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Knowledge for Health

Key Findings from the Malawi Health Information Needs Assessment

The Knowledge for Health (K4Health) project is conducting a series of country-level qualitative studies of health information needs as part of its effort to bring relevant, evidence-based information, knowledge, and best practices to health professionals in international public health settings. K4Health carried out the first of these needs assessments in Malawi. Results from the Malawi assessment will inform the design and implementation of in-country knowledge management activities and information products that

Methods

The Malawi needs assessment employed qualitative research methods to collect information in July – August 2009. Of 25 individual interviews conducted, 20 involved senior officials

Research Questions	Key Findings
Information Needs	• Participants expressed a need for technical information on FP/RH and HIV/AIDS, best practices, and health and service statistics; and • There is no coherent system for sharing knowledge in Malawi, and no central location where people can go to find complete FP/RH and HIV/AIDS information.
Networks	• Malawi has a number of professional networks, associations, and technical working groups that have a mandate—and the potential—to serve as knowledge-sharing platforms for their members.
Infrastructure	• The national government headquarters generally have good Internet connectivity, although an intermittent power supply can pose problems; • Most District Health Offices have few computers and slow, unreliable dial-up Internet connections; and • Limited access to the Internet means that only a few study participants are able to access global knowledge networks and eLearning Web sites.
Technology and Tools	• Print materials remain important, especially in the absence of Internet connections; • Radio is still a valued source of new and up-to-date health information; • Mobile phones are common and offer a promising new opportunity for knowledge-sharing, although network problems and the cost of air time present challenges.

address the information needs of program managers and service providers, including community health workers, who work in family planning and reproductive health (FP/RH) and HIV/AIDS.

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and managers from nongovernmental organizations (NGOs), the Ministry of Health (MOH), stakeholder organizations, and professional networks. The remaining five interviews were conducted with district health officers and health facility staff when it was not possible to convene a focus group. Nine focus group discussions (FGDs) were held with district-

	Central level	District level	Community level	Total
Individual interviews	20	4	1	25
Respondent profile	Program Directors; Senior Managers; Local network representatives	District health officers; NGO district managers	Health facility staff member	
Focus group discussion	1	3	6	10
Respondent profile	USAID HPN staff	District health management team; NGO district managers	Health facility staff; community health workers	

level managers, health facility staff, and community health workers (CHWs) in three districts (Salima, Nkhotakota, and Blantyre). An additional focus group was conducted with staff from the USAID HPN office at the request of USAID/Malawi.

Research Questions

The interview and focus group discussion guides explored the following research questions:

- **Information needs:** What are the health information needs of FP/RH program managers, service providers, and community health workers in Malawi? How are they currently meeting these needs?
- **Networks:** What professional or knowledge networks in Malawi currently serve these audiences? What lessons can be drawn from these networks?
- **Infrastructure:** What level of Internet access exists in Malawi, and how does it vary within the country? What about mobile phone access?
- **Technology and tools:** What are the most promising technologies and tools to reach these audiences? What channels are organizations currently using to communicate with their staff, colleagues, partners, and clients in the field?

Findings

Health information needs

Study participants expressed a need for information of all kinds, including technical information on FP/RH and HIV/AIDS, best practices, and health and service statistics. They also need support to make sense of that information and apply their newfound knowledge to program design and implementation.

Accessing useful and up-to-date information presents a challenge for managers and providers at all levels in Malawi. There is no coherent system for sharing knowledge and no central location where people can go to find complete and

current information about FP/RH and HIV/AIDS. Information tends to be scattered, hard to locate, and difficult to access. Given the pressures of their work, health professionals often give up the search to learn more. Instead, they rely on what little information is readily available—which is generally out-of-date.

Organizations that receive international support have better access to information than the rest. For example, NGOs can gain access to important Web sites through the Intranet of international partners. Likewise, government departments receive current health information along with other support from the World Health Organization and other United Nations agencies—although they lack an effective way to share the knowledge with other organizations in Malawi.

The dearth of information is most pronounced among CHWs. They rarely receive any refresher training after their initial recruitment, have no access to the Internet, and are the last people to receive new guidelines. Sometimes they do not realize that guidelines have changed; on other occasions, they are aware that they are using outdated information but can do nothing about it.

Sources of information and knowledge

Study participants mentioned many potential sources of information, including the Internet, government and partner organizations, professional networks, technical working groups organized by the MOH and the National AIDS Commission (NAC), training workshops and meetings. However, they complained that it was difficult to get reliable information and insights: Internet access is limited, the culture of knowledge sharing in Malawi is weak, and sources often lack current information themselves. For example, district-level managers and CHWs report that they rely on the District Health Office (DHO) to update their knowledge—but they usually do not find what they are looking for, because DHO libraries have few books or other materials and do not provide Internet access. CHWs face additional obstacles because they are generally not invited to training workshops or meetings where they can update their knowledge.

Malawi has a number of professional networks, associations, and technical working groups that have a mandate—and the potential—to serve as knowledge-sharing platforms for their members. However, limited resources and capacity, along with a lack of focus on knowledge-sharing, prevent them from fulfilling this function effectively. These groups often lack Internet facilities and may themselves have limited access to current information. Most rely on meetings and newsletters to share knowledge, but these are infrequent because of financial constraints. Further, some groups have lost sight of their original mandate. For example, the Malawi nurses association more often operates as a union and advocacy voice than a knowledge exchange service.

Internet access

National government headquarters in Malawi generally have good Internet connectivity, although an intermittent power supply can pose problems. Internationally supported NGOs also tend to have good Internet access and they supply their staff members with the technology needed to access the Internet via mobile phone networks. In contrast, national NGOs tend to rely on local Internet providers whose services are limited to urban centers.

Most DHOs have few computers and slow, unreliable dial-up Internet connections. As a result, only senior managers have access to the Internet at the workplace; other staff members must travel to Internet cafés. Internet access is non-existent for CHWs and other clinical staff, including nurses and midwives. Some service providers do not even know what the Internet is, while others lack the capacity to use it even if connections are made available. Nursing associations, for example, cannot use email to communicate with their members; instead they must rely on phone, fax, and post.

Limited access to the Internet means that only a few study participants—mostly those who work at internationally supported NGOs—are able to access global knowledge networks and eLearning Web sites.

> "Our information is a bit scattered. I think we don't have centralized information, we don't know … if you really need this information, whom should you consult or whom should you contact…."
>
> – Interview, Christian Health Association of Malawi (CHAM)

Knowledge management

Malawi lacks a strong, centralized knowledge management system that allows health professionals to gather important information and insights in a single location and make it easily accessible to interested stakeholders. Knowledge management is also weak at individual organizations, including both government departments and NGOs. While most organizations have Web sites, they are rarely updated. Thus, participants who look to government and NAC Web sites for up-to-date statistics and other information are often disappointed. Instead they may have to travel from office to office searching for information manually.

Content and packaging

The way in which information is presented often discourages service providers from reading the materials they do receive. For example, CHWs say they are unable to understand many materials because they are written in English, use scientific or technical jargon, or are too theoretical. Sometimes materials are simply too bulky; given chronic understaffing, providers simply do not have the time to wade through big books looking for answers to their questions.

Promising tools and technologies

Among study participants, there was a general preference for face-to-face communication because it allows people to ask questions and immediately seek clarification when they do not understand. Unfortunately, the high cost of bringing people together has discouraged district teams as well as professional networks and associations from holding meetings with any regularity.

Print materials remain important, especially in the absence of Internet connections. Participants stress that they make valuable adjuncts to training courses and meetings. They believe that face-to-face interactions are the best way to introduce and explain new ideas, but that print materials serve as useful references afterwards. In Malawi, however, most organizations share printers, and limited supplies of paper and toner prevent them from printing large quantities of hard copies.

Study participants repeatedly mentioned radio as a useful source of new and up-to-date health information. Radio is convenient because people can listen while working; it avoids literacy issues; and it can reach scattered CHWs more quickly than print materials.

Findings also suggest that mobile phones offer a promising new opportunity for knowledge-sharing in Malawi, although network problems and the cost of air time present challenges. Even at the community level, most service providers own cell phones and use them for both SMS messages and voice calls. Most study participants believe that SMS can be an important way to share information that is brief and instructional. Smart Phones are not common in Malawi, but there is growing interest in their ability to access the Internet. Over time, Internet access via cell phones may grow as companies upgrade their wireless networks and increase bandwidth.

