## 2019 – 2020 Abacoa Project Results

# COVID-19: Disaster Readiness and Resilience of Older Adults in Southeast Florida

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#### Introduction

The project focuses on levels of disaster readiness and resilience among elderly residents in Southeast Florida and an analysis of the factors that affect these levels, including demographic and neighborhood characteristics.

#### Background and Rationale:

South Florida continues to be one of the most vulnerable regions in the United States, prone to hurricanes and tropical storms. According to the State of Florida 2018 Hazard Mitigation Plan, there were 74 landfalling hurricanes between 1900 and 2018 with significantly more frequent tropical storms in recent years (FDEM, 2018). Hurricane winds probabilistic scenarios indicate that, on average, South Florida is likely to experience a Category 2 hurricane strike every 20 years, and a Category 3 or higher hurricane strikes every 50 years (FDEM, 2018). In addition, the concurrence of relatively low topographic relief, high rainfall and evapotranspiration rates, and high-water-table conditions influenced by seasonal convective, tropical, or frontal storms often lead to extensive recurrent flooding in both coastal areas and inland (Skinner et al. 2009, Hughes & White 2016)

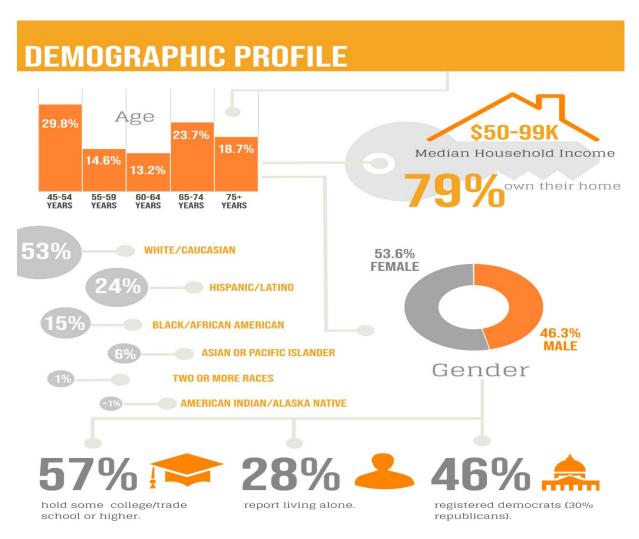
While these disasters wreck devastation across regions, elderly populations are some of the most vulnerable. The elderly have higher prevalence rates for chronic conditions, physical and cognitive disabilities, sensory or other impairments, and limitations in their daily living activities that make them particularly vulnerable to physiological and mental health stressors during natural disasters (Al-Rousan, Rubenstein, & Wallace, 2014). Past disasters have shown higher mortality rates for older populations. Around 75% of those who died because of Hurricane Katrina in 2005 were over the age of 50 years (Jonkman, Maaskant, Boyd, & Levitan,, 2009) and 49% of those who died were 75 years or older (Brunkard, Namulanda & Ratard 2008). A study of 213 deaths from the 8 hurricanes during 2004 and 2005 in Florida found that a majority of the deaths were in older populations (Ragan, Schulte, Nelson, & Jones, 2008). During Hurricane Irma, 14 elderly residents died in Hollywood Hills due to overheating from power outages.

The data collected for this project was via a survey pertaining to COVID-19 preparedness among older adult residents in the South Florida region. The survey was administered between May 11-31, 2020 via a landline telephone and online. In total, 898 respondents from five South Florida

counties (Broward, Martin, Miami-Dade, Monroe, and Palm Beach) participated in the survey.

The descriptive results from this survey were as follows:

#### **Demographic Profile**



Among the respondents, 428 reported their gender as female (53.6%), 416 reported their gender as male (46.3%), and 1 reported their gender as other (0.1%). The majority of respondents were 45-54 years old (29.8%), followed by 65-74 years old (23.7%), 75 plus years old (18.7%), 55-59 years old (14.6%), and 60-64 years old (13.2%).

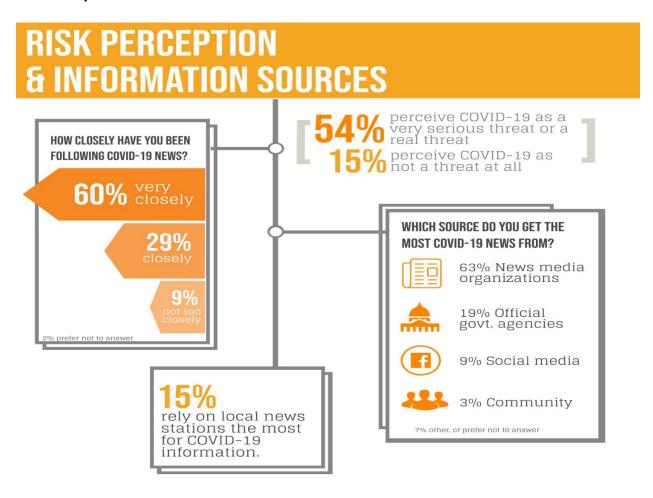
In terms of race and ethnicity, participants were predominately White/Caucasian (53.4%), followed by Hispanic/Latino (24.2%), Black/African American (14.5%), Asian or Pacific Islander (5.8%), Two or more races (1.4%), and American Indian/Alaska Native (0.7%). Among those who participated in the survey, 20.2 % reported total household income from \$0-\$24,999, 25% fell into the \$25,000-\$49,999 income range, 24.6% were within \$50,000-\$99,000 income range,

9.8% reported \$100,000-\$149,999, 6.9% reported \$150,000 or more, and 13.5 % stated their total household income as unknown.

