ENSURING SAFE DELIVERY: AN ASSESSMENT OF CARE TANZANIA'S COMMUNITY EMERGENCY TRANSPORTATION SYSTEM

MATERNAL, SEXUAL AND REPRODUCTIVE HEALTH UNIT

SEPTEMBER, 2011

care®

CARE TANZANIA

ENSURING SAFE DELIVERY: AN ASSESSMENT OF CARE TANZANIA'S COMMUNITY EMERGENCY TRANSPORTATION SYSTEM

SEPTEMBER, 2011

TABLE OF CONTENTS

I. INTRODUCTION

Every year, more than 13,000 Tanzanian women die from emergency complications related to pregnancy or childbirth. Delay in accessing quality health care is one of the leading causes of maternal deaths. Lack of affordable transportation at the time of delivery and distance to a health facility are together cited as barriers women face in accessing attention and treatment by a skilled health care worker. In addition to lack of affordable transport, poor infrastructure, financial constraints and lack of timely communication have contributed to lack of access to quality health care. For women in rural areas, the usual means of transportation to a health facility include bicycle, bus ride, motorcycle, locally made stretchers, and most commonly walking, which is usually more than one hour.

Interventions aimed at reducing the time between the onset of an obstetric complication and its outcome, or rather reducing delay in accessing quality care, hold great potential in reducing maternal deaths. This is especially true in Tanzania where only 51% of births are assisted by a skilled health care worker within a health facility.

Strong leadership and political will have been named as a basis for improved health service delivery and a commitment towards meeting the MDG targets in 2015. Women and community involvement in addition to continuous government support have been key ingredients in successful models and interventions in promoting maternal health and reducing mortality. Much as Civil Society Organizations may be involved at the grassroots level in improving maternal health and access to health care, government commitment is highly encouraged.

In a bid to reduce maternal deaths, the Government of Tanzania has planned to procure 420 tricycle ambulances for district hospitals. 30 of the tricycles have already been distributed in Morogoro, Pwani, Dodoma, Mbeya and Rukwa. Another set of 100 tricycles is waiting to be distributed. In addition to the 420 tricycles procured by government, UNFPA donated 21 tricycles in Shinyanga to improve community transportation especially for mothers and newborns.

CARE Tanzania has been actively involved in initiatives to promote maternal health and reduce maternal deaths in the rural areas. To ease access to health care for women, CARE Tanzania has worked in collaboration with communities to introduce emergency transportation systems in four districts by distributing eleven (11) tricycles to eleven villages in Kigoma i.e. Buhoro, Shunga, Mwali, Nyachenda from Kasulu district, and Basanza, Uvinza, Chakulu, Kazuramimba, Kalenge, Kidahwe and Pamila in Kigoma district. In addition, one tricycle had been running in Shinyanga i.e. Segese village in Kahama district and one in Mwanza i.e. in Mwashepi village in Misungwi district. These tricycles would help in reducing delay in accessing health care services especially when emergency complications arise during pregnancy or childbirth.

The tricycles are community-managed in the sense that it is the community that decides what is best for its people in terms of access, financing and management. Although the tricycles were initially introduced as a means of easing access to health facility by pregnant women, it turns out they are not only being used for pregnancy related emergencies but a source of emergency transportation for the whole community.

II. OBJECTIVES OF THE ASSESSMENT

This study was conducted to assess the effectiveness of the community emergency transport system (tricycles) provided by Care Tanzania in Mwanza, Shinyanga and Kigoma regions. In addition, the study was conducted to identify the role played by mobile phones and to comprehend the possibility of integrating a telecommunications system into the community emergency transport system to make it more effective. The findings of the study are expected assist CARE Tanzania and partners to advocate for government intervention and procurement of more tricycles, improve on the quality of service provided by the existing tricycles, and fundraise for the integration of telecommunication system.

III. METHODOLOGY

In the data collection phase, a questionnaire was developed and administered through interviews and Focus Group Discussions (FGDs) to different groups i.e. health facility personnel, community tricycle committee leaders, tricycle drivers, and beneficiaries. Four field visits were made to Mwashepi, Segese, Basanza and Chakulu villages by a team of four CARE employees who conducted the interviews and FGDs. In each village, five beneficiaries were interviewed. In addition to the beneficiaries, the CARE team interviewed the tricycle drivers, health workers, tricycle committee members and village leaders. While FGDs were conducted with the community leaders and the tricycle committee members, the individual interviews were carried out with beneficiaries, tricycle operators and health workers.