Recommendations: Building a National Model for Knowledge Exchange

1. Capacity-building at the central level

Building the knowledge management capacity of government departments, working groups, NGOs, professional networks, and other organizations could improve access to health information at all levels:

A. Knowledge Managers: Most study participants agreed that knowledge managers could be extremely helpful—to systematically collect and regularly upload information to Web sites, to link organizations together, and to serve as resource persons for staff members. Knowledge managers could alert program managers and service providers to important new developments, help them locate and interpret essential information, and help produce content for providers.

B. Technical Working Groups: Existing technical working groups organized by the MOH and NAC have the potential to serve as a hub for knowledge management among government structures and NGOs working in HIV/AIDS and FP/RH. However, these groups will need capacity building in leadership, management, and knowledge exchange practices. Many of the NGOs that participate in the technical

working groups are also members of professional networks and associations that have offices at the district level. With more resources and better internal management, the technical working groups could be used to improve the flow of information from the national to the district and community levels.

C. Central Knowledge Repository: Developing a centralized electronic collection of essential information and resources on HIV/AIDS and FP/RH, much like a K4Health toolkit, could greatly help overworked managers and directors to seek and share key programmatic information. Study participants also liked the idea of establishing a comprehensive and regularly updated national Web site dedicated to HIV/AIDS and FP/RH in Malawi. A central Internet portal of this kind could house the locally developed toolkits on HIV/AIDS and FP/RH and also link to other relevant Web sites, such as the National AIDS Commission.

While an online knowledge repository would directly benefit only people with access to the Internet, it would reach many more indirectly. Both government departments and NGOs would rely on the site for reliable and up-to-date information when they prepare print materials, training courses, radio programming, and the like for providers and health workers at lower levels.

2. Knowledge exchange at the district and community level

Moving information beyond headquarters should be a priority. The best way to accomplish this is to make use of the decentralized structures that already exist at the district level in Malawi.

A. District Learning Centers: The DHO is ideally placed to act as a knowledge-sharing hub for clinical staff and service providers. Most DHOs have libraries, although they contain few materials, and are in the process of making the Internet accessible to all staff members. Establishing a District Learning Center in each DHO would: a) provide a central information point for the district; b) house print materials from partner organizations and the ministry; c) offer free or affordable Internet access; and d) provide space for training workshops or district meetings for clinical staff and service providers.

CHWs and other district staff could travel to the District Learning Centers to access guidelines, instructional materials, and other information related to service provision. As a result, the Leaning Centers would strengthen opportunities for face-to-face knowledge-sharing at the district level. This is important because most managers and providers will never have the opportunity to attend forums at the national level. There are many possibilities: managers could meet quarterly and invite experts to make presentations; providers could share experience and expertise with one another; and professional associations could organize meetings to share resources with members.

B. District Assembly: With decentralization, the District Assembly has taken on an important role in coordinating the activities of NGOs and community-based organizations within the district. The District Assembly could work with NGOs and professional networks and associations to develop each district learning center. District Health Information Management (DHIM) Officers could take responsibility for these activities; they should create a process to ensure that new guidelines and information flow swiftly from the national level to the district learning centers and to community health facilities.

3. Packaging content

Overworked providers do not have much time to devote to reading and may be easily discouraged by how—and how much—information is presented. Study participants agree that the solution is to prepare brief summaries of essential knowledge for specific cadres of health workers. These digests would be translated into the local language and tailored to the providers' educational level, giving providers a convenient and easy way to update their knowledge.

4. Exploiting new technologies

High rates of cell phone ownership and demand for Internet access demonstrate that health managers and providers in Malawi are interested in new technologies. Disseminating information and alert messages via SMS and the Internet may also be more cost-effective than using conventional communication channels. Some possible uses of a basic SMS network include:

- The ability of one person in the SMS network to send an alert or question to the entire network;
- Auto-respond capability to specific keywords texted by a network member; and
- Automated referral information for important health conditions.

While health information programs in Malawi should explore these new opportunities, they must not move too quickly or drop older communication channels altogether. Face-to-face communication, print materials, and the radio are all highly valued and, among some target groups, have much greater reach than any new technologies and should not be ignored.

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