

USAID COMMUNITY CAPACITY FOR HEALTH PROGRAM

Community-Led Transport Solutions Improve Access to Health Care



PROGRAM SUMMARY

The USAID Community Capacity for Health Program—known in Madagascar as Mahefa Miaraka—is a five-year (2016–2021) community-based integrated health program funded by the United States Agency for International Development (USAID). The Program is a collaborative effort among the Ministry of Public Health (MOPH), USAID, and JSI Research & Training Institute, Inc. (JSI). Mahefa Miaraka provides tools and capacity-building training to approximately 10,000 community health volunteers (CHVs) who provide basic maternal health, child health, and family planning services to their local communities. The Program also works with national and local government stakeholders to strengthen the health sector and health policies.

MAHEFA MIARAKA



OPERATES IN **7**
REGIONS OF
MADAGASCAR



COVERING A TOTAL
OF **4,708** VILLAGES



WITH A TOTAL
POPULATION OF
6.6 MILLION PEOPLE



OR **28** PERCENT OF
THE COUNTRY'S
TOTAL POPULATION





Mahefa Miaraka

OVERVIEW

In Madagascar, the mortality rates for mothers and children under five (CU5) were 335 and 51 per 100,000 in 2019, respectively.^{1,2} To reduce maternal and under-five deaths, timely access to skilled care is critical before, during, and after pregnancy, and throughout a child's first five years of life. Delays in seeking access to quality care are a key contributor to maternal and under-five mortality. Inadequate access to transport has been identified as one of the three major reasons for delays in access to health services¹ and can worsen the clinical severity of cases, especially when complications exist.

In a context where the availability of transport is often low, the cost of emergency transport is frequently a major barrier. Moreover, difficult terrain and seasonal rainfall often limit access by motorized vehicles to many areas. In some Mahefa Miaraka-supported regions, 44 percent of communities were

inaccessible by car or truck for at least four months of the year and 20 percent were inaccessible for almost half the year.³

The implementation of transport strategies, along with other interventions, can contribute up to an 80 percent reduction in maternal deaths,⁴ and other crucial time-savings for patients who are severely ill or experiencing complications. Maximizing the potential for communities to develop and manage their own emergency transport schemes (ETS) has been shown to be an effective method of increasing access to health care by drawing on available community resources.

APPROACH

An integral part of Mahefa Miaraka's work focused on strengthening referral systems between the village (fokontany) and the health center, ensuring that community members who experienced a health emergency, especially CU5 and pregnant

1 The World Bank Data. Mortality rate, under-5–Madagascar. Retrieved on March 25, 2021, from <https://data.worldbank.org/indicator/SH.DYN.MORT?locations=M>.

2 World Bank Data. Maternal mortality ratio (modeled estimate, per 100,000 live births) – Madagascar. Retrieved on March 25, 2021, from <https://data.worldbank.org/indicator/SH.STA.MMRT?locations=MG>.

3 Barber C, Clark S. (2016). Review of the Emergency Transport Scheme and Community Health Volunteer Mobility Initiatives in Madagascar, under the MAHEFA programme. London: Transaid. <https://www.transaid.org/wp-content/uploads/2016/06/Final-report-ETS-and-CHV-mobility-review-April-2016-English.pdf>.

4 Murray SF, Pearson SC. (2006). Maternal referral systems in developing countries: Current knowledge and future research needs. *Social Science & Medicine*, 62(9):2205–15. <https://pubmed.ncbi.nlm.nih.gov/16330139/>.

women, could promptly access health care. The Program supported the development and expansion of ETS in communities by preparing emergency evacuation plans (EEPs). One of the Program's key activities was to ensure that each village had an updated EEP that communicated essential information on available transport and contacts, and that it was posted in visible public spaces.

Since its inception, Mahefa Miaraka has promoted the use of local transport to connect communities to primary health care facilities or referral hospitals in the event of an emergency. Encouraging communities to integrate locally available modes of transport (including ox carts, rickshaws, bicycle ambulances, stretchers, and canoe ambulances) in their EEPs was a strategy employed based on the assumption that an accepted means of transport would maximize uptake and adherence to the plan. The Program also supported the maintenance and optimization of local trans-

port options to equip communities to rapidly respond to their emergency transport needs. Mahefa Miaraka built on feedback gathered following the use of the EEPs to identify villages that could develop or improve existing options for transportation during health emergencies.

