



An Analysis of

Disaster Communication Needs of Elderly Cohorts Residing in State-Registered 55 + Mobile Home Communities in Volusia County, Florida





Prepared for
Volusia County, Florida
Department of Public Protection
Emergency Management Division
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Planner II





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Disaster Awareness and Preparedness

The American Red Cross study (2006) indicates:

- ◆ The events of 9/11
and the aftermath of:
- ◆ Hurricane Katrina in 2005
- ◆ Hurricane Wilma in 2006

have not motivated U.S. citizens to prepare for future emergencies and disasters (Lynch 2006:1)

Demographics

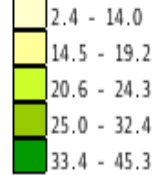
Disaster preparedness is a major concern:

- ◆ The rapidly aging U.S. population
- ◆ Increase in vulnerable cohorts
- ◆ In-migration of new residents
- ◆ Increase in new housing
- ◆ Development of coastal areas
- ◆ Effective county-wide communication

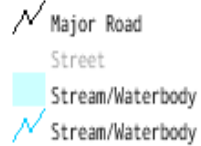
Map 1. % 65+ by Census Tract in Volusia County (2000)

Data Classes

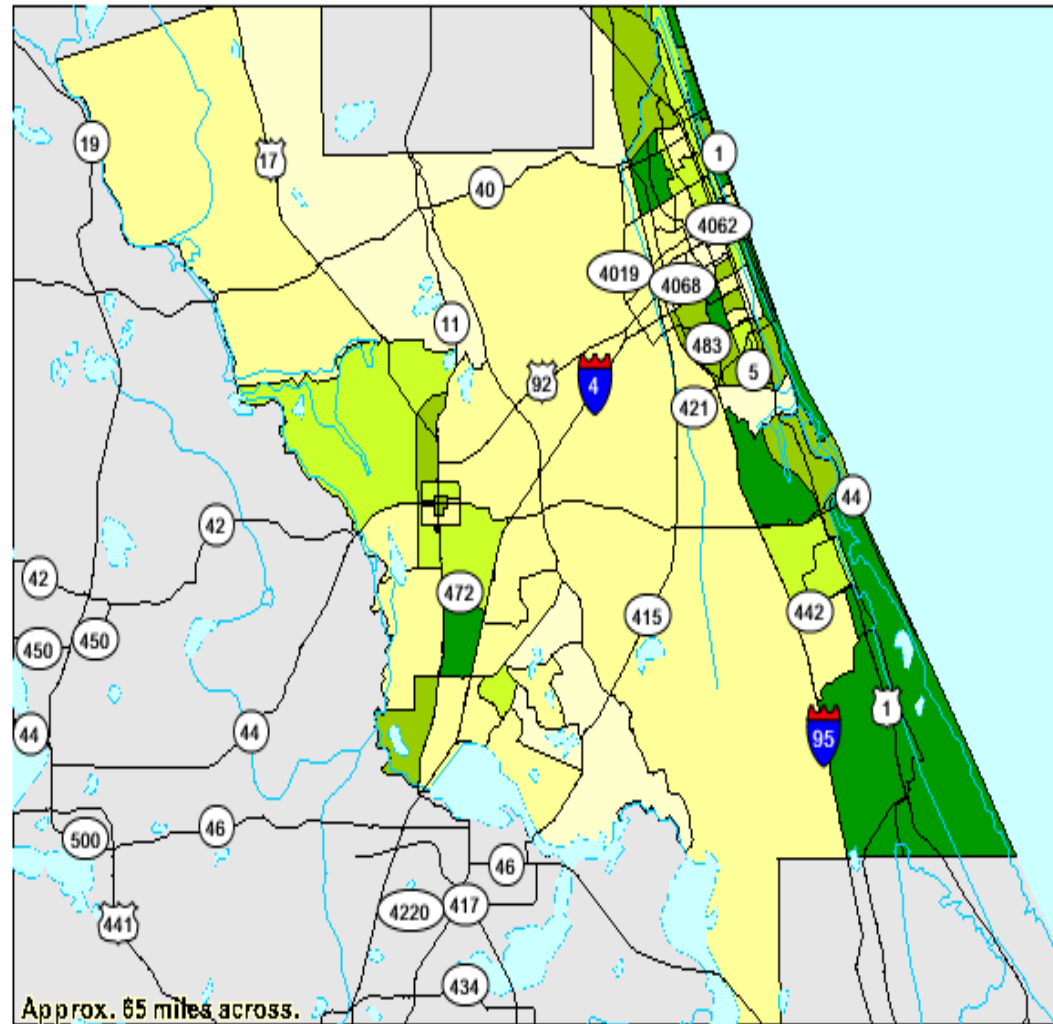
Percent



Features



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at this zoom level



Problem Statement

Population projections:

- ◆ Approximately 8,953 persons in-migrate to Volusia County each year (U.S. Census 2004)
- ◆ Nearly 7,918 adults turn 60 each year (U.S. Census 2004)
- ◆ Currently the 60+ age group comprises approximately 108,978 person in Volusia County (Florida Department of Elder Affairs 2006)
- ◆ 52.2% of 65+ elderly residents are afflicted with one or more disability (Florida Department of Elder Affairs 2006)
- ◆ The elderly population of Volusia County will nearly double by the year 2030 (Florida Housing and Data Clearinghouse 2006)

Population Trends in the U.S.