A qualitative and quantitative analysis was carried out based on the information from the field. This information is used to draw conclusions and make appropriate recommendations which will subsequently help in informed decision making by CARE Tanzania and other stakeholders who may want to introduce similar initiatives.

IV. FINDINGS

1. Community's Access to Health Facility

In the areas that this assessment was conducted, community members have been using bicycles, rental cars, buses, local stretchers and walking to get to the nearest health facility. As one of the beneficiary put it, "when we get emergencies, we make a machela (local stretcher) then carry the patient to the dispensary, if the doctor there says we have to go to Uvinza health center then villagers make contribution to pay for a car…" Before introduction of the tricycles, most of the community members walked to the nearest facility or decided to deliver at home because they could not afford to rent a car or motorcycle. A beneficiary in Kigoma said, "When we get emergencies, we make a machela and rush the patient to the dispensary. This was before the tricycle. The cost of renting a car is too high for us to afford, up to 100,000. These days we thank God there is a tricycle..."

Due to geographical coverage of the villages, community members have to travel a great distance to access a health facility. In Segese village for example, women have to walk up to 3 hours (1 hour by bicycle) to Segese dispensary.

In Chakulu village, women walk 1.5 hours to Chakulu dispensary and up to 2 hours to Uvinza health Center. The situation is worse in Basanza village where the distance to Uvinza is almost 4 hours by walking. While distance to the Mwashepi dispensary is only 15-30, for most Mwashepi villagers, it takes them up to 2 hours to get to the Kabila Health Center.

2. Introduction and Management of Tricycles

Introduction of the tricycles to the communities varied from village to village. In Kigoma, CARE launched the community emergency transport (tricycle) during commemoration of International women's day on March 8 2011. 11 tricycles were handed over to the regional and district authorities on this day and was later followed by community awareness raising through village meetings and the media.

Care International yatoa bajaji kwa wajawazito Kigoma

Na Fadhili Abdallah, Kigoma

SHIRIKA lisilo la kiserikali la Care International mkoani Kigoma, limetoa msaada wa pikipiki za matairi matatu aina ya bajaji kwa vijiji 11 vya Wilaya ya Kitulo na Kigoma kwa ajili ya kusaidia usafiri kwa mama wajawazito na watoto.

Meneja wa Programu wa shirika hilo mkoani hapa, Flavia Kilosenha alisema hayo wakati akitoa taarifa kwa Mkuu wa Mkoa Kigoma, Joseph Simbakalia katika kiongozi hayo kukabidhi pikipiki hizo kwa viongozi wa vijiji hivyo juzi wakati wa sherehe za maadhimisho ya siku ya wanawake duniani.

Vijiji hivyo kuwa ni pamoja na Kidahwe, Pamila, Kasenge, Kamuramimba, Chakuru, vijiji jirani walikuwa wakiyamuia kupata matibabu.

Alisema mpango huo umelenga katika utekelezaji wa lengo la tatu la malengo ya Milenia la kupunguza vifo vya akina mama na watoto chini ya miaka mitano na kuwapa huduma za afya ya uzazi karibu na makazi.

Akihutubia wananchi wakiadhimisho maadhimisho hayo, Simbakalia alisema ni lazima changamoto zinazowakabili wanawake zingaliwe kulingana na mazingira yanayowazunguka katika kuweza kwa kutazi za changamoto kulingana na maeneo.

Alisema takwimu zinaonesha kuwa zaidi ya asilimia 70 ya wanawake nchini ni maskini pamoja na kwamba ndio wanaibebesha mzigo kubwa wa kilimo, biashara na

In other areas, communities were informed about the tricycles during village meetings before and after arrival. Awareness raising was also done through CARE's Village Savings and Loans (VSL) groups. However, most beneficiaries that were interviewed said they knew of the existence of the tricycles when they visited their dispensaries for treatment and antenatal care.

