

Climate and Health in Monroe County

Vulnerability, Adaptation, and Resilience

Vicki Boguszewski, MPH

Public Health Analyst, Yogi In Ya Consulting

Chair, Monroe County Climate Change Advisory Committee

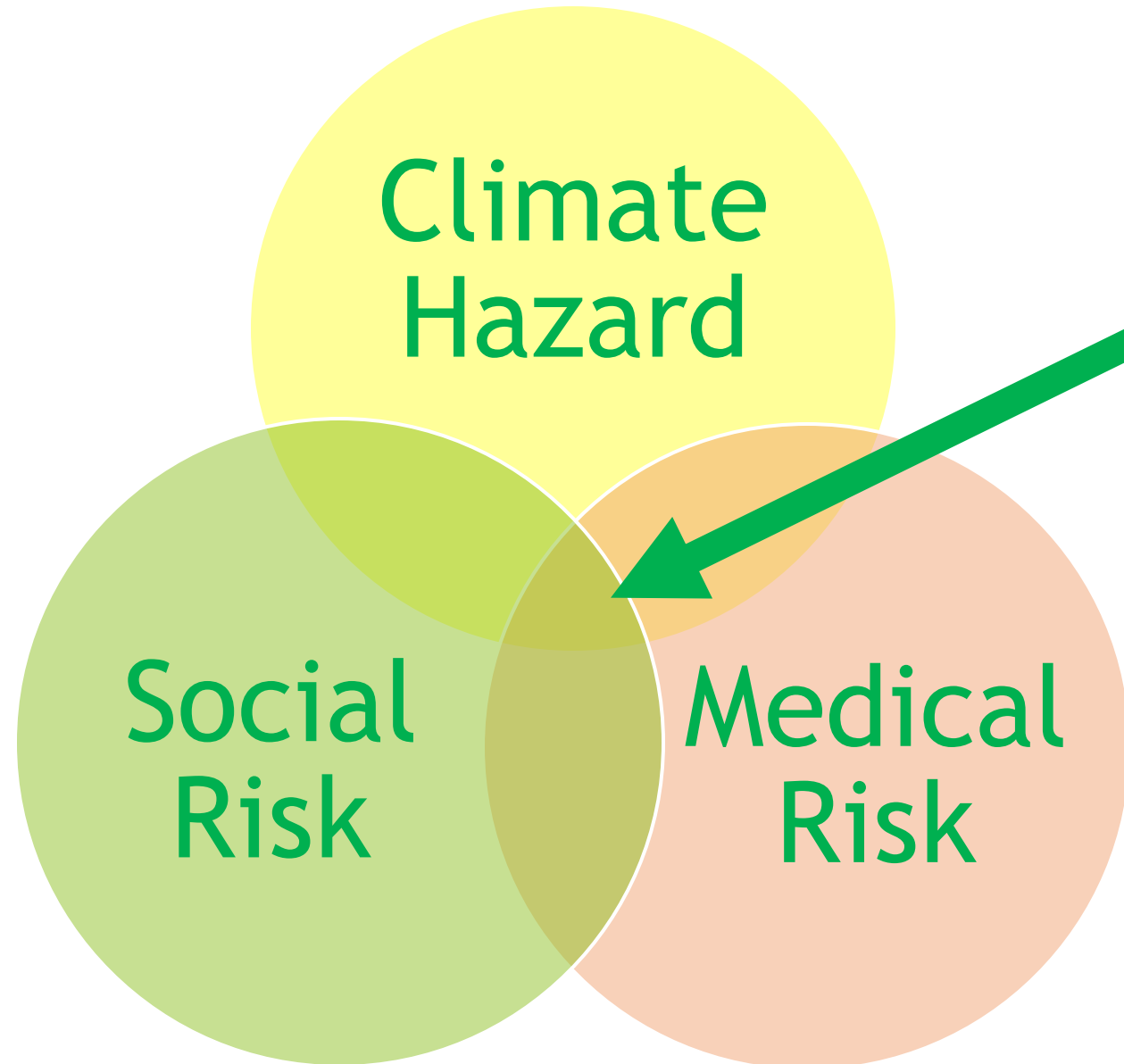
Technical Advisory Group member, Building Resilience

Against Climate Effects, (Florida BRACE)

IDENTIFIED HAZARDS

- ▶ Florida BRACE identified priority hazards for the State of Florida:
 - ▶ Hurricanes and other storms
 - ▶ Sea level rise
 - ▶ Flooding
 - ▶ Drought
 - ▶ Extreme heat
 - ▶ Wildland fires

A population's vulnerability is an intersection of factors



Vulnerability is highest at this intersection, the target for adaptive action to promote resilience.

