

**Case Title:**

**Hulu Beteina: Innovation through collaboration to deliver RMNCH messages into households**

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A feature phone with the Hulu Beteina application

**Summary:**

John Hopkins Center for Communication Programs (JHCCP) Ethiopia was pioneering a user-facing mobile app for social and behavior change message in Ethiopia. The Federal Ministry of Health (FMOH) appreciated the strength of proposed collaboration with leading social and behavior change communication expertise and reputed IT company. The willingness of the FMOH to participate in the development and take future ownership of the app comes as the foremost enabler. Hilmaka, a youth-owned IT firm, had experience with similar user-faced app while exploring their own social responsibility. JHCCP had a creative team well versed in social and behavior change and the team was determined to transcend boundaries of interpersonal communication by helping communities leapfrog to the digital age. The human-centered design approach used in the interactive co-creation workshops enabled maximum learning. The Gates funded L10K project, working on a similar app facing service delivery personnel was also a key partner in developing the theory of change. FMOH has gone ahead and propagated the app with Regional Health Bureaus (RHBs). The later are integrating activities related with distribution into their work plan, exploring their own ways to ensure the application reaches households. A case in point is Oromia RHB which organized region wide familiarization events. For sustainability and future maintenance of the application, the project has transferred knowledge to the FMOH IT Department, including the source codes and know-how, so that the FMOH can update, revise and include new contents as per future needs. The application is called Hulu Beteina which means all is possible through health.

Think about which subcomponents of the **Collaborating, Learning & Adapting (CLA) Framework** are most reflected in your case so that you can reference them in your submission:



- Internal Collaboration
- External Collaboration
- Technical Evidence Base
- Theories of Change
- Scenario Planning
- M&E for Learning
- Pause & Reflect
- Adaptive Management
- Openness
- Relationships & Networks
- Continuous Learning & Improvement
- Knowledge Management
- Institutional Memory
- Decision-Making
- Mission Resources
- CLA in Implementing Mechanisms

## **1. What is the general context in which the case takes place? What organizational or development challenge(s) prompted you to collaborate, learn, and/or adapt?**

Evidence shows that only 3 in 10 women in Ethiopia attended four or more ANC visits for their most recent live birth and only a quarter deliver at health facilities (EDHS, 2016). For maternal and child survival initiatives, one of the barriers include variations in the capacity of health workers, and limited access to credible health information for rural couples. The Federal Ministry of Health (FMOH) has been exploring whether using innovative, technology based solutions for SBCC can surmount the problem. The USAID supported Communication for Health took the challenge of leveraging the increasing number of mobile phone to develop the 'Hulu Betiena' (which means 'all is possible through health') application. The app has been launched in selected woredas in Amhara, Oromia, Tigray and SNNP regions.

Designed for use on both smart and feature phones, the approach invokes a simple, easy to navigate format containing relevant, engaging, and educational content. The platform includes suggested actions that ensure a safe and healthy pregnancy, delivery and early childhood. CCP developed this application mainly in close collaboration with the Maternal, Neonatal and Child Health (RMNCH) Directorate of the FMOH and a private IT firm thus engaging the combined technical expertise from the Ministry, SBCC skill from CCP and IT related capacity of the IT developers to make the application possible. This interactive application works offline and on simple mobile phones as well as Smart phones. It allows rural couples to have lifesaving health information to overcome barriers irrespective of time and place.

As the development process was new to all stakeholders, Communication for Health highly relied on collaboration, learning and adaptation at different stages of the process.

## **2. Why did you decide to use a CLA approach? Why was CLA considered helpful for addressing your organizational or development challenge(s)?**

CCP had previous experience with CLA approach and found the approach to be very helpful in several countries. A senior CCP technical advisor exposed CCP Ethiopia staff to the approach who also encouraged and monitored the use of CLA.

**Collaborating:** While CCP has expertise on different communication tools such as print, performing arts and radio, experience with regards to messages on mobile phones especially mobile applications was limited. For the mobile application to be a success, collaboration with experts in other fields was seen as imperative. Specifically, CCP took technical leadership of the behavior and social change communication; the RMNCH Directorate of the FMOH led the development of the content of the app and a youth-owned local technology company developed the mobile app.

**Learning:** The scope of the app was determined after comprehensively checking available data and formative research on the number and types of phones available in the country as well as phone-use habits of mobile owners. We needed to understand what types of phones are being used in the country, who owns phones in households, what services/features of the phone people often use. It was determined that two version of the app are needed – to fit basic phones and smart versions. Adding audio based feature in addition to the text was also to decided to enable and reach those who can not read.

**Adapting:** During the development and implementation of the mobile application we were constantly adapting to accommodate new findings that were coming up during the design and pretest of the app. The app had five units; each was technically and user-tested as it was developed.

### **3. Tell us the story of how you used a collaborating, learning and/or adapting approach to address the organizational or development challenge described in Question 2.**

The development process of Hulu Betiena Application began with identifying global lessons and exploring existing local platforms and applications that may be adapted for the Ethiopian contexts. We looked at past experiences of CCP related to digital health intervention ('Gyan Jyoti', an mLearning app for Bangladesh Community Health Workers), and how this might be extended to help families make healthy choices. Digital tools facilitated "integrated" health programs and "offline" digital interventions promoted cost effective sharing in countries like Ethiopia. Thus, the different stakeholders embarked on a deliberate and systematic joint assessment and learning to understand the local context. Series of discussions with and consultative meetings were held with key stakeholders such as community members, Ethio-Telecom and others to glean insights on access to mobile phones and key factors related to mobile usage in Ethiopia (i.e. ownership, penetration, mobile readiness). A consultative design workshop was then conducted involving technical teams from FMOH/RMNCH Directorate, private IT developers, potential users of the application (mothers, fathers and health extension workers – HEWs – from different region) and other partners working on mobile health initiative.

The highly interactive workshop defined the framework (lifecycle approach), technical components and functionalities of the application, such as priority contents and key features to be incorporated into the application. Core messages were identified and bundled as per the lifecycle stages, and interactive elements such as ANC Schedule calculator and growth monitoring were proposed. It was also recommended to use multiple local languages, both text and audio, and working on both Smart and basic phones. Through engagement of community stakeholders, it was found that men have greater access to mobiles, but have not been prioritized for health information, particularly concerning RMNCH. To fill in this gap, this app was designed in way that is appealing to both men and women and has tips for partners at different life stages.

A team consisting of creative, IT and public health expertise polished the content further adopting to different languages and making sure the messages are simple, action oriented and appealing to target audiences. Multiple reviews were made to ensure accuracy and consistency with other national guidelines.

In parallel, CCP maintained continuous communication with the private IT developers to further discuss on the possibilities of the key features, interface and other technological guidance. The creative team worked with the IT developers on multiple steps to prepare the prototype. Once the prototype was ready, they were tested in different regions and in two phases. The overall objective of the pretest was to understand how the audience will use the mobile application, and whether the content is comprehensible and relevant. Multiple discussions were held with the target audiences and in-depth interviews with HEWs and mobile shop owners. Based on the findings, all the necessary changes were made on the application.

The final application was launched in the presence of multiple key stakeholders at National and regional levels. Presently, orientations on the application are being provided to partners within the health system at different level to ensure the application is distributed and reaches the target audience at household level. The source code for the application is handed to the Health Information Technology (HIT) Directorate of the FMOH for future management and updating. The MoH, RHBs and CCP are working very closely with public and private stakeholders with similar objectives to increase reach and access to Hulu Beteina app. Discussions are underway with local mobile manufacturers such as Techno for wider reach through pre-installing the application.

#### **4. Organizational Effectiveness: How has collaborating, learning and adapting affected your team and/or organization? If it's too early to tell, what effects do you expect to see in the future?**

Tasks that appear insurmountable can be tackled by collaborating with others and leveraging on their respective expertise. Ethiopia has limited exposure to technology and often the official outlook for technology based solution had been cautious. Collaboration has overcome such barriers to using technology for SBCC while boosting confidence for future actions. The fact that communities are open to trying technology based systems for health and behavior related decisions, was a revelation to all stakeholders engaged in the development process.

Private organizations, and IT firms in particular, are wary of services that see local community as major consumers. The various discussions with community members, interest on the app during the pretest and a steady progress in natural 'offline' disbursement of the app organically have challenged this attitude.

The FMOH has totally embraced the Hulu Betena mobile app and took primary role in the distribution as well as up keep of the same. This is a major exemplary step for the MoH.

Thanks to the success of the mobile App our team has become more confident in testing new ideas on small scale, learning from it and incorporating the learning when deploying it on a larger scale.

#### **5. Development Results: How has using a CLA approach contributed to your development outcomes? What evidence can you provide? If it's too early to tell, what effects do you expect to see in the future?**

Collaboration: The fact that our project consisting mainly of communication and behavior change experts collaborated with a tech firm and different units at the MoH has given the app its current look and boost for countrywide distribution is a major outcome of the engagement. If any of the three partners developed the app without the kind of collaboration employed, three possible outcomes could have been expected.

- The tech developers would have focused on making the app more efficient and appealing rather than the content being adequate and relevant;
- FMOH, in the bid to present as much information as possible, would have packed it with too much information and technical terms making it unappealing;
- CCP would have made it appealing and streamlined but would have lacked some technical information, directions of the public sector and not as efficient. Distribution and uptake would have also been a challenge.

All of these challenges were removed due to the deliberate collaboration and letting each stakeholder play its role to best serve the app development and use process.

Learning and adapting: A smart phone (Android) based app was in everyone's mind when the app was first conceived. If collaborative learning and joint exploration with communities were not there, the App would have ended being what was conceived at the beginning. Without incorporating learnings along the way we would have developed the android version of the app that works on smart phones only (30.6% of phones). But thanks to the learning that close 20% of the population uses feature phones, which are widely available in semi urban and rural areas of the country, we have included a version of the app that works on feature phones as well.

We have also made the content of the app available in three local languages and in audio format alongside the text to cater for the majority of the rural population that does not know how to read. Learning also guided each stage of the app development process culminating with pre-testing of both the technical, conceptual and user aspects of the app.

## **6. What factors enabled your CLA approach and what obstacles did you encounter? How would you advise others to navigate the challenges you faced?**

Enablers:

- The willingness of the FMOH to collaborate and take ownership of the app comes as the foremost enabler. A user-facing mobile app has never been developed for social and behavior change message in Ethiopia. The FMOH took decision based on expected strong collaboration with leading SBCC expertise and reputation of IT company.
- Hilmaka, a youth-owned IT firm, had experience with similar user-faced app while exploring their own social responsibility.
- CCP had a creative team well versed in social and behavior change and the team was determined to transcend boundaries of interpersonal communication by helping communities leapfrog to the digital age. The human-centered design approach used in the interactive co-creation workshops enabled maximum learning.

Barriers:

- There was back and forth discussion and adapting needed to capture the learnings along the way and incorporate them into the mobile app. This required many hours of staff time and resources.
- There was change on the FMOH management including team leads requiring frequent updates on the process.
- Collaborators coming from technological backgrounds had difficulty reaching consensus on ways of presenting the messages to end users in rural setting.

Advice to others:

- Collaboration is good but collaborating with stakeholders that are determined to see things through is important. Collaborating goes beyond giving some support and includes hand-holding, listening, risk-taking and celebrating with appropriate dues when things are done properly.
- Design documents are said to be living documents that keep on changing as a result of learning so always leave some room for change/improvement based on your learning as you continue implementing your design. Though we didn't have much experience in mobile app development, we took a calculated risk that ended up getting a very satisfying and productive output.

## **7. Did your CLA approach contribute to self-reliance? If so, how?**

FMOH has gone ahead and propagated the app with Regional Health Bureaus (RHBs). The later are integrating activities related with distribution into their work-plan and exploring their own ways to ensure the application reaches households. For sustainability and future maintenance of the application, CCP in collaboration with the IT developers has successfully transferred knowledge to the Ministry's Health Information Technology Department. With the source codes and know-how, the Ministry is now able to update, revise and include new contents as per the need of the Ministry, without CCP's and the IT developers involvement.