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AMREF Health Africa: Next-Generation Digital Learning Tools for Community Health Workers

amref health africa

UKaid from the British people

Challenge

AMREF Health Africa is looking to transform its digital learning and data collection tools for Community Health Workers, using next-generation technologies to create a more user-friendly and intuitive system.

Their goal is to improve responsiveness, functional optimization, and performance measurement of new and existing tools, including interactive voice response (IVR) and short message service (SMS). They would also like to explore gamification, video and embedded visual aids.

Use cases will be methods of early disease detection and onboarding of new clients in remote areas. If the platform has embedded capabilities for payment and certificate downloads, it would be a plus.

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AMREF Health Africa Background

Amref Health Africa was founded in 1957 (as African Medical and Research Foundation) to **deliver mobile health services** and to provide mission hospitals with surgical support. It later moved towards community-based health care (CBHC) and training community health workers to deliver primary health care.

During the 1980s, greater emphasis was given to **strengthening health systems and staff development**, with special attention to health needs identified by communities themselves. AMREF established a unique year-long training course in community health.

AMREF's strategy focuses on finding ways to link health services to the people that need them by focusing more on people, and less on diseases – making responses **tailor-made to specific community needs.**

AMREF's vision is creating lasting health change in Africa. **Their goal is "to transform the health of African communities by investing in women and young people as agents of change."**

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Community Health Workers

CHEWs (Community Health Extension Workers) **supervise data collection at the household level** for county. They recruit and manage CHPs (Community Health Promoters) who go to households to collect data and refer to the public health facility, using two key tools: a learning platform and data collection platform.

Every CHP is **located within a community unit** and given several people to engage – usually 100 houses or families. CHPs are arranged into groups of 10 – known to each other and meeting weekly and staying in touch using messaging services.

CHPs conduct weekly household visits, often on weekends, serving as village doctors and focusing on health promotion. They **provide primary health care services at community level**, monitoring what is happening in the village and reporting any issues or outbreaks.

CHPs oversee local health services, building capacity to provide basic care. The learning platform provides them with **basic knowledge on healthcare topics**, and data collection speeds up patient referrals.

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Learning Platform

AMREF's mobile learning solution for training community health care workers employs an appropriate **mobile learning approach to train and empower health workers**. They can learn at their own pace while in the community, providing both interpersonal and community aspects of learning.

The platform **provides access to timely and appropriate training** by reaching learners on any smart or basic device. It measures learner's progress and provides performance reports; delivers health content; allows learners to interact through group chat; and can provide limited multi-lingual content.

The platform is currently **licenced from a third party**, thus the AMREF team has limited flexibility and is reliant on external support.

The platform's usage is limited due to language functionality: it is currently only available in English and Swahili and has previously been customized into Amharic and Chichewa for specific projects. They **would like to localise the service for multiple countries**, requiring the expansion of their internal abilities. Solutions may take the form of additions to, or alternative to, the existing learning platform.

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Data Collection Platform

This proprietary toolkit incorporates **a mobile application for capturing data from the household level** and transmitting it online to a web-based database. Through this platform, community health promoters have been able to cut the turn-around time for transmitting data from several weeks to a few minutes.

CHPs collect data on mobile devices (any network) during their regular household visits and submit this data, from where healthcare teams can **review the data for decision making and planning purposes**. CHPs ask household questions using a short form to guide data collection.

Any learning solution must be able to **interface with the data collection platform**. AMREF are seeking to develop an integrated, user-friendly and intuitive system that can be scaled across operational territories.

Current Issues

Desired issues to address include:

- Inability to use in multiple languages
- Slow response times to fix user issues
- Limited functionality for users living with disabilities
- In-house capabilities to make code changes is slowed down
- Lack of connectivity problems
- Integration with multiple platforms
- Limited harnessing of AI benefits
- Limits to 2-way communication

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Looking Ahead

Applicants should look at **video and gamification for future generations**. CHPs are perceived as people to be trusted and are looked up to within their communities, tending to have a certain age profile.

The younger generation needs excitement to take classes – so we **need innovative ways to keep them engaged**. Gamification also allows better understanding of learner preferences.

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Target Audiences

Solutions can engage with any suitable touchpoint (software, device, infrastructure, etc.) and are invited from, but not limited to, the following sectors:

- Digital
- Telecoms
- AI
- Data
- Creative
- Design
- Sensors
- Imaging

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Functional Requirements

The identified solution must/should address the following:

- Solution **must integrate** with the learning and data collection platforms
- Solutions must be **downloadable** via online platforms
- Solutions must be **low cost** for designated users (between $7-$15 per user per month)
- Solutions should be available via **personal mobile phones**, though other platforms and devices will be considered also.
- As a minimum, solutions should be viable with **Android devices** and a basic version for feature phones
- Solutions benefitting users (Community Health Workers and the community they serve) with **physical, mental and social obstacles** are desirable

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Technical Requirements

- Solution may be **integrated with AMREF's existing systems or may operate as separate systems alongside it.**
- Please detail any **new infrastructure requirements** for your solution
- Solution must be applicable in **modular format**, to scale progressively
- Solution should be able to work across a **wide range of devices**
- Solution should not require heavy mobile **data usage**
- Solutions must operate securely with **data privacy** aligned with existing AMREF policies
- **Technological maturity**: preference for late-stage solutions (TRL 7+) that have passed proof of concept stage, are in pilot, ready to commercialise or commercialised. However lower TRL ideas will also be considered.

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Operating Conditions

- The solution should be viable for **online and offline usage** (for relevant functions)
- The solution should be available for **intermittent and remote usage**
- **24/7 operation** to cover all African time zones

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Cost Requirement & Market Opportunity

- The solution's operation should aim to be **cost-effective** in terms of ROI
- Winning solution providers will become **long-term partners**, gaining access to AMREF data (within GDPR regulations)
- Winning **solutions will be integrated** into learning and data collection processes, with opportunity to scale
- **Innovative funding models** will be considered if not off-putting to users

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Out of Scope

Proposed solutions may not be viable if they are:

- **Unable to interface** with the learning and data collection platforms
- Unable to be accessed via many **different devices**
- Lacking **online and offline** capability
- Unable to service customers with **limited data** packages
- Unable to provide **intermittent and remote** functionality

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Application Information

Deployment Timescale

12 Feb 2024 – Competition launch
07 Mar 2024 – Information session/Q&A (TBC)
22 Mar 2024 – Deadline for applications
Apr 2024 – Selection and notification of finalists
May 2024 – Pitch day & selection of winner
Jun 2024 – Collaboration discussions
Jul 2024 – Pilot programme activated

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Eligibility

Entrants to this competition must be:

- **Established businesses, start-ups, SMEs, academics or individual entrepreneurs**
- **Africa-based entrants, UK-based entrants and those from RoW are invited to apply**

Due Diligence requirements for seed funding:

- UK applicants must ensure that receiving the £25k seed funding will not exceed the £315,000* state aid threshold under UK Minimal Financial Assistance regulations over the current and last 2 fiscal years [or *200,000 euros for applicants affected by EC de minimis regulations]
- Further information will be required later relating to company policies, financial history and recent grant funding received.

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Assessment

Applications will be assessed on:

- **Relevance to the topic**
- **Innovative nature of the subject**
- **Coherence of the proposed business model**
- **Feasibility/ economic viability**
- **Development potential**
- **Maturity of project/solution**
- **Ability to launch project quickly/Ease of implementation**
- **Price/quality ratio**
- **Suitability for the Kenyan Market**

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Rewards & Benefits

- Up to GBP 25,000 seed funding (Subject to T&C)
- Opportunity to pitch your solution to AMREF
- Collaboration/partnership with AMREF
- Technical support from AMREF team
- Sector expertise from Innovate UK
- Support in the development of a prototype or pilot
- Invitation to attend or present at Innovate UK events
- Investor introductions (if investment is required)

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