CONDITIONS OF CONCERN



Respiratory Allergies and Airway Diseases



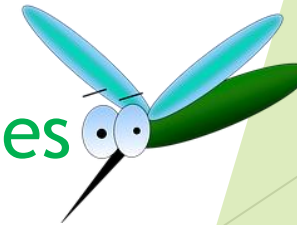
Foodborne Disease and Nutrition



Mental Health



Waterborne Diseases



Vectorborne and Zoonotic Diseases

Health Impacts	Relationship Factors	Associated Conditions
Respiratory Diseases	mold, standing water, air quality, heat stress	Asthma, COPD, respiratory allergies
Foodborne Diseases and Nutrition	salt water intrusion, vector variability for agri-pests, species variability in agricultural and marine resources	Dehydration, Poisoning, associated with exposures to: Salmonella, Shigella, Listeria, Trichinella, Staphylococcus aureus, Ciguatera toxin
Mental Health and Stress-Related Disorders	changes to species availability for economic opportunity, loss property, loss of life, loss of economic viability	Post-traumatic stress disorder, anxiety, dementia, depression, substance abuse, social violence
Vectorborne and Zoonotic Diseases	increased ranges, increased abundance, resistance to controls	Dengue, W. Nile virus, Zika, Chikungunya fever, Lyme disease
Waterborne Diseases	increased standing water, higher temperatures, decreased quality	Cholera (Vibrio), Campylobacter, Giardia Cryptosporidium

Adaptation

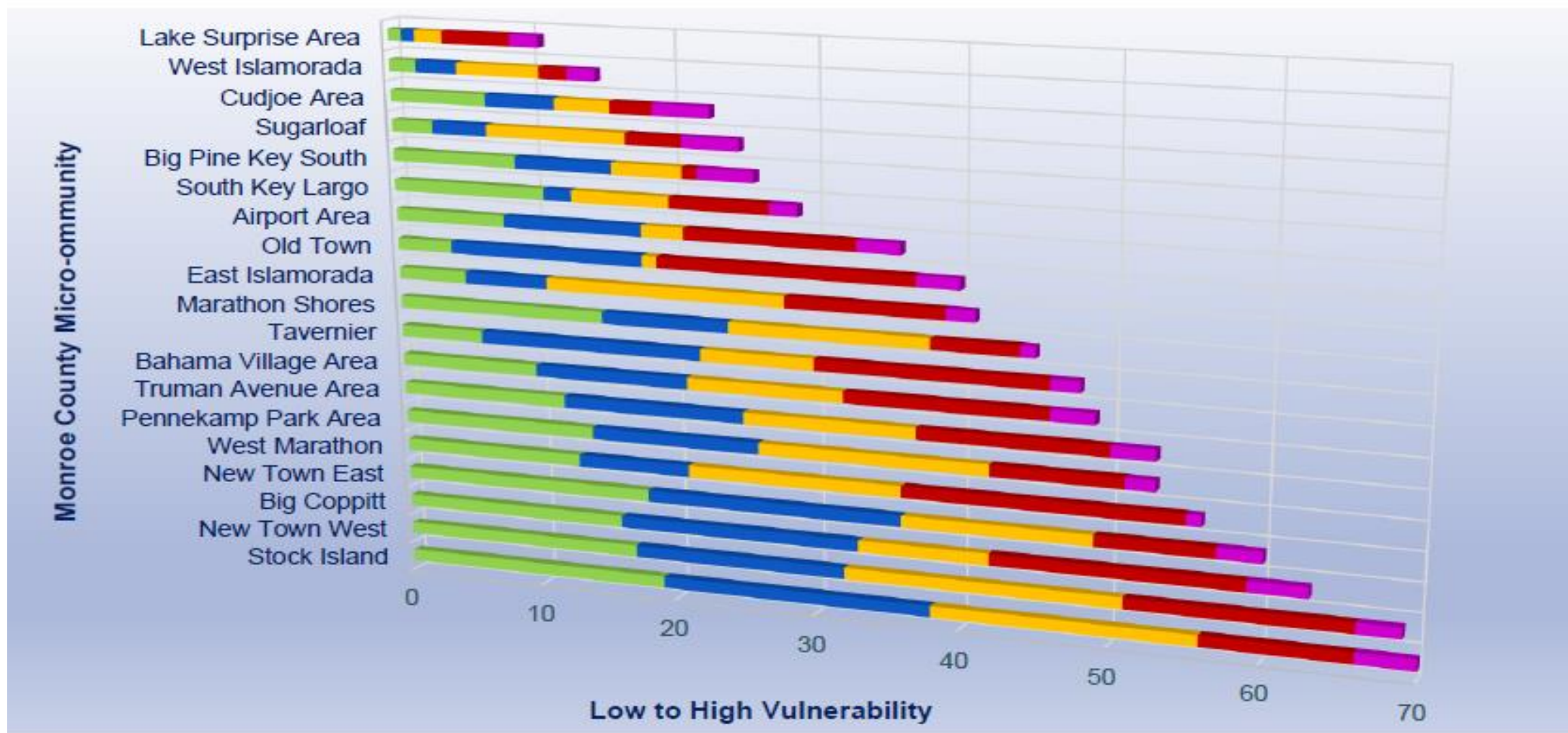


- ▶ Florida Building Code brings a property to 80% of LEED Standard Requirements
- ▶ Monroe County is considering a plan to raise its roads in response to rising seas
- ▶ Monroe County engages in planning as part of a four county Compact in preparation for anticipated impacts of our changing climate
- ▶ Healthcare facilities in South Florida are being assessed and hardened infrastructure is being implemented to improve shelter in place options

Resilience:

- Ability to respond and recover in the face of change
- Reduces vulnerability

Factors Impacting Vulnerability Rank in Monroe County Micro Communities



■ Per Capita Income
 ■ %65+
 ■ %<18
 ■ Age-Adjusted Death Rate
 ■ Sea Level Elevation

Figure 5 micro community data courtesy of Florida DOH-Monroe and sea level elevation data courtesy of the Southeast Florida Regional Climate Compact

Questions and Discussion

Thank you!

- ▶ South Florida Regional Planning Council
and
- ▶ the Village of Islamorada

Vicki Boguszewski, MPH
vboguszewski@gmail.com
www.yogiinya.com