After CARE distributed the tricycles, staff members facilitated the selection of a community transport committee or tricycle committee responsible for managing and overseeing the work of the tricycle in the village. Usually these committees are composed of 7 to 10 members chosen by community members. Generally, gender and knowledge on health issues are taken into account when selecting the committee members in each village. They are comprised of the village health workers, community members, village leaders, and village medical officers. The committees consist of representatives from sub villages and for purposes of gender balance, male and female representatives are selected.

The committees' major role is to collect funds and ensure the smooth running, management of and access to the tricycle. In Mwashepi, for instance, the tricycle key is kept with the chairperson of the committee who then gives it to the operator or travels with him to purchase fuel whenever need arises. In Basanza and Chakulu villages the driver and the clinical assistant both have keys to the tricycle for purposes of convenience and accessibility. The committees are also tasked to mobilize community and educate women about the existence of tricycle for transportation and referral during emergency.

The roles of the Management Committee for the Tricycles

- ✓ *Ensure that the tricycle serves the agreed purpose*
- ✓ *Ensure that the tricycle is repaired in case of breakdown*
- ✓ *Mobilize the villagers to contribute for tricycle transport system*
- ✓ *Mobilize the villagers on the issue of contribution for maintenance of the tricycle*
- ✓ *Educate the villagers on the uses and purpose of tricycles*
- ✓ *Sometimes escort the referral patient to the health centre*
- ✓ *Ensure security of the tricycle*
- ✓ *Ensure that the tricycle has the fuel all the time*
- ✓ *Communicate with the dispensary medical officer in case there is emergency in their sub villages*

Segese village used a different approach in selecting their emergency transportation committee. Instead of selecting a new committee, village members mandated the already existing village health committee with the role of managing the affairs of the tricycle in addition to their usual roles. This has helped in avoiding the wrangles between village health committee and tricycle committee which was cited as a challenge in other villages.

Usually tricycle committee members meet every month to discus how to improve on the effectiveness of the tricycle, financial status of the tricycle account, and the daily routine of escorting patients to hospital. The committees work very closely with the village governments in ensuring smooth running of the tricycles. For instance, in Basanza the village government provides security service for the tricycle, helps with initial payments for the driver and premises for parking the tricycle.

3. Community's Access to Tricycles

In all villages visited, the tricycle was parked at the dispensary where the driver picked it when called upon. The driver is usually contacted directly by the patients or medical officer and asked to pick them up from home or from the dispensary and take them to the place of referral. In Mwashepi, the committee chairperson keeps the key and he is responsible for overseeing the use of the tricycle but this approach pauses the challenge of unnecessary delay especially when the chairperson is not home or accessible on phone.

In Segese, the medical assistant drives the tricycle himself which has proved to be effective as he performs emergency deliveries and first aid when needed. Chakulu also has a similar approach where the clinical assistant travels with the driver to attend to patients from home. The shortcoming in this model is that it takes the health providers out of their duty stations and therefore unavailable if there are other patients who need assistance, especially in areas where there is only one provider in a health facility.

In Basanza village, the tricycle does not pick up patients from home. Villagers still use locally made stretchers to bring patients to the dispensary from where they use the tricycle upon referral to a health center. The purpose for which the tricycle was introduced is not served as it still does not ease transportation to the dispensary.

When asked how they access transport to health facility since the introduction of tricycles in their villages, community members' answers varied depending on the system used in their particular villages. While Nasoro Yusuf of Chakulu village said, "…You call the doctor before you go and tell him the state of the patient and if you need transport, if yes he comes in a tricycle..." Mayanga Robert of Mwashepi village said, "…We find the people responsible for the tricycle, they come and take you to the hospital. I personally live close to where the driver lives…" Zaituni Juma from Basanza village said. "…We wake up neighbors, make a machela and carry the patient to the dispensary. If the doctor says we have to go to Uvinza hospital, villagers make contributions to rent a car. Now with tricycle we contribute 5000 to Uvinza. One needs to come to the dispensary then the doctor calls the tricycle driver. The driver is not coming at home"

