Editorial

Quality of care in low- and middle-income settings: what next?

For decades or longer, efforts to improve health in resource-limited settings focused on fundamental public health interventions, including sanitation, immunization and access to basic primary care. These interventions are paramount to reducing preventable mortality and increasing life expectancy. Nevertheless, as low- and middle-income countries (LMICs) experience economic development, calls for improved quality of care within both primary and secondary care settings have emerged [1–3]. The challenge is manifold. How to continue to expand access to preventive and primary care, while satisfying growing needs in clinical and secondary care? How to elevate quality without sacrificing access to services, particularly in resource-limited settings? These issues, we hope, will be harbingers of future health-care innovations that effectively address questions of cost, access and quality in LMICs.

The science of health-care quality improvement, first brought to the USA through the National Demonstration of Quality Improvement in Health Care [4], is now widely endorsed by practitioners, researchers and policymakers in high-income settings. Decades of theoretical and empirical research has identified key elements of successful quality improvement efforts [5–9]. These include: (i) common vision and shared goals across the hierarchy of those planning and implementing improvement efforts, (ii) reliable, credible and timely data and (iii) an organizational culture of accountability without excessive individual blame. These elements are not easy to achieve and sustain in any environment, but special circumstances of LMICs may create greater challenges and highlight the need for implementing partners to develop a literature on essential elements of successful quality improvement efforts that are specific to these settings.

A first special circumstance is the donor–recipient relationship that underpins the health systems’ strengthening efforts that frame much of the quality improvement work in LMICs currently. Many quality improvement projects are initiated and funded by governmental and non-governmental agencies outside the organization and often outside the country altogether [10]. Although the vision and goals may become aligned as ministries of health and organizational leadership teams enroll in such efforts, typically enrollment in these projects includes higher salaries, financial incentives and increased prestige that may result in increased flow of project-based resources in the future. This imbalance of power may have deleterious effects on the motivation of staff and policymakers, who may not internalize the common vision and shared goal of improvement. Rather, they may implement prescribed processes so that they can access project-based financial and non-financial resources. Sustaining motivation for continuous improvement from within the organization is challenging in all settings; however, the power differential between donors and recipients and the extreme scarcity of alternative resources in LMICs exacerbate this challenge and highlight the need for implementing partners to recognize this differential and work on authentic relationships with recipients that cede excess power when possible.

A second distinction in promoting quality improvement in LMICs, which is less concerning in higher-income settings, is the dearth of data at the organizational level. Reflecting the decades of focus on population-based surveillance data, many indicators collected by the Demographic and Health Survey and other prominent surveys used by global health researchers have as their denominator the population in a catchment area, rather than the patients cared for in a facility. Furthermore, the most basic public health data—on births and deaths—are not routinely gathered and reported in many, particularly rural or pastoralist settings, resulting again in the dependence on special projects (usually donor funded) to capture the data that alert staff to existing problems, prompt quality improvement actions and confirm progress in such initiatives. Without dependable, accurate and timely data, even initially energetic quality improvement efforts can flag quickly. Additionally, the lack of systems for government or payer audit can limit provider and patients’ confidence in the accuracy of reported data, which may be sanitized to support desired political or economic goals. Again, although inaccurate and biased data are a liability in any setting, LMICs often have fewer resources to devote to audit and corroboration of reported data, which may amplify such challenges. Building country capacity to collect, analyze, report and audit performance data for health-care organizations is essential to move the dial on quality improvement in LMICs.

