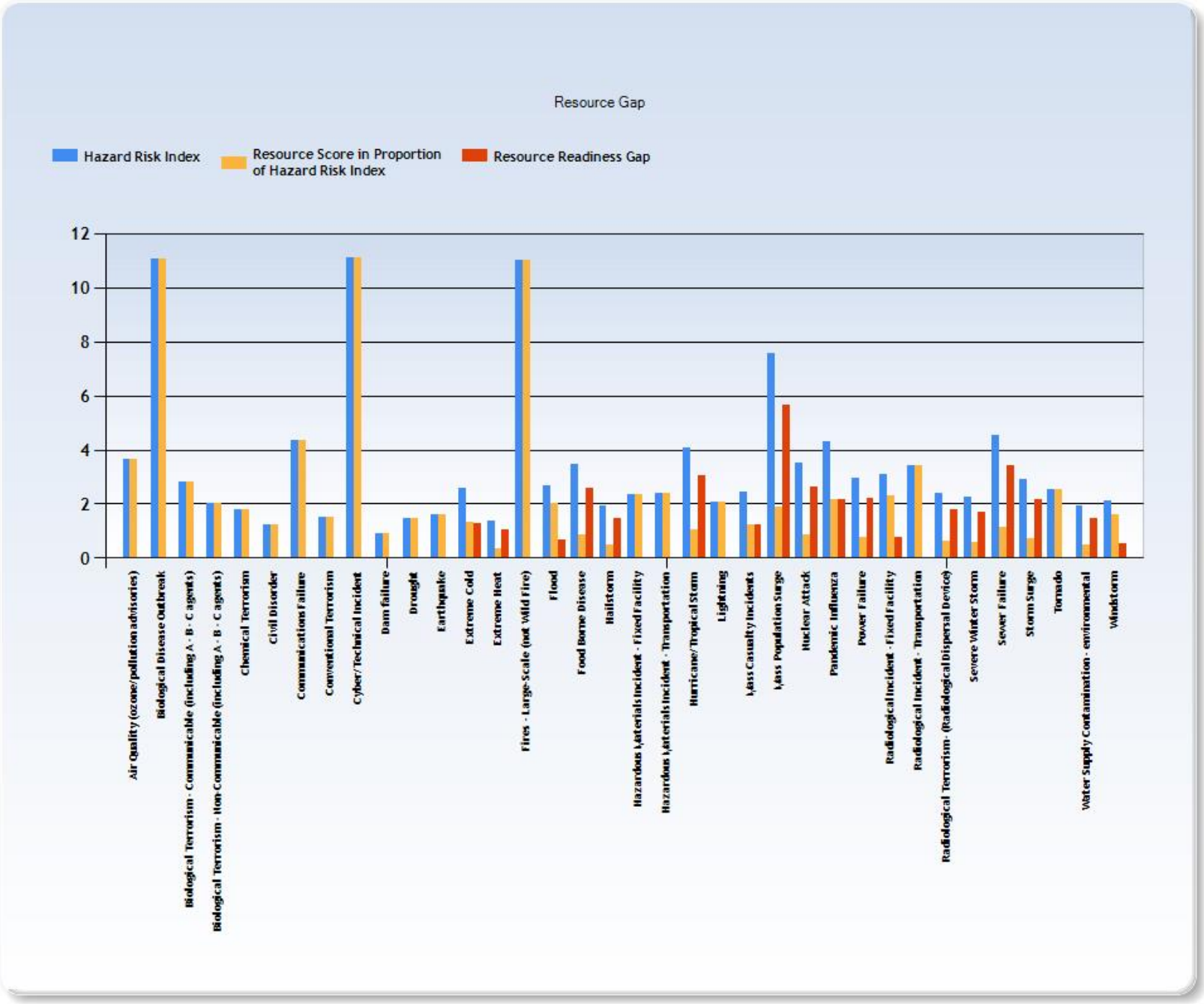
# St. Lucie County Hazard Risk Indices Chart



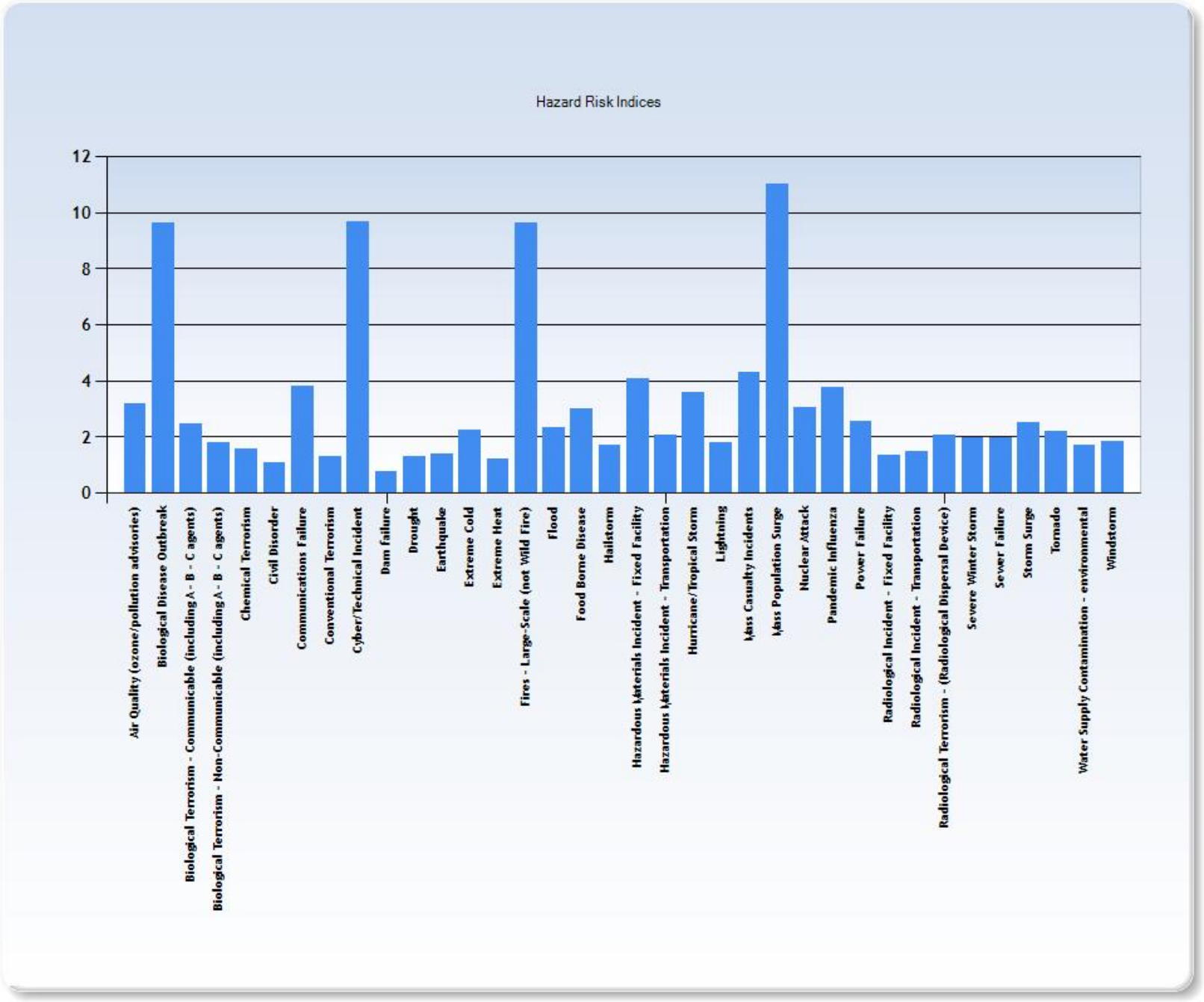
# Capabilities Gap Analysis Chart



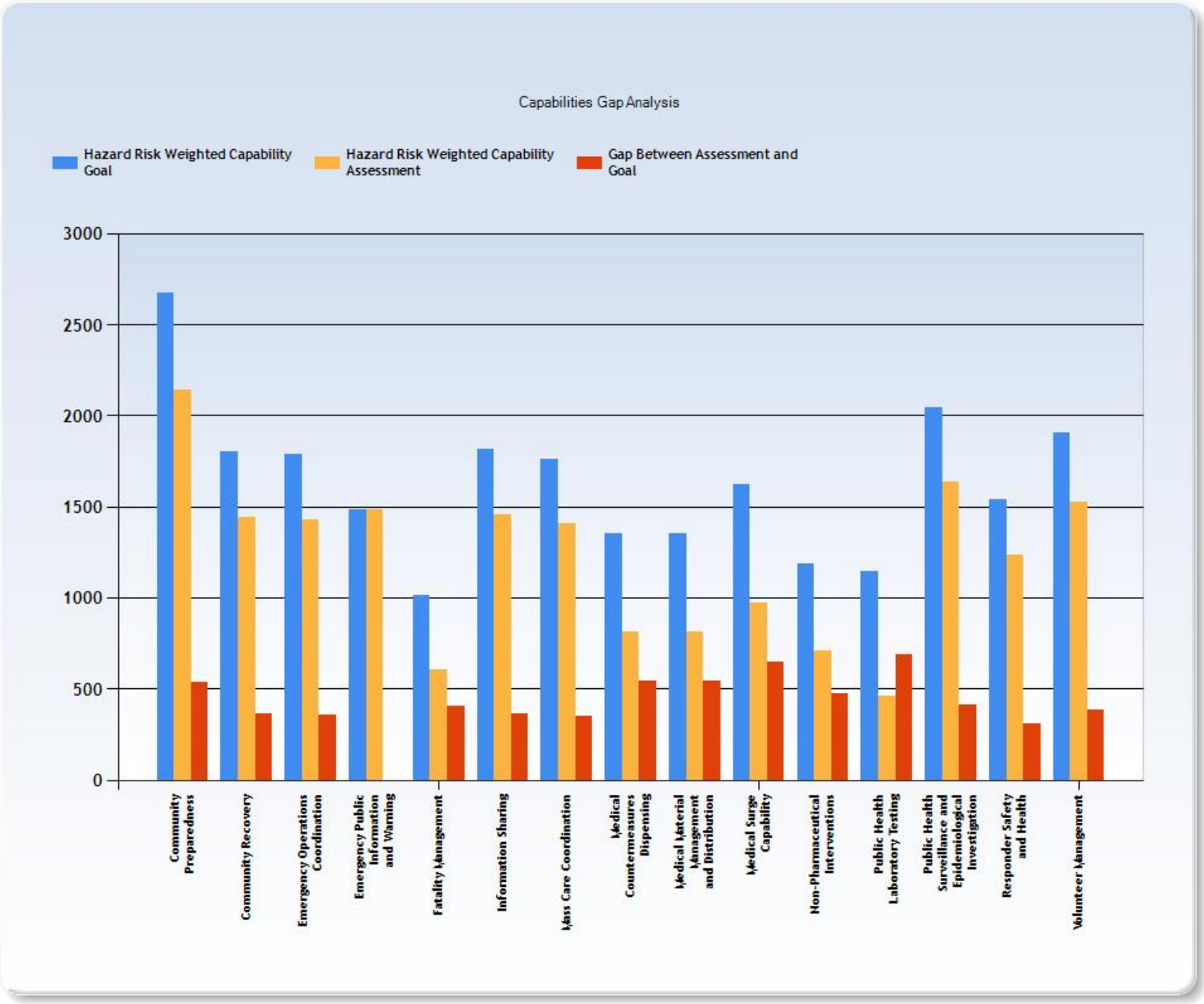
# Resource Gap Chart



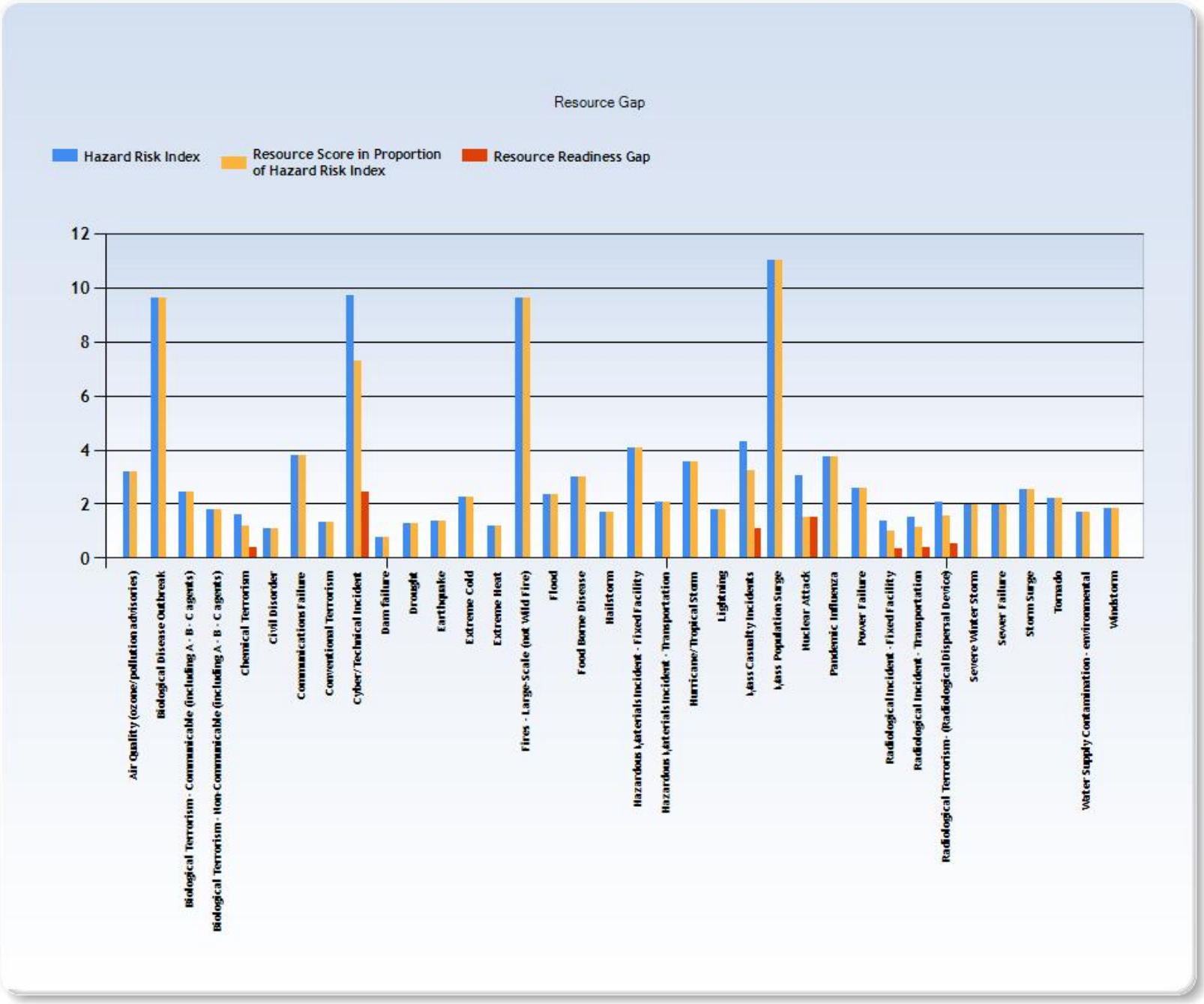
# Volusia County Hazard Risk Indices Chart



# Capabilities Gap Analysis Chart



# Resource Gap Chart



# HHS emPOWER Map 3.0

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The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code.

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## Resources

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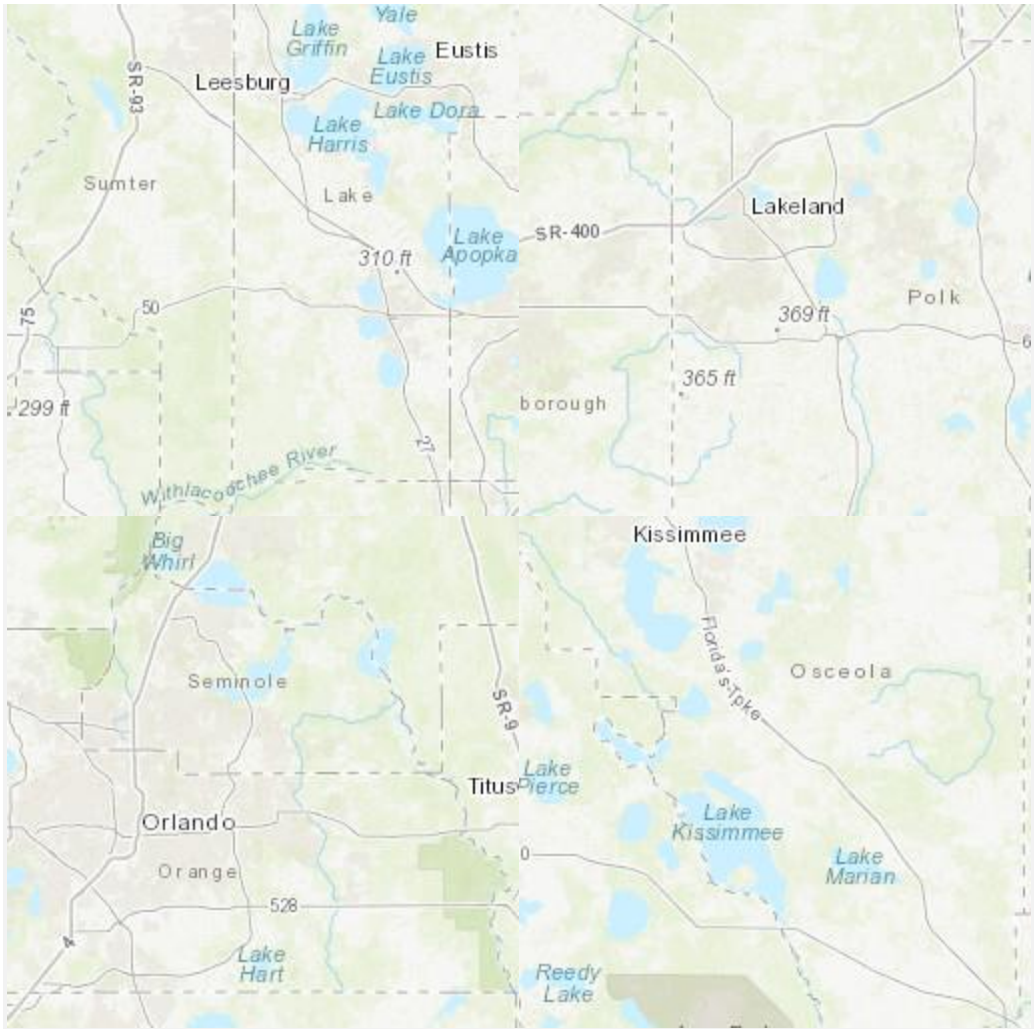
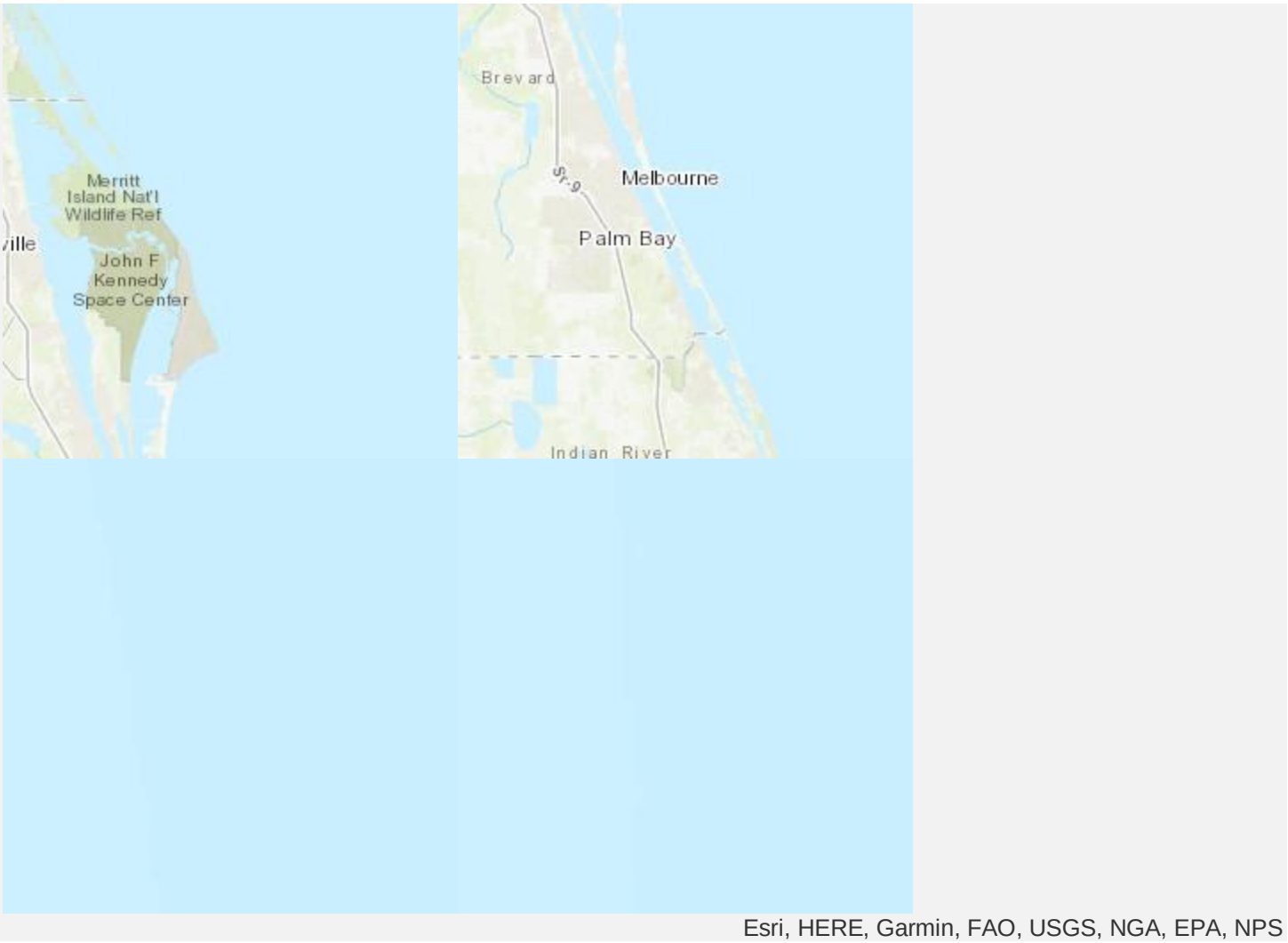
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid


Yale
Lake Griffin
Eustis
Lake Eustis
Leesburg
SR-93
Lake Dora
Lake Harris
Sumter
Lake
Lakeland
SR-400
Lake Apopka
310 ft
369 ft
Polk
50
75
365 ft
299 ft
borough
Withlacoochee River
Big Whirl
Kissimmee
Seminole
Osceola
SR-9
Lake Pierce
Titus
Orlando
Lake Kissimmee
Lake Marian
Orange
528
Lake Hart
Reedy Lake




## Select data type

RESET MAP

- SINGLE LOCATION
- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Brevard |
| Beneficiaries: | 145,007 |
| Electricity-Dependent Beneficiaries: | 6,533 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32754 | 2,971 | 144 |
| 32775 | 111 | 11 |
| 32780 | 10,232 | 545 |
| 32796 | 5,202 | 285 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32815 | 0 | 0 |
| 32899 | 11 | 0 |
| 32901 | 7,057 | 331 |
| 32903 | 3,400 | 110 |
| 32904 | 7,659 | 352 |
| 32905 | 6,394 | 311 |
| 32907 | 9,514 | 465 |
| 32908 | 2,215 | 98 |
| 32909 | 6,865 | 276 |
| 32920 | 3,112 | 113 |
| 32922 | 3,396 | 178 |
| 32925 | 146 | 11 |
| 32926 | 5,360 | 270 |
| 32927 | 4,924 | 258 |
| 32931 | 4,334 | 143 |
| 32934 | 4,434 | 207 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32935 | 8,861 | 468 |
| 32937 | 6,427 | 255 |
| 32940 | 11,853 | 413 |
| 32949 | 761 | 24 |
| 32950 | 1,246 | 54 |
| 32951 | 3,689 | 103 |
| 32952 | 5,162 | 208 |
| 32953 | 5,980 | 293 |
| 32955 | 8,862 | 414 |
| 32976 | 4,829 | 193 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

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Note (4): The public emPOWER REST Service that contains emPOWER Program geospatial data can be found at: https://geohealth.hhs.gov/dataaccess/rest/services/CMS_DME/HHS_CMS_DME_ESRD_onlyAll/MapServer.

