

The Politics of Underdevelopment

**BEYOND ACCREDITATION:
A MULTI-TRACK QUALITY-ENHANCING STRATEGY
FOR PRIMARY HEALTH CARE IN LOW-
AND MIDDLE-INCOME COUNTRIES**

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Many define an equitable health care system as one that provides logistical and financial access to “quality” care to the population. Realizing that fact, many low- and middle-income countries started investing in enhancing the quality of care in their health care systems, recently in primary health care. Unfortunately, in many instance, these investments have been exclusively focused on accreditation due to available guidelines and existing accrediting structures. A multi-track quality-enhancing strategy (MTQES) is proposed that includes, in addition to promoting resource-sensitive accreditation, other quality initiatives such as clinical guidelines, performance indicators, benchmarking activities, annual quality-enhancing projects, and annual quality summit/meeting. These complementary approaches are presented to synergistically enhance a continuous quality improvement culture in the primary health care sector, taking into consideration limited resources available, especially in low- and middle-income countries. In addition, an implementation framework depicting MTQES in three-phase interlinked packages is presented; each matches existing resources and quality infrastructure. Health care policymakers and managers need to think about accreditation as a beginning rather than an end to their quest for quality. Improvements in the structure of a health delivery organization or in the processes of care have little value if they do not translate to reduced disparities in access to “quality” care, and not merely access to care.

International Journal of Health Services, Volume 44, Number 2, Pages 355–372, 2014
© 2014, Baywood Publishing Co., Inc.
doi: <http://dx.doi.org/10.2190/HS.44.2.k>
<http://baywood.com>

Many characterize an equitable health care system as one that provides logistical and financial access to its potential users, the population. However, the characteristics of such a health care system go beyond access to include equitable access to “quality” care. Realizing that fact, many low- and middle-income countries (LMICs) started investing in enhancing the quality of care in their health care systems. In early years, most of the effort was focused on the hospital sector, but recently attention has shifted to primary health care (PHC) due to its significant role as an entry point to the health care system.

The role of PHC as an integral part of a country’s health system and a cornerstone in the social and economic growth of communities was envisioned more than 30 years ago with the Alma Ata Declaration (1). The centrality of PHC to health care was reemphasized in the 2008 World Health Report, “Primary Health Care – Now More than Ever” (2), and the arguments made by many that health systems with PHC at their core contribute to equitable health outcomes (3–6). Yet, the huge aspirations placed on PHC have not been historically coupled with a parallel growth in investments in services and quality, especially in LMICs, resulting in an eroded public confidence (7, 8). It is argued that one of the main factors behind that poor public confidence is the perceived—and to a great extent actual—variation in quality of PHC services within health care systems in many LMICs (7, 9). A large-scale comprehensive project carried out by Primary Health Care Operations Research across 12 LMICs revealed several deficiencies in the diagnosis and treatment of patients, as well as quality disparities in provision of primary care services, including immunization and management of endemic illnesses such as malaria and diarrhea (10). The perceived neglect of quality of health care services is attributed to different factors and insights (7): (a) policy-makers in developing countries tend to prioritize expansion of access to services at the expense of quality; (b) the difficulty of introducing quality initiatives in the absence of effective monitoring and evaluation programs and information systems; and (c) the cost- and resource-intensive requirements associated with many quality improvements initiatives, which are not affordable in the context of resource-limited LMICs. Furthermore, the health care environment in many LMICs lacks the proper infrastructure needed to support care services of considerably “good” quality. In addition, the majority of developing countries lack adequate human resources, continuing education practices, and physical facilities, to name a few (11). Further, in some instances, specifically in rural settings, the situation is exacerbated by the poor environment; for example, unreliable supplies of electricity and fuel can threaten the “cold chain” for vaccines. This disparity in quality of services provided is worrisome because of the positive contribution of quality care in reducing health inequities across communities (12), to the extent that some have called for equity as a guiding principle for reformatting PHC (13).

It is in that context that recent attention to PHC quality is well-received and supported by many. However, in a parallel path to that employed in the hospital sector, quality improvement efforts in PHC have been largely focused on

accreditation due to its easily accessible guidelines and existing structures. The concern in such a trend for the PHC sector is two-fold. First, accreditation, if employed as a sole strategy, may evolve into an end rather than a means to an end, better quality of care (similar to what happened in the hospital sector in many LMICs). This is despite inconclusive evidence supporting the effectiveness of accreditation and the financial burden it entails. Second, the health care systems in many LMICs have limited resources to engage in the full menu of accreditation requirements and associated expenses.