Mahefa Miaraka expanded community emergency transport networks by collaborating with taxi cooperatives that included minibuses (taxi-brousse) and motorized three-wheelers (Bajaj) to further improve the availability of reliable transport to health centers and referral hospitals in communities. Program-trained drivers affiliated with a designated transport cooperative were integrated in the community EEPs to support long distance referral needs, lower transport-associated costs, and provide access to safe transport options during emergencies.

KEY ACTIVITIES



Broadening awareness of the ETS in the communities.

Village leaders (chefs de fokontany) were encouraged to tailor their EEPs to their specific circumstances and to sensitize their communities on their importance, how to access them, and their contents. Village leaders then educated community members on the availability of the EEPs and the frequency with which they were used, as part of quarterly community reporting to the local health center. The regular review of ETS data during monthly health center meetings allowed links between communities and health centers to be strengthened.



Monitoring and review of ETS use during quarterly meetings.

Village leaders monitored the use of emergency transport to evaluate the use of the ETS and to support improvements when challenges were identified. This information was then reviewed during quarterly meetings at the health centers.



Linking ETS with Enterprise Box activities:

Mahefa Miaraka supported collaboration between ETS managers and eBoxes, where possible, to provide access to technicians for the maintenance and repair of bicycle ambulances. In some cases, the eBoxes provided supplementary funding to reinforce ETS activities.



Capacitating cooperatives to expand safe and reliable emergency transport options in communities.

EEPs were expanded to include transport cooperatives in selected communities to provide them with an additional trusted mode of emergency transport, especially for long distances, and equipped drivers with the skills needed to manage emergency evacuations.

Drivers and transport cooperative members were recruited according to their level of interest in the initiative and their reliability as drivers (determined by the associations). Local authorities, including the Ministry of Transport, MOPH, Land Transport Agency, and town mayors, played an important role in ensuring that the initiative was supported at an institutional level to raise awareness in the population and among health providers, and to ease the passage of vehicles through police checkpoints.

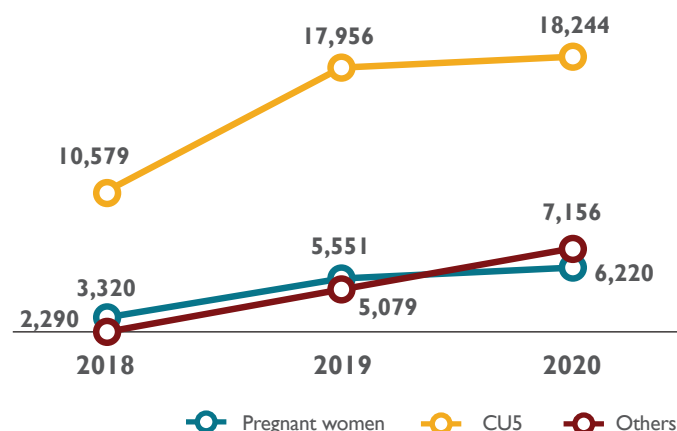
Driver training covered such topics as vehicle preparation, communication with stakeholders (i.e., the family and receiving health center), journey planning, self-protection and patient protection, and safe handling of patients. Mahefa Miaraka prepared training materials that supported peer-to-peer learning so that transport cooperatives could continue to train drivers over the long term. Following the training, the telephone numbers of drivers who worked specific routes were distributed to the respective village leaders and CHVs to support improved community access to patient transport services as a means of emergency transport.



Linking transport cooperatives and communities.

In 2019, the Program assessed patient transport needs and feasibility in DIANA, Menabe, and Sofia regions. The assessment findings showed that minibuses and motorized three-wheelers were the most appropriate modes of patient transport for integration in the EEPs in these areas because of their prevalence, reach, and acceptability. The assessment also identified several bottlenecks that inhibited access to patient transport services during emergencies, primarily due to the lack of coordination among the transport providers, health providers, and the communities. Based on information from the assessment, Mahefa Miaraka coordinated with the Ministry of Transport and health providers to connect communities with transport cooperatives and strengthen the reach of community ETS.

FIGURE I. COMMUNITY USE OF ETS DURING HEALTH EMERGENCIES



RESULTS

ETS use by communities. As shown in Figure I, 76,395 patients used community ETS between October 2018 and December 2020, of which 46,779 were CU5, 15,091 were pregnant women, and 14,525 were other patients. The Program saw an increase in the use of ETS between 2018 and 2020. Communities spoke highly of the contributions of readily available local transport for increased access to health care in emergencies, especially the means to travel at night, when there are generally fewer transport options available. The integration of locally available transport in the EEP ensured the availability of transport options at all times.