Overall, 78.9% of participants owned their home and 21.1% of participants were renters. The majority of participants reported living with their spouse (53.8%), followed by 27.8% who reported living alone, 9.9% with children, 6% preferring not to answer, 1.5% with grandchildren, 0.5% in an assisted living facility, and 0.4% in a retirement home.

Participants also reported their highest degree or level of school completed, with 31.9 % of participants reporting completion of a college and/or a post graduate degree, 25% some college and/or trade school, 27.1% high school, and 16 % less than high school. At the time of the study, 45.5% of participants were currently registered democrats, 30.9% registered republicans, 15.9% registered independents, 6.2% not registered, and 1.5% registered with another party.

#### **Risk Perception and Information Sources**



Asked if they perceive COVID-19 as a threat either to themselves or a member of their households, 14.9% said that the coronavirus was not a threat at all, 27.1% reported it as somewhat of a threat, 21.4% considered it a real threat, 32.6% said that the pandemic posed a very serious threat. Approximately 6% preferred not to answer.

Asked how closely the respondents were following the news about the COVID-19 pandemic, 88.7% of participants reported they have followed the news closely to very closely, 9.1% not too closely, and 2.2% preferred not to answer. Following this question, participants reported from which source they have received most of the news about the COVID-19 pandemic. The majority of participants, 62.8%, reported following news media organizations the most, which includes, newspapers, news, websites, and radio.

#### **Medical Preparedness**



More than half of participants (59.6%) said they would be able to take care of themselves at home for 10-15 days if they contracted COVID-19, 16.3% would not be able to take care of themselves, 22.9% were not sure, and 1.2% preferred not to answer. The majority of participants, 55.7%, also reported that they thought it would be easy for either themselves or a member of their household to get tested for COVID-19. 21.3% did not think it would be easy to get tested, 21.6% were unsure, and 1.5% preferred not to answer.

Theparticipants were asked to rate their overall level of preparedness for COVID-19. The majority of participants, 82.4%, reported they were prepared to very well prepared, 13.9% reported somewhat prepared, 2.5% reported not prepared at all, and 0.9% preferred not to answer.

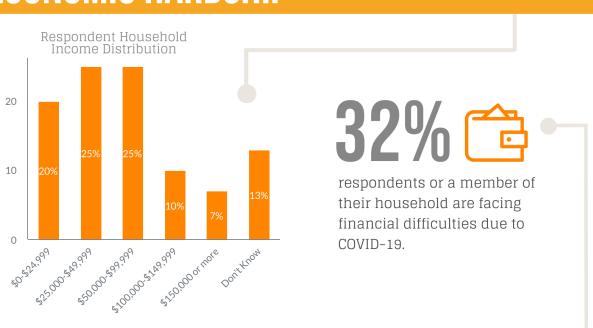
#### **Community Mitigation**



Pertaining to the guidelines on social distancing, 60.3% of participants strongly agreed with the guidelines, 24.1% agreed, 10.6% neither agreed nor disagreed, 1.4% strongly disagreed, and 1.5% preferred not to answer. Much like the guidelines on social distancing, the majority of participants, 58.5%, strongly agreed with self-quarantine recommendations, followed by 29.2% of participants who agreed, 8.3% neither agreed or disagreed, 1.7% disagreed, 1.2% strongly disagreed, and 1.1% prefer not to answer. Regarding face masks, 70.6% strongly agreed face masks should be worn in public to combat the spread of COVID-19, 18% of participants agreed, 5.2% neither agreed or disagreed, 3% disagreed, 2.1% strongly disagreed, and 1.2% preferred not to answer.

