Risk factors associated with under-five diarrhea and their effect on under-five mortality in Rwanda: secondary data analysis of 2014-2015 RDHS

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Diarrhea claimed to be among the leading cause of childhood mortality in developing countries including Rwanda despite its simple protection measures. Thus, this study intended to elucidate the image of child hood diarrhea and to sort out which strong causes are linked to this phenomenon in Rwanda. Therefore, contribute on the basis of a quantitative analysis outcome, to a good policy making oriented to the enhancement of the welfare of children in Rwanda and a second target of SDGs of ensuring child survival. Data were obtained from RDHS 2015 in child's file. Following the inclusion criteria of having at least one under-five child in a household and that child has full records on her/his diarrhea status during the last two weeks preceding the survey, a total of 7474 children met the criteria and thus included into the analysis. The selection of variables was guided by Genser B and colleagues' theory. Descriptive statistics were performed to summarize all variables included in the study. Bivariate analysis was conducted to identify variables that were statistically associated with childhood diarrhea in Rwanda and were subsequently considered into the multivariate analysis of the strongest causes of childhood diarrhea in Rwanda. The descriptive analysis revealed that among 7474 sampled under-five children, 12.11% have been infected by diarrhea during two weeks preceding the survey. The bivariate analysis revealed that type of place of residence, mother's education level, anemia level of the child, type of toilet facility, sharing toilet with other household, time to get water source, source of drinking water, poverty, child's age and main floor material are statistically associated with the prevalence of childhood diarrhea in Rwanda and thus were selected to be predicting child hood diarrhea based on their significance level and confidence interval. The reduced model of binary logistic regression revealed that only being aged below three year, being living in a poor family and uses unimproved toilet increases the chances of childhood diarrhea infection. Our findings indicated that childhood diarrhea can be effectively managed with reasonable outcomes by strengthening the sanitation system with more focus on rural areas families especially the poor.