4. Community's Contribution to Funding the Tricycles

All villages varied in the way they fund and maintain the tricycle although each had an aspect of community contribution towards the tricycle fund for drivers' salary, maintenance and fuel. In Mwashepi, there is a standard fee of Tsh. 5000 to Kabila health center and Tsh. 10,000 to Magu hospital. The beneficiaries in Segese do not pay for the services of the tricycle as

fuel and maintenance are funded by the village government. It was not very clear whether the village government receives financial support for fuel and maintenance from the District Medical Officer. In Basanza during a village assembly, they collectively decided that each household would contribute 500 shillings monthly for fuel, drivers and maintenance of the tricycle. Chakulu has a similar system as Basanza. When asked if the amount of money they have to contribute is reasonable and affordable, all community members that were interviewed said the amount was affordable to them compared to the costs of hiring a motorcycles or cars that they incurred in the past.

4. Effectiveness of the Tricycles in Serving the Community

Community members, including beneficiaries, health care providers, leaders and members of the emergency transport committee gave a positive response about the effectiveness of the tricycles in easing transportation. Before the introduction of the tricycles, women delayed to access health care and services as there was no readily available and reliable means of transport. This, in most cases, led to maternal deaths. When asked about how helpful the tricycles have been in reducing the problem of access to care for pregnant women, a community member in Basanza village responded, "the problem has been reduced. Pregnant women can now easily access health care services and this has reduced the risk of losing life of the mother, child or both as experienced previously…" Responding to the same question Zaituni Juma of Basanza said, " …it has helped us to reduce the burden of renting cars which we could not afford because our income is low. Many deaths occurred due to lack of transportation…" Although his mother in law did not survive, Nasoro Yusuf of Chakulu village is grateful for the tricycle, "…It has helped since we really had a transportation problem. A couple of days back I paid 11,500 for fuel to take my mother in law to Uvinza by tricycle. Although we arrived safely, she later on passed away…"

A health worker in Chakulu village noted an improvement in EMoC resulting from the use of tricycle in the village and said that the tricycle has helped pregnant women referred to the health center which is about 30 minutes from the village; and that before the introduction of the tricycle, patients had to look for means of transportation when referred to the health center causing delay in accessing services. When asked whether the tricycle has helped in reducing maternal deaths caused by late access to health services as a result of lack of transport, the health worker responded, "We did not have incidences of death due to late referral but it has helped in a way… in cases of delay due to lack of transportation, it has eased quick access to transportation for referral therefore in a way has reduced cases of delay… it has also reduced referral time since we refer immediately after sensing danger. It has also reduced the number of still births…"

The tricycle committee members in Basanza also had very positive feedback about how helpful the tricycles have been not only to women but the community at large. They said that before the tricycle, people were required to call for government owned ambulance vehicle which is stationed at Uvinza health centre. But it was very difficult for them to access the ambulance transport because it serves the whole ward of Uvinza which is comprised of three villages - Basanza, Mwamila and Chakulu.

The tricycle has been beneficial to the whole community because it is used by pregnant women as well as other people who have health problems and have been referred by medical personnel to health center for further treatment. In Basanza for instance, the tricycle was used to transport a man who was bitten by a snake while tending his farm and a woman who was raped in her farm. Both cases were referred by Chakulu village medical officer to the Uvinza health center for further treatment.

V. CHALLENGES

Almost all four villages had similar challenges but some were uniquely identified by particular villages. The following were identified as the major challenges by all groups interviewed:

1. Insufficient Funds to Run and Maintain the Tricycles

Among the challenges raised by the tricycle committees was insufficient contribution from the community to run and maintain the tricycles. It was also noted that, the rising price of fuel, was making it more difficult to manage community contributions to cater for fuel, paying the driver and maintaining the tricycle. The main problem in Basanza, where the tricycle had not been running for a while, was the fact that the committee was still deciding on whether to charge fees per trip or use monthly contributions per household which is proving to be difficult as they struggle to get contributions from households. Although community members interviewed said that the contribution they are asked to make is reasonable and affordable given the distance to the nearest health facility, tricycle committee members were worried that some people might not have the capacity to buy fuel when required.

2. Poor Communication and Network Coverage

Communication has played a major role in the successful running of the tricycles. However, most people do not have phones to make contact with the driver or health worker when they have emergencies. Furthermore, in other areas, like Segese village, there is poor network coverage which makes it difficult to use the phones.