Note (5): Information regarding the Natural Hazards can be found from the source webpages:

- National Oceanic and Atmospheric Administration (NOAA) National Weather Service active weather alerts can be found at: http://www.weather.gov.
- Hurricanes, Radar, Flood, Precipitation, and Storm Prediction: https://idpgis.ncep.noaa.gov/arcgis/rest/services.
- Long Duration and Short Duration Hazards: https://new.nowcoast.noaa.gov/arcgis/rest/services.
- Wildfire: https://geohealth.hhs.gov/arcgis/home/item.html?id=81934f7c953240de89405da4602a7a5a.
- Seismic Activity: https://earthquake.usgs.gov/arcgis/rest/services/eq/dyfi_30DaySignificant/MapServer.

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U.S. Department of Health & Human Services

200 Independence Avenue, S.W. Washington, D.C. 20201


**Data last updated:** 15 November 2019
**Webpage last updated:** 30 December 2016
**Webpage first published:** 23 June 2015

# HHS emPOWER Map 3.0

Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals.

The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code.

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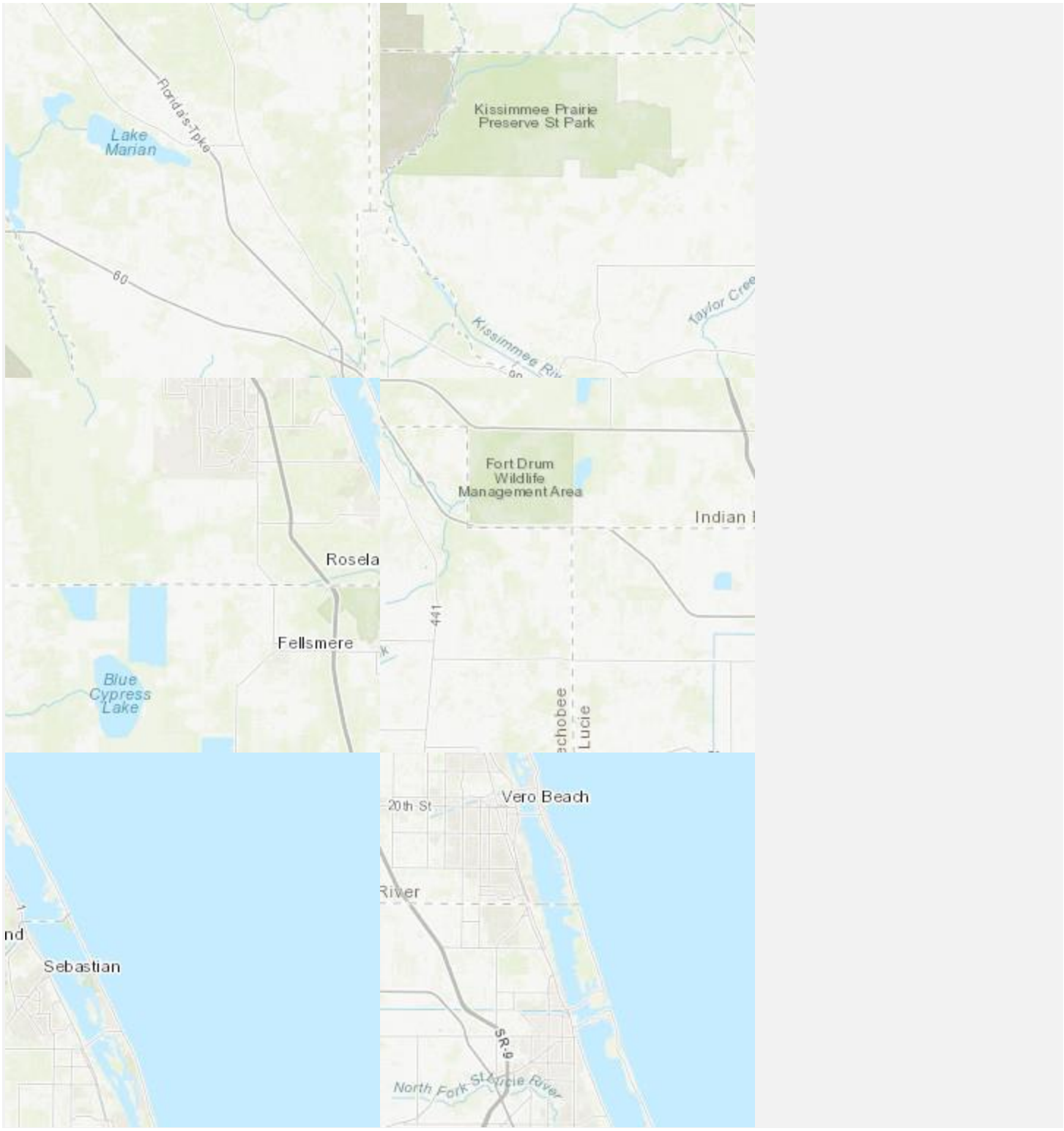
## Resources

- HHS emPOWER Program Fact Sheet
- HHS emPOWER Program Executve Summary
- HHS emPOWER Program Web-Based Training
- HHS emPOWER Program Web-Based Training Job Aid
- HHS emPOWER Map Job Aid
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid


Florida's Tpke
Lake Marian
60
Kissimmee Prairie Preserve St Park
Taylor Creek
Kissimmee River
Fort Drum Wildlife Management Area
Indian
Rosela
Fellsmere
Blue Cypress Lake
441
Lucie
Vero Beach
20th St
River
Sebastian
SR 9
North Fork St Lucie River

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

## Select data type

RESET MAP

- SINGLE LOCATION

12-13-2019

- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Indian River |
| Beneficiaries: | 49,979 |
| Electricity-Dependent Beneficiaries: | 1,547 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32948 | 774 | 37 |
| 32958 | 10,151 | 335 |
| 32960 | 6,013 | 211 |
| 32962 | 6,843 | 206 |
| 32963 | 7,184 | 129 |
| 32966 | 8,204 | 290 |
| 32967 | 6,961 | 218 |
| 32968 | 3,849 | 121 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

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- Long Duration and Short Duration Hazards: https://new.nowcoast.noaa.gov/arcgis/rest/services.
- Wildfire: https://geohealth.hhs.gov/arcgis/home/item.html?id=81934f7c953240de89405da4602a7a5a.
- Seismic Activity: https://earthquake.usgs.gov/arcgis/rest/services/eq/dyfi_30DaySignificant/MapServer.

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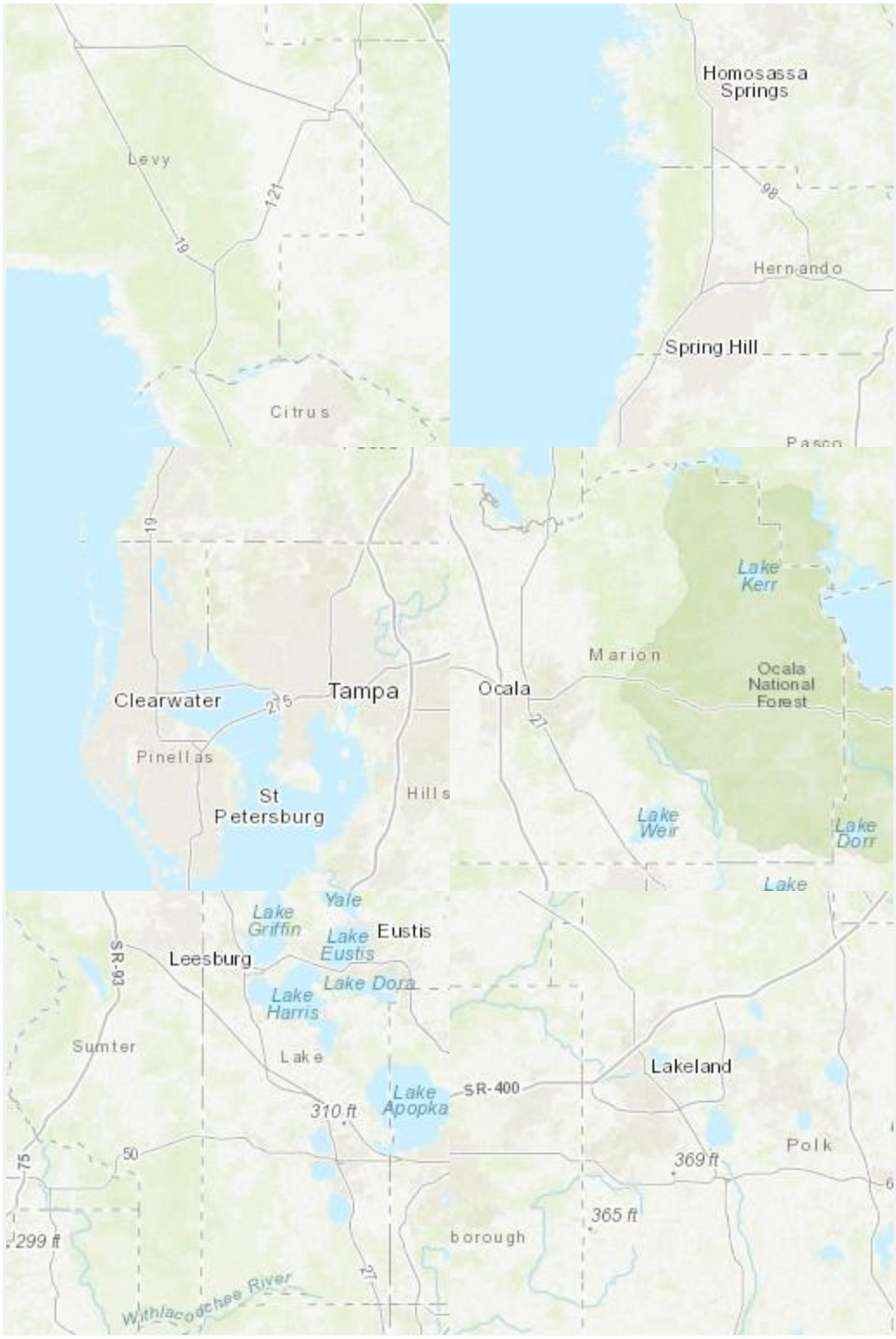
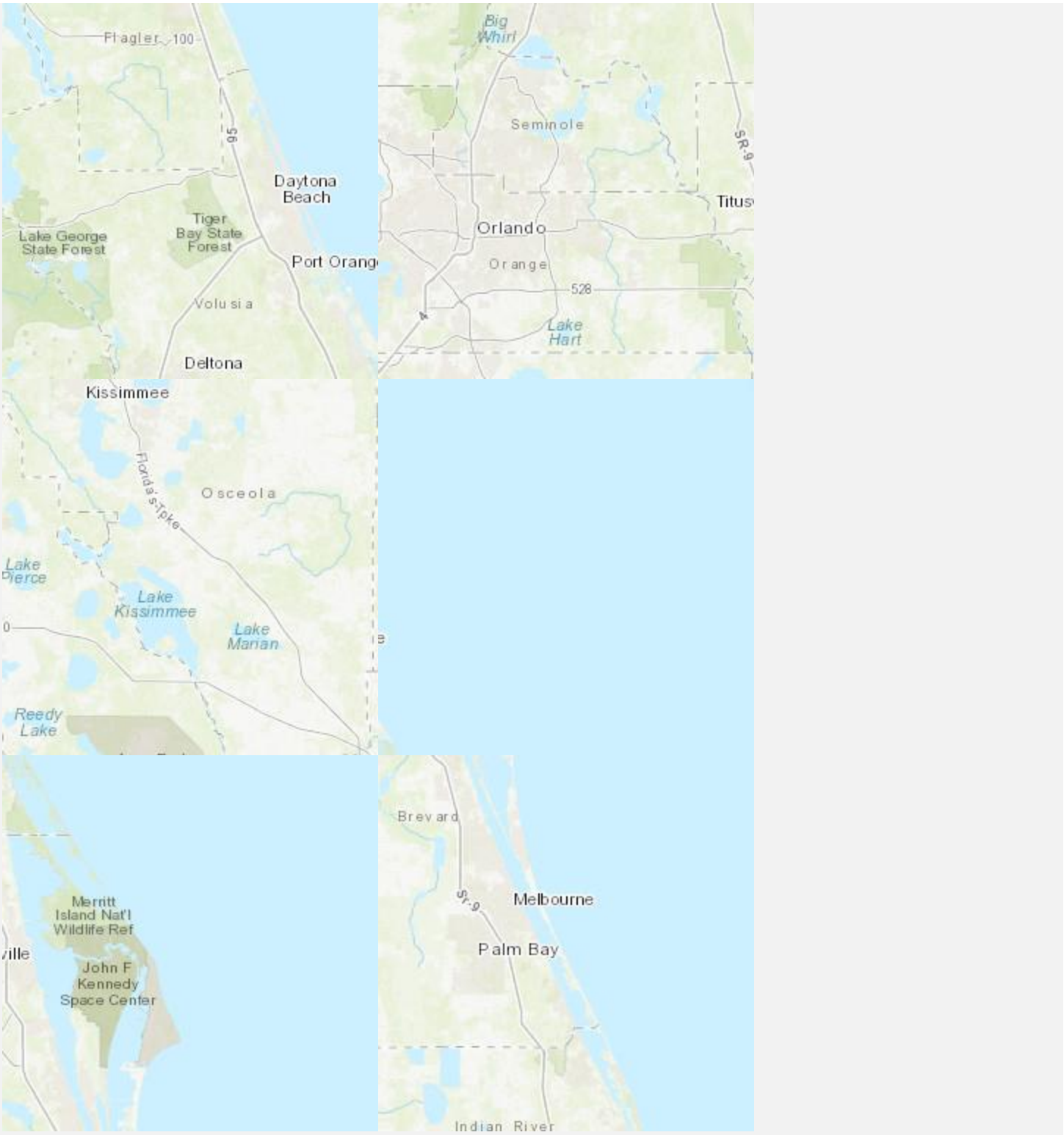
12-13-2019


Homosassa Springs
Levy
121
19
98
Hernando
Spring Hill
Citrus
Pasco
19
Lake Kerr
Marion
Ocala National Forest
Clearwater
Tampa
Ocala
275
27
Pinellas
St Petersburg
Hills
Lake Weir
Lake Dorr
Lake
Yale
Lake Griffin
Lake Eustis
Eustis
Leesburg
SR-93
Lake Dora
Lake Harris
Sumter
Lake
Lakeland
SR-400
310 ft
Lake Apopka
Polk
369 ft
75
50
365 ft
299 ft
borough
Withlacoochee River

12-13-2019




Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

## Select data type

RESET MAP

- SINGLE LOCATION

12-13-2019

- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Lake |
| Beneficiaries: | 103,501 |
| Electricity-Dependent Beneficiaries: | 4,831 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

12-13-2019

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32102 | 942 | 52 |
| 32159 | 16,110 | 614 |
| 32702 | 1,124 | 82 |
| 32726 | 5,122 | 330 |
| 32735 | 1,518 | 75 |
| 32736 | 2,190 | 114 |
| 32756 | 367 | 11 |
| 32757 | 7,353 | 357 |
| 32767 | 660 | 40 |
| 32776 | 2,244 | 117 |
| 32778 | 7,076 | 408 |
| 32784 | 2,479 | 162 |
| 34705 | 544 | 32 |
| 34711 | 14,078 | 535 |
| 34714 | 3,188 | 117 |
| 34715 | 3,193 | 151 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34731 | 3,178 | 152 |
| 34736 | 4,295 | 176 |
| 34737 | 818 | 30 |
| 34748 | 18,322 | 780 |
| 34753 | 742 | 43 |
| 34756 | 618 | 30 |
| 34762 | 270 | 12 |
| 34788 | 6,634 | 381 |
| 34797 | 436 | 30 |

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- Long Duration and Short Duration Hazards: https://new.nowcoast.noaa.gov/arcgis/rest/services.
- Wildfire: https://geohealth.hhs.gov/arcgis/home/item.html?id=81934f7c953240de89405da4602a7a5a.
- Seismic Activity: https://earthquake.usgs.gov/arcgis/rest/services/eq/dyfi_30DaySignificant/MapServer.

