

## Editorial

# Quality improvement in the developing world

A Quality Improvement (QI) team in a small clinic assessed children's compliance with a standard treatment plan for a common infectious disease. Compliance was poor. Studying why, the staff discovered that the bad taste of the medicine was a principal problem. Working with mothers, the QI team identified popular foods that could be used to conceal the taste, and they placed in the waiting area a poster showing how to use the foods to do it. In the next test cycle, compliance with the treatment protocol had risen from 48% to 70%.

The story is familiar—a successful quality improvement project—but the setting is not. The project team was not in a wealthy American health maintenance organization or a primary care practice in Sweden. It was in a remote African village, the disease was malaria, and the drug was chloroquine [1].

In conjunction with this issue, the *International Journal of Quality in Health Care* will publish a supplement entitled 'Quality Assurance in Low- and Middle-Income Countries'. The papers in this supplement are based on the work of the Quality Assurance Project of The United States Agency for International Development (USAID), now in its third 5-year funding cycle. These reports from developing countries are good news both for the field of QI and for the many individuals working to improve health and health care systems in countries with very limited resources.

This project has a technical support center in the United States, which provides assistance to developing countries that request it and compete successfully for funds from the local USAID mission. Readers who would like a preview of the supplement can sample the impressive collection of monographs, case studies, and research reports available on the project website [2].

The supplement includes reports of work in some of the poorest countries in the world. The basic approach is simple and familiar: set improvement goals, study the work process, design and test promising changes, measure progress, involve everyone, and continuously build skills in system-mindedness, teamwork, and measurement. Throughout, listening carefully to clients and respecting their needs is a clear abiding principle. The results speak for themselves: QI works in unfamiliar places.

Working conditions in developing countries can be overwhelming, and include lack of sufficient staff, absence of continuing education, poor physical facilities, and long distances between health centers. In rural settings where much of the population lives, bad roads and incomplete coverage by telephone systems make transportation and communication

difficult. Erratic supplies of electricity and other fuels can threaten the 'cold chain' for vaccines. Add to this the combined burdens of diseases such as cholera, malaria, and AIDS, the effects of chronic malnutrition, and the new 'double burden' of chronic illnesses. Not surprisingly, studies of the quality of services in such settings are almost always pessimistic [3].

Developing countries face structural problems as well. While every country is different, 'top down' management systems, many of them legacies of colonialism, are common. Developing countries, like their wealthier counterparts, can rarely monitor the quality of services delivered to discover underlying causes of failure, or to determine when improvements (or deteriorations) have occurred.

In addition, some of the most sophisticated efforts by developed countries to offer help have brought their own accompanying problems. Many donors, including very large comprehensive agencies such as the World Health Organization (WHO), have offered assistance for one disease at a time. Special projects to eliminate cholera or treat malaria can have great benefit, but the patients who present themselves for care do not come sorted into diagnostic categories. At the primary care level, and for care of AIDS, tuberculosis, and chronic illnesses, integration is essential.

The Integrated Management of Childhood Illnesses (IMCI) illustrates a change in approach that will also stimulate interest in QI. This major initiative, which is currently being implemented in over 100 countries, is sponsored by WHO and the United Nations Children's Emergency Fund (UNICEF), and is now also supported by many other donor agencies. Its aims are 'to reduce death, illness and disability, and to promote improved growth and development among children under 5 years of age' [4]. IMCI emphasizes the comprehensive care of children. The project focuses on systemic capacity for predictable routine care. The critical elements include clinic access, availability of essential supplies, and health worker performance including communication with patients.

IMCI's first implementation step is an inventory of the level of quality of services currently delivered. A few of these studies have been published [5,6]; many more exist as consulting reports prepared for the Ministry of Health that requests them. An important part of the process is continued measurement of the level of achievement of objectives such as immunization rates, compliance with treatment protocols, and numbers of children weighed during their primary care visits. By measuring and reporting how facilities function, and by using that information to identify both successful and

unsuccessful innovations in care, the participating developing countries have in fact put in place an essential first component of a strategy to monitor and improve the overall quality of their health system. As IMCI is fully implemented, it should be possible to add a process of monitoring the quality of services to adults.

Quality measurement and management methods alone will not solve all of the problems in the developing world. If there are insufficient funds to buy medicines, then the best organized system imaginable will not be able to deliver them to patients. But QI techniques and the careful reporting of results can optimize resource allocation and use, and provide donors confidence in the ways in which their money has been spent. Resources without improvement may only be buying more of the same, failed processes. Resources plus systematic quality improvement can break through to new performance levels through new processes of care.

Sceptics might think for a moment about the ways in which the conditions for QI may in some ways be better in the developing world than in wealthier nations. Proponents of improvement of health care in the United States, for example, often encounter old-style, control-oriented management, a leadership system far more focused on finance and revenue than on improving operational processes, a strong sense of professional hierarchy and entitlement, and a lack of integration of the health care system with community resources. In developing nations, the 'crust' of old-style management may be thinner or even absent, leaders may already be focused on the task of getting the best they can out of current resources, teamwork among health care workers may seem more familiar, and community structures may be more accessible as part of health care. Properly adapted QI methods may be even better suited to the developing world than to the developed nations [7].

Of course, just as management turnover in corporations can derail improvement, episodic and widespread economic and political instabilities, even civil disorder and wars, can create an inhospitable environment for the best quality improvement interventions. One case study in this journal clearly shows that such instability eroded hard-won improvements in immunization rates [8]. These risks are real, but they do not negate the importance of QI efforts in optimizing the allocation and use of precious resources, as well as the importance of health care interventions in enhancing human dignity and the quality of life. Indeed, in the longer run, economic and political stability can be not just a cause, but a consequence of improvement.

While the supplement accompanying this issue of the journal represents an important step, we also should keep in mind both how little research work has been done to date in this field and how very little we still know about the continual improvement of care in developing countries. What permits quality interventions to work or prevents them from working? What specific process models and principles of design make the most sense? What management approaches

work in cultures very different from those in which QI was first described? How can we build everyone's skills in improvement (not just training of the workforce, but also of policy-makers and leaders), and what resources does such training require? How should successful QI efforts be re-inforced, spread, and supported over time? What are the most economical and practical approaches to the measurement of processes and results at local, regional, and national levels?

What the journal supplement does give us is optimism. Use of QI techniques in the developing world is a hopeful first step, deserving of interest and support. The exciting common thread is that health care staff, even those working in conditions of isolation and extreme poverty, can form teams, analyze problems, test changes, and find solutions with enthusiasm and creativity if they are given the training, the time, and the support from their leaders to get the job done.

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