Globally, more than 125 million children under five years live in households without access to quality drinking water, while more than 280 million children live in households without access to improved sanitation facilities. Therefore, more than 1.5 million children die from diarrhoea every year while many millions more have their development disrupted and their health undermined by diarrhoeal or water-related diseases. Today diarrhoea is the leading cause of mortality and morbidity, especially among young children in developing countries. The Ministry of Health estimates that it contributes to 12.8% of the under five deaths in Kenya. In Mandera, diarrhea is a problem especially among children under five years. It has been identified as a major factor contributing to various other health problems such as malnutrition and mortality. Various organizations have had Water, Sanitation and Health Education interventions in the district, all aimed at containing diarrhoeal diseases especially among the under fives. However, it is not known if these interventions have had any effect on diarrhoeal morbidity among the children. The main objective of this study was to assess the effects of water, sanitation and health education interventions on diarrhoeal morbidity among children under five years in Mandera district.

This was a descriptive cross sectional study that mainly targeted the residents of Mandera District. Four divisions in the district were purposively selected, and the sample size, of 350 caregivers proportionately distributed to each of these divisions and the locations in each of them. Data was collected through an interview schedule, focus group discussions and observation. SPSS version 12 was used for analysis and chi square tests applied. Before the interventions, poor hygiene practices were identified to be the main factors in the spread of diarrhoeal diseases. The study found that there had been an increase in the number of people who had received health education. There had also been an increase in the number of water sources and sanitary facilities, though this increase did not reduce diarrhoeal diseases. Just like before the interventions, the study found that hygiene practices at the household level were the main factors in the spread of diarrhoea, including storing drinking and water for other purposes in the same container ($x^2=8.471; \ df=1; \ p=0.004$), scooping of drinking water by pouring from the container ($x^2=20.981; \ df=2; \ p=0.000$), washing hands with water only ($x^2=15.471; \ df=4; \ p=0.004$) open defecation among children ($x^2=34.815; \ df=4; \ p=0.047$) and poor storage of kitchen utensils ($x^2=15.859; \ df=5; \ p=0.004$). Other risk factors include using the river water in the dry season ($x^2=16.735; \ df=7; \ p=0.019$), water transportation by rolling on the ground ($x^2=13.329; \ df=6; \ p=0.038$), and poor disposal of the children’s waste ($x^2=1.220; \ df=5; \ p=0.047$). The study thus concludes that the interventions have led to an increase in water and sanitation facilities, and in health education, however, diarrhoeal diseases were mainly influenced by water, sanitation and hygiene risk factors at the household level. This study recommends that the organization in the district should continue with health education, but target the main household hygiene practices. Religious leaders should also use religion to promote hygiene and the ministry of Health should increase coverage of health centres in the district. A further study should be done to identify factors that hinder the residents from practicing what they have been taught.