

Early cost estimates of diarrhea hospitalizations among children <5 years old in Zimbabwe

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Introduction

Diarrhoea is a leading killer of children, accounting for approximately 8 per cent of all deaths among children under age 5 worldwide in 2016. Following the introduction of monovalent rotavirus vaccine in Zimbabwe in 2014, rotavirus hospitalizations declined by >40%. Previous studies in African countries have found rotavirus vaccine to be cost-effective. We estimate the economic burden attributable to diarrhea hospitalizations among children <5 years old by estimating the direct medical and non-medical costs as well as the productivity loss by caregivers of inpatient child.

Methods

Children <5 years old admitted for acute gastro enteritis (3 or more non-bloody stools within 24 hours lasting no more than 7 days) to Harare Central Hospital were eligible for enrollment in this evaluation. A structured questionnaire was administered to the child's caregiver during the hospitalization, medical records were reviewed after discharge, and follow up questionnaire administered by phone 7-14 days after discharge. This descriptive analysis calculates the direct medical (medications, tests, facility fees), direct non-medical (lodging and transportation costs for household members during the hospitalization, and indirect costs (lost income for household members during the hospitalization) reported by the child's family.

Results

In total, 178 children with a completed questionnaire were included in analysis. The median age of cases was 12 months (range: 0-55 months). Prior to this hospitalization, 83% sought care for this illness, of which 86% went to a health post. During the hospitalization, all were prescribed at least one medication, 98% received oral rehydration solution, and 54% received intravenous fluids. Nearly all the children were discharged home, though 2% died. The mean total costs reported by the family was \$USD 61.77 (STD: 105.34). Families reported 87% of these costs were borne by the household and 73% reported using savings to pay for the hospitalization.

Conclusions

Hospitalizations for diarrheal illnesses are costly for families in Zimbabwe. Future analyses will focus on the cost effectiveness of monovalent rotavirus vaccine in this context.