



## **Evidence-based Practice Center Technical Brief Protocol**

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

### **I. Background and Objectives**

Reducing and ultimately eliminating disparities in health and healthcare is a national priority. Health and healthcare disparities are especially pronounced among racial and ethnic minority groups, and for chronic conditions (such as mental health disorder, cardiovascular diseases, cancers, asthma, HIV/AIDS, kidney disease, COPD, and diabetes,<sup>1</sup> which are the leading causes of death and disability in adults in the United States).<sup>2</sup>

In 2010, the Department of Health and Human Services (HHS) launched “Healthy People 2000” with the goal of establishing health equity, eliminating disparities, and improving the health of all groups.<sup>3</sup> HHS has since increased efforts towards the goal. In January 2021, the President’s Office signed an Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government,<sup>4</sup> followed by the release of actionable recommendations in the Health Equity Task Force report in November 2021.<sup>5</sup>

Though disparities are recognized in health and healthcare, healthcare systems are often at a loss for how to mitigate disparities at a patient and provider/health professional level. Some strategies and interventions at the patient and provider/health-professional level have shown signals of effectiveness, but disparities persist and may even be increasing for chronic conditions.<sup>6</sup> Further, 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.) often have a unique health and healthcare experience, adding to the disparity.<sup>7</sup>

Prior systematic reviews on patient and provider/health professional targeted strategies have concentrated on strategies related to culturally adapting/tailoring, self-management strategies, patient health education, patient navigation, health literacy interventions, quality improvement, decision-making support strategies, problem-solving classes, motivational interviewing program, the use of patient advocates, and cultural competence training for healthcare professionals<sup>8-15</sup> for targeted conditions and populations. These reviews are narrowly focused, and none provide a comprehensive view. Future research efforts will benefit from a review of the scale of the literature to identify potentially effective and long-term strategies/interventions.

This technical brief will supplement the AHRQ 2012 report<sup>16</sup> in several ways. Most importantly, our brief expands the scope of the evidence base beyond quality improvement (QI) interventions by including unrestricted set of conditions and by focusing on strategies/interventions that are 1) targeted more broadly at patients and providers/health professionals and 2) designed to reduce racial and ethnic disparities and improve health outcomes in the treatment of common chronic conditions in adults (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 (HHS).

## **II. Guiding Questions**

What is the current evidence for strategies targeted at patients and provider/health professionals and designed to reduce racial and ethnic disparities and improve health outcomes in the treatment of common chronic conditions in adults?