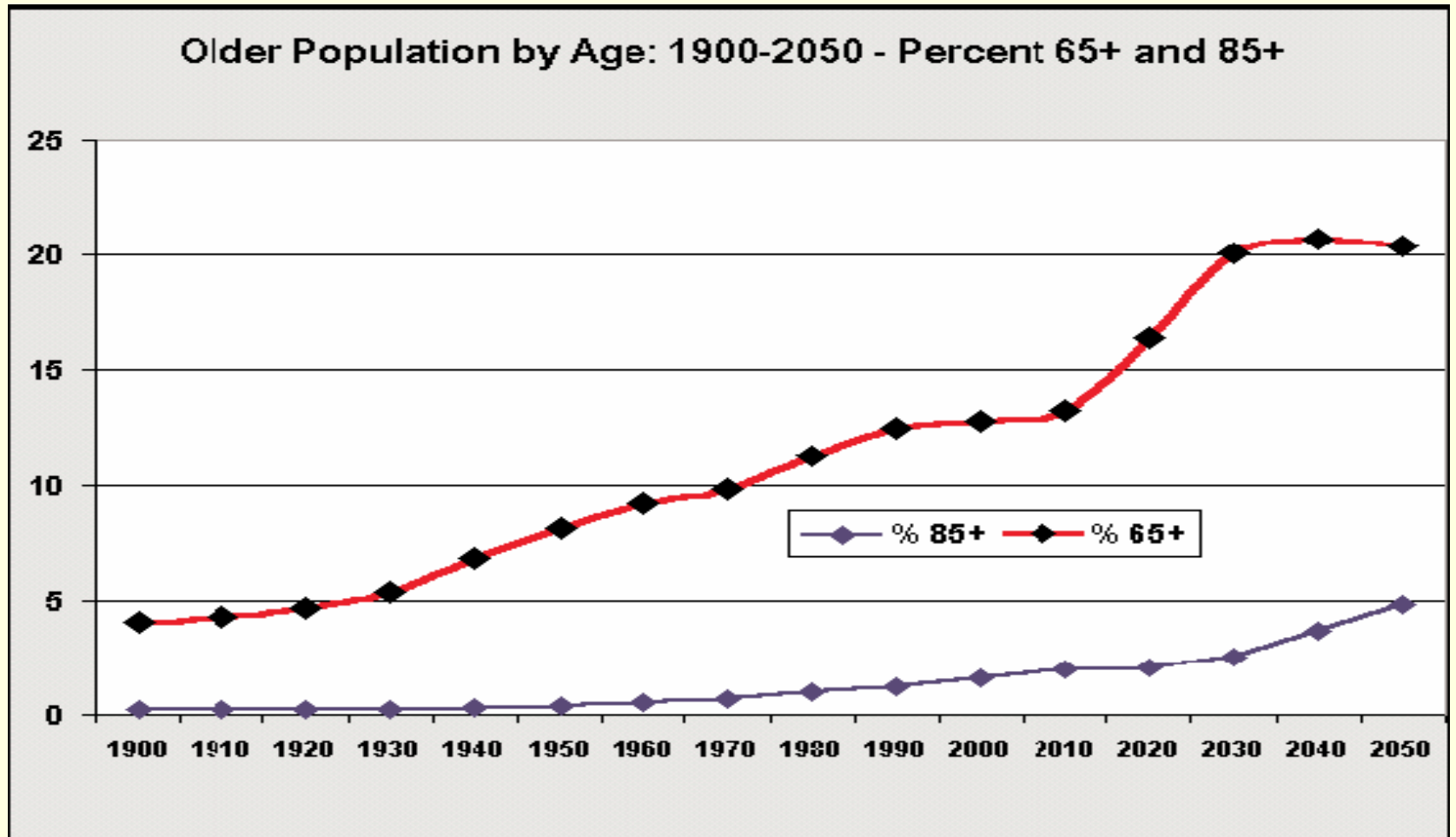


Chart 1. "Frail Elderly as Disaster Victims: Emergency Management Strategies" (2002)

The Elderly Cohort

A person who is a member of the elderly cohort is:

“Defined as a person who is 65 years of age” or older
(Fernandez, Deana, et al. 2002)

For the purpose of this study a person who is a member of the elderly cohort is:

Defined as one who is 55 years of age or older

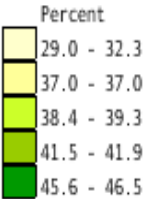
Challenges of the Elderly

Many elderly experience:

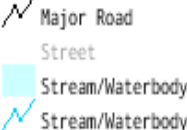
- ◆ Limits of mobility
- ◆ Isolation
- ◆ Lack of access to public transportation
- ◆ Special medication/medical needs
- ◆ Lack of disaster preparedness training
- ◆ Little knowledge of disaster preparedness

Map 2. % 65+ with Disability by Census Tract in Volusia County (2000)

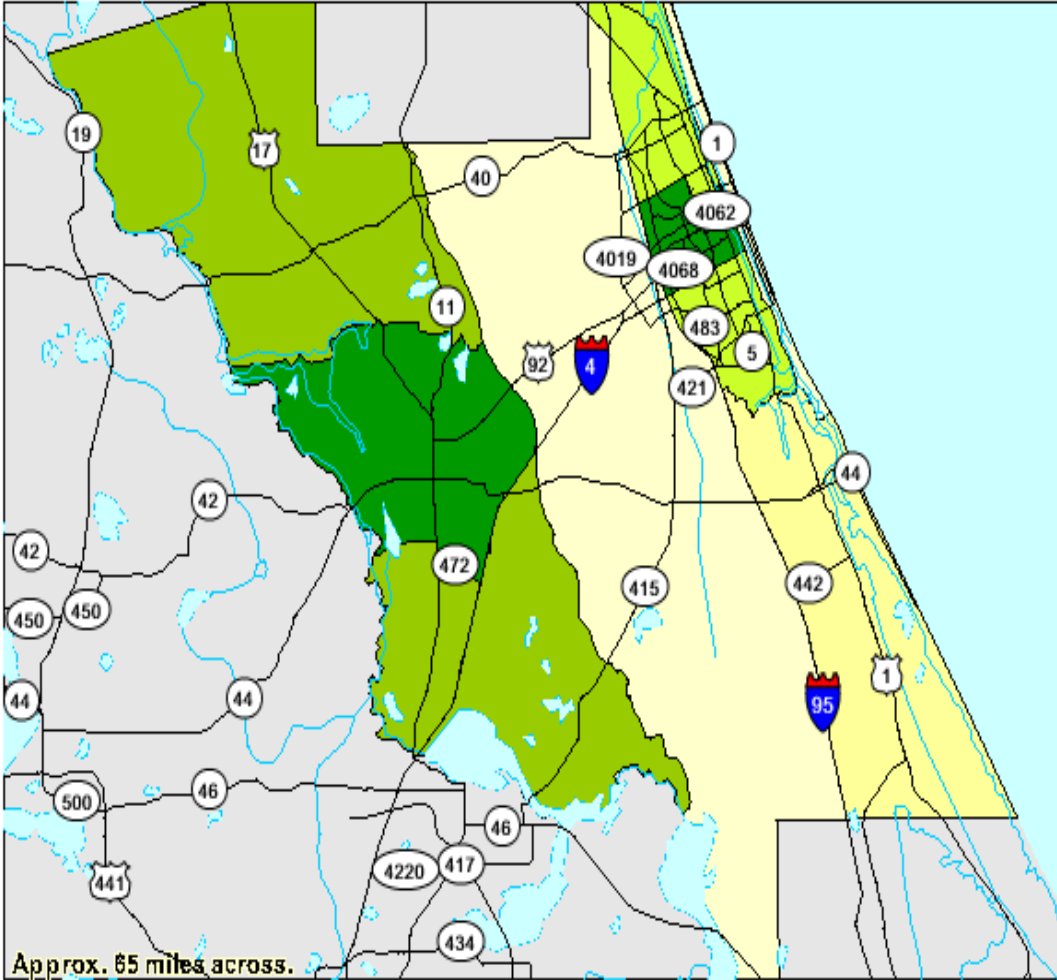
Data Classes



Features



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Goals of the Study

Primary Goal

Ascertain which methods of communication will be most effective in educating the elderly and those with special needs on disaster preparedness

Secondary Goal

Explore channels and tools to effectively market disaster preparedness information to the elderly and special needs population of Volusia County, FL

Previous Studies

University of Central Florida

Emergency Preparedness of Central Florida Households (2006)

Objectives of the study

- ◆ Analyze the levels of disaster preparedness of Central Florida households
- ◆ Determine if a correlation exists between awareness of emergency services and emergency preparedness
- ◆ Determine if a correlation exists between demographics and levels of preparedness

Previous Studies

City of Virginia Beach

Disaster Preparedness Survey (2004)

Objectives of the study

- ◆ Assess the levels of citizens' awareness of the City's efforts to prepare for emergencies and disasters
- ◆ Assess citizens' levels of household preparedness for emergency and disaster events

Previous Studies

University of North Carolina at Wilmington

The Impact of Hurricane Floyd on the Elderly Residing in Four Southeastern North Carolina Counties (1999)

Objectives of the study

- ◆ Initially assess improving the quality of life of elders
- ◆ Hurricane Floyd initiated a modification in the focus of the study
- ◆ Assess disaster planning and preparation needs of the elderly
- ◆ Assess the elders' perception of danger
- ◆ Assess current methods of communication of disaster information to the elder population

Methods

Quantitative Analysis:

- ◆ Use of a self-administered questionnaire
- ◆ Analysis of data utilizing SPSS

Participants

- ◆ ***Sampling Frame***

Residents of state-registered 55+ mobile home communities in Volusia County, FL in 2007

- ◆ ***Unit of Analysis***

The residential households of 5 randomly selected state-registered 55+ mobile home communities in Volusia County, FL in 2007

Methods

Research Design and Instrument

- ◆ 746 self-administered questionnaires consisting of 21 multiple choice questions, 7 open-ended questions, and 8 demographic questions were distributed
- ◆ Data was collected from 184 responses of state-registered 55+ mobile home community residents in Volusia County, FL in 2007
- ◆ Data collected during March 2007
- ◆ An analysis of the data was performed utilizing SPSS
- ◆ Report on findings submitted to Rick Moore at the Volusia County Department of Public Protection, Emergency Management Division in April 2007