This article argues for the employment of parallel quality-enhancing strategies—as opposed to *instead* of accreditation—that are flexible and responsive, a valuable feature especially in LMICs where the need is great and resources are limited. To that aim, a multi-track quality-enhancing strategy (MTQES) is proposed that is based on a review of the established effectiveness of individual strategies, resource constraints, and a systems approach to quality enhancement. It is presented as a tool to help decision makers and managers design and ultimately realize a comprehensive quality program in their primary care centers.

ACCREDITATION: A HISTORICAL PERSPECTIVE AND A REVIEW OF EVIDENCE OF ITS EFFECTIVENESS

Accreditation, originally introduced into health care in the early 20th century, has evolved into a cornerstone of today's health care systems. Currently, the number of accreditation programs is estimated at more than 70 (including national accreditation systems) spreading beyond North America to Europe and many developing countries, with the number doubling every few years (14, 15). This expansion has been coupled with new trends; accreditation has expanded beyond hospitals to other health care platforms that include primary care, health systems, and laboratories, among others (15, 16). In addition, in many LMICs the original approach of voluntary accreditation by an independent organization is being replaced with national programs that, in some instances, link accreditation to licensing (17, 18). The national programs, however, require factual political commitment, intense human and financial resources, and adequate and realistic planning to ensure the development and sustainability of such programs. This issue is further complicated in the context of LMICs in light of the complexity and obstacles of the development process and the dearth of essential resources (19).

A criticism of the expanding role of accreditation in health care relates to it ceasing to be a means to an end for health care organizations (HCOs) (i.e., better quality of care). Rather, it has become the end that HCOs seek and then employ for marketing and differentiation purposes from their peers (20). This is despite the limited and inconclusive evidence on the effectiveness of accreditation in enhancing clinical outcomes, one of the ultimate goals of quality of care (14, 18, 21), and on what stage of employing accreditation is most effective. The review of literature in the area of health care accreditation reveals a

complex picture of its effectiveness, with mixed views and inconsistent findings in many instances. Researchers, nonetheless, agree on the fact that preparations for accreditation give HCOs a valuable opportunity to reflect on the treatment of patients and on operational modalities (22, 23), albeit with a limited time effect (23). In addition, there is no consensus among studies that have examined the relationship between accreditation and health outcomes on the directionality and strength of that link (21–23).

The inconclusive evidence supporting the effectiveness of accreditation is not the only challenge facing health care managers and quality officers at HCOs; an additional challenge relates to the financial burden that the accreditation process precipitates on health care facilities, especially in LMICs (24). Hence, the question is raised of whether it would be more feasible from a financial standpoint to employ other quality-enhancing mechanisms or to couple those with targeted, less resource-intensive accreditation programs.

EVIDENCE SUPPORTING THE EMPLOYMENT OF MULTIPLE QUALITY-ENHANCING MODELS

It is well-established in literature that quality-enhancing initiatives are often used independently, without full understanding of the applicability, effectiveness, and efficacy of each (25). Many have acknowledged that there is no single “magic bullet” to improve quality in health care. Still, there has been a strong belief that the employment of multiple interventions and strategies may result in improved professional practice and patient outcomes (26). The Agency for Healthcare Research and Quality in the United States clearly states that “the important component of [any] quality improvement is a dynamic process that often employs more than one quality improvement tool” (27). Furthermore, the World Health Organization issued a report in October 2005 that expressed its belief in anticipated positive outcomes resulting from using “frameworks and multi-method tools” to improve quality in health care and indicating there is a gap in evidence about such an approach (28).

The application of multifaceted interventions, addressing multiple dimensions of quality improvements, has also shown to be more effective and more likely to improve performance in low-resource settings as compared to single interventions (29). The case is profound in LMICs because such settings lack comprehensive and coordinated efforts, where health organizations depend on detached approaches for enhancing quality of care as imposed by donor agencies or governmental interventions. Furthermore, many LMICs face a common inappropriate focus on inputs in their quest for quality improvement. Inputs, which could be assessed with ease and at low costs, are frequently used as proxies for quality in many developing settings to improve availability of medications, staffing, and availability of basic utilities (running water and electricity) (7), with little (if any) focus on process- and outcome-oriented approaches to improve the impact of

care services on patients. Thus, although it is reasonable to consider choosing interventions that are less resource-intensive, other factors should be considered, such as the long-term impact of the intervention.

