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High-Priority Evidence Gaps for Clinical Preventive Services

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**ON BEHALF OF THE
U.S. PREVENTIVE SERVICES
TASK FORCE**

**11TH ANNUAL
REPORT
TO CONGRESS**



EXECUTIVE SUMMARY

The U.S. Preventive Services Task Force (USPSTF or Task Force) is an independent, volunteer panel of national experts in prevention, primary care, and evidence-based medicine. The Task Force makes evidence-based recommendations about clinical preventive services to improve the health of people nationwide. The Task Force comprehensively assesses the potential benefits and harms of services, including screening tests, behavioral counseling, and preventive medications, to prevent disease in people without signs or symptoms.

Each year, Congress charges the USPSTF to provide a report that identifies gaps in the scientific evidence base and recommends areas for future research. In some cases, clinical preventive services have been well studied, but there are important evidence gaps that prevent the USPSTF from making recommendations for specific populations. The Task Force recognizes disparities persist in healthcare and health outcomes based on age, race and ethnicity, sex and gender, sexual orientation, and social risk factors. Greater inclusion of populations disproportionately affected by health conditions in research will help the USPSTF issue recommendations that improve the quality of preventive care. In turn, this will hopefully lead to improved access to and use of these preventive services, reduced disparities in healthcare, and increased health equity.

In this 11th annual report to Congress, which covers fiscal year 2021, the Task Force calls for more research in areas where evidence is lacking for populations disproportionately affected by health conditions.

Where More Research Is Needed Related to Health Equity in Cardiovascular Disease and Cancer Prevention

In this report, the USPSTF calls attention to high-priority research gaps from its recent recommendations related to **health equity in cardiovascular disease and cancer prevention**. The Task Force has a long-standing commitment to, and specific methods for, evaluating the evidence for clinical preventive services and making recommendations that promote health equity. Systemic racism affects every aspect of our society—including health and healthcare. It can prevent some people from accessing and receiving their recommended healthcare and increase the risk of illness. By proactively searching for data on populations historically underrepresented in research and disproportionately affected by health conditions, calling for new research to fill in existing gaps, and communicating as clearly as possible about how to support people's varying health needs, we believe our approach will help improve equity in preventing diseases.

The research gaps highlighted in this report pertain to various issues in terms of health equity, including inclusion in research, benefits and harms, risk stratification, and implementation of preventive services. Research to address these complex health equity issues will help clinicians provide equitable care and meaningfully assist patients in preventing cardiovascular disease and cancer.

Specifically, more research is needed on the following topics to fill the evidence gaps described below.



Cardiovascular Disease

1. Screening for Hypertension in Adults

- Include people who are historically underrepresented in research and populations disproportionately affected by hypertension in studies to determine optimal screening frequencies and strategies.

2. Aspirin Use to Prevent Preeclampsia and Related Morbidity and Mortality

- Recruit enough people from populations that bear the greatest disease burden, such as Black people, to be able to determine the effectiveness of different aspirin dosages and timing of initiation.
- Assess the populations most likely to benefit from aspirin prophylaxis and what risk threshold and factors should be used to identify eligible patient populations.
- Improve effective and equitable implementation of clinical guidelines for aspirin use in pregnancy.

3. Screening for Prediabetes and Type 2 Diabetes

- Examine the effects of screening on health outcomes in populations disproportionately affected by diabetes, particularly racial and ethnic groups that have a higher prevalence of diabetes than White people.
- Assess the effects of lifestyle interventions and medical treatments for screen-detected prediabetes and diabetes on health outcomes over a longer followup period, particularly in populations with the highest prevalence of diabetes.
- Assess how best to increase uptake of lifestyle interventions, especially among populations at highest risk for progression to diabetes and adverse health outcomes.

4. Behavioral Counseling Interventions to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors

- Include and evaluate online resources such as daily caloric intake applications or other low-intensity approaches that may be valuable in low-resource settings.



5. Screening for Lung Cancer

- Assess the benefits and harms of using risk prediction models to select patients for lung cancer screening, including whether the use of risk prediction models represents a barrier to lung cancer screening in primary care.
- Evaluate how best to increase the uptake of lung cancer screening discussions in clinical practice, particularly among people at higher risk of death from lung cancer and people who are socially and economically disadvantaged (for whom smoking prevalence and lung cancer incidence is higher).

6. Screening for Colorectal Cancer

- Evaluate the effectiveness of screening in adults younger than age 50 years and whether screening strategies should differ in younger versus older populations.
- Assess the factors that contribute to increased colorectal cancer incidence and mortality in Black adults, such as access to and availability of care and characteristics of systems providing healthcare. Once these factors are identified, more research is needed to evaluate interventions designed to mitigate these differences for Black adults.

Future research in these areas can help fill these gaps to help to improve the health of people nationwide, including populations disproportionately affected by health conditions. For example, future research may result in important new recommendations or help inform policy to improve access to and use of these preventive services, reduced disparities in healthcare, and increased health equity. The USPSTF hopes that identifying evidence gaps and highlighting them as research priorities will inspire public and private researchers to collaborate and target their efforts to generate new knowledge, address important health issues, and improve health equity.

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We recognize that systemic racism is a serious public health threat that directly affects the well-being of millions of people across America.

Research shows that racial and ethnic populations who have been systemically disadvantaged experience higher rates of illness and death across several preventable health conditions, including diabetes, obesity, cancer, and heart disease.

