

Infection Prevention 2017: Incidence and preparedness for treatment of diarrhea in epidemic prone flood areas of chiga Kisumu country - Redemptah Yeda - Athens Regional General Hospital

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Statement of the Problem: Diarrhoea is preventable and treatable by early recognition of dehydration, increased fluids, breastfeeding and timely treatment. Despite the advances to understand management and pathogenesis, globally it's estimated that diarrhoea accounts for 1.5 million deaths annually. 800,000 children die annually in sub-Saharan Africa. In Kenya, infectious diseases are on the rise due to poverty, illiteracy, inadequate safe drinking water and poor sanitation. Flood prone areas have high incidence of diarrhoea. However, there's no active surveillance to watch the incidence and also understand the effect of seasons on the incidence. No study has been carried out on the preparedness of the health facilities for the treatment of diarrhoea. Purpose of this Study: to research the incidence and preparedness for treatment of diarrhoea in epidemic prone flood areas in Kisumu County.

Methodology & Theoretical Orientation: This was a retrospective study encounter sectional study. A key informative interview tool was used to collect data among community health workers and the hospital leads. A conceptual frame work was used to focus on the interaction between incidence and mortality with relation to environment. Findings: diarrhoea is common among the adults compared to other age categories. **Conclusion & Significance:** Despite the challenges in controlling diarrhoea, adults experience more cases. Over the last 20 years, diarrhoea studies have mainly on the under-five. However, there is limited information on the epidemiology of diarrhoea among adults in sub-Saharan Africa.

Recommendations: Research is required to determine scientific models to predict diarrhoea outbreaks. Diarrhoea is a major cause of mortality among the under-five children in India and is considered an important public health problem. An estimation of mortality due to diarrhoea in India was carried out by the National Institute of Cholera and Enteric Diseases. Earlier studies have reported that floods also play an important role in aggravating the public health problems including the spread of water related communicable diseases like diarrhoea. The total number of deaths thanks to diarrhoea within the age bracket of 0–6 years accounted for 22% of total rural deaths. It is an appropriate site for comparing

villages having continuous exposure to floods per annum. A two-stage stratified cluster survey was carried out to collect the data. The sample size was calculated using the Emergency Nutrition Assessment. After reaching the end of the village in that direction, the bottle was again hurled and the new direction indicated the location for the sample. A diarrhoea episode was defined as a passage of loose watery stools more than three times a day or change in the consistency of stool to semi-solid or watery nature. After this, the households were numbered and the study household was selected by means of a simple random. Body weight was measured on dressed children wearing light clothing without shoes. Age of the children was checked on the presentation of the birth certificate, wherever available. Otherwise, it was estimated using a local calendar or the festival calendar and by asking the mothers or caretakers the history of the past events closest to the birth of the child. However, in its entirety it was meant to capture the status of malnutrition in the exposed and unexposed areas of the region and prevalence of diarrhoea. Respiratory infections were defined by the presence or history of cough and cold with or without a runny nose or the presence of fast breathing, chest in drawing at the time of interview or reported by mother or diagnosed by a doctor in one prescription during the previous 2 weeks. After reaching the end of the village in that direction, the bottle was again hurled and the new direction indicated the location for the sample. Therefore, 40 clusters were selected in all, 20 each in exposed and unexposed strata for the cluster sampling. Given an expected Global Acute Malnutrition (GAM) rate of 15% in both floods exposed and unexposed strata design effect of two. The total under-five population in the exposed and unexposed strata was calculated as 6,957 and 27,905, respectively, giving the sample size. Economic condition of the household is related to the prevalence of diarrhoea in both exposed and unexposed strata. Anaemia was found to be a big risk factor for diarrhoea among children in both the flood exposed and non-flood exposed populations. Recurrent floods didn't have any significant effect on the prevalence of diarrhoea in reference to gender, religion, caste, and household size.