AN OVERVIEW OF THE PROPOSED MULTI-TRACK QUALITY-ENHANCING STRATEGY IN PRIMARY HEALTH CARE

This article presents a model—the multi-track quality-enhancing strategy (MTQES)—that aims at helping PHC policymakers and managers provide services of the highest attainable quality in the relevant context and in a uniform manner across PHC. Further, the model is coupled with an implementation framework that allows users to implement the model as a three-phased interlinked package based on available services and resources. The proposed MTQES includes a number of quality-enhancing activities to ensure that quality is approached as a continuous process (Figure 1). It must be acknowledged that most of the strategies in the proposed MTQES have been previously employed in different health care settings. However, what is proposed here is a concurrent employment of these strategies to realize the maximum impact.

We present the MTQES acknowledging that accreditation nowadays is not only considered as the trademark of quality, but also a public expectation. Yet, we argue that policymakers and managers need to consider accreditation as a beginning rather than an end to their quest for quality. In addition, everlasting budget crunches are forcing the health sector to direct its investments in programs that give the greatest “bang for the buck.” Such a challenge is even more pronounced in the less-resourced PHC sector. The proposed strategies are presented in Table 1.

Accreditation

The proposed MTQES includes accreditation as one of the main strategies. Researchers agree on the fact that preparations for accreditation give HCOs a valuable opportunity to reflect on the treatment of patients and on operational modalities (22, 23). In that context, the accreditation process is considered an effective strategy that aids in the introduction of organizational change (30). However, some have argued that such an impact may be limited to the first few accreditation cycles (23).

Accreditation is especially valuable in settings where the infrastructure and quality culture are weak. LMICs with absent or weak structure for quality of care will benefit from the package provided by national accreditation schemes. Many success stories of such programs were identified in the literature, where the introduction of health care accreditation systems introduced a paradigm shift in the quality of services provided (e.g., Lebanon and Egypt) (17, 31). In Lebanon,



Figure 1. Multi-Track Quality-Enhancing Strategy (MTQES) in PHC.

the introduction of the hospital accreditation system introduced a shift from emphasis on physical structural to a wider multidimensional approach for improvement of care (17), and the same efforts are being exerted to establish a national accreditation program for the PHC setting. There are a number of international accreditation agencies that provide accreditation services for national programs or institutions. The support of these agencies may be required at the early phases of building quality initiatives. However, it is advised that national programs be established and adopted shortly thereafter as these will be more responsive to the contextual needs of a country or region. Also, it is critical that, as part of the MTQES, the requirements of the accreditation programs be sensitive to the resources available to PHC centers in the targeted country or region.

Adoption of Clinical Guidelines

Clinical guidelines have been developed by scientific communities for a number of conditions that can be mostly addressed at a primary care level, including hypertension, diabetes, and cardiac diseases (32, 33). These guidelines are user-friendly (i.e., clinician-friendly) and are not resource-intensive. An extensive review of the literature on the employment and effectiveness of clinical guidelines (approximately 60 published evaluations of clinical guidelines) revealed ample evidence that explicit guidelines do improve clinical practice, when introduced in the context of rigorous evaluations, albeit with varying levels of improvements (34).

The main prerequisite for the adoption of clinical guidelines at PHCs is a good patient follow-up system. This is especially true for patients with chronic conditions, a focus of many clinical guidelines. In addition, there is a need for staff training and a re-design of processes of care. However, these are modest initial investments to the system and should not constitute a burden on PHC centers compared to the expected outcomes. Furthermore, the marginal investment in subsequent application of clinical guidelines (after adoption of the initial guidelines) will diminish.

Performance Indicators

Performance indicators have been widely adopted in many countries by multiple health care platforms, including hospitals and ambulatory care settings (35). Until recently, most of these indicators involved processes of care (e.g., percentage of diabetic patients who had an eye exam in the past 12 months) rather than outcome measures (e.g., mortality, complication rates) (see Table 2).

Evidence on the effect of employment of performance indicators on the care process and its impact on patient outcomes is mixed (33, 36, 37). However, despite this inconsistent evidence, literature was unflinching on the effectiveness and value of performance indicators when coupled with feedback reports, educational implementation strategies, and/or quality improvement plans (26). Further, reviews of intervention studies in LMICs indicate that the mere dissemination of guidelines is often ineffective if not combined with multifaceted interventions, including supervision and audit with continuous feedback (29).

The latter point is what the MTQES is proposing. However, acknowledging the limited resources of the PHC sector in many LMICs, it is advised that the sector employ a gradual evidence-based approach in which process-level indicators for selected key conditions are used first. The determination of these conditions would depend on the disease burden in a certain country or region. The employment of performance indicators would also neatly complement and help to assess other initiatives in the MTQES, such as clinical guidelines. For example, if a center adopts a hypertension clinical guideline and the data reveal

Table 1
Overview of the MTQES approach

Strategy	Resource requirement	Prerequisites	Outcomes
Accreditation	Compliance with infrastructure, policies, and procedures as requested in accreditation requirements	Accreditation requirements	Accreditation Accreditation level (if applicable)
Adoption of clinical guidelines	Review of processes of care Training of staff on guidelines Patient follow-up system	Trainers (can be done in the first phase through training of trainers who then will be assigned to regions/centers) Training manuals Mapping of processes Sound medical record system with paper-based or electronic reminders	Treatment of targeted conditions is based on evidence-based clinical guidelines Improved patient outcomes
Performance indicators	National/regional committee Sound medical record system (requirement in most accreditation programs) Trained personnel to extract or record OR Health information system (with electronic health record)	Sound medical record system (requirement in most accreditation programs) Trained personnel to extract or record OR Health information system (with electronic health record)	Performance measurement using a uniform quantitative approach Trend analysis

Benchmarking	National/regional committee (can be the same as the performance indicators committee suggested above) Analytical ability (national or regional)	Performance indicators	Identification of best performers Benchmarking best practices
Annual quality project	Trained staff (basic quality tools)	Trained staff Data (can be extracted from medical records or collected by project team)	Building the team spirit in a center Allowing creative thinking in problem solving Strengthening quality culture Increasing staff knowledge of quality tools Equipping staff with analytical abilities Deepening the concept of quality as a continuous, rather than sporadic, activity
Annual quality meeting	Meeting costs Organizational/coordination costs Trainers (if includes quality workshops)	Best annual quality projects identified for sharing of best practices Analytical reports on performance indicators	Culminating event for quality efforts as part of the MTQES Highlighting the quality engagement in the PHC sector Forum for sharing best practices Recognizing best-performing centers (enhance drive to achieve better quality)

Table 2
 Examples of performance indicators commonly used in primary care

Clinical domain and measure title	Measure description	Measure developer
<i>Diabetes domain</i> Hemoglobin A1c poor management	Percentage of patients aged 18 through 75 with diabetes mellitus with one or more A1c tests	National Diabetes Quality Improvement Alliance (endorsed by National Quality Forum)
Hemoglobin A1c poor control	Percentage of patients aged 18 through 75 with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0 percent	National Committee on Quality Assurance (NCQA), U.S.
Lipid measurement	Percentage of patients aged 18 through 75 with diabetes mellitus who had recent LDL-C level in control (less than 100 mg/dl)	NCQA
Urine protein testing	Percentage of patients aged 18 through 75 with diabetes mellitus who received routine protein testing or medical attention for nephropathy during at least one office visit within 12 months	NCQA
Eye exam	Percentage of patients aged 18 through 75 with diabetes mellitus who received a dilated eye exam or evaluation of retinal photographs during the measurement year	National Diabetes Quality Improvement Alliance (endorsed by National Quality Forum)
<i>Hypertension domain</i> Blood pressure test	Percentage of patients aged 18 through 85 with a diagnosis of hypertension whose most recent blood pressure reading was controlled (< 140/90)	—
<i>Asthma domain</i> Rx for long-term control	Children and adults identified with asthma who received Rx for long-term control of asthma (inhaled corticosteroids, cromolyn sodium, nedocromil, leukotriene modifiers, methylxanthines)	—

there is limited improvement on associated indicators, then this raises a question regarding compliance with those guidelines by the center, its adaptability to the context, etc. Also, feedback reports to PHC centers (or physicians/staff within a center) should be developed and distributed that highlight areas of potential improvements.

A main prerequisite for the employment of performance indicators is the availability of a sound medical record system and trained personnel to extract or record (if prospective) clinical data from medical records.

