



Evidence-based Practice Center Technical Brief Protocol

Project Title: *Healthcare System Level Strategies to Address Racial/Ethnic and Related Disparities in Health and Healthcare*

I. Background and Objectives

Reducing and ultimately eliminating disparities in health and healthcare is a national priority. In 2010, the Department of Health and Human Services (HHS) announced goals to improve health equity, eliminate disparities, and improve the health of all groups as one of its goals through the launch of “Healthy People 2020.”¹ And in January 2021, the President’s Office signed an Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government,² followed by the release of actionable recommendations in the Health Equity Task Force report in November 2021.³

Potential contributors to racial and ethnic disparities in health and healthcare include system-level factors (such as health services organization, financing, and delivery, healthcare organizational culture and quality improvement efforts).⁴ Examining race and ethnicity status in isolation may hide important differences in disparities in health and healthcare.⁵ Fully addressing disparities requires us to consider the unique health and healthcare experience of race and ethnic minority people who exist at the intersection of multiple axes of inequality (such as disability status, income status, sexual identity and orientation, income, geographic location, language, etc.).⁶

Although the evidence base on healthcare system-level strategies to reduce health and healthcare disparities is expanding, clarity about which strategies work remains lacking, indicating the need for a thorough review of the scale of the literature to determine the most effective and long-term strategies/interventions.

This technical brief will supplement the AHRQ 2012 report,⁷ which looked at the effectiveness of QI interventions in reducing disparities in health and healthcare by focusing on a targeted set of clinical conditions. This report will expand the scope of the evidence base review by including an unrestricted set of conditions and focusing on strategies/interventions that are 1) targeted more broadly at the healthcare system-level and 2) designed to reduce racial and ethnic disparities and improve health outcomes (while considering other potential intersectional influences that have been addressed).

Our report may help to provide a road map for subsequent systematic reviews and future research that can be used by researchers, clinicians, managers, and policymakers within the healthcare setting, as well as future efforts by the Department of Health and Human Services.

II. Guiding Questions

What is the current evidence for healthcare system-level strategies (including components of multifaceted strategies) designed to reduce racial, ethnic, and related socioeconomic disparities and improve health outcomes?

- a. What interventions have been studied?
- b. What racial and ethnic populations have been studied?
- c. What are the characteristics of the healthcare systems involved in studies of interventions to reduce disparities (e.g., size, location, private/public, etc.)?
- d. What common (multiple and single) chronic conditions have been studied?
- e. What primary outcomes have been studied?
- f. What are the reported effects of the strategies used in studies of interventions to reduce disparities?
- g. What are the reported unintended consequences, harms, or adverse events of the strategies used in studies of interventions to reduce disparities?
- h. Within race/ethnic groups, what other intersectional influences (e.g., disability status, income status, sexual identity and orientation, income, geographic location, language e.t.c) have been targeted in studies of interventions to reduce disparities?
- i. What study designs have been used?
- j. What information is available on the applicability and sustainability of interventions?
- k. What gaps exist in the current research?

III. Methods

We will combine the information from interviews with Key Informants, gray literature, and peer-reviewed published literature into a comprehensive evidence map that addresses the Guiding Questions.

1. Data Collection:

A. Discussions with Key Informants

During the initial phase of the project, we will identify relevant Key Informants representing diverse perspectives to discuss the state of the field. The information from the Key Informants will help to verify that all of the important guiding questions are addressed, inform important strategies/interventions to include in the evidence map, classify the types of strategies/interventions, identify potential promising interventions, identify areas where programs exist but have not been studied and formally published, inform the way that we navigate the gray literature, and peer-review literature (by means of our review inclusion and exclusion criteria).

We will include patient advocates, advocacy organizations, clinicians, provider organizations and researchers. The patient advocates will bring racial and ethnic disparities experience in health and healthcare, knowledge of possible health system-level efforts to address racial and ethnic disparities in health and healthcare, gray literature

sources, and knowledge of potential community collaboration efforts. The advocacy organizations, clinicians, provider organizations, and researchers will have expertise in issues and challenges in healthcare system-level interventions to address racial and ethnic disparities in health and healthcare, relevant conceptual frameworks in understanding health system-level strategies/interventions, gray and published peer-review literature sources, research gaps, potential community partnerships, and innovations in healthcare settings.

We will identify potential Key Informants from frequently listed and cited authors of relevant peer-reviewed literature, internet searches for people of relevant viewpoints, AHRQ LHS partnerships and stakeholder lists, and nominations by review team members. When we cannot identify a specific individual to represent a specific organization, we will invite the organization to nominate an individual. In cases where a Key Informant has a potential conflict of interest but is still deemed to have a viewpoint or specific expertise critical to the brief, we will interview the individual separately from other Key Informants to avoid undue influence.

We will conduct semi-structured interviews with the Key Informants. Below are examples of the types of questions we will use in Key Informant discussions. Prior to the Key Informant discussions, the Key Informants will receive invitation letters with the brief description of the project, the Key Informant's expected role, appropriate disclosure forms for conflict of interest, and the questions for the Key Informant discussions. We will assign Key Informants to conference calls to balance maximizing the synergy of group discussions and minimizing unhelpful conflict. Call summaries will be circulated to participants for content confirmation.

Questions for experts/researchers/advocacy organizations/provider organizations/practicing clinicians

- a. What healthcare system-level efforts has your organization or institution employed to reduce racial and ethnic disparities in health and healthcare?
 - i. Can you describe the rationale for this effort, for instance what was driving the decision of the problem and the solution/intervention? Was the intervention successful or not? What were the challenges? How are you

measuring disparities and evaluating interventions and outcomes? How are these efforts are funded?

- b. Do you engage community partnerships in your approach? If so, how?
 - i. Are there similar approaches you are aware of? Which other entity is trying similar approaches?
- c. Are there concepts, or conceptual frameworks, that are important in understanding the healthcare system-level interventions to reduce racial/ethnic disparities in health and healthcare?
- d. Are there elements of healthcare system-level interventions that are important and/or preferred for reducing racial/ethnic disparities in health and healthcare?
- e. How do you identify social identity groups that are not being served at all or not equally served, and how do you prioritize which groups for designing interventions? What are the challenges?
- f. How does your organization tailor the healthcare system-level approach to reach racial and ethnic groups or minorities that may be marginalized due to other factors (such as disability status, income status, sexual identity and orientation, income, geographic location, language, etc.)? Which of these factors have been most challenging to address and why? Which factors are relatively easy to address and implement?
- g. What concerns do you have about the sustainability of healthcare system-level strategies/interventions intended to address racial and ethnic disparities in health and healthcare?
- h. Gray literature: What are prominent sources where you obtain information on healthcare system-level strategies/interventions? Who has conducted such interventions? Can you give examples of successful interventions that have been identified from these sources?
- i. What information and resources does your organization or institution need to be more effective in incorporating healthcare system-level interventions in reducing racial and ethnic disparities in health and healthcare?
- j. What are current gaps in the research and what future research is needed most?

Questions for patient advocates, families, caregivers

- a. Data clearly shows that racial and ethnic minority groups often have worse health and care. Why do you think this is the case?
- b. Have you or your loved ones experienced differences in care received, are you aware of any healthcare organizational efforts to rectify these differences? What are the efforts/programs?
- c. Have you or your loved ones participated in (or are you aware of) such program(s)? Was there any effort to consider your race and other social factors (such as your disability status, income status, sexual identity and orientation, income, geographic location, language e.t.c) in the program(s)?
- d. Are you aware of community collaboration efforts (such as social service agencies, churches e.t.c) of such programs to rectify the differences in your health and care? Should community organizations be involved in these efforts? How? What are some

barriers that community organizations face in collaborating with healthcare organizations?

- e. What types of efforts do you think a healthcare organization could do that might reduce these differences in the care received by racial and ethnic minority groups? What would be needed for them to work?
- f. Are there sources where you obtain information about these efforts?

Because we might identify new questions as the literature search proceeds, as well as from Key Informant discussions, we may identify a new slate of Key Informants with a second set of questions.

B. Gray Literature search.

We will conduct a gray literature search of the following resources: federal and state government, and professional organizations websites, trial registries for unpublished study protocols, unpublished study results, and ongoing studies (ClinicalTrials.gov, PROSPERO), web search engines/specific websites for unindexed and/or unpublished literature (Google, Google Scholar), scan journal table of contents for unindexed literature, and conference proceedings for new and/or unpublished studies (Scopus). We will incorporate any gray literature leads from the Key Informants.

C. Published Literature search.

We will search several databases: Medline, CINAHL, and Scopus from 2017 onwards. This date cut-off date is aimed to capture current literature. We developed a search strategy based on relevant medical subject headings (MeSH) terms and text words. The search string is provided in Appendix 1. The reference lists of relevant existing systematic reviews will be scanned for additional eligible studies. Additional articles suggested to us from other sources, including Key Informants, peer and public review, will be screened applying identical eligibility criteria.

We will use PICO Portal database⁸ to screen the literature at title/abstract and full text. Two independent reviewers will screen for possible inclusion at title/abstract and will discontinue screening when PICO Portal's machine learning indicates a 95 percent probability of exclusion for the remaining articles. Two independent reviewers will screen at full text. We will resolve conflicts through discussion and consensus with a third reviewer.

We will include studies published in English, primarily of racial/ethnic minority group composition, sample size > 50, or 25 per group analyzed (to achieve a reasonable representation of the population), and the following study designs: randomized controlled trial, non-randomized controlled trial, nonrandomized study designs with comparisons,

and mixed methods. We will exclude studies with the following study design: systematic review, narrative reviews, case reports and case series as well as protocols, conference abstracts, and studies only available as abstracts without accessible full publications or reports. We will focus on U.S.-based literature. Further inclusion/exclusion criteria are provided in Table 1.

Table 1. Inclusion/Exclusion criteria by PICOTS

Element	Included	Excluded
Population	<ul style="list-style-type: none"> • Racial and ethnic minority groups • Healthcare Systems providing healthcare for racial and ethnic minority groups 	<ul style="list-style-type: none"> • Non-U.S populations
Interventions	<ul style="list-style-type: none"> • Healthcare system strategies that are specifically targeted to reduce racial and ethnic minority health and healthcare disparities at population-level with relevant links to healthcare system • Strategies specifically targeted to reduce racial and ethnic minority health and healthcare disparities at health care organization-level (e.g structure of the organization) • Strategies with community involvement with relevant links to healthcare system 	<ul style="list-style-type: none"> • Exploratory sub-group analysis where the aims of the studies are not relevant to racial/ethnic health disparities • Public health/policy-based interventions without relevant links to healthcare systems • Interventions aimed at medical school students, pharmacy students, and other allied health students
Comparators	<ul style="list-style-type: none"> • Standard care • Alternative strategy/intervention 	
Outcomes	<ul style="list-style-type: none"> • Health-related outcome measures (e.g., disease specific morbidity and mortality, BP control, Hba1c levels) • Process of care measures • Care utilization outcome measures • Barriers to care measures • Financial/re-imbursement measures • Harms (e.g., unintended negative consequences) • Stigma other related experience of discrimination 	
Timing	Any	
Settings	Any	

Study design	Randomized controlled trial, non-randomized controlled trial, nonrandomized study designs, mixed methods	Stand-alone qualitative studies, systematic reviews, narrative reviews, case reports, case series protocols, conference abstracts
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2. Data Organization and Presentation:

A. Information Management

We will extract data into standardized Excel spreadsheets. We will extract the following data: population characteristics (including age, gender, race/ethnicity, type of chronic condition, sample size, setting, study design, study duration, intervention, comparator, outcomes collected, and effectiveness and harms findings reported. We will supplement this extracted data with information derived from Key Informant interviews and gray literature in our discussions.

B. Data Presentation

We will present the data in an evidence map table. Organization and summaries will be driven empirically by what we observe in the literature. We will use bubble plots and other appropriate graphical or tabular methods to separately examine the distribution of the evidence. We will review the tables throughout the Key Informant discussions and literature searches to assess whether the tables are adequately capturing important relevant concepts. We will narratively present additional derived information from Key Informants alongside the graphical or tabular data by Guiding Questions. We anticipate information from Key Informants will be of particular importance to Guiding Questions g, h, j, and k. Where strategies overlap or are components of multifaceted strategies, we will group the summary of the interventions by their intended aims.

IV. References

1. Services DoHaH. Healthy People 2020. Accessed May 18, 2022. https://www.cdc.gov/nchs/healthy_people/hp2030/hp2030.htm
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3. Presidential COVID-19 Health Equity Task Force. Presidential COVID-19 Health Equity Task Force Final Report and Recommendations. Accessed May 16, 2022. <https://www.hsdl.org/?abstract&did=860626>
4. Kilbourne AM, Switzer G, Hyman K, Crowley-Matoka M, Fine MJ. Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health*. Dec 2006;96(12):2113-21. doi:10.2105/ajph.2005.077628

5. Lett E, Dowshen NL, Baker KE. Intersectionality and Health Inequities for Gender Minority Blacks in the U.S. *Am J Prev Med*. Nov 2020;59(5):639-647. doi:10.1016/j.amepre.2020.04.013
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7. Effective Health Care Program AfHRaQ, Rockville, MD. Systematic Review: Closing the Quality Gap Series: Quality Improvement Interventions To Address Health Disparities. <https://effectivehealthcare.ahrq.gov/products/disparities-quality-improvement/research>
8. PICO Portal New York US. Available at www.picoportal.org

V. Definition of Terms

Not applicable

VI. Summary of Protocol Amendments

Not applicable

VII. Key Informants

Within the Technical Brief process, Key Informants serve as a resource to offer insight into the clinical context of the technology/intervention, how it works, how it is currently used or might be used, and which features may be important from a patient or policy standpoint. They may include clinical experts, patients, manufacturers, researchers, payers, or other perspectives, depending on the technology/intervention in question. Differing viewpoints are expected, and all statements are crosschecked against available literature and statements from other Key Informants. Information gained from Key Informant interviews is identified as such in the report. Key Informants do not do analysis of any kind nor contribute to the writing of the report and will not review the report, except as given the opportunity to do so through the public review mechanism.

Key Informants must disclose any financial conflicts of interest greater than \$5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals are invited to serve as Key Informants and those who present with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential conflicts of interest identified.

VIII. Peer Reviewers

Peer reviewers are invited to provide written comments on the draft report based on their clinical, content, or methodologic expertise. Peer review comments on the draft report are considered by the EPC in preparation of the final report. Peer reviewers do not participate in writing or editing of the final report or other products. The synthesis of the scientific literature presented in the final report does not necessarily represent the views of individual reviewers. The dispositions of the peer review comments are documented and may be published three months after the publication of the Evidence report.

Potential Reviewers must disclose any financial conflicts of interest greater than \$5,000 and any other relevant business or professional conflicts of interest. Invited Peer Reviewers may not have any financial conflict of interest greater than \$5,000. Peer reviewers who disclose potential business or professional conflicts of interest may submit comments on draft reports through the public comment mechanism.

IX. EPC Team Disclosures

EPC core team members must disclose any financial conflicts of interest greater than \$1,000 and any other relevant business or professional conflicts of interest. Related financial conflicts of interest that cumulatively total greater than \$1,000 will usually disqualify EPC core team investigators.

X. Role of the Funder

This project was funded under Contract No. 75Q80120D00008 from the Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. The AHRQ Task Order Officer reviewed contract deliverables for adherence to contract requirements and quality. The authors of this report are responsible for its content. Statements in the report should not be construed as endorsement by the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Appendix 1.

Preliminary literature search

We will search MEDLINE using the algorithm listed below. We will adjust the algorithm to also search the CINAHL, and Scopus databases.

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- 1 healthcare disparities/ or Health inequities/ or Health Status Disparities/ 37539
- 2 (health* adj3 (access* or disparit* or equity or inequit*)).ti,ab,kf. 75887
- 3 exp "health disparity, minority and vulnerable populations"/ or Minority health/ 107059
- 4 "Ethnic and Racial Minorities"/ 361
- 5 exp "Emigrants and Immigrants"/ 14964
- 6 Medically Underserved Area/ or Medically Uninsured/ or Safety-Net Providers/ 16361
- 7 exp Racism/ or Bias, Implicit/ 5619
- 8 ((race or racial) adj3 (difference* or disparit* or inequit* or gap*)).ti,ab,kf. 14365
- 9 exp Poverty/ or sociodemographic factors/ or socioeconomic factors/ 209665
- 10 ((sociodemographic* or socioeconomic*) adj3 (disparit* or equit* or inequit*)).ti,ab,kf. 3706
- 11 or/1-10 405400
- 12 exp chronic disease/ or cardiovascular diseases/ or exp diabetes insipidus/ or exp diabetes mellitus/ or Disabled Persons/ 1247184
- 13 (AIDS or asthma or cancer or cardiovascular disease* or chronic obstructive pulmonary disease or COPD or diabetes or HIV or hypertension or mental disorder* or mental illness* or (chronic adj3 disease*)).ti,ab,kf. 3958683
- 14 Multimorbidity/ 2317
- 15 (multimorbidit* or multi-morbidit*).ti,ab,kf. 7482
- 16 (patient adj3 (burden or complex*)).ti,ab,kf. 9307
- 17 or/12-16 4596832
- 18 11 and 17 103718
- 19 clinical trial/ or exp controlled clinical trial/ or comparative effectiveness research/ or comparative study/ or evaluation study/ or health services research/ or outcome assessment, health care/ or quality assurance, health care/ or quality improvement/ 2992792
- 20 (strategies or intervention or improve* or address).ti. 503779
- 21 19 or 20 3399481
- 22 18 and 21 18183
- 23 limit 22 to (english language and yr="2017 -Current") 4553
- 24 comment/ or editorial/ or letter/ 2081992
- 25 23 not 24 4478