Limitations, Delimitations, Validity Issues, and Ethical Implications

Limitations, Delimitations, and Validity Issues

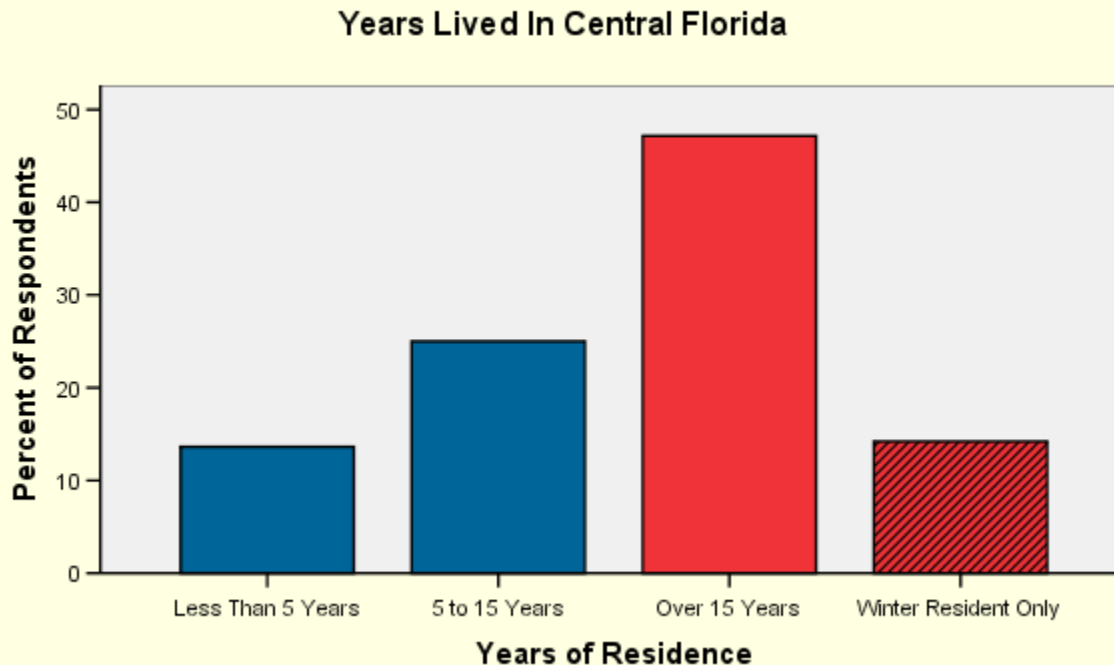
- ◆ Possible low response rate
- ◆ Reliability and Validity
- ◆ Artificiality
- ◆ Security issues related to gated communities
- ◆ Not conducting the survey within hurricane season
- ◆ Delimited to state-registered 55+ mobile home communities in Volusia County, FL

Ethical Implications

- ◆ Participants may feel some questions are an invasion of privacy

Findings

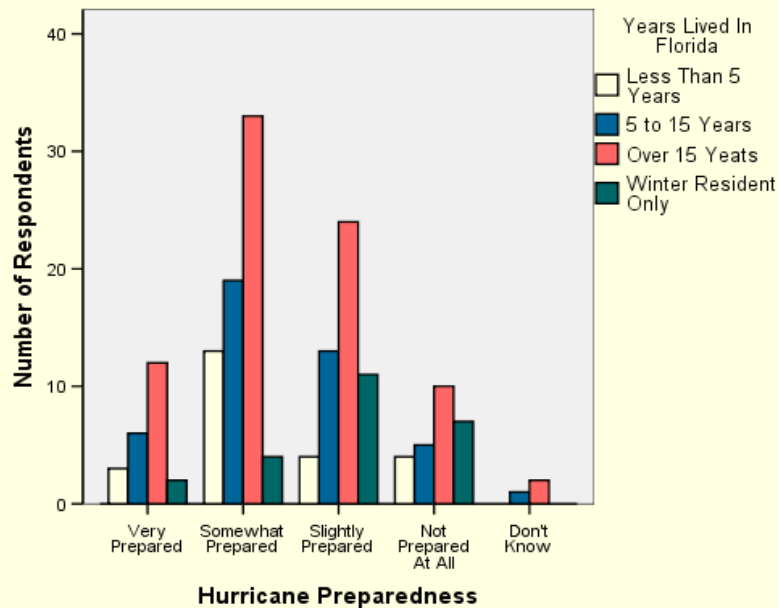
- ◆ Approximately 47.2% of the respondents have lived in Central Florida for over 15 years. The winter residents comprised 14.2% of those surveyed



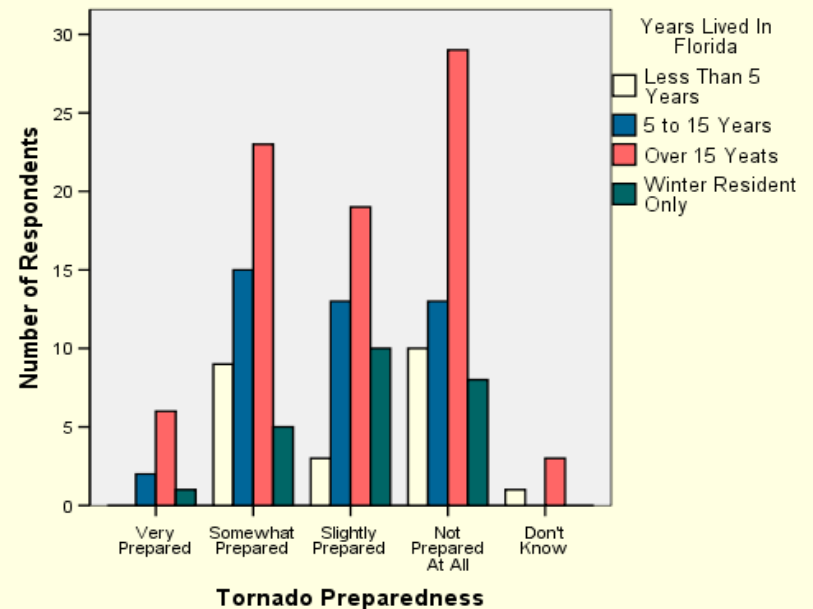
Findings

- ◆ The length of residence appears to have no effect on the level of preparedness

