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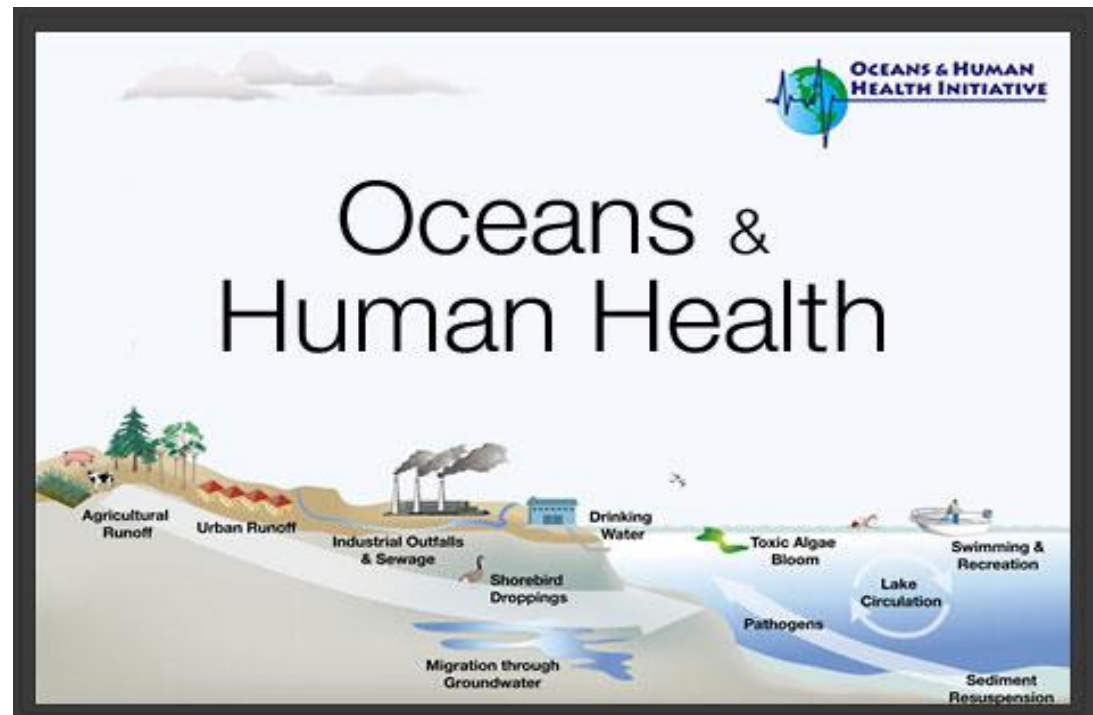
Atlantic Oceanographic and Meteorological Laboratory

Environmental Microbiology



# Oceans and Human Health

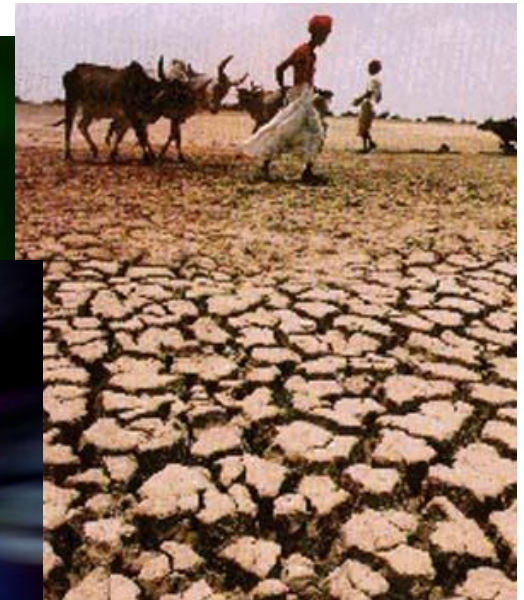
- The study and understanding of the many impacts of sea level rise on human health requires an interdisciplinary approach
- The “evil triplets” of Climate Change, Sea Level Rise and Ocean Acidification.



# Why Should I Care?



# Why Should I Care?



# This is Our Future

- Hypothetical South Florida family living a few decades in the future: their potential problems



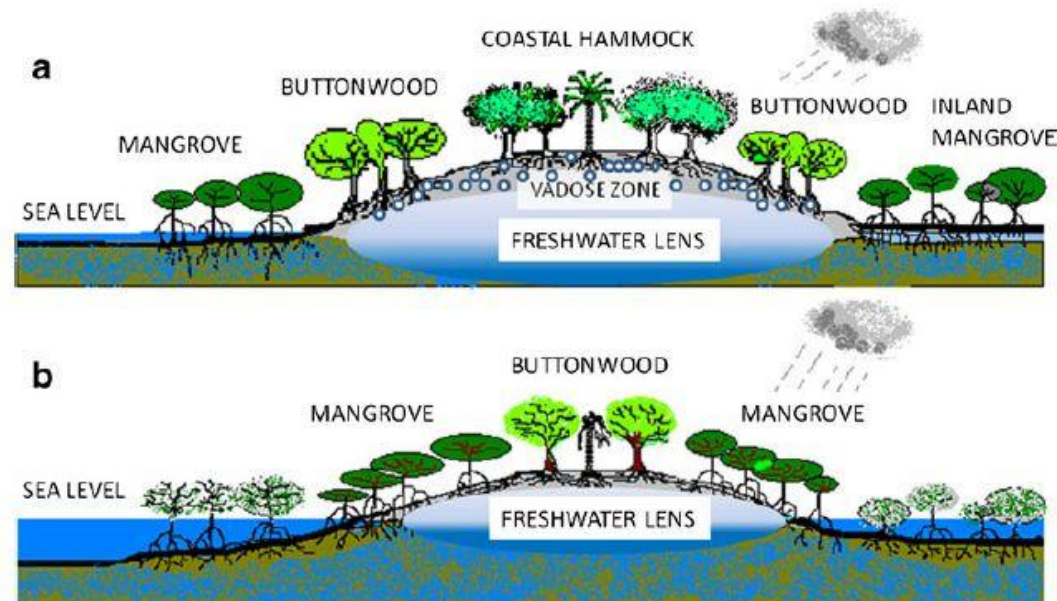
# Potential Issues

- Coastal Inundation and Salt Water Intrusion
- Property Destruction
- Greater Impacts from Natural Disasters
- Alteration of Common Marine Flora and Fauna
- Loss of Food Sources
- Emotional Distress and Mental Health Issues



# Coastal Inundation and Salt Water Intrusion

- Loss of aquifers and fresh drinking water
- Loss of resources along coastal lands
- Beach erosion and changing coastlines
- Contamination from septic, sewer, stormwater overflow
- Contamination from flooding of industrial regions



# Property Destruction

- Gradual loss of ports, marinas, housing, roadways, businesses, beaches, parks and recreational areas all may result in a variety of human health impacts
- Significant economic losses for businesses and individuals



# Greater Impacts from Natural Disasters

- Hurricanes, storm surge, tsunamis, flooding, land slides. (Even earthquakes, tornados and wildfires)
- Acute loss of housing, property, food and water sources.



# Alteration of Common Marine Flora and Fauna

- Exotic intrusion due to environmental changes
- Jelly fish, Lion fish, and other exotics
- Changes in marine community diversity
- Potential changes in algal growth and mats



# Loss of Food Sources

- Collapse of fisheries
- Shellfish bed contamination
- Loss of agricultural lands and resources
- Loss of fresh water sources
- Loss of distribution networks and infrastructure



# Emotional Distress and Mental Health Issues

- Increased daily and future uncertainty
- Sudden loss of family, home, job, social situation
- Constant media onslaught of distressing news and images

