

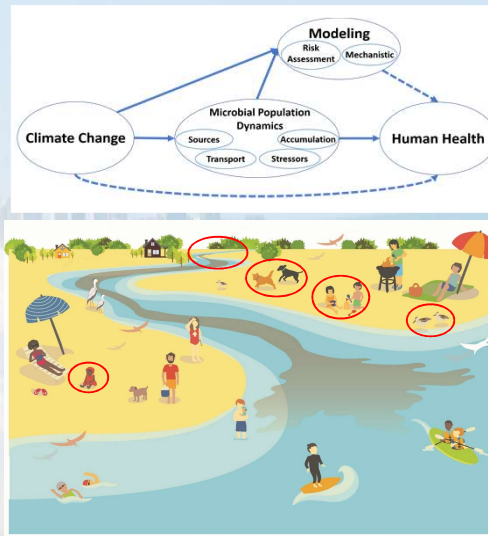
# Microbial Dynamics and Human Health Risks at the Beach - Will Climate Change Matter?

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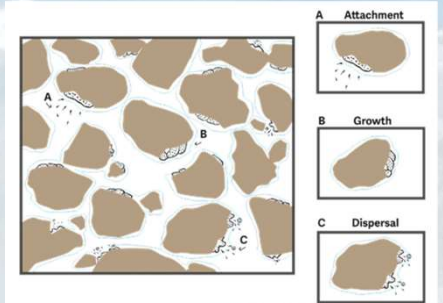
## Approaching Microbial Dynamics at the Beach:

### Sand-Water Continuum (/sænd/ wôtər /kən'tɪnjuəm/):

The area of a beach affected by wave action, potentially leading to increased microbial loading in the sand environment

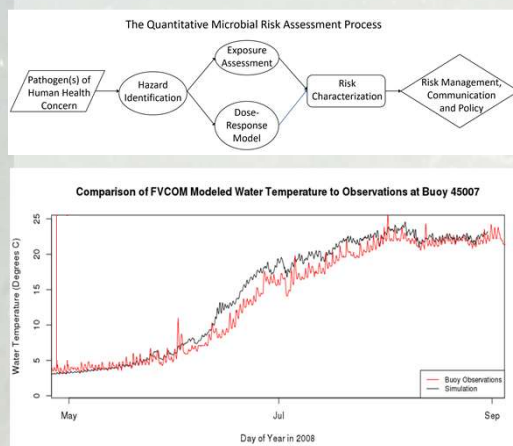


- Diverse sources of microbes and routes of exposure for beachgoers
- Development of biofilms and microbial communities in sand pores



## Climate Change influences microbial dynamics of beach systems, thereby impacting human health

### Modeling Dynamics at the Sand-Water Continuum:



### Expected Climate Change Effects:

1. Wind speeds waterborne microbes
2. Wind speeds sand borne microbes
3. Temperatures microbial survival or
4. Water levels sand water continuum area
5. Temperatures beachgoers exposed to microbes

### Beaches and Public Health:

- Relief from heat during summer months
- High exposure rates for water and sand
- Microbial contamination effects on beachgoer health
- Sand as a source and sink for microbes
- Lack of sand policy and management
- Climate change impacts on beach conditions

### For More Information:



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