Some of the beneficiaries' accounts on how the tricycle has helped them:

- *"It has helped us a great deal. For example I was pregnant, I started bleeding, couldn't walk, called them (tricycle driver) and they came for me but when I got to the hospital I had a miscarriage. Before tricycle people died at home. But it is not enough because we have one compared to population…" Esther Sabini of Segese village*

- *"It has helped to rush us to the health facility. It is comfortable for women when in labor compared to a bicycle. I was nine months pregnant and when labor pains started I told my husband I can't sit on a bicycle or motorcycle. Since we don't have a phone, my husband had to walk to the dispensary to get the doctor, they came with the tricycle to take me to the dispensary and I delivered safely…" Regina Stephano of Segese village*

- *"Before (the tricycle) it was really hard. I delivered my first born at home even though I knew the importance of facility based delivery. My husband went to find transport but by the time he came back I had already delivered, a TBA helped me. I was told to go to the hospital the following day…" Angela Kasmiri of Segese village*

- *"It helps a lot especially in labor complications. When I was in labor this year, my husband called, the tricycle took me to the hospital where I delivered safely…" Pascazia Lusana of Segese village*

- *"When I was in labor in 2009 it was early in the morning, my grandmother took me to Kabila health center. When we arrived we were told to find transport to take us to Magu district hospital. So we called the driver of the tricycle to come for us from Mwashepi. He came and took us to Magu where I delivered without a problem…" Esther Paulin of Mwashepi village*

- *"When I was pregnant I suddenly got sick. The tricycle took me to Kabila health center. I was then transferred to Magu district hospital by ambulance. I had a miscarriage. If it was not for the tricycle I would have died…" Diana Yusufu of Mwashepi village*

3. Lack of Incentive for Tricycle Drivers

Lack of definite pay for drivers was identified as one of the major challenges. Drivers are supposed to be paid out of the community contributions but in most cases the collected funds are not sufficient to pay them therefore they volunteer to work for free. Drivers need motivation given the fact that they are called upon anytime to pick up and transport patients but lack of payment does not give them the incentive to do the job as the Chakulu village tricycle driver put it, "…There's no motivation for us drivers and sometimes when the tricycle breaks down, I repair it myself as the committee only pays for major repairs… this is demotivating as the we are not paid and the process of getting a permit is taking long..." Habib Pondamali -Chakulu tricycle driver. Due to lack of funds to pay the drivers, there is only one driver per village, which was also mentioned as a challenge.

4. Poor Infrastructure (Roads)

Rough roads were named as a challenge in three of the four villages that were visited. This is the case especially during the rainy season which makes it almost impossible to move the tricycle. In some areas there were concerns that the roads are so bad that it makes it difficult for the tricycles to reach people who live far especially in the farmland areas.

5. Lack of Motorcycle Permits (License) for Drivers

The tricycle drivers have been using temporary learner's permits and are always stopped by traffic police for lack of licenses. The drivers interviewed have asked for intervention to expedite their permits so they can ride along without being harassed by traffic police.

6. Insufficient Management Skills of Tricycle Committees

With exception of Segese village, other villages have special committees formed for the management of the tricycles. The committee members are assigned different roles and responsibilities. There was a concern that committee members are not capacitated to do their jobs. For example a treasurer may have no knowledge on financial management. In Chakulu and Basanza there have been reports of conflict between village health committee and the tricycle committee on the management of the tricycle which is an indication that the two groups are not very clear about their roles and matters of village health management in general which leads to power struggle.

7. Inadequate Number of Tricycles

One tricycle per village was mentioned as a challenge since it cannot carter for the needs of the entire village population. In cases where there is more than one patient at a time, the tricycle works on a first come first served basis, which leads to some community members not accessing the services when needed even after paying their monthly contributions.

VI. RECOMMENDATIONS

1. Mobile Phone Integration

The findings of this assessment indicate that the integration of a telecommunication system in the transport system will more effective in ensuring successful running of the tricycles. Experience from Rwanda shows that, the government purchased 17,500 mobile phones and distributed to the community health workers for purposes of improving health service delivery and this has tremendously reduced the number of maternal deaths caused by complications as it was easy to access the health workers on time and referrals communicated on time as well.