Affects of Length of Residence on Levels of Preparedness

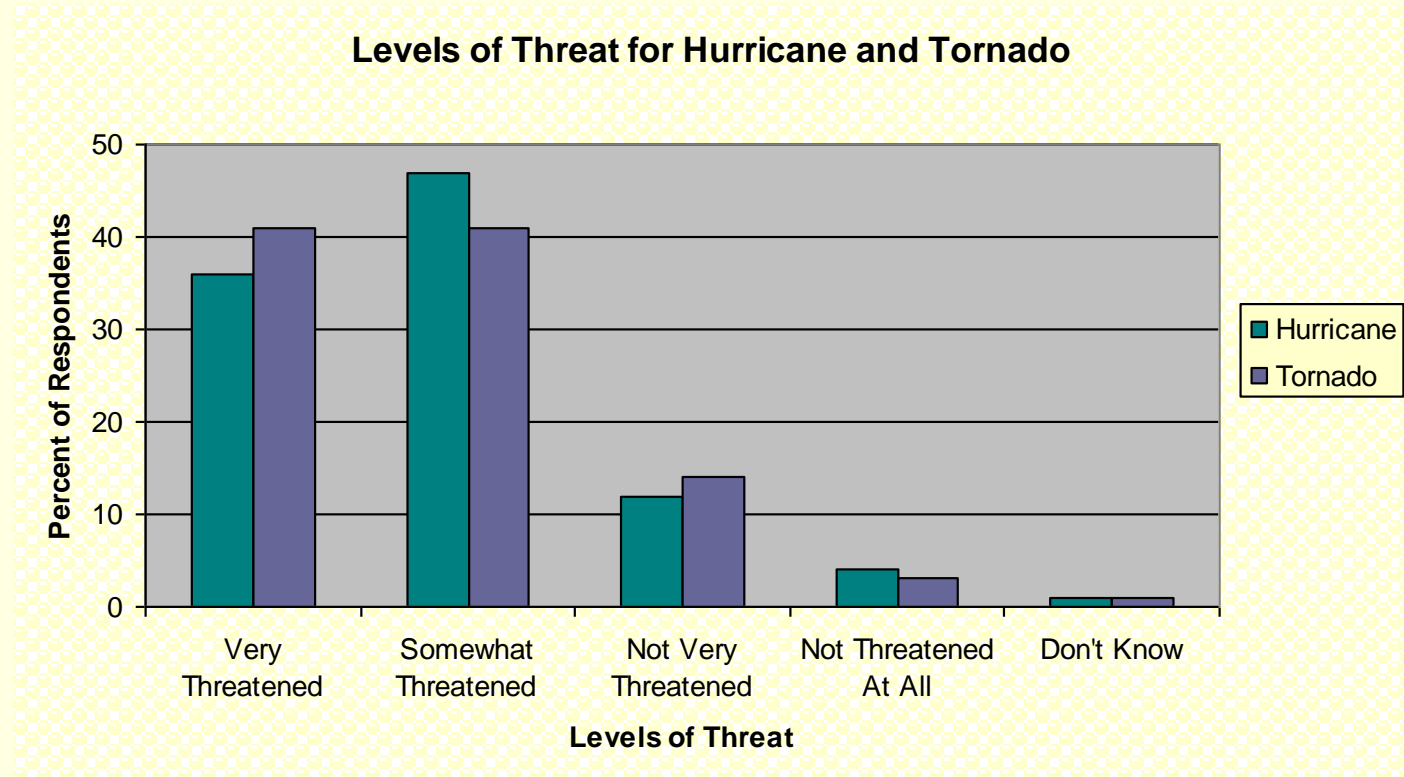


Affects of Length of Residence on Levels of Preparedness



Findings

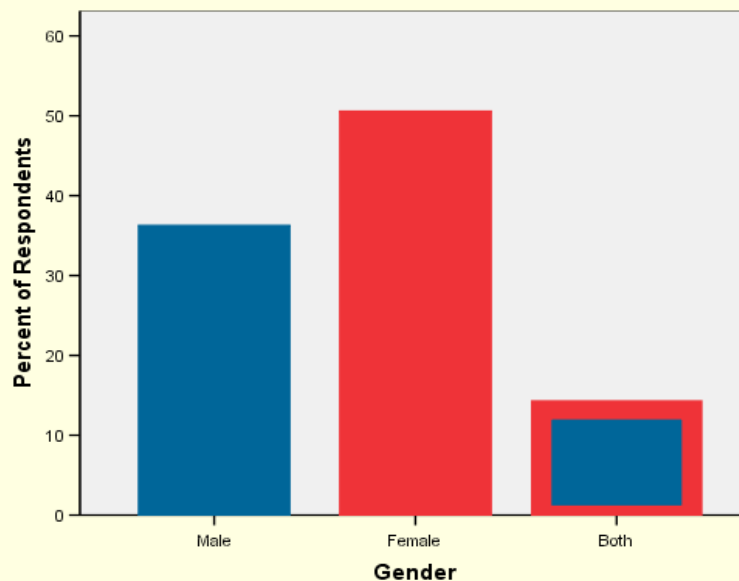
- ◆ The results show the respondents are most threatened by hurricanes and tornados



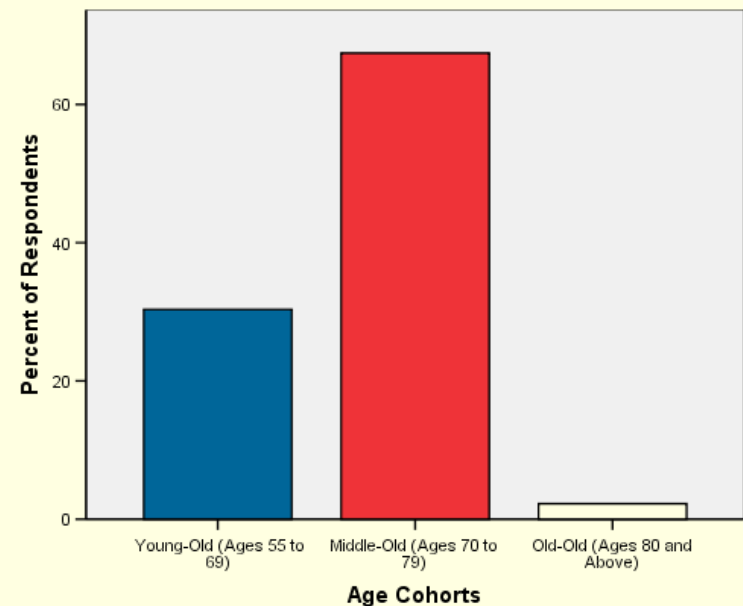
Findings

- ◆ The majority of the respondents are female and the largest age cohort comprises those individuals who are in the 70 to 79 years age bracket

