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Affordability of emergency obstetric and neonatal care at public hospitals in Madagascar

Ayako Honda,[a] Pierana Gabriel Randaoharison,[b] Mitsuaki Matsui[c]

a Lecturer, Health Economics Unit, School of Public Health and Family Medicine, University of Cape Town, Cape Town, South Africa. E-mail: ayako.honda@uct.ac.za

b Coordinator, Complexe Mère Enfant, Hospitalier Universitaire de Mahajanga, Mahajanga, Madagascar

c Chief, Maternal and Child Health Group, Department of International Medical Cooperation, National Centre for Global Health and Medicine, Tokyo, Japan

Abstract: *Timely access to emergency obstetric care is necessary to save the lives of women experiencing complications at delivery, and for newborn babies. Out-of-pocket costs are one of the critical factors hindering access to such services in low- and middle-income countries. This study measured out-of-pocket costs for caesarean section and neonatal care at an urban tertiary public hospital in Madagascar, assessed affordability in relation to household expenditure and investigated where families found the money to cover these costs. Data were collected for 103 women and 73 newborns at the* Centre Hospitalier Universitaire de Mahajanga *in the Boeny region of Madagascar between September 2007 and January 2008. Out-of-pocket costs for caesarean section were catastrophic for middle and lower socio-economic households, and treatment for neonatal complications also created a big financial burden, with geographical and other financial barriers further limiting access to hospital care. This study identified 12 possible cases where the mother required an emergency caesarean section and her newborn required emergency care, placing a double burden on the household. In an effort to make emergency obstetric and neonatal care affordable and available to all, including those living in rural areas and those of medium and lower socio-economic status, well-designed financial risk protection mechanisms and a strong commitment by the government to mobilise resources to finance the country's health system are necessary.* ©2011 Reproductive Health Matters. All rights reserved.

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EACH year, the lives of half a million women and 1.5 million newborn babies are lost due to complications of delivery.[1] Timely access to emergency obstetric and newborn care in a medical facility is often necessary to save the lives of both women and newborn babies experiencing complications. Despite the fact that most maternal deaths are related to direct obstetric complications and carry a high risk of neonatal death, efforts to reduce pregnancy-related mortality have been less successful than those in other areas of human development. Caesarean section rates below 5% signal a lack of access to emergency obstetric care;[1] in rural sub-Saharan Africa, caesarean section rates are only about 2%.[2]

The cost of emergency obstetric care, particularly caesarean section, is significantly higher than an uncomplicated delivery.[3–6] Financial barriers, both direct user fees and non-medical costs, such as transportation and accommodation, hinder access to emergency obstetric care, along with geographical distance, lack of knowledge and cultural barriers, and inadequate antenatal care within the formal health sector.[7–10] Out-of-pocket costs can negatively impact on

access to maternal and infant health care, particularly at the hospital level,[8,11–13] and can impose a considerable financial burden on low-income households.[14,15] Catastrophic payments that make households unable to meet minimum needs, trigger the sale of productive assets and/or cause high levels of debt, leading to impoverishment,[16] are particularly common in low-income countries where health financing systems offer no protection from the financial burden of illness.[17]

The consequences of paying for obstetric care can be long-lasting, with unexpectedly high costs challenging social expectations and patterns of reciprocity between husbands, wives and their wider social networks, placing enormous strain on everyday survival and shaping the physical, social and economic well-being of the family in the year following the event.[6]

Life-threatening obstetric complications are unpredictable and often unpreventable. To prepare for this risk and make emergency care for women and infants affordable, sound financing mechanisms in health systems are needed, not only to ensure access to services, but also to prevent financial catastrophe by reducing out-of-pocket spending.[18] Various approaches to this have been taken in low- and middle-income countries, including the removal of user fees through government funding, various types of insurance, conditional cash transfers, voucher schemes and loan funds for transport costs.[7,13,19] While available evidence supports the removal of user fees and the provision of free delivery care to all women,[7,13] this may not be sufficient on its own. Other out-of-pocket costs, such as for transportation and unofficial provider payments, may remain[20–22] and skilled staff, equipment, supplies and support may not be available either.[4,22]

Health care financing in Madagascar

Madagascar is a low-income country, with a per capita annual income of US$410 in 2008 and a population of 19.7 million, 73% of whom live in rural areas, where the poverty rate (74%) is higher than that in urban areas (52%).[23]

After the economic crisis in 2001, the government of Madagascar suspended user fees at public health facilities. This included pharmaceutical charges, consultation fees and in-patient accommodation expenses for certain categories of patients at public health facilities. However, the increase in resources supplied by the government was not sufficient to compensate for the loss of user fees. Drug stock-outs became more common and the quality of services deteriorated as the workload of the already scarce health personnel increased.[24] At the end of 2003, the Government reinstated user fees, and by 2004, a new cost-recovery system was put in place at the health centre level. This system was accompanied by "equity funds", an exemption mechanism to ensure that the poor had access to health care through the provision of free drugs from a community pharmacy. Although both government and non-governmental organisations have tried various types of protection measures for the poor, and risk-sharing schemes for health care at the hospital level,[25–27] at the time of our research, most surgical goods and other medical consumables had to be purchased prior to receiving hospital care, including emergency obstetric and neonatal care, resulting in high medical bills.

The health system in Madagascar suffers from low levels of financing. In 2007, the country spent US$41 per capita on health care, considerably lower than the average of US$67 for low-income countries.[28] Utilisation of formal health facilities is very low; only 10% of the population reporting an illness annually, of whom only 40% (i.e. 4% of all those seeking care at all) seek care from qualified medical personnel. Financial factors, including the direct cost of services, geographical distances, transportation and opportunity costs of seeking care, are a major barrier to health care access.[29] In 2007, only 58% of the population lived within 5km of a primary health centre.[24] Moreover, public health facilities suffered from a range of problems, including the inequitable distribution of human resources between urban and rural areas, and lack of essential goods and equipment to facilitate diagnosis and treatment, especially in rural and remote areas. In 2007, only 65% of public health centres had access to water, 31% electricity, and 56% any means of transport.[24]

The maternal mortality ratio in Madagascar was estimated at 469 per 100,000 live births in 2000–2009 and the neonatal mortality rate 35 per 1,000 live births in 2008.[28] The caesarean section rate was about 1% of live births in