

EVALUATION REPORT

TESTING OF MOBILE CLINICS IN MALI



Elaborated by Logistics For Health

In collaboration with:

- Ministry of Health – Mali
- Ranger Cycle – UK/South Africa
- Embassy of South Africa - Mali
- UNICEF Mali
- WHO Mali
- AGETEM

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The testing of mobile clinics in Mali is a practical experiment in improving primary health care delivery in rural areas. This initiative was actively supported by several partners in public health in Mali. Sincere appreciation is given here for the valuable contributions they offered in making these tests possible.

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Background

Only 50% of rural populations in Mali have access to Primary Health Care. This explains the relatively low vaccination coverage obtained by the Expanded Programme of Immunization (EPI). To improve immunization services for populations located more than five kilometers from CSCOMs (health facilities), the Ministry of Health actively promotes outreach services. But these peripheral structures possess few means of motorized transport.

The income generated by the CSCOM neither permits the purchase of a four wheeled vehicle (30,000 USD). Nor could they afford to pay for its high running costs (0,50 USD). Most CSCOM only have a small motorcycle to transport two health workers and medical equipment on usually very rough terrains.

Description of Mobile Clinics

To improve transport capabilities at rural health centers, a South African manufacturer named "Ranger Cycle" designed and built a clinic module attached in a side car configuration to a motorcycle (See brochure). Sale price of the machine is around 6,000 USD, and the average running cost per kilometre is 0,10 USD.

The mobile clinic can comfortably transport two passengers, plus medical equipment and considerable quantities of essential drugs. The machine is also suitable for the emergency medical evacuation of patients.

Test Results

From January 2006 to January 2007, two "Ranger" mobile clinics were tested in real field situation in Mali. One was allocated to the CSCOM of Bougouni East, in the region of Sikasso, and the other to the CSCOM of Ningari, in the region of Mopti.

From 15th to 22nd January 2007, an evaluation team (Annex 1) visited the two CSCOMs. The observations, comments and recommendations formulated in this report are based on the physical inspection of the mobile clinics, and from interviews held with health workers and representatives of ASACOs (Health Committees).

◆ **Profile of CSCOM at Bougouni East – Region of Sikasso**

- 180 Km south of Bamako
- Population 30,000
- Personnel 3 health workers
- Covers 23 villages and 4 quartiers.
- Landscape is flat, with sand/clay terrains
- Average distances from the CSCOM to villages : 0,5 km to 60 km.

Other means of transport available to the CSCOM : 1 Yamaha 100 motorcycle – In good running condition.

Summary of activities with the mobile clinic of Bougouni East:

- Total kilometers logged 2,137
- Number of sorties 138
- Outreach sessions 97
- Consultations 532
- Evacuations 13

Reliability of the mobile clinic at Bougouni Est

- Six (6) breakdowns (tires and rims)

- Repairs performed within 48 hours
- Part and labour charges covered by Ranger et LfH
- Frequent breakdowns of the on-board refrigerator

Running costs of the mobile clinic at Bougouni East

- Fuel 108,80 USD
- Oil changes and maintenance 15,00 USD (paid by LfH)
- Cost per kilometer : 0,07 USD

Rating of the mobile clinic by health workers at Bougouni East

- Substantial increase in mobile interventions
- Better efficiency of mobile interventions
- Possibility of emergency medical evacuations of patients

Rating of the mobile clinic by the ASACO of Bougouni East

- Improvement of health delivery services to communities
- Good ratio in effectiveness for purchase and running costs
- Ideal solution in sustainability of investments

Complaints from health workers at Bougouni East :

- ✓ Limited use of the machine in rainy season (May/August-4months)
- ✓ Erratic running and/or breakdown of the on-board refrigerator
- ✓ Failure/breakage of wheel spokes and wheel bearings
- ✓ Handling is "sportive"

◆ ***Profile of CSCOM at Ningari – Region of Mopti***

- 800 km north of Bamako
- Population : 13 600 habitants
- Personnel 1 Doctor and 3 health workers
- Covers 17 villages and 2 quartiers.
- Landscape is rocky and hilly (steep cliffs)
- Average distances from CSOM to villages 0,5 km to 95 km.

Other means of transport available : 1 ambulance + 1 motorcycle in good running condition

Summary of activities with the mobile clinic of Ningari

• Total kilometres logged	380
• Number of sorties	34
• Outreach sessions	28
• Consultations	127
• Evacuations	0

Reliability of the mobile clinic at Bougouni Est

- Frequent breakdown of the on-board refrigerator
- Modifications to front suspension paid by Ranger et LfH

Running costs of the mobile clinic at Bougouni East

- Fuel 37,24 USD
- Cost per kilometer : 0,10 USD

Rating of the mobile clinic by health workers at Ningari

- Good potential for mobile interventions
- Better efficiency of mobile interventions

Rating of the mobile clinic by the ASACO of Ningari

- Improvement of health services to communities
- Good ratio in effectiveness for purchase and running costs
- Ideal solution in sustainability of investments

Complaints from health workers at Ningari

- ✓ Limited use of the machine on rocky terrain
- ✓ Erratic running and/or breakdown of the on-board refrigerator

| Summary of Test

| Positive aspects

- The mobile clinics have allowed the CSCOMs an easier and more reliable reach in providing health care to communities in distant villages. The CSCOM of Bougouni East performed several emergency evacuations of patients, although in urban settings.
- Health workers and ASACOs (Health Committees) appreciate the reliability and low running costs of the mobile clinics.
- The mobile clinics are easily serviced by local motorcycle repair shops. There was no dependency on Ranger for technical expertise, and/or fast consumable spare parts.
- The fitting of stronger suspension components solved the weaknesses observed on the mobile clinic of Bougouni East.
- Health workers at both CSCOMs solved the problem of transporting vaccines safely in spite of the frequent breakdowns of the on-board refrigerators. By using simple vaccine carriers, they were able to maintain the cold chain (over 24 hours) for the vaccines they transported on outreach sessions.
- When the on board refrigerator is removed from the mobile clinic, its empty housing is roomy enough to load and transport several vaccine carriers, as well as medical equipment (injection material) and/or essential drugs (mosquito nets – condoms etc..).
- A number of ASACOs from the district of Bougouni East have written several requests to the Ministry of Health and to Ranger to express their desire of receiving and operating a mobile clinic at their CSCOMs.

Aspects requiring improvements

- Performance of the on-board refrigerators is not satisfactory.
- The mobile clinic is not suitable for operation in rocky/hilly terrains

Conclusions

After twelve months of testing the Ranger mobile clinics in Mali, the objectives of the original project have been reached.

From January 2007, the ASACOs of Bougouni East and of Ningari will fully support the costs of operating the Ranger mobile clinics originally allocated to their respective CSCOMs.

The health workers at Bougouni East wish that Ranger produce a version of the mobile clinic that is not equipped with an on-board refrigerator. However, they would prefer a modification to the cab design that contains a foldable platform on which to lay patients flat during emergency evacuations.

Recommendations

Given the very encouraging results obtained in testing the Ranger mobile clinics at Bougouni and Ningari, it is strongly recommended that:

1. The Ministry of Health approve the numerous requests formulated by the ASACOs of Bougouni East to be equipped with Ranger mobile clinics.
2. The Ministry of Health discuss with its Partners the modalities of expanding the introduction of Ranger mobile clinics in Mali, and solicit their technical and financial support in that initiative.
3. UNICEF, WHO and other Partners of the Ministry of Health favorably envisage the modalities of utilizing the ranger mobile clinics in reinforcing the operational capabilities of the CSCOMs for outreach strategies (procurement of mobile clinics, and financing of training of health workers in riding and maintenance of the new machines).
4. The Embassy of South Africa to facilitate the establishment of channels for the import of the Ranger mobile clinics in Mali.
5. Ranger Cycle to produce a model of mobile clinic that respond to the specifications suggested by health workers, and suitable for use where successfully tested in Mali.
6. Logistics For Health to follow up of on recommendations, and facilitate the implementation of project activities in the field.

CSCOM of Bougouni



CSCOM of Ningari