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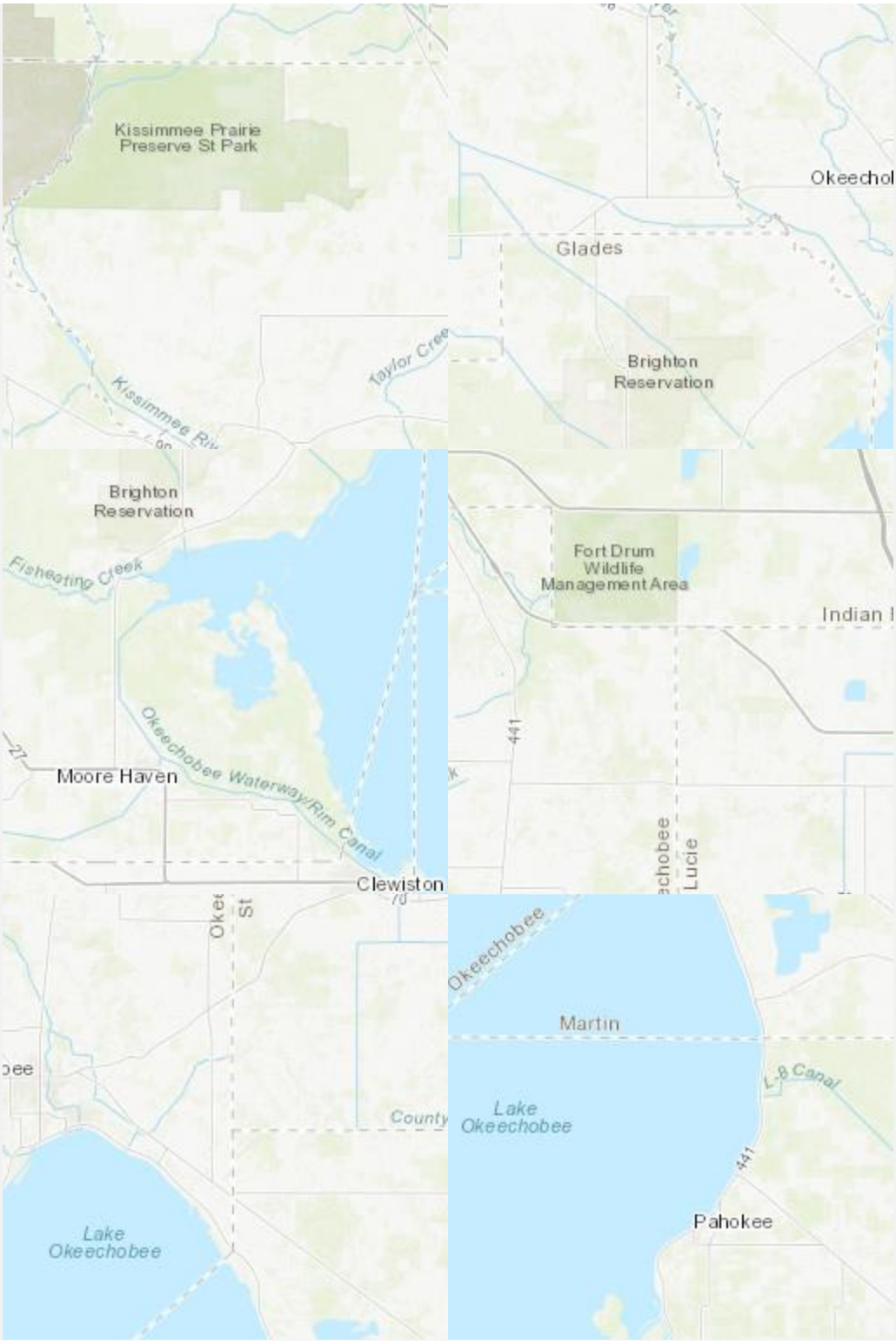
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid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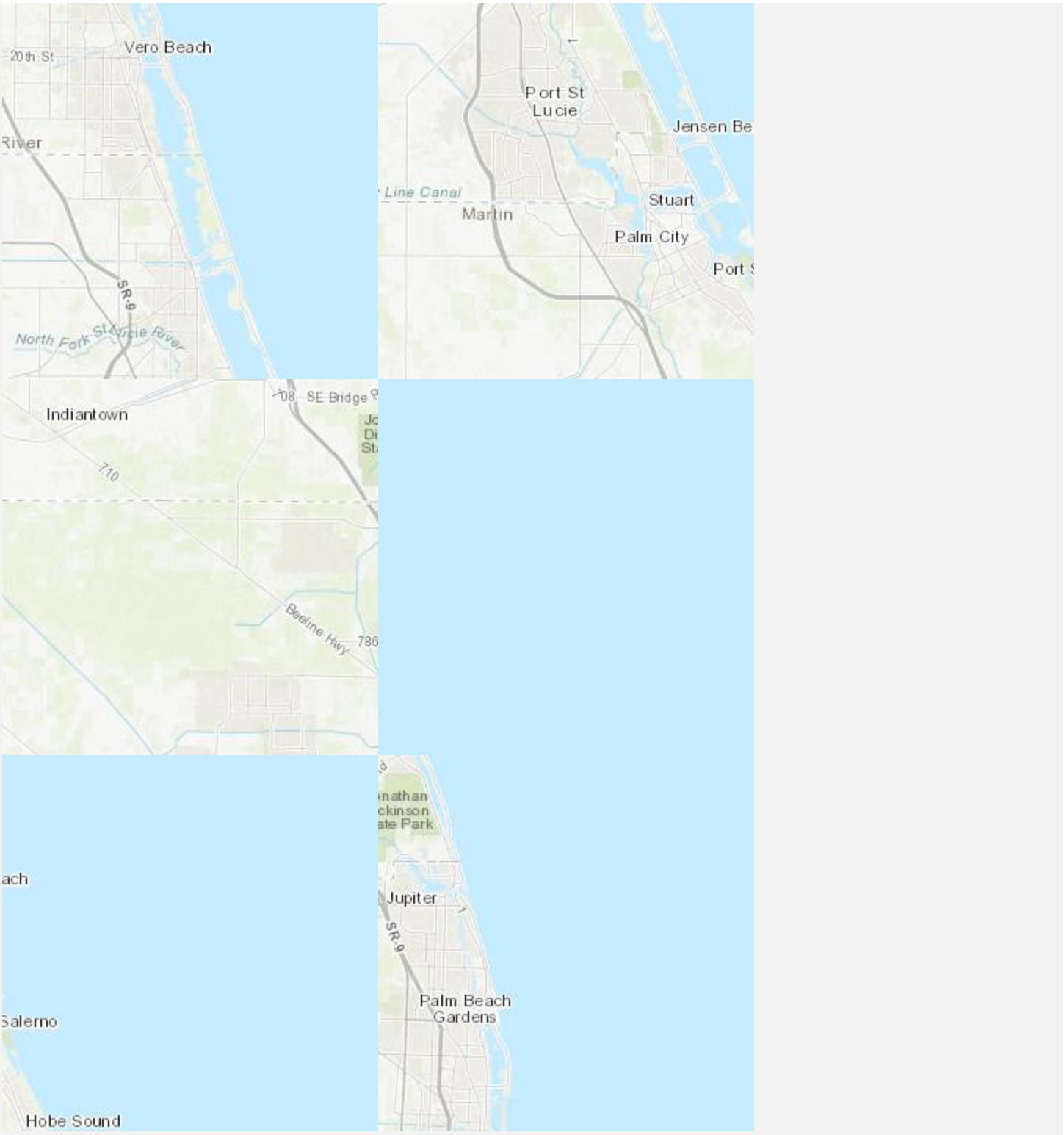
Okeechol
Glades
Brighton Reservation
Taylor Cree
Kissimmee Riv
Brighton Reservation
Fisheating Creek
Fort Drum Wildlife Management Area
Indian
441
Okeechobee Waterway/Rim Canal
Moore Haven
Clewiston
Lucie
Okeechobee
Martin
L-8 Canal
Lake Okeechobee
County
441
Pahokee
Lake Okeechobee




Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

## Select data type

RESET MAP

- SINGLE LOCATION

12-13-2019

- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Martin |
| Beneficiaries: | 44,064 |
| Electricity-Dependent Beneficiaries: | 1,367 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 33455 | 7,005 | 245 |
| 34956 | 1,100 | 49 |
| 34957 | 7,249 | 243 |
| 34990 | 8,266 | 218 |
| 34994 | 4,537 | 156 |
| 34996 | 4,133 | 110 |
| 34997 | 11,774 | 346 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

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U.S. Department of Health & Human Services

200 Independence Avenue, S.W. Washington, D.C. 20201


**Data last updated:** 15 November 2019
**Webpage last updated:** 30 December 2016
**Webpage first published:** 23 June 2015

# HHS emPOWER Map 3.0

Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals.

The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code.

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## Resources

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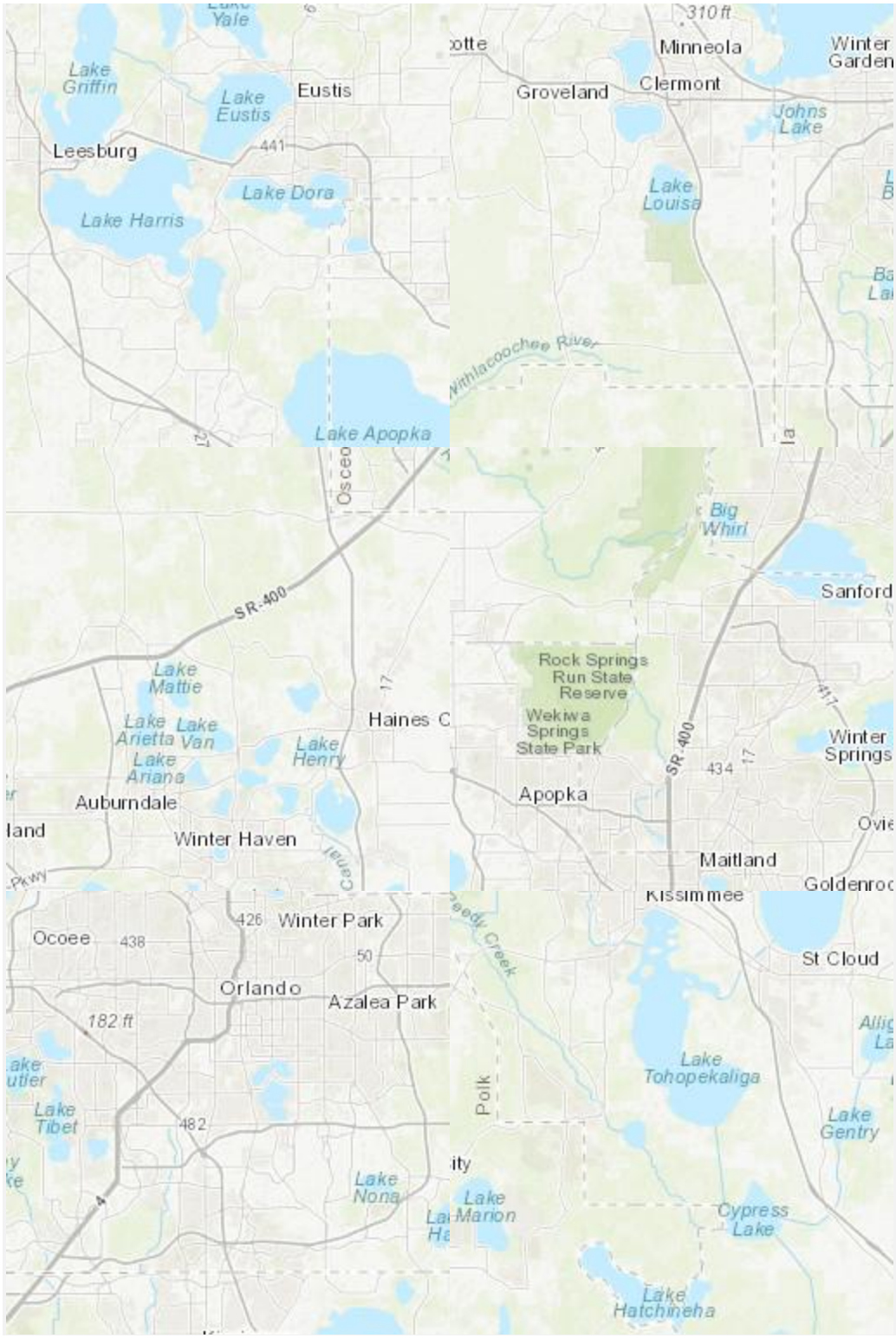
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid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Lake Eustis
Eustis
Leesburg
441
Lake Dora
Lake Harris
Lake Apopka
Minneola
Groveland
Clermont
Winter Garden
Johns Lake
Lake Louisa
Withlacoochee River
Big Whirl
Sanford
SR-400
Lake Mattie
Lake Arietta
Lake Van
Lake Ariana
Lake Henry
Haines C
Rock Springs Run State Reserve
Wekiwa Springs State Park
Winter Springs
Apopka
Auburndale
Winter Haven
Maitland
Kissimmee
Goldenroc
Ocoee
438
426
Winter Park
50
Orlando
Azalea Park
182 ft
St Cloud
Lake Tohopekaliga
Lake Tibet
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Lake Nona
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Lake Gentry
Lake Hatchineha
Polk
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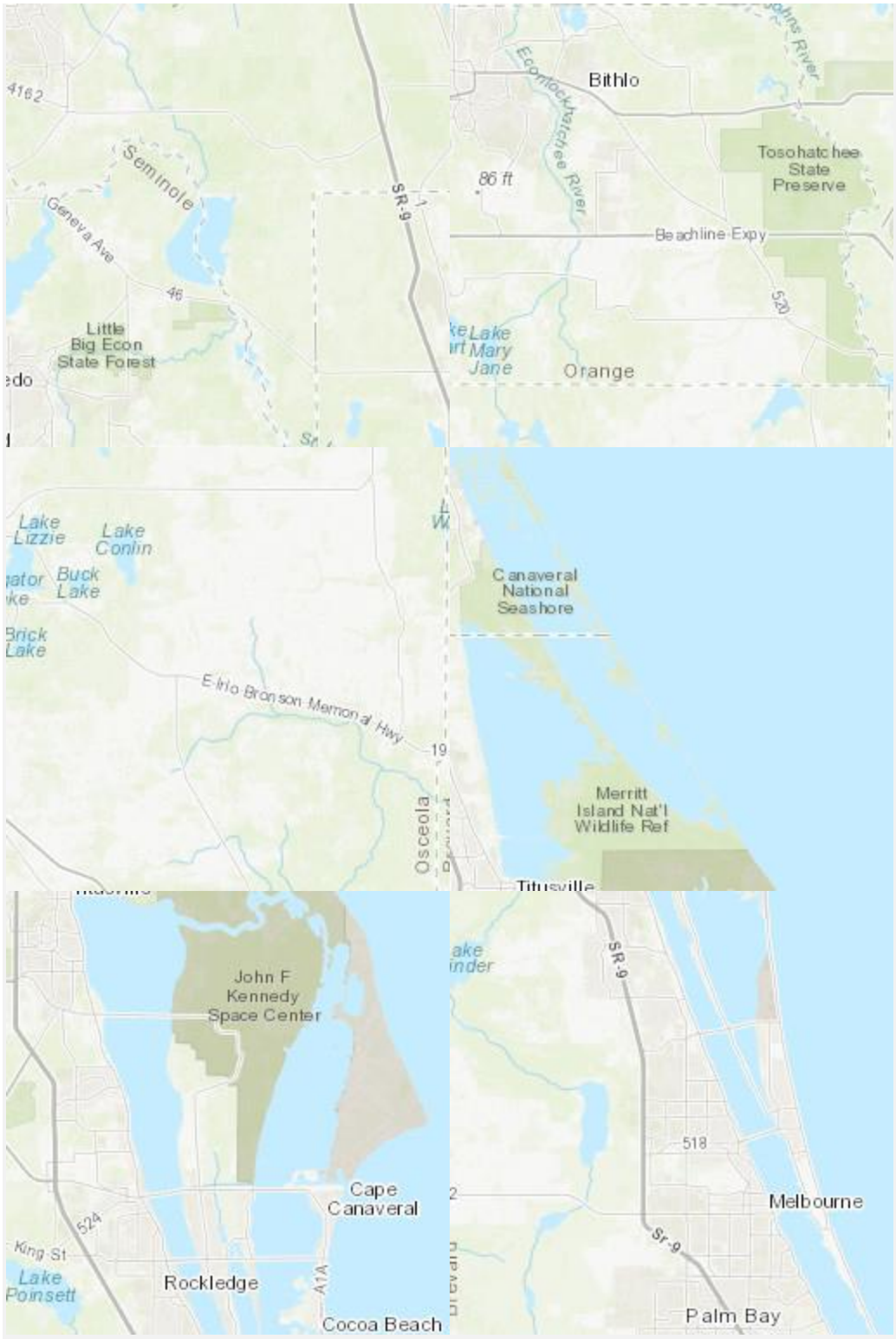
417
17
4




Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

## Select data type

RESET MAP

- SINGLE LOCATION

12-13-2019

- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Orange |
| Beneficiaries: | 177,097 |
| Electricity-Dependent Beneficiaries: | 6,892 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32703 | 7,055 | 332 |
| 32709 | 502 | 30 |
| 32712 | 8,016 | 360 |
| 32751 | 3,891 | 147 |
| 32789 | 5,095 | 166 |
| 32792 | 7,638 | 311 |
| 32798 | 1,515 | 78 |
| 32801 | 2,785 | 146 |
| 32803 | 2,690 | 90 |
| 32804 | 2,957 | 105 |
| 32805 | 4,493 | 190 |
| 32806 | 4,202 | 163 |
| 32807 | 5,141 | 215 |
| 32808 | 6,779 | 296 |
| 32809 | 3,874 | 137 |
| 32810 | 5,032 | 260 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32811 | 4,443 | 189 |
| 32812 | 5,138 | 198 |
| 32814 | 835 | 20 |
| 32816 | 11 | 0 |
| 32817 | 4,494 | 180 |
| 32818 | 6,740 | 268 |
| 32819 | 4,261 | 125 |
| 32820 | 1,248 | 53 |
| 32821 | 1,906 | 74 |
| 32822 | 9,342 | 343 |
| 32824 | 5,587 | 191 |
| 32825 | 7,917 | 318 |
| 32826 | 2,822 | 142 |
| 32827 | 1,741 | 48 |
| 32828 | 6,626 | 244 |
| 32829 | 2,214 | 79 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32830 | 12 | 0 |
| 32831 | 11 | 0 |
| 32832 | 2,026 | 51 |
| 32833 | 1,551 | 47 |
| 32835 | 3,901 | 122 |
| 32836 | 2,614 | 70 |
| 32837 | 6,378 | 205 |
| 32839 | 4,792 | 185 |
| 34734 | 633 | 29 |
| 34760 | 240 | 11 |
| 34761 | 5,295 | 229 |
| 34786 | 4,143 | 110 |
| 34787 | 8,511 | 335 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

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# HHS emPOWER Map 3.0

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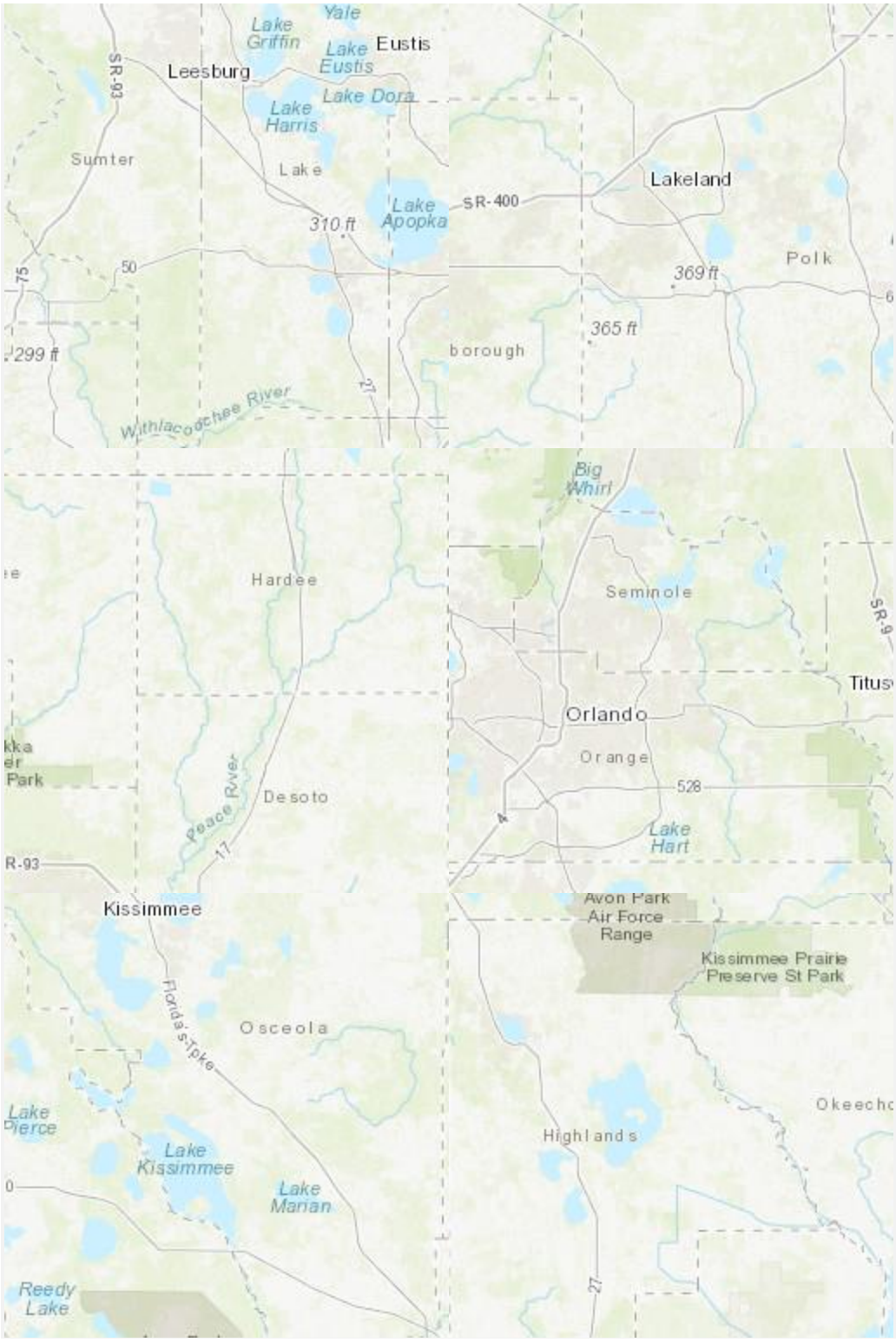
- HHS emPOWER Program Web-Based Training Job Aid
- HHS emPOWER Map Job Aid
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid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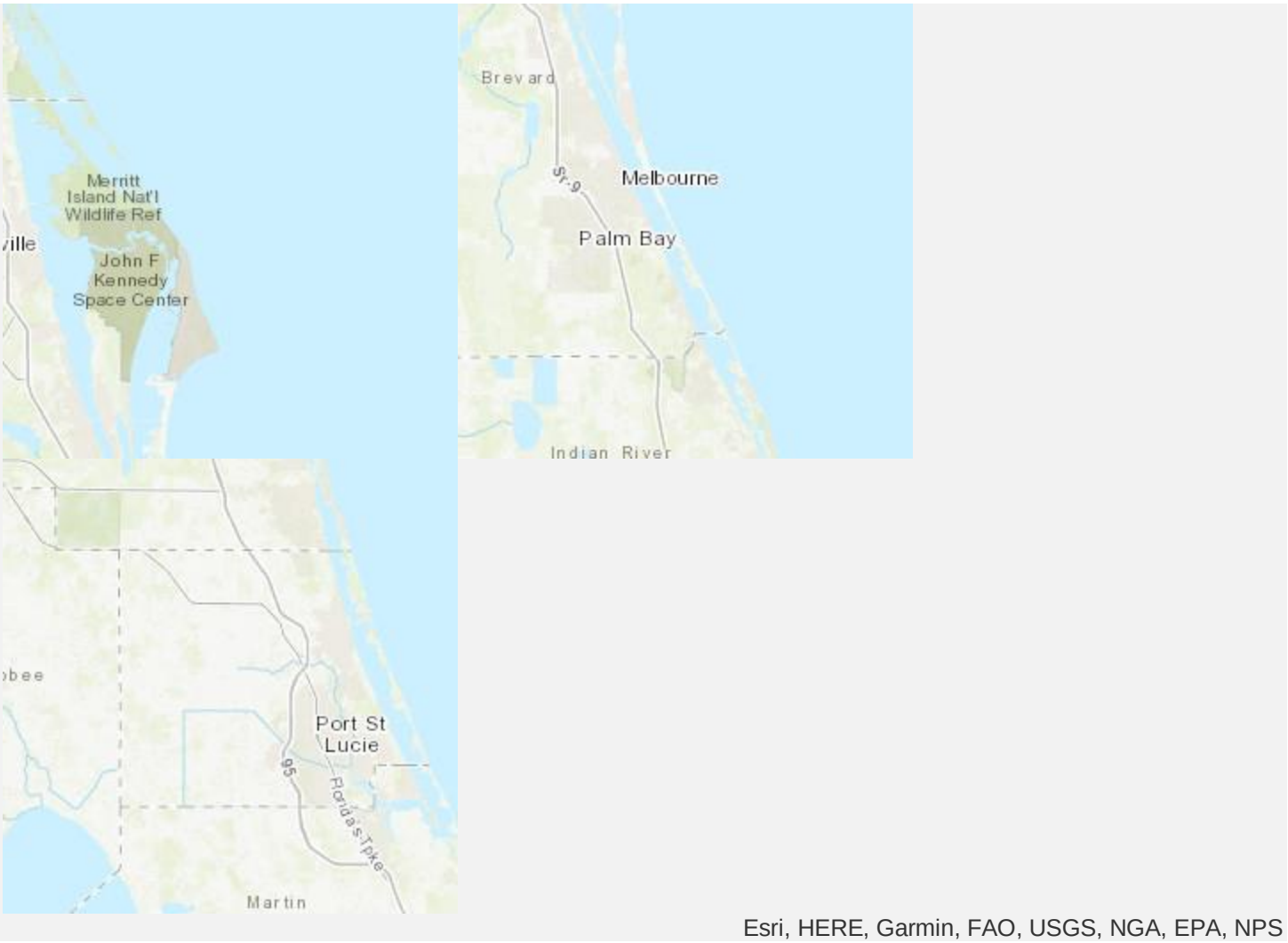
Eustis
Lake Eustis
Leesburg
SR-93
Lake Dora
Lake Harris
Sumter
Lake
Lakeland
SR-400
Lake Apopka
310 ft
369 ft
Polk
365 ft
borough
299 ft
Withlacoochee River
Big Whirl
Hardee
Seminole
Titus
Orlando
Orange
528
Peace River
Desoto
Lake Hart
Kissimmee
Avon Park Air Force Range
Kissimmee Prairie Preserve St Park
Osceola
Florida's Tpke
Okeecho
Highlands
Lake Pierce
Lake Kissimmee
Lake Marian
Reedy Lake




## Select data type

RESET MAP

- SINGLE LOCATION
- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Osceola |
| Beneficiaries: | 53,852 |
| Electricity-Dependent Beneficiaries: | 2,158 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 33848 | 234 | 11 |
| 34739 | 227 | 12 |
| 34741 | 7,062 | 278 |
| 34743 | 6,434 | 246 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34744 | 8,419 | 311 |
| 34746 | 7,991 | 304 |
| 34747 | 2,849 | 82 |
| 34758 | 6,667 | 246 |
| 34769 | 5,228 | 265 |
| 34771 | 3,387 | 172 |
| 34772 | 4,690 | 202 |
| 34773 | 664 | 29 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

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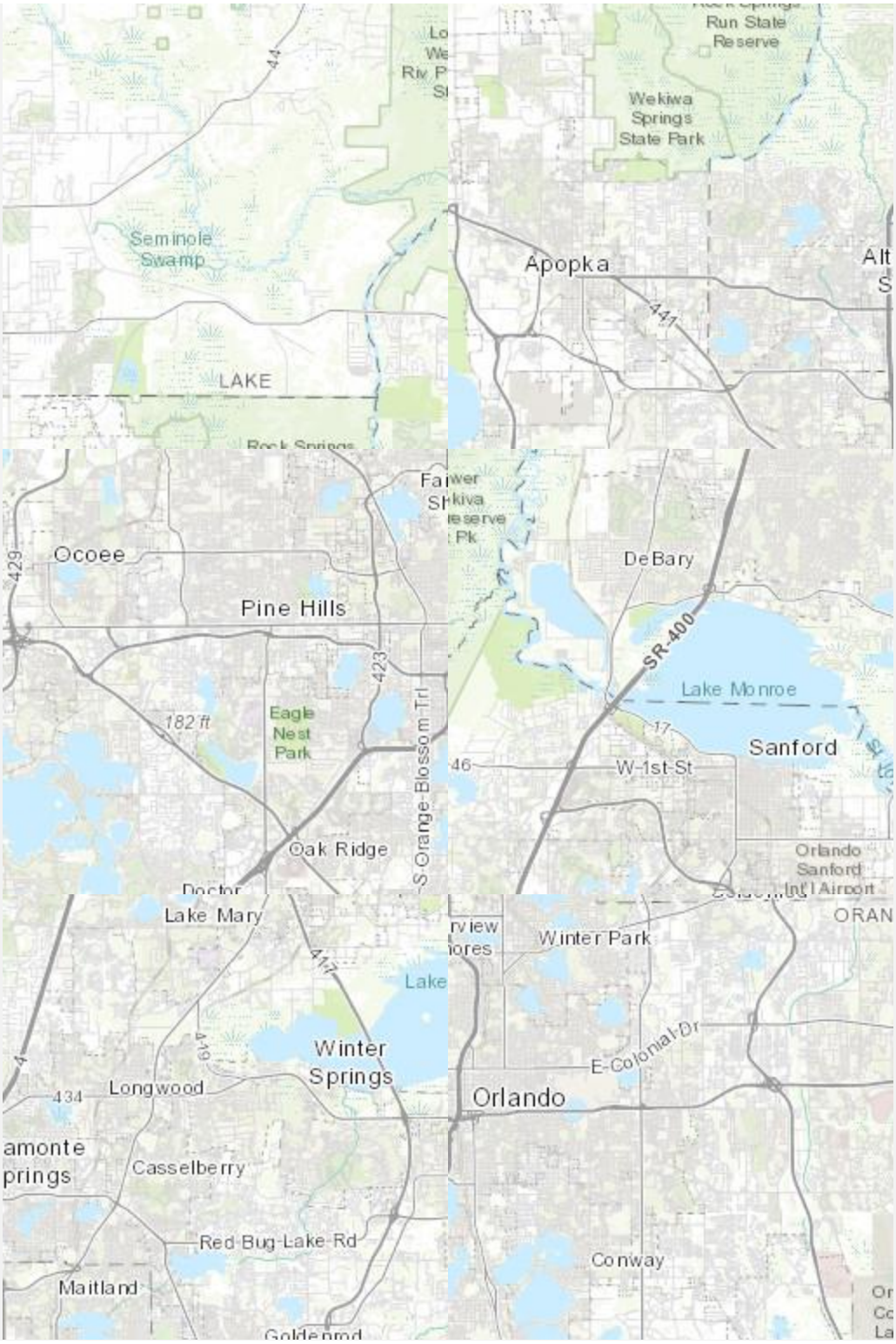
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Wekiwa Springs State Park
Seminole Swamp
Apopka
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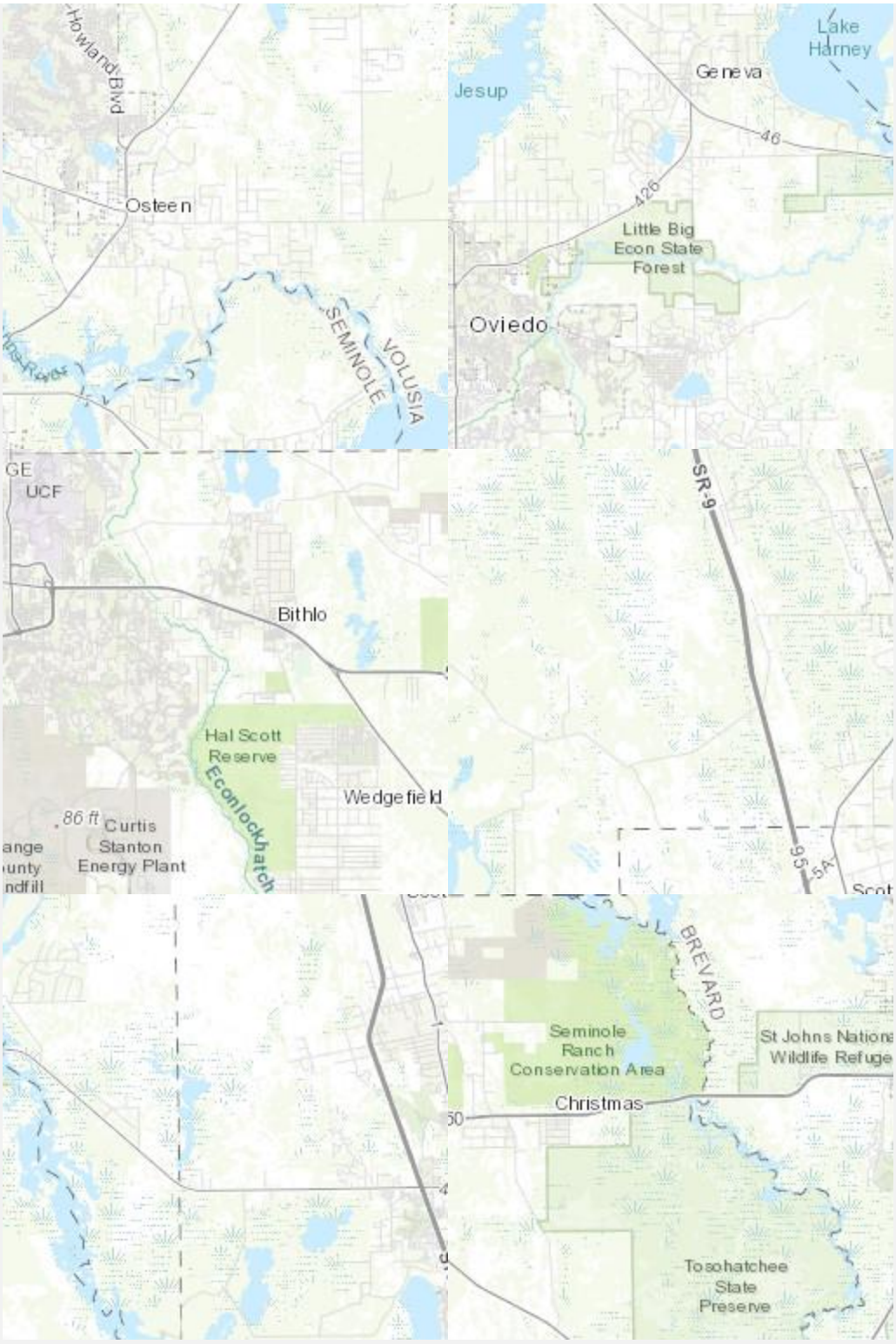
LAKE
Ocoee
429
Pine Hills
423
182 ft
Eagle Nest Park
S Orange Blossom Trl
Oak Ridge
Lake Mary
DeBary
SR-400
Lake Monroe
Sanford
W 1st St
Orlando Sanford Int'l Airport
Winter Park
E Colonial Dr
Orlando
Winter Springs
Longwood
434
Casselberry
Red Bug Lake Rd
Maitland
Conway




County of Orange, FL, Seminole County Property Appr, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

## Select data type

RESET MAP

- SINGLE LOCATION

12-13-2019

- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Seminole |
| Beneficiaries: | 67,517 |
| Electricity-Dependent Beneficiaries: | 3,017 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32701 | 4,262 | 173 |
| 32707 | 6,475 | 293 |
| 32708 | 8,278 | 347 |
| 32714 | 5,588 | 266 |
| 32730 | 1,217 | 60 |
| 32732 | 1,097 | 55 |
| 32746 | 7,171 | 293 |
| 32750 | 4,691 | 231 |
| 32765 | 8,280 | 329 |
| 32766 | 1,738 | 78 |
| 32771 | 8,427 | 401 |
| 32773 | 4,177 | 247 |
| 32779 | 6,116 | 244 |

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## Resources

- HHS emPOWER Program Fact Sheet
- HHS emPOWER Program Executve Summary
- HHS emPOWER Program Web-Based Training
- HHS emPOWER Program Web-Based Training Job Aid
- HHS emPOWER Map Job Aid
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid

### Select data type

RESET MAP

- SINGLE LOCATION
- MULTIPLE LOCATIONS

12-13-2019

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Saint Lucie |
| Beneficiaries: | 71,960 |
| Electricity-Dependent Beneficiaries: | 2,593 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34945 | 977 | 37 |
| 34946 | 1,548 | 61 |
| 34947 | 1,783 | 75 |
| 34949 | 3,196 | 79 |
| 34950 | 3,044 | 120 |
| 34951 | 4,924 | 173 |
| 34952 | 12,788 | 482 |
| 34953 | 10,731 | 442 |
| 34981 | 813 | 34 |
| 34982 | 5,695 | 222 |
| 34983 | 8,822 | 330 |
| 34984 | 3,193 | 101 |
| 34986 | 10,477 | 333 |
| 34987 | 3,969 | 104 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

12-13-2019

Note (2): The "electricity-dependent" number, by location, represents the total number of beneficiaries with claims in Centers for Medicare and Medicaid Services (CMS) databases from the prior month for: ventilator, BiPAP, enteral feeding machine, intravenous (IV) infusion pump, suction pump, at-home dialysis machine, electric wheelchair, electric scooter, and electric bed equipment in the past 13 months; oxygen concentrator equipment in the past 36 months; and implanted cardiac devices that include left ventricular assistive device (LVAD), right ventricular assistive device (RVAD), bi-ventricular assistive device (BIVAD), and total artificial heart (TAH) in the past 5 years. To protect individual privacy, the following de-identification methodologies have been implemented: removal of all personal identifiers; aggregating data totals at the geographic level; and replacing any small cell size between 1 and 10 (e.g., a ZIP Code with only 3 individuals ) with an 11. Some ZIP Codes may not be represented on the map because they do not have geographical boundaries (e.g. post office boxes, a large building, etc.). In these instances, we add their total to the geographical ZIP Code where the post office box or building can be found.

Note (3): The map is provided to inform and support community partner emergency preparedness, mitigation, response, recovery, and resilience activities. Use of this tool and data signifies your agreement to: use it for the specified purposes; make no attempt to identify any individual in this data; and send an email to empower@hhs.gov if a small size between 1 and 10 is identified at any geographic level. Send any additional questions to empower@hhs.gov.

Note (4): The public emPOWER REST Service that contains emPOWER Program geospatial data can be found at: https://geohealth.hhs.gov/dataaccess/rest/services/CMS_DME/HHS_CMS_DME_ESRD_onlyAll/MapServer.

Note (5): Information regarding the Natural Hazards can be found from the source webpages:

- National Oceanic and Atmospheric Administration (NOAA) National Weather Service active weather alerts can be found at: http://www.weather.gov.
- Hurricanes, Radar, Flood, Precipitation, and Storm Prediction: https://idpgis.ncep.noaa.gov/arcgis/rest/services.
- Long Duration and Short Duration Hazards: https://new.nowcoast.noaa.gov/arcgis/rest/services.
- Wildfire: https://geohealth.hhs.gov/arcgis/home/item.html?id=81934f7c953240de89405da4602a7a5a.
- Seismic Activity: https://earthquake.usgs.gov/arcgis/rest/services/eq/dyfi_30DaySignificant/MapServer.

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200 Independence Avenue, S.W. Washington, D.C. 20201
**Data last updated:** 15 November 2019
**Webpage last updated:** 30 December 2016
**Webpage first published:** 23 June 2015

# HHS emPOWER Map 3.0

Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals.

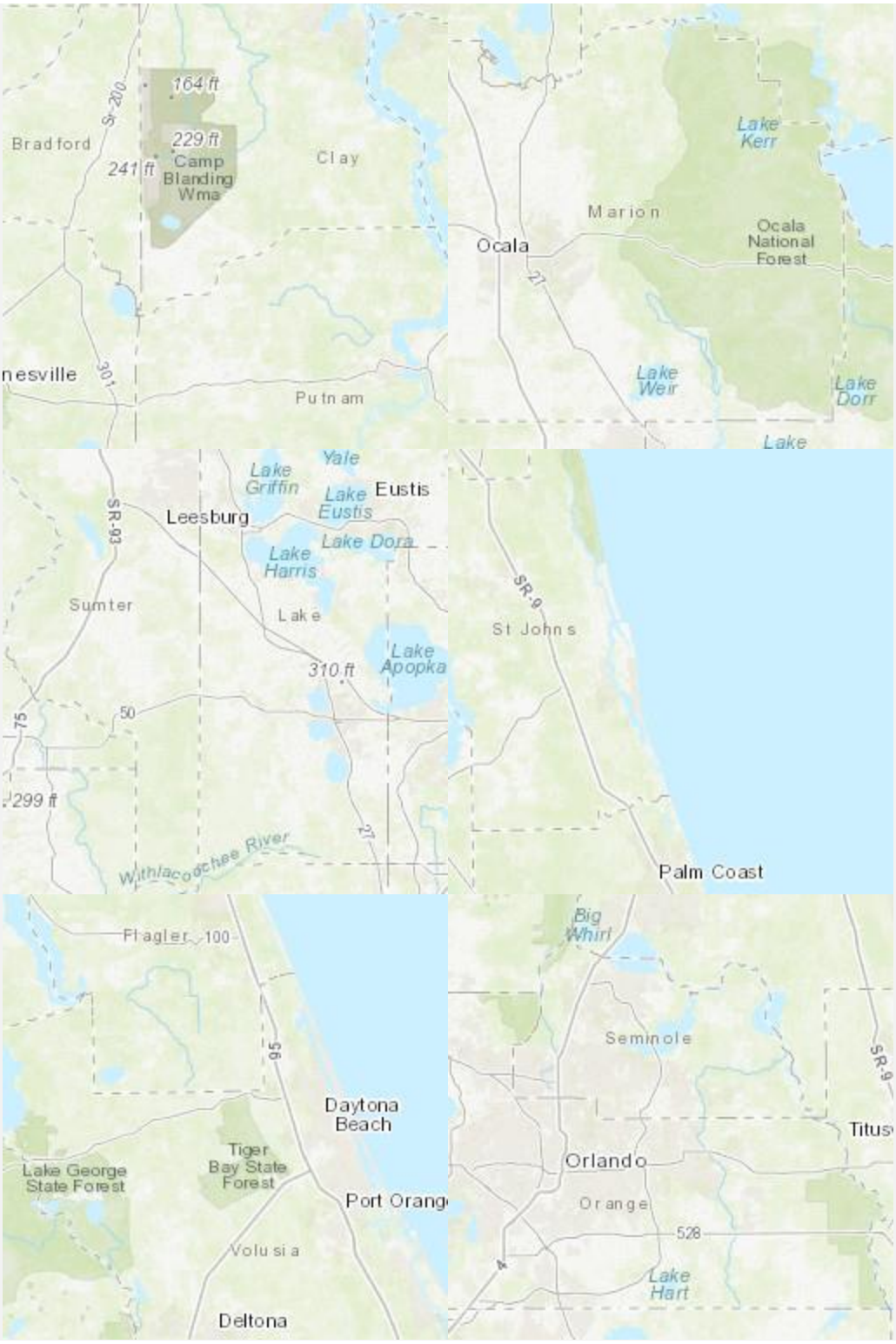
The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code.

The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.

For more information on when and how to use the HHS emPOWER Map please see the resources section.

## Resources

- HHS emPOWER Program Fact Sheet
- HHS emPOWER Program Executve Summary
- HHS emPOWER Program Web-Based Training
- HHS emPOWER Program Web-Based Training Job Aid
- HHS emPOWER Map Job Aid
- HHS emPOWER REST Service_Public
- HHS emPOWER REST Service Job Aid


164 ft
229 ft
241 ft
Camp Blanding Wma
Bradford
Clay
Putnam
nesville
Lake Kerr
Marion
Ocala
Ocala National Forest
Lake Weir
Lake Dorr
Lake
Yale
Lake Griffin
Lake Eustis
Eustis
Leesburg
Lake Dora
Lake Harris
Sumter
Lake
310 ft
Lake Apopka
299 ft
Withlacoochee River
St Johns
Palm Coast
Flagler
Daytona Beach
Tiger Bay State Forest
Lake George State Forest
Port Orang
Volusia
Deltona
Big Whirl
Seminole
Orlando
Orange
Titus
Lake Hart

## Select data type

RESET MAP

- SINGLE LOCATION
- MULTIPLE LOCATIONS

## Select map attributes to display data

NATURAL HAZARDS

MAP
STYLE (Optional)

**REGION FOR HEALTH DATA**

STATE

COUNTY

ZIP CODE

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Volusia |
| Beneficiaries: | 140,119 |
| Electricity-Dependent Beneficiaries: | 6,158 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,181

**Natural Hazard Legend**

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32114 | 6,499 | 296 |
| 32117 | 5,737 | 292 |
| 32118 | 5,927 | 184 |
| 32119 | 5,975 | 261 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32124 | 1,228 | 29 |
| 32127 | 8,580 | 359 |
| 32128 | 5,958 | 183 |
| 32129 | 6,054 | 264 |
| 32130 | 1,185 | 73 |
| 32132 | 2,337 | 95 |
| 32141 | 5,554 | 268 |
| 32168 | 8,372 | 293 |
| 32169 | 4,216 | 90 |
| 32174 | 17,181 | 588 |
| 32176 | 4,924 | 158 |
| 32180 | 747 | 35 |
| 32190 | 282 | 11 |
| 32713 | 5,619 | 289 |
| 32720 | 7,720 | 403 |
| 32724 | 9,660 | 478 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32725 | 10,044 | 550 |
| 32738 | 8,018 | 477 |
| 32744 | 1,048 | 59 |
| 32759 | 968 | 41 |
| 32763 | 5,467 | 335 |
| 32764 | 819 | 47 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare beneficiary population due to certain Medicare policies and processes.

Note (2): The "electricity-dependent" number, by location, represents the total number of beneficiaries with claims in Centers for Medicare and Medicaid Services (CMS) databases from the prior month for: ventilator, BiPAP, enteral feeding machine, intravenous (IV) infusion pump, suction pump, at-home dialysis machine, electric wheelchair, electric scooter, and electric bed equipment in the past 13 months; oxygen concentrator equipment in the past 36 months; and implanted cardiac devices that include left ventricular assistive device (LVAD), right ventricular assistive device (RVAD), bi-ventricular assistive device (BIVAD), and total artificial heart (TAH) in the past 5 years. To protect individual privacy, the following de-identification methodologies have been implemented: removal of all personal identifiers; aggregating data totals at the geographic level; and replacing any small cell size between 1 and 10 (e.g., a ZIP Code with only 3 individuals ) with an 11. Some ZIP Codes may not be represented on the map because they do not have geographical boundaries (e.g. post office boxes, a large building, etc.). In these instances, we add their total to the geographical ZIP Code where the post office box or building can be found.

