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## Reducing Health Disparities Through Prevention: Role of the U.S. Preventive Services Task Force

Matthew J. O'Brien, MD, MSc<sup>1,2</sup>, Kate A. Kirley, MD<sup>3</sup>, Ronald T. Ackermann, MD, MPH<sup>1,2</sup>

<sup>1</sup>Division of General Internal Medicine and Geriatrics, Northwestern University Feinberg School of Medicine, Chicago, Illinois;

<sup>2</sup>Institute for Public Health and Medicine, Northwestern University Feinberg School of Medicine, Chicago, Illinois;

<sup>3</sup>American Medical Association, Chicago, Illinois

### INTRODUCTION

In 1984, the U.S. Preventive Services Task Force (USPSTF) was founded to create evidence-based recommendations guiding the use of diverse preventive services, including screening tests, behavioral interventions, and medications. Recommendations from this independent expert group are widely followed, and in some cases have produced substantial changes in clinical practice. One example, prostate cancer screening with prostate-specific antigen, was routinely performed among middle-aged and elderly men for decades until the USPSTF 2012 recommendation against this practice.<sup>1</sup> Like prostate cancer, many diseases that are the subject of their preventive service recommendations disproportionately affect racial/ethnic minorities. This highlights a unique opportunity for USPSTF's recommendations to reduce health disparities.

The USPSTF follows a rigorous, transparent, and dynamic process for reviewing existing evidence and developing its recommendations.<sup>2</sup> Using commissioned systematic literature reviews, the USPSTF considers the quality of evidence supporting each preventive service, and the magnitude of net benefit from implementing it. These reviews assess the certainty of the existing evidence, in addition to the magnitude of benefits and harms associated with the service. This process is intended to “maximize population health benefits while minimizing harms.”<sup>3</sup> Weighing the potential impacts of preventive service recommendations from a population perspective may help achieve the greatest benefit for the largest number of Americans. However, some subpopulations may derive more benefit or experience greater harm from certain preventive services. If there is insufficient evidence to recommend a preventive service in the entire population, it is unlikely that the same service will benefit

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Address correspondence to: Matthew J. O'Brien, MD, MSc, Northwestern University Feinberg School of Medicine, 750 N Lake Shore Drive, 6th Floor, Chicago IL 60611. matthew.obrien1@northwestern.edu.

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high-risk groups such as racial/ethnic minorities. However, it is possible that racial/ethnic differences in benefits and harms of recommended services or differential implementation of those services by race/ethnicity could widen health disparities in some groups.

The USPSTF currently addresses high-risk subgroups in several ways.<sup>4</sup> Most recommendations target specific groups defined by a limited number of risk factors, such as individuals' age, sex, and specific exposures like smoking. The USPSTF also targets high-risk subgroups defined by numerous risk factors that are captured in multivariate risk models, like the 2016 statin recommendation,<sup>5</sup> which require a calculation to determine eligibility. Although some risk models include race/ethnicity, none of the current USPSTF recommendations use race/ethnicity as a deciding factor.

## CHALLENGES TO ADDRESSING HEALTH DISPARITIES IN PREVENTIVE SERVICE RECOMMENDATIONS

Making preventive service recommendations for specific racial/ethnic groups poses significant challenges. First, the idea of offering health services based on patients' race/ethnicity draws comparisons to disturbing examples from biomedical research and clinical practice when minorities received substandard care. Recommendations that are specific to racial/ethnic subgroups could also face implementation barriers. For example, who determines patients' race/ethnicity, and therefore their eligibility to receive the recommended service? Further, criticism from stakeholder organizations about the inclusion or exclusion of certain racial/ethnic groups could influence public opinion and limit the uptake of such recommendations in practice.

