

The Effects of Malaria Prevalence on the Probability of Being Maternal Orphans

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Abstract

Malaria is ranked as one of the significant health challenges that developing countries face, despite the efforts implemented to address it. This study estimates the effects of malaria prevalence on the probability of being a maternal orphan in 15 sub-Saharan African countries. The study used Demographic Health Survey (DHS) data on maternal orphans and malaria prevalence rate data from the Malaria Atlas Program (MAP) for around 2000 and 2015. This study exploited the quasi-experimental variation in malaria prevalence brought about due to the malaria control effort of the Roll Back Malaria Partnership and its effect on maternal mortality. Due to the endogeneity of malaria risk, this study used the two-stage least square estimation with initial malaria risk times time dummy as the instrumental variable. However, due to sample selection caused by child mortality, this study also included vaccination rates as the instrumental variable to control child mortality endogeneity. The estimation of this study was run while controlling for the cluster fixed effect and time-fixed effect. Quantification, the estimation showed that the prevalence of malaria reduces the probability of being a maternal orphan. From the malaria prevalence data, malaria prevalence declined by 18 percentage points during the implementation of the Roll Back Malaria Partnership. It is shown in the results that there was a reduction in the probability of being a maternal orphan by 0.0150 percentage points. Hence 18 percent point decline in malaria prevalence led to a decline in maternal mortality by 18.6 percent.