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POSTER COMMUNICATION · INFECTIOUS DISEASES

Environmental Factors of Diarrhoea-related Diseases in the Nyong River Plateau of Akonolinga, Cameroon

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KEY MESSAGES

1. Diarrhoea-related diseases in Akonolinga are linked to socioeconomic and environmental factors including farming, fishing, and water availability.
2. Most households have unimproved sanitation and nearly half use basic drinking water facilities, with high coliform contamination in water samples.
3. Improving economic conditions and community engagement with targeted interventions can reduce diarrhoea incidence and promote healthier environments.

ABSTRACT

Introduction. The One Health approach integrates human, animal, and ecosystem health to sustainably balance and optimize health. Pathogen development and transmission are influenced by climatic conditions, water pollution, agriculture, hygiene, and organic matter decomposition. Human interference with ecosystems can cause infections and health outbreaks. The Nyong et Mfoumou Division has a hot, humid climate with agriculture and fishing as main economic activities along the Nyong River, used by the population for drinking, cooking, and laundry. Prevalence estimates are needed for resource allocation and control strategies. Health systems in Cameroon face challenges in reporting water-borne diseases. This study investigates diarrhoea-related diseases affecting the population.

Materials and methods. The study was conducted in Akonolinga health district, 100 km east of Yaounde, near the Nyong River. The dry season is mid-December to mid-March; rainy season August to November. Survey from 13th to 22nd November included 134 households and 122 water points from 6 villages and 3 hamlets. A 32-question structured questionnaire based on WHO/UNICEF Joint Monitoring was used. Water samples were collected with Aquagenx field test kits. Data on demographics, socioeconomic factors, WASH practices, and diarrhoea consultations at Akonolinga Hospital were collected. Multivariate logistic regressions identified factors associated with diarrhoea at $p<0.05$ and 95% CI.

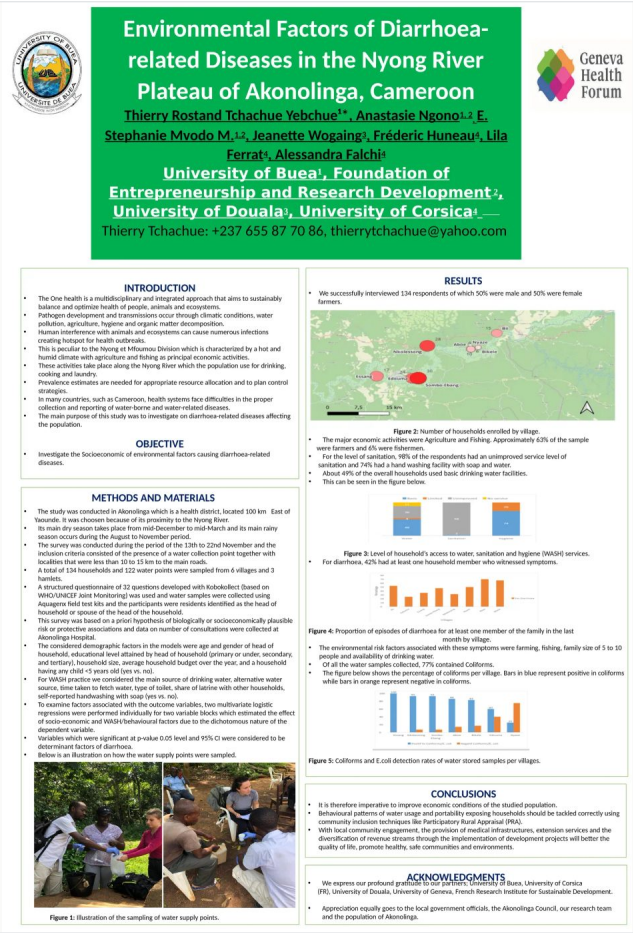
Results. 134 respondents interviewed: 50% male, 50% female farmers. Major activities: agriculture (63%) and fishing (6%). Sanitation: 98% unimproved service level; 74% had handwashing with soap and water. About 49% used basic drinking water facilities. 42% of households had at least one member with diarrhoea symptoms. Environmental risk factors included farming, fishing, family size 5-10, and water availability. Of water samples, 77% contained coliforms. Coliform and E.coli detection rates varied by village.

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ABSTRACT (CONTINUED)

Conclusion. Improving economic conditions is imperative. Behavioral patterns of water use and portability exposing households should be addressed using community inclusion techniques like Participatory Rural Appraisal (PRA). Local community engagement, medical infrastructure, extension services, and revenue diversification through development projects will improve quality of life and promote healthy, safe communities and environments.

POSTER



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