Gender of Respondents



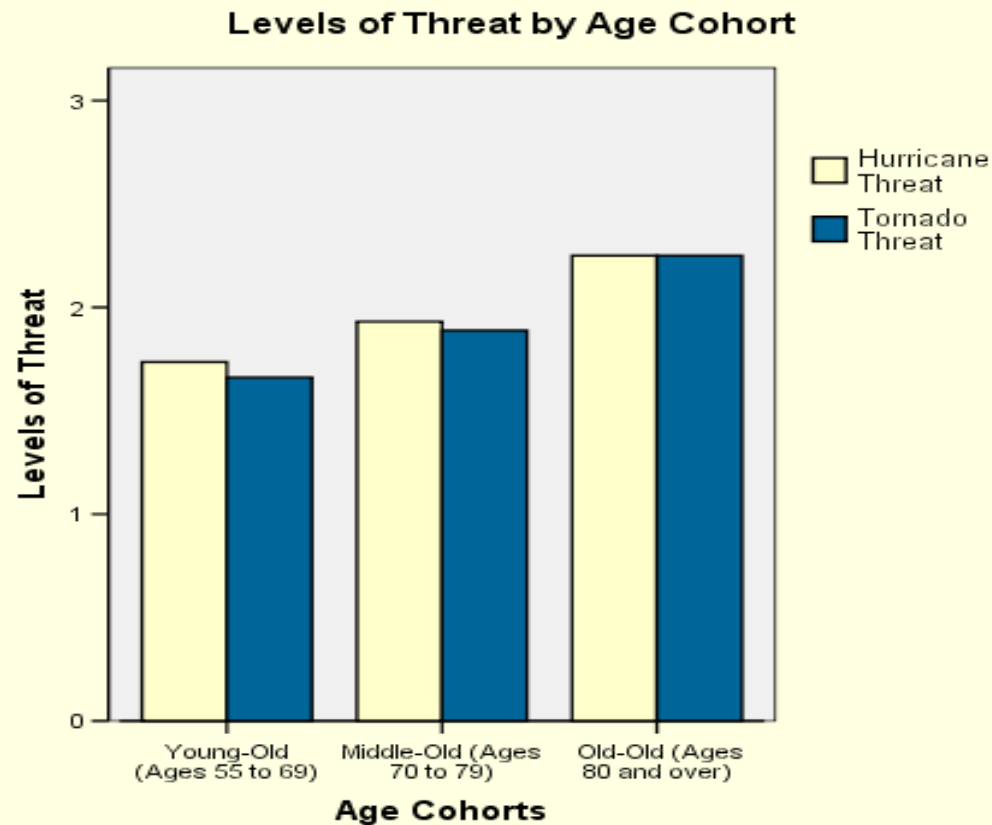
Age Cohorts of Respondents



Findings

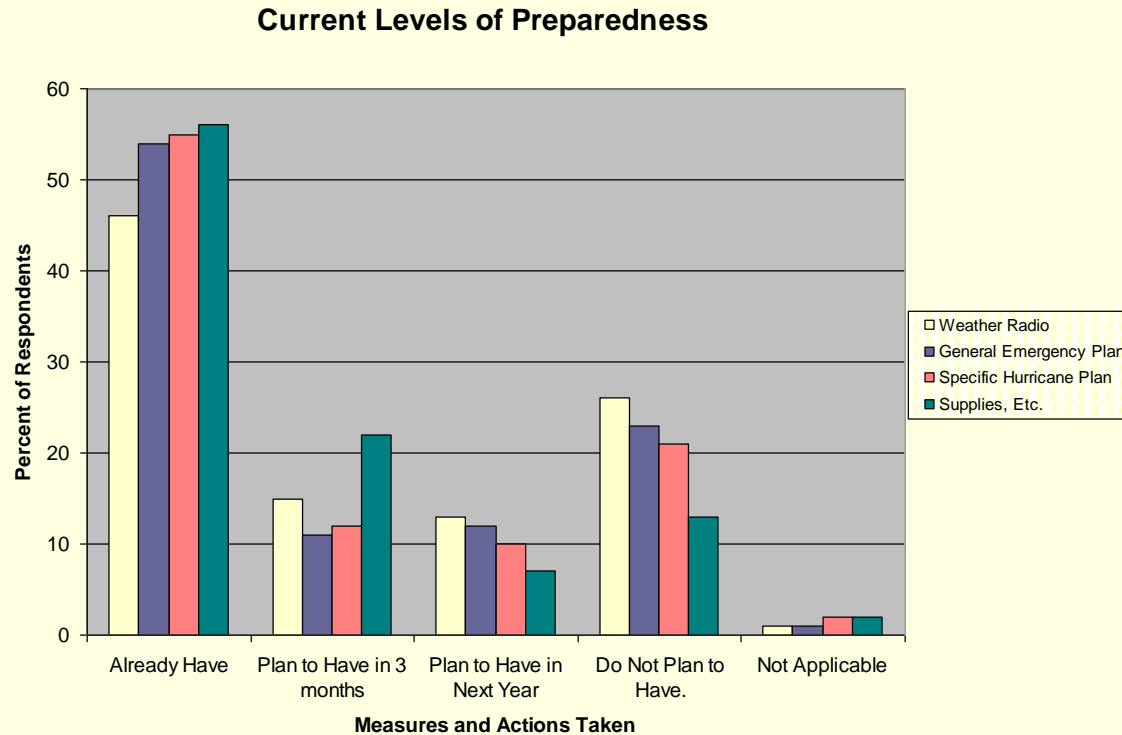
1 = Not very Threatened
2 = Somewhat Threatened
3 = Very Threatened

- ◆ The results indicate the level of perceived threat increases with age



Findings

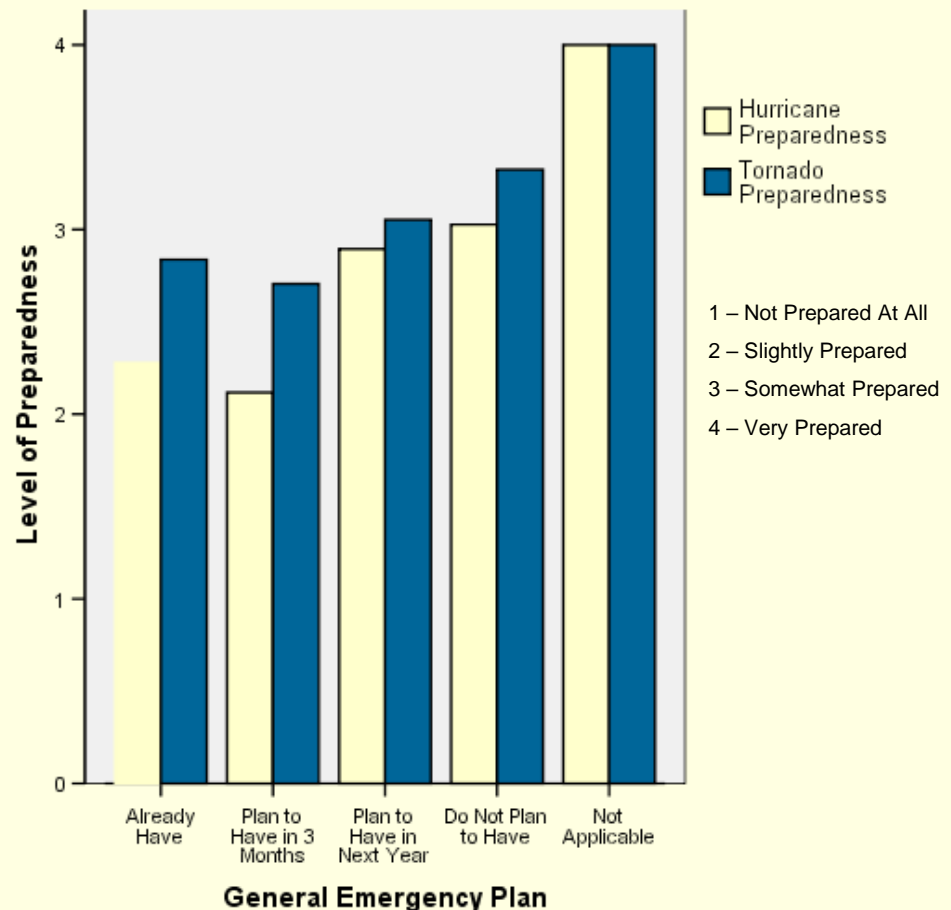
- ◆ The survey results indicate a majority of the respondents have taken measures to prepare for a disastrous event. Approximately 47% of the respondents indicate ownership of a weather radio



