

# Health Research in Rural Communities

State of The Science 2024

Lauri M. Baker, PhD  
Center for Rural Enterprise Engagement



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# Center for Rural Enterprise Engagement (CREE)

CREE is a transdisciplinary, multi-institution center that provides research-based knowledge about digital communication technologies & marketing.

CREE works to enable rural and agriculture-based businesses to flourish in ever-changing environments, while fostering positive changes to rural livelihood.

<https://RuralEngagement.org>



# CREE is 1 piece of PIE

Center for Public Issues Education in Agriculture & Natural Resources



Along with the other PIE Pieces:

- SCCAHS
- EDEN

# Rural Health Research



Trust in Vaccine Science



Trust in Science by Type



Online Science



Mental Health

# Community-Based Social Marketing

## Components

Commitment

Prompts

Norms

Communication

Incentives

Removing External Barriers

## What we tested

Barriers

Social norms

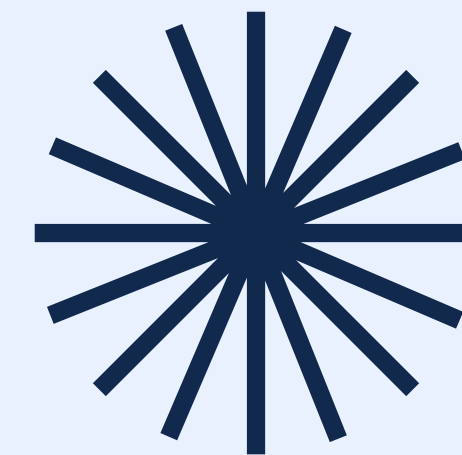
Incentives

Attitudes

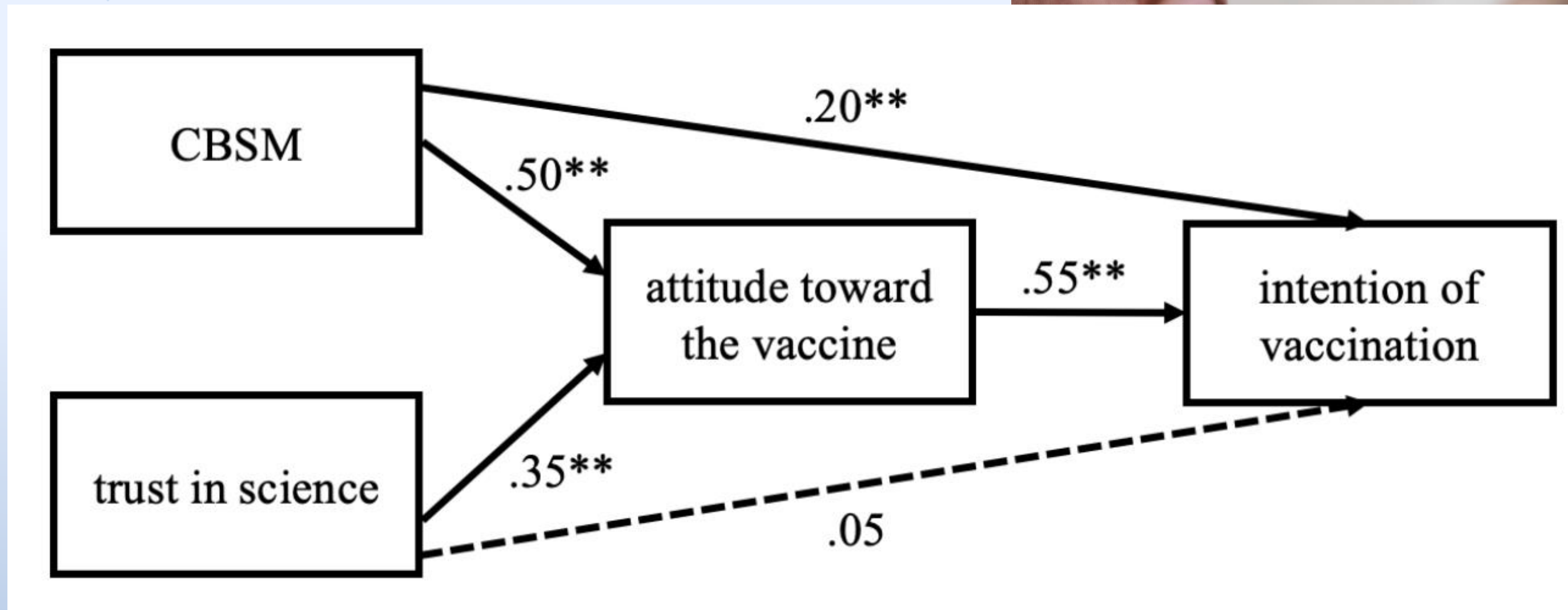
Beliefs

Intention to vaccinate

Trust in science



# 339 Rural Americans



# Trust in Science



- People are asked to make decisions based on science
  - Consuming GMO foods
  - Getting a vaccine
  - Preventative healthcare
- Trust in Science is:
  - Lower in rural communities
- COVID-19 vaccine is an interesting case study



# How can we use this research?

- Communication campaigns should
  - Eliminate barriers
  - Highlight benefits
  - Provide incentives
  - Work to change social norms





# Trust in Science

Cultivating **positive attitudes** toward vaccines in rural communities is vital, particularly as Americans may need future vaccines to address emerging infectious diseases.

