Consultative mapping of APEs perspective on motivation, performance, retention and information utilization in Inhambane province, Mozambique

This report was completed for the inSCALE project by Abel Muiambo

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inSCALE – Innovations at Scale for Community Access and Lasting Effects

The inSCALE programme, a collaboration between Malaria Consortium, London School of Hygiene and Tropical Medicine (LSHTM) and University College of London (UCL), aims to increase coverage of integrated community case management (ICCM) of children with diarrhoea, pneumonia and malaria in Uganda and Mozambique. inSCALE is funded by Bill & Melinda Gates Foundation and sets out to better understand community based agent (CBA) motivation and attrition, and to find feasible and acceptable solutions to CBA retention and performance which are vital for successful implementation of ICCM at scale.

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Preface
This document was prepared for an internal meeting of the inSCALE project. It does not aim to be a comprehensive systematic review of the topic. Rather, it pictures the landscape based on review articles and informal discussions with expert colleagues. This document is not an official inSCALE publication but rather an internal working document.

None of this document may therefore be quoted, copied or referenced.

Discussions about the content of this document are welcomed.
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Acknowledgements

In first place we would like to thank the sanitary authorities of the province of Inhambane for making it possible for us to accomplish this study in the province. Our gratitude also goes to the APEs because they accepted to participate in the discussions in focal group, in spite of the fact that they live far away from the headquarters of the districts where the field work was accomplished. Finally we would like to thank to Mr. Francisco Zunguza and Mrs. Hermínia Araújo, employees of the Malaria Consortium, attached to the Inhambane office, who coordinated the accomplishment of the field work.

Acronyms

APE : Agente Polivalente Elementar
ACS: Agente Comunitário de Saúde
SDSMAS: District Health Services, Women and Social Action (Serviços Distritais de Saúde, Mulher e Acção Social)
DPS: Provincial Directorate of Health
FGD: Focus Group Discussion
ICCM: Integrated Community Case Management
MISAU: Ministry of Health / MoH
SU: Sanitary Unit
Executive Summary

The efforts of the Agentes Polivalentes Elementares (APE) are fundamental in the improvement of the state of health of the communities', above all those communities with limited access to healthcare offered by the Ministry of Health. Sharing of this vision, Mozambique adopted the program of community health, that it has implemented since 1978 and, it is known as the National Program of the APE. However, during its implementation, that program of APE faced several difficulties that compromised its sustainability, driving MISAU to choose for its revitalization.

In this perspective, the present qualitative study tries to explore the potential factors that you/they can help to identify the opportunities and challenges for the program of APE and to improve the motivation, retention and acting of APE in the integrated handling of the cases in the communities. The exploration of those factors can be fundamental for the identification of the potential barriers for the motivation, retention and acting of APE, including the identification of the aspects that can be improved to assure the sustainability of the program of APE.

Basically, the study explored the aspects related with the regular supervision, motivation of APE, training procedures and content of the training, instruments and support materials for the work (necessary to improve the acting of APE), the community's involvement and recognition of APE, and methods and instruments used for the collection and flow of data.

The study was accomplished in four districts of the province of Inhambane, namely: Homoine, Mabote, Inhassoro and Zavala. The collection of data based on the Focus Group Discussions (FGD) method with APE, lifeguards and ACS. In each district a FGD was accomplished, in which a total of 3 - 9 people participated.

In this context, the main results of this study showed that APE are more involved in the actual treatment as opposed to the preventive component of the standards of MoH. Effectively, this situation is contrary to the strategy of MISAU that defends that 80% of the time of APE should be dedicated to preventive component and 20%, to healing component. Paradoxically, the content of the training, the manuals, the materials and the work conditions during the training and the communities' demand for curative rather than preventive measures doesn't support the APE who prioritize the preventive component.

However, APE say that the content, the materials and the training methodology that they received were useful and enough to provide them the initial motivation to work as APE and necessary knowledge to carry out their tasks with competence.

In relation to supervision, it was possible to verify that this is not regular and it is no more than the filling of the register book, and storage and control of the expiry date of the medicines, not emphasizing the support to preventive component, performance of the activities and motivational support of APE. APE are not involved in the supervision process, in other words, they have been more objects than subject of this process.
APE say that they don't receive incentives (financial and no-financial), and also the lack of appropriate working conditions, contributes significantly to their demotivation.

However, their perception on the usefulness and importance of their work in the improvement of the health of the communities, the perception of reduction of the morbidity mainly infantile, as a result of their work in the communities and the expectation of receiving a wage, have been important factors that motivate them to continue to work.

In this perspective, APE say that they need to receive incentives, continuous training and regular supervision, which, according to them, could influence positively in their motivation and quality of healthcare delivery in the communities.