Findings

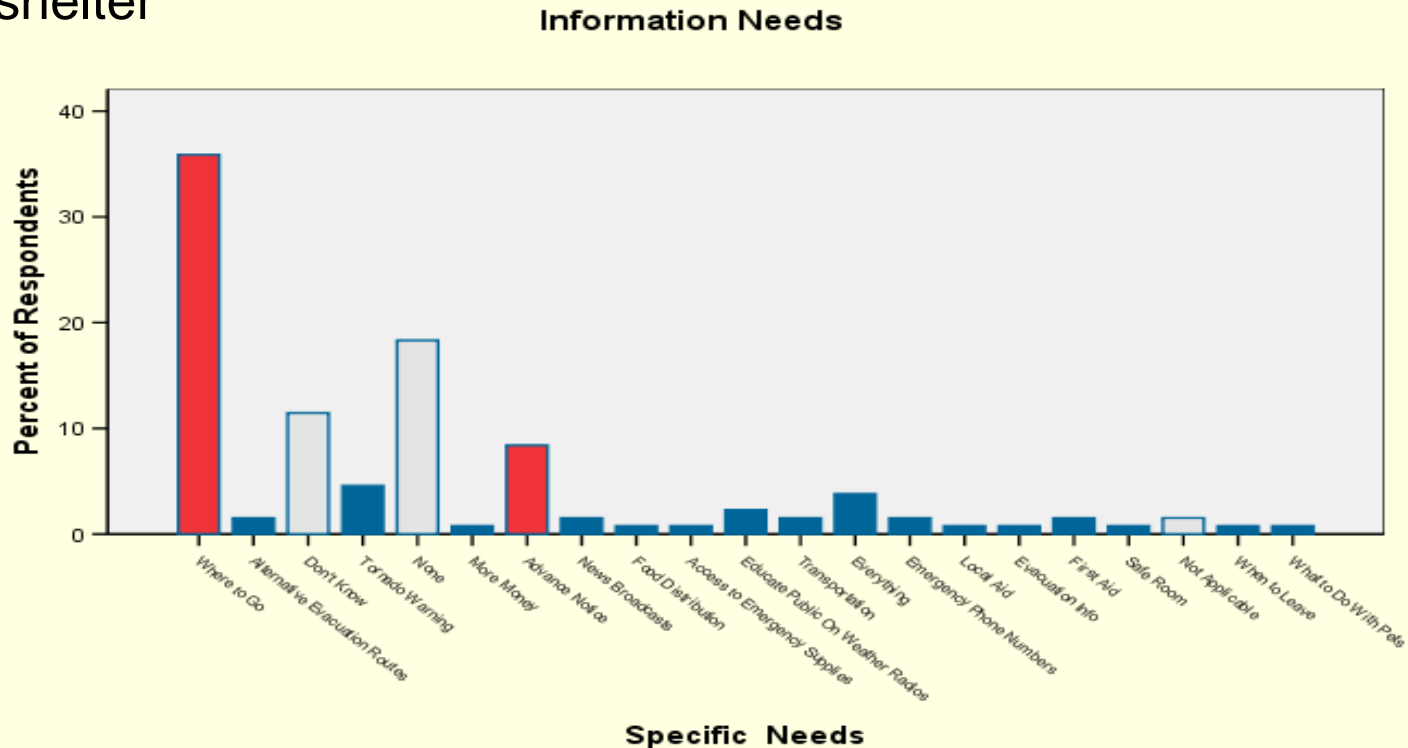
- ◆ The analysis indicates a direct relationship between having a plan in place and an individual's perceived level of preparedness.

Effects of Having a General Emergency Plan on Levels of Preparedness



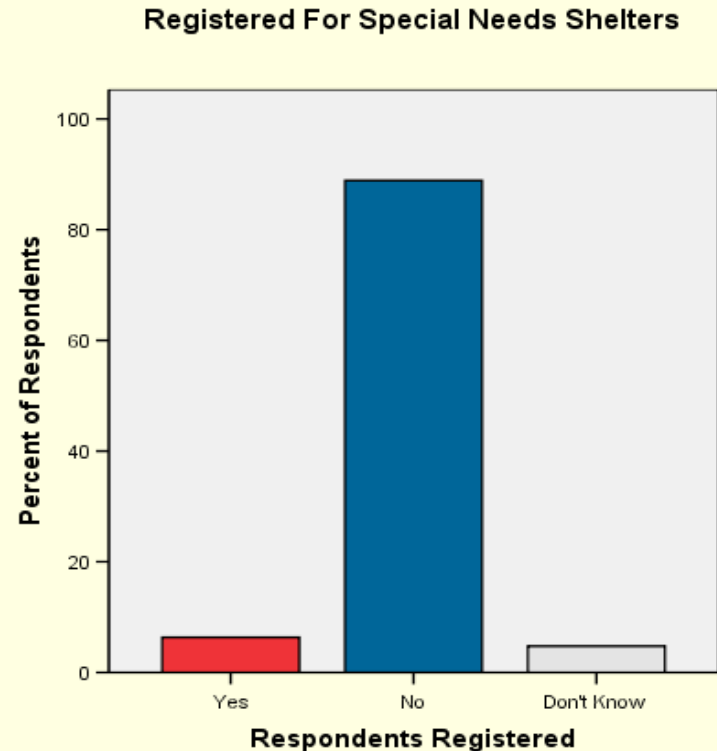
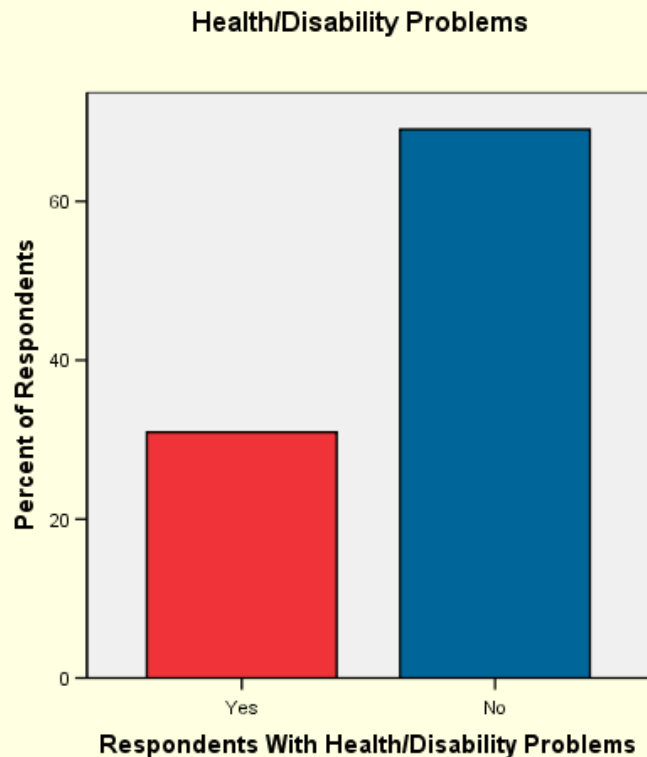
Findings

- ◆ The specific need respondents indicate most often is where to go in the event of an evacuation order and what they should do to prepare for an evacuation and for temporary residence in a shelter



