Time for a quality revolution in global health

The beginning of 2016 marked a major transition in global health: from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs). The core strategy used to reduce mortality from MDG health conditions was expansion of coverage of a short list of effective but relatively simple health interventions. Indeed, success on many of the MDGs was measured through coverage (eg, proportion of births with skilled attendants). There are two reasons to think that the utilisation strategy will not deliver the Sustainable Development Goals (SDGs).

First, greater use of health care did not reduce excess deaths from MDG conditions that require more complex clinical care. For example, India's Janani Suraksha Yojana (JSY) programme shifted millions of births from the home to hospital through cash incentives, but failed to reduce maternal or newborn mortality, probably owing to low provider skill and poor clinical management.[1,2] Second, the new conditions on the global health radar—non-communicable diseases, mental health and addiction, and injuries—are also contingent on accurate and rapid diagnosis and treatment, care integration for multimorbidity, and longitudinal care.

Improving future health outcomes across the globe will thus mean paying attention to what happens once people reach the clinic—the quality of care. However, whereas data on health-care use greatly improved in the MDG era,[3] we know little about the quality and effectiveness of care in lower-income countries. We compiled survey data illustrating the six dimensions of quality identified in the Institute of Medicine report *Crossing the Quality Chasm*[4] (safe, effective, patient centred, timely, efficient, and equitable) from countries in sub-Saharan Africa—a region with a disproportionate burden of disease. We selected the four indicators that most closely reflected the elements of each dimension of quality and were consistently available across study countries. Where possible, we selected variables reflecting processes of care rather than infrastructure or other static inputs. These indicators were selected to illustrate the dimensions of quality and are not comprehensive measures of quality. To measure equity of services, we used principal components analysis to construct a wealth index from 15–20 country-specific household assets.[5] We compared individuals in the highest and lowest wealth quintiles on their experience on three indicators of quality: receipt of a pelvic exam for women, provider choice, and travel time to the facility.

We used data from World Health Surveys (WHS)[6] conducted from 2002 to 2004 in 18 lower-income countries, and from Service Provision Assessment (SPA)[7] surveys in seven others. WHS surveys were nationally representative surveys conducted by WHO that assessed individual health care use and experiences, including data on equity, provider choice, and pelvic exam. The SPA surveys include observation of clinical care in addition to facility audits and patient interviews. Means and standard errors were calculated for each variable in the pooled datasets, adjusting for the complex survey designs of the SPA and WHS using the svyset command in Stata 13.1 (StataCorp LP, College Station, USA). Data were publicly available and did not include individual identities and thus did not require ethics approval.

In terms of safety, fewer than half of health facilities had water on site or nearby (figure). For effectiveness, only 19% of women in 18 countries had ever had a pelvic exam. In terms of being patient centred, fewer than half of the caregivers were told their sick child's diagnosis, and fewer than six in ten facilities had any system to obtain patients' opinions. Efficiency was also problematic: nearly half of delivery facilities conducted fewer than ten deliveries per month. Only two in ten facilities had an ambulance with fuel, precluding timely transport in emergency. Furthermore, care quality was worst for the poor.

15 years ago, systematic assessments of health-care quality triggered a quality revolution in the USA and in other high-income countries. It is past time for a quality revolution in lower-income countries that bear the brunt of ill health. Where to start? We propose a dual agenda of measurement and action. First, national policy makers and their global partners need to agree on how to measure quality using tools and metrics that are robust, comparable, and financially efficient. They also need to invest in research on key questions such as what drives variations in quality, how provider performance can be improved, and why some clinics perform better than others. Promising recent efforts to improve measurement include the World Bank's

