Understanding Climate Change: Building Green Infrastructure to Reduce Flooding

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OBJECTIVES

- Define Climate Change and its Impact to Public Health
- Understand Types of Flooding
- Role of Public Health Professionals
ORGANIZATION HISTORY

- Community Based Organizations established 2013
- Non-Profit Status 2018

Values:

- **RESPECT**: Being respectful of the community’s needs and cultural norms
- **COLLABORATION**: Weekly team meetings with project partners
- **COMMUNITY**: Bringing residents together around a common issue and setting goals/visions for the community.
- **AUTHENTICITY**: HCS is led by a 7th Ward 4th generation native
ORGANIZATION HISTORY

- Work around the values of 3 E’s
  - ENGAGEMENT
  - EDUCATION
  - EMPOWERMENT
Definition:

A change in global or regional climate patterns, attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
CLIMATE CHANGE EFFECTS

EXAMPLE:
a change in regional climate patterns
CLIMATE CHANGE EFFECTS

- Increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
  - More intense and frequent Natural Disasters/Rain Events
  - Agriculture Drought/Floods reduces food security
  - Poor water and air quality.
What’s at Risk

- 30% US Commercial Fishing Landings
- 50% Louisiana Population Lives
- 32,000 Coastal Water Management Jobs
- $9.3 Billion in Tourism Revenue
- > 33 Million Tons of Exports
TYPES OF FLOODING

US Water Shed

41% of Continental US included in Mississippi River Water Shed

31 States

West- Rocky Mtns

East – Appalachian
TYPES OF FLOODING

- Storm Water/Rain Fall
- Storm Surge
- Sea Level Rise/Land Loss
TYPES OF FLOODING

Rain Events
Poor Infrastructure
TYPES OF FLOODING

Prolonged Rain Events
TYPES OF FLOODING

Storm Surge
TYPES OF FLOODING

Sea Level Rise

The science demonstrates that coastal Louisiana has had significant land lost, in the past 50 years. [1] However, the science doesn’t demonstrate the value of the communities that have literally been swallowed by the Gulf of Mexico. As I write this testimony, I know that the residents of Isle de Jean Charles, LA, despite restoration efforts, will have to relocate to higher ground, more inland. The cause sea level rise. [4] This is not an isolated event.

St. James Church, originally known as St. Jacques de Cabahanoce Church dates to 1764 and is the “First Acadian Coast”. This is the first church of the first Acadian exiles. Cabahanoce is its Indigenous name, meaning “where the wild ducks roost”. [5]

The ancestral burial space at St. James Cemetery is completely submerged in the Mississippi River. If one thinks, that is awful, visualize an oil/gas line that is directly above this sacred space. [6] Can anyone begin to imagine not being able to visit the final resting place of relatives?


https://www.youtube.com/watch?v=D1v2f-HgFvY

(Begin at 1:49)
TYPES OF FLOODING
TYPES OF FLOODING
Best Practices

- Green Infrastructure Implementation
- Community Engagement & Education
  - Citizen Science to recognize & understand environmental changes
  - Health Plan (adequate medications, supplies and equipment, EMR’s,)

Best Practices

- Green Infrastructure Implementation approach to stormwater management that protects, restores, or mimics the natural water cycle
  - Bioswales/Rain Gardens
  - Storm Water Planter Box
  - French Drains
Best Practices
Best Practices

French Drain/Rain Garden

Stormwater Planter
Best Practices

- Citizen Science to recognize & understand environmental changes
Best Practices

- Written Health Plan
- Adequate Rx and supplies,
- DME’s providers
- Copies of EMR’s in an electronic format
- Medical Provider’s contact info
- Bring with you/or have a copy outside of danger zone
ROLES OF PUBLIC HEALTH PROFESSIONALS

- Understand physical, psychological, emotional, spiritual, and mental health caused by
  - shifting populations
  - environmental changes that cause physical changes.
ROLES OF PUBLIC HEALTH PROFESSIONALS

- Document changes during consultations.
- ASK the Question of any potential environmental challenges
ROLES OF PUBLIC HEALTH PROFESSIONALS

- Ask the Question of any potential environmental challenges
- Exposure Heat/Cold
- Vectors
ROLES OF PUBLIC HEALTH PROFESSIONALS

- Become acutely aware of the Social Determinants of Health
- Monitor Weather Conditions
ROLES
OF
PUBLIC HEALTH PROFESSIONALS

- Examples
  - Reforestation of Rural and Urban Areas
  - Improves Air Quality
  - Removes Pollutants
-Never doubt that a small group of thoughtful committed citizens can change the world.
ROLES OF PUBLIC HEALTH PROFESSIONALS

- Will you be that change to improve the public’s health?

QUESTIONS?
Contact

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