The results of this study also show that, although the communities recognize and respect the work of APE, there is little involvement of the members of the community for the support of the activities of APE.

It was possible to verify also that, in general, APE don't know the usefulness of the data collated for them nor do they receive the feedback for the data that they send to the District Health Services, Women and Social Action (SDSMAS).

Therefore, the results of this study indicate that the factors that contributed more to the retention, motivation and actions of APE are related to the desire of serving their community, through the promotion of the best health practices and protection of their community's health, the respect and the acceptance of their work for the community and the expectations and benefits that they hope to obtain from the sanitary authorities in the future.

On the other hand, the study showed that the barriers or factors that have mostly demotivated the APE are the lack of incentives and the no availability of funds to support the transport costs for the movement to and from the headquarters of the district, in order to restock the medicine (KIT C) and to give the monthly records.

Based in the results described above, it was possible to establish recommendations, seeking to empower the factors that can be fundamental to improve the motivation, retention and action of APE.

Background

The APE made the fundamental efforts for the improvement of the state of the communities' health, especially the communities with limited access to the healthcare offered by the Ministry of Health. In sharing of this vision, Mozambique adopted the program of community health, that has been implemented since 1978 and, it is known as the National Program of the APE.
APE were trained with the principles of primary health care in mind, in other words, for them to develop practices of disease prevention at the community level. APE were also trained to render First Aid services and to recognize symptoms and signs of some common diseases in the country and to refer the sick to the closest healthcare unit to receive more appropriate cares or treatment.

Although it has been implemented since 1978, the program of APE faced several such problems as difficulties such as appropriate training for candidates to be able to meet the expectations and needs of the communities that they are meant to serve, difficulties in securing appropriate community involvement, deficiencies in the supervision and regular support of APE by the health authorities and difficulty of assuring the sustainability of the long term program, fundamentally due to financial and logistics.

In spite of all of the difficulties faced in the past by the Program of APE in the country, as referred above, MoH made the decision of revitalizing the Program as contained in PESS (2001)/2005-2010, PESS 2007-2012 and reinforced in the National Meeting for Community Involvement that took place in June of 2007. MoH considers APEs as a group that can play an important role in the promotion of health and prevention of diseases at the community level. On the other hand, MoH considers that the implementation with success of the revitalized program of APE could allow the extension up to about 20% of the actual coverage of the healthcare arrangements made by National Health System (NHS) to the Mozambican population.

In this perspective, the present qualitative study tried to explore the potential factors to help to identify the opportunities and challenges for the program of APE and to improve the motivation, retention and actions of APE in the integrated community case management in the communities. The exploration of those factors can contribute to the definition of innovative strategies, seeking to guarantee the sustainability of the program of APE.

1. Objectives

1.1. General Objective

- The general objective of this study is to identify the actual planned out solutions and alternatives with potential to improve the action, retention, motivation and effective use of the information produced by APE;

1.2. Specific Objectives

In specific terms, the study seeks:

- to identify those involved in the program of APE and in the integrated community case management in the community (particularly of the common childhood diseases such as malaria, pneumonia and diarrhea),
Working paper

- to identify the potential threats to the program of APE;

- to identify the aspects to be improved upon, and potential innovations to the program of APE;

- To explore the potential factors that can contribute to the sustainability of the program of APE and improvement of the procedures, plans and available resources for integrated community case management in the community.

2. Methodology

The study was accomplished in 4 districts of the province of Inhambane, namely Zavala, Mabote, Inhassoro and Homoine. The choice of those districts was based on the following representative characteristics for the province of Inhambane: number of existing APE in the district (minimum of 4) and the geographical location (North, Center and South). But in the district of Mabote, it was only possible to find 3 APE, however, this shortfall didn't influence the results of the study.

The collation of data based on methods of qualitative research. This way, four discussions were accomplished in focal group with APEs. In each district a discussion was accomplished in focal group, constituted by a total of 3 to 9 APEs and first aid personnel/ACS, for each group. The inclusion of first aid personnel/ACS in the study was based on the presupposition that these APE develop the same activities in the communities and both use the KIT C for that, for the purposes of the present study, the term APE will be used to identify APEs, first aid personnel and ACS.

After the collation of the data its transcription and subsequent analysis were effected. In the analysis of the data, the first step consisted of analyzing and classifying the textual data in different themes that were of interest in the study. Soon afterwards, the data having been classified according to themes, were synthesized and described in form of sections of this report. The expressive and significant arguments presented by the participants of the study during the discussions were extracted for them to be used as citation in the report.

3. Study Findings

The main results of the study are contained in this chapter. Thus, the study tried to explore aspects related to the general characteristics of APEs, the resources that is at their disposal, the characteristics of their work, their experience in relation to training and supervision, the instruments and use of the data collated.

