Knowledge Management (KM) Case Study

Supporting Communities to Encourage South-to-South Knowledge Sharing and Product Improvement

SUMMARY:

CapacityPlus is a USAID global project, led by IntraHealth International, with the goal of strengthening human resources for health (HRH) in low- and middle-income countries. The project uses the Integrated Human Resource Information System (iHRIS) to help countries capture information on their health workforces and maintain high quality systems for planning and management. In addition to launching the open source iHRIS software program, the CapacityPlus team has also supported the development of a community of practice (CoP), through which iHRIS users can share experiences and help obtain feedback on the software. Continuous facilitation of south-to-south learning and engagement has led to increased usefulness and reach of the iHRIS software.

PROJECT DATES:

2004-09 (Capacity Project); 2009-14 (CapacityPlus)

TARGET AUDIENCE:

Ministries of health, health sector leaders, program managers

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CONTEXT

Inadequate information systems in low- and middle-income countries can compromise the availability of accurate data on human resources for health (HRH). Without such data, policy makers, program managers, and other stakeholders often have difficulties identifying specific challenges related to the health workforce—such as health worker retention, lack of training, and poor management skills—and making informed policy and programmatic decisions to improve public health and increase access to health services.

To address this issue, CapacityPlus—a five-year project funded by the United States Agency for International Development (USAID) and led by IntraHealth International—supports the simple, easy-to-use iHRIS health workforce information software to help capture and manage HRH data in low-resource settings.[1] Launched in 2007 under the original Capacity Project, iHRIS provides the following solutions for managing health workforce information:

1) **iHRIS Manage**: A human resource management system that tracks salary history, promotion, transfers, and other relevant information
2) **iHRIS Qualify**: A database that captures health licensure and certification information for health workers
3) **iHRIS Train**: A tool to help manage health workers' training information

The **iHRIS** software also include **iHRIS Plan** and **iHRIS Retain**, which are used in planning policies, modeling health workforce needs, and developing retention strategies for health workers.

Not only does the iHRIS software help low- and middle-income countries capture high quality data on health workers, but it also helps them streamline health workforce records spread across multiple agencies. In helping health sector leaders to aggregate and analyze this data, iHRIS allows them to more effectively address challenges related to HRH.

Since it launched, the iHRIS software has been implemented in 18 countries, with more in the pipeline. Globally, more than 815,000 health worker records are supported by the iHRIS software package.

SPECIFIC KM ANGLE

From the beginning, the Capacity Project team designed the iHRIS software to be open source. In other words, the software's original source code is freely available for use, redistribution, and/or modification by other groups. However, countries that deployed iHRIS systems initially remained dependent on traditional north-to-south technical assistance (TA) and resources—directly from Capacity—to support their efforts.

To change this dynamic, the CapacityPlus team established an online

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[1] The goal of the CapacityPlus project is to strengthen human resources for health (HRH) needed to reach the Millennium Development Goals through high quality health programs in low- and middle-income countries. It was preceded by the Capacity Project from 2004-2009.

community of practice (CoP) which brought together iHRIS developers, implementers, and users—self-identified through emails and surveys—from around the globe in a collaborative forum for sharing and learning. Since the CapacityPlus team upheld the philosophy that the true owners of iHRIS were the ones who use the product, this approach was meant to encourage a more south-to-south knowledge management (KM) approach that fosters real ownership of the product at the country level. Through this model, local teams guided the development and updating of the software, and CapacityPlus staff provided TA on an on-demand basis.

The iHRIS CoP formed naturally, as IntraHealth had already been engaging with stakeholders (prospective users, implementers, and developers) since 2005, when the development of the iHRIS software began. The goal of the CoP was to facilitate interaction among individuals involved in the rollout of iHRIS systems and to encourage them to share tacit knowledge (that is, experiential knowledge, or knowledge that is "in people's heads") that resulted from using the software with other iHRIS users around the globe. Country-level teams were also identified, and these teams helped extend the product's reach, promote its use in-country, and obtain feedback on the software. In addition to improving south-to-south collaboration, the CapacityPlus team hoped that such information could also serve the product itself (for example, to inform adaptations, translations, and product improvements).

The CoP leaders (mostly from CapacityPlus but increasingly from other groups as well) have utilized several communications tools including Google Drive, social media, and routine conference calls—to encourage the participants to share their experiences, challenges, and recommendations for implementing and improving iHRIS. Using Google Drive, CoP members have access to relevant information that can be customized to suit individual needs. Group email and phone conversations are logged in order to further expand the reach of any tips and recommendations shared in this space. Example recommendations include best practices for backing up system files, creating form letters from iHRIS, and determining which international standards to use for classifications, such as cadres or facility types. Google Drive also included links to websites, information about open source hosting, and a number of other relevant materials. Developers within the iHRIS community use Etherpad to review the source code and teach junior developers the basic programing behind the software's core functions. This interactive web-based platform

does not rely on audio, but developers use the built-in chat features to communicate. The use of Etherpad is a great example of the community overcoming some of the language and low bandwidth challenges open source projects face in low-resource settings.

