



Caribbean Community Climate Change Centre

11th GLOBAL CONFERENCE ON HEALTH AND CLIMATE CHANGE

SPECIAL FOCUS ON SIDS IN THE CARIBBEAN

HEALTH VULNERABILITY AND ADAPTATION CAPACITY

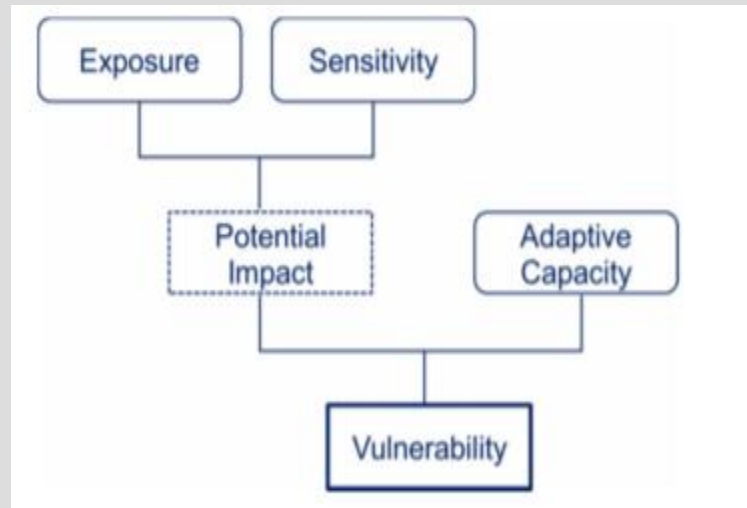
St. George's, Grenada

16th-17th October 2018



VULNERABILITY

- Vulnerability to climate change function of:
 - Sensitivity
 - Exposure
 - Adaptive capacity





SENSITIVITY

- Sensitivity encompasses
 - (1) the ability of a community to withstand these exposures and the range of associated impacts; and
 - (2) physiological (e.g., disabilities) and socioeconomic (e.g., poverty) factors that increases the susceptibility of individuals to the exposure. Concept also includes access to functioning infrastructure that can influence how people withstand an exposure (e.g., availability of electricity during an extreme heat event).

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ADAPTIVE CAPACITY

- The potential public health impact, jointly produced by exposure and sensitivity, can be offset by adaptive capacity.
- Adaptive capacity refers to behavioral, institutional, and technological responses and adjustments to lessen the potential impact.
- Typically, such adaptations limit , provide recovery opportunities, and enhance coping with consequences .



FUTURE CLIMATE CHANGE HAZARDS IN THE CARIBBEAN

- Sea level rise
- Increased ocean acidity
- Increase in temp. including sea temperatures
- Increased intensity of hurricanes
- Decreased rainfall
- Changing weather patterns- floods, landslides

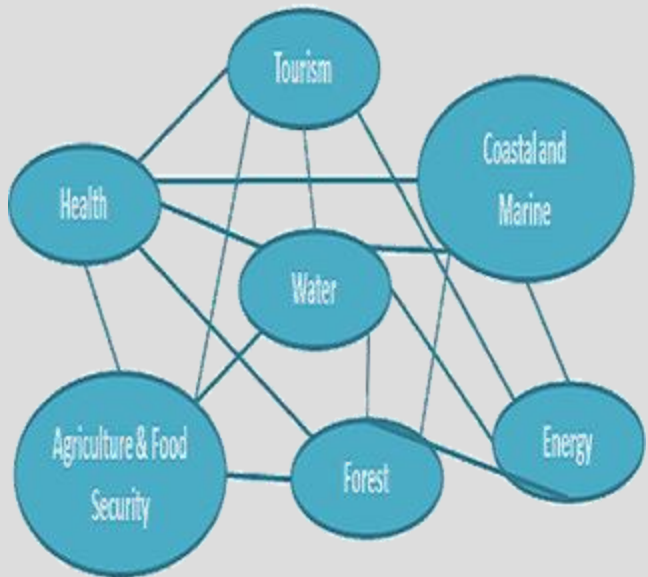


IMPLICATIONS FOR HEALTH

- Conditions conducive to
 - Proliferation of vectors for dengue, malaria
 - Proliferation of water borne diseases
 - Increased incidence of respiratory illnesses
 - More intense hurricanes
 - Decreased availability of food
 - Heat Stress
 - More frequent extreme events –floods, droughts, landslides

