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The costs of maternal–newborn illness and mortality

M. Kamrul Islam
Ulf-G. Gerdtham

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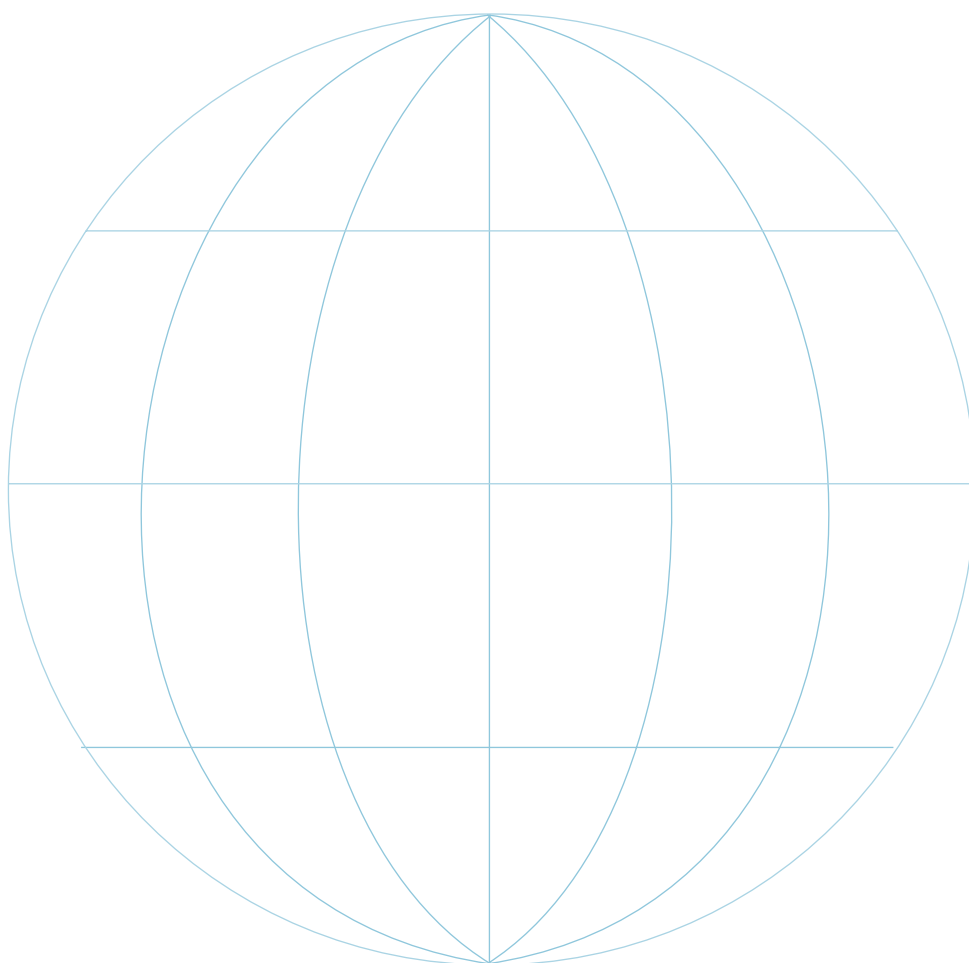
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Acronyms

AIDS	Acquired immunodeficiency syndrome
CPI	Consumer price index
CPP	Chronic pelvic pain
HIV	Human immunodeficiency virus
COI	Cost of illness
DALY	Disability-adjusted life year
EmOC	Emergency obstetric care
GNP	Gross national product
LBW	Low birth weight
MNIH	Maternal–newborn ill-health
PAHO	Pan American Health Organization
PID	Pelvic inflammatory disease
QALY	Quality-adjusted life year
TB	Tuberculosis
WHO	World Health Organization

Abstract

The aim of this paper is to provide a systematic review of the estimation of the cost of illness (COI) related to maternal–newborn ill-health (MNIH). The methodology used for the review includes a systematic search on electronic databases for published literature and manual searches for the identification of grey (unpublished) literature. Searches are based on the major electronic databases and also on the home pages of some major international organizations. While the problems of MNIH are well known and the importance of conducting COI studies is understood, knowledge is still lacking about the magnitude of the costs of MNIH at the societal level. After a search of the existing electronic databases, only one published paper was found to be relevant for the review; four grey studies (using REDUCE Safe Motherhood model) were also directly relevant. The published study estimates most of the cost components associated with a particular complication of MNIH – emergency obstetric care (EmOC) – and reports a total average cost per user of EmOC in the range of US\$ 177–369 in Bangladesh. The unpublished studies based on the REDUCE model illustrate the MNIH issue more directly and elaborately; however, they estimate merely the productivity cost for four African countries. The model estimates a huge amount of productivity losses associated with MNIH: an annual total of about US\$ 95 million for Ethiopia and about US\$ 85 million for Uganda. To formulate an idea of issues related to data, measurement and methodology the present study also reviews COI studies on other related diseases that are similar to those on MNIH. The review reveals some difficulties in measurement and proposes to incorporate some relevant cost components that MNIH cause society and also suggests probable data sources for COI studies of MNIH. Although it is evident that MNIH results in suffering for women and children and hinders economic development through its huge burden for society, in order to stimulate further policy debate regarding its significance future research efforts should be directed towards theoretically sound and comprehensive COI studies with use of longitudinal and experimental data.

Key Words: maternal–newborn ill-health (MNIH); cost-of-illness (COI); societal cost; systematic review; REDUCE model, related disease.

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