3.1. General characteristics of the participants in the Focus Group discussions

As referred to above, a total of four discussion sessions were accomplished in focal group (DGF), corresponding to a group of focal discussion for each district (Zavala, Homoine, Mabote and Inhassoro). In these sessions, a total of 22 persons participated, of which most had the category of APE (77.3%) and the remaining (22.7%) were first aid personnel/ACS, as illustrated in the table below:

<table>
<thead>
<tr>
<th>District</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zavala</td>
<td>8</td>
</tr>
<tr>
<td>Homoine</td>
<td>7</td>
</tr>
<tr>
<td>Mabote</td>
<td>3</td>
</tr>
<tr>
<td>Inhassoro</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       | 22                     |


Table 1: Distribution of APE/first aid personnel per District

<table>
<thead>
<tr>
<th>District</th>
<th>APE</th>
<th>Lifeguards/ACS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mabote</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Zavala</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Inhassoro</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Homoine</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>18 (77.3%)</td>
<td>5 (22.7%)</td>
<td>22 (100%)</td>
</tr>
</tbody>
</table>

As regards to the socio demographic characteristics of the participants in the sessions of the FGD, it was established that the ages varied between a minimum of 28 years-old and 75 year-old as maximum. The average age therefore was 43 years. In relation to their sex, it was observed that most of APE are male (63.6%). The level of education of APE was noticed to be between the 4th and 5th grades (68.3%). The remaining, 18.2% completed 6th grade, 9%, attended up to the 7th grade and just one APE attended school up to the 8th grade (first year in the secondary school).

It was also possible to verify that most APE (63.6%), have been in this activity for over 15 years.

Table 2: Characteristics of APE.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>63.6</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤35 years</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>36 – 45 years</td>
<td>10</td>
<td>45.6</td>
</tr>
<tr>
<td>46 – 65 years</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>Age Group</td>
<td>Number</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>----------------</td>
</tr>
<tr>
<td>&gt;65 years</td>
<td>2</td>
<td>9.0</td>
</tr>
</tbody>
</table>

**Academic extent**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th grade</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>5th grade</td>
<td>7</td>
<td>31.9</td>
</tr>
<tr>
<td>6th grade</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>7th grade</td>
<td>2</td>
<td>9.0</td>
</tr>
<tr>
<td>8th grade</td>
<td>1</td>
<td>4.5</td>
</tr>
</tbody>
</table>

**Work time**

<table>
<thead>
<tr>
<th>Work Time</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 - 26 years</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>19 – 15 years</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>10 – 6 years</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>4 - 1 year</td>
<td>4</td>
<td>18.2</td>
</tr>
</tbody>
</table>

### 3.2. Use of the KIT C

In respect to the official training and use of the KIT C, the participants of the discussion sessions in focal group stated that they received an official training to carry out their tasks. The 18 participants that declared to be APE received an official training for APE that had the duration of 6 months and it was administered by MISAU. On their own part, the participants that declared to be first aid personnel/ACS, received a training with a duration that varied from 30 to 45 days. Those trainings were administered by SDSMAS and their partners at level of each district.

In agreement with the participants of this study, all know what KIT C means and they said that they have been using the KIT C since they began to carry out their activities in the communities. Until the date that the group discussion took place, all of APEs said that they were to used to the KIT C, although in the district of Homoine it was mentioned that there was rupture of the KIT C stock, for the month of August.

To that respect, the participants of the FGD of Homoine said that the stock out limited significantly the discharge of their activities for that month. The main reasons for the stock out, was highlighted as logistics difficulties, mainly lack of transport, which necessitated the extension of the plan of distribution from the provincial to the district level.
3.3. The work of APE and Integrated Community Case Management (iCCM)

The works carried out by APE in the communities are varied and the lectures are about prevention of diseases, promotion and education for the health for the treatment of diseases such as headache, diarrhea, malaria (except complicated cases of malaria), conjunctivitis, scabies, treatment of wounds, deparasitation and vitamin A supplementation. Referring cases that are beyond the basic healthcare level of the APEs is also part of their responsibility, for example, complicated malaria, acute diarrhea, malnutrition and tuberculosis.

3.3.1. Positive aspects of the work in the APE perspective

In general, APE recognize that their work in the communities is positive, although they have recognized that some difficulties and embarrassments that they have been facing have been influencing negatively the discharge of their duties.

In their perspective, APE affirmed that the action of health promotion and disease prevention, the treatment of diseases, the acceptability of their work on the part of the communities and the usefulness of their activities in the communities, are the main positive aspects of their work. Another important point that was referred to as positive is that the community recognizes the importance of APE because they are ready to respond to their health needs, at any moment.

