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Household costs estimate of hospital care for low birth weight infants in a rural area of southern Mozambique

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Abstract

The aim of this paper is to fill the gap in the health economics literature regarding the estimate of household cost related to hospital care of low birth weight (LBW) infants in developing countries. Our primary aim is to estimate household total costs incurred in case the weight of the new born is between 1,5 and 2,5 kilograms. Our secondary aim is to analyse the magnitude of the relation between total household costs for LBW care and weight at birth. It is a short term evaluation: only costs incurred immediately after birth and till the weight of 2,5 kg is reached, are included in the analysis.

The study was undertaken at the Centro de Investigação em Saúde da Manhiça (CISM) in Manhiça District, southern Mozambique. A sample of 90 caretakers of LBW infants with no other particular complications and no matter the cause of the low weight, has been interviewed at the Manhiça Health Center (MHC), a 110 bed health facility adjacent to CISM. Caretakers were administered a questionnaire in two different situations:

- when leaving the hospital after delivery (both in the case the LBW child is released just after
- birth and in the case he/she was admitted for a few days after birth);
- when leaving the outpatients clinic for weight control a few weeks after birth.

Both household direct and indirect costs were collected and considered in the analysis. The economic burden of deaths as a consequence of LBW is, instead, not considered. Total costs incurred by each family are calculated according to the whole

pattern of care babies receive at the hospital (both as in- and outpatients) till babies reach normal weight.

Results show that total costs incurred by families have a high variability (mean = 145 MZN; Std. Dev. 120 MZN; Min = 17 MZN; Max: 745 MZN) depending on two main factors:

- admission at the hospital and for how long;
- number of times a baby has to be taken to the hospital for weight control till she/he reaches normal weight (that depends on weight at birth and on weight gain velocity after birth).

The estimate of the magnitude of the relation between household total costs and weight at birth (in the range 1.5 - 2.5 kgs) shows that:

- families have to incur a fix cost no matter the size of the baby at birth;
- an increase of 100 grs in babies weight at birth allows families to spend 25% less in infant hospital care.

Results offer further economic reasons for policy makers to invest and promote all possible interventions and behaviours that might increase babies weight at birth, such as improving Ante Natal Clinic attendance, malaria prevention during pregnancy, prevention and treatment of maternal HIV, improvement of maternal nutrition.