

Coastal Community Resilience to Climate and Diarrhoea

WP 2: Public Health and Transmission Pathways

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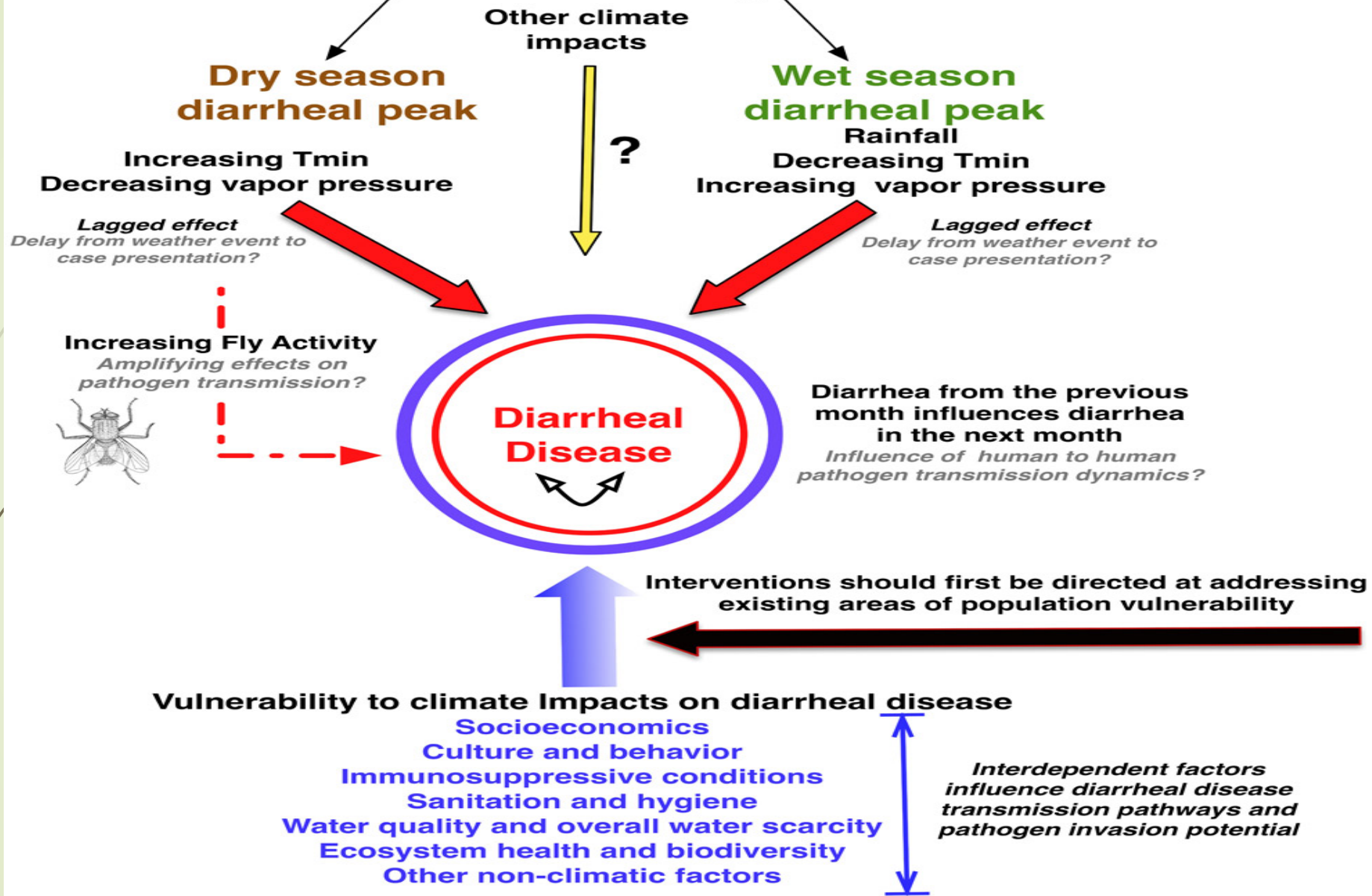





Presentation outline

- General overview of the Work Package
- Work Package objectives/Tasks of the Work Package
- Work Package outputs and activities
- Work Package expected outcomes

Climate Change





General overview of the Work Package

- ▶ Climate change negatively impacts the environment leading to an increase in climate sensitive disease such as diarrhoea.
 - Well known risk factors of diarrhoea include water sanitation and hygiene (WASH)
- ▶ Coastal areas are vulnerable to the detrimental effects of climate change as they battle with WASH practices




Work package 2 seeks to:

- Establish the interlinkages between the epidemiological situation and environmental determinants of diarrhoea pathogen transmission in coastal communities

Work Package specific objectives

- Describe the epidemiology of diarrhea cases in the selected study areas by person, place and time
- Assess the climatic determinants of diarrhea in the coastal areas
- Conduct a Water, Sanitation and Hygiene assessment of study households and communities
- Assess the abundance, distribution and disease carrying capacity of mechanical vectors for diarrhoea in study communities and profile diarrhoea pathogens of the vectors
- Assess the effect of climate change on the diarrhea –nutritional cycle of community members
- Determine the health seeking behaviour for diarrhoea among community members




Work Package 2 objectives for Y1

- Extraction of diarrhoea data from all available sources in Ghana
- Assess the quality of food and water for microbial contamination and quality of drinking water sources
- Assess abundance, distribution and disease carrying capacity of mechanical vectors
- Conduct a baseline assessment of C2R-CD project sites to
 - ❑ Determine prevalence of diarrhoea
 - ❑ Assess WASH practices
 - ❑ Determine factors influencing diarrhoea



Activities conducted in Year 1

- Reconnaissance trip to study communities
 - Data extraction from DHIMS 2, DHS databases
 - Determine abundance, distribution and disease carrying capacity of mechanical vectors in study communities
 - Baseline survey in Opetekwei, Anyako, Anyanui and Mumford
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Reconnaissance trip

- Date: 7 – 11 November, 2020
- Location: All study communities (Opetekwei, Anyako, Anyanui and Mumford)
- Activities conducted:
 - ☐ Identified all stakeholders in the community,
 - ☐ Identified WP needs and the individuals or institutions that can assist in meeting these needs
- Outputs : trip report
- Outcome:
 - ☐ Improved knowlegde on all study communities
 - ☐ Build a cordial relationship between stakeholders in the community



Interaction with
community members



District level engagement
with stakeholders

Data extraction

- Date: December 2020 – March 2021
- Data sources
 - ❑ DHIMS 2 database
 - ❑ DHS program database
- Activities conducted
 - ❑ Identify data sources
 - ❑ develop plan
 - ❑ Engage research assistant
 - ❑ Extract data
 - ❑ Clean data
- Outputs: Diarrhoea data sheets
- Outcome: understand the trends of diarrhoea in study communities



Transverse walk in the community



Interview with community opinion leader



Abundance, distribution and disease carrying capacity of mechanical vectors

- Date: January – June, 2021
- Location: All study communities (Opetekwei, Anyako, Anyanui and Mumford)
- Activities conducted:
 - ❑ Surveyed study communities and dividing into three sub areas
 - ❑ Collected data with apps for weather information, GPS and insects in study communities
 - ❑ Appropriately killed and stored insect trapped
- Outputs : Field reports
- Outcome:
 - ❑ Improved knowlegde on Abundance, distribution and disease carrying capacity of mechanical vectors



Traps with bait for sampling insects

Assess the quality of food and drinking water sources

- Date: January – June 2021
- Location:
 - ❑ Drinking water quality: Anyako, Anyanui and Ateteti
 - ❑ Food and water quality: Opetekwei
- Activities conducted:
 - ❑ Interviews with community members and households
 - ❑ Collected data on drinking water sources with observational checklists
 - ❑ Water samples taken from taps and poly tanks for microbial analysis and physicochemical analysis
- Outputs: Field reports
- Outcome:
 - ❑ Improved knowledge on drinking water sources in study communities
 - ❑ Improved knowledge on food quality in Opetekwei



Water tankers filling the gallons of the community members, Anyarko



Gutters are filled with plastics close to food joint



Baseline survey

- Date: May-June, 2021
- Location: All study communities (Opetekwei, Anyako, Anyanui and Mumford)
- Activities conducted:
 - Household interviews
 - Assessment of household WASH practices in communities
 - Assessment of WASH structures in the communities
- Outputs : Baseline survey reports
- Outcome: Improved knowledge on factors influencing diarrhoea and WASH practices in communities

Progress on WP 2 outputs for Year 1

Output	Status
Reconnaissance trip	Completed
Diarrhoea data sheets from DHIMS 2 and DHS	Completed
Assess abundance, distribution and disease carrying capacity of mechanical vectors	Completed
Assess the quality of drinking water sources	Completed
Baseline survey assessment report	Ongoing


Work Package expected outcome for Year 2

- Strengthened knowledge on epidemiology of diarrhoea on coastal communities





Planned activities for Year 2

- Identify trends of diarrhoea in study communities
 - Identify potential environmental hotspots for diarrhoea transmission
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Acknowledgement

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THANK YOU