Summary

In early 2003, the Institute of Medicine (IOM) released its report, *Priority Areas for National Action: Transforming Health Care Quality*. The report listed 20 clinical topics for which "best practices" were strongly supported by clinical evidence. The rates at which these practices have been implemented in the United States has been disappointing low, at a cost of many thousands of lives each year.

To bring data to bear on the quality improvement opportunities articulated in the IOM's 2003 report, the Agency for Healthcare Research and Quality (AHRQ) engaged the Stanford–UCSF Evidence-based Practice Center (EPC) to perform a critical analysis of the existing literature on quality improvement strategies for a selection of the 20 disease and practice priorities noted in the IOM Report. The focus of the commissioned investigations is translating research into practice–identifying those activities that *increase the rate with which practices known to be effective are applied to patient care* in real world settings. In other words, the EPC research effort aims to facilitate narrowing the "quality gap" that is in large part responsible for suboptimal health care practices and outcomes. In addition to furthering the IOM's quality agenda, this analysis also has been prepared in support of the National Healthcare Quality Report (NHQR) (also see *National Healthcare Disparities Report)*. In this, the first volume of *Closing the Quality Gap*, the authors introduce the series and its goal, while providing methodological and theoretical overviews for the quality improvement (QI) field of study. Subsequent volumes will address the relation of QI strategies to treatment practices for a number of the 20 priority areas identified in the IOM report.

Target Audiences

Closing the Quality Gap is intended to assist a wide range of users:

- Policymakers can use the detailed evidence review to prioritize quality improvement strategies and choose how best to close the quality gaps in their organizations.
- Researchers can find detailed information about well-scrutinized areas of treatment, while learning of other areas in need of further exploration.
- Clinicians and trainees can see a broad spectrum of approaches to improving the quality of care. Some of these approaches fall within the control of individual practitioners, while others will require major systemic changes at the local level or beyond.
- Patients can learn quality improvement strategies that they can help to promote, while gaining a deeper understanding of the nature and extent of quality gaps, as well as the systemic changes necessary to close them.
- Groups and individuals charged with funding research will be able to identify high-yield areas of concern that warrant future research support.

Volume 1 consists of three chapters:

Chapter 1—reviews the genesis of the quality implementation field, providing some historical perspective on the science of translating research into practice.

Chapter 2—sets forth the carefully designed methodology used to review the vast amount of existing quality literature on particular diseases. The methodology is the result of collaborative efforts of the editorial team, in consultation with several of the undisputed experts in the field. For this project, the following terms were defined:

Quality of health care: The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

Quality gap: The difference between health care processes or outcomes observed in practice, and those potentially obtainable on the basis of current professional knowledge. The difference must be attributable in whole or in part to a deficiency that could be addressed by the health care system.

Quality improvement target: The outcome, process, or structure that the QI strategy aims to influence, with the goal of reducing the quality gap.

To ensure consistency in the review and evaluation of the literature, the editors developed a taxonomy of interventions that modifies several well-established classification systems, denominating the QI strategies as follows:

1. Provider reminder systems
2. Facilitated relay of clinical data to providers
3. Audit and feedback
4. Provider education
5. Patient education
6. Promotion of self-management
7. Patient reminder systems
8. Organizational change
9. Financial, regulatory or legislative incentives

Chapter 3—provides the reader some context for the field of QI implementation with a summary of the theoretic underpinnings that may influence the development of QI interventions, and an overview of selective efforts that have been made to adopt and modify interventions from outside of health care. The authors review a selection of the major theories that may influence the two dominant and parallel tracks of QI interventions: behavioral change and transfer or diffusion of knowledge. References to a number of pertinent theoretical models are cited.

What Conclusions can be Drawn from the Report's Evidence?

The purpose of this report is to help readers assess whether the evidence suggests that a quality improvement strategy would work in their specific practice setting or with their specific patient population. Three important questions should be considered:

1. Are the studies of the strategy valid? A study has validity (sometimes called "internal validity") if its findings are likely to be true in the population in which the study was performed. The primary determinant of validity is the design and conduct of the study.

2. For each quality improvement strategy that has been evaluated in multiple studies with sufficient validity, does the weight of evidence indicate that the strategy is effective?
3. Can the conclusions of a body of evidence be applied to a specific practice setting or population of interest?

Except where noted, the review is restricted to studies that are likely to have strong validity, (e.g., randomized controlled trials, well-designed and controlled before-after studies, and interrupted time series studies). The authors thought it important to find and analyze studies whose research methodologies were most likely to provide scientifically correct answers. When the same QI strategies have been evaluated in more than one study, assessing the weight of the evidence and whether it favors the strategy can be a complex matter. To help readers make this assessment, the findings of studies are summarized in tables showing the range of results for different strategies.

Remarkably, despite the vast stakes—after all, the concern here is identifying which techniques have been shown to promote the adoption of evidence-based "best practices"—there has been remarkably little information about the most effective ways to translate research into practice. Even in the case of common disorders such as diabetes, hypertension, and cancer care—areas in which research *has* demonstrated some best practices that can save tens of thousands of lives—there has been only modest systematic study of the techniques and strategies that most successfully close the quality gap. Moreover, in the few areas that have benefited from such studies, little consideration has been given to how practices may be "crosscutting" (i.e., how a practice that closes the quality gap in asthma, might be applicable to congestive heart failure).

Closing the gaps will require new resources and focus from caregivers and institutions. Ultimately, pressure from patients (brought to bear through market choices, regulators, policymakers, or others) is crucial if we are to succeed.

It is AHRQ's hope that the *Closing the Quality Gap* series will become an essential source of accessible and critical analyses of the evidence supporting techniques for implementing state-of-the-art best practices, while stimulating ideas for ongoing quality improvement activity nationally, in individual health systems, and among individual caregivers.

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