#### **Economic Hardship**

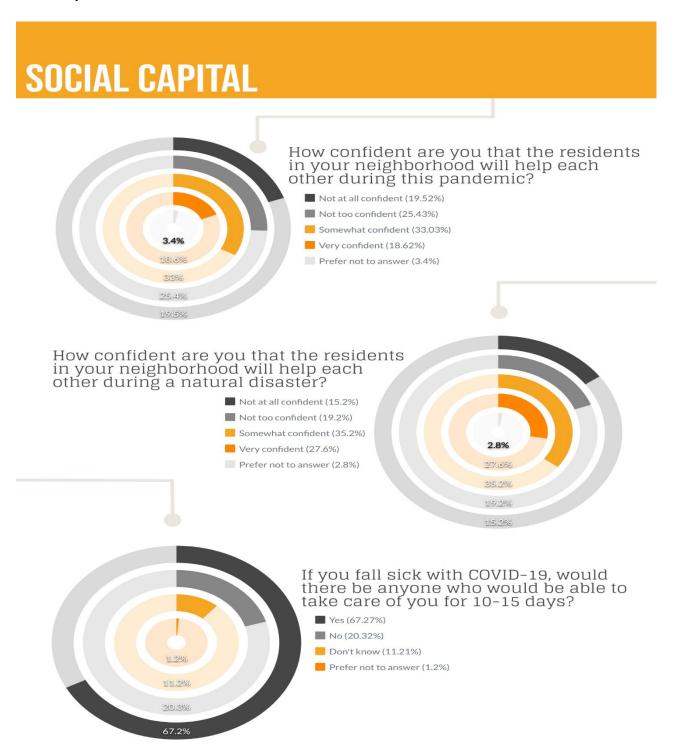
# **ECONOMIC HARDSHIP**



The majority of participants, 54.7%, reported they (or a member of their household) were not facing financial difficulties due to COVID-19 at the time of they survey. For the 31.9 percent facing financial difficulties due to COVID-19, 22.1% were seeking a stimulus check or financial assistance from the government to help alleviate financial strains, 3.2% were seeking non-profit

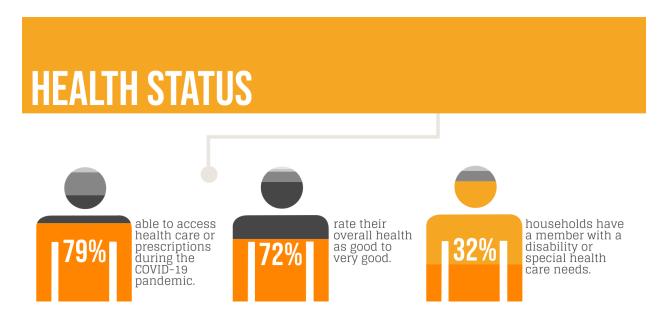
organizations (such as a food bank, charity, or religious organization) to help, and 6.6% reported seeking both forms of assistance.

#### **Social Capital**



Asked how confident they are that residents in their neighborhood would help each other during the pandemic, 44.9% of participants reported not at all confident to not too confident, 33% reported somewhat confident, 18.6% very confident, and 3.4% preferred not to answer. In comparison, when asked how confident that neighborhood residents would help each other during a natural disaster, 34.4% of participants reported that they were not at all confident to not too confident, 35.2% reported somewhat confident, 27.6% reported very confident, and 2.8% preferred not to answer.

#### **Health Status**



The majority of participants, 72.4%, rated their overall health as good to very good, followed by 21.9% of participants who rated their health as fair, 3.6% as poor, 0.8% unsure, and 1.3% who preferred not to answer. Participants were also asked if they, or a member of their household, had a disability status or special healthcare need, with 61.6% reporting no, 32.5% reporting yes, 3.7% unsure, and 2.3% who preferred not to answer. Lastly, participants reported whether they, or a member of their household, would be able to access health care or prescriptions during the COVID-19 pandemic, with 78.5% reporting yes, 10.7% reporting no, 9.2% unsure, and 1.6% who preferred not to answer.

#### References

Al-Rousan, T. M., Rubenstein, L. M., & Wallace, R. B. (2014). Preparedness for natural disasters among older US adults: a nationwide survey. *American journal of public health*, *104*(3), 506–511. doi:10.2105/AJPH.2013.301559

Brunkard, J., Namulanda, G., & Ratard, R. (2008). Hurricane Katrina deaths, Louisiana, 2005. *Disaster medicine and public health preparedness*, *2*(4), 215-223.

Florida Division of Emergency Management (FDEM). 2018. Enhanced State Hazard Mitigation Plan. State of Florida. URL:

https://www.floridadisaster.org/contentassets/c6a7ead876b1439caad3b38f7122d334/shmp-2018-full-02-23-2018.pdf.

Hughes, J.D., and White, J.T. 2016. Hydrologic conditions in urban Miami-Dade County, Florida, and the effect of groundwater pumpage and increased sea level on canal leakage and regional groundwater flow (ver. 1.2, July 2016): U.S. Geological Survey Scientific Investigations Report 2014–5162, 175 p., URL: <a href="https://pubs.usgs.gov/sir/2014/5162/pdf/sir2014-5162.pdf">https://pubs.usgs.gov/sir/2014/5162/pdf/sir2014-5162.pdf</a>.

Jonkman, S. N., Maaskant, B., Boyd, E., & Levitan, M. L. (2009). Loss of life caused by the flooding of New Orleans after Hurricane Katrina: analysis of the relationship between flood characteristics and mortality. *Risk Analysis: An International Journal*, 29(5), 676-698.

Ragan, P., Schulte, J., Nelson, S. J., & Jones, K. T. (2008). Mortality surveillance: 2004 to 2005 Florida hurricane-related deaths. *The American journal of forensic medicine and pathology*, 29(2), 148-153

Skinner, C., Bloetscher, F., and Pathak, C.S., 2009, Comparison of NEXRAD and rain gauge precipitation measurements in South Florida, *Journal of Hydrologic Engineering*, v. 14, no. 3, p. 248–260, http://dx.doi.org/10.1061/(ASCE)1084-0699(2009)14:3(248).