



Reflecting on the changing landscape of Emergency Transport Systems (ETS) in rural Zambia, a year after the conclusion of the MAM at Scale programme

Introduction

While many African cities are rapidly expanding at double the rate of the global average, almost 60% of people still live in rural areas across sub-Saharan Africa, such as in Zambia where the rural population is 55%.

Private motorisation has steadily increased alongside growing urbanisation, improving the mobility of the rising numbers of urban dwellers. Without regular and reliable public transport systems in rural areas, it could be said that community-based transport systems present an option to improve rural mobility that is key to enabling access to markets, employment, education, and healthcare.

Transaid has been implementing Emergency Transport Systems (ETS) across sub-Saharan Africa for almost 15 years to enable remote and rural communities to access vital healthcare services. The ETS models employed differ from country to country and adapt to fit within communities' mobility patterns and needs. A key commonality of the ETS models implemented over the years is work with key stakeholders at the community, district and national levels to maximise engagement to support embedding the ETS.

In Zambia, through the MAMaZ Against Malaria (MAM) and MAMaZ Against Malaria at Scale (MAM@Scale) projects, Transaid delivered its largest scale-up ETS intervention to date which has reached nearly one million community members since its inception in 2017. Trained Community Health Volunteers (CHV) were instrumental in the running of a community-based ETS consisting of 70 bicycle ambulances. In an effort to prevent mortality in children under six due to severe malaria, the project sought to tackle the practical barriers and delays in accessing healthcare services at the primary healthcare level. The project results showed an 87% reduction in the severe malaria case fatality rate; 496 estimated lives saved; 343 ETS volunteer riders trained; and 6,616 children transferred by ETS.



Picture 1. A Community Health Volunteer (CHV) and Emergency Transport System (ETS) rider.

Value of partnerships

Addressing complex health issues, such as severe malaria in childhood, requires approaches that are both appropriate and accepted by the communities that we work with and at the community level. The strength of the MAM@Scale ETS model was rooted in the value placed on partnerships, both locally and with the consortium of implementing partners.

Working in partnership with District Health Management Teams (DHMT), the MAM and the MAM@Scale programmes trained 3,251 Community Health Volunteers (CHVs) to mobilise their communities, administer life-saving essential pre-referral medicine rectal artesunate (RAS) to children in the target group, and refer severe malaria cases to a health facility for further treatment.



Picture 2. The life-saving pre-referral medicine rectal artesunate (RAS).



Picture 3. Community Health VOLunteers (CHVs) with MAM at Scale.

The project employed a systematic community engagement approach, which included a focus on social inclusion to ensure the least-supported community members were reached. A team of local partners trained CHVs in community mobilisation, equipping them with the skills to involve members of their communities at all levels and to reach out to women who lacked social support, including those affected by gender-based violence (GBV). Following the spread of COVID-19, the project integrated the dissemination of important messages to prevent and contain the spread of the virus.

Zambia's National Malaria Elimination Centre (NMEC) and the Ministry of Health (MOH) were key stakeholders at the national level. Alignment to the government's health agenda and building capacity within the country ensures such programmes are accepted at a national level by the government. Programmes that operate in parallel to government initiatives and strategies are less likely to achieve their objectives, garner buy-in from government stakeholders or be scalable and sustainable.

Reflections and lessons learned

The rise in technology and to some degree funds availability at the community level through income diversification will begin to change the modes and availability of community transport. Communities are changing the way they move and are relying more and more on motorised forms of transport, particularly motorcycles. The increased use of motorised transport can be seen as a challenge to traditional ETS models, which previously relied largely on community-managed non-motorised transport such as bicycle ambulances and ox carts.



Picture 4. An Emergency Transport System (ETS) driver.

The acceptability and the embedding of Emergency Transport Systems have been crucial to their sustainability. Motorised modes of transport, such as motorcycles, could save on journey time over non-motorised modes of transport, and they are a viable mode of transport in rural and urban areas. However, fuel and maintenance costs could present a barrier to operation in certain contexts. The benefits and affordability of bicycle ambulances and ox carts still make the model a viable option for accessing health care and should not be discounted due to being a low-tech or non-motorised solution. In Zambia, a number of bicycle ambulances and ox carts that were introduced as far back as 2011 are still operational, indicating that many communities consider this to be a cost-effective way of accessing health services. How well ETS is embedded and valued within communities, cost-effectiveness, the efforts of the volunteer riders, feasibility in the context as well as for the distances needed to travel, and other factors all affect the sustainability of an ETS.

Slow-moving government structures, in terms of lengthy and complex procurement policies, and a lack of available funding for the repair and replacement of ETS equipment are constraints. The capital cost of a bicycle ambulance or an ox cart, and ongoing operational costs, are far less than that of a motorcycle or a four-wheeled vehicle and make them financially more practical.

Donors may lack in-depth knowledge of physical access barriers and solutions when designing large health care programmes in terms of rural access, and four-wheeled vehicles are not always the most appropriate solution in terms of continued use and sustainability in certain contexts.

Looking at the future of ETS

As some rural communities become more cash-fluid and technologies like motorcycles become cheaper and more accessible, they inevitably become more accepted. Any form of ETS must consider the context in which it will operate and adapt to the needs and most appropriate mode of transport.

Rapid urbanisation is another crucial element to consider when planning and implementing appropriate Emergency Transport Systems. We should reflect on key questions when developing approaches that create a lasting and sustainable impact.

- Should a form of ETS also focus on peri-urban and urban areas due to urbanisation and potential population reach?
- Should governments and donors place a greater emphasis on rural mobility when developing policies or programmes on health service delivery?
- Where is the institutional home for ETS within government? Although managed by communities, ETS requires supervision and support.
- Due to funding constraints and the high cost of motorised vehicles, is ETS an incremental step to improving access to health care?

Conclusion

The MAM@Scale project shows the value of investing in rural mobility. When interventions are implemented in a manner that generates community ownership and are responsive to community needs, the benefits are far-reaching and sustainable. This approach changes the way communities are able to access vital health services and for health care to become people-centred as envisioned in the Sustainable Development Goals. At the very least, it is an incremental step in the right direction towards achieving universal access.



Picture 4. Rabbecca, a Community Health Volunteer (CHV) with the bicycle ambulance in her community.

Building skilled teams offers different perspectives on how to address complex, multi-faceted issues that are often shaped by unique contextual factors. These perspectives allow for the development of a model, which is tailored to the unique context of rural Zambia. The fact that communities are still using the bicycle ambulances and community health volunteers remain active, is in itself a testament to the two programmes and their ability to deliver long-term impact.