Note (3): The map is provided to inform and support community partner emergency preparedness, mitigation, response, recovery, and resilience activities. Use of this tool and data signifies your agreement to: use it for the specified purposes; make no attempt to identify any individual in this data; and send an email to empower@hhs.gov if a small size between 1 and 10 is identified at any geographic level. Send any additional questions to empower@hhs.gov.

Note (4): The public emPOWER REST Service that contains emPOWER Program geospatial data can be found at: https://geohealth.hhs.gov/dataaccess/rest/services/CMS_DME/HHS_CMS_DME_ESRD_onlyAll/MapServer.

Note (5): Information regarding the Natural Hazards can be found from the source webpages:

- National Oceanic and Atmospheric Administration (NOAA) National Weather Service active weather alerts can be found at: http://www.weather.gov.
- Hurricanes, Radar, Flood, Precipitation, and Storm Prediction: https://idpgis.ncep.noaa.gov/arcgis/rest/services.

- Long Duration and Short Duration Hazards: https://new.nowcoast.noaa.gov/arcgis/rest/services.
- Wildfire: https://geohealth.hhs.gov/arcgis/home/item.html?id=81934f7c953240de89405da4602a7a5a.
- Seismic Activity: https://earthquake.usgs.gov/arcgis/rest/services/eq/dyfi_30DaySignificant/MapServer.

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Office of the Assistant Secretary for Preparedness & Response

Privacy, Accessibility, Disclaimer
U.S. Department of Health & Human Services

200 Independence Avenue, S.W. Washington, D.C. 20201


**Data last updated:** 15 November 2019
**Webpage last updated:** 30 December 2016
**Webpage first published:** 23 June 2015

# Brevard

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Brevard |
| Beneficiaries: | 147,219 |
| Electricity-Dependent Beneficiaries: | 6,524 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32754 | 3,017 | 139 |
| 32775 | 109 | 11 |
| 32780 | 10,448 | 532 |
| 32796 | 5,221 | 283 |
| 32815 | 11 | 11 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32899 | 11 | 0 |
| 32901 | 7,086 | 355 |
| 32903 | 3,429 | 106 |
| 32904 | 7,758 | 347 |
| 32905 | 6,452 | 302 |
| 32907 | 9,683 | 468 |
| 32908 | 2,288 | 103 |
| 32909 | 7,084 | 264 |
| 32920 | 3,148 | 110 |
| 32922 | 3,420 | 177 |
| 32925 | 163 | 11 |
| 32926 | 5,478 | 273 |
| 32927 | 5,037 | 282 |
| 32931 | 4,408 | 148 |
| 32934 | 4,522 | 210 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32935 | 8,891 | 450 |
| 32937 | 6,495 | 257 |
| 32940 | 12,186 | 405 |
| 32949 | 784 | 21 |
| 32950 | 1,248 | 48 |
| 32951 | 3,752 | 97 |
| 32952 | 5,182 | 199 |
| 32953 | 6,048 | 292 |
| 32955 | 8,978 | 410 |
| 32976 | 4,882 | 213 |

# Indian River

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Indian River |
| Beneficiaries: | 51,224 |
| Electricity-Dependent Beneficiaries: | 1,557 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32948 | 781 | 32 |
| 32958 | 10,362 | 334 |
| 32960 | 6,053 | 206 |
| 32962 | 6,999 | 208 |
| 32963 | 7,404 | 140 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32966 | 8,439 | 291 |
| 32967 | 7,231 | 212 |
| 32968 | 3,955 | 134 |

# Lake

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Lake |
| Beneficiaries: | 105,379 |
| Electricity-Dependent Beneficiaries: | 4,836 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32102 | 946 | 45 |
| 32159 | 16,201 | 604 |
| 32726 | 5,126 | 320 |
| 32735 | 1,545 | 78 |
| 32736 | 2,248 | 114 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32756 | 359 | 11 |
| 32757 | 7,509 | 352 |
| 32767 | 668 | 36 |
| 32776 | 2,303 | 115 |
| 32778 | 7,266 | 422 |
| 32784 | 2,524 | 160 |
| 34705 | 554 | 29 |
| 34711 | 14,339 | 552 |
| 34714 | 3,314 | 127 |
| 34715 | 3,314 | 150 |
| 34731 | 3,238 | 136 |
| 34736 | 4,477 | 183 |
| 34737 | 831 | 31 |
| 34748 | 18,594 | 796 |
| 34753 | 770 | 41 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34756 | 639 | 28 |
| 34762 | 257 | 12 |
| 34788 | 6,793 | 379 |
| 34797 | 442 | 35 |

# Martin

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Martin |
| Beneficiaries: | 44,916 |
| Electricity-Dependent Beneficiaries: | 1,419 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 33438 | 149 | 11 |
| 33455 | 7,172 | 256 |
| 33458 | 8,188 | 295 |
| 33469 | 4,359 | 103 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34956 | 1,108 | 50 |
| 34957 | 7,438 | 255 |
| 34990 | 8,372 | 229 |
| 34994 | 4,615 | 147 |
| 34996 | 4,190 | 116 |
| 34997 | 12,021 | 366 |

# Orange

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Orange |
| Beneficiaries: | 180,045 |
| Electricity-Dependent Beneficiaries: | 6,844 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32703 | 7,211 | 349 |
| 32709 | 522 | 36 |
| 32712 | 8,156 | 346 |
| 32751 | 3,932 | 137 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32789 | 5,174 | 166 |
| 32798 | 1,556 | 81 |
| 32801 | 2,822 | 145 |
| 32803 | 2,701 | 92 |
| 32804 | 3,014 | 101 |
| 32805 | 4,542 | 191 |
| 32806 | 4,159 | 158 |
| 32807 | 5,177 | 222 |
| 32808 | 6,909 | 304 |
| 32809 | 3,876 | 144 |
| 32810 | 5,100 | 239 |
| 32811 | 4,447 | 166 |
| 32812 | 5,189 | 193 |
| 32814 | 838 | 16 |
| 32816 | 11 | 0 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32817 | 4,565 | 173 |
| 32818 | 6,742 | 239 |
| 32819 | 4,406 | 131 |
| 32820 | 1,300 | 65 |
| 32821 | 1,911 | 66 |
| 32822 | 9,446 | 370 |
| 32824 | 5,756 | 196 |
| 32825 | 8,048 | 309 |
| 32826 | 2,908 | 141 |
| 32827 | 1,823 | 50 |
| 32828 | 6,736 | 240 |
| 32829 | 2,246 | 76 |
| 32830 | 12 | 0 |
| 32831 | 11 | 0 |
| 32832 | 2,114 | 58 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32833 | 1,568 | 55 |
| 32835 | 3,990 | 114 |
| 32836 | 2,719 | 73 |
| 32837 | 6,418 | 194 |
| 32839 | 4,889 | 178 |
| 34734 | 663 | 27 |
| 34760 | 234 | 11 |
| 34761 | 5,415 | 233 |
| 34786 | 4,242 | 111 |
| 34787 | 8,820 | 345 |

# Osceola

**Medicare Data Totals**

| | |
|---|---|
| Geographical Area: | Osceola |
| Beneficiaries: | 55,098 |
| Electricity-Dependent Beneficiaries: | 2,110 |

**Electricity-Dependent Scale**

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

**Natural Hazard Legend**

## Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 33848 | 234 | 11 |
| 34739 | 234 | 14 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34741 | 7,103 | 267 |
| 34743 | 6,477 | 230 |
| 34744 | 8,646 | 321 |
| 34746 | 8,155 | 299 |
| 34747 | 2,987 | 81 |
| 34758 | 6,769 | 229 |
| 34769 | 5,337 | 265 |
| 34771 | 3,567 | 173 |
| 34772 | 4,889 | 188 |
| 34773 | 700 | 32 |

Note

# Seminole

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Seminole |
| Beneficiaries: | 68,478 |
| Electricity-Dependent Beneficiaries: | 3,065 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32701 | 4,259 | 168 |
| 32707 | 6,545 | 318 |
| 32708 | 8,457 | 363 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32714 | 5,637 | 264 |
| 32730 | 1,210 | 61 |
| 32732 | 1,099 | 49 |
| 32746 | 7,302 | 292 |
| 32750 | 4,742 | 215 |
| 32765 | 8,433 | 342 |
| 32766 | 1,777 | 78 |
| 32771 | 8,605 | 413 |
| 32773 | 4,242 | 267 |
| 32779 | 6,170 | 235 |
| 32792 | 7,727 | 303 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare ben

# St. Lucie

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Saint Lucie |
| Beneficiaries: | 73,695 |
| Electricity-Dependent Beneficiaries: | 2,667 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34945 | 991 | 35 |
| 34946 | 1,565 | 74 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 34947 | 1,797 | 70 |
| 34949 | 3,300 | 85 |
| 34950 | 3,069 | 124 |
| 34951 | 5,061 | 180 |
| 34952 | 12,984 | 503 |
| 34953 | 10,943 | 438 |
| 34981 | 808 | 40 |
| 34982 | 5,801 | 227 |
| 34983 | 8,893 | 347 |
| 34984 | 3,280 | 91 |
| 34986 | 10,678 | 341 |
| 34987 | 4,525 | 112 |

Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare ben

# Volusia

## Medicare Data Totals

| | |
|---|---|
| Geographical Area: | Volusia |
| Beneficiaries: | 142,497 |
| Electricity-Dependent Beneficiaries: | 6,288 |

## Electricity-Dependent Scale

- 0 - 0
- 1 - 133
- 134 - 237
- 238 - 396
- 397 - 1,256

## Natural Hazard Legend

# Electricity-Dependent Medicare Population by Selected Region

- States/Territories
- Counties
- ZIP Codes

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32114 | 6,501 | 290 |
| 32117 | 5,819 | 298 |
| 32118 | 6,025 | 191 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32119 | 6,025 | 278 |
| 32124 | 1,435 | 39 |
| 32127 | 8,682 | 364 |
| 32128 | 6,057 | 180 |
| 32129 | 6,157 | 293 |
| 32130 | 1,198 | 67 |
| 32132 | 2,349 | 98 |
| 32141 | 5,645 | 268 |
| 32168 | 8,667 | 309 |
| 32169 | 4,309 | 90 |
| 32174 | 17,482 | 591 |
| 32176 | 4,993 | 160 |

| Geographic Area | Beneficiaries | Electricity-Dependent Beneficiaries |
|---|---|---|
| 32180 | 741 | 35 |
| 32190 | 278 | 13 |
| 32713 | 5,755 | 273 |
| 32720 | 7,802 | 400 |
| 32724 | 9,917 | 503 |
| 32725 | 10,106 | 561 |
| 32738 | 8,159 | 499 |
| 32744 | 1,045 | 58 |
| 32759 | 989 | 45 |
| 32763 | 5,519 | 337 |
| 32764 | 842 | 48 |

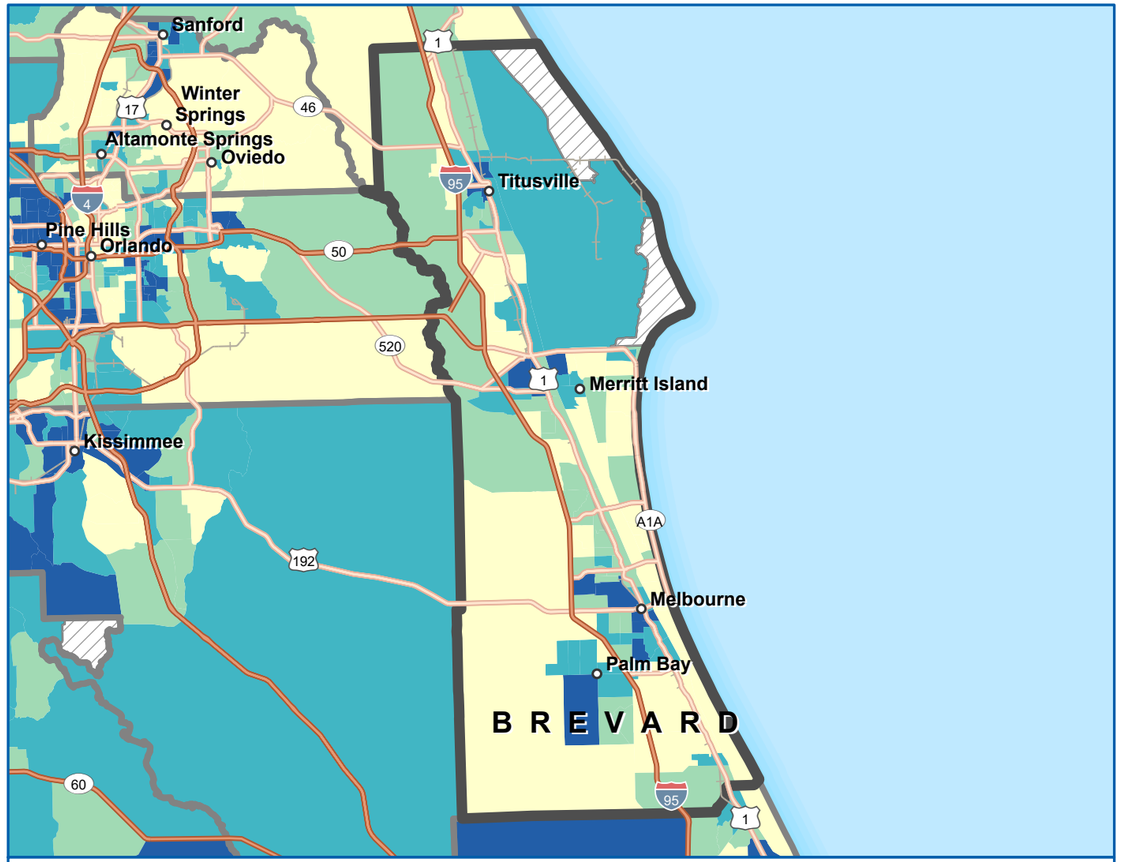
Note (1): The map uses de-identified claims data, updated monthly, on Medicare Fee-for-Service and Medicare Advantage (Parts A, B and C) beneficiaries, which includes Americans age 65 and over, and disabled Americans under age 65. The totals listed here may underestimate the total at-risk Medicare ben

# CDC's Social Vulnerability Index 2016

## Brevard County, Florida

PART 1

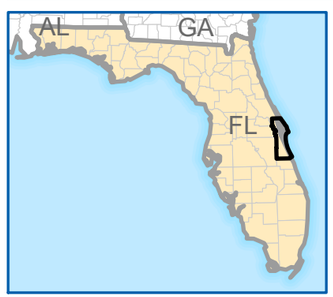
### Overall Social Vulnerability[1]




Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 3.5 7 14 21
Miles




**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

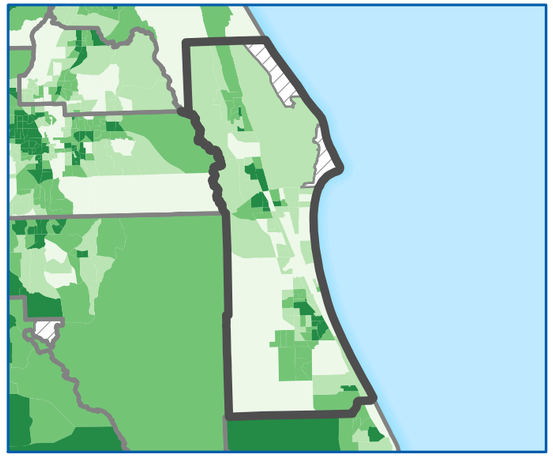
**FINAL - FOR EXTERNAL USE**

SVI 2016 – BREVARD COUNTY, FLORIDA

PART 2

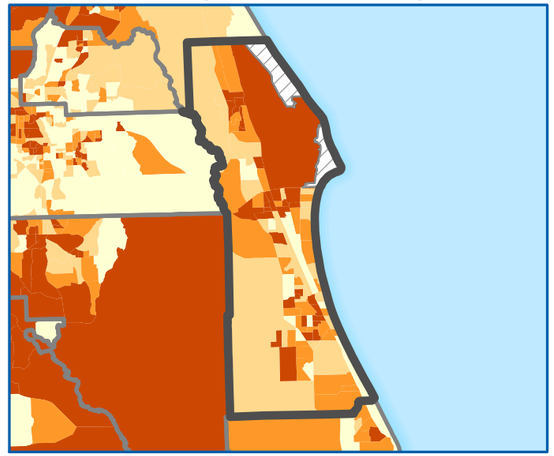
## SVI Themes

### Socioeconomic Status[5]



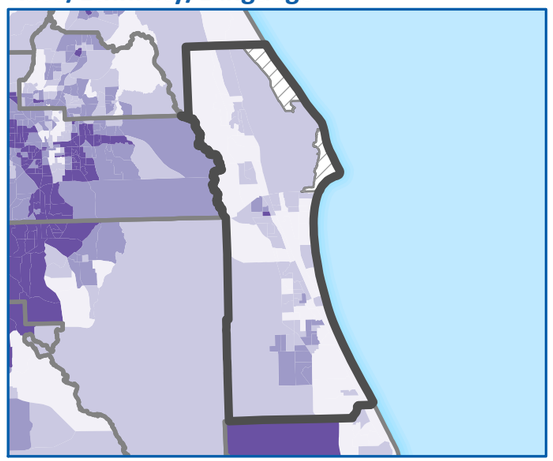
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



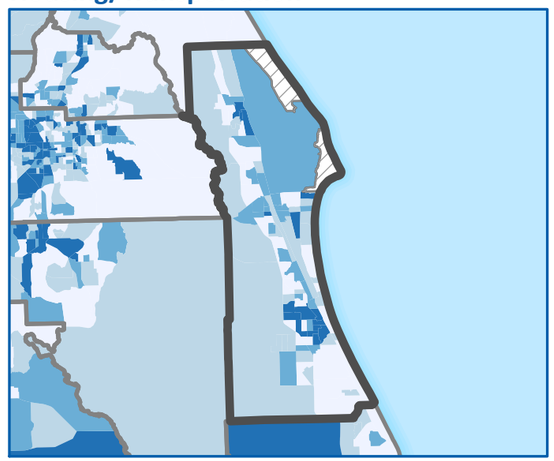
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.

**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

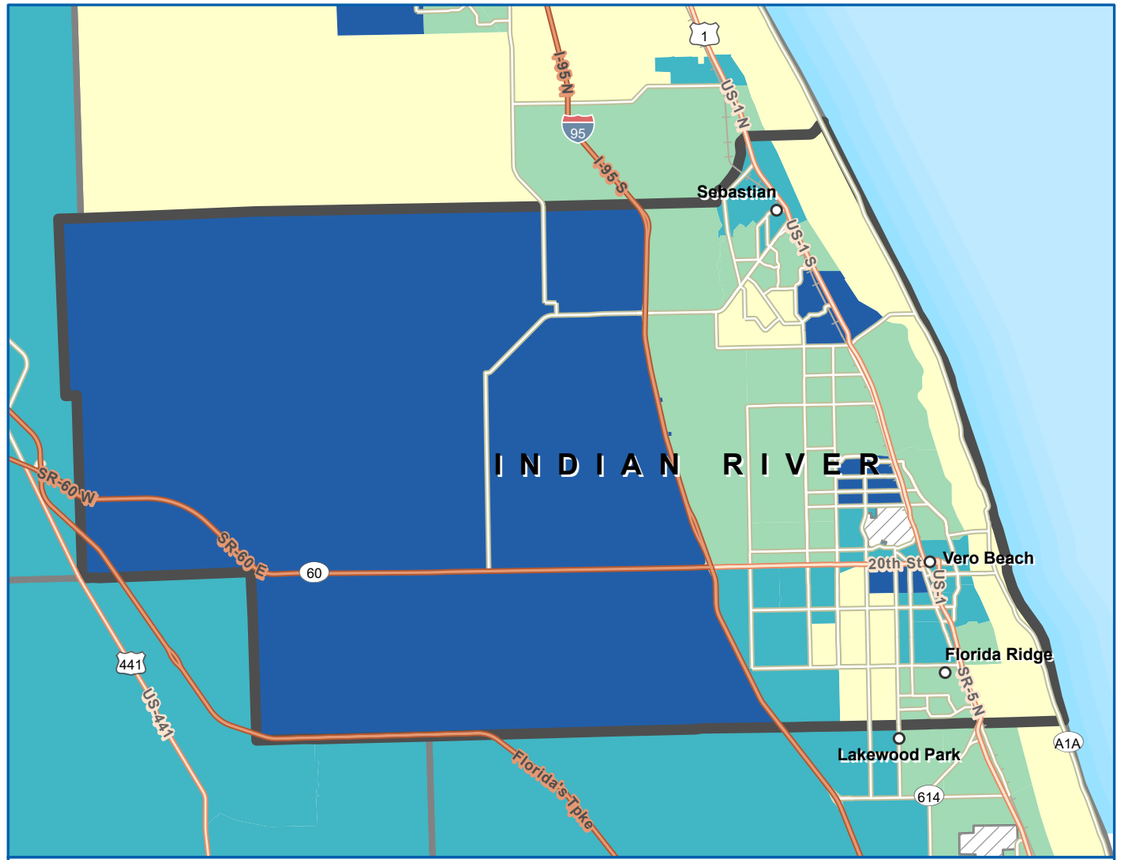
**FINAL - FOR EXTERNAL USE**

# CDC's Social Vulnerability Index 2016

## Indian River County, Florida

PART 1

### Overall Social Vulnerability[1]




Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 1.25 2.5 5 7.5
Miles

**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

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Agency for Toxic Substances and Disease Registry
Division of Toxicology and Human Health Sciences