The same approach can be adopted for health workers, tricycle drivers and a number of tricycle committee members to ease communication problems when people are trying to access the tricycles.

Mobile phones will allow communities to manage competing demands for tricycle by providing a platform for communication when a situation arises in which more than one patient is in need of emergency transport. The use of mobile phones also creates an important two-way communication link between health care workers at the dispensary level and higher-level facilities. Specifically, integrated telecommunications and transport allows for effective management of referred cases by alerting health center or hospital staff of the referral case allowing them to prepare for a patient's arrival and also providing the opportunity to deliver first aid instructions for patient care in transit.

The introduction of such a system comes with challenges the major one being the use of the phone for personal purposes. This is anticipated by implementers and the beneficiaries. It is therefore important to establish a system that will be transparent enough to avoid exploitation of resources without serving the purpose of improving health service delivery in the rural areas. Although most of the interviewees had no idea how this problem can be overcome, they suggested the following as possible management ideas;

- Design a record book to monitor use of the phone
- Assign the monitoring to a particular committee member
- Compare number of referrals with number of phone calls made
- Establish weekly amount used and ask for accountability
- Let the community contribute towards air time

2. Increase Government Support

There should be political will and strong leadership in order for a system to function efficiently and make innovative and cost effective interventions possible. Sustained leadership not only at the central level but also at the lowest community level is important in the advancement of maternal health. The government and its partners need to ensure that the community is given the appropriate tools to enable them to easily access health service delivery. The findings of this study indicate that the government hardly intervenes in helping the villages in maintaining and sustaining the emergency transport systems. With exception of Mwashepi where government officials contributed an amount of Tsh. 150,000 towards the tricycle on White Ribbon day, the other villages have not received any support from the government. It is important for government (central and local) to actively be involved in these initiatives for sustainability purposes.

3. Standardization of Fee (Community Contribution)

All villages need to assess how much fuel is used per day/per week and be able to estimate how much each household should contribute towards the tricycle fund. A fixed amount contributed will enable the smooth running of the tricycle and eliminate the problem of lack of funds in all villages. For example in Mwanza, they have a fixed rate to the health center and to the dispensary based on the distance and the beneficiaries find it reasonable as they all pay a standard fee. Other villages ought to copy this and fix their own amounts for the villagers to contribute as this will in the end help in funding the tricycle fuel, maintenance and also pay the drivers who have complained about lack of payment.

4. First Aid Training to Tricycle Drivers

Since the drivers deal with all types of emergencies, they ought to know the basics in first aid as this will help them in giving first aid, if needed, before the patient reaches the health facility to avoid further complication. For example the medical assistant in Segese affirmed that he sometimes has to give first aid to the patients before reaching the facility. For other villages where the driver has no knowledge of first aid, it is hard to address an issue that needs immediate attention therefore the idea of first aid for the drivers seems reasonable enough.

VII. CONCLUSION

The lack of access to health facility coupled with a number of other factors like lack of adequate medical personnel, dilapidated health infrastructure and bad transportation have led to the slow progress in the reduction of maternal mortality hence may result in the non-achievement of Millennium Development Goal 5. There is need for improvement in transport and communication especially in the rural areas where 80% of the population lives and accounts for more than 70% of maternal deaths in the country. Strong leadership, political will and inter agency collaboration will help reduce maternal deaths tremendously and achievement of MDG 5 will not be a dream but a reality in Tanzania. CARE Tanzania's community emergency transport initiative has proven effective in reducing referral time which is usually attributed to lack of transport. Such interventions need to be scaled up in other parts of the country bearing in mind the recommendations put forward by this assessment.

Referemces

1. Africa Progress Panel Policy Brief September 2010: Maternal Health: Investing in the Lifeline of Healthy Societies and Economies. P.5
2. www.who.org
3. Africa Progress Panel Policy Brief September 2010: Maternal Health: Investing in the
Lifeline of Healthy Societies and Economies. P.6
4. Motorcycle ambulances for referral of obstetric emergencies in rural Malawi: Do they
reduce delay and what do they cost? Jan J. Hofman et al
5. Tanzania Demographic Health Survey (DHS) 2010