<https://doi.org/10.4148/1051-0834.2446>



# Online Health Communication



Rural people are more likely to follow those they know offline

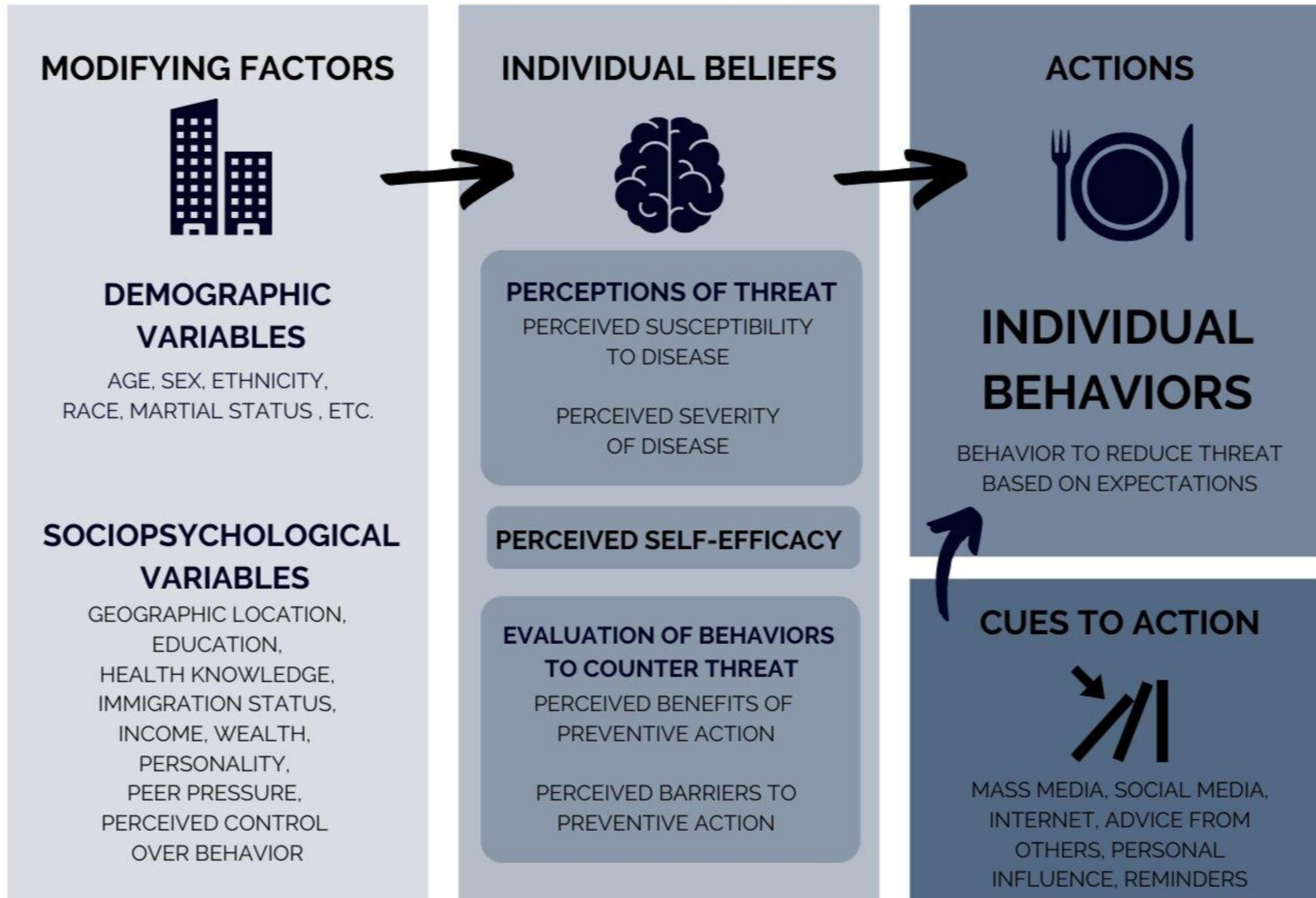


Looking online for health messaging



Trust is higher for Extension than urban areas

# HEALTH BELIEF MODEL



"corn maze" is moderately related to "meat allergy" (.45)



"hunting" is moderately related to "ticks" (.34)



→ A positive correlation can be explained that people are more likely to be exposed to tick-borne diseases when they engage in that outdoor activity.



u-pick  
park

positively related  
to tick risk terms  
(.50 to .83)



corn maze

no significant  
correlations



hunting

negatively related  
to tick risk terms  
(-.52 to -.61)  
due to hunting seasons

## CONCLUSIONS

Results can help predict when to provide more helpful information to make people aware of tick risks and take prevention. An example is when people search for outdoor activities, a pop-up window can be designed as a cue to action to warn them of risks and educate preventions.



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# Mental Health

Mental health has emerged as a major issue in rural communities, even when we weren't looking for it...



