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## CASE COMPETITION

Collaborating, learning, and adapting (CLA) have long been a part of USAID's work. USAID staff and implementing partners have always sought ways to better understand the development process and USAID's contribution to it, to collaborate in order to speed and deepen results, to share the successes and lessons of USAID's initiatives, and to institute improvements to programs and operations. Through this case competition, USAID and its LEARN mechanism seek to capture and share the stories of those efforts. To learn more about the CLA Case Competition, visit the USAID Learning Lab at [usaidlearninglab.org/cla-case-competition](https://usaidlearninglab.org/cla-case-competition)

# Adapting Global Content to Improve the Knowledge of Ghana's Rural Nurses

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### What is the general context in which the story takes place?

Sub-Saharan Africa accounts for half of maternal deaths worldwide.<sup>1</sup> In Ghana, the government has shown a strong commitment to reducing these preventable deaths, yet maternal and infant mortality rates remain alarmingly high and concentrated in rural areas. Ghana has established community-level facilities to bring basic maternal, newborn and child health (MNCH) care closer to urban and rural families, but the country is still far from meeting its 2015 MNCH Millennium Development Goal.

Community health nurses (CHNs) in Ghana are the frontline health workers of the Ghana Health Service (GHS) and are often the primary providers of MNCH in rural communities. As the lowest credentialed nurses, however, they are at the bottom of the GHS hierarchy and have limited opportunities for career advancement. CHNs in rural Ghana report isolation, lack of opportunities for professional advancement and career development, and a lack of adequate resources to do their jobs.

The Knowledge for Health (K4Health) project, supported by USAID's Office of Population and Reproductive Health in the Bureau for Global Health, collaborated with the Ghana Health Service and the Grameen Foundation under the Concern Worldwide US Innovations for Maternal, Newborn and Child Health project's Care Community Hub to address one of the reported obstacles to CHNs' job satisfaction and motivation: the lack of professional development opportunities. Key to the project was understanding how the adaptation of global content for continuing education could improve workplace satisfaction and equip CHNs with new technical knowledge, advancing their careers and improving the quality of MNCH care in rural areas.

### What was the main challenge/opportunity you were addressing with this CLA approach or activity?

Feelings of isolation and low job satisfaction can cause CHNs to leave their remote posts, further exacerbating low access to MNCH care in vulnerable rural communities. The challenge was to determine what factors

<sup>1</sup> <http://www.who.int/mediacentre/factsheets/fs348/en/>



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contributed to retention and which evidence-based approaches would simultaneously improve job satisfaction and technical skills.

User research, conducted by the design firm ThinkPlace Foundation, identified five drivers and roadblocks to CHNs' self-reported retention and job satisfaction in rural areas. Factors that contributed to greater job satisfaction included feeling valued, recognition, access to information and tools, learning about new advances in health, and the ability to connect to a supportive peer network. Unsurprisingly, CHNs felt demotivated by the opposite factors: a lack of appreciation for hard work, limited resources, a lack of advancement opportunities, disconnection from family and friends, and disrespectful treatment or bullying at work.

### **Describe the CLA approach or activity employed.**

The Care Community Hub sought to design a mobile application that would not only address demotivating factors but also build on existing motivating factors. The resulting mobile phone application was “CHN on the Go” whose modules include Point of Care, Planner, Learning Center, Wellness, Achievement, and Supervisor Dashboard.

One of the key modules developed was the Learning Center where the Care Community Hub planned to deploy learning materials to address the nurses' expressed need for “learning about what's new in health” and “restricted opportunities for career progression.” To save time and cost, the Grameen Foundation's technical team decided to adapt and innovate from existing open-source learning and mLearning platforms. Their research led them to Oppia Mobile, which works in combination with the eLearning platform Moodle to deploy content to mobile devices.

K4Health, which is led by the Johns Hopkins Center for Communication Programs, manages the open-source Global Health eLearning Center (GHeL). K4Health serves health service providers and program managers working in international settings, connecting them to critical information and a network of experts and peers. K4Health is also a leader in knowledge management — a dynamic, process-oriented approach that links health professionals with technical know-how, continuing education opportunities, and expert resources. In this capacity, K4Health was able to connect the Grameen Foundation team with Digital Campus, the creators of Oppia Mobile. Grameen was also very interested in the wealth of expert-vetted GHeL content, especially since the GHeL quiz content could easily provide evidence of knowledge improvements. As a result, a number of GHeL's family planning and MNCH courses were adapted and deployed through “CHN on the Go's” learning module.

Given the tight timeline for implementation, Grameen rolled out “CHN on the Go” in two phases.

- Phase I introduced family planning courses on the app.
- Phase II introduced MNCH courses on the app.

While Grameen designed the app's technical platform, the K4Health team reviewed relevant eLearning courses and content with an eye toward counseling messages for CHNs. Grameen then worked with national and district level GHS staff to review K4Health's recommendations and ensure that course content aligned with GHS guidelines. Grameen then deployed the GHS-approved content to the nurses via the app.