3.3.2. Main Difficulties faced by APE in the acting of their work

In spite of the positive aspects described above, APE have been facing some difficulties in the discharge of their work in the communities, such as:

1. the lack of support material for their activities such as basin to wash the hands, bucket, chair for the people to sit, soap to wash their own clothes and flashlight or lamp for illumination;
2. irregularity of distribution of the KIT C, mainly in the district of Homoine;
3. non-existence of a register book of the consultations;
4. the lack of financial resources to support the transport costs for the delivery of the monthly records and summary of the statistics and to receive the KIT C in the headquarters of the district (US with reference to the district level) and to transport back to the community;
5. non-existence of community health post to attend to the patients;
6. non-existence of an appropriate place to store the medicines;
7. the weak involvement of community leaders and poor community support for the activities of the of APE;
8. weak or non-existent relationship with health professionals.

Regarding the difficulty of supporting the costs of the trip to SU, in order to give the monthly statistics and to lift the KIT C, one of the participants said the following:
"The authorities of health know that they don't pay us wage but every month we are forced go and deliver the monthly statistics and to lift the KIT C in the headquarters of the district, which is very far. To finance the expenses of the trip, I always have to borrow money from the neighbours. To arrive there, I have to take 3 buses and the trip takes a long time. Besides paying my passage, I am also forced to pay for the load (KIT C). And when I am delayed for up to 15 hours in the Sanitary Unit, I lose a chance of getting a bus to return and I am forced to arrange a place to sleep. I am paying all those expenses alone. This isn't fair (...)

One of the main difficulties for APE is also the lack of a community health post to serve the patients. Regarding that, one of the APE that participated in the FGD which took place in the district of Homoine said the following:

"Because of the lack of an appropriate place for consultations to the patients, I have been using the balcony of a store for this. And, the place is not suitable, and there is no furniture for the consultations, I see the patients while standing up."

Together with the difficulty referred above, APE said that the lack of an appropriate place for the storage of the medicines has also been a great limiting factor. As an alternative, most of the participants have resorted to the storage in their own house, without the regard for the minimum conditions recommended for the storage of medicines, besides the lack of safety from the resident members of the family, especially, the children.

Another difficulty mentioned by APE is the alteration of the content of the kit C, without previous information for the use of the introduced medicines (for instance, recently Mebendazol was substituted by Albendazol, in the KIT C, which was not accompanied with a previous information about the reasons of that substitution and the reduction of the amount of the new medicine in the KIT C according to the participants). As a consequence, some medicines end earlier, which leads to the suspicion on part of the population thinking that APEs remove the medicines to sell at the informal market.
In this perspective, APE were unanimous in affirming the difficulties and the embarrassments that they have been facing not just in their actions but as well as, contributing to their demotivation over a long time.

3.3.3. Solution to the difficulties in the perspective of APE

As a suitable way of solving the difficulties for them, APE defend that 1) they should create a local fund for the support of the transport costs; 2) they should receive the KIT C and deliver the statistics in a US closer to their residence, because according to them, it will help to reduce the transport costs and the duration of the trip; 3) a monetary incentive should be made available; 4) the communities should be mobilized mainly to support APE in the construction and maintenance of the community health post; 5) make a register book standardized by MoH readily available; 6) provide lamps and flashlights for illumination readily available; 7) to increase the amount of medicines in the KIT C; 8) to strengthen the mechanisms of the community leaders' involvement and managers of health at all of the levels, in the support of the APE activities.

For the operationalization of the measures of their proposals, APE referred that they should be involved, therefore their active involvement will permit them to find local solutions and not predefined solutions imposed out of the context. Still in agreement among APE, their involvement in the solution of the difficulties that they have been facing can be in the form of consultations and the inclusion of the APE representative in the team of the workforce, to assure that all of the proposed solutions are in agreement with the reality and to the expectations of the group.

However, APE think Provincial Directorate of Health of the Province of Inhambane (DPSI), SDSMAS, district coordinators of the program of APEs, community leaders and the partners of MISAU that work in the area of health at the district level should be involved in the resolution of the difficulties and embarrassments that they face during the discharge of their activities.

Besides the inherent potentials referred above, APE defend the involvement of political leaders, including political-administrative authorities, the teachers, religious leaders and the healers, as they are influential people in the communities and that can mobilize the population to help to support the
activities of APE in the communities. According to APE, these intervening ones can also exercise their influence near the competent organs (MoH, DPSI, SDSMAS) and partners, for us to reinforce the support of the activities of APE.

Although in the past, the involvement of the intervening people above mentioned was very weak or in other words wasn't felt among the APE; APE think they are willing to influence positively the solution of the difficulties faced by APE. According to them, what is supposed to be done is the promotion of advocacy for the activities for that group-objective, in order to feel mobilized to exercise their influence on promoting the performance of APE in the communities.

3.4. Knowledge of the changes effected in the program

The program of APE has been implemented in Mozambique from 1978, and the difficulties pointed out by the APE are known by the sanitary authorities, because they are some of the main embarrassments that took MoH to decide to revitalize the Program of APE.

However, in spite of some APE saying that they heard talk about the program of revitalization of APE, all of APE that participated in the sessions of FGD said that they don't know about the changes/modifications that were done in the program of APE and they revealed a total ignorance of the meaning and importance of the integrated community case management.

3.5. Supervision of APE

According to APE, the supervision visits that they have been receiving consists of the verification of the registers, verification of the expiry date of the medicines and verification of the conditions of storage of the medicines. In this perspective, it was possible to verify that the supervision is not focused in the way APE carry out their activities, instead it is just centered in the form in which the registers are filled out and way the medicines are stored.

However, APE affirmed that the supervision that they have been receiving is positive, because in a certain way they help to improve the process of registration of the consultations, to clarify the aspects of conservation of medicines and control of the expiry date.

In relation to frequency of the supervision, most of APE said that the supervision visits that they receive are irregular, in other words, the supervision is made on average 2-3 times a year. Just APE of the district of Homoine, said that they receive the supervision in a regular way, with an interval of 2 months.

To improve and make the supervision more effective, APE that participated in the discussions which took place in the districts of Zavala, Inhassoro and Mabote said that they should reduce the interval between the supervision visits, at least to an interval of two months, to make available a supervision calendar, to increase the period of time of each supervision session and to include the observation of the actions of APE (for instance: the service form, the prescription of the medicines and the way of promoting messages and education for health are transmitted to the population).
The concern for the improvement of the supervision activities is strongly evident in the
pronouncement of one of APE that participated in the session of FGD of Inhassoro:

“In spite of being positive I feel that the supervision visit besides being irregular, doesn't include
all the components of our work and it lasts for a short time. It would be better if they to
observed how I serve the people.”

On the other hand, the need of post-supervision meeting was suggested, where all of APE at level of
the district should be present to do a assessment of the supervision and exchanges of experiences
related to the verifications done by the supervisors. According to them, that meeting should be
guided by the supervisors and the district coordinator of APE.

Another issue raised was for the inclusion of a representative APE to accompany the supervisors in
the supervisory visits, because that can help to create better relationship between APEs and the
supervisors as well as bringing them closer to one another.

In relation to the community's inherent potentials that can play an important role in the supervision,
APE said that community leaders, religious leaders and teachers can be of a fundamentally important
influence in the supervision of the activities of APE in the community.

To that respect, APE of the district of Inhassoro, said that the teachers could be involved in the
process of verification of the completion of the registers and verification of expiry dates of the
medicines in the period that there is no supervision. However, there was no consensus as for the
teachers' inclusion in the supervision activities due to lack of specific training and of incentives and
the teacher's occupation, which can bring problems of sustainability.

In general, APE think the these persons mentioned above can be involved during the supervision
visits for them to monitor the process and to create a basis for the harmony in the discussion and
exchange of experiences at the community's level, in relationship the supervisors' verifications and
discharge of the activities of APE.

3.6. Training of APEs

Most of the participants in the sessions of FGD received the training of APE and the remaining ones,
received training as first aid personnel and ACS. In this context, APEs received a training that had the
duration of 6 months, while the first aid personnel and ACS had a training that had the duration from
30 to 45 days. However, in general terms, the contents and the training methodologies were similar,
moreover, all carry out similar tasks in the communities and they use the KIT C.

The training given to the these community health workers were centered mainly on health
education, identification of signs and symptoms of diseases, sanitation of the environment and
treatment of some diseases in the such communities as (headache, malaria, diarrhea, conjunctivitis,
treatment of wounds, scabies and deworming).
During the training, APE said that they received training manuals, pamphlets, serial albums and kits of instruments to make sanitary pads and instructions on how to use them, which helped them to build and to consolidate their understanding on health and disease at the community level.

In general terms, APE said that the training that they received was good and enough because until today, after many years, they are able to carry out their tasks without great difficulties.

In the view point of APEs the methodology applied in the teaching process and learning, the manuals and support materials the available training, the dedication and performance of the trainers and the duration of the training, were the main positive aspects of the training.

Other positive aspects identified by APEs during their training were the learning of the identification and delimitation of the area of health, distribution of T-shirts and caps, sporting activities and of other recreational activities, and good relationship among the trainers and between the trained and the trainers, without distinction of sex.

On the positive aspects of the training received, an APE of Homoine declared as follows:

"During my training I learnt to lower the temperature of the body in feverish conditions, using home-made materials such as the wet towel and water. That was very important because I didn't have any knowledge of that until today that knowledge helps not only my family, but my community's members as well when they have fevers."