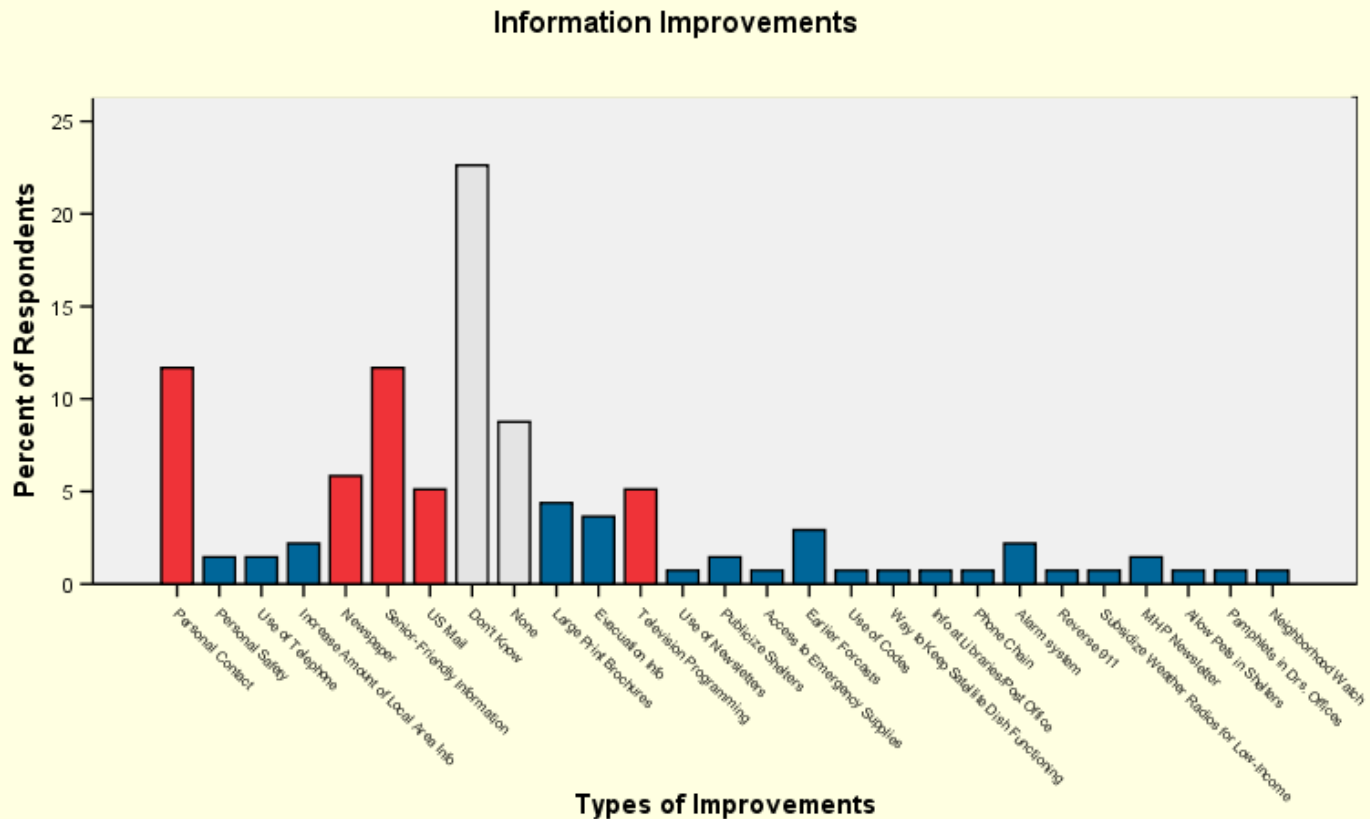
Findings

- ◆ The majority of survey participants who indicate they have health and/or disability problems have not registered for special needs shelters.



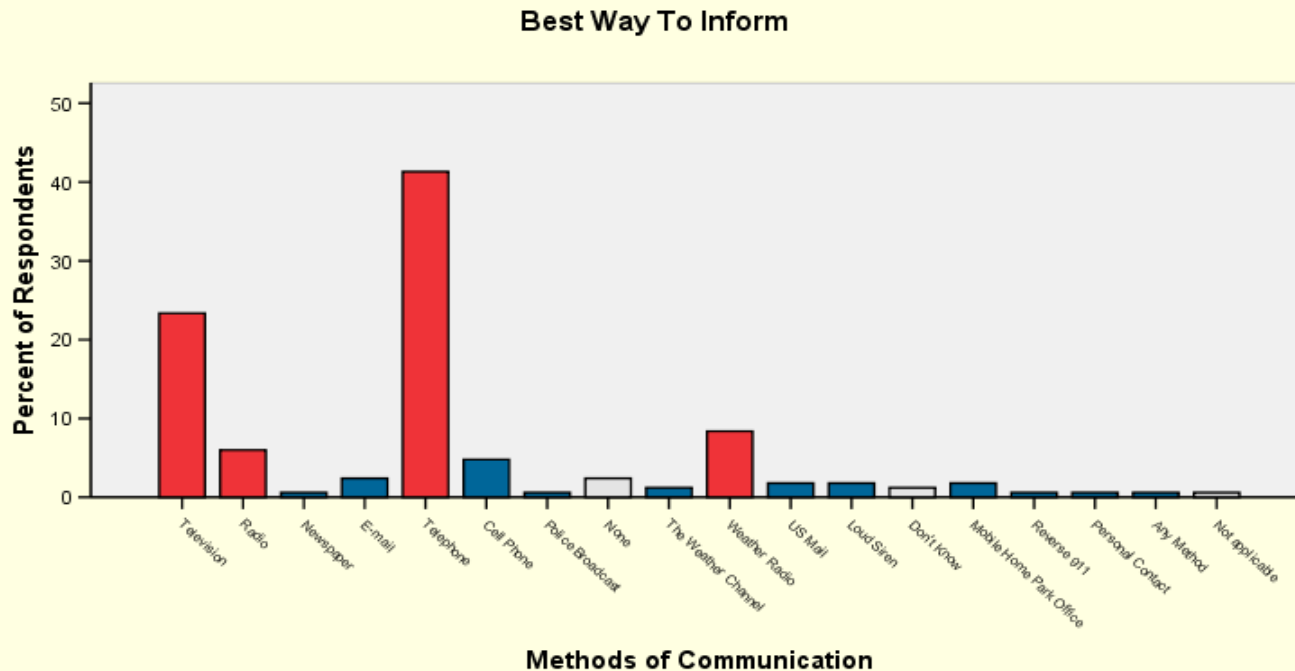
Findings

- ◆ Personal contact and senior-friendly information were the most requested improvements that the elder population felt could contribute to better communications



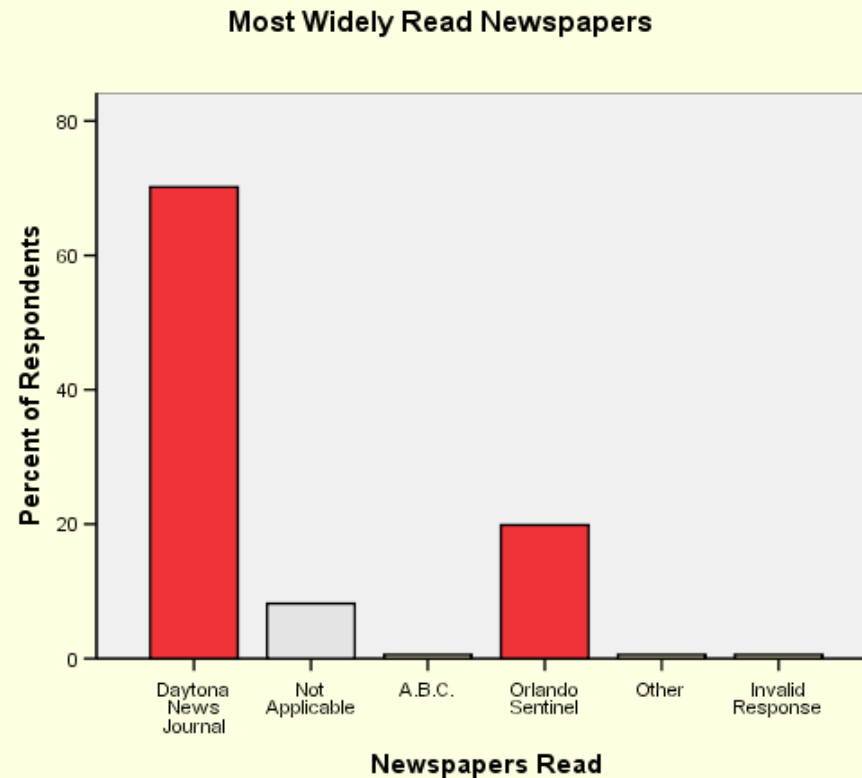
Findings

- ◆ The survey participants cite the telephone as the most preferred method of receiving emergency alerts and information. Many also indicate television and weather radio as a preferred method of communication