After Phase I rollout, focus group discussions and interviews were conducted. CHNs reported that they liked the Learning Center: “Information presented in the courses is both a good refresher and teaches them something new. It boosts their clinical knowledge and they are eager for more courses to be added.” The research findings also revealed that among all the modules, CHNs use the Learning Center, Planner, and Point of Care modules the most in their day-to-day work and report wanting to continue to use these modules in the future. To address CHNs' restricted opportunities for career progression and encourage participation, in Phase II Grameen sought to engage Ghana's Nurses and Midwives' Council to accredit the courses so they would count toward annual renewal of the CHNs' professional license. To date, all of the courses have been accredited, signifying national-level approval of the courses as important, high-quality resources for updating and improving CHNs' knowledge.

This is a continuing activity. K4Health has continued providing MNCH courses to Grameen, and Grameen has continued to engage GHS in adapting course materials to suit the local context and for CHNs' work. We envision



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that this partnership will lead to development of a repository of high-quality materials on key MNCH topics for Ghana's frontline health workers.

**Were there any special considerations during implementation (e.g., necessary resources or enabling factors)?**

The Grameen Foundation and the K4Health project are committed to knowledge sharing and the open-source community, and were able to leverage each other's distinct areas of expertise: Grameen's in-depth knowledge of the local health system as well as app development considerations for working in rural Ghana, and K4Health's knowledge of and connections to the global mHealth landscape and almost a decade of experience developing high-quality, vetted content for health providers.

Although this collaboration was one of mutual benefit, and the scope of work fit within each organization's core mandate, there was no exchange of funding or additional funding available to support travel and face-to-face engagement. This placed an additional responsibility and burden for adaptation of the content on the Grameen Foundation, since it required inputs from the GHS. Government engagement and processes also posed challenges to the project's timeline. Coordinating with the Ministry of Health, especially one in a decentralized system, can be very time-consuming given ministry officials' competing priorities, even when they are as highly engaged as they were in this project. App content reviewed and approved for accreditation at the district level may not necessarily translate to approval for accreditation in another district, so it is important to work at all levels (national, regional, and district) for accreditation purposes.

That said, the project benefited greatly from a collective openness, complementary experiences, and strong relationships with other partners and stakeholders. Partners shared technology, content, experiences, and data. From the outset, Grameen had strong relationships with GHS officials at multiple levels, as well as access to CHNs for feedback. K4Health brought not only expertise at developing global eLearning content, but also experience establishing an accreditation process.

In addition, rolling out the project in two phases proved beneficial, as it allowed the opportunity to fix bugs in the app, clean up data reporting outputs based on needs, and incorporate initial user feedback before launching Phase II.

**What have been the outcomes, results, or impacts of the activity or approach to date?**

To date, 14 adapted GHeL family planning and MNCH courses have been deployed on mobile devices to 220 CHNs and 60 district supervisors in 5 districts of Ghana. These free courses are offered on an open-source, mobile Android application, "CHN on the Go," powered by two other open-source platforms, Moodle and Oppia Learning. The user-friendly Moodle platform has enabled courses to be formatted for deployment by staff who are not software developers or have advanced technical skills.

Successful completion of these courses counts toward requirements for annual renewal of CHNs' professional license in all five districts. For the period of October 2014 to March 2015, 375 final exams were taken. Of those, 63 percent resulted in successful completion (a score of 85 percent or higher).

Initial research reports indicate that the "CHN on the Go" app helps CHNs obtain additional information and broaden their knowledge. The app also guides them to provide the right information to clients, and is a source of information when their supervisors are not around. Anecdotally, we have heard from one community health nurse, "I now feel very confident as a CHN in the community because I am able to answer clients' questions on family planning issues well." Another reported, "it improves our confidence level and also increase our knowledge." Many mentioned that access to family planning information on the app is very useful, because they now understand all the family planning options and can advise their clients on the best option. Some CHNs have given literate clients their phones so the clients can read for themselves the information on contraceptive options. They report that such clients have found this very useful in making informed decisions on contraceptive choice.



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### **What were the most important lessons learned?**

We learned the benefit of flexibility, particularly with regard to the app's delivery through mobile platforms. Using Moodle has allowed the Grameen Foundation to reduce its reliance on the technical team, while Oppia Mobile simplifies the process of translating course content into phone-ready material that can be accessed on and offline, allowing users to synchronize data and download new courses whenever they have an Internet connection. By extending these platforms, Grameen has reduced development time while extending the platform's core functionality to include new features, such as the Point of Care and Supervisor Dashboard modules. The ease of use will make it possible for the GHS and interested local training institutions to take over management of the "CHN on the Go" platform without the usual constraints of lack of advanced technical human resources.

In addition, the K4Health project learned that about 80 percent of GHeL global content is relevant as is, but the remaining 20 percent needs to be reviewed and tailored to local protocols and policies to meet the needs of a specific field-based audience. K4Health is cognizant that this may differ depending on the level of the cadre as well as their familiarity with English, given that GHeL content is currently all in English.

These lessons and achievements were all possible as a result of a collaboration that was mutually beneficial and extremely open and committed to sharing, in which no financial resources were exchanged.

### **Any other critical information you'd like to share?**

The "CHN on the Go" app and broader theory of change model is being evaluated by John Snow, Inc. In the meantime, K4Health and the Grameen Foundation are in the process of documenting the adaptation process. It will be used as a case study in the forthcoming K4Health Content Adaptation Guide, which will outline a systematic approach to adapting content for a variety of deployment options based on the needs and accessibility issues of one's target audience.