# Professionals Group 4

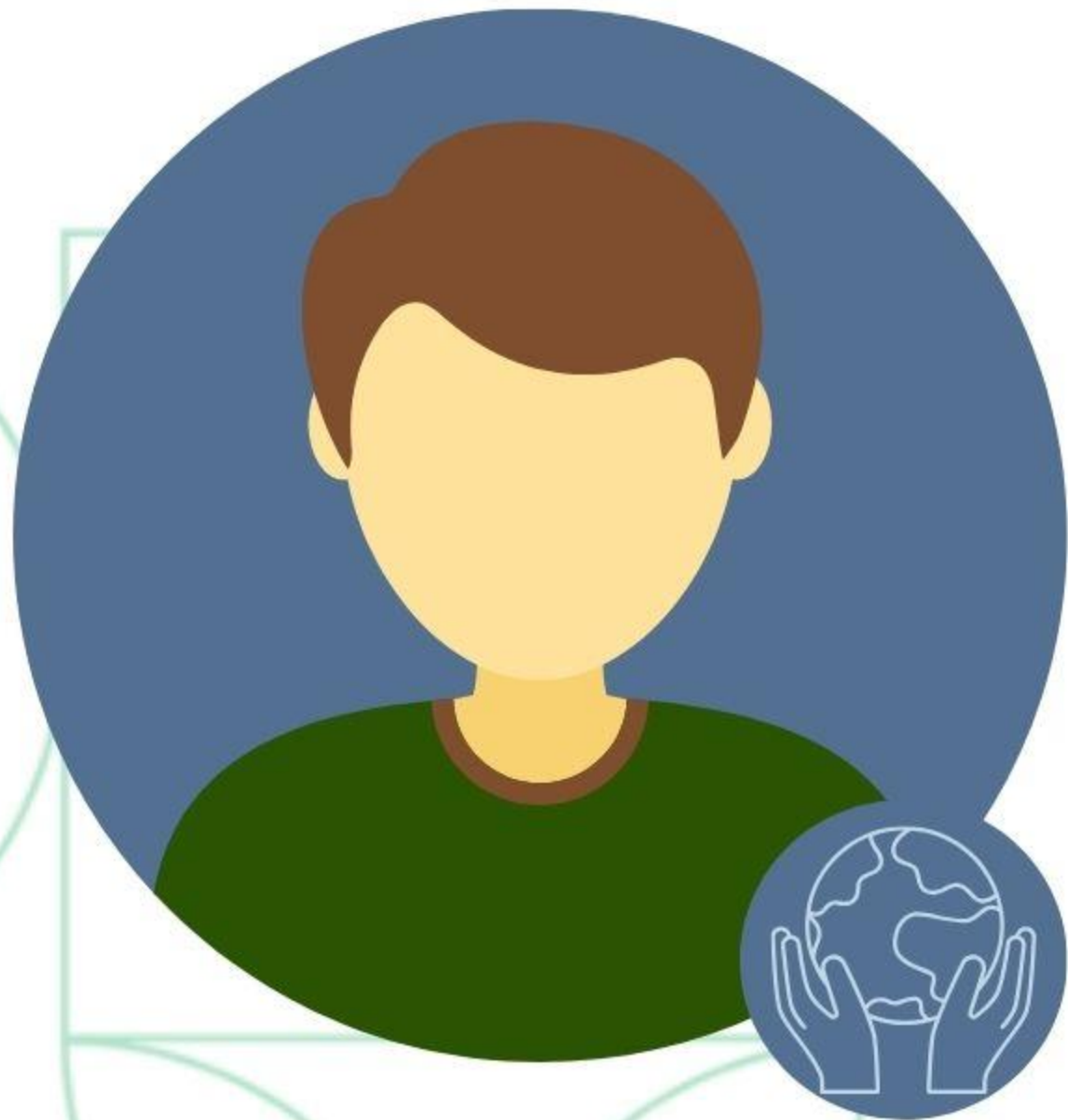
*High support for both people and environmental issues.*



- Demographics
  - 1 administrator, 1 faculty, and 1 other
  - 1 man and 2 women
  - All rural
  - 2 white and 1 Hispanic/biracial
- Highest priorities for this factor were:
  - Protecting water quality
  - assisting local government with land use decisions
  - Addressing alcohol, prescription drug, and illegal drug abuse
  - Mental health
- Lowest priorities for this factor were:
  - Preserving foods for home use
  - Strengthening couple and/or marital relationships
  - Helping households conserve energy

# Student Group 1

*High support for protecting the environment. Low support of developing people.*



- Demographics
  - 4 forestry students, 1 engineering, 1 honors, and 1 business
  - 4 males, 2 females, and 1 other
  - 6 rural and 1 city limits
  - 2 previously involved with Extension programming, 2 no involvement, and 3 unsure involvement
- Highest priorities for this factor were:
  - Preventing suicide
  - Protecting natural habitats and ecosystems
  - Protecting freshwater resources
  - Protecting the coastal environment
  - Composting, reducing, and recycling consumer goods
  - Protecting the marine environment
  - Controlling invasive plants
  - Helping households become more energy efficient
- Lowest priorities for this factor were:
  - Helping youth develop citizenship and other life skills
  - Addressing prescription drug abuse

# Student Group 2

*High support for government and community capacity. Low value on protecting the environment.*