However, APEs said that since they received the initial training, they haven't receive any other one and they would like to receive continuous training/empowerment to help in according to their own words a better discharge of their duties in the communities.

On another aspect, APE said that they
would like to be involved in the improvement of the content of their own training since the realities of life and health keeps changing it becomes necessary to include new happenings in the training manuals and other support materials for training.

In this perspective, APEs think their involvement in the improvement of the content of the training will be important to adjust the training materials to the reality, through contributions from their experiences and practical examples of daily life.

According the APEs, community leaders may also be involved in order to exert their influence within the SDSMAS in order to introduce activities of continuous APE training and adjust the content of training through practical examples of the reality in communities where the APEs conduct their work.

3.7. Motivation and factors of dissatisfaction related to the APEs’ work

3.7.1. Motivational Factors

Understanding the factors that influence the motivation of the APEs is one of the key factors in identifying areas for interventions in order to improve performance, retention, and sustainability of the APE programme in Mozambique.

According to the APE, the main motivation is personal satisfaction in providing a useful service to the community. They said they were motivated to carry out their work because the its impact has been reflected in the awareness of the communities regarding the protection of their health from disease, reducing child morbidity, improving access to basic health care and adherence of the population to consultations with the APEs.

The APE also reported that the initial training they received, the expectation of receiving a cash grant, respect, and recognition of their work by communities and good relationship with the district coordinator of the APE programme, are important factors that make them continue to work as APE.

In addition to the motivational factors mentioned above, the study also explored other types of non-financial incentives and the potential influence of these incentives in keeping the motivation levels of the APEs

In this perspective, the APE reported that they if they receive continuous training, uniforms, T-shirts, caps, and briefcases with the program logo and ID cards it would be very encouraging, especially because it would mean recognition of the work they do and would increase its acceptability in communities.

The APE were also unanimous in stating that the establishment of monthly meetings with the district coordinator of the APE would be constructive, because it would be a good opportunity to evaluate the performance of the APE during the previous month and allow the exchange of experience
between the APE. According to them, the establishment of these monthly meetings would be essential to motivate them and ensure compliance with its commitment to work in communities.

3.7.2. The APEs’ motivation barriers.

Despite the motivational aspects above, the APEs also indicated that there are many factors of discourage. They said that the main discouraging factors are:

1) Lack of financial and non-financial incentives;
2) Lack of funds to support travel expenses for SDSMAS, where they deliver the monthly statistics, and pick up KIT C;
3) Lack of training;
4) Supervision is irregular and incomplete;
5) The weak support from the communities for the APEs work.
6) The lack of certainty of the future in relation to their work.

All the APEs stated that they do not receive any monthly financial incentive, and it was unanimous among all of them that there is a need for that financial incentive, it is one of the main factors that negatively affects their motivation, regarding this, an APE stated:

“I am the head of the family but I don’t receive a salary or any financial incentive to support my family. So I only work for part of the day, while the other part of the day I spent carrying out activities related to my own needs. If they gave us a monthly allowance, we would be more motivated and take more time to play our role as APEs”

For lack of funds for the transportation costs, an APE from Inhassoro stated the following:

“Although our work is recognized by the health authorities, we continue to face the same problems over the years. We have had several meetings where we ask to be given the transportation money but we haven’t been given any up to today. How can we be satisfied if one of our main difficulties is never resolved? This is a constraint and must be resolved urgently”.

Uncertainty about the future of their work has also created frustration and discouragement among the APEs. Regarding this, one of the APEs stated:

“I work as an APE since 1993 and 17 years have gone by. Up to now I am of old age and I am still active despite discouragement from my family and friends. But I do not know what will become
of me when I no longer have the strength to play my role. If so far no encouragement has been given, will it ever be given?”

Other factors mentioned by the APE have been discouraging: a medicine shortage, dressing material, gloves, and chlorine for water treatment, poor treatment of health professionals in health facilities especially in the pharmacy, where you deliver the number of consultations effected in the previous month in order to receive another KIT C, the lack of registry books, uniforms, ID cards, or badges.

In this context, the APE stated that:

1) The provision of a financial incentive on a monthly basis
2) The provision of a fund to support the transport costs to pick up the KIT C and deliver the monthly statistics
3) The distribution of a uniform, hats, and ID cards or badges
4) Continuous Training
5) Regular Supervision
6) Increase in medicines and provision of band aids, gloves, and pens
7) Patterned registry book
8) Larger involvement from part of the community, in supporting the APE
9) Performing of monthly meetings with the APEs coordinator
10) Would be fundamental to increase their motivation and improve their progress

This way, the APE defend that they should be involved in the motivation process and improvement of the performance of their work because it would be a good opportunity for them to expose their expectations and discuss the ways in which to improve their own motivation. According to them, this
involvement can be performed through consults and creation of discussion groups about the vitality of the solution to their difficulties and better forms and strategies to maintain the APE motivated.

