

# Using knowledge management to make health systems work

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During the last quarter-century or so there has been a revolution in both health and information technology. For the globe as a whole we have seen tremendous strides made in life expectancy and disease control, together with an explosion of information technology and techniques. Humanity now has the potential to make all existing health knowledge available simultaneously to the entire population of the planet.

By no means everyone has benefited from the overall trend of increased life expectancy, however, or from that of increased knowledge and its communicability. This gap goes beyond the notion of the "digital divide". It is a "knowledge divide", in which large sections of humanity are cut off not just from the information that could help them but from any learning system or community that fosters problem-solving.

For instance, where people are dying of HIV/AIDS, tuberculosis (TB) or malaria despite the availability of technologies to control them, it is at least partly because the procedures for using those technologies effectively have not been worked out and learnt locally. Conversely, if scientists, administrators and technicians fail to stop the rise of these diseases in spite of big investments, detailed calculations and good intentions, it is at least partly because they do not know enough about how things actually work locally.

Not only do health data tend to be more scarce in the places that have the more serious health problems, but there are fewer systems there for using even the data that are available to solve those problems. The result is failure to make the transition from information to action in the form, for example, of new treatment guidelines or government policy.

The discipline of knowledge management (KM) aims to bridge this gap. Starting with the premise that local problems must have local solutions,

effective KM in health can provide on an equitable basis the knowledge necessary for local innovation, and then produce new local knowledge that is in turn fed back and shared in a dynamic regenerative process. Although much of the content of KM is often perceived as information technology (IT), it goes in practice beyond the facilitating power of any single IT tool. Used in the way it should be, it harnesses experience through collaboration in direct, humanly interactive problem-solving.

Two examples can give some idea of how this works. In the first, two nongovernmental organizations, Partners in Health and the Institute for Healthcare Improvement, have been working with the Peruvian Ministry of Health to improve TB treatment in that country. Last year they set up a pilot programme involving 41 clinics, using business software to link the clinics with a global team of TB experts, thereby forming a specific community of practice for solving problems, sharing innovations and gathering evidence. Each team gathered its own information which was then aggregated by the project planning group and redistributed back to the clinics and the health ministry to use for their own planning. Each clinic designed its own plan within common shareable standards, with an obligation to contribute to the common knowledge pool.

A characteristic of this initiative is its flexibility. Initially, the plan was for the communication between clinics, global experts and the ministry to be conducted through an email listserve, but this proved to be impractical since most of the clinics were not equipped for it. Eventually a hybrid system of visits, conference calls, web pages, email and paper mail was worked out to adapt the system to the constraints of each user. This also had the effect of driving connectivity, as at the beginning of the project only five of the 41 clinics had

effective email access. Now, twelve months later, 28 of them do.

This project illustrates two important points. First KM, although facilitated by IT, is not just IT. It is the management of intellectual assets regardless of the medium used. Second, KM is itself a driver of change. But most importantly, even after only 12 months, there are indications that TB treatment numbers are improving for the pilot clinics. Only a formal evaluation later on will provide hard data on the outcomes of this approach, but in the meantime the signs are encouraging.

The other example is the Health InterNetwork Access to Research Initiative (HINARI), a WHO-sponsored partnership with major scientific publishers. HINARI provides comprehensive access to peer-reviewed health literature and makes it available directly to health researchers in the developing world at little or no cost. By giving researchers in resource-poor environments the information tools they need, the project can catalyse local innovation in health and erode the distinctions between developed and developing world science, to the benefit of both.

WHO as an institution has always been gathering, synthesizing and disseminating information, but looking at that process as a whole and integrating it into a KM framework is a relatively new approach for the Organization, and for the public health sector itself. One of the challenges facing WHO now is to define its position in the new knowledge environment. What role should WHO play? Can it transform itself from a producer of information into an organization that enables others to use and produce their own knowledge? WHO is already a leader in global health information, but can it lead in knowledge collaboration as well? ■

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