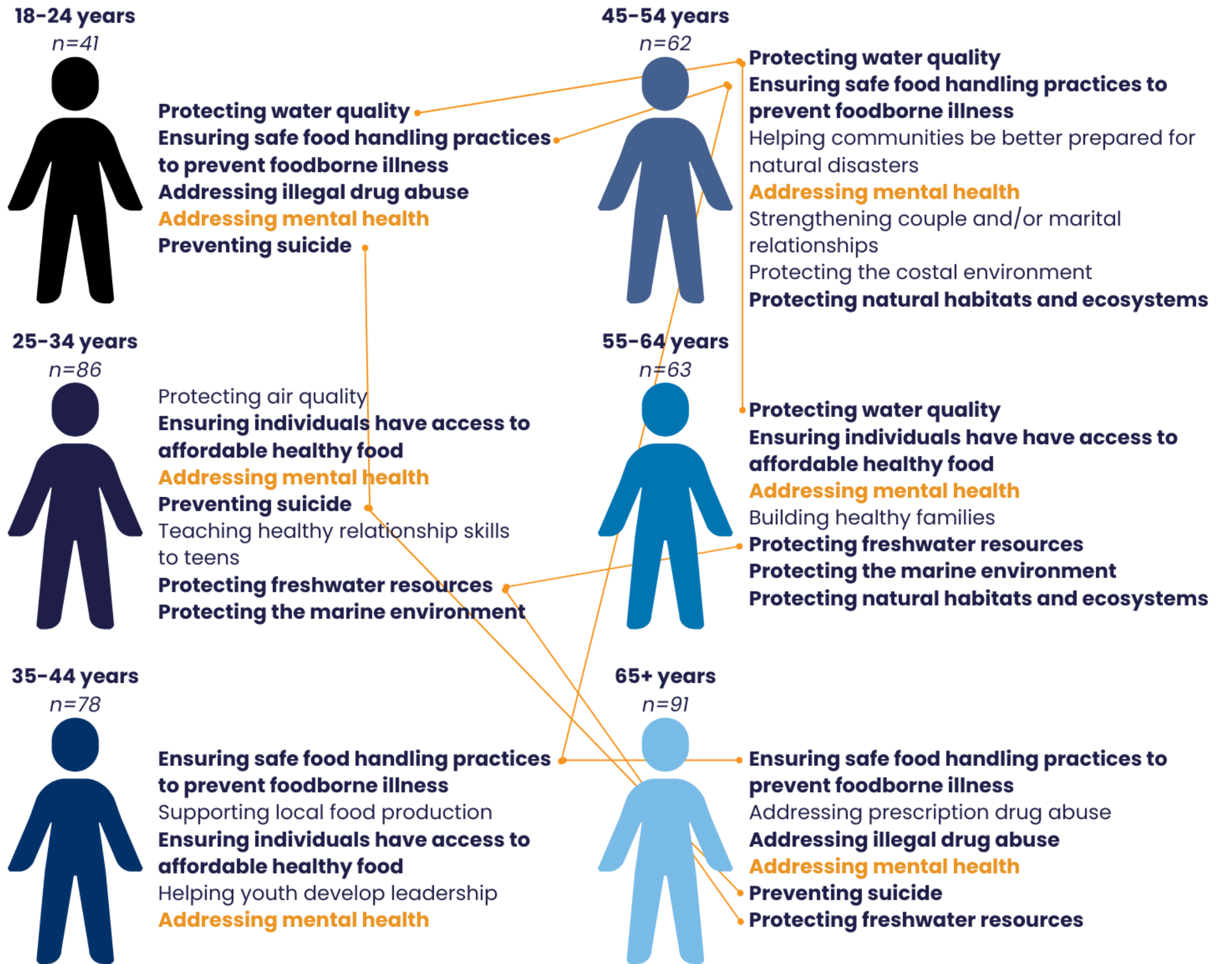


- Demographics
  - 3 business students, 1 engineering, and 1 liberal arts
  - 3 males, 1 female, and 1 other
  - 3 rural, 1 downtown, and 1 outside the city limits
  - 4 having no involvement in previous Extension programming, and 1 unsure involvement
- Highest priorities for this factor were:
  - Addressing illegal drug abuse
  - Preventing chronic disease
  - Reducing obesity through educational programs
  - Helping rural communities improve their quality of life
  - Ensuring safe food handling practices to prevent foodborne illness
- Lowest priorities for this factor were:
  - Protecting air quality
  - Protecting natural habitats and ecosystems
  - Composting, reducing, and recycling consumer goods



# Survey breakdown

## Greatest unmet needs by age



# Questions?

Lauri.m.baker@ufl.edu

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