



Assessing Access to Health Services for Rural Communities

Project Location:	Choma, Mongu and Serenje Districts, Zambia.
Project Start Date:	2010
Project Duration:	3 Years

Introduction: Mobilising Access to Maternal Health Services in Zambia (MAMaZ) is a UK Department for International Development (DFID)-supported programme and is implemented by HPI.

The programme is supporting Zambian stakeholders to design and test effective ways to reduce barriers to accessing maternal health services, thus complementing investments in the development of Human Resources for Health (HRH) and Emergency Obstetric Care (EmOC). National data suggests that the Maternal Mortality Ratio in Zambia has been improving, however the drivers behind the data are not well understood. By improving the evidence base on what does and does not work on the 'demand-side' MAMaZ aims to:

- demonstrate impact, using evidence to improve practices and roll-out successful community based innovations across all districts in Zambia
- analyse available data, and use this information to inform national and regional policy.

The MAMaZ programme works primarily on the demand side, identifying and addressing community and household-level barriers that prevent timely utilisation of emergency obstetric care (EmOC) and other maternal and newborn health (MNH) services.

Methodology: Transaid was requested to participate in the initial "Design of Community Interventions" phase to help identify potential solutions which could be implemented to improve the physical access to health facilities for pregnant women in the rural communities. Specifically Transaid was looking at ways to reduce transport barriers between communities and BEOCs (Basic Emergency Obstetric care Centres).

The design process involved the following: field visits and community interaction, accompanied by district health personnel; brainstorming meetings involving the key members of the design team; a series of formal and informal meetings to discuss ideas and options with the District Health Management Team; and a feedback workshop involving a wide range of district stakeholders. For all meetings Transaid was participating as a component of the MAMaZ design team.

It was not possible to physically visit every community and travel every route to and from the BEOCs so a sample of communities was chosen according to their distance from the BEOC and/or geographic challenges such as rivers.

Transaid conducted a rapid assessment of the districts combining field work and the studying of previously gathered information in the form of MAMaZ reports from the districts. In order to correctly identify appropriate transport solutions for the district health initiative several factors had to be considered. Transaid used several tools including the Participatory Rural Access Survey in order to gather information for analysis. A number of factors were identified:

- Terrain and topography: The team found a number of challenges;
 - Vast distances between communities and BEOCs
 - Flood plains which were only passable by boat in the rainy season and whose deep alluvial silt was difficult to pass with a vehicle in the dry season.
 - Very few paved roads
 - Impassable rivers and inadequate boats separating communities from BEOCs
- Purpose of use: Through the field work, contributions from the district health personnel and discussions with communities formed agreements regarding how any new modes of transport should be used. Specific issues that arose during these discussions included:
 - Discussions over which medical complaints justified use of a new means of transport
 - Discussions regarding the unauthorised use of transport i.e. the use of ambulance boats for fishing
- Other factors: Other considerations which were carefully examined included:
 - The availability and access to spare parts
 - Cost of and access to fuel (where applicable)
 - Cost of maintenance
 - The ability of the community to maintain and repair the mode of transport
 - The availability of training in the use of the mode of transport

Outcomes: The data from the surveys and studies was analysed and used to determine potential modes of transport for the various communities. Between the different districts and the different BEOC intervention sites the types and/or combinations of different modes of transport varied;

- Bicycle Ambulances: Bicycle ambulances for the most part could cope with geographical and seasonal challenges in some of the intervention sites. However, it should be noted that during the wet season there can be a need to pass through flooded/swampy areas which will be a challenge. A local manufacturer based in Lusaka will produce the bicycle ambulances. The design allows the stretcher section to detach from the carriage, thereby allowing the patient to

be carried from their place of residence to the ambulance, or from the bicycle ambulance into the health facility.

- **Motorcycle Ambulances:** The motorcycle ambulances will be used primarily to transport complicated cases from communities to the BEOC and will be solely based at, and managed by the BEOC. It was recommended that motorcycle ambulances are obtained that are tried and tested throughout Africa, and have been used in many different environments and terrains.
- **Ox/Donkey and Cart:** Carts, which can be constructed locally, are recommended to have a metal base and wooden sides with higher than normal suspension to enable them to easily manoeuvre tough terrain. Donkeys and castrated oxen can also be procured locally to pull the carts.
- **Boat Ambulances:** A “banana” boat (a short wide boat made of wood, plastic or metal) can be sourced and procured locally. The “banana” boat’s width provides stability in the water which makes it ideal for transporting expectant mothers in labour. The banana boat was recommended over the smaller and less stable dugout tree canoes. The “banana” boats are manually powered so the maintenance costs will be minimal.

It is essential that there is adequate operator training, safety training, management training and maintenance training prior to the introduction of any of the aforementioned modes of transport. Management and usage of the ambulances will be monitored on an ongoing basis. Monitoring will also be carried out by the mentoring and coaching support team whose responsibility it will be to assess overall progress with the new modes of transport, support the communities to think through solutions to implementation problems, and check the quality of transport related data collected at community level. The introduction of the new modes of transport will be managed as part of an integrated package of support to communities rather than as a stand-alone initiative. The management of the motorcycle ambulances will fall to the facility in-charge.

Conclusion: The barriers which prevent pregnant women from receiving appropriate health care in a timely manner are numerous. A lack of transport is just one such barrier. Assessments such as the one described here help determine the specific barriers and guide appropriate interventions.

If the new modes of transport are utilised and managed appropriately then this intervention has the opportunity to significantly and measurably reduce two of the pre-determinates of maternal death; the cost of transport and the delay in reaching a health facility.

Through effective maintenance procedures, and good ongoing management it is hoped that the selected modes of transport will continue to serve the communities effectively for years to come.

Tools Utilised: Participatory Rural Access Survey, Transaid Road Survey Tool, Distances and Access Challenges Data Collection Tool, Vehicle Monitoring Tool (Logbook), Vehicle Maintenance Summary Tool

Partners: The programme is managed by HPI, working with Oxford Policy Management, the Mailman School of Public Health at

Columbia University, and various regional and national partner organisations.

Transaid would like to thank the HPI and MAMaZ staff both in the UK and in Zambia, and would also like to thank all Ministry of Health staff and community members who were helpful, open and honest.

About Transaid:

Transaid is an international UK development charity that aims to reduce poverty and improve livelihoods across Africa and the developing world through creating better transport. Transaid was founded by Save the Children and the Chartered Institute of Logistics and Transport. Our Patron is HRH The Princess Royal. Transaid specializes in the following:

- Building the capacity of public health authorities to provide effective, safe and cost efficient transport management systems to promote equitable access to primary health care services.
- Developing and improving logistics and supply chain systems to enhance the delivery of medicines, equipment and relief services to vulnerable communities.
- Promoting effective partnerships to support and enhance community participation in developing sustainable transport solutions in rural areas.
- Developing and delivering transport and logistics training and qualifications for public and private sector operators.

Transaid has the capacity and reach to lead projects throughout the developing world, but is equally capable of providing niche technical assistance to large scale health systems strengthening projects. Transaid maintains strong relationships with a number of leading international organizations including donor agencies such as DfID, DANIDA and USAID, and implementing organizations such as Health Partners International, Options Consulting, John Snow Inc. and Management Sciences for Health.

Contact:

Transaid
137 Euston Road, London NW1 2AA
United Kingdom

t: +44 (0)20 7387 8136

f: +44 (0)20 7387 2669

e: info@transaid.org

www.transaid.org

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