The Regional Framework and Health

- Regional Framework approved by CARICOM Heads of Government, July 2009
- Implementation Plan, March 2012
- Climate Change and Health is a high priority
 - **The poorest segments of our populations stand to lose the most if we fail to act**



The Lancet Commission Report (2008) calls for public health advocacy targeting the **interconnections among varied social spheres, including disease, food, water and sanitation, shelter and settlements**



The Regional Framework and Health

- Inclusion of health professionals is crucial for the success of the Regional Framework
- Research that supports policies positioning climate change as a public health priority is needed to complement the Framework





Building adaptive capacity

1. Public Participation:

- Give high priority to strategies that engender local buy-in and involvement in the adaptation strategies

2. Quick Response Plans:

- Developing contingency plans
- Conducting rapid needs assessments for health impacts of weather related disasters
- PAHO has already supported CEHI for the development of guidelines for ***Environmental Health Contingency Planning for Flood Disasters and Environmental Health Rapid Needs Assessment Tools for Flood Disasters in the Caribbean***

.Recommended :

- **Expand Guidelines & Tools for other weather related disaster)s (droughts , extreme events)**



3. Early Warning System

- Vector Forecasting and Mapping for targeted public health intervention and efficient use of limited resources.
- Assessing vegetation change associated with vector distribution and transmission potential for endemic disease.
- Early Flood Warning
- Hurricane & Storm warning -- strengthen nexus between Met. Offices & Disaster Managers – Use of regional models to generate short term forecasts.
- Early warning system for onset of respiratory ailments e.g. Cuban system

4. No-Regrets Approach:

- Public health infrastructural investments to ensure the sustainability of the public health system.



Building adaptive capacity

5. Public Awareness, Education and Outreach

- Programme developed by the Ministries of Education and Health targeting:
 - Community institutions to engender and promote change
 - Food handlers to prevent food related disease
 - Farmers regarding the threat of rodents contact
 - Agricultural workers regarding heat related illnesses
 - Training institutions for inclusion of CV/CC into the health curriculum
 - Medical Professionals and Environmental Health Officers to understand the linkages between climate change and health to conduct studies in that area.
 - Policy-makers at the regional and national level.



Building adaptive capacity

6. Multi-Sectoral Approach

- Land Agencies
 - Restriction of development in vulnerable areas identified through flood plain mapping by water and/or disaster management agencies.
- Tourism
 - Daily health or weather advisory in hotels, food safety and sanitation training, health desk with trained personnel
- Construction
 - Building Codes and policies to prevent heat-related illnesses and extreme weather conditions (PAHO smart hospitals project)
- Disaster Management
 - Coping with outbreaks of diarrhoeal diseases, injuries and lacerations from flying objects and pre-existing conditions



Building adaptive capacity

– Water Managers and Providers

- Implementation of systems to monitor water quality
- Water harvesting and alternative water sources such as treated sewage effluent for irrigation purposes
- Aquifers recharge to act as barrier to saline intrusion

7. Improved Data Collection and Management Systems

– Disease data

- Health surveillance and reporting system for all diseases and illnesses. Improved data collection and management systems (health surveillance & reporting systems weak in many countries and needs to be strengthened).



Building adaptive capacity

8. Integrating Climate into the Curricula

- Public health education and the linkages to climate change into schools and support institutions

9. Research and Study

- National Assessments
 - an integrated health-impact assessment framework that includes assessing vulnerability, mitigating potential disasters, and building resilient communities
- Climate-Health Studies
 - Further research linking climate and diseases incidence and transmission
 - Determine specific local env. triggers of asthma including role of pollutants.
 - The relationship & interplay between and among weather parameters (rel. humidity, rainfall, temp.) and disease transmission.



Let's Connect!

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