- a. What interventions have been studied?
- b. What racial and ethnic populations have been studied?
- c. What common (multiple and single) chronic conditions have been studied?
- d. What primary outcomes have been studied?
- e. What are the reported effects of the strategies used in studies of interventions to reduce disparities?
- f. What are the reported unintended consequences, harms, or adverse events of the strategies used in studies of interventions to reduce disparities?
- g. 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?
- h. What study designs have been used?
- i. What information is available on the applicability and sustainability of interventions?
- j. 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 experience in the prevention and/or treatments of chronic diseases, racial and ethnic disparities experience in health and healthcare, knowledgeable of possible patient-level and provider/health professional-level efforts to address racial and ethnic disparities in health and healthcare, gray literature sources, and potential community collaboration efforts. The advocacy organizations, clinicians, provider organizations, and researchers will have expertise in chronic disease prevention and/or treatments, issues and challenges in patient and provider/health professional-level interventions to address racial and ethnic disparities in health and healthcare, relevant conceptual frameworks in understanding patient-level and provider/health professional-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 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 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 patient-level and health professional-level efforts has your organization, institution or practice employed to reduce racial and ethnic disparities in chronic conditions healthcare and health outcomes?
  - i. Can you describe the rationale for this effort, for instance what problem was driving the decision to implement the solution/intervention? Was the intervention successful or not? What were the challenges? How are you measuring disparities and evaluating interventions and outcomes as a result of them?
- b. Do you engage community partnerships in your approach? If so, how?
  - i. Are there similar approaches you are aware of? Which other practice or provider is trying similar approaches?
- c. Are there concepts, or conceptual frameworks, that are important in understanding the patient-level and health professional-level interventions to reduce racial/ethnic disparities in health and healthcare?
- d. How do you identify special groups that are not being served, and how do you prioritize which groups for designing interventions for? What are the challenges?
- e. How does your organization tailor the patient-level and health professional-level approach to reach racial and ethnic minorities that may be marginalized due to other factors (such as disability status, income status, sexual identity and orientation, income, geographic location, language e.t.c)? Which of these factors have been most challenging to address and why? Which factors are relatively easy to address and implement?
- f. What concerns do you have about the sustainability of patient-level and health professional-level strategies/interventions intended to address racial and ethnic disparities in health and healthcare?
- g. Gray literature: What are prominent sources where you obtain information on patient-level and health professional-level strategies/interventions? Who has conducted such interventions?
- h. What information and resource does your organization or institution need to be more effective in incorporating patient-level and health professional-level interventions in reducing racial and ethnic disparities in health and healthcare?
- i. 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 for chronic diseases. 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 health provider (that is doctor and nurse) 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 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 your health provider (that is doctor or nurse) 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? Are there things you could do as well? Give example(s).
- 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. 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 database<sup>17</sup> 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"> <li>Racial and ethnic minority adults with common chronic conditions</li> <li>Health Professionals providing healthcare for racial and ethnic minority adults with common chronic conditions</li> </ul>	<ul style="list-style-type: none"> <li>Pediatric populations</li> <li>Non-U.S populations</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>Strategies specifically targeted to reduce racial and ethnic minority health and healthcare disparities at patient-level and health professional-level, with relevant links to healthcare system</li> <li>Strategies with community involvement with relevant links to healthcare system</li> </ul>	<ul style="list-style-type: none"> <li>Exploratory sub-group analysis where the aims of the studies are not relevant to racial/ethnic health disparities</li> <li>Public health/policy-based interventions without relevant links to healthcare system</li> <li>Interventions aimed at medical school students, pharmacy students, and other allied health students</li> </ul>
Comparators	<ul style="list-style-type: none"> <li>Standard care</li> <li>Alternative strategy/intervention</li> </ul>	
Outcomes	<ul style="list-style-type: none"> <li>Health-related outcome measures (e.g., disease specific morbidity and mortality, BP control, Hba1c levels)</li> <li>Process of care measures (e.g., referrals to</li> </ul>	

	mental healthcare, cultural relevance) <ul style="list-style-type: none"> <li>• Care utilization outcome measures (e.g., rates of readmission for long-term complications of diabetes)</li> <li>• Financial/re-imbursement measures</li> <li>• Harms (e.g., unintended negative consequences, including misallocation of effort, decreased patient satisfaction, etc.)</li> <li>• Stigma other related experience of discrimination</li> </ul>	
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

## 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

Our organization and summaries of the data will be empirically driven by the observations from the literature. We will use bubble plots and other appropriate graphical or tabular methods to separately examine the distribution of the evidence and map it. 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 f, g, i, and j. Where strategies overlap or are components of multifaceted strategies, we will group the summary of the interventions by their intended aims.

## IV. References

1. Turnbull S, Cabral C, Hay A, Lucas PJ. Health Equity in the Effectiveness of Web-Based Health Interventions for the Self-Care of People With Chronic Health Conditions: Systematic Review. *J Med Internet Res*. Jun 5 2020;22(6):e17849. doi:10.2196/17849
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13. Terens N, Vecchi S, Bargagli AM, et al. Quality improvement strategies at primary care level to reduce inequalities in diabetes care: an equity-oriented systematic review. *BMC Endocrine Disorders*. 2018/05/29 2018;18(1):31. doi:10.1186/s12902-018-0260-4



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17. PICO Portal New York US. Available at [www.picoportal.org](http://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.

- 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 (multimorbidity\* or multi-morbidity\*).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