

ABSTRACT

It is estimated that more than half of the population from developing countries experience communicable diseases related to inadequate sanitation and contaminated water. Children are the most affected cohort by the repercussions of poor sanitation because they suffer most from communicable disease burden associated with inadequate sanitation. In Kenya, the latrine coverage is estimated at 65% with at least 14 % of Kenyans still practicing open defecation. Latrine coverage in Meru County stands at 60%, with Tigania East Sub - County having over 40% still practicing open defecation and therefore the need to explore factors influencing utilization of pit latrines. The study aimed to determine the number of households with pit latrine and their utilization, to assess socio-demographic factors affecting pit latrine utilization, determine how knowledge of pit latrines use affects its utilization and determining the effect of social cultural practices on pit latrine use in Tigania East. The study was a cross-sectional descriptive design with 369 respondents across the Sub-County selected by systematic random sampling method. pilot testing of tools was done at Gankere Imenti North Subcounty, Validity and reliability test was described and ethical clearance was issued by Meru University of Science and Technology Institute Research Ethics Review Committee (MIRERC). Both descriptive and inferential statistics were performed using SPSS version 25 and results presented in form of charts and tables. Exploratory data techniques were used at the initial stage of analysis to uncover the structure of data and identify outliers or unusual entered values. Binary logistic regression was used at bivariate analysis to identify factors associated with pit latrine utilization. Further, multivariable logistic regression was used to adjust the crude odds ratio at bivariate analysis for confounders and effect modifiers. Adjusted odds ratio, 95% confidence intervals and associated p-values were presented and reported. Response rate was 93%, two demographic characteristics, age and household size were significantly associated with utilization of pit latrine. Respondents aged 18-35 years and 36-55 years were 5.21[95% CI = 2.1-11.34, p 0.004] and 3.32[95% CI = 1.9 - 6.84, p = 0.031] respectively and equivalent of 38.3 - 48.5 %, times more likely to utilize pit latrine as compared to those aged 76 - 85 years an equivalent of 6.1%. Likewise, respondents from household size of 1-6 members were 5.78[95%CI = 1.95 – 9.45, p <0.001] times more likely to utilize pit latrine (60.8%) compared to those from household size of 7 - 12 members at 39.2%. Owning a pit latrine significantly influenced utilization by 4.67[95%CI = 1.35 6.94, p =0.004] times (76.6%). Knowledge on pit latrine in preventing communicable diseases such as diarrhea influenced

utilization of pit latrine by 2.96[95% CI = 1.46-5.98, $p < 0.001$] times (73.4%). The current study recommends interventions targeting families with more than seven members be targeted in sensitization programs, knowledge and creation of awareness by building partnerships with stakeholders. Ministry of public health should collaborate with development partners and Non-state actors to improve the economy of the area, fund projects related to wet technologies and pour flush pit latrines in Tigania east sub-county. Further, community strategy program should extend or design a target-based program to reverse the taboos that discourage utilization of the pit latrines in order to promote health outcomes.