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Policy Brief

Maternal Health and Emergency Transport

University of Salford
Manchester
The Sustainable Volunteering Project

Policy Brief

Translating evidence from a study on the relationship between transport for emergency obstetric care and maternal health and well-being.

Prepared by:
Emma Aldrich
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Any enquiries regarding this publication should be sent to:
h.l.ackers@salford.ac.uk
Introduction

This policy brief summarizes the findings of a recent study on the relationship between emergency transportation and maternal health and well-being: a study of over 180 antenatal patients at health centres where the Liverpool Mulago Partnership for Women’s and Children's Health is currently active. The results of the study reveal that the accessibility of health centres and the availability of emergency transport are both factors contributing to mobility constraints. Also, interviews suggest that gendered norms governing the management and control of resources for mobility contribute significantly to delays women experience in accessing emergency obstetric care.

Issue

In Northern Europe women have a 1 in 30000 chance of dying as a result of pregnancy or childbirth in their lifetime; in the poorest areas of the world a woman’s chance of dying as a result of pregnancy or childbirth is as high as 1 in 6 (Ronsmans and Graham, 2006, p.1198). The vast majority of the half a million maternal deaths that occur each year take place in sub-Saharan Africa where many health systems are overburdened, understaffed and under resourced.

The global maternal health crisis indicated by such high Maternal care. Mortality Ratios (MMRs) in poor countries has been identified as a critical priority for development policy and intervention. Indeed the United Nations Millennium Development Goals (UN MDGs) have set the ambitious intention to reduce maternal mortality in developing countries by 75% by 2015. While many developing and transition countries have succeeded in lowering MMRs and thus meeting MDG Number 5, numerous countries in sub-Saharan Africa have seemingly stalled in the midst of progress.

In Uganda, specifically, MMRs remain extremely high at 440 maternal deaths per 100,000 live births (WHO, 2012). It is significant that the vast majority of maternal deaths in Uganda and those in sub-Saharan Africa at large are due to entirely treatable emergency obstetric complications. Over the past few decades, researchers have identified a variety of non-biomedical factors and processes that ultimately result in maternal deaths. The delay in arriving at a health facility for care has been acknowledged as a leading nonclinical factor in maternal mortality.
Context

Spotted around Kampala are multiple health centres which provide obstetric services to the community. Health Centre IIIIs are generally small in size, providing antenatal and other basic maternity services. Health Centre IVs are slightly larger, theoretically with fully functioning operating theatres, and are supposed to provide 24-hour emergency and operative obstetric care. These health centres should deal with the majority of maternity patients internally, only referring those with severe complications. However, according to the 2011 annual health sector review, less than 24% of these health centres were properly functioning. Some provided only basic maternity services with no functional theatre; others fail to provide any maternity services at all.

Apart from the huge burden that the additional patient volume puts on the National Referral Hospital Mulago, a non-functional referral pathway can have dire consequences for individual mothers who suffer huge delays in accessing vital services. It can take over 3 hours for a mother to reach Mulago from the outskirts of Kampala during rush hour using dangerous and unreliable transport. She may have also experienced long delays in the Health Centre IIIIs and IVs she has visited along the way. She may then have to wait up to 12 hours to receive the treatment she needs in Mulago due to overloaded theatrelists and lacking resources. These delays often lead to life threatening complications and unnecessarily cost mothers’ and babies’ lives. Adequate, affordable and efficient transportation to health facilities for Emergency Obstetric Care (EmOC) could significantly reduce these delays and improve MMRs. In order to design and implement context-specific transport-related interventions, however, it is important to have a full understanding of the mobility constraints that expectant mothers face.

“If the ambulance is at the health centre many lives of the mothers would be saved since most mothers get complications and the only referral centre is Mulago. It would make transport easier for the mothers. Whenever a mother thinks of transport, when she has complications, that complication can become worse because the stress goes to her head.”

Antenatal patient, Kasangati HCIV
It is the intention of the Liverpool Mulago Partnership for Women’s and Children’s Health Ugandan Maternal and Newborn HUB to develop interventions that will link more women to necessary services; in doing so it is hoped that the LMP will play an invaluable role in reducing maternal mortality in Uganda but also, in improving the quality of life and experience of pregnancy and childbirth for the mothers it serves.

Research Study

This mixed methods, explorative research study within the greater Kampala area illuminates what specific factors contribute to the delays women experience in travel and transportation. Women participating in this study were primarily antenatal patients attending antenatal care at a HCIII or at one of two HCIVs within the LMP HUB. After completing surveys, women who reported experiencing pregnancy-related complications in a previous pregnancy were invited to participate in a follow-up interview. In total, 182 women completed surveys and 36 women were interviewed. Additional data was collected during interviews with health centre staff members.
Interview participant Violet shares her experience:

Violet had been in labour for two days when she received an emergency referral from her health clinic to Buwambo HCIV. “The baby started coming out legs first. But transport from that health clinic to here was a challenge. It was around 3 am. There were some boda boda guys I knew, but no one could take me to Buwambo. They fear night robbers who will take their boda bodas.” For 2 hours a health worker searched for a boda boda driver willing to transport Violet.

She finally found one who would transport her the 2 hours to the health center for 10,000 shillings. According to Violet the journey was excruciating. Barely able to stand, she fought to stay on the boda boda. “I thought I was going to die.” She says this kind of challenge is common where she lives. “If you don’t have the money with you when the labor pains start you have a big problem getting transport. When they see you in labor they will think you have some good money. Most don’t want to transport women because they could deliver on the way.”