Community use of transport cooperative services during health emergencies. As shown in Table I, 2,856 community members used transport cooperative vehicles during emergencies between the

TABLE I. COMMUNITY USE OF TRANSPORT COOPERATIVE SERVICES

Number of emergency evacuations conducted	2020 Total
Pregnant women	725
CU5	711
Other	1,420
Total evacuations using taxis	2,856

inception of the cooperative approach in September 2020. Since the time of the initial training, a significant increase was reported in the use of cooperative transport during emergencies, indicating a strong demand for these services. From January to March 2020, 249 emergency evacuations were reported, compared with 1,049 emergency evacuations between October and December 2020. The collaboration with the transport cooperatives has expanded emergency transport options in communities. Transport cooperatives sought the means to equip drivers with the recommended basic materials, such as first aid kits, disinfectant, personal protective equipment, and a sheet.

Gaining the support of decision makers and stakeholders has led to a lowering in the price of emergency transport, which was a significant barrier to accessing care. Before the coordination with transport cooperatives, communities reportedly collaborated to pay the fees needed to transport a patient to higher-level care. Working with the transport cooperatives has allowed drivers and village leaders to negotiate emergency transport fares that were within an affordable range for communities.

CHALLENGES

Maintenance of transport options. Some communities had difficulty providing routine maintenance for dedicated oxcarts and bicycle ambulances due to a lack of tools and repair skills. Delays in small repairs led to the need for more significant repairs. Other modes of transport, such as stretchers, were easier to maintain.

Sensitization of community members. Village leaders and CHVs were most aware of the EEPs, which was logical because they were the primary points of contact. Orienting community members about the plans proved difficult at times because of the lack of communication infrastructure. The lack of community members' access to telephone numbers posed a barrier to rapidly accessing safe and reliable transport during an emergency evacuation. This highlighted the need to share information more broadly to ensure that communities had access to readily available transport and contacts that could also alert the nearest health center.

Regularly updating transport cooperative driver contact information with CHVs and village leaders. Some communities did not update the EEP to include contact information for newly trained transport cooperative drivers. Regularly updating this information will ensure that communities have access to up-to-date information and a wider selection of transport options, when needed.

RECOMMENDATIONS



Integrate community input as the basis for EEPs. To ensure that the EPP is suitable for use and tailored to community needs, the community's experience with the ETS should be routinely shared during monthly meetings with village leaders, CHVs, and community members. Key findings should be used to improve the local EEP. Feedback from the community will help identify the most suitable modes of transport and identify bottlenecks to carrying out suggested EEP steps.



Decentralize EEPs to village sub-sections. Increased sensitization by village leaders and village sub-section leaders is essential to increase uptake and for improved health outcomes. However, one plan will not fit the needs and geographic locale of all community members. Village leaders should develop and manage plans to allow for the quickest organization and routes to care in communities, especially where populations are geographically dispersed.



Ensure continued review of communities' use of ETS. Regular meetings are now in place to support the activities of the ETS. Village leaders and CHVs should coordinate and review the ETS activities during quarterly meetings held at the health centers. Moreover, the transport cooperatives should hold ongoing discussions with the MOPH, the Ministry of Transport, and the District Chief to ensure that they have their ongoing support.



Identify community partners that can facilitate the repair and maintenance of emergency transport. The means for communities to cover the costs associated with regular maintenance and repair should be investigated to help ensure the long-term sustainability of emergency transport. This could involve linking with local cooperatives, community contribution schemes, or mutuelles de santé that may include minimal fees for ETS users. Collaboration with eBox, where possible, could also provide a solution.



Coordinate with local transport cooperatives, with the support of regional stakeholders. The involvement of all actors during activity planning, including their ongoing involvement in the maintenance of the ETS, is essential to assure a united approach by multiple partners, such as the Ministry of Transport, MOPH, local leaders, and transport cooperatives. Previously, the lack of communication between transport stakeholders and health providers led to the refusal of patients at health centers and delays at road checkpoints. Cooperation among stakeholders has led to the provision of materials for driver identification, and coordination with health clinics and hospital staff to encourage the acceptance of patients brought by drivers.