

## Impact Evaluation of Vaccination against Eight-Child-Killer Diseases on under-Five Children Mortality at Mbale District, Uganda

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**Abstract :** This study examines the impact evaluation of vaccination against eight-child-killer diseases on under-five children mortality at Mbale District. It was driven by three specific objectives which are to determine the proportion of under-five children mortality due to the eight-child-killer diseases to the total under-five children mortality; establish the cause-effect relationship between the eight-child-killer diseases and under-five children mortality; as well as establish the dependence of under-five children mortality in the location at Mbale District. A community based cross-sectional and longitudinal (panel) study design involving both quantitative and qualitative (focus group discussion and in-depth interview) approaches was employed over a period of 36 months. Multi-stage cluster design involving Health Sub-District (HSD), Forms of Ownership (FOO) and Health Facilities Centres (HFC) as the first, second and third stages respectively was used. Data was collected regarding the eight-child-killer diseases namely: measles, pneumonia, pertussis (whooping cough), diphtheria, poliomyelitis (polio), tetanus, haemophilus influenza, rotavirus gastroenteritis and mortality regarding immunized and non-immunized children aged 0-59 months. We monitored the children over a period of 24 months. The study used a sample of 384 children out of all the registered children for each year at Mbale Referral Hospital and other Primary Health Care Centres (HCIV, HCIII and HCII) at Mbale District between 2015 and 2019. These children were followed from birth to their current state (living or dead). The data collected in this study was analysed using cross tabulation and the chi-square test. The study concluded that majority of mothers at Mbale district took their children for immunization and thus reducing the occurrence of under-five children mortality. Overall, 2.3%, 4.6%, 3.1%, 5.4%, 1.5%, 3.8%, 0.0% and 0.0% of under-five children had polio, tetanus, diphtheria, measles, pertussis, pneumonia, haemophilus influenzae and rotavirus gastroenteritis respectively across all the sub counties at Mbale district during the period considered. Also, different locations (sub counties) do not have significant influence on the occurrence of these eight-child-killer diseases among the under-five children at Mbale district. Therefore, the study recommended that government and agencies should continue to work together to implement measures of vaccination programs and increasing access to basic health care with a continuous improvement on the social interventions to progress child survival.

**Keywords :** Diseases, Mortality, Children, Vaccination

**Conference Title :** ICM 2020 : International Conference on Mathematics

**Conference Location :** New York, United States

**Conference Dates :** April 23-24, 2020