Perhaps the greatest challenge to addressing race/ethnicity in clinical guidelines involves the data sources used during the development process. Ample epidemiologic research highlights racial/ethnic disparities in disease prevalence and complications. However, minority groups remain under-represented in clinical trials.<sup>6</sup> Even large trials with substantial numbers of minority participants rarely are designed to examine subgroup differences by race/ethnicity. Intervention studies focused on minority populations are often characterized by smaller randomized samples or non-randomized designs that provide lower certainty of evidence. Observational studies describing racial/ethnic differences in the performance of preventive services are generally regarded as even lower-quality evidence.

The paucity of high-quality prevention research in racial/ethnic minority populations represents a fundamental challenge. When minorities are disproportionately affected by a disease, and less likely to be included in a preventive service recommendation owing to insufficient evidence, racial/ethnic disparities could widen. Unfortunately, it is unlikely that the same level of evidence about a preventive service will ever be available among individual racial/ethnic groups as in the entire population. This issue is further complicated by significant heterogeneity in health outcomes observed within racial/ethnic groups. For example, among Hispanics/Latinos, Mexicans have nearly twice the rate of diabetes as South Americans.<sup>7</sup> Such data raise questions about the most relevant definition of racial/ethnic groups, and whether or when even smaller subgroups should be examined.

Challenges with implementing preventive service recommendations may also affect racial/ethnic disparities in the corresponding health conditions. Recent analyses suggest that racial/ethnic minorities are less likely than whites to receive most preventive services recommended by the USPSTF.<sup>8</sup> Because these services are delivered in clinical settings, racial/ethnic disparities in health insurance coverage and having a usual source of care present systemic barriers to minority groups receiving recommended services.<sup>9,10</sup> However, disparities in these measures of healthcare access do not fully explain lower rates of preventive service use among racial/ethnic minorities relative to whites.<sup>11</sup> Though this implementation gap in minority populations is documented consistently, its impact on clinical outcomes in these groups is not well understood.

The USPSTF recently described its process for addressing race/ethnicity in preventive service recommendations.<sup>12</sup> First, systematic reviews are conducted with attention to differential outcomes by race/ethnicity. Input from external reviewers and the public may provide further relevant information. When issues related to race/ethnicity are identified through these mechanisms, the USPSTF addresses them in a section of each recommendation entitled Clinical Considerations. This section, which is distinct from the “topline” synopsis including the primary target population and recommendation grade (i.e. A, B, C, D, or I), provides additional information that is relevant for clinicians applying the recommendation in practice. For example, the Clinical Considerations section of the 2015 diabetes screening guideline mentions high-risk characteristics that may prompt clinicians to consider glycemic testing before the age and weight thresholds defined in the recommendation grade. Non-white race/ethnicity was included there among a number of other diabetes risk factors that were not included in the recommendation grade.<sup>13</sup>

Placing statements about race/ethnicity in the Clinical Considerations section may be confusing and lead to conflicting interpretations of the recommendation. For example, clinicians may wonder whether or how they should act on information about race/ethnicity that appears outside the recommendation grade and primary target population. Lack of clarity about whether race/ethnicity should prompt provision of preventive services may also have policy implications. The Affordable Care Act mandates that health insurance plans cover services given an A or B recommendation by the USPSTF without any cost to patients.<sup>14</sup> Therefore, clinicians, patients, and payers may not know who is financially responsible when a preventive service is delivered based on information about race/ethnicity mentioned outside the recommendation grade.

## **OPPORTUNITIES TO REDUCE HEALTH DISPARITIES THROUGH PREVENTIVE SERVICE RECOMMENDATIONS**

Could the USPSTF do more to address racial/ethnic health disparities in its clinical preventive service guidelines? As discussed above, recommendations targeting certain races/ethnicities may not be appropriate or feasible in most cases. Another option could involve using different thresholds of evidence to extrapolate health outcomes of preventive services in these groups, where direct and robust evidence from clinical trials is lacking. For example, assessing the certainty that a service is beneficial among racial/ethnic minorities

could be based on findings from uncontrolled studies or observational research if there are insufficient clinical trial data from minority groups and such data are unlikely to become available in the near future. However, this would raise difficult questions about when such an approach is warranted or what lower threshold of evidence is sufficient.