Results

Expectant mothers may travel well over 3 hours to reach care

Women reported spending between 2-171 minutes in transit to reach antenatal care; on average women spent 49 minutes in transit. This has implications for the accessibility of EmOC; EmOC is only provided at one of the 2 HCIVs included in the study, and the availability of EmOC is limited to the hours of 9-5, Monday through Friday. Women who end up needing an emergency referral from the first HC they reach may therefore spend well over 3 hours in transit once they reach a hospital equipped to deliver the necessary care.

Expectant mothers use motorcycle taxis in all stages of pregnancy

Boda bodas, or motorcycle taxis, are ubiquitous in Uganda. The fastest and most cost effective method of transport, they are often involved in traffic accidents. 59% of women use boda bodas to reach antenatal care. After boda bodas, public taxi van services (19%) and walking (18%) are the most common modes of transport used. 81% of women reported themselves likely to use a boda boda when they go into labour or in the event of an obstetric emergency.
According to HC staff, neither boda bodas nor taxi vans are ideal methods of transport in this context; taxi van operators are often reluctant to transport labouring women or women experiencing complications due to subsequent cleaning costs and the disturbance to other passengers; boda boda drivers frequently increase their service costs if they perceive that a passenger is experiencing a medical emergency. Furthermore, according to HC staff, boda bodas are not only dangerous due to the risk of traffic accidents, but also, travel rapidly over potholes that bump and jar patients, often leading to a worsening of complications. Women who use boda bodas while experiencing labour pains often describe the experience as challenging due to difficulties staying seated over rough roads, difficulties holding on during contractions, or difficulties being comfortable while experiencing bleeding/miscarriages.

Availability of transport methods changes from day to night
Public transportation methods like boda bodas and public taxi vans do not operate 24 hours a day. If an expectant mother goes into labour or experiences an obstetric emergency between the hours of midnight and sunrise she may fail to find emergency transport. In such an event, 61% of women reported themselves likely to ask a neighbour, friend or family member for assistance. Only 25% of women who attended care at a facility with a traditional ambulance reported themselves likely to use it in such an event, and only 3% of women who attended care at a facility with a pick-up truck designated for emergency transport reported themselves likely to utilize it. Facility-based emergency transport does not adequately bridge the gap from home to the HC.

Transport-service gaps exist from the HC to the hospital
At HCs where emergency transport is unavailable, women must coordinate their own. When a woman is experiencing time sensitive complications, the delays inherent to transport coordination can become life threatening. While women in the earlier stages of labour often use boda bodas or public taxi vans, women further along require a private special hire vehicle in which they can lay down. These are exorbitantly expensive and women’s partners must coordinate and pay for transport. The process of borrowing money from family and friends contributes to further delays in accessing EmOC.
Male partners manage and control the resources for mobility

The majority of women interviewed identified their male partners as playing an important role in paying health-care related transport costs. Women often identified their partner as the source of the money they used for transport to the antenatal clinic, while others identified a partner’s absence as the reason they didn’t have money for transport in past emergencies. The majority of women who walked to attend antenatal care reported doing so because their partner was unavailable to provide money for transport. According to health workers at all three HCs, a woman's husband or partner frequently has sole control and final decision-making power over the money for daily expenses including transport. In the event of an emergency, if the partner is unable to cover the cost of transport, he often coordinates the borrowing of money from family or friends.

Considerations for Policy and Practice:

Solutions can be provided by the community

* The affordability and availability of transport rests largely on the shoulders of the providers, leaving the end-users vulnerable, both financially and personally.

* In providing the primary source of transport for both routine and emergency medical care, public transport providers play an important role in ferrying women to care and potentially, can play a role in enabling women’s mobility by reducing the frequency of up-charging and by being quick to offer services.

* In order for this to happen, sensitization and education within communities is necessary; possible strategies could include incentives for public transport providers to offer emergency services at lower rates.

* Interviewees frequently cited their neighbors, family members or friends as playing an integral role in coordinating and paying for emergency transport; community-based interventions should build upon existing social networks.
Solutions can be provided by the facility

* Facility administered emergency transport, where it exists, is underutilized and managed ineffectively.

* Patients and staff confirm that emergency pick-ups within the community are extremely rare and ambulances are primarily used to refer patients from the HC to the hospital.

* Health facilities that operate emergency vehicles should look to expand their services in order to reduce challenges women encounter in traveling from home to the HC. If HCs offer community-pick ups free of charge or at an affordable rate with a “pay-later” option, women will be less dependent on their partners for money for transport.

* District Health Offices (DHO) must take initiative to ensure ambulance services are being utilized effectively. Functionalizing health centre IVs reduces the need for emergency transport.

* Building capacity and improving functionality in smaller, more accessible health centers limits the frequency of emergency referrals; if a HCIV is functionalized to offer 24/7 emergency obstetric care congestion at regional and national referral hospitals will be drastically reduced as will the travel times and costs for patients to emergency care.
Key Challenges

In order to improve maternal health experiences and outcomes, access to emergency obstetric care must be prioritized.

Key challenges are:

* Ensuring that women who are particularly vulnerable to transport-challenges (single women, HIV positive women) are identified during antenatal care and offered the appropriate support

* Mobilising support for community-based transport-related interventions, particularly the support of public transport providers and District Health Offices.

* Increasing women’s autonomous decision making power within the household and ensuring women have access to immediate funds for emergency transport

* For more information on the results of this research project please contact Emma Aldrich at aldrich.emma@gmail.com.

References: