

Bridging the Referral Gap - the Emergency Transport Scheme in MORE MAMaZ

Victor Simfukwe



MORE MAMaZ is funded by Comic Relief. The programme is implemented by Transaid, Health Partners International, Development Data and Disacare in partnership with the Ministry of Health and District Community Health Teams.



Background

Physical barriers to accessing health facilities

- In rural Zambia, transport availability is often:
 - Expensive; cost can be a major barrier to use
 - Limited in availability
 - Terrain can be challenging
 - Currently many women in labour walk, use make-shift stretchers or are pushed on a bicycle
 - Many times women are discouraged from travelling at all due to lack of transport



Background

Context in Zambia

- Many communities live far from health centres and other social amenities
- Delays can worsen the clinical severity of cases, particularly where complications exist during labour
- Global evidence suggests that implementing transport strategies alongside other interventions may contribute up to an 80% reduction in maternal deaths

(Murray and Pearson 2006)

Strategy

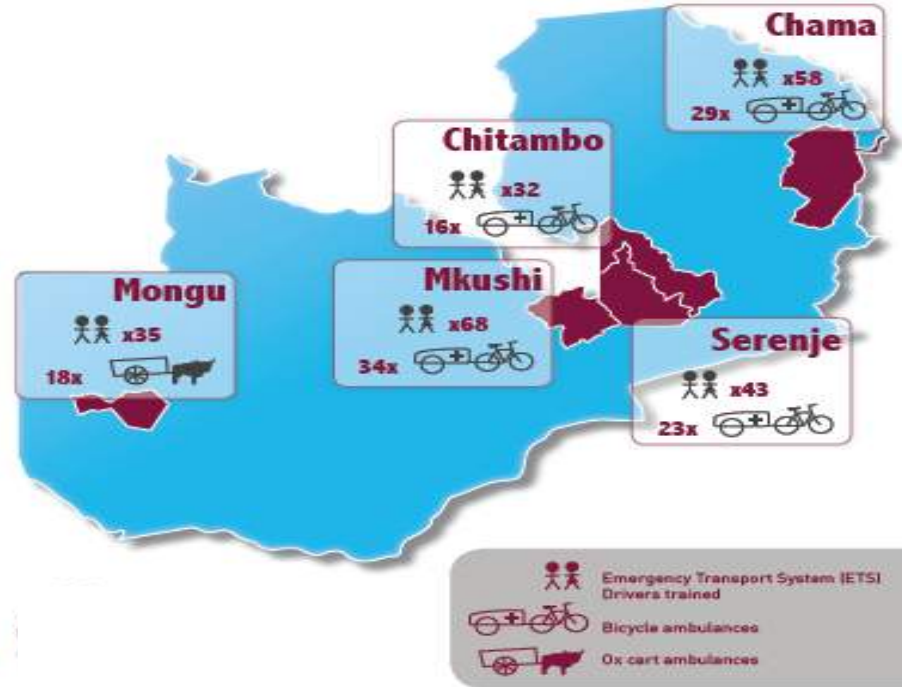
Approach

- Close collaboration with District Health Management Teams (DHMTs)
- Comprehensive design work at the community level looked at:
 - distance
 - terrain
 - socio-cultural & economic context
 - local transport culture
 - accessibility of spare parts
- Findings informed the ETS design and ensured the programme built on what was already in place



Intermediate Modes of Transport

- MORE MAMaZ used non-motorised Intermediate Modes of Transport (IMTs) to improve rural communities' physical access to health facilities.
- 104 bicycle ambulances were built during MORE MAMaZ
- 18 ox cart



Bicycle Ambulances

The 'BA'

- BA trailer and stretcher system was produced by Disacare, a Zambian NGO (bicycles supplied through World Bicycle Relief)
- Stretcher can be detached from the frame
- BAs include a full canopy for protection and privacy
- Good ground clearance
- Bicycles and trailer are robust and durable
- Each BA was supplied with essential 'tools of the trade' – logbooks, rain suits, lights, and some basic tools





Ox-carts

Constructing ox-carts in Western Province

- Design based on community preferences
- Constructed by local artisans
- High ground clearance
- Locally procured oxen
- Involvement of the Vet's office to support with oxen procurement, vetting and screening
- Provision of 'tools of the trade'

- **18 ox-carts and 36 oxen were procured locally**
- **Communities built shelters for the ox-carts**



ETS-00-03

ETS

ETS
RIDER

ETS
RIDER

Training

Working closely with DHMTs, communities were mobilised:

- ETS Riders and custodians of the vehicles nominated by the community
- Wider community engaged in discussions on how to access the vehicles, and on community stewardship of ETS
- Key message - community entirely responsible for maintenance, safe-keeping and responsible usage
- Neighbourhood Health Committees (NHCs) conducted demonstration rides to introduce the ETS to the community
- DHMT's were involved in all aspects of the ETS, from the initial needs assessment work, to on-going monitoring, and review activities
- Traditional Leaders involvement

Training

Rider training included:

- role of an ETS volunteer
- safe lifting and handling of mothers
- patient confidentiality
- basic principles of ETS maintenance
- the practical dismantling and assembling
- ox cart maintenance
- oxen well-being and care (with support from vet's office)
- recording trips in logbooks
- Action plan (community meeting, demonstration ride and building of shelters)



Challenges

- Sourcing oxen on time-
- Culture Barriers (coffin shape in some areas)
- Additional cost for ox-carts (oxen screening, & replacement)
- DHMT support in some districts- (Chitambo took time to come on board)
- Number of Riders trained- (budget limitation)

Results

Improving access and building community cohesion

- Communities can now access transport
- Feedback from communities and DHMTs suggests that ETS is highly valued
- ETS riders have increased social status in their communities
- The community-managed approach helped to strengthen community cohesion.

“Even if they come at 1am, they will find the bicycle ambulance here. We saw the maternal danger signs and know that the bicycle ambulances have reduced maternal deaths. What motivates me is that I can reduce maternal deaths in my community.”

ETS Rider

Results

Headlines

- Between September 2014 and July 2016, **4,105** pregnant women benefitted from the ETS
- 92% were normal deliveries and 8% had a maternal complication
- Highlights rural communities' considerable reliance on ETS for both emergencies and non-emergencies
- Women were able to rely on ETS '24/7'; 43% of the recorded transfers happened at night.
- Endline survey: all those who had a maternal complication survived, while 96% of babies survived
- The percentage of women delivering at a health facility increased from 64% at baseline to 89% at endline




Value for Money

- MORE MAMaZ made the initial capital investment:
 - Bicycle ambulance (trailer + bicycle)
 - Ox carts (cart + 2 oxen)
- Ongoing running costs are low compared to motorised transport (savings schemes can help)
- The cost of community-based ETS training is modest
- The Riders work as volunteers
- The cost per trip goes down over time and the assets offer their communities value for money

Unit costs:

BA K7,600 / £543

Ox cart K15,583 / £1,113



'I am very happy that we have the BA in our community. As the head rider, I am committed to transport women any time, any hour, any day. I am a rider for life and nothing will stop me from doing this work'.

**ETS Rider,
Chama District**

"Being an ETS rider brings me joy as I save not only mothers' but babies' lives. Once I had a sad experience in my family. A family member died due to lack of transport and I have never forgotten. Now we have transport and there are almost no home deliveries."

**ETS Rider, Serenje
District**

Zhikomo Kwambiri