Alternatively, the USPSTF's "topline" synopsis could include potential implications for health disparities in the corresponding condition. This could take the form of a separate letter grade, or a qualitative assessment of the recommendation's potential to influence racial/ethnic health disparities (e.g., improve, worsen, remain neutral, or indeterminate). Grading potential implications for health disparities, in addition to the balance of clinical benefits and harms, may enable more informed decisions about preventive health service use. Although this approach could prove difficult given data limitations, providing a health disparities grade could highlight the potential for preventive services to promote health equity or uncover a need for further research.

If health disparities cannot be addressed in the "topline" synopsis, USPSTF recommendations could include a separate section summarizing evidence of racial/ethnic disparities in disease prevalence or complications, differential outcomes of preventive services by race/ethnicity, and gaps in existing research. This proposal represents a natural extension of the USPSTF's current approach, synthesizing information about race/ethnicity that is already considered in the guideline development process and presenting it more fully. Over time, the USPSTF has added new sections to its recommendations that contain relevant information for clinicians and policymakers,<sup>15</sup> validating the feasibility of this approach. Including a new section on disparities would enable greater discussion of complex issues regarding the available evidence among racial/ethnic minorities and what future research is needed in these groups. However, busy clinicians who only read the "topline" synopsis may miss additional information on race/ethnicity provided elsewhere.

In addition to including more information about race/ethnicity in its recommendations, the USPSTF could extend existing efforts in communication and dissemination to have greater impact. The USPSTF's main channels for disseminating recommendations are its website and peer-reviewed medical journals. Recommendation statements and evidence reports are primarily directed at physicians and other healthcare providers. In addition, the USPSTF supports a smartphone application to help primary care clinicians select recommended preventive health services.<sup>16</sup> Although the USPSTF also produces summary documents written for patients and consumers, these materials could be simplified to enhance their widespread use. Reaching diverse communities that are less likely to receive preventive services will require using plain language with appropriate levels of literacy and numeracy, as well as translating these materials from English into other languages. The USPSTF could also consider developing traditional and social media campaigns to disseminate their recommendations more widely. These approaches may increase demand for preventive services at the population level and hold healthcare providers accountable for delivering them when clinically indicated. Given robust evidence that racial/ethnic minorities are less likely to receive preventive services than whites,<sup>17</sup> broader implementation of USPSTF guidelines in these underserved groups may play an important role in reducing disparities.

The USPSTF also communicates its findings to the research community. Current efforts include reporting research gaps among racial/ethnic minority groups to Congress and federal research funders, as well as researchers during an annual workshop hosted at the NIH.<sup>18,19</sup> But the extent to which the research community responds to fill evidence gaps identified by the USPSTF is unclear. The USPSTF could consider other venues for communicating these knowledge gaps among larger audiences of researchers and funders. These could include giving presentations at large scientific meetings; sending automated e-mails to all investigators with federal funding for the corresponding health condition; or posting brief messages on Twitter, which is increasingly used for health research and scientific communication.<sup>20</sup> Encouraging research that improves the evidence base among racial/ethnic minority populations may help USPSTF create better recommendations for these groups in the future.

## CONCLUSIONS

Any comprehensive strategy to eliminate racial/ethnic health disparities must include population-based approaches for prevention or early diagnosis and treatment. As an impartial expert group whose recommendations are trusted and widely followed, the USPSTF is uniquely positioned to shape these efforts. Addressing race/ethnicity more comprehensively in its recommendations and focusing dissemination efforts on underserved minority groups may help reduce disparities in the health conditions USPSTF seeks to prevent. Future work in this area should consider emerging issues and populations, including other minority groups that experience health disparities (e.g., sexual and gender minorities), as well as observed heterogeneity within minority populations. Influential stakeholders in prevention must also address the fundamental challenge that racial/ethnic disparities in access and outcomes are shaped by complex social factors that require intervention both within the healthcare system and outside it.

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