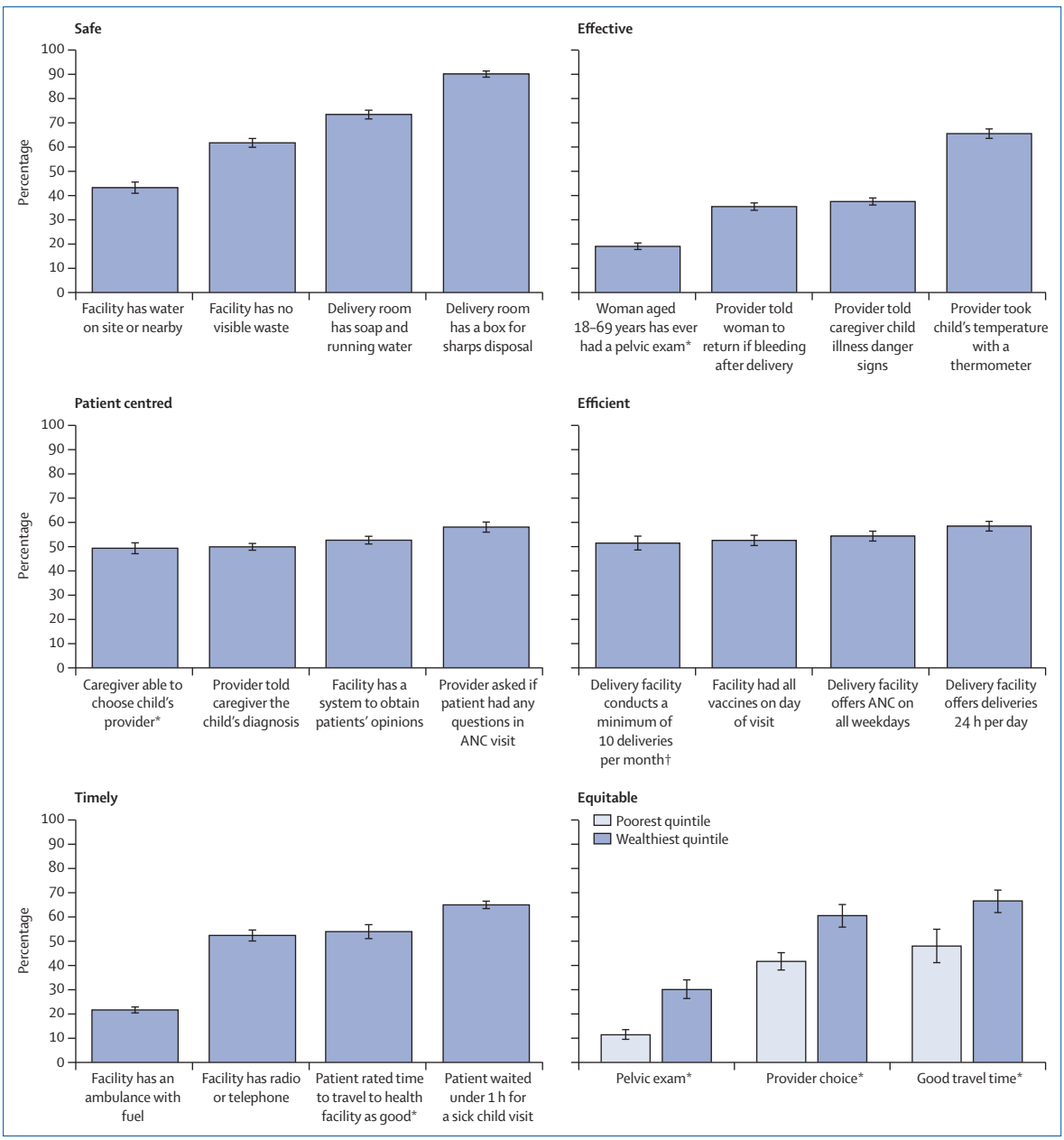

Figure: **Examples of performance on Institute of Medicine dimensions of quality in low-income countries**
ANC=antenatal care. *Data are from World Health Surveys conducted from 2002 to 2004 in Burkina Faso, Chad, Comoros, Republic of Congo, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Mali, Mauritania, Mauritius, Namibia, Senegal, South Africa, Swaziland, Zambia, Zimbabwe. †Data are from Service Provision Assessment surveys in Kenya, Malawi, Namibia, Rwanda, Senegal, Tanzania, and Uganda. Selection of surveys follows a two-stage design. Except in Rwanda and Namibia, where a census of all public facilities was conducted, each country's health facilities were randomly sampled after stratifying by type of facility (eg, hospital or health centre) and managing authority. Within each health facility, patients were selected using systematic random sampling. The number of sampled individuals responding to the selected questions ranged from 1153 to 4440 per country for a total of 46 049 individuals.

Service Delivery Indicator surveys designed to rapidly collect clinical performance and efficiency data and the Gates Foundation's Primary Healthcare Performance Initiative. Next, countries need to rigorously test solutions for improving quality using implementation science to ensure a fit with the problem and the local health system. The potential solution space is large: from macro-factors such as provider training, payment, health insurance, and social accountability mechanisms, to meso-level factors such as district management and supervision, to micro-factors such as clinical checklists or individual supervision.

Across the globe, both diseases and people's expectations for good quality care are converging. And while funding constraints in low-income and middle-income countries are real, economic growth and removal of unproductive subsidies can generate resources to improve quality. High-quality care is neither an aspiration for a distant future nor the sole purview of rich countries; it is central for reaching global health goals and a basic obligation of every health system to its users.

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We declare no competing interests.

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