# Request for support: scaling up mobile learning solution Leap in Ethiopia

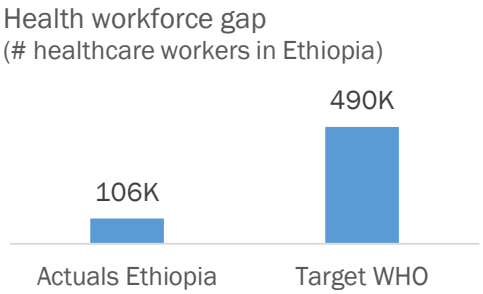
Leap is Amref's mobile learning application, that trains health workers through basic mobile phones, in a cost-effective way. As part of the government's comprehensive COVID-19 approach, Amref has been appointed to roll out Leap to train health workers on COVID-19 in Ethiopia. Thanks to generous donors, Amref has already has been able to repurpose funds from existing projects to set up the initial Leap infrastructure in Ethiopia, specifically for the COVID-19 response, and has started to train over 9.000 health workers with Leap on COVID-19. The increased urgency to implement Leap for the COVID-19 response further supports Amref's strategy to implement Leap to build the capacity of primary health workers in Ethiopia.

We would like to request support from the Elsevier Foundation in scaling up Leap in Ethiopia, beyond the current COVID-19 response. This document outlines the challenging situation in Ethiopia, how we aim to leverage Leap, and the financial resources we require to do so.

## Ethiopia's healthcare challenges

Ethiopia has a large, predominantly rural and subsistence agriculture population of 115 million, with poor access to safe water, housing, sanitation, food and health service. The government has made significant investments in the public health sector that have led to improvements in health outcomes. Nevertheless, communicable diseases like HIV/AIDS, TB, malaria, respiratory infection, and diarrhoea remain a serious challenge in Ethiopia. High fertility rates, and low contraceptive prevalence continue to drive a rapidly increasing population in Ethiopia. With a growing middle class, Ethiopia is facing an increase in non-infectious diseases such as cancer, diabetes, heart diseases, hepatitis B&C and high blood pressure.

Despite the efforts made in the past two decades to increase the number and skill mix of health work forces, Ethiopia still has a very low health workforce density, specifically Medical Doctors, Health Officers, Nurses and Midwives.



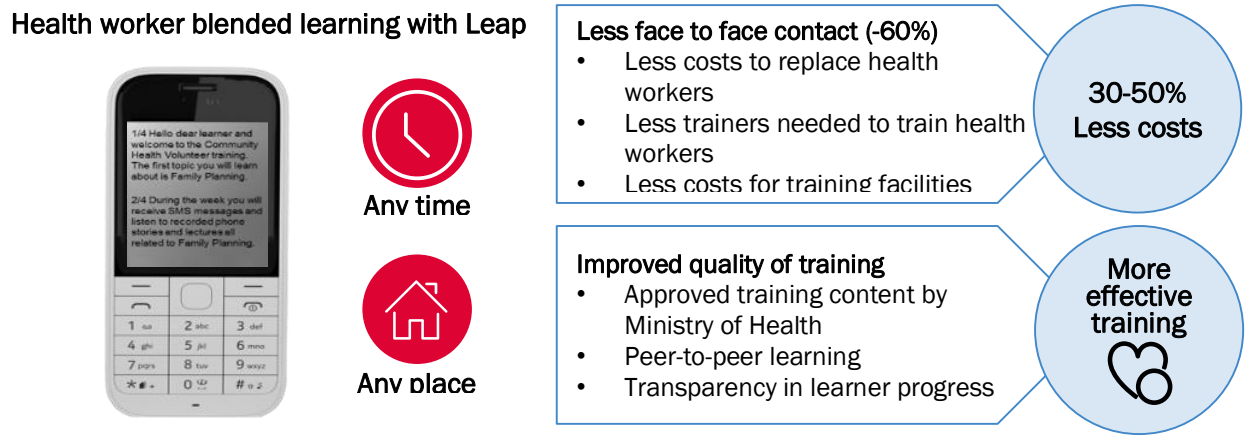

This means, with the ever-increasing population, the country needs to produce over 30,000 health workers (Medical Doctors, Health Officers, Nurses and Midwives) every year for the coming 12 years to achieve universal health coverage by 2030. Nonetheless, the current production capacity from all health professionals training institutions for doctors, health officers, nurses and midwives is not more than 10,000 per annum.

Health extension workers, the frontline health workers that provide primary care in Ethiopia, can fill a part of this gap. To that end, the Federal Ministry of Health is seeking to upgrade and increase the number of HEWs, particularly in remote areas, and address concerns about HEWs' education and practices.

## Our solution: train community health workers through mobile learning

The traditional face to face learning practices will not be able to train health extension workers at the pace and scale required to fill the health workers gap in Ethiopia. By deploying Leap, a basic phone mobile learning solution, Amref can train health workers rapidly, at scale.

Thanks to the setup of Leap in Kenya, health outcomes improved, such as an increased number of children that are immunised, and a higher number of skilled deliveries. This impact is driven by the following Leap benefits:




With more than 90 percent of Ethiopia's geographic area having access to mobile service, the mobile phones offer tremendous opportunities in efficient health training delivery.

The impact that can be realized by training health extension workers is tremendous. Two HEWs are assigned to one health post to serve a population ranging from 3,000 to 5,000 people in a village (kebele). By training for example **7,500 health workers**, a population of more than **11 million** can be reached.

## Leap & COVID-19

Based on the rapid developments of COVID-19 in Kenya, the Kenyan government asked Amref to use Leap in informing community health workers about COVID-19, and we are successfully doing so. In the past month, we have already trained over 60,000 community health workers on COVID-19. Thanks to our close partnership with the Kenyan Ministry of Health, and familiarity of health workers in using Leap, we could deploy fast and make a direct impact.

Based on our outstanding reputation in Ethiopia, strong connections to the Ministry of Health and broad network on the ground, the Ethiopian Ministry of Health has asked Amref to do the same in Ethiopia, and to deploy the COVID-19 module of Leap to its different cadres of health workers: frontline health workers, community health workers and point of entry surveillance officers, to name a few.

Currently, Amref is using internal funds to make a start in the deployment of the COVID-19 module of Leap in Ethiopia, and has reached out to existing donors to raise much needed funding.

## Our track record

We combine our innovation Leap, while building on our position as Africa's leading health NGO with a community based approach. Each year, we reach around 12 million people through programmes across 35 African countries. We work closely with communities, Ministries of Health, the private sector, other NGOs, and the World Health Organization (WHO) to ensure we create change at every level. Founded in 1957, Amref has years of experience of **training health workers**, the backbone of support to health systems. Every year, Amref trains thousands of them, ranging from Community Health Volunteers (CHVs), to lab technicians, nurses, midwives, doctors, and government staff. Our training covers infection prevention and control, as well as guidelines on laboratory testing and diagnosing disease. With the training of health workers we are also leading in **prevention.** That is why we play a pronounced role especially in the current phase of the COVID-19 outbreak in Africa.

## Setting up a social enterprise

In order to realize impact at scale, Amref aims to set up a social enterprise for mobile learning in Ethiopia.

In the last ten years, the Ethiopian government has been training health workers at scale, however mostly in a traditional manner. There is no dominant mobile learning solution yet in Ethiopia, and Amref recognizes the opportunity in the market for a strong, proven mobile learning solution. In order to leverage the geographic coverage and scale the different NGOs and corporates have in Ethiopia, and to generate additional revenue streams, Amref aims to sell Leap to different government bodies, other NGOs and corporates. The best way to do so is setting up a social enterprise.

Setting up a social enterprise in Ethiopia will allow for additional financing opportunities, while also requiring pionering efforts from Amref. Favorably, government reforms in the investment sector are taking place to allow for a more friendly investment landscape. The telecom market is opening up, and mobile and internet penetration are on the rise.

At the same time, the social enterprise sector is still in its infancy in Ethiopia and restrictions on foreign direct investment still exists. The privatization of the telco market has been announced already twelve months ago, but actual operationalization still has to happen. Therefore, currently, Ethiopian Telecom is still the only, government owned, telco in Ethiopia. The only way to enter the market is through the government, and therefore the Amref team has been working closely with the government to research how Leap needs to be adjusted to become usable in Ethiopia. Small scale tests are being executed, and technical integration seems possible. Leap will be integrated into Ethiopian Telecom's infrastructure, and the costs for this will be covered by the Ministry of Health.

The local team still needs resources to set up the social enterprise and create a revenue model that works in the local context. The revenue model needs to account for future anticipated changes in the telecom sector, and will allow the team to generate a return that can flow into further scalign up Leap, and making it financially sustainable. In addition, the legal setup, selection of a dedicated team and business development need attention in the next 12 months, in order to set up a solid social enterprise.

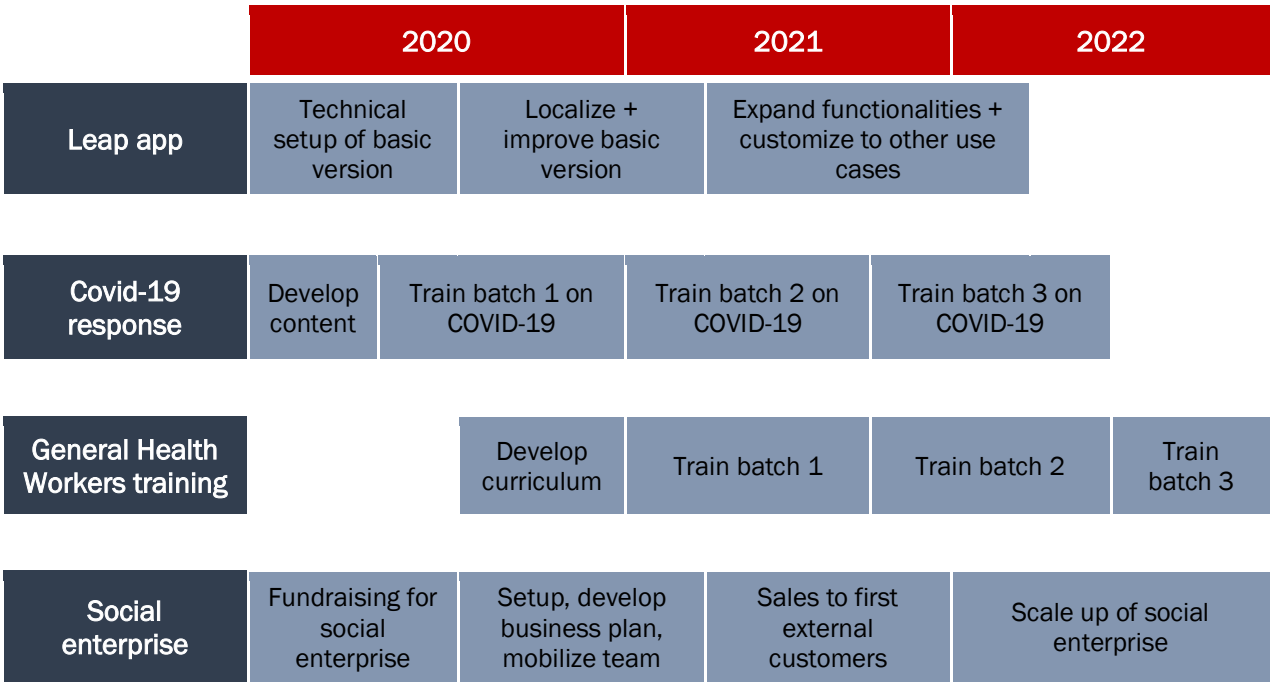
Amref Ventures will support in developing the social enterprise, setting up partnerships and raising additional funding for scaling up.

## Request for support

We would like your support to scale up Leap beyond COVID-19, in order to structurally improve health care in Ethiopia. Our activities for scaling up Leap in Ethiopia are:

- Deploying Leap for the COVID-19 response
- Design the scale up of Leap in Ethiopia to 40,000 health workers through establishing a social enterprise
- Mobilizing (funding) partners to scale up Leap in Ethiopia
- Generate a mandate from the Ministry of Health for scaling up Leap in Ethiopia – Note: since the last proposal, this mandate has been granted by the Ministry of Health from Ethiopia.

## Timelines*




**Some activities have already started*

## Annex 1 – budget

| Type of costs | Totals | |
|---|---|---|
| **Technology costs** | € | 15,925 |
| **Program implementation costs** | € | 161,654 |
| **Training costs** | € | 157,694 |
| **Social Enterprise Costs** | € | 86,364 |
| **Totals** | € | 421,637 |

Technology costs include:

- Platform Setup and Operationalization
- Short Code Rental Fees
- LEAP instance SLA
- SMS Aggregator SLA
- Twilio Voice Integration
- SMS /IVR service for Trainees on COVID 19 Content
- Internet & Telephone service

Program implementation costs include:

- Implementation team, based in Ethiopia (4-6 FTE / 13 employees)
- Facilities and supportive materials, office rent etc
- Monitoring and evaluation capacity

The trainings that will be provided to roll out Leap are:

- Training 7: Sensitisation of key stakeholders (MOH, development partners, implementing partners etc.) on Leap platform and upcoming campaign
- Training 8: TOT of National Leads for Leap the various cadre (i.e.. The Leads for HEWs) on Leap
- Training 9: Develop appropriate key messages for HEWs (in English). Will include understanding of what reports and analytics will be required, for whom, at what frequency.
- Training 10: Development of key messages in text format Conversion into eContent Development of key messages in Audio format Development of pre & post tests
- Training 11: Loading of targeted health workers onto Leap platform (assumes MOH/Partners have a list of health workers and their mobile numbers)
- Training 12: Pre-test content and Trial run
- Training 13: Sensitisaton of Woreda Leads for the various cadre (ie. The Leads for HEWs, Nursing, Lab, Pharmacy etc) on Leap platform.
- Training 14: Deployment of eContent to Health Extension Workers (HEWs)
- Training 15: PHEM Coordinators (to provide supportive supervision)

The social enterprise costs include:

- Business development capacity locally in Ethiopia, and from the central Leap team in Kenya, as well as the Amref Ventures team in the Netherlands. Business development will take place for Leap, to generate more paying customers, and to develop partnerships.
- Costs to cover market analysis, legal setup and developing Leap to fit the local context.
- A small dedicated team will be working on scaling up Leap for a duration of twelve months (~0.5 FTE in Ethiopia, 0.15 FTE in Kenya, 0.15 FTE in the Netherlands).

## Additional questions to Amref from Nikunj Jinsi (Elsevier Foundation Board) and Elsevier Foundation Health Advisor Mevan Samarasinghe (VP & Technical Fellow, Health & Commercial Markets)

**What kind of data is Amref currently collecting in Leap and other products?**

**Leap:**

- Learner data: name, phone number, location, performance scores (including completion of topics, quiz score per topic)
- Aggregate data:
    - The number of leaners who have scored above 80% which is the pass mark vs the ones who have failed below 80% for the different topics
    - Quiz performance for all topics
    - Practicum/Exam performance
    - Top Performers at an aggregate level, we can assign a code to unique student IDs and create a correlation with the analysis
    - Group Chat Analysis showing what learners are discussing where health issues are concerned and areas of interest to create new topics.
- M&E data: pre- and post-surveys (including user satisfaction surveys)

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- A household register, in which all households and family members are registered and also any conditions they have and whether they have been vaccinated, etc.,
- A service logbook, in which the CHWs register the services they provide (for example, information or a referral) and
- A Covid-19 questionnaire in which we ask questions about Covid symptoms

**Other**

- Operational data in financial systems, Salesforce etc
- M&E data across all programs
- Annual reports
- Data on website visitors, social media reach, etc

**What does the average community health worker (CHW) look like? Do they reflect the communities they work in?**

A Community Health Worker is a community member in Kenia with an in-depth understanding of the community values, culture and language who is selected by the community through a participatory process. A community health worker has a supportive function in health service delivery, including provision of direct health services, health advocacy, and community agency. In general, a community health worker has a lower level of education than trained health workers such as doctors.

**Ethiopia:** The Health extension workers (HEWs) are mainly females who completed grade 10 and received training on the Health extension packages (HEP); and they differ from the CHWs since they receive more advanced and comprehensive training and are employed within the government health system and obtain a monthly salary. They spend 75% of their time within the community performing home visits and outreach activities, and 25% of their time at the health posts providing preventive and limited curative services. Currently, there are 42,000 employed HEWs deployed all over the country. (source)

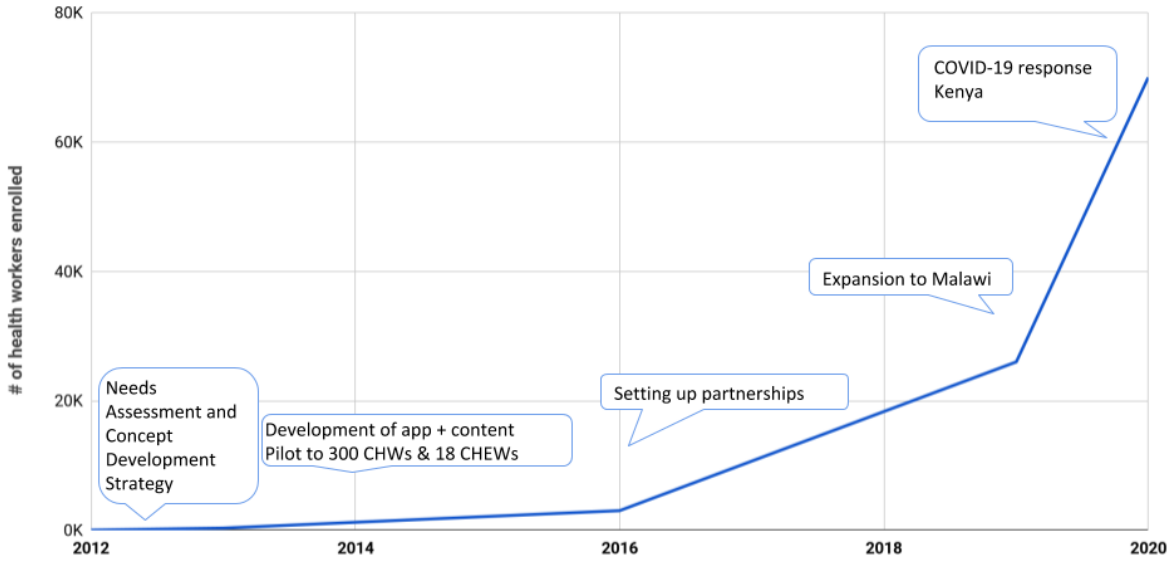
**What is the rough male/female breakdown for CHWs in Kenya and Ethiopia?**

In both Kenya as well as Ethiopia, Health Extension Workers, Community Health workers, and Community Health Volunteers are mainly female.

**Are they paid or volunteers in Kenya? What about Ethiopia?**
In Ethiopia, there is one cadre of formal community health workers (health extension workers) that are paid by the government. In addition, the Health Development Army are unpaid volunteers, of which there are 400.000 in Ethiopia. In Kenya, there are two cadres of community health workers, of which "community health workers / community health volunteers" are unpaid, and "community health extension workers", are paid resources.

**What are your biggest goals you aspire to achieve from training your CHW? Better outcomes? Behavioural change?**
Leap's long-term vision is that every African has access to better quality health care. Our mission is to deliver an integrated mobile learning and community health services platform to empower, train and motivate the frontline health workforce, driven by a cross-sector partnership of leading organisations dedicated to improving health on the continent. To drive lasting health productivity and economic improvements for all communities by increasing access to quality, timely and appropriate healthcare.
By training community health workers, we can realize a change in behaviour within the communities, because the community health worker is better able to inform the community on health and health seeking behaviour. In addition, we aim to improve the quality of referrals from the community health worker, resulting in the communities going to the right level of care at the right moment. This affects health outcomes, and leads to improved efficiency in the healthcare chain. Lastly, Leap also allows community health workers to seek out help and support from their supervisors and peers, further contributing to their work satisfaction and capacity to provide community care.

**What has happened in Kenya to date on that? Are you already training some of the 7300 CHWs today and if so, what are learnings from that?**
**In Kenya**, we are currently training 70,000 health workers on COVID-19. Since inception, the scale up has gone as depicted in the graph below.




In support of Kenya's efforts to respond to the coronavirus disease (COVID-19), Amref has partnered with the Ministry of Health to improve surveillance, early detection and track the spread of the disease.

*Approach*

Leveraging Amref's Leap, Amref and the MoH launched a two-month campaign to educate health workers on COVID-19. This enables health workers to educate communities on the virus and relevant prevention measures. Using Leap, health workers are also trained to identify, isolate and refer suspected cases as well as maintain safety standards at points of entry or high-risk areas to prevent possible transmission.

The approach entails joint development and customisation of digital training content that will be deployed to health workers through their mobile devices (basic and/or smartphones). The digital content has been customized to fit the needs of the target audience which includes consideration of the skill level of the audience, language preference and preferred channels (text or audio messages).

*Results*

With funding from the African Union Centres for Disease Control and Prevention (Africa CDC) and international donors, Amref has reached Kenya's entire Community Health Volunteer pool estimated to be at over 70,000 CHVs across the country and 2,000 health workers at the facility level and ports of entry in Kenya using the jointly developed messages.

Apart from the COVID-response, Amref has supported Ministries of Health and the WHO during previous outbreak interventions, for example by providing critical health care to remote communities across Africa during Ebola outbreak in Uganda 2000 and 2012, Ebola outbreaks in Senegal and Guinea in 2014, the Cholera outbreak in Kenya (2017), and the Lassa fever outbreak in Nigeria (2018).

**Ethiopia:** Since our first proposal to Elsevier, we have started to train the first batch of CHWs in Ethiopia. The lessons learnt from that mostly pertain to the technical setup of Leap and the collaboration between Amref Ethiopia, the Ministry of Health, Amref Enterprises Limited, and the technology partner Mezzanine. In Ethiopia, the Ministry of Health requires Leap to be hosted inside the ministries' systems, which is a deviation from the cloud-based approach Amref typically uses when expanding to new countries. This requires new contracts with Amref's technology partner, a new integration through the APIs to plug into the platform, and redefining roles and responsibilities of the involved partners. We are currently in the middle of doing so. In addition, given the shift in roles and responsibilities, we need to update our data privacy and security processes, conduct new data impact assessments as well as a risk security assessment.

**How long does this training last, and is it mandatory for all CHWs?**
We distinguish different types of training as follows:

- COVID-19 campaign: two month campaign, with weekly content deployment. Not mandatory for all CHWs, but it is stimulated by the Ministry of Health.
- Essential services training / full community health worker curriculum. Required by Ministry of Health.
- Donor-driven training: different per engagement.

**Please explain what you mean by scaling – are we talking technology, or skills training for CHWs? More details would be welcome.**
By scaling Leap, we have the objectives to:

- Scale our customer base: enrol all CHWs onto Leap; and make Leap available to new end user segments such as police officers and youth leaders. We would also like to scale our B2B customer segments, such as private sector and other NGOs

- Expand our product to service those other customer segments and serve the needs of the end users better
- Scale our team to support the growing activities

**As this service is being offered thru Ethiopian Telecom (monopoly government provider) will there be any costs associated with using the app for the CHWs?**
Currently, we are establishing a cost sharing mechanism with the Ethiopian Ministry of Health to cover COVID-19 related expenses, specifically pertaining to the SMS and IVR costs. Through this mechanism, we can ensure free access to the app to the CHWs, for training health care workers on COVID-19. For training health care workers on essential services, meaning the key health worker curriculum, external (foreign) funding would need to be attracted, as this part is not funded yet. In addition to the SMS and IVR costs, there are additional costs to using Leap (as detailed below) that will need to be covered.

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## Budget questions (in red below).

**Technology costs include:** [We would appreciate more info on this: what exactly are these costs, and why are LEAP platform setup costs needed? What portion of these costs can be repurposed from the Kenyan rollout?]
Leap is built for scale, meaning that the technical setup allows for rapid scale up into new countries. The core engine of the platform is readily reusable across countries. Years of development have resulted in a product that is plug and play in new countries. Yet, there are costs associated for setting up locally, especially in the case of Ethiopia where the government has strict requirements on data hosting and integration with the countries' telecom providers. Leap platform setup costs are required because we need to integrate with the local telecom providers / aggregators, in order to deliver the SMS and IVR content to the health workers on their mobile phones through local networks.

**Program implementation costs include:**

- Implementation team, based in Ethiopia (4-6 FTE / 13 employees) [Are most of these costs needed to cover employee costs?]
  Yes, over 60% is to cover employee costs. Furthermore, it includes the costs of trainings 9-12, local consultants and the costs as detailed below.
- Facilities and supportive materials, office rent etc. [These are structural/ infrastructure costs we would anticipate that Amref cover directly] These are costs beyond the structural costs that Amref already covers directly.
- Monitoring and evaluation capacity

**The trainings that will be provided to roll out Leap are:** [Please provide more information about the first 6 trainings]
Trainings 1-6 were not included in the first proposal as they are specific for the contract tracing and surveillance feature that is currently being developed and tested in Ethiopia, and is not part of the standardized Leap approach. These trainings are the following (for your information)

- *Training 1: Provide TOT training/Orientation for 30 regional PHEM focal person and IT experts*
- *Training 2: Provide training Health for 676 Informative Technologists a selected from 676 health centers*
- *Training 3: Provide training for 50 POE surveillance officers on mobile application for contact tracing and surveillance for 1 day*
- *Training 4: Provided an orientation for 75 POE people*

- *Training 5:Conduct twice per month on job- training/mentorship and supportive supervision by woreda health office*
- *Training 6:Conduct monthly on job- training/mentorship and supportive supervision by RHB on the use of application for contact tracing*
- Training 7: Sensitisation of key stakeholders (MOH, development partners, implementingpartners etc.) on Leap platform and upcoming campaign
- Training 8: TOT of National Leads for Leap the various cadre (i.e.. The Leads for HEWs) on Leap
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**The social enterprise costs include:**

- Business development capacity locally in Ethiopia, and from the central Leap team in Kenya, as well as the Amref Ventures team in the Netherlands. Business development will take place for Leap, to generate more paying customers, and to develop partnerships. [Please describe in more detail what this "business development capacity" will look like]
  The business development capacity will be responsible for selling Leap to external customers, which can be governments, NGO's and private sector companies. In addition, the business development capacity will be conducting market research for setting up the social enterprise, developing the business case and designing the organisation.
  The business development team will also works closely with Amref Health Africa Business Development departments, Amref Northern Offices, and Amref Country Offices to shape deals, proposals, and promote the inclusion of Leap's innovative mobile platform on every community health training agenda. Further activities supported by the business development capacity can be found in the table below.
- Costs to cover market analysis, legal setup and developing Leap to fit the local context.
- A small dedicated team will be working on scaling up Leap for a duration of twelve months (~0.5 FTE in Ethiopia, 0.15 FTE in Kenya, 0.15 FTE in the Netherlands). [can you tell us more about the role of these FTEs?]
  This is the "business development capacity". See table on the next page for more details on who is involved in which activity in the first design phase of setting up the social enterprise.