A third complexity in fostering effective quality improvement in LMICs is establishing an organizational culture that holds people accountable for agreed upon behaviors, without using blame and punishment as a motivator. Fostering such a culture is always difficult; however, in LMICs with less history of such culture, the task becomes more onerous. In more fragile states, the inappropriate use of power may be in the not-so-distant past, and this legacy may inhibit efforts to use power appropriately, for instance in the case of guideline-based human resource management, including corrective action when needed. Depending on the history of the organization, hiring and firing practices may not be standardized, hindering the legitimacy and accountability of organizational practices. Furthermore, in LMICs, few staff members have participated in management and leadership training. Often,
the most motivated and educated staff members are physicians, whose management training is inadequate to foster organizational cultures of accountability. Capacity building at all levels in human resources management, including tools for corrective action and performance management systems, will be essential to enable organizational cultures that support continuous quality improvement.

What core elements and approaches in research can push this field of research ahead to achieve higher quality health care in LMICs? First, research must examine not only the total or average effects but also the variation in effects in different circumstances and applications. For instance, in South Africa, Govender et al. show significant improvement in diabetes management in seven out of nine clinical processes due to clinical audit-based interventions. Relatively, little data are provided to understand why it may be that some improved and others did not; similarly, site-specific data are often not reported, even though such granularity might illuminate key factors that could foretell organizations that may be more successful or less successful in improvement efforts. Quality improvement research in LMICs should take advantage of the natural variation in impacts to understand causal factors that may amplify or dampen the influence of quality improvement efforts on outcomes. Although some such studies exist in LMICs [11, 12], more are needed, particularly those that use qualitative and mixed methods to assess potentially causal explanations for success.

Additionally, greater focus on developing valid and reliable measures of key outcomes—such as Awasthi et al.’s study on the reliability of an instrument that assesses perceptions of quality of care in an Indian context—may confer substantial benefits on the field. Multiple studies underscore the importance of using measures that have been validated in the country and population of use [13–15]. Nevertheless, the challenges in developing a data-driven mindset are formidable. Making the link between data collection and quality improvement salient for front-line providers is critical. During a recent initiative to improve the quality of obstetrical care in West Africa, Pirkle and colleagues [16] reported that staff often thought charting wasted time and prevented more important medical tasks from being accomplished. As evidenced by Friday et al. in this issue of the Journal, however, the lack of systematic data collection and documentation can seriously undermine efforts to improve patient care. Engaging staff in designing data collection processes that do not slow their work and that are viewed to help them in providing higher quality care will be essential to promote quality improvement efforts. At the same time, greater resources are needed for developing and validating measures of both processes and outcomes. Advocacy for funding such research is paramount. Moreover, the capacity to implement such research should be developed among the academic communities within LMICs. The Fogarty International Center, which offers training grants for international scholars in a variety of global health topics, is paving the way to build sustainable research capacity in LMICs. Although such programs are useful, they are inadequate in size and funding to have broad-based impact on quality of care in LMICs.

Looking back at the start of the movement in health-care quality improvement in the USA in the 1980s [4], resource constraints played a critical role in driving quality improvement efforts. For decades, Medicare—the federal health insurance program for people of age 65 and older—paid hospitals on the basis of the actual cost of providing care. Then, in the early 1980s, Medicare implemented a prospective payment system in which payments were capped (i.e. hospitals were paid a flat rate per case, irrespective of the actual costs). This dramatic change in the ways that hospitals were reimbursed placed new pressures on the hospital leadership to deliver the same quality of care with fewer resources. This financial squeeze, within the context of a competitive market, promoted the spread of quality improvement efforts as a means to increase efficiency, while retaining quality. In the LMICs context, such incentives may be less pressing; however, novel experiments are emerging as described by the seven studies reported in this issue of the Journal. These papers demonstrate that performance management and quality improvement can be particularly meaningful in LMICs seeking to meet the health needs of their people within the constraints of limited resources.

References


**ELIZABETH H. BRADLEY¹,²**

**CHRISTINA T. YUAN²**

¹Global Health Leadership Institute, Yale University
²Department of Health Policy and Management Yale School of Public Health

Address reprint requests to: Elizabeth H. Bradley,
Global Health Leadership Institute, Yale University,
New Haven, CT, USA.
E-mail: elizabeth.bradley@yale.edu