ATSDR

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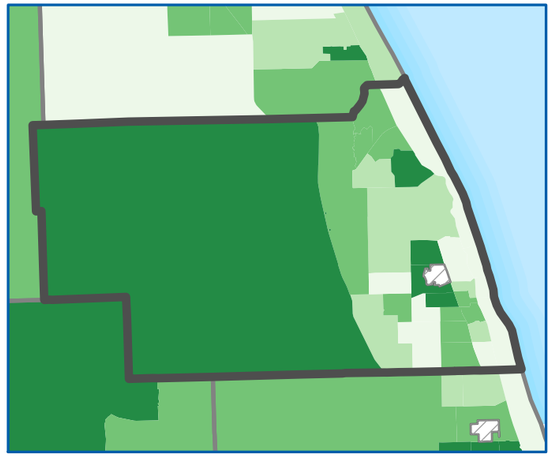
SVI 2016 – INDIAN RIVER COUNTY, FLORIDA

PART 2

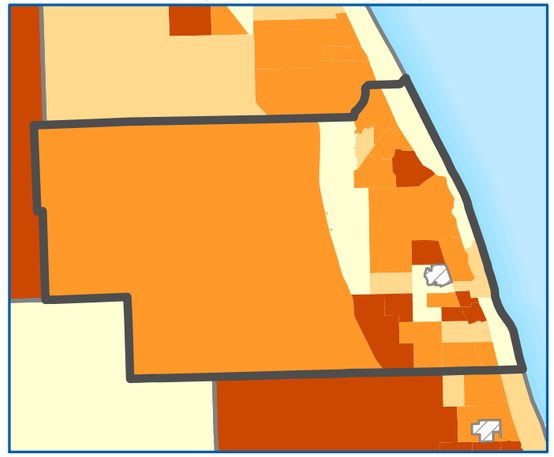
## SVI Themes

### Socioeconomic Status[5]



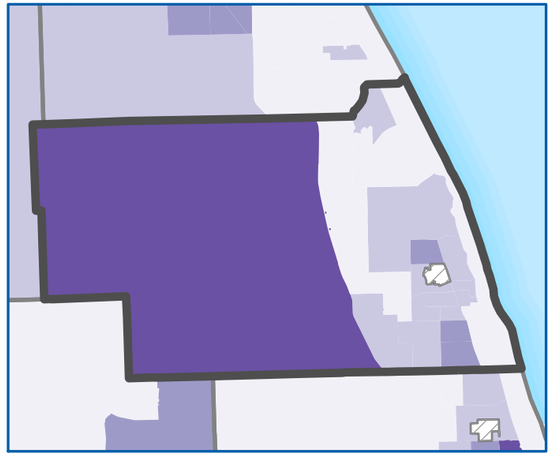
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



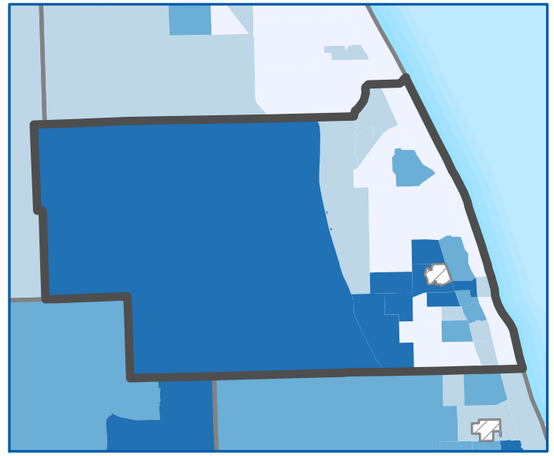
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.
**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.
**Projection:** NAD 1983 Florida GDL Albers.
**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).
CDC's SVI web page: http://svi.cdc.gov.

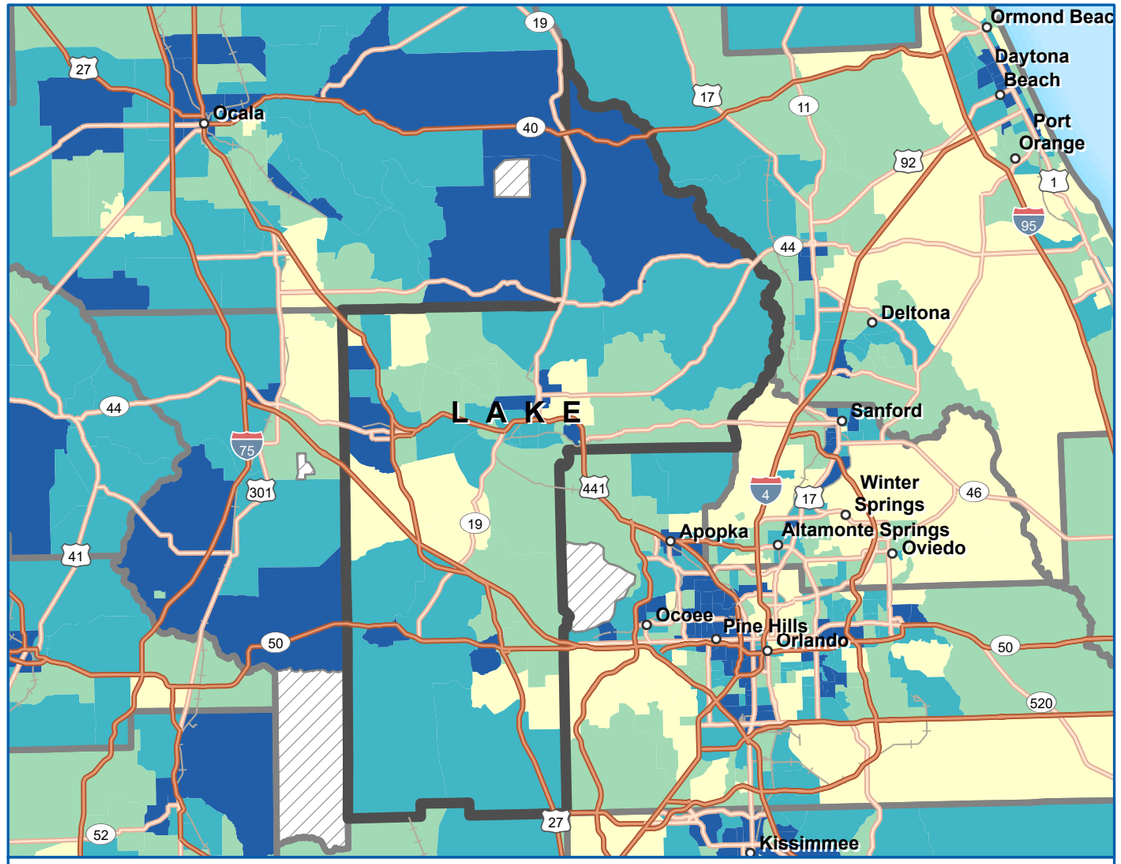
**FINAL - FOR EXTERNAL USE**

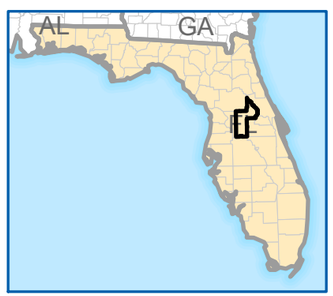
# CDC's Social Vulnerability Index 2016

## Lake County, Florida

PART 1

### Overall Social Vulnerability[1]




**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

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ATSDR

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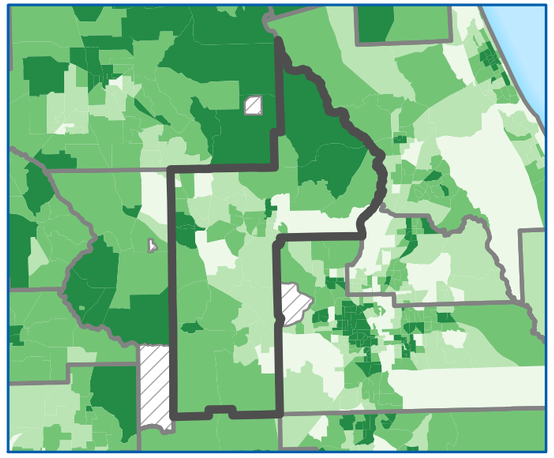
SVI 2016 – LAKE COUNTY, FLORIDA

PART 2

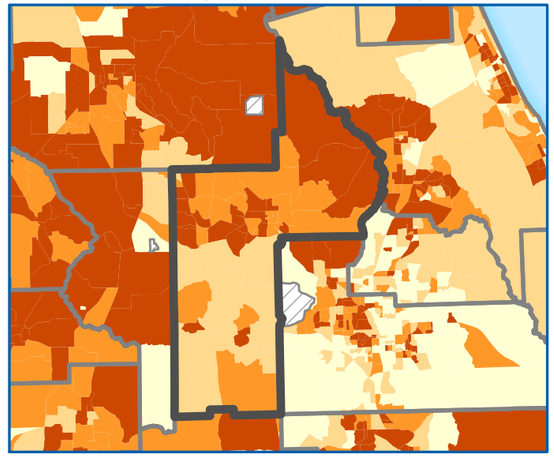
## SVI Themes

### Socioeconomic Status[5]



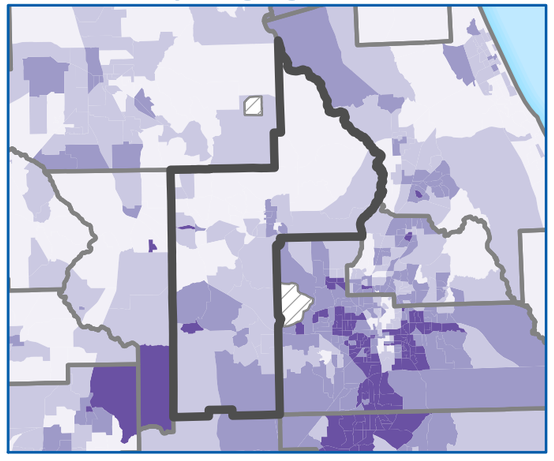
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Household Composition/Disability[6]



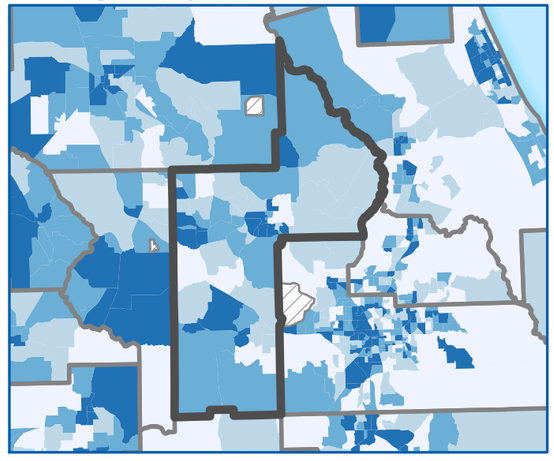
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.

**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

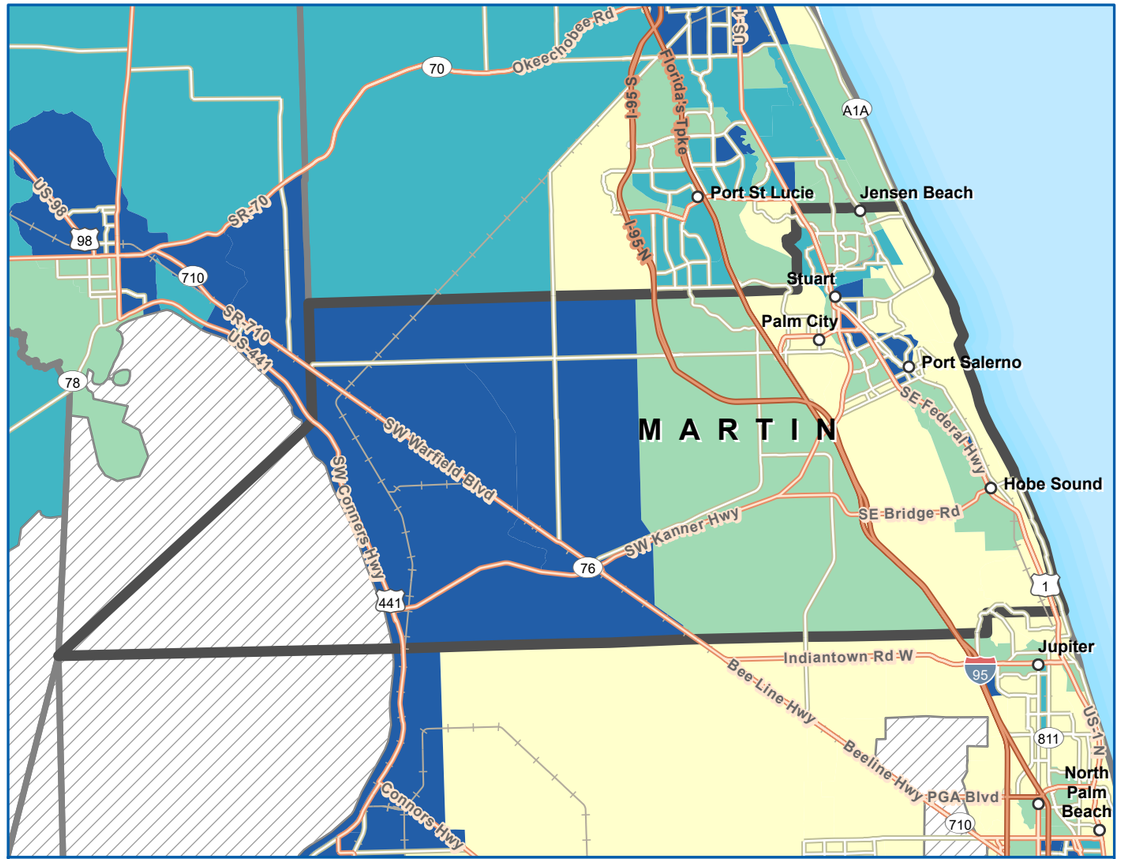
**FINAL - FOR EXTERNAL USE**

# CDC's Social Vulnerability Index 2016

## Martin County, Florida

PART 1

### Overall Social Vulnerability[1]



**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

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Division of Toxicology and Human Health Sciences

ATSDR

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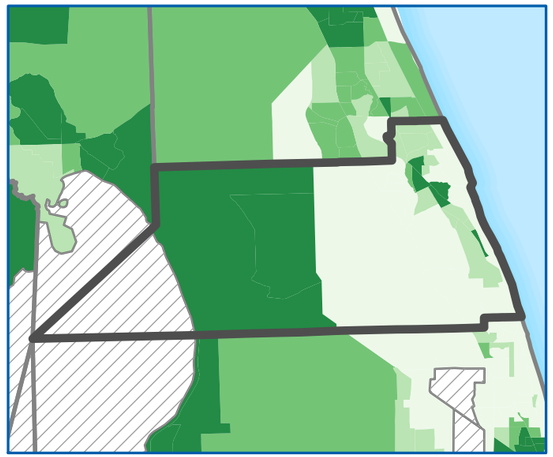
SVI 2016 – MARTIN COUNTY, FLORIDA

PART 2

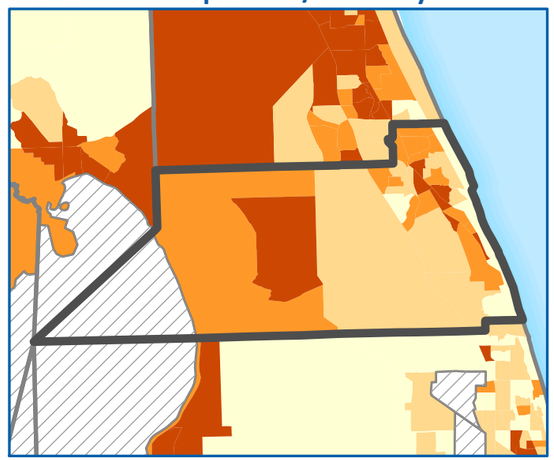
## SVI Themes

### Socioeconomic Status[5]



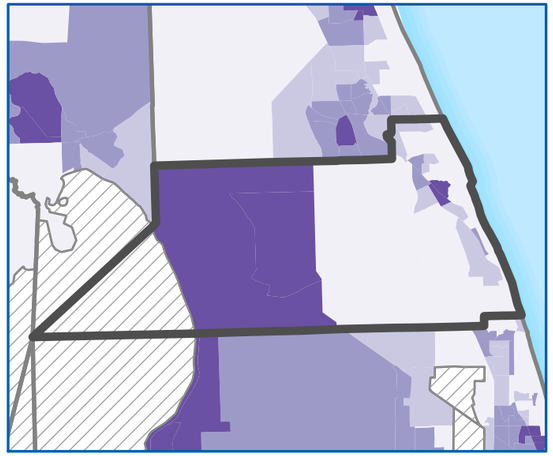
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Household Composition/Disability[6]



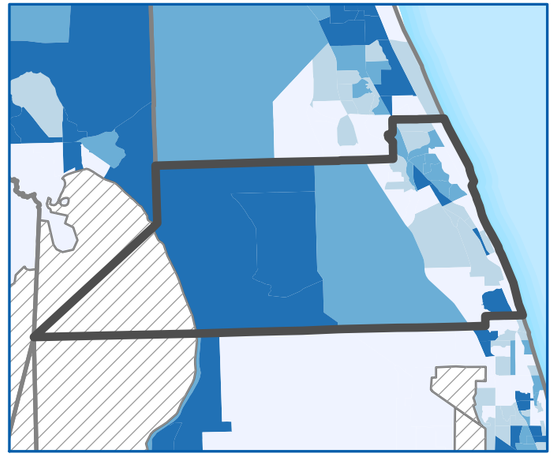
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.

**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

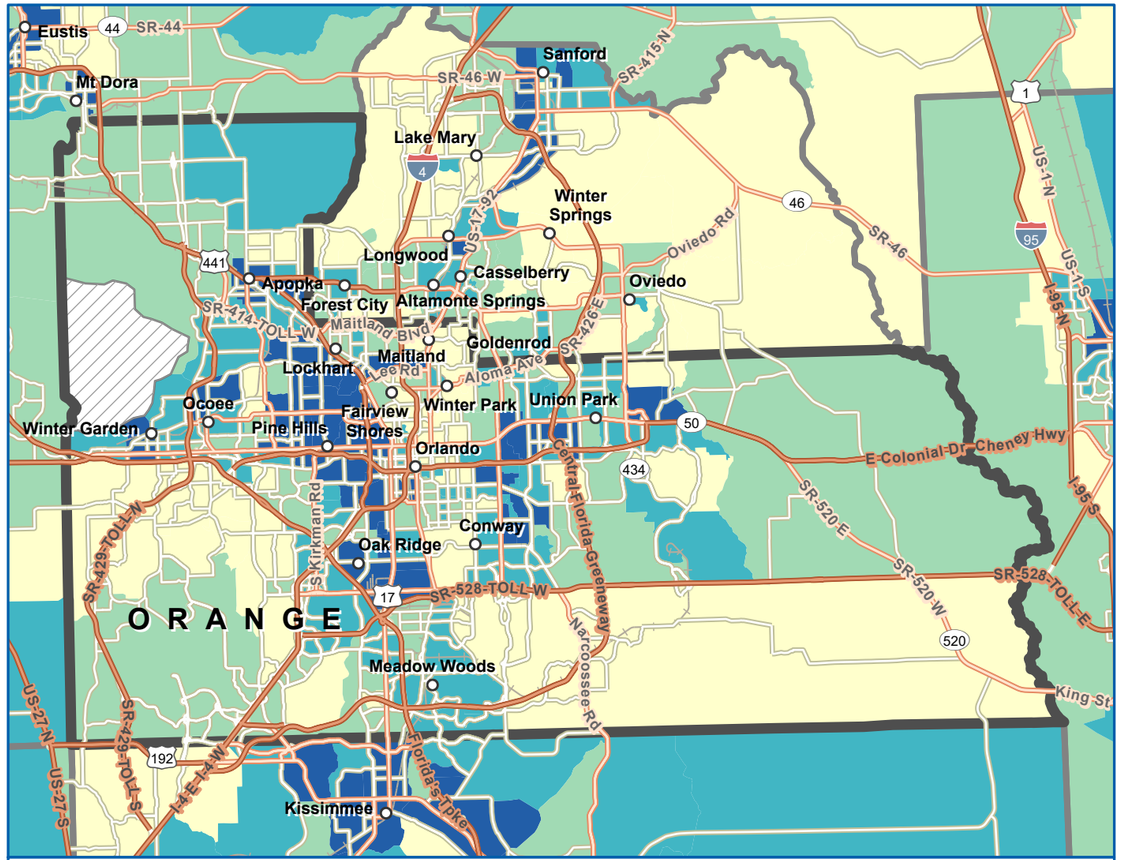
**FINAL - FOR EXTERNAL USE**

# CDC's Social Vulnerability Index 2016

## Orange County, Florida

PART 1

### Overall Social Vulnerability[1]




Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 2 4 8 12 Miles

**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

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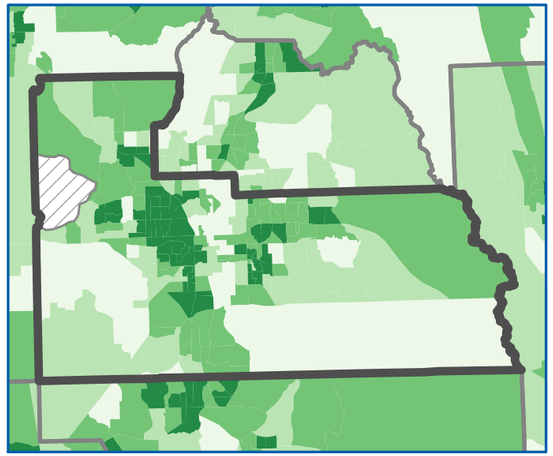
SVI 2016 – ORANGE COUNTY, FLORIDA

PART 2

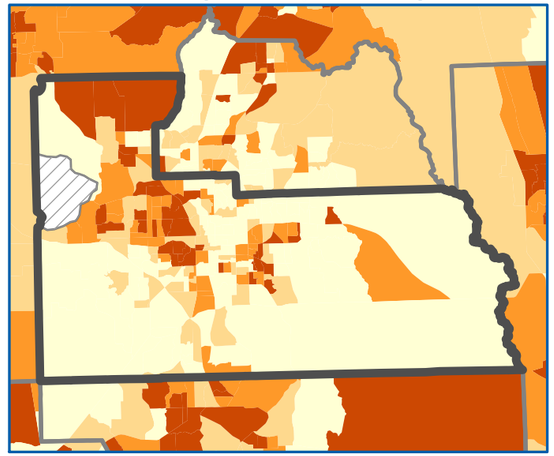
## SVI Themes

### Socioeconomic Status[5]



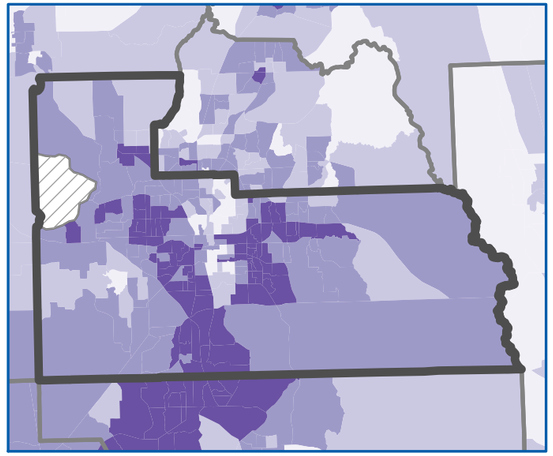
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



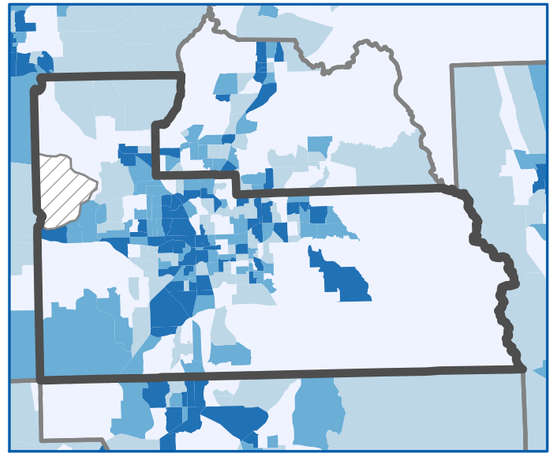
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.

**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

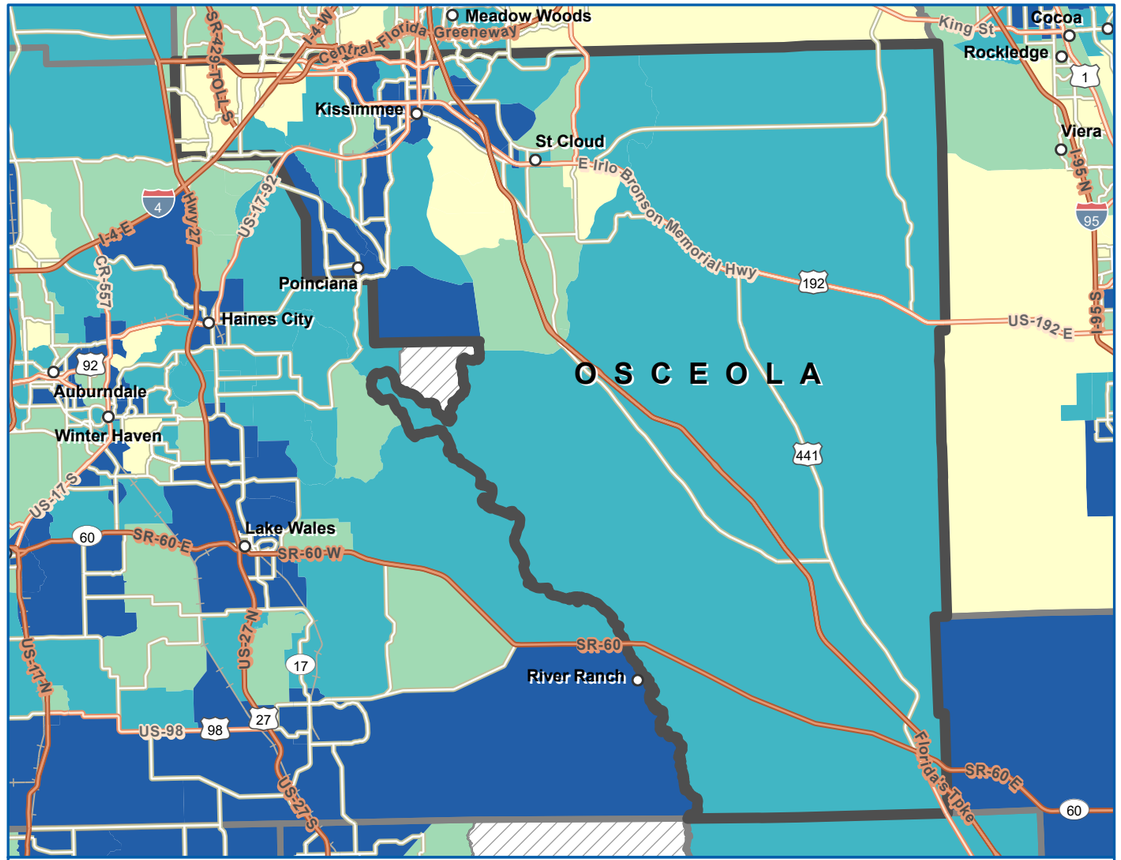
**FINAL - FOR EXTERNAL USE**

# CDC's Social Vulnerability Index 2016

## Osceola County, Florida

PART 1

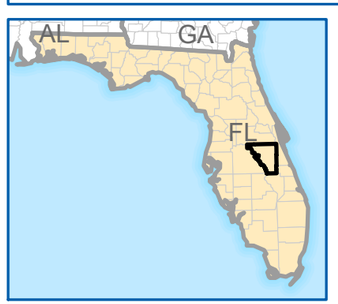
### Overall Social Vulnerability[1]




Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 2.5 5 10 15
Miles




**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

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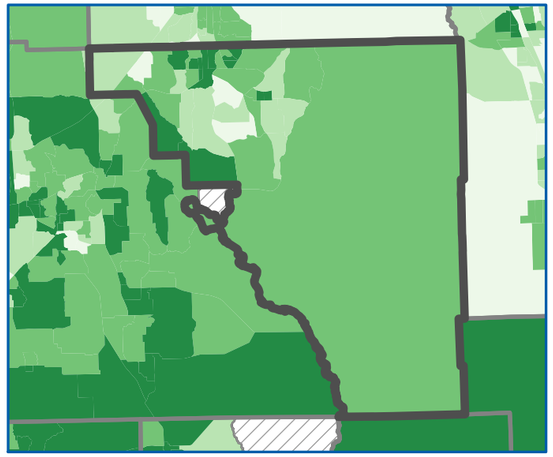
SVI 2016 – OSCEOLA COUNTY, FLORIDA

PART 2

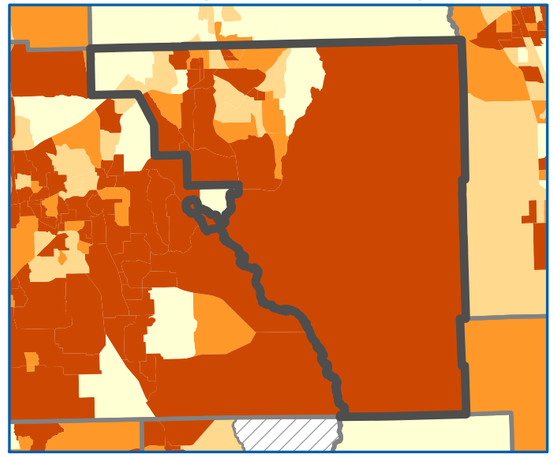
## SVI Themes

### Socioeconomic Status[5]



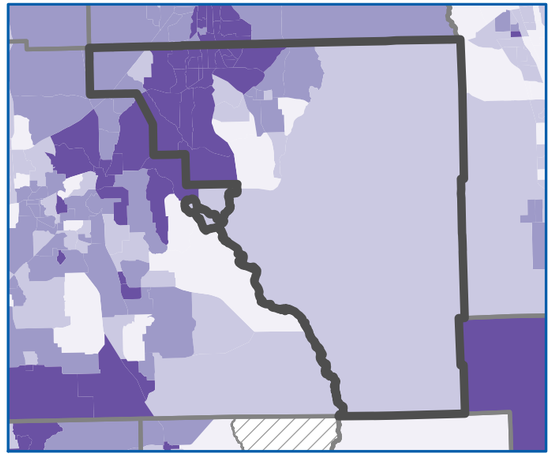
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



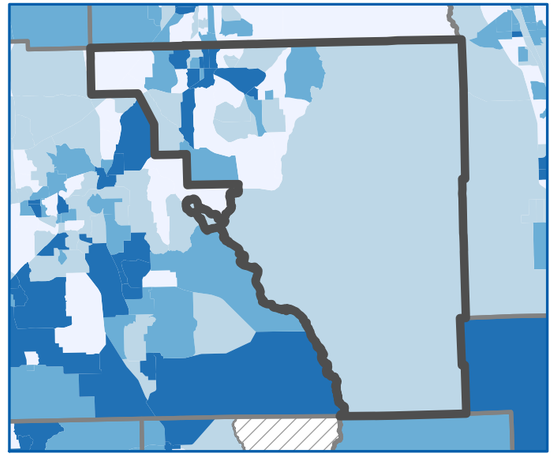
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.

**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

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# CDC's Social Vulnerability Index 2016

## Seminole County, Florida

PART 1

### Overall Social Vulnerability[1]

Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 1 2 4 6
Miles

**Social vulnerability** refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2016)[4] County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2016 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

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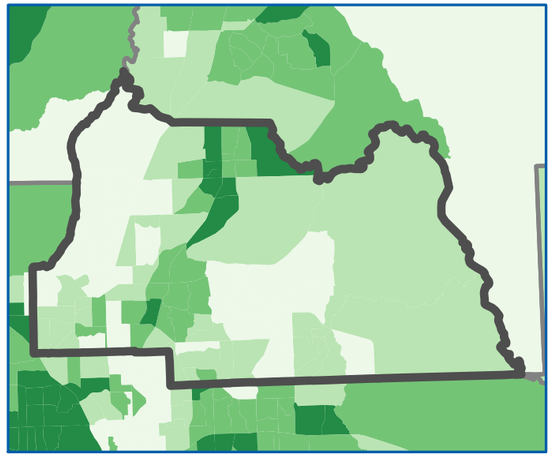
SVI 2016 – SEMINOLE COUNTY, FLORIDA

PART 2

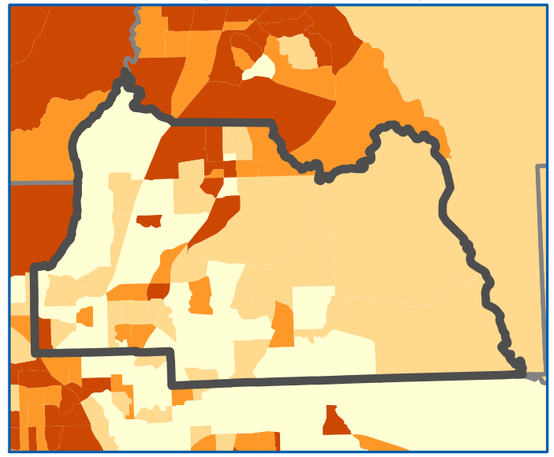
## SVI Themes

### Socioeconomic Status[5]



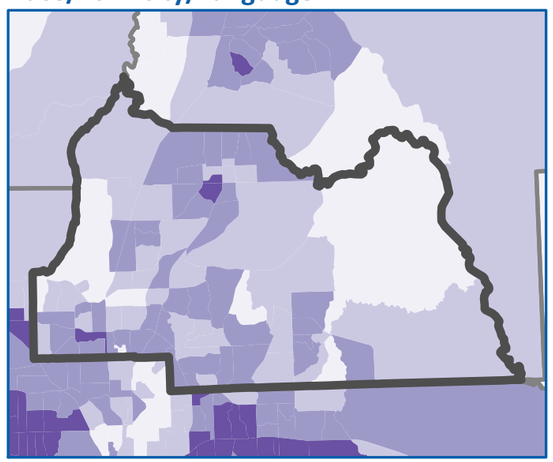
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



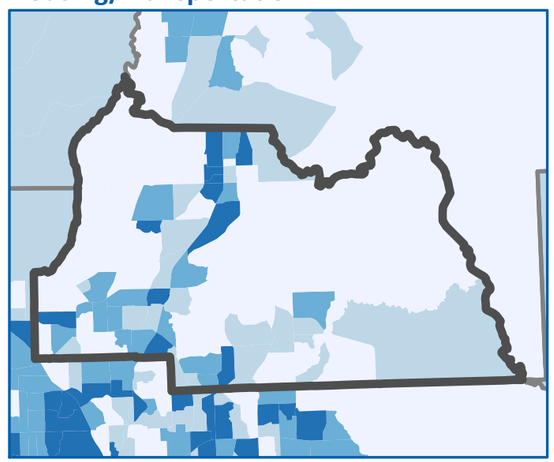
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

**Data Sources:** [2]CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.
**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.
**Projection:** NAD 1983 Florida GDL Albers.
**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).
CDC's SVI web page: http://svi.cdc.gov.

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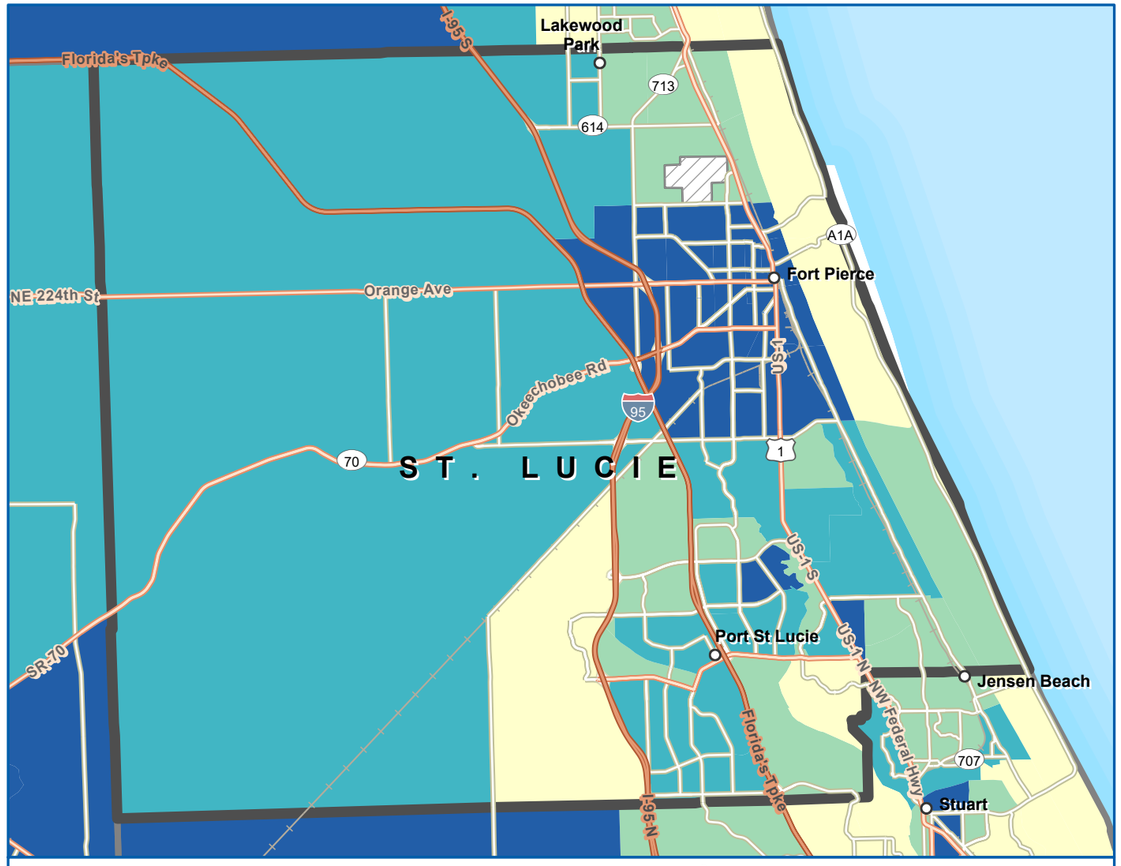
# CDC's Social Vulnerability Index 2016

## St. Lucie County, Florida

PART 1

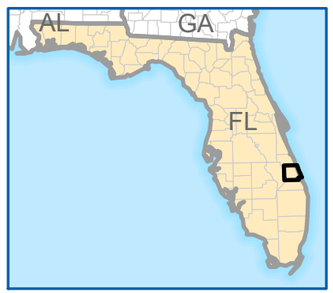
### Overall Social Vulnerability[1]




Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

Data Unavailable[3]

0 1.25 2.5 5 7.5
Miles

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MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

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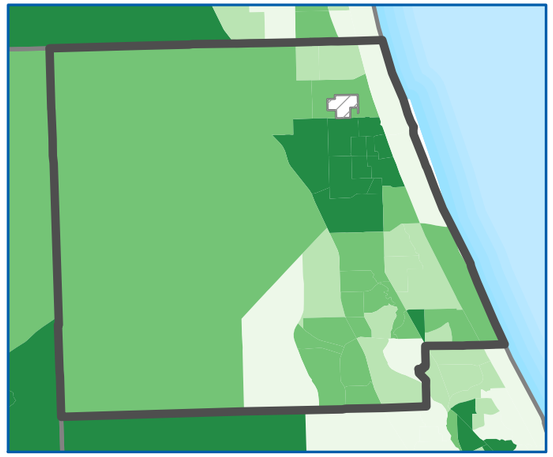
SVI 2016 – ST. LUCIE COUNTY, FLORIDA

PART 2

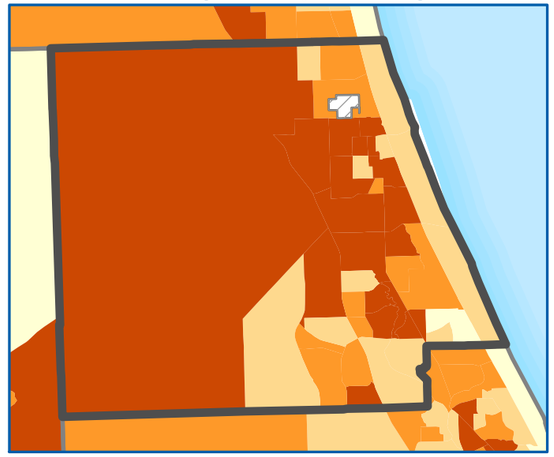
## SVI Themes

### Socioeconomic Status[5]



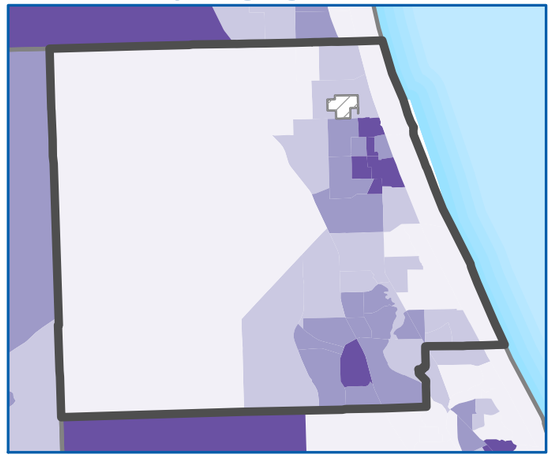
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Household Composition/Disability[6]



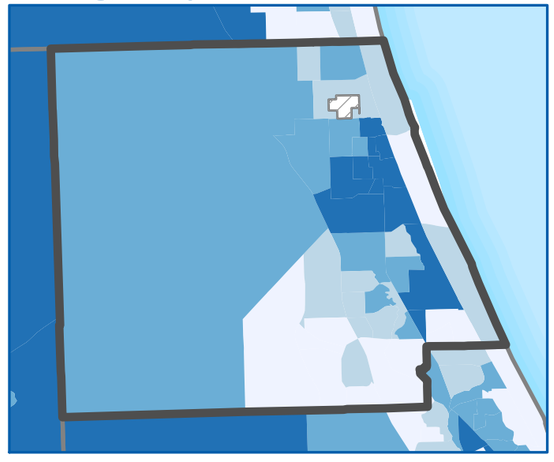
Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) | Vulnerability (SVI 2016)[2] | Lowest (Bottom 4th)

### Housing/Transportation[8]



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**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).
CDC's SVI web page: http://svi.cdc.gov.

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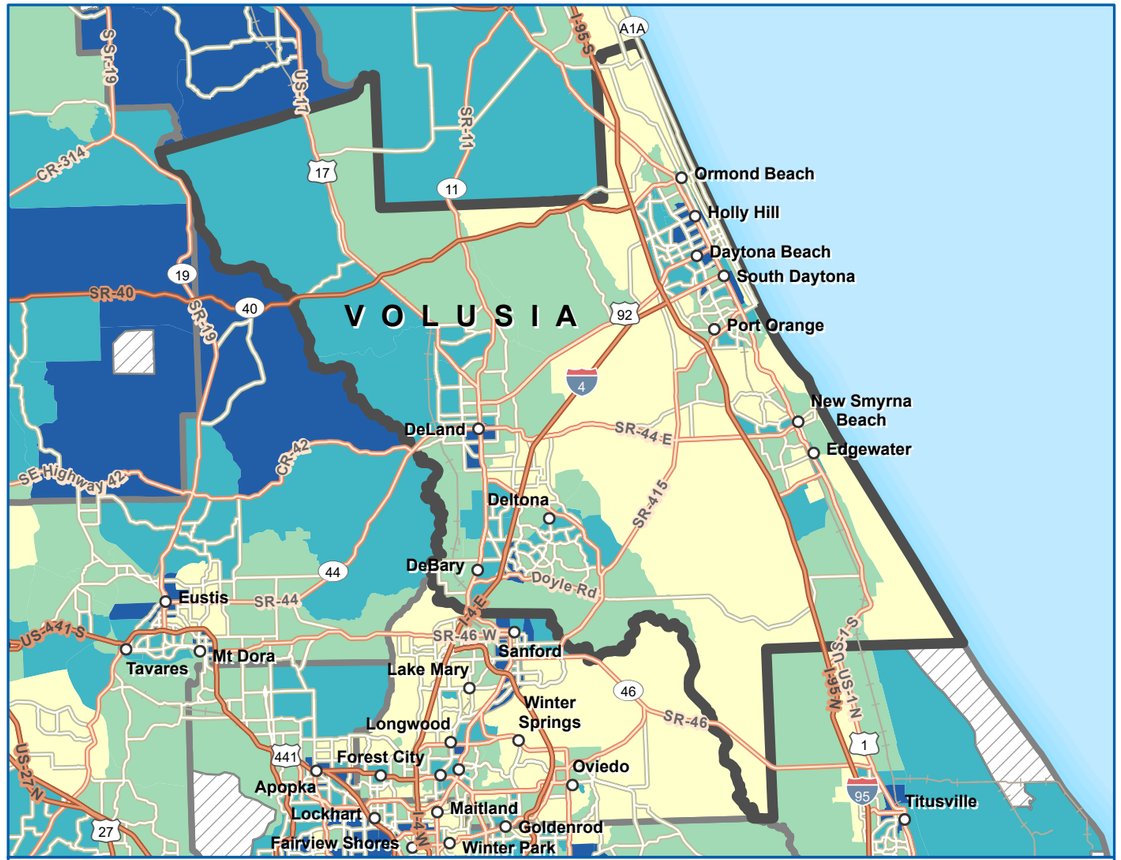
# CDC's Social Vulnerability Index 2016

## Volusia County, Florida

PART 1

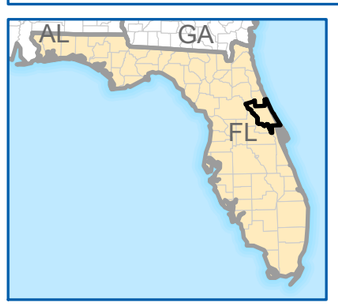
### Overall Social Vulnerability[1]




Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

Data Unavailable[3]

0 2.75 5.5 11 16.5
Miles

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MAP PRODUCED 2/7/2018

GRASP

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

ATSDR

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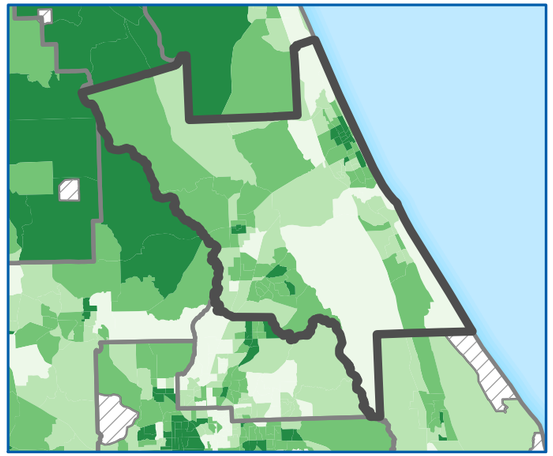
SVI 2016 – VOLUSIA COUNTY, FLORIDA

PART 2

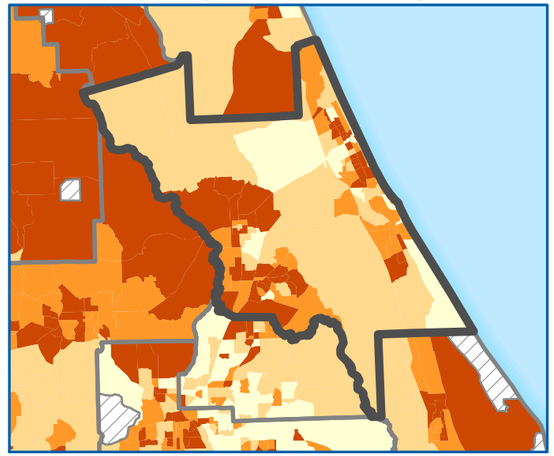
## SVI Themes

### Socioeconomic Status[5]



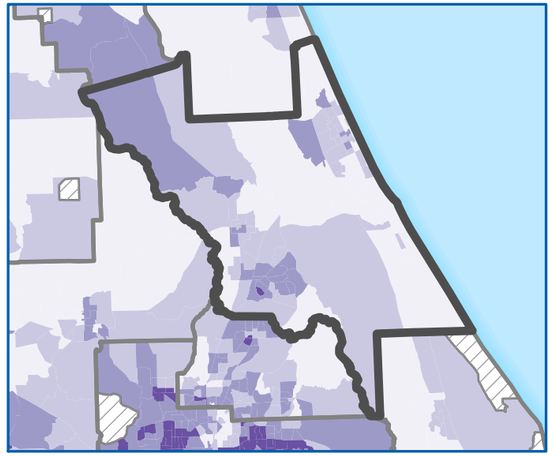
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Household Composition/Disability[6]



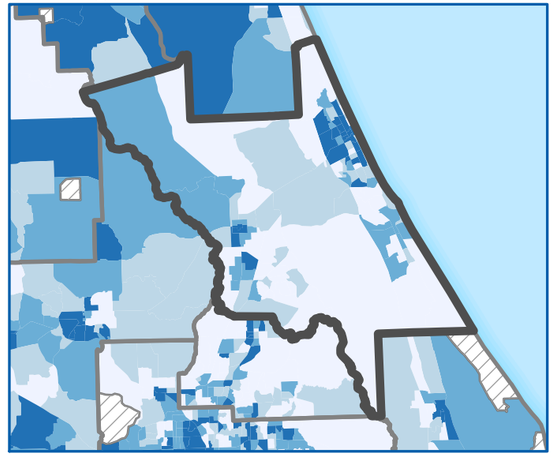
Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Race/Ethnicity/Language[7]



Highest (Top 4th) — Vulnerability (SVI 2016)[2] — Lowest (Bottom 4th)

### Housing/Transportation[8]



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**Notes:** [1]Overall Social Vulnerability: All 15 variables. [3]Census tracts with 0 population. [4]The SVI combines percentile rankings of US Census American Community Survey (ACS) 2012-2016 variables, for the state, at the census tract level. [5]Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. [6]Household Composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. [7]Race/Ethnicity/Language: Minority, English Language Ability. [8]Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

**Projection:** NAD 1983 Florida GDL Albers.

**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1).

CDC's SVI web page: http://svi.cdc.gov.

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# Appendix E

# CFDMC HVA/JRA Survey Results

**Hazards rated on likeliness to occur and on the severity of event if it should occur:**

| | NOT LIKELY TO OCCUR | POSSIBILITY TO OCCUR | LIKELY TO OCCUR | LOW IMPACT IF IT OCCURS | MODERATE IMPACT IF IT OCCURS | HIGH IMPACT IF IT OCCURS | TOTAL RESPONDENTS |
|---|---|---|---|---|---|---|---|
| Hurricane | 0.00% 0 | 12.07% 7 | 60.34% 35 | 3.45% 2 | 32.76% 19 | 68.97% 40 | 58 |
| Tornado | 6.90% 4 | 51.72% 30 | 17.24% 10 | 8.62% 5 | 32.76% 19 | 55.17% 32 | 58 |
| Avalanche | 100.00% 54 | 0.00% 0 | 0.00% 0 | 25.93% 14 | 1.85% 1 | 5.56% 3 | 54 |
| Winter Storm | 94.83% 55 | 5.17% 3 | 0.00% 0 | 27.59% 16 | 8.62% 5 | 3.45% 2 | 58 |
| Animal Disease Outbreak | 29.31% 17 | 56.90% 33 | 1.72% 1 | 36.21% 21 | 22.41% 13 | 8.62% 5 | 58 |
| Earthquake | 68.97% 40 | 27.59% 16 | 1.72% 1 | 17.24% 10 | 12.07% 7 | 22.41% 13 | 58 |
| Tidal Wave/Tsunami | 53.45% 31 | 37.93% 22 | 5.17% 3 | 15.52% 9 | 17.24% 10 | 29.31% 17 | 58 |
| Temperature Extremes | 10.34% 6 | 25.86% 15 | 41.38% 24 | 25.86% 15 | 41.38% 24 | 22.41% 13 | 58 |
| Drought | 20.69% 12 | 41.38% 24 | 25.86% 15 | 29.31% 17 | 36.21% 21 | 6.90% 4 | 58 |
| Flood | 18.97% 11 | 39.66% 23 | 22.41% 13 | 15.52% 9 | 51.72% 30 | 18.97% 11 | 58 |
| Wildfire | 18.97% 11 | 41.38% 24 | 20.69% 12 | 24.14% 14 | 41.38% 24 | 17.24% 10 | 58 |
| Landslide | 93.10% 54 | 3.45% 2 | 0.00% 0 | 29.31% 17 | 5.17% 3 | 3.45% 2 | 58 |
| Volcanic Eruption | 100.00% 57 | 0.00% 0 | 0.00% 0 | 19.30% 11 | 1.75% 1 | 14.04% 8 | 57 |
| Epidemic | 8.62% 5 | 44.83% 26 | 25.86% 15 | 13.79% 8 | 39.66% 23 | 44.83% 26 | 58 |
| Pandemic | 6.90% 4 | 39.66% 23 | 32.76% 19 | 10.34% 6 | 29.31% 17 | 58.62% 34 | 58 |
| Biological Attack | 29.31% 17 | 46.55% 27 | 10.34% 6 | 10.34% 6 | 13.79% 8 | 56.90% 33 | 58 |
| Chemical Attack | 29.31% 17 | 44.83% 26 | 13.79% 8 | 12.07% 7 | 15.52% 9 | 53.45% 31 | 58 |
| Cyber Attack against Data | 15.52% 9 | 37.93% 22 | 31.03% 18 | 8.62% 5 | 34.48% 20 | 46.55% 27 | 58 |
| Cyber Attack against Infrastructure | 17.24% 10 | 39.66% 23 | 29.31% 17 | 10.34% 6 | 27.59% 16 | 39.66% 23 | 58 |
| Explosives Attack | 22.41% 13 | 56.90% 33 | 8.62% 5 | 10.34% 6 | 24.14% 14 | 37.93% 22 | 58 |
| Radiological Attack | 43.10% 25 | 39.66% 23 | 5.17% 3 | 10.34% 6 | 15.52% 9 | 50.00% 29 | 58 |
| Sabotage | 28.57% 16 | 51.79% 29 | 8.93% 5 | 21.43% 12 | 25.00% 14 | 25.00% 14 | 56 |
| Active Shooter Incident | 12.07% 7 | 39.66% 23 | 27.59% 16 | 6.90% 4 | 27.59% 16 | 56.90% 33 | 58 |
| Nuclear Terrorism Attack | 46.55% 27 | 37.93% 22 | 3.45% 2 | 10.34% 6 | 10.34% 6 | 55.17% 32 | 58 |
| Armed Assault | 24.14% 14 | 48.28% 28 | 13.79% 8 | 15.52% 9 | 13.79% 8 | 46.55% 27 | 58 |
| Mass Migration | 44.83% 26 | 31.03% 18 | 13.79% 8 | 22.41% 13 | 25.86% 15 | 18.97% 11 | 58 |
| Civil Disruption | 27.59% 16 | 51.72% 30 | 8.62% 5 | 25.86% 15 | 31.03% 18 | 15.52% 9 | 58 |
| Improved Nuclear Attack | 51.79% 29 | 35.71% 20 | 3.57% 2 | 16.07% 9 | 8.93% 5 | 46.43% 26 | 56 |
| Aircraft as a Weapon | 50.88% 29 | 33.33% 19 | 3.51% 2 | 15.79% 9 | 19.30% 11 | 40.35% 23 | 57 |
| Airplane Crash | 31.03% 18 | 44.83% 26 | 12.07% 7 | 20.69% 12 | 27.59% 16 | 27.59% 16 | 58 |
| Dam Failure | 84.48% 49 | 10.34% 6 | 3.45% 2 | 31.03% 18 | 10.34% 6 | 6.90% 4 | 58 |
| Levee Failure | 82.76% 48 | 10.34% 6 | 3.45% 2 | 32.76% 19 | 10.34% 6 | 5.17% 3 | 58 |
| Mine Accident | 91.23% 52 | 8.77% 5 | 1.75% 1 | 35.09% 20 | 5.26% 3 | 1.75% 1 | 57 |
| Utility Disruption | 17.24% 10 | 43.10% 25 | 22.41% 13 | 22.41% 13 | 29.31% 17 | 32.76% 19 | 58 |
| Radiological Release | 52.63% 30 | 36.84% 21 | 1.75% 1 | 12.28% 7 | 26.32% 15 | 28.07% 16 | 57 |
| Train Derailment | 25.86% 15 | 48.28% 28 | 15.52% 9 | 24.14% 14 | 29.31% 17 | 17.24% 10 | 58 |
| Urban Conflagration | 65.52% 38 | 25.86% 15 | 1.72% 1 | 27.59% 16 | 15.52% 9 | 17.24% 10 | 58 |
| Industrial Accident | 37.93% 22 | 37.93% 22 | 12.07% 7 | 37.93% 22 | 18.97% 11 | 10.34% 6 | 58 |
| Transportation Accident | 19.30% 11 | 42.11% 24 | 24.56% 14 | 42.11% 24 | 21.05% 12 | 10.53% 6 | 57 |
| Pipeline Explosion | 44.83% 26 | 36.21% 21 | 6.90% 4 | 18.97% 11 | 31.03% 18 | 13.79% 8 | 58 |

**Capability gaps in addressing these threats.**

| | NO GAP | SMALL GAP | MEDIUM GAP | LARGE GAP | TOTAL | WEIGHTED AVERAGE |
|---|---|---|---|---|---|---|
| Identify Risks and Needs | 39.62% 21 | 33.96% 18 | 18.87% 10 | 7.55% 4 | 53 | 1.94 |
| Train and Prepare the Health and Medical Workforce | 17.24% 10 | 50.00% 29 | 24.14% 14 | 8.62% 5 | 58 | 2.24 |
| Ensure Preparedness is Sustainable | 17.54% 10 | 45.61% 26 | 22.81% 13 | 14.04% 8 | 57 | 2.33 |
| Develop and Coordinate Healthcare Organization Response Plans | 29.31% 17 | 37.93% 22 | 27.59% 16 | 5.17% 3 | 58 | 2.09 |
| Develop and Coordinate Coalition Response Plan | 25.86% 15 | 46.55% 27 | 24.14% 14 | 3.45% 2 | 58 | 2.05 |
| Utilize Information Sharing Procedures/Platforms | 17.24% 10 | 53.45% 31 | 20.69% 12 | 8.62% 5 | 58 | 2.21 |
| Coordinate Response Strategy, Resources & Communications | 15.79% 9 | 56.14% 32 | 22.81% 13 | 5.26% 3 | 57 | 2.18 |
| Identify Essential Functions for Health Care Delivery | 31.03% 18 | 46.55% 27 | 18.97% 11 | 3.45% 2 | 58 | 1.95 |
| Plan for Continuity of Operations | 24.14% 14 | 48.28% 28 | 22.41% 13 | 5.17% 3 | 58 | 2.09 |
| Maintain Access to Non-Personnel Resources during Emergencies | 18.97% 11 | 48.28% 28 | 24.14% 14 | 8.62% 5 | 58 | 2.22 |
| Develop strategies to Protect Health Care Information System Networks | 31.03% 18 | 43.10% 25 | 17.24% 10 | 8.62% 5 | 58 | 2.03 |
| Protect Responders' Safety and Health | 25.86% 15 | 51.72% 30 | 18.97% 11 | 3.45% 2 | 58 | 2.00 |
| Plan for and Coordinate Health Care Evacuation/Relocation | 20.00% 11 | 49.09% 27 | 23.64% 13 | 7.27% 4 | 55 | 2.18 |
| Coordinate Health Care Delivery System Recovery | 25.86% 15 | 44.83% 26 | 24.14% 14 | 5.17% 3 | 58 | 2.09 |
| Respond to Medical Surge | 22.81% 13 | 43.86% 25 | 24.56% 14 | 8.77% 5 | 57 | 2.19 |

Based on your assessment above, what are you top three risks, in priority order (the most important things to prepare for):

- Pandemic, Hurricane, Active shooter
- Hurricanes, Active Shooter, Pandemic
- Hurricane, Temperature Extremes, Drought
- Hurricane, Pandemic, Active shooter
- Hurricane, Utility outage, Pandemic
- Hurricane pandemic active shooter
- pandemic hurricane utility disruption
- Hurricane Hazmat Mass C. Incident
- COVID 19 Pandemic Hurricane Power Outages
- Hurricane active shooter Tornado
- Hurricane Tornado Wildfire
- Hurricane, Epidemic, Pandemic
- Active Shooter, Hurricane, Utility Disruption
- Hurricane, armed attack, vehicle attack.
- Severe Weather 2. Extreme Temperatures 3. EPI
- Severe Thunderstorms Tornados Hurricanes
- Hurricane, Flood, Utilities disruption
- Hurricane, Power Outage, industrial accident/exposure
- Hurricane, tornado, active shooter
    - Pandemic 2) Hurricane/Flood/Utility disruption, 3) Cyber attack
- Hurricane Panic as a result of a Pandemic Cyber attack
- Hurricane, Tornado, Heat wave
- Hurricane, Pandemic, active shooter
- Hurricane, Extreme Weather, Mass Shooting
- Hurricane, utility outage, flu epidemic
- Hurricane, Tornado, Fire
- Hurricane, Tornado, & Pandemic
- Hurricane, Cyber, Pandemic (now)
- Hurricane, active shooter, airplane crash
- Hurricane, tornado, pandemic
- hurricane, tornado, utility disruption
- Hurricane, flood, wildfire
- Mass casualty incident, active shooter, cyber attack
- Hurricane Tornado Pandemic
- Hurricane, Extreme Temps
- Hurricane Pandemic Power outage
- At this moment and location, weather related incidents and current pandemic
- Hurricane, Tornado, Utility Disruption
- hurricane, Terrorism, flood
- Natural weather events, pandemic, transportation accident
- Hurricane, Tornado, power outage
- Hurricane, flood, active shooter
- hurricane, tornado, utility
- Hurricane, Tornado, flood
- Hurricane Pandemic Utility disruption
- Hurricane. Cyber Attack. Flood
- Pandemic; Biological attack, Tidal/Flood
- Biological attack, pandemic, active shooter
- 1-Hurricane 2-Pandemic 3-Cyber attack (infrastructure)
- Weather. Pandemic. Traffic accident surge
- Epidemic Pandemic Active Shooter Incident
- Active Shooter Hurricane Flood
- Hurricane Tornado Flood
- Hurricane, Active Shooter, Flooding
- Personnel, equipment, communication
- Pandemic, Hurricane, Active shooter
- Hurricane tidal wave pandemic

Based on your assessment above, what are the most important things the Coalition can do to address these gaps?

- Communication, Training, Supplies
- Training
- Improve stakeholder communication. Most of our gaps could be remedied by that.
- Have canned response plans ready to go that initiate mechanisms within the coalition
- ensuring preparedness is sustainable
- Continue to communicate to the facilities involved in the plans.
- More Communication
- Education and communication  Training
- Help address medical supplies (PPE) shortages
- trainings? on-site, individual site training
- Assure regoinalized resources are available post incident.
- Assist with community support and alternates mean of communication.
- Training  Community disaster drills
- I feel the Coalition meeting do a great job of preparing the centers and educating where needed.
- for our area we need uniform training by FEMA-HERT instructors that help align and hold all systems to same training with similar response teams that are internal and can be mobilized if needed to assist other coalition healthcare facilities in a mass response with need to relieve and decompress during and in immediate after event
- Education to employees and patients
- Continue preparedness exercises, promote proper surveillance along with efficient communication plan
- Help to develope response protocols for dealing with masses of worried well, and secure funding for same.
- The Coalition is why many Gaps do not exist.  Coalition can share additional training & info on how a small Healthcare company  can plan and coordinate evacuations
- More grants
- More training and drills
- Address possible emergency staffing issues.
- Continue community based drills  Increase hospice participation and share experiences and expertise  Provide Tool and/or process for table top drill and action plan
- Improve communication across the continuum of care to include home health
- Utilize information sharing procedures/ platforms
- Involve Home Health Care on a more serious platform
- Continue to provide training sessions
- Assist hospital systems with developing COOPs by providing training.  Exercise patient tracking systems and medical surge capabilities for longer period of time
- More planning with your partner (community stakeholders) as we are considered critical infrastructure lifelines by FEMA & DHS and yet they don't typically plan with us.
- Coordinate Evacuation and planning with healthcare
- Assist with testing stations to help identify cases and alleviate fears. Assist with education and resources to help folks self quarantine .
- It is hard for me to answer #3 as we are a Surgery center and we would close in the event of an issue such as these.
- coordinate , different drills for certain areas to use whatever recourse's available to tackle that particular hazards.
- Evacuation planning, communication, surge process
- Train & prepare healthcare and workforce
- Training the healthcare staff is important because local organizations are not doing this.
- Communicate
- Address gap in medically complex homecare patients EM plans with local shelters or hospitals.
- Continue to do county wide drills perhaps more often.  Share what other companies vulnerabilities are
- Become knowledgeable of stockpiles of needed equipment and/or staff availability
- 1-Diversify membership  2-Acknowledge (identify) and utilize existing members with unique and diverse skill sets, experience, and expertise.  3-Promote the existence and significance of the Coalition in identifying gaps and educate 'pre-hospital' and 'hospital' in developing exercises that are taken seriously.  4-Disaster planning needs to be taken more seriously by hospital administrators.
- Assist with training
- Monthly Preparedness exercises
- Continue to identify the gaps  Address the gaps as identified  Coordinate services
- Continue to provide educational presentations and community wide exercises
- Better Communication Strategies
- Communication
- Continue training and exercises.
- training and exercise