As partners of the U.S. Preventive Services Task Force, we support its commitment to help improve health equity in evidence-based clinical preventive services and improve the health of all people nationwide.

Collectively, we need evidence-based strategies that will reverse the negative effects of systemic racism on preventable disease. This report highlights some of the important research gaps that need to be filled to help clinicians and patients prevent disease and prolong life. Like the Task Force, we are committed to making health equity a priority, because every person deserves a chance to lead their healthiest possible life.

AARP

American Academy of Family Physicians

American Academy of Pediatrics

American Academy of Physician Assistants

American College of Obstetricians and Gynecologists

American College of Physicians

American College of Preventive Medicine

American Medical Association

American Psychological Association

Business Group on Health

Canadian Task Force on Preventive Health Care

Community Preventive Services Task Force

National Association of Pediatric Nurse Practitioners

National Hispanic Medical Association

National Medical Association/Cobb Institute

I. INTRODUCTION

The U.S. Preventive Services Task Force (USPSTF or Task Force) is an independent, volunteer group of national experts in prevention, primary care, and evidence-based medicine. Since its inception in 1984, the Task Force has made evidence-based recommendations about clinical preventive services to improve the health of people nationwide (e.g., by improving quality of life and prolonging life). These recommendations include screening tests, behavioral counseling, and preventive medications.

The mission of the USPSTF is to improve the health of people nationwide by making evidence-based recommendations about clinical preventive services.

The purpose of this report is to update the U.S. Congress and the research community about high-priority evidence gaps in clinical preventive services identified by the Task Force from fiscal year 2021 (October 1, 2020, to September 30, 2021).

II. BACKGROUND

Clinical preventive services have tremendous value in improving the health of the Nation. When provided appropriately, these services can identify diseases at earlier stages when they are more treatable or may reduce a person's risk for developing a disease. However, some clinical preventive services can fail to provide the expected benefit or even cause harm. To make informed decisions, healthcare professionals, patients, and families need access to trustworthy, evidence-based information about the benefits and harms of clinical preventive services.

The Task Force makes recommendations to help primary care clinicians, patients, and families decide together whether a particular preventive service is right for an individual's needs. Task Force recommendations:

- Apply only to people without signs or symptoms of the disease or health condition
- Focus on screening to identify disease early and interventions (e.g., behavioral counseling and preventive medication) to prevent the onset of disease
- Address services offered in the primary care setting or services to which patients can be referred by primary care professionals

Since 1998, the Agency for Healthcare Research and Quality (AHRQ) has been authorized by Congress to convene the Task Force and to provide ongoing scientific, administrative, and dissemination support. AHRQ funds Evidence-based Practice Centers (EPCs), which are academic or research organizations that work with the Task Force to develop research plans and conduct the evidence reviews that the Task Force uses to inform its recommendations.

Who Serves on the Task Force?

The Task Force is an independent group of national experts in prevention and evidence-based medicine who represent the diverse disciplines of primary care, including behavioral health, family medicine, geriatrics, internal medicine, nursing, obstetrics and gynecology, and pediatrics. The Task Force is made up of 16 volunteer members who are appointed to serve 4-year terms, led by a chair and two vice chairs (see **Appendix A** for current members).

How Does the Task Force Minimize Potential Conflicts of Interest?

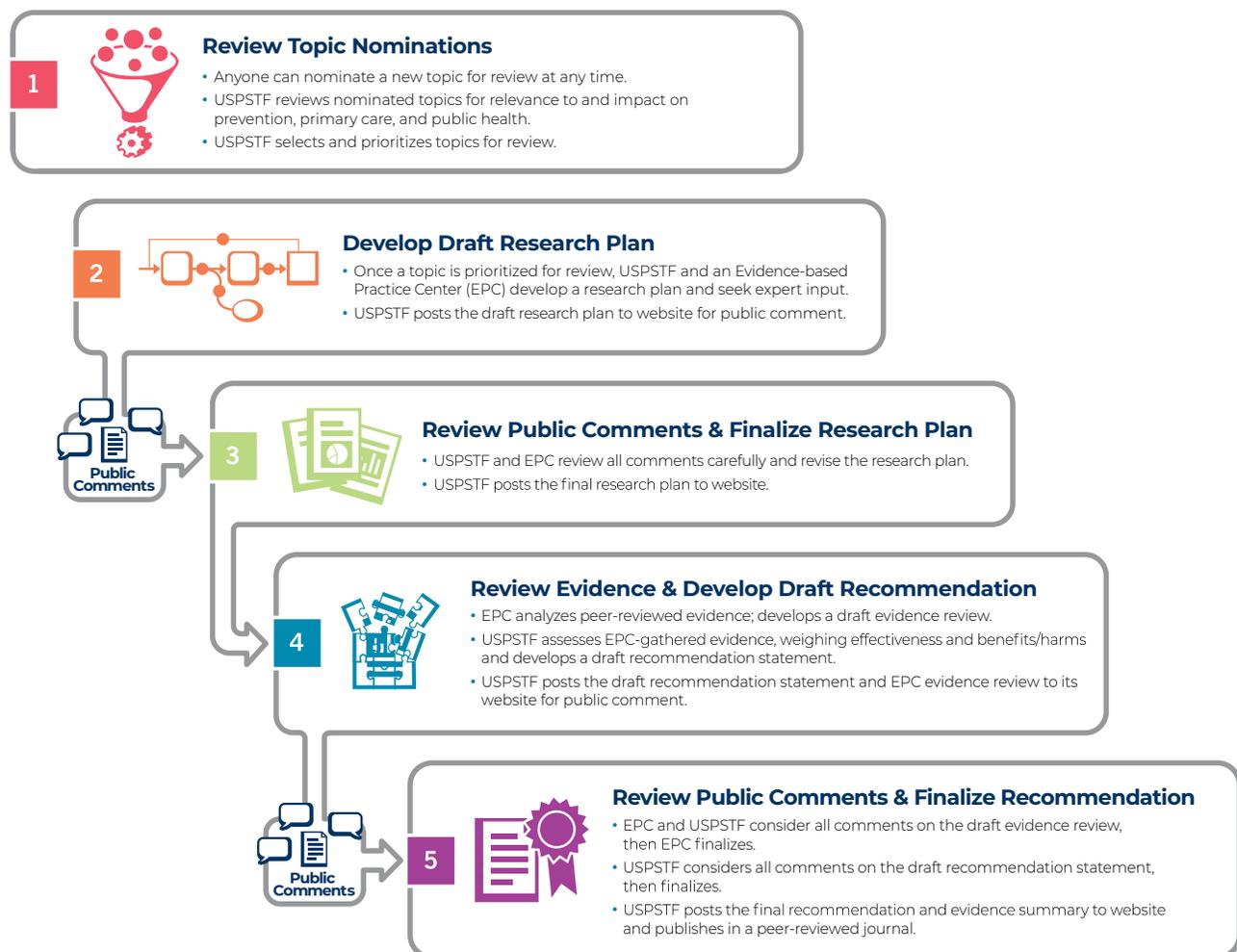
To ensure that USPSTF recommendations are balanced, independent, and objective, the Task Force has a long-standing and rigorous conflict of interest assessment and disclosure process.¹ The process for each member begins prior to appointment, and potential conflicts of interest are reviewed at least three times each year for all members.

How Does the Task Force Make Recommendations?

The Task Force's recommendations are based on a review of the best available research on the potential benefits and harms of the preventive service. It does not conduct research studies, but rather reviews and assesses published research. The Task Force follows a multistep process when developing each of its recommendation statements² and obtains public input throughout the recommendation development process (see **Figure 1**).

Figure 1. Steps the USPSTF Takes to Make a Recommendation

USPSTF Recommendations Development



When the Task Force reviews the evidence, it considers the benefits and harms of the preventive service for the overall population, as well as for specific segments of the U.S. population that may be disproportionately affected by a condition or who may benefit differently from the preventive service.³ Potential benefits of preventive services may include helping people stay healthy throughout their lifetime, improving quality of life, preventing disease, and prolonging life. Potential harms may include inaccurate test results, harms from invasive followup tests, harms from treatment of a disease or condition, diagnosis of a condition that would never have caused symptoms or issues in a person’s lifetime (also known as “overdiagnosis”), or receiving treatment when it is not needed or may not actually improve health (also known as “overtreatment”).

The Task Force assigns each of its recommendations a letter grade (A, B, C, or D) or issues an “I statement” based on the certainty of the evidence and the balance of benefits and harms of the preventive service (see **Table 1**).

Table 1. Meaning of USPSTF Grades

Grade	Definition
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

How Does the Task Force Engage the Public, Primary Care and Federal Partners, Stakeholders, and Topic Experts in Developing Recommendations?

For each topic, the USPSTF actively seeks input from the public, its partners, stakeholders, and topic experts, including medical specialists. This ensures a focus on important clinical prevention topics for practicing clinicians and that the evidence relevant to each recommendation is considered.⁴ At each step of the recommendation development process, the USPSTF solicits and reviews input. Anyone—the public, USPSTF partners, stakeholders, and topic experts—can nominate a new topic or an update to an existing topic, as well as submit comments on all Task Force draft materials (research plans, evidence reviews, and recommendation statements).

- **The Public.** All draft materials are posted on the Task Force website for a 4-week public comment period. The Task Force reviews and considers all comments as it finalizes the materials.
- **Partners.** The Task Force works with national organizations that represent primary care clinicians, consumers, and other stakeholders and health-related Federal agencies. These organizations and agencies provide input on the recommendations as they are being developed and help the Task Force disseminate the final recommendations (see **Appendices B** and **C** for a list of partners).
- **Stakeholders.** The Task Force identifies relevant stakeholder groups for each topic and contacts organizational leadership, inviting them to comment on draft materials during the public comment periods. Stakeholder groups include national primary care, specialty, patient, advocacy, and other organizations with expertise and interest in a specific topic.
- **Topic Experts.** The Task Force seeks input from different types of topic experts, including medical specialists such as radiologists, oncologists, cardiologists, and surgeons. In addition, the EPC team that conducts the evidence reviews for each topic always includes content experts, who work with the EPC during the systematic evidence review. Expert reviewers provide input on the evidence supporting the draft recommendation statement.

Where Can I Find More Information About the Task Force?

The Task Force website (www.uspreventiveservicestaskforce.org) contains more information about the Task Force and its methods for developing recommendations, including engaging with experts, partners, and the public and disseminating its recommendations. More details are available on the “About the USPSTF” and “Methods and Processes” pages.

Partnership With the National Medical Association/ Cobb Institute: A Focus on Health Equity

About the National Medical Association (NMA)/Cobb Institute

Founded in 1895, the NMA, along with its Cobb Research Institute which began in 2004, is:

- The nation's largest and oldest organization of Black physicians, representing over 50,000 clinicians and the patients they serve.
- A leading force for parity and justice in medicine and the elimination of disparities in health.

The NMA/Cobb Institute works to address systemic inequities and improve health. Partnering with the USPSTF is just one way the NMA/Cobb Institute helps to enhance the quality of preventive care for all.

Confronting Health Inequities Through Leadership and Community

Striving for equity in healthcare requires leaders to build trust, understand the importance of community, and ensure representation in all facets of health research and care delivery. The NMA/Cobb Institute inspire change by:

- Increasing the workforce pipeline so health care teams and leadership are more reflective of the population.
- Encouraging the inclusion of local community navigators on health care teams.
- Providing clinicians with the *Journal of the National Medical Association*, a trusted source of information as they meet the unique healthcare needs of underserved populations.

Collaborating to Reduce Evidence Gaps

The NMA/Cobb Institute calls for the medical and research communities to break through assumptions about perceived barriers for Black people participating in research so they can creatively tackle the challenges of representation in research studies. Bringing together trusted groups – clinicians, patients, researchers, and community organizations – as one unified community can encourage participation and make the evidence base more inclusive of all populations.

Partnering With the Task Force

Collaboration among groups, such as the partnership between NMA/Cobb Institute and the Task Force, is essential to make messages more powerful and extend the reach of important health information. As a trusted voice in its community, the NMA/Cobb Institute helps reinforce the Task Force as a credible, go-to source for clinicians and patients.

III. CLINICAL PREVENTIVE SERVICES WHERE MORE RESEARCH IS NEEDED: IMPROVING HEALTH EQUITY IN CARDIOVASCULAR DISEASE AND CANCER PREVENTION

The U.S. Congress has charged the Task Force with identifying gaps in research and recommending priority areas that deserve further examination each year, including special attention to those areas where evidence is lacking for populations that are disproportionately affected by health conditions.

There are two ways that the USPSTF highlights evidence gaps in its recommendation statements:

- **Issuing an “I statement.”** The USPSTF issues “I statements” when the current evidence is lacking, of poor quality, or conflicting. When the evidence is insufficient, the USPSTF is unable to assess the balance of benefits and harms of the preventive service.
- **Describing the “Research Needs and Gaps.”** In all recommendation statements, the USPSTF points out where gaps in the evidence remain. This information is included in a section called “Research Needs and Gaps.”

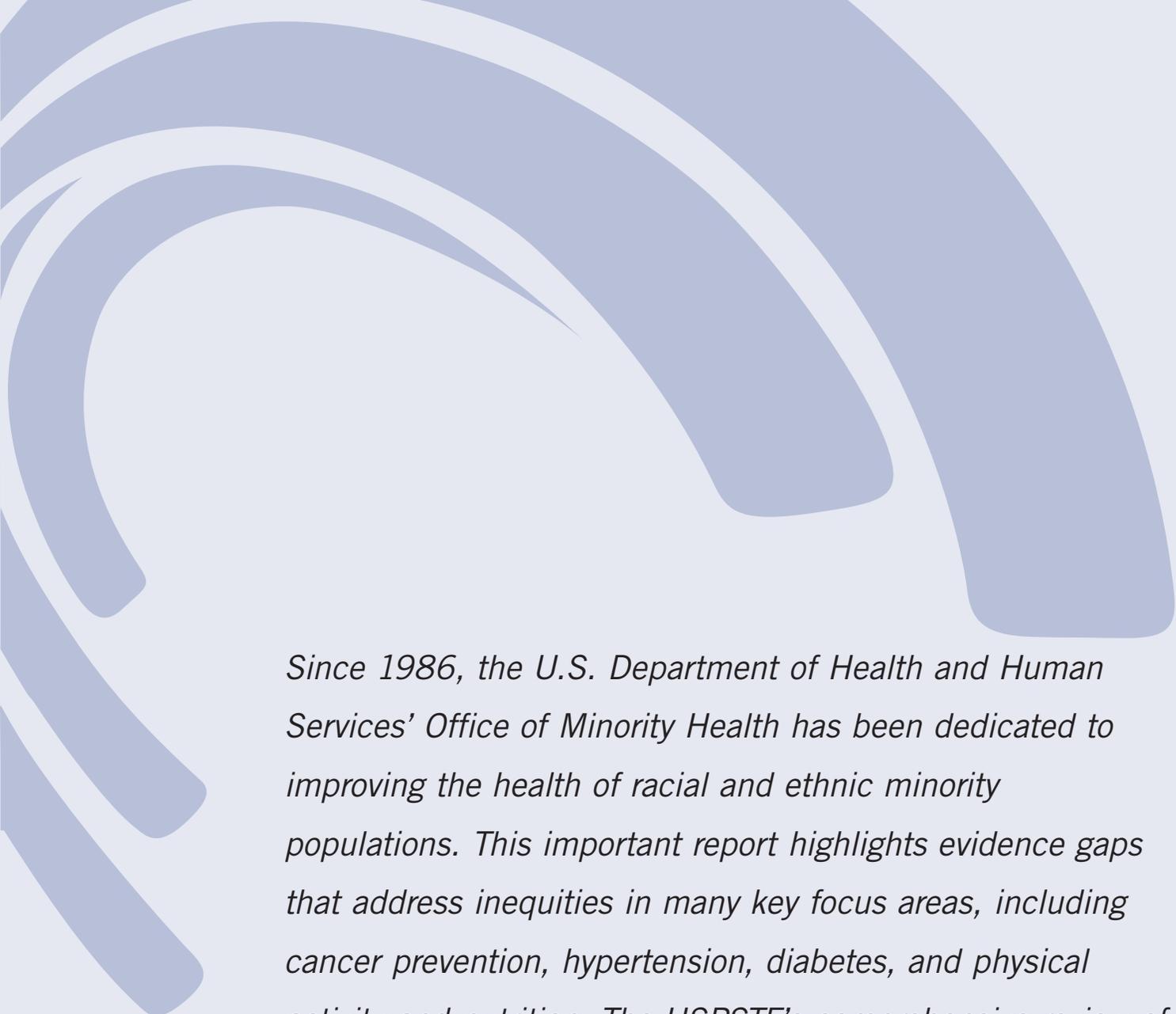
For studies to adequately address gaps in the evidence, researchers need to use methods that are consistent with the USPSTF’s criteria for assessing study quality, validity, and applicability. Studies addressing these gaps should do the following:

- Examine preventive services conducted in the **primary care setting** or that are referable from primary care
- Compare outcomes for a **screened versus unscreened** population
- Include populations **without obvious signs or symptoms** of the condition
- Adopt a **rigorous study design** appropriate for the question, such as a randomized, controlled trial or a high-quality observational study
- Be **free of potential sources of bias**, such as high dropout rates among participants or biased assessment of outcomes

To develop recommendations that improve the health of people nationwide, the USPSTF needs quality evidence about the benefits and harms of the service and about the ways specific population groups are affected. For some preventive services and for certain populations, lack of scientific evidence limits the ability of the Task Force to make recommendations. This is because particular populations are not well represented in health research. Examples include:

- Specific age groups, including children, adolescents, and older adults
- Racial and ethnic groups historically underrepresented in research and disproportionately affected by health conditions, such as Black, Hispanic/Latino/a, Native American, Alaska Native, and Asian American and Pacific Islander people
- People who do not identify as heterosexual, with their birth sex, or both
- People disproportionately affected by social risk factors, such as financial strain or lack of access to affordable and nutritious food

Greater inclusion of populations historically underrepresented in research will help the USPSTF issue recommendations that improve the quality of preventive care. In turn, this will help inform policy to improve access to and use of these preventive services, reduce disparities in healthcare, and increase health equity.



Since 1986, the U.S. Department of Health and Human Services' Office of Minority Health has been dedicated to improving the health of racial and ethnic minority populations. This important report highlights evidence gaps that address inequities in many key focus areas, including cancer prevention, hypertension, diabetes, and physical activity and nutrition. The USPSTF's comprehensive review of evidence gaps will help us understand and prioritize future research efforts to promote health equity for racial and ethnic minority groups and other underrepresented vulnerable populations. As a new partner of the Task Force, we look forward to working together to address important issues related to health equity.

Roslyn Holliday Moore, M.S.
Deputy Director for Programs,
Office of Minority Health,
U.S. Department of Health and Human Services

Focusing on Health Equity in Cardiovascular and Cancer Prevention

For this 2021 report, the USPSTF calls attention to high-priority research gaps focusing on health equity related to its recent recommendations on cardiovascular disease and cancer prevention (see **Table 2**). The Task Force has a long-standing commitment to, and specific methods for, evaluating the evidence for clinical preventive services and making recommendations that promote health equity.^{2,5,6} Systemic racism affects every aspect of our society—including health and healthcare. It can prevent some people from accessing and receiving their recommended healthcare and increase the risk of illness. By proactively searching for data on populations historically underrepresented in research, calling for new research to fill in existing gaps, and communicating as clearly as possible about how to support people’s varying health needs, the USPSTF is doing its part to help improve equity in preventing diseases.

In January 2021, the USPSTF published a commentary on *Addressing Systemic Racism Through Clinical Preventive Service Recommendations From the US Preventive Services Task Force*.⁶ In this commentary, the USPSTF outlined a roadmap that will advance its approach to addressing how systemic racism affects preventive healthcare.

Action #5 of the roadmap

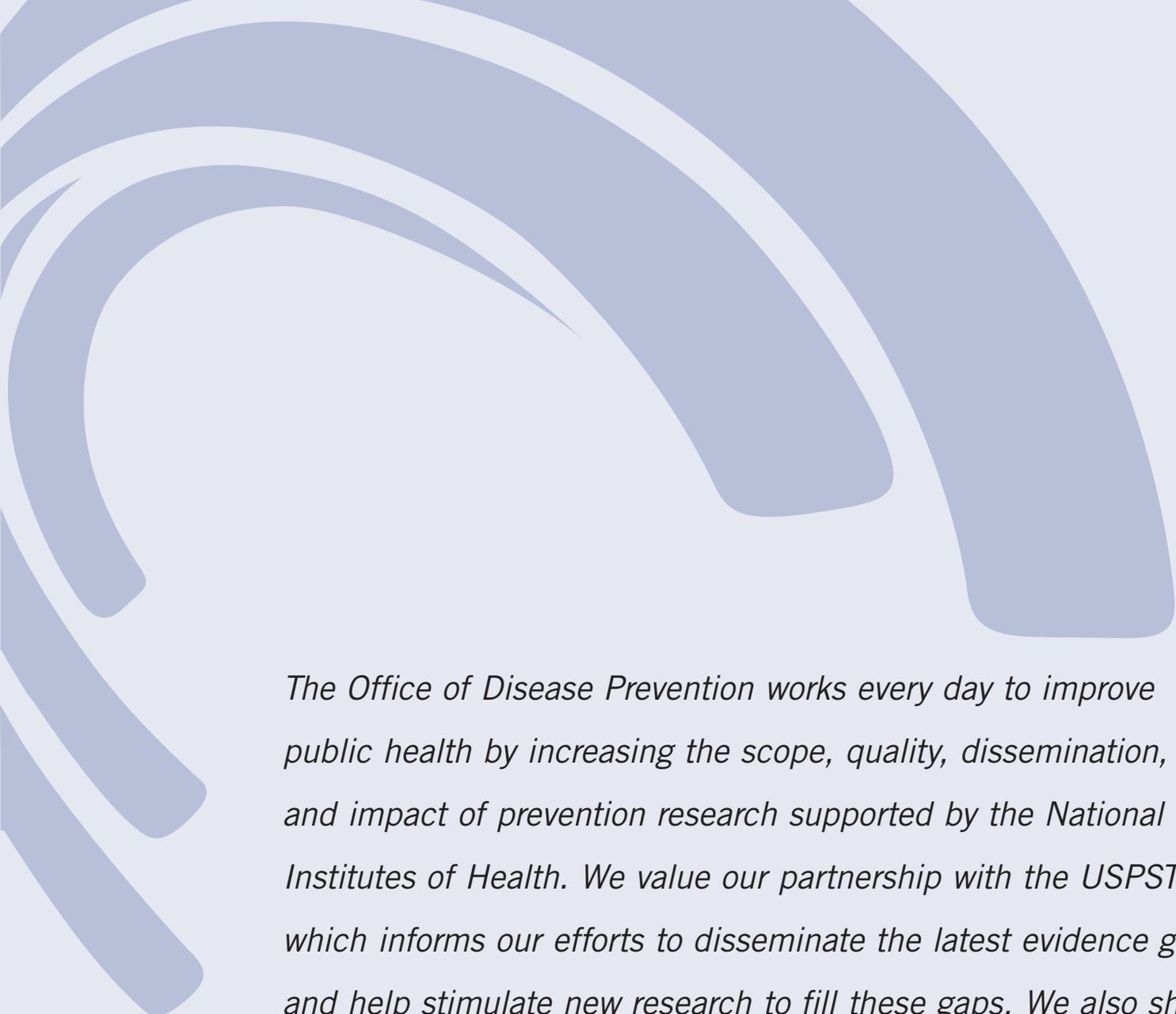
highlighted how the USPSTF will use a consistent and transparent approach to communicate gaps in the evidence related to systemic racism, including the USPSTF’s annual report to Congress. The USPSTF has always highlighted evidence gaps pertaining to populations disproportionately affected by health conditions or historically underrepresented in research in its annual report to Congress, but consistent with its commitment in the commentary, this year is focusing and enhancing this entire report on communicating these gaps in the evidence.

Health inequities are widespread and “manifest as disproportionate risk, incidence, morbidity, or mortality. These inequities are due to social, economic, and structural factors stemming from systems in which public policies, institutional practices, and other norms work to perpetuate systemic racism. Even when deemed unintentional, well-documented structural inequities are evident within the healthcare ecosystem that span the entire prevention-to-treatment continuum.”⁶ According to the 2019 National Healthcare Quality and Disparities Report, while there have been some improvements in the quality of healthcare, many health disparities have persisted and worsened over time.⁷

This report focuses on recent evidence gaps related to health equity in cardiovascular disease and cancer prevention. Heart disease and cancer are the top two leading causes of death in the United States, respectively.⁸ There are disparities in terms of deaths, illness, complications, occurrence, and risk factors by race and ethnicity for both of these conditions.

USPSTF’s Commitment to Address Systemic Racism, Action #5:

“Use a consistent and transparent approach to communicate gaps in the evidence related to systemic racism in preventive care in recommendation statements and the USPSTF’s annual report to Congress. This includes an ongoing assessment of how the effects of systemic racism on the quality of the evidence and receipt of clinical preventive services perpetuate health inequities.”



The Office of Disease Prevention works every day to improve public health by increasing the scope, quality, dissemination, and impact of prevention research supported by the National Institutes of Health. We value our partnership with the USPSTF, which informs our efforts to disseminate the latest evidence gaps and help stimulate new research to fill these gaps. We also share the USPSTF's goal of improving health equity through evidence-based clinical preventive services. It is critical to fill the research gaps highlighted in this report so we can work toward improving the health of all in our nation.

David M. Murray, Ph.D.
Associate Director for Prevention,
Director, Office of Disease Prevention,
National Institutes of Health

Table 2 and **Table 3** describe the high-priority research gaps. More research is needed in these areas pertaining to:

- *Equitable inclusion:* All types of prevention research must be conducted with better representation of the U.S. population. Including individuals from underrepresented groups in preventive services research is of paramount importance. High-quality studies are needed that include populations with the highest prevalence and greatest morbidity and mortality.
- *Benefits and harms:* Additional research is needed to identify the benefits and harms of preventive services in populations historically underrepresented in research and the populations who face the highest burden of disease and risk of death.
- *Risk stratification:* More research is needed to understand the effectiveness and implications of using risk prediction tools to identify patients at risk for certain diseases and conditions.
- *Equitable implementation:* Research is needed to assess equitable implementation of preventive services recommendations, including an assessment of who is accessing services, where services are accessed, and the quality of services. Research in this area can help inform policy so other organizations can improve access to and use of preventive services, reduce disparities in healthcare, and increase health equity.

Table 2. Key Research Gaps for Clinical Preventive Services – Cardiovascular Disease

Clinical Preventive Services <i>USPSTF Recommendation</i>	Gaps Where Research Is Needed
Cardiovascular Disease	
<p>Cardiovascular disease relates to diseases of the heart and blood vessels. Cardiovascular disease can often lead to heart attacks and strokes.^{9,10} It is also a major source of maternal morbidity and mortality.¹¹ Risk factors for cardiovascular disease include some health conditions (e.g., high blood pressure, unhealthy cholesterol levels, diabetes, and obesity), age, some behaviors (e.g., tobacco use), and family history.¹² There are also a number of health disparities, including:</p> <ul style="list-style-type: none"> • Black people are more likely to die from heart disease than other racial and ethnic groups.¹³ • Hypertension is more common in Black people than White and Hispanic/Latino people.¹⁴ • Black women are at highest risk of stroke, pulmonary edema or heart failure, and death due to preeclampsia compared with other racial and ethnic groups.¹⁵ • American Indian and Alaska Native adults are the most likely to be diagnosed with diabetes, followed by Hispanic/Latino, Black, Asian, and White adults.¹⁶ • Hispanic/Latino adults and Black adults are less likely than White adults to meet Federal physical activity guidelines.¹⁷ <p>The USPSTF has been able to make recommendations to help prevent and reduce the risk of cardiovascular disease; however, several key gaps in the evidence remain, especially related to improving health equity of these services.</p>	
<p>1. Screening for Hypertension in Adults (2021)¹⁸</p> <p><i>Recommended for adults age 18 years or older without known hypertension (A Grade)</i></p>	<ul style="list-style-type: none"> • Include people who are historically underrepresented in research and populations disproportionately affected by hypertension in studies to determine optimal screening frequencies and strategies.

Clinical Preventive Services <i>USPSTF Recommendation</i>	Gaps Where Research Is Needed
<p>2. Aspirin Use to Prevent Preeclampsia and Related Morbidity and Mortality (2021)¹⁹</p> <p><i>Recommended for pregnant persons after 12 weeks of gestation who are at high risk for preeclampsia (B Grade)</i></p>	<ul style="list-style-type: none"> • Recruit enough people from populations that bear the greatest disease burden, such as Black people, to be able to determine the effectiveness of different aspirin dosages and timing of initiation. • Assess the populations most likely to benefit from aspirin prophylaxis and what risk threshold and factors should be used to identify eligible patient populations. • Improve effective and equitable implementation of clinical guidelines for aspirin use in pregnancy.
<p>3. Screening for Prediabetes and Type 2 Diabetes (2021)²⁰</p> <p><i>Recommended for adults ages 35 to 70 years who have overweight or obesity (B Grade)</i></p>	<ul style="list-style-type: none"> • Examine the effects of screening on health outcomes in populations disproportionately affected by diabetes, particularly racial and ethnic groups that have a higher prevalence of diabetes than White people. • Assess the effects of lifestyle interventions and medical treatments for screen-detected prediabetes and diabetes on health outcomes over a longer followup period, particularly in populations with the highest prevalence of diabetes. • Assess how best to increase uptake of lifestyle interventions, especially among populations at highest risk for progression to diabetes and adverse health outcomes.
<p>4. Behavioral Counseling Interventions to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors (2020)²¹</p> <p><i>Recommended for adults with cardiovascular risk factors (B Grade)</i></p>	<ul style="list-style-type: none"> • Include and evaluate online resources such as daily caloric intake applications or other low-intensity approaches that may be valuable in low-resource settings.

Table 3. Key Research Gaps for Clinical Preventive Services – Cancer

Clinical Preventive Services <i>USPSTF Recommendation</i>	Gaps Where Research Is Needed
Cancer	
<p>Cancer is a disease that affects our cells. It occurs when some of the body’s cells grow and divide continuously without stopping, often forming into a tumor, which could ultimately prevent the body from functioning the way it is supposed to.^{22,23} Risk factors for cancer include some health conditions (e.g., obesity and diabetes), age, some behaviors (e.g., alcohol and tobacco use), and family history.²⁴⁻²⁶ There are also a number of disparities, including:</p> <ul style="list-style-type: none"> • Black people are more likely to die from many cancer types than all other racial and ethnic groups.²⁷ • Black and Native Hawaiian people have a higher risk of lung cancer at lower levels of smoking compared with other racial and ethnic groups.²⁸ • Black people and American Indian and Alaska Native people are more likely to be newly diagnosed with colorectal cancer and die from it than other racial and ethnic groups.^{29,30} <p>The USPSTF has been able to make recommendations to help prevent and reduce the risk of cancer; however, several key gaps in the evidence remain, especially related to improving health equity of these services.</p>	
<p>5. Screening for Lung Cancer (2021)³¹</p> <p><i>Recommended for adults ages 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years (B Grade)</i></p>	<ul style="list-style-type: none"> • Assess the benefits and harms of using risk prediction models to select patients for lung cancer screening, including whether the use of risk prediction models represents a barrier to lung cancer screening in primary care. • Evaluate how best to increase the uptake of lung cancer screening discussions in clinical practice, particularly among people at higher risk of death from lung cancer and people who are socially and economically disadvantaged (for whom smoking prevalence and lung cancer incidence is higher).
<p>6. Screening for Colorectal Cancer (2021)³²</p> <p><i>Recommended for adults ages 50 to 75 years (A Grade)</i></p> <p><i>Recommended for adults ages 45 to 49 (B Grade)</i></p> <p><i>Selectively offer to adults ages 76 to 85 years (C Grade)</i></p>	<ul style="list-style-type: none"> • Evaluate the effectiveness of screening in adults younger than age 50 years and whether screening strategies should differ in younger versus older populations. • Assess the factors that contribute to increased colorectal cancer incidence and mortality in Black adults, such as access to and availability of care and characteristics of systems providing healthcare. Once these factors are identified, more research is needed to evaluate interventions designed to mitigate these differences for Black adults.

Partnership With the National Hispanic Medical Association: A Focus on Health Equity

About the National Hispanic Medical Association (NHMA)

Founded more than 25 years ago, the NHMA:

- Represents the interests of 50,000 licensed Hispanic physicians in the United States.
- Empowers Hispanic physicians to lead efforts to improve the health of Hispanic and other underserved patients.

The NHMA aims to increase Hispanic representation in key healthcare decisions. Partnership with the USPSTF ensures voices are heard and represented.

Improving Health Equity Through Representation and Integration

Acknowledging systemic racism is an important first step so that health equity efforts can take root and succeed. The NHMA inspires change by:

- Working to diversify the fields of health research and medicine to reflect the communities NHMA members serve, increase cultural competency, and decrease language and health literacy barriers.
- Increasing Hispanic representation in the places where decisions are being made in healthcare, from practice to policy.

Bringing Awareness to Hispanic Health

NHMA initiatives strive to improve the health of Hispanic populations by tackling the issues that affect them the most, like cardiovascular disease, a leading cause of death among the Hispanic population. Through leadership development, networking, support for clinicians who care for Hispanic patients, mentoring, and career advancement, the NHMA inspires the next generation of Hispanic health professionals to achieve progress on these key issues.

Partnering With the Task Force

Partnerships provide opportunities for underrepresented voices to be involved, heard, and respected. Through collaboration with the Task Force, the NHMA gives its members a direct line to receive the latest on USPSTF recommendations and opportunities to provide input.

IV. THE USPSTF IN 2021 AND OTHER HIGHLIGHTS

Over the past year, the members of the Task Force continued working on a full portfolio of topics. The current USPSTF library includes 86 preventive service recommendation statements, with 138 specific recommendation grades. Many recommendation statements include multiple recommendation grades for different populations. In fiscal year 2021 (October 1, 2020, to September 30, 2021), the Task Force accomplished the following:

- Received 19 nominations for new topics and 7 nominations to reconsider or update existing topics
- Posted 13 draft research plans for public comment
- Posted 9 draft recommendation statements and 9 draft evidence reports for public comment
- Published 15 final recommendation statements with 23 recommendation grades in medical journals; posted 15 final evidence reports

For a listing of all final USPSTF recommendations released since the last report, see **Appendix D**.

Of the Task Force’s portfolio of **86 topics**, the following posted or published this year.

Draft Research Plan	Final Research Plan	Draft Recommendation	Final Recommendation
<input type="checkbox"/> Folic Acid to Prevent Neural Tube Defects	<input type="checkbox"/> Menopausal Hormone Therapy to Prevent Chronic Conditions	<input type="checkbox"/> Aspirin Use to Prevent Preeclampsia	<input type="checkbox"/> Aspirin Use to Prevent Preeclampsia
<input type="checkbox"/> Menopausal Hormone Therapy to Prevent Chronic Conditions	<input type="checkbox"/> Oral Health in Youth & Adults	<input type="checkbox"/> Counseling for Healthy Weight & Weight Gain in Pregnancy	<input type="checkbox"/> Counseling on Healthy Lifestyle in Adults With CVD Risk Factors
<input type="checkbox"/> Oral Health in Youth & Adults	<input type="checkbox"/> Screening for Autism	<input type="checkbox"/> Screening for Atrial Fibrillation	<input type="checkbox"/> Counseling for Healthy Weight & Weight Gain in Pregnancy
<input type="checkbox"/> Screening for Autism	<input type="checkbox"/> Screening for Breast Cancer	<input type="checkbox"/> Screening for Chlamydia & Gonorrhea	<input type="checkbox"/> Interventions for Tobacco Cessation in Adults
<input type="checkbox"/> Screening for Breast Cancer	<input type="checkbox"/> Screening for Chronic Obstructive Pulmonary Disease	<input type="checkbox"/> Screening for Colorectal Cancer	<input type="checkbox"/> Screening for Carotid Artery Stenosis
<input type="checkbox"/> Screening for Genital Herpes	<input type="checkbox"/> Screening for Hypertensive Disorders of Pregnancy	<input type="checkbox"/> Screening for Gestational Diabetes	<input type="checkbox"/> Screening for Chlamydia & Gonorrhea
<input type="checkbox"/> Screening for Hypertensive Disorders of Pregnancy	<input type="checkbox"/> Screening for Lipid Disorders in Youth	<input type="checkbox"/> Screening for Prediabetes & Type 2 Diabetes	<input type="checkbox"/> Screening for Colorectal Cancer
<input type="checkbox"/> Screening for Lipid Disorders in Children & Adolescents	<input type="checkbox"/> Screening for Obstructive Sