

# **PORTFOLIO PRODUCT #2:**

## **Reflection**

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### **Competencies:**

(C6) Manage, analyze, and interpret large scale epi data. Identify key sources of epi data and collection methodology.

(F21) Perform effectively on interprofessional teams

My internship was completed with the Public Health and Medical Preparedness Unit at the Florida Department of Health in Monroe County (FDOH-Monroe). The primary activities completed throughout the course of my internship were in direct response to the COVID-19 pandemic. Beyond assisting with the management of vaccination sites and constructing program support materials, a key task undertaken during my time as an intern was the updating of the Monroe County Emergency Operations Plan (EOP). Per sections 119.071, 381.95 and 395.1056 of the Florida Statutes and Administrative Rules, I am not able to share the entire contents of this plan for submission. However, this reflection will include subsections of the work I integrated into the document.

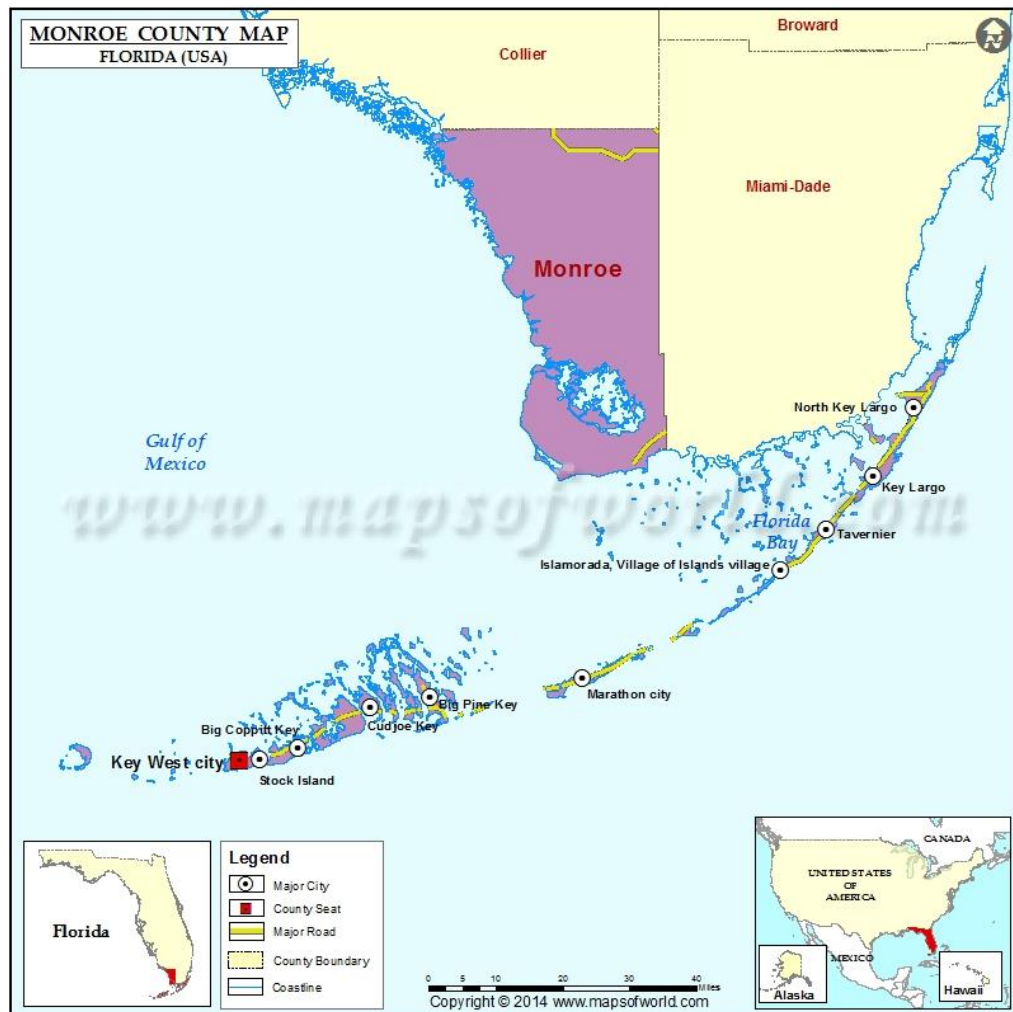
To begin, the basis for the EOP falls under the following Homeland Security Presidential Directives (HSPDs) created following September 11, 2001, which aim to create a uniform approach to preparedness and response to emergencies:

- Management of Domestic Incidents
- National Preparedness

The plan provides a framework of responsibilities and capacities available to FDOH-Monroe should an emergency situation such as a natural disaster, pandemic, or intentional hazard occur. The plan is updated each year to account for changes in demographics, geographic zoning, or other factors relevant to risk and preparedness. The EOP has two sections: a base plan and a series of several support annexes. As part of my EOP project, I was tasked with updating all of the base plan demographic indicators both generally and for vulnerable populations, crafting a new section on cultural competency during a response, and creating a new support annex containing information on 70+ faith-based organizations able to assist FDOH-Monroe during emergency scenarios.

The first consideration when I began working on this plan was the unique geography of Monroe County. The jurisdiction is actually split into two components: one that is part of mainland Florida (primarily uninhabitable Everglades) and the other being the 220-mile-long archipelago that is the Florida Keys. The demographics of Monroe County change from year to year, having been particularly impacted by Hurricane Irma in 2018 (led residents to relocate to surrounding counties). The following is an excerpt of data I updated within the plan related to geographical considerations:

Monroe County is located at the southernmost tip of the state of Florida. This archipelago is approximately 220 miles in length, and comprises approximately 3,737 square miles. Of these 3,737 square miles, 73% (2,728 square miles) is comprised of water with the remaining 1,009 square miles consisting of land mass, only 2% of which is developable and inhabitable. Made up of 1,783 islands (1 acre or larger) with 600 miles of exposed coastline, Monroe County is designated as a State of Florida Area of Critical Concern.



**Figure 1.** Monroe County consists of mainland Monroe as well as the island chain of the Florida Keys.

Approximately 74,000 residents live in Monroe County. I learned that over 5 million visitors influx into the Florida Keys every year – potentially doubling the population on any given day. Coming from a background in epidemiology, I saw this as a crucial consideration when pondering the impacts of a large-scale disease outbreak. To date, Monroe County has seen over 6,000 cases of COVID-19. However, also to consider is that the geography of the Florida Keys did somewhat assist in the mitigation of the spread of the virus. With a single road serving as the transportation backbone and only connection to mainland Florida, isolating visitors from surrounding counties was feasible and is what ultimately occurred during the early stages of COVID-19 spread in the state.

The second key analysis of social-level epidemiological data came from 2019 Census estimates as well as information provided by the Human Services Branch Director of Monroe County Emergency Management. The purpose of the Vulnerable Populations section of the EOP is to identify and integrate the needs of at-risk populations into disaster management planning. These populations include those with

physical or cognitive disabilities, non-English speakers, those geographically or culturally isolated, children, elderly, homeless, or medically dependent.

Using Census estimates, I found that the percentage of individuals living in poverty in the county had gone down from 12.7% to 9.9% in 2019. This appeared to be reflective of the impacts of Hurricane Irma in driving shelter-less individuals into nearby Miami-Dade County where weather-related incidents are at least partially attenuated. Additionally, I found that despite the population being predominantly White and non-Hispanic, there was still an estimated 945 households who exclusively spoke Spanish. I thought having this integrated into the plan was crucial to ensuring the materials we produce at FDOH-MONROE are accessible to all individuals in the county. In the context of COVID-19, having this information on hand helps tremendously in creating translations of our materials and seeking translators at events if necessary.

To get detailed information on the county's special needs clients, I reached out to Monroe County Emergency Management. From them, I learned about the existence of a Special Needs Registry (<https://www.monroecounty-fl.gov/148/Special-Needs-Registry>) where citizens can voluntarily submit their information and be triaged into a special needs shelter during an emergency. However, a key limitation to this registry is that because it is voluntary, it is not representative of every special need client in the region. Reflecting on this, I believe expanding awareness of this registry and potentially having an on the ground effort to register residents could allow it to serve as a better epidemiological and emergency preparedness tool.

The last component of my EOP update involved integrating a new section on cultural competency, and creating an annex of faith-based organizations. The former component is illustrated below:

### Cultural Competency

Culturally diverse populations including those varying by race, ethnicity, religion, gender, sexual orientation, age, disability, or socioeconomic status may be at a higher risk of experiencing adverse psychological consequences from traumatic events. Ensuring that intervention methods are sensitive as well as effective is crucial to ensuring that all individuals receive adequate assistance during an emergency. These factors may influence facets such as perceptions of illness, care-seeking behaviors, interpretation of guidance, or delivery of services by a provider. The information below outlines the ways in which cultural competency may impact various stages of disaster response:

- **Warning/Threat Phase:** Groups may differ in the ways in which they access information on risk. Guidance should be constructed to be accessible to all. This may include, but is not limited to, ensuring universal access to functioning warning systems and enabling dissemination of information in multiple languages and with closed captioning. An inadequate dispersal of

warning may lead to greater fear of future tragedies and wariness of response efforts in groups unable to access information on the threat.

- **Impact:** Response efforts must take into consideration differing reactions to traumatic events. Perceptions, expression, and control of pain is culture specific. Therefore, individuals at all levels of the response structure should strive to maintain self-awareness of differing responses in order to assure culturally competent care. This may include cultivating knowledge of varying beliefs, customs, and treatments and adapting response to each context.
- **Remedy:** Disaster workers who enter the response with no orientation to local culture may serve to exacerbate, rather than mitigate, tensions drawn from cultural differences. Negative interactions between relief workers and cultural groups can significantly influence long-term perceptions of the response effort. Recruitment of relief workers who are representative of the area affected may aid in ensuring a culturally competent effort.

For the complementary faith-based organization annex, I was responsible for contacting over 70 churches, synagogues, and community centers in the county to gauge their interest in potentially serving as partners on the COVID-19 response and beyond. This could entail serving as a vaccination site, providing volunteers, or allowing use of their space for other health department activities. I then compiled the results of each of these contacts into a spreadsheet annex that will be submitted as an addendum to the EOP.

	Site	Address	Contact Person	Email	Phone	Additional Details
Upper Keys	St. Justin Martyr Church	10550 Overseas Highway Key Largo, FL	General Office	<a href="mailto:parishsecretary@stjmklargo.org">parishsecretary@stjmklargo.org</a>	305-451-1316 or 305-451-4633	Potential drive thru capability
	First Baptist Church of Key Largo	39001 Overseas Hwy Key Largo, FL	Charles (Pastor)	<a href="mailto:fbckl@turnerps.net">fbckl@turnerps.net</a>	305-451-2265	Potential drive thru capability
	First Baptist Church of Islamorada	81201 Overseas Hwy Islamorada, FL	General Office		305-664-4310	
	Key Largo Baptist Church	835 Largo Rd Key Largo, FL	General Office		335-451-1642	
	Kingdom Hall of Jehovah's Witnesses	101351 Overseas Hwy Key Largo, FL	General Office		305-451-0288	Walk up only capability
	Key Largo Christian Center of Hibiscus Park	12 Hibiscus Ln Key Largo, FL	General Office		?	Walk up only capability
	Church of Christ at Key Largo	100635 Overseas Hwy Key Largo, FL	General Office		305-451-1134	Walk up only capability
	Key Largo SDA Church	100730 Overseas Hwy Key Largo, FL	General Office		305-240-1339	Walk up only capability
	Florida Keys Church of the Nazarene	100330 Overseas Hwy Key Largo, FL	Tim Crutcher	<a href="mailto:huciaran@floridakeysnazarene.org">huciaran@floridakeysnazarene.org</a>	405-324-9588	Walk up only capability
	Ministerio Unidos En Amor Key Largo - Tavernier	230 Homestead Ave Key Largo, FL	General Office		305-204-4530	Walk up only capability
	Lighthouse on the Rock	93338 Overseas Hwy Key Largo, FL	General Office	<a href="mailto:church@lighthousekeylargo.com">church@lighthousekeylargo.com</a>	305-451-6212	Walk up only capability
	Burton Memorial United Methodist	33001 Overseas Hwy Tavernier, FL	General Office	<a href="mailto:burtomemorial@bellsofthelake.net">burtomemorial@bellsofthelake.net</a> OR <a href="mailto:psrctor.foote@outlook.com">psrctor.foote@outlook.com</a>	(305) 852-2581	Potential drive thru capability
	Immanuel Lutheran Church	108 Ocean Dr Tavernier, FL	General Office		305-852-8711	Potential drive thru capability (limited)
	Coral Isles Church	30001 Overseas Hwy Tavernier, FL	General Office	<a href="mailto:coralkeychurch@gmail.com">coralkeychurch@gmail.com</a>	305-852-5813	Potential drive thru capability (limited)
	Spirit and Truth Ministries	83655 Overseas Hwy Tavernier, FL	General Office		305-852-7975	Walk up only capability (limited)
	San Pedro Catholic Church	83500 Overseas Hwy Tavernier, FL	General Office		305-852-5372	Potential drive thru capability (limited)
	Saint James Fishermen Episcopal	81500 Overseas Hwy Islamorada, FL	General Office		305-852-8468	Walk up only capability
	Bluewater in the Keys	86450 Overseas Highway Islamorada, Florida	General Office	<a href="mailto:bluewaterinthekeys@gmail.com">bluewaterinthekeys@gmail.com</a>	305-853-1004	Walk up only capability
	Island Community Church	83250 Overseas Hwy Islamorada, FL	General Office		305-664-2781 ext. 204	Walk up only capability (limited)
	Matecumbe United Methodist Church	81831 Overseas Hwy Islamorada, FL	Monica Mendez (Office)	<a href="mailto:matumc@bellsofthelake.net">matumc@bellsofthelake.net</a>	305-664-3661	Walk up only capability
	Ministerio Unidos En Amor Islamorada	80325 Overseas Hwy Unit 2	General Office		786-317-4086	
Middle Keys	The Chapel at Ocean Reef	32 Ocean Reef Dr Key Largo, FL	General Office	<a href="mailto:contact@thechapelara.com">contact@thechapelara.com</a>	305-367-2049	Unknown capability
	Keys Jewish Community Center	93095 Overseas Hwy Tavernier, FL	General Office	<a href="mailto:arazident@keysjewishcenter.com">arazident@keysjewishcenter.com</a>	(305) 852-5235	Unknown capability
	Moose Lodge 1058	11601 1st Avenue Gulf Marathon, FL 33050	Matt Wright (Governor)	<a href="mailto:chirleswright63@yahoo.com">chirleswright63@yahoo.com</a>	305-587-7526	Has access to 2 MDs to volunteer
	San Pablo Catholic Church	550 122nd Street Islamorada, FL	General Office	<a href="mailto:info@sanpablomarathon.org">info@sanpablomarathon.org</a>	305-283-0636	

**Figure 2.** An excerpt of the Faith Based Organization (FBO) Annex spreadsheet I created.

I have utilized this annex in various capacities during my internship. One example of such stemmed from a need to expand vaccine access to the county's underserved communities of color. I was tasked with reaching out to 4 churches who had indicated interest in partnership and facilitating a collaboration between them to craft a joint letter indicating willingness to have their congregations vaccinated through our effort. Monroe County is currently 39<sup>th</sup> in the state for total vaccinations, and the second biggest population behind White, non-Hispanics is Black or African Americans. The creation of this annex is a crucial step in moving the county forward and creating lasting partnerships that will assist in reaching minority populations.

The update of the EOP was truly an integration of both the prior knowledge I had pertaining to epidemiological data collection and the new knowledge I have gained as to how this data applies to emergency preparedness functions. I have collected similar data as the foundation for many of my class projects involving surveillance reports, background sections for manuscripts, etc. and this task allowed me to collect, analyze, and interpret data that will make a clear impact on FDOH-Monroe activities moving forward. In classes, we have learned the substantial impact that social determinants of health can have on the epidemiology of disease. Therefore, data such as these from social epidemiology are crucial to informing understanding and response in emergency situations.

This project was personally relevant to my existing interests in infectious disease epidemiology and furthered my new interests in public health preparedness efforts. Synthesizing data from the Census, Special Needs Registry, and State of the County reports allowed me to analyze on a broad scale the ways in which demographics may affect the response to emergency situations. Furthermore, this task allowed me to gain a greater understanding of the unique characteristics of Monroe County that affect the spread of disease and the impact of natural disasters. Finally, the creation of this plan allowed me to collaborate with professionals working in Emergency Management, the County Census Bureau, and within our own department. Ultimately, my work on this plan will be included in the yearly update and accreditation procedures for FDOH-Monroe.