The CoP has a CapacityPlus-supported community manager who encourages members to curate, contextualize, and update content as appropriate. This community manager reaches out to new members to assist in their onboarding to a project. The community manager is now facilitating routine telephone calls (using Skype or an international dial-in number), YouTube tutorial videos, and Google Hangouts on Air as a way for CoP members to share experiences and learn from each other.

The CoP is also working on collaborative products, such as the upcoming iHRIS Implementation Toolkit. Twelve countries have contributed nearly 100 implementation tools, guidance documents, and case studies to a toolkit that will help other implementers to be successful with iHRIS and themselves benefit from and contribute to the community and future collaborative products and activities.

AFTER ACTION REVIEW

What worked well?

1) **Supporting both global and country-level user and implementer communities**

   The iHRIS software program was not launched in isolation; working with a strong, supportive global group of iHRIS users, as well as facilitating country-level communities, has helped generate demand for the product and feedback for continuous improvements. As a result, iHRIS is now truly an open source product, not just a product of IntraHealth or CapacityPlus.

2) **Ensuring that the communities had access to a range of information—to help implementers roll out and modify the software with limited north-to-south technical assistance**

   Facilitating south-to-south collaboration and providing access to information for implementers and users, (while still being available for TA as needed) has led to successful deployment of iHRIS software in a number of settings. Using collaborative tools—for example, Google Drive—facilitated the capturing of experiences and conversations and allowed community members to access helpful information.

3) **Cultivating open source champions within the CoP**

As a result of participation in the CoP, many members have become champions of the open source infrastructure. These individuals have helped local developers freely modify code to suit their needs. This has led to its rapid adaptation and use by ministries of health and other country stakeholders, many independent of on-the-ground project funding and support.

The CapacityPlus community-driven approach led to product improvement innovation based on real users' experiences. These strategies also aided in the translation of the software into more than 15 languages—most recently Sinhalese (Sri Lanka). Furthermore, in 2010, the director for human resources development for the West African Health Organization (WAHO) adapted iHRIS Manage for a pilot program in Ghana's Northern Region. The successful pilot spurred other countries within the Economic Community of West African States (ECOWAS) community to build on Ghana's experience. Through this existing ECOWAS forum, WAHO was able to gather together 15 leaders from the region to talk about scaling up the use of iHRIS. Togo, Mali, Nigeria, and Sierra Leone are among the countries interested in using iHRIS.[2]

Challenges

1) **Poor infrastructure**: Inadequately developed telecommunications networks, as well as limited Internet access, in low- and middle-income countries has been an ongoing challenge for connecting with current and potential iHRIS users.

2) **Scale**: iHRIS's growing popularity and success presents new challenges for its CoP. To quickly and efficiently on-board many new CoP members at once according to their interest and skill level (so as not to quench their enthusiasm) is a major task. Furthermore, as the community grows, dissemination of a great deal of news and notable information across multiple channels is needed.

3) **Measuring the success of the CoP**: A number of variables can affect a CoP's outcome, and it can difficult to identify which factors are responsible for a given CoP's success. As such, deciding on which monitoring and evaluation indicators

to use has been a challenge. For example: Is success due to the level of interaction among community members? Is it based on membership (i.e., how many members are in each community or how many organizations are involved in the community)? Or perhaps diversity among members determines success?

RECOMMENDATIONS

1) **Engage stakeholders from the beginning**. By sharing experiential knowledge with each other, stakeholders can help improve a product and increase its reach and acceptance.

2) **Leverage the power of existing communities**. This helps prevent duplication of effort by holding off on creating new communities if similar ones already exist.

3) **Think about monitoring and evaluation from the beginning**. When forming a community, identify indicators that can be used to measure the success of that community.

4) **Nurture champions**. Such individuals can help facilitate knowledge sharing, promote innovation, and assist with scale-up.

5) **Find practical, adaptable CoP managers**. To ensure the sustainability of CoPs, it is critical to find practical, adaptable CoP managers who are open to new ideas and can address issues and facilitate knowledge sharing.

[2] VOICES#1. (n.d). "Worth More than Any Money:" Building Local Capacity in Health Worker Information Systems. Retrieved from http://www.capacityplus.org/files/resources/Voices_1_WAHO.pdf

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