On the other hand, the APE stated that the community leaders should also be involved in these discussion groups because they know what are the APE working conditions in the communities and they can help identify better incentives that are appropriate for the reality of the county.

3.8. Data Use
The data collected by the APE in the communities are important for the planning of the medicine distribution and quick response of the health sector in case of outbreak of epidemics in the communities. The comprehension of the methods and instruments used in the collection of data and the form which the flow of information is directed, they are important not only to support the activities referred to above, but also to evaluate the threats and strengths of the improvement in the performance and motivation of the APE.

According to the APE, the process of data collection consists in the data registry referring to the patients’ personal information (age, sex, and provenance), data, and reasons for consultation, diagnosis, prescription, and medicine dosage. For the effect, the APE affirmed that currently they are not using registry books and monthly summary files.

In the communities, the APE collect data and fill it up in a routine form in the registry books. Previously, this registered data was aggregated in a monthly summary file and sent by the APE themselves to the SDSMAS. The monthly summary file is sent on a monthly basis, in other words, up to the 1st of each month.

The APE mentioned that, in general, the monthly summary file is easy to fill in, although some may have mentioned that they are finding some difficulties in filling in the component referring to the dosage of anti-malarials (COARTEM).

Although all APE said they use the same monthly summary files, the registry book varies from APE to APE for there is no patterned registry book for the APE.

As an alternative, some APE stated that they have bought notebooks out of their own money to be used as a registry book and others mentioned that they register the data in A4 sheets of paper, as long as they are able to register the necessary indicators to fill in the monthly summary file.

Despite this, most of the APE mentioned that they do not know what the SDSMAS do with the collected data. Only a few APE in Inhassoro think that the data collected is used to evaluate the tendency of disease prevalence in the community and are sent to the DPS, where a provincial report is made on the health situation at the level of the communities.

About the difficulties the APE have faced regarding the filling in of the registry files/books, these refer to the introduction of new medicines, principally, the antimalarials, and are not accompanied
with the changing of the respective field in the monthly summary file (for example, the dosage register of COARTEM), which creates difficulties in the correct filling.

Besides that, the APE said that the lack of a patterned registry book and pens, has also creates some constraints, in the aim of data collection.

The APE also stated that they do not receive feedback of the data they collect on a routine basis. In this context, they defended that it is necessary to receive data on the evolution and tendencies of the health state of the communities where they work. According to them, the retro-information would be useful to help them improve the messages on sensitization in the community, and it would be fundamental to increase the commitment and motivation to guarantee the quality of the data collected.

3.9. Recognition of the community involvement.

The community's support and recognition regarding the APEs work is essential to ease the APEs work, assure their motivation levels, and guarantee the sustainability of the health interventions based in the community.

According to the APEs, they feel they are respected and their work is recognized by the communities. They indicated that they know this because people say they like their work and publicly acknowledge the importance of their work, especially in community meetings.

The APEs said the recognition of their work by communities is also reflected in the fact that most people have come looking for their services before going to the clinic and traditional healers.

Normally, the APEs have raised awareness and mobility of the population to use the services they provide before going to traditional healers or “maziones”. However, they believe that there are still people that do not trust their work.

Despite the respect and recognition that communities have in relation to EPAs, they also mentioned that the communities do not support their work. According to the APEs, the weak involvement of the community leaders and community support of their activities is one of the major constraints they face while performing their work.

Regarding this, some of the APEs that participated in the discussions performed in the Homoine and Inhassoro districts, they said that the communities do not want to construct the community post, because they have built one in the past and that is currently a responsibility of the government; and that when they recur to the community leaders to help them mobilize and sensitize the population in order to construct the community post, the leaders do not act.

For that, they suggest it is necessary to strengthen the sensitization mechanisms of the communities not only to participate in consultations with APEs only but also for the communities to support their work. This way, the APEs believe that the community, religious, and political leaders, including
teachers and other influent people in the communities, should be involved in the raising of awareness and disclosure of messages about the promotion and education about health, use the health services provided by the APEs to support their work.

In this context, they defend that the sensitization of the communities should be conducted simultaneously with the structural changes related to regular supervision, continuous training, raise in the medicine quantity of KIT C and the availability of incentives.

4. Conclusion

This qualitative study sought to identify and explore the threats and opportunities of the APE program with the potential to improve retention, motivation, performance and use of information, in the perspective / perception of the APE themselves.