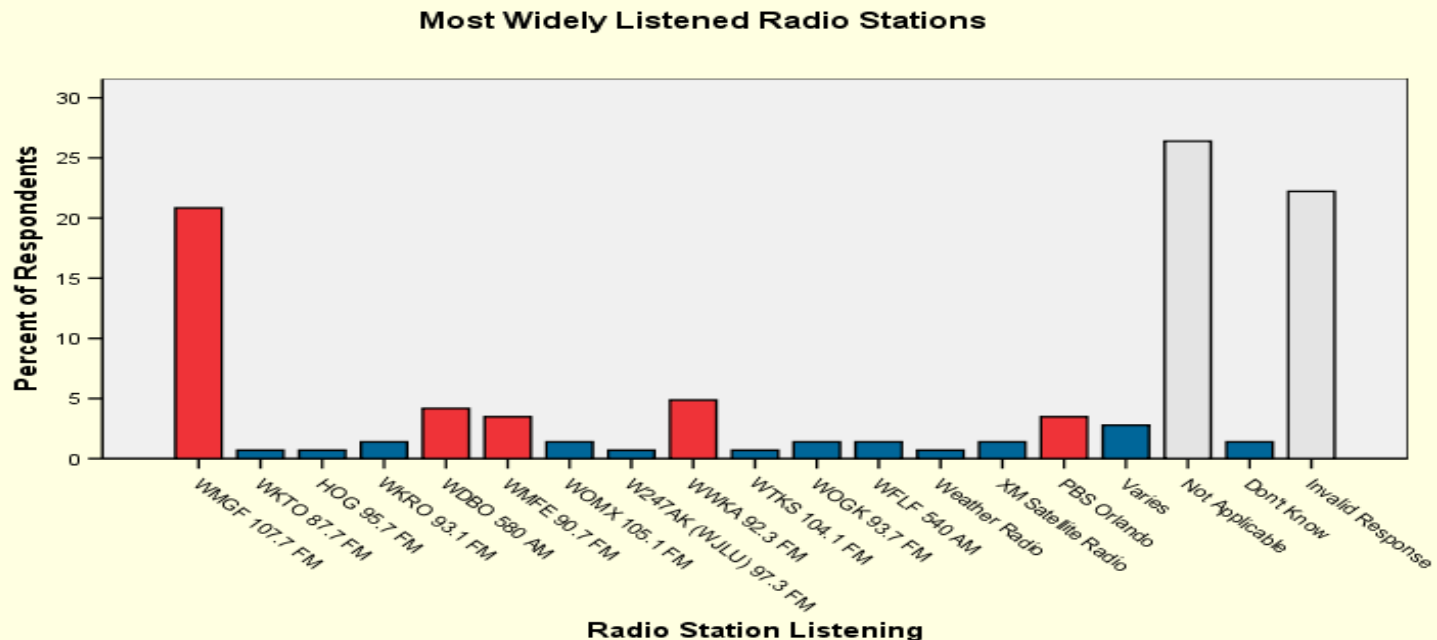
Findings

- ◆ The participants overwhelmingly read the Daytona News Journal with the Orlando Sentinel being the second favorite choice



Findings

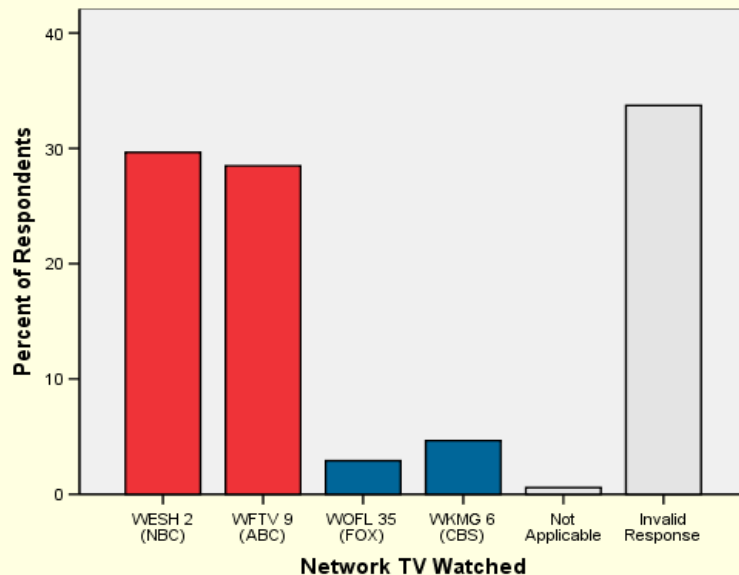
- ◆ The most widely listened to radio stations selected by the respondents are WMFG 107.7 FM, followed by WWKA 92.3 FM and WDBO 580 AM



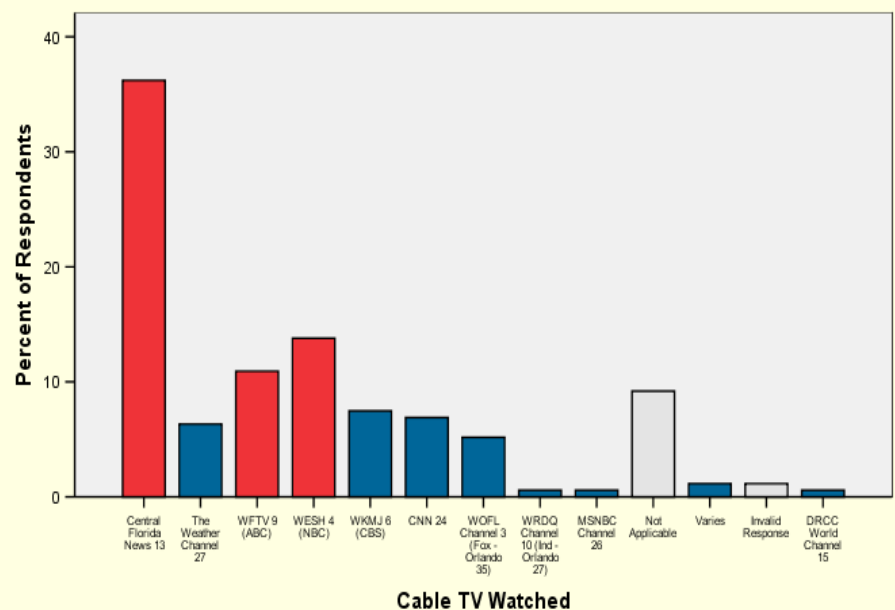
Findings

- ◆ The participants report WESH 2 (NBC) and WFTV 9 (ABC) to be the most watched network television stations. Central News 13 followed by WESH 4 (NBC) and WFTV 9 (ABC) are indicated to be the most watched cable stations.

Most Widely Watched Network Television



Most Widely Watched Cable Television Stations



Recommendations

In general, the study gives indication that:

- ◆ The majority of respondents are females in the middle-old age cohort (Ages 70-79) Statistics show 31% of females age 65 to 74 are widowed and more than 66% of those ages 75 and over are widowed (Atchley and Barusch 2004:191 and 193). The females in this age cohort must make disaster preparations with the assistance of a social network or alone. There is a need for special concern for the elderly living alone
- ◆ The majority of the respondents feel very threatened by hurricanes and tornados. Disaster information should focus on these 2 types of disasters

Recommendations

- ◆ The results show length of residence has does not affect an individual's level of preparedness. Therefore, long-term residents are as apt to need disaster preparedness information as much as new residents
- ◆ Although a large number of residents perceive themselves to be prepared or somewhat prepared, the results show a desire to acquire preparedness information by attending informational presentations (Personal contact)
- ◆ The major concern of the respondents appears to be where to go in the event of an evacuation order
- ◆ How to prepare for an evacuation
- ◆ How to prepare for temporary living in a shelter

Recommendations

- ◆ One particular area of concern appears to be a lack of awareness of the existence of special needs shelters.
- ◆ Approximately 31% of the 184 respondents indicate there is a household member with a health/disability need
- ◆ However, only 2% of those who indicate health/disability needs are currently registered for a special needs shelter. This result indicates a need for greater awareness of the existence of special needs facilities

Recommendations

- ◆ The respondents indicate having a disaster plan in place gives them a greater perception of preparedness. A sense of security may make for more complete preparation and a more orderly evacuation in the event of an emergency
- ◆ Most importantly, a vast majority of respondents indicate a desire to receive emergency information by telephone. Therefore, a sophisticated and fully operational reverse 911 system is deemed appropriate as a method of improving disaster communications with the elderly

Conclusion

It is anticipated the results of the study will provide the Volusia County, FL Emergency Management Division with information which can be utilized to improve communications with the elderly regarding emergency and disaster preparedness

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Thank you
Any questions?

