

**BACTERIAL ETIOLOGIES AND ASSOCIATED FACTORS OF
DIARRHEAL DISEASES AMONG REFUGEE CHILDREN UNDER FIVE
YEARS IN EASTLEIGH, NAIROBI, KENYA**

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ABSTRACT

Diarrhea remains the second leading cause of death among children below the age of 5 years globally; Sub Saharan Africa and Asia accounting for over 80%. Kenya experiences diarrheal prevalence of over 32 %. There is scanty information about diarrhea among urban refugees in Kenya. Therefore this study provides data which helps inform decision making and guide planning in health care service provision. A case control study was done to determine bacterial etiologies and factors associated with bacterial diarrhea among urban refugee children. This study was carried out between August and December 2010 among urban refugee children aged between 2 to 5 years in Eastleigh, Nairobi. Diarrheal cases were compared with age-matched children with no diarrhea. Stool specimens were collected and analyzed for enteric bacteria. A questionnaire was administered to identify risk factors. A total of 41 cases and 41 controls were enrolled into the study. The bacterial isolation rates among cases were; ETEC 7.3%, non enterotoxigenic *Escherichia coli* 71%, *Shigella dysenteriae* 2.4%, *Shigella flexneri* 2.4%, *Salmonella paratyphi* 5% and among controls; non Enterotoxigenic *Echerichia coli* 90%, ETEC 2.4% among other enteric bacterial agents isolated. All isolates were resistant to amoxyl and resistance to other antibiotics varied by isolate type. Factors independently associated with diarrhea included, child not washing hands with soap (AOR 5.9, $P < 0.05$), neighbor having diarrhea (AOR 39.8, $P < 0.05$), child not exclusive breastfed first 6 months (AOR 7.6, $P < 0.05$), child ate food cooked the previous day (AOR 23.8, $P < 0.002$). Infectious diarrhea remains a major public health problem among children under 5 years of age in Kenya. Measures to control and guide the use of antibiotics are critical to prevent antibiotic resistance. Efforts to improve personal and domestic hygiene, including educational campaigns to promote appropriate hand washing should be encouraged.