Chapter 4: Discussion

Summary of Findings

Question 1. Effectiveness of healthcare quality improvement interventions for racial/ethnic minorities

Summary of Study Characteristics

- Almost all the interventions occurred in primary care settings and most of the studies occurred in the area of prevention.
- Most studies targeted healthcare providers caring for a majority of African American patients.
- The most common main intervention methods are tracking/reminder systems and multifaceted interventions. Most studies utilized methods that were generic quality improvement strategies, and only two studies specifically targeted the needs of racial/ethnic minority patients.

Summary of Study Results

- There is excellent evidence that quality improvement strategies aimed at the healthcare providers of racial/ethnic minority patients are effective in improving the quality of providers (Evidence Grade A), good evidence that these strategies are effective in improving appropriateness of care (Evidence Grade B), and fair evidence that these strategies can improve patient health service utilization, adherence, satisfaction, and health status (Evidence Grade C).
- There is excellent evidence that tracking/reminder systems aimed at providers of racial/ethnic minority patients are effective in improving the quality of care (Evidence Grade A), fair evidence that multifaceted interventions, provider education interventions and interventions bypassing the physician to offer services directly to patients can improve quality of care for racial/ethnic minority patients (Evidence Grade C), and poor evidence to support the use of any of the other strategies (Evidence Grade D). Of note, however, were two types of interventions with favorable results (employed in one study each, thus receiving an evidence grade of D) that may be worth further study: use of remote simultaneous translation for patients with limited English proficiency and the use of the Safe Times Questionnaire for health behaviors risk assessment in adolescents.
- There is poor evidence to determine which strategies are most effective in reducing disparities between ethnic minority and white populations (Evidence Grade D). Only one study was designed to do this (with mixed results), and this is a critical gap in the literature.
- There is poor evidence to determine the costs of strategies to improve care and reduce disparities for ethnic minority populations (Evidence Grade D).

Question 2. Effectiveness of cultural competence training

Summary of Study Characteristics

- Studies have been conducted across a wide range of healthcare provider specialties and training levels.
- The curricular methods utilized are heterogenous; there were *no two studies* that used the same combination of intervention methods.

Summary of Study Results

- There is excellent evidence to suggest that cultural competence training can increase the knowledge of healthcare providers (Evidence Grade A) and good evidence that cultural competence training can improve the attitudes and skills of healthcare providers (Evidence Grade B).
- There is good evidence from three studies to suggest that cultural competence training can raise patient satisfaction (Evidence Grade B) and poor evidence that cultural competence training can affect patient adherence (Evidence Grade D) although the one study that was designed to measure patient adherence demonstrated favorable results.
- There are no studies that have evaluated the impact of cultural competence training on patient health status outcomes.
- There is insufficient evidence , because of heterogeneity of the literature, to suggest *which types* of cultural competence training (i.e., lecture, workshop, small group, cultural immersion) are most effective.
- There is poor evidence to determine the cost of cultural competence training (Evidence Grade D).

Limitations of Literature and Report

General Limitations

- Eligibility was limited to English language published reports of studies. There is, therefore, a possibility of publication bias. Although, our resources did not permit extensive searching of the non-English language and gray literature, recent work has suggested that results of reviews with these limits do not differ substantially from reviews with no such limits.[121]
- Eligibility was limited to articles published after 1980.

Limitations of Literature and Report for Question 1

Limitations of the Literature

- There were small numbers of studies in each clinical category (except prevention), and many priority conditions that have had documented healthcare disparities (such as HIV/AIDS, cardiovascular disease, diabetes mellitus, infant mortality)

were not represented.

- Only two studies used interventions actually tailored for the healthcare needs of racial/ethnic minorities. The majority of interventions did not target aspects of care that have been demonstrated to be disparate between minority and majority patient populations; instead most were generic quality improvement interventions targeted at providers of racial/ethnic minority patients.
- The targeted processes of care were not always evidence-based practices for any patient population (for example, oral cavity exams or breast self-examinations for cancer screening) and would therefore be unlikely to improve the quality of care or reduce disparities for racial/ethnic minority patients.
- Few studies measured patient outcomes; most measured healthcare process. This limitation would not be as significant if the studies had targeted processes of care that were more closely linked to patient outcomes (i.e., more evidence based).
- Very few studies were completed in Hispanic populations and none in American Indians/Alaska Natives or in Asians/Pacific Islanders.
- Each study used slightly different intervention methods, making generalizations across studies difficult.
- Studies used multicomponent interventions and did not examine separate components.
- There may have been studies that had data on racial/ethnic minorities that was not presented and therefore wouldn't have qualified for our review.
- Most studies did not include data on costs.

Limitations of the Report

- Only interventions targeting providers/organizations were included; interventions directly targeting patients may also be promising strategies to improve the quality of care and reduce racial/ethnic disparities, but theyare not reflected in this report.
- Only randomized controlled trials and concurrent controlled trials were included; there may be other worthwhile interventions that have been evaluated with other study designs.
- Eligibility was limited to studies conducted in the United States. There may have been other promising interventions conducted in other countries that are not reflected in this report.
- We made no assessment of the generalizability of the study population of targeted providers in terms of whether they were representative of the population of providers caring for racial/ethnic minorities.

Limitations of Literature and Report for Question 2

Limitations of the Literature

- Most studies were designed without a comparison group for evaluation.
- There were few standardized instruments for measuring cultural competence and very few outcome assessments were objectively measured. There were often no

data in the articles concerning the psychometric properties of the instruments.

- Many articles did not describe the curricular interventions well enough to ensure replication.
- Each curricular intervention was different, making generalizability across studies difficult.
- Few studies measured patient outcomes and none measured health status. Some studies included only curriculum evaluation as an outcome.
- Most studies did not include data on costs.

Limitations of the Report

- We made no attempt to assess the psychometric properties of the instruments used to measure cultural competence.
- Our review focuses on interventions aimed at the education of healthcare providers and therefore falls more narrowly into the provider education recommendation of the National Standards for Culturally and Linguistically Appropriate Services in Healthcare published by the Office of Minority Health.[17]

Future Research

Research on Improving the Quality of Care and Reducing Disparities for Racial/Ethnic Minorities

- More research is needed that is designed specifically to reduce racial/ethnic disparities in healthcare quality, for example, research that targets healthcare processes known to be a source of racial/ethnic disparities.
- It is necessary to distinguish between interventions aimed at improving the quality of care for all persons and those aimed at improving quality of care for racial/ethnic minority populations specifically (such as reducing provider bias).
- More quality improvement interventions in racial/ethnic minority populations should be focused on priority conditions for which there are documented health disparities such as infant mortality, cardiovascular disease, diabetes mellitus, and HIV/AIDS.
- When generic quality improvement interventions are done in mixed populations, subgroup analyses should evaluate the effect of the interventions in racial/ethnic minority patients, such that we understand the effect on equality of treatment.
- Studies ought to include patient outcomes, have longer follow-up, and link process of care to health outcomes.
- There is a need to replicate promising intervention strategies in different healthcare settings and organizations. For example, more studies are needed in acute care and specialty settings.
- More studies are needed in Asian/Pacific Islander, American Indian/Alaska Native and Hispanic populations.
- More information is needed about the costs of various strategies to improve

healthcare quality and reduce racial disparity.

- The literature is expanding rapidly, and updated evidence assessments will be needed soon.
- Funding for this research is needed.

Research on Cultural Competence

- Curricular objectives need to be measurable and linked to measured outcomes.
- Outcomes should be measured objectively.
- There is a need for standardized, reliable, and valid instruments to measure aspects of cultural competence.
- Studies evaluating the effect of cultural competence training need to have a pre- and post-intervention evaluation and/or comparison group; there is a need for more randomized controlled trials in this area.
- Studies should measure the effect of the curricular interventions on healthcare process and patient outcomes including health status.
- Researchers should comprehensively describe the curricular interventions.
- Studies ought to include more comprehensive information about resources needed and cost of cultural competence training.
- The literature is expanding rapidly, and updated evidence assessments will be needed soon.
- Funding for this research is needed.