Benchmarking Activities

Performance measurement is not an end in itself but a means of comparing practice, processes, and outcomes to assess the impact of changes introduced. The employment of performance indicators would allow for another key quality-enhancing activity: benchmarking. Benchmarking would allow organizations to commit to excellence and measure that commitment and its results. Several success stories were identified in literature and in different settings associated with benchmarking activities (38–40). These experiences and success stories can be imported to the primary care practice to reflect positively on patient outcomes.

Ideally, the performance of all involved PHC centers would be analyzed to generate individual scores for centers, as well as regional and national estimates. Each of the contributing centers (i.e., those providing data) would be able to compare itself to its peers on each of the measures collected. Best performers can be identified (and recognized) and best practices should be promoted. Less-than-average performers can adopt corrective action plans after identifying potential pitfalls and benefitting from experiences of better performers. An important consideration is that this activity should be conducted in a blame-free manner. Bad performers should be encouraged and supported to improve rather than demoralized.

Annual Quality Project

Each of the PHC centers should engage in an annual quality project that involves the following components:

1. Rationale for selection, including baseline data or information
2. Objective of the quality-enhancing intervention
3. Description of the intervention employed
4. Personnel involved and their role
5. Results/outcomes of the project

The annual quality project can range from simple short-term interventions to complex ones that require longer periods and the involvement of multiple

stakeholders. Examples include creating policies and procedures to reduce patient waiting time, reducing sharps injuries, adopting clinical guidelines, or developing patient databases. It is accepted, anticipated, and encouraged that centers adopt modest quality projects in early years to build the culture of engaging in such activities, including teamwork, quality tools, and analytical skills. Technical support from central authorities may also be needed until regional or local capacity is built in related skills.

The involvement in annual quality projects would serve multiple purposes, including building a team spirit at a center; allowing creative thinking in problem solving; strengthening the quality culture; enhancing staff knowledge of quality tools; equipping staff with analytical abilities; and deepening the concept of quality as a continuous, rather than sporadic, activity.

Annual Quality Meeting

The Annual Quality Meeting would serve as a culminating activity for a number of quality-enhancing strategies in the MTQES. The meeting will include, but should not be limited to:

1. Presenting the performance of centers (including trend analysis) using indicators.
2. Recognizing best performers (during that year, as well as significant improvements from previous years).
3. Sharing of best practices (leading to improvement).
4. Presenting of new and advanced quality tools (workshops).
5. Outlining of new policies (by ministry of health or regional authorities).
6. Discussing the best annual quality projects (e.g., one from each region).
7. Presenting future forecasts regarding new quality initiatives, accreditation processes and deadlines, and introduction of new indicators, among others.
8. Highlighting concerns of the PHC sector and barriers to quality enhancement.

The main aim of the Annual Quality Meeting is to represent a forum for the PHC sector to exchange knowledge and experience and to further strengthen the quality culture.

THE MTQES IMPLEMENTATION FRAMEWORK

The authors acknowledge that implementation of the various quality initiatives outlined in the MTQES requires the continuous endorsement of decision makers coupled with investments in resources. It is expected that not all countries would be ready to go through the entirety of the MTQES journey and that some countries or jurisdictions would be more prepared than others to adopt quality standards. To facilitate the endorsement of the MTQES by concerned stakeholders, we

present below an implementation framework depicting MTQES as a three-phase interlinked package (Figure 2). We argue that the optimal, most effective, and most efficient endorsement of quality initiatives requires the completion of the initiatives in one package before moving to the next one (in case none currently exists), starting with the essential package and moving gradually to the basic and advanced ones. We briefly discuss below each of the three packages in the framework in further detail.

The Essential Package

As the name indicates, this would be the most essential of packages that we argue all countries, irrespective of their level of resources, should endorse as they start their quality-enhancing journey at their PHC sector. This package would be most relevant to quality officers in low-resourced contexts and in those initiating the establishment of quality systems. Three quality initiatives fall under the essential package: the endorsement of clinical guidelines, the establishment of a quality structure, and the organization of an annual quality project.

The endorsement of clinical guidelines would ensure that evidence-based clinical and health services are provided to patients and visitors. The establishment of quality structures entails the establishment of quality teams and committees, the mandate of which is improving performance and providing better-quality services. It also entails the hiring of a PHC quality director centrally at the ministry of health and in each of the governorates or provinces, where applicable and resources permitting. Those quality structures would then support, supervise, evaluate, and potentially endorse an annual quality project in each of the PHC centers.

The Basic Package

This package builds on the initiatives of the essential package and moves quality thinking, structure, and processes into a higher level. Note that successful implementation of the basic package requires the presence of a medical records system inside PHC centers. We believe that such a package would be more befitting to medium-resourced environments and those that have had previous experiences with implementation of quality initiatives at the PHC sector. In addition to the quality initiatives listed under the essential package, the basic package involves the use of performance indicators and the successful acquisition of accreditation from an established authority (whether local, regional, or international).

The Advanced Package

As the name suggests, the advanced package is most applicable to high-resourced environments that have had considerable experience with quality and that have established a strong and functional quality system. Those initiatives include the

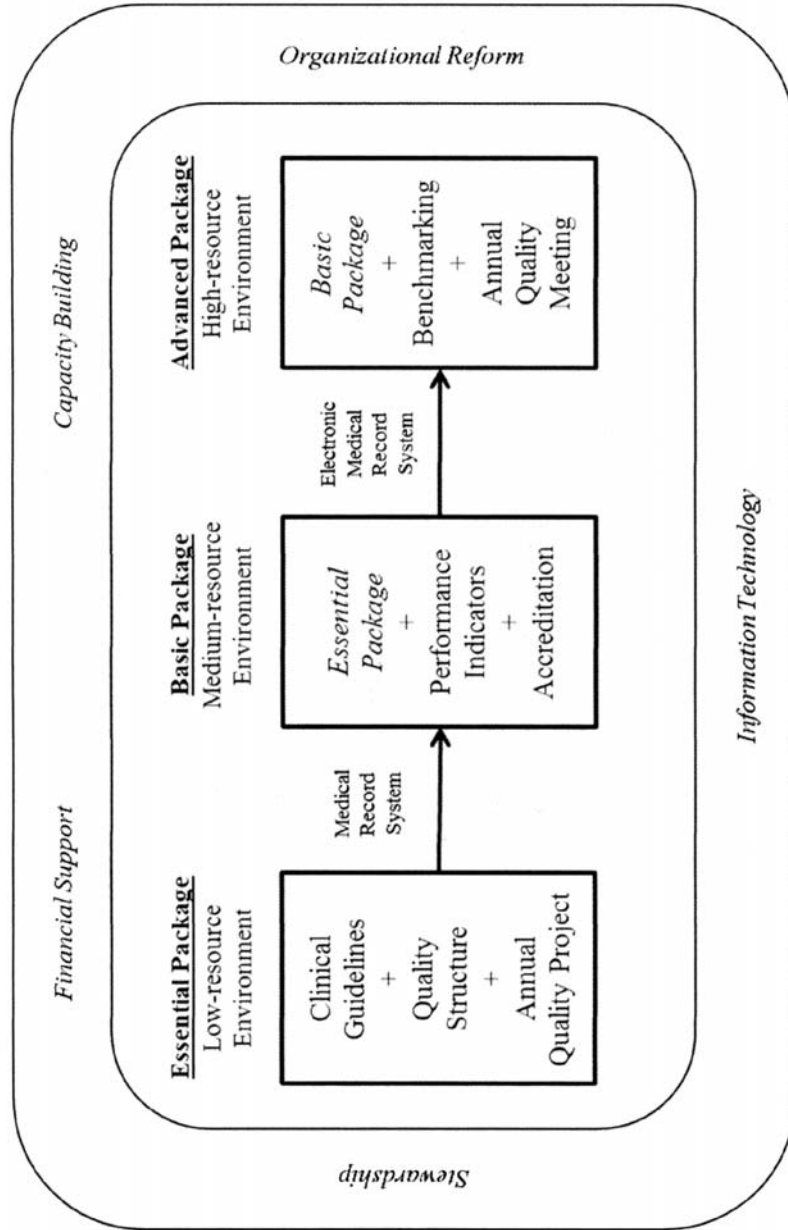


Figure 2. MTQES Implementation Framework.

use of benchmarking, culminating in the establishment of local/regional PHC quality standards. It also includes the annual quality meeting.

Readers' attention is directed at the pivotal requirements outlined in the outer circle of the framework, without which the implementation would be a partial success or an outright failure. These include the continuous presence of stewardship, financial resources, capacity building, organizational reform, and information technology.

CONCLUSION

The health care field is in continuous search and exploration of approaches that would ensure optimal equitable access to "quality" health services. So far, many approaches have been proposed and employed, the most common of which is accreditation. While this article does not deny the potential of accreditation as a quality-enhancing strategy, it argues for the utility of employing a MTQES that promotes quality enhancement as a continuous process. The proposed multi-staged implementation framework could serve as a quick reference guide to health system leaders and PHC quality stakeholders. However, the proposed approach has a few shortcomings that warrant mentioning. First, the effects of implementation may not be realized directly after implementation; rather, it may take some time until the process is integrated into the PHC system culture (staff, clinical practice, etc.), hence the importance of identifying center and sector champions. Second, despite the varied evidence from the literature on the effects of using quality-enhancing tools, it cannot be ascertained that the various components are to act synergistically until the model is fully endorsed and evaluated. Thus, this article also calls for future longitudinal investigations of centers that adopt the presented strategy to evaluate its outcomes.

In conclusion, the arguments in this article expand the discussion on equity of health services provision to include equitable access to "quality" care. It attempts to refocus the quality-enhancement agenda back to patients and societies, rather than institutions and facilities. The premise is that improvement in the structure of a health delivery organization or in the processes of care has little value if it does not translate to reduced disparities in access to "quality" care, and not merely access to care.

REFERENCES

1. Declaration of Alma Ata. International Conference on Primary Care, USSR, September 6–12, 1978.
2. World Health Organization. *The World Health Report 2008 – Primary Health Care (Now More than Ever)*. Geneva, 2008.
3. Ostlin, P., et al. Priorities for research on equity and health: Towards an equity-focused health research agenda. *PLoS Med.* 8(11):e1001115, 2011.

4. De Maeseneer, J., et al. *Primary Health Care as a Strategy for Achieving Equitable Care: A Literature Review Commissioned by the Health Systems Knowledge Network*. Geneva, 2007.
5. Starfield, B. Improving equity in health: A research agenda. *Int. J. Health Serv.* 31(3):545–566, 2001.
6. Katz, A. R. Prospects for a genuine revival of primary health care – Through the visible hand of social justice rather than the invisible hand of the market: Part I. *Int. J. Health Serv.* 39(3):567–585, 2009.
7. Reerink, I. H., and Sauerborn, R. Quality of primary health care in developing countries: Recent experiences and future directions. *Int. J. Qual. Health Care* 8(2): 131–139, 1996.
8. Beaglehole, R., et al. Improving the prevention and management of chronic disease in low-income and middle-income countries: A priority for primary health care. *Lancet* 372(9642):940–949, 2008.
9. Coulter, A. What do patients and the public want from primary care? *BMJ* 331(7526): 1199–1201, 2005.
10. Nicholas, D. D., Heiby, J. R., and Hatzell, T. A. The Quality Assurance Project: Introducing quality improvement to primary health care in less developed countries. *Qual. Assur. Health Care* 3(3):147–165, 1991.
11. Smits, H. L., Leatherman, S., and Berwick, D. M. Quality improvement in the developing world. *Int. J. Qual. Health Care* 14(6):439–440, 2002.
12. Beal, A. C. High-quality health care: The essential route to eliminating disparities and achieving health equity. *Health Aff. (Millwood)* 30(10):1868–1871, 2011.
13. Kidd, M. R., Watts, I. T., and Saltman, D. C. Primary health care reform: Equity is the key. *Med. J. Aust.* 189(4):221–222, 2008.
14. Greenfield, D., and Braithwaite, J. Health sector accreditation research: A systematic review. *Int. J. Qual. Health Care* 20(3):172–183, 2008.
15. Jovanovic, B. Hospital accreditation as method for assessing quality in healthcare. *Arch. Oncol.* 13(3–4):156–157, 2005.
16. Shaw, C. D., et al. Sustainable healthcare accreditation: Messages from Europe in 2009. *Int. J. Qual. Health Care* 22(5):341–350, 2010.
17. Ammar, W., Wakim, I. R., and Hajj, I. Accreditation of hospitals in Lebanon: A challenging experience. *East Mediterr. Health J.* 13(1):138–149, 2007.
18. Shaw, C. D. Evaluating accreditation. *Int. J. Qual. Health Care* 15(6):455–456, 2003.
19. Bukonda, N., et al. Implementing a national hospital accreditation program: The Zambian experience. *Int. J. Qual. Health Care* 14(Suppl. 1):7–16, 2002.
20. Chen, J., et al. JCAHO accreditation and quality of care for acute myocardial infarction. *Health Aff. (Millwood)* 22(2):243–254, 2003.
21. Lutfiyya, M. N., et al. Comparison of US accredited and non-accredited rural critical access hospitals. *Int. J. Qual. Health Care* 21(2):112–118, 2009.
22. Nicklin, W. *The Value and Impact of Accreditation in Health Care: A Review of the Literature*. Accreditation Canada. Ottawa, Ontario, July 2011.
23. Pomey, M. P., et al. Does accreditation stimulate change? A study of the impact of the accreditation process on Canadian healthcare organizations. *Implement Sci.* 5:31, 2010.

24. Nandraj, S., et al. A stakeholder approach towards hospital accreditation in India. *Health Policy Plann.* 16(Suppl. 2):70–79, 2001.
25. Myers, B. L., Kappelman, L. A., and Prybutock, V. R. A comprehensive model for assessing the quality and productivity of information systems function: Towards a theory for information systems assessment. *Information Resources Manage. J.* 10(1):6–25, 1997.
26. de Vos, M., et al. Using quality indicators to improve hospital care: A review of the literature. *Int. J. Qual. Health Care* 21(2):119–129, 2009.
27. Hughes, R. G. Tools and strategies for quality improvement and patient safety. In *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*, ed. R. G. Hughes. Agency for Healthcare Research and Quality, Rockville, 2008.
28. World Health Organization Regional Office for Europe. *What are the Advantages and Limitations of Different Quality and Safety Tools for Health Care?* Health Evidence Network, Copenhagen, 2005.
29. Rowe, A. K., et al. How can we achieve and maintain high-quality performance of health workers in low-resource settings? *Lancet* 366(9490):1026–1035, 2005.
30. Beaumont, M. (ed.). Does Accreditation Stimulate Change? A Study of the Impact of the Accreditation Process on Canadian Health Care Organizations. Canadian Council on Health Services Accreditation (CCHSA). Presented at the Annual Conference of the International Society for Quality in Health Care, Paris, November 6–8, 2002.
31. Al Tehewy, M., et al. Evaluation of accreditation program in non-governmental organizations' health units in Egypt: Short-term outcomes. *Int. J. Qual. Health Care* 21(3):183–189, 2009.
32. Lindberg, M., et al. The use of clinical guidelines for asthma, diabetes, and hypertension in primary health care. *Int. J. Qual. Health Care* 17(3):217–220, 2005.
33. Hobbs, F. D., and Erhardt, L. Acceptance of guideline recommendations and perceived implementation of coronary heart disease prevention among primary care physicians in five European countries: The Reassessing European Attitudes about Cardiovascular Treatment (REACT) survey. *Fam. Pract.* 19(6):596–604, 2002.
34. Grimshaw, J. M., and Russell, I. T. Effect of clinical guidelines on medical practice: A systematic review of rigorous evaluations. *Lancet* 342(8883):1317–1322, 1993.
35. Roski, J., and Gregory, R. Performance measurement for ambulatory care: Moving towards a new agenda. *Int. J. Qual. Health Care* 13(6):447–453, 2001.
36. Beck, C. A., et al. Administrative Data Feedback for Effective Cardiac Treatment: AFFECT, a cluster randomized trial. *JAMA* 294(3):309–317, 2005.
37. Wahlstrom, R., et al. Effectiveness of feedback for improving case management of malaria, diarrhoea and pneumonia – A randomized controlled trial at provincial hospitals in Lao PDR. *Trop. Med. Int. Health* 8(10):901–909, 2003.
38. Stern, M., et al. Benchmarking improves quality in cystic fibrosis care: A pilot project involving 12 centres. *Int. J. Qual. Health Care* 23(3):349–356, 2011.
39. Gomez-Batiste, X., et al. Quality improvement in palliative care services and networks: Preliminary results of a benchmarking process in Catalonia, Spain. *J. Palliat. Med.* 13(10):1237–1244, 2010.

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40. Lindenauer, P. K., et al. Public reporting and pay for performance in hospital quality improvement. *N. Engl. J. Med.* 356(5):486–496, 2007.

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