According the APE profile notes, the majority are residents of the communities they serve, are male, and have an academic extent between the 4\textsuperscript{th} and 5\textsuperscript{th} grade in school. The average age is 43. It was also noted that most of the APE are holding the business for over 15 years.

The activities that they perform in the communities are not according the official APE program profile because they perform more of curative activities that the main health promotion and education activities (that should be their main activity). Despite this, all APEs declare that they are currently using the KIT C.

In a general form, the APE recognize their work in to communities to be positive, because they feel they are being useful in health promotion and reduction of morbidity in their communities. Despite the positive aspects described above, the APE said they have faced some difficulties in the performance of work in the communities, such as; the lack of support material for their activities, inexistence of a consultation registry book; lack of resources to attend to patients; lack of existence of an appropriate place to store medicines; and the poor involvement of the community leader and the community in supporting the APEs’ activities.

The results of the study show that the form in which supervision is conducted has negatively influenced the APEs’ performance and motivation. According to the majority of APEs, the establishment of regular supervision visits focused in all the components of their work will increase their motivation.

However, the main results of this study show that the factors which have most contributed to retention, motivation, and performance of the APEs, are related with the desire to serve their community, the respect, the accepting of their work by part of the community, and the benefits they expect to obtain from the sanitary authorities in the future.

Although there is strong evidence that the financial and non financial incentives have influenced the behaviour and the attitude of the community health workers in a positive way because they are an
important mechanism used to reward, retain, motivate, and at some point improve their performance, it was possible to say that, in a general form, the APE do not receive incentives.

Although the motivational factors related to the values showed a strong commitment towards function development and retention of the APE, it was also possible to verify that the lack of financial incentives is an important discouraging factor of the APE. It was observed that the financial incentives (example a monthly salary) should be integrated with other non financial incentives such as uniforms (T-shirts and caps) badges, ID cards, continuous training and regular meetings among the APE, where they can exchange experiences.

The study also examined the potential support performed by the involvement of the community in the motivation and performance of the APEs. Although, even with the recognition of the APEs’ work by the community, it was noted that the support of these activities by part of the community is very limited, which is, according to the participants of the study, it negatively influences their motivation and the performance of their activities.

Another aspect mentioned indicates that although a patterned registry book by the MoH and the fund to support the transport costs of the APE to deliver their statistics do not exist, the APE have routinely collected their data in the community and have submitted them monthly to the SDSMAS. Even so, the majority of APE does not know what the data is used for and don’t receive feedback of said data.

So, the APE said that to help improve their development in the communities, it is of top priority to make available a financial aid to pay for the transport costs of the KIT C and the delivery of statistics at the SDSMAS, increase the quantity of medicines in the KIT C (for example : paracetamol, albendazol, and clotrimoxazol), increase the curative medicines in the KIT C (for example: band aids, anti-septic and tincture) perform continuous training courses, offer financial incentive, uniforms, ID cards, supervision visits should be regular, make materials such as the patterned registry book, pens, lamps and flashlights to supply light during work performed at night, and mobility of the communities in supporting their work.

In this context the APE said that the urgent solution to the aspects referred to above would help improve their performance and increase their motivation.

5. **Recommendations**

The study allowed us to indentify the potential efforts to strengthen and improve the levels of motivation, retention, performance, and data use. This being so, the following steps are recommended as methods in which said efforts can be strengthened:
1) Supply enough guidance for the APE to prioritize the health promotion and education activities in the community. This intervention can be supported by means of continuous training and regular supervision (every 2 months for example);

2) Create a fund to support the APE transportation costs to deliver the monthly statistics and get the KIT C, and to assure the sustainability of that intervention it is necessary that the monthly statistics delivery and the picking up of the KIT C be done at the referenced unit of the APE health area, which will significantly reduce the transportation costs;

3) Adopt a regular supervision of the APE work and the supervisors should spend enough time with the APE. On the other hand supervision must be effective, meaning it should include the entire APE work components, with emphasis on observing the way the APE performs his work.

4) Evaluate and enforce pedagogical training material to aboard the various aspects of the community’s health with base on reality and experience of the APE. During the production of said materials they should involve the APE to contribute through consultations;

5) The APE consider financial incentive as an important motivational factor, so the sanitary authorities should search for partners to support this intervention. Even though, the availability of these financial incentives should match the non financial incentives such as : continuous training, T-shirts, caps, badges, promotion of regular experience exchange meetings between the APE;

6) Sensitize the communities and the local leaders to supply moral support and other kinds of support to the APEs, accompany the implementation of health practices promoted by the APE, promote better health practices and create a discussion forum about the health promotion between the APE and the members of the communities;

7) The health authorities should supply patterned registry books for the APE, inform the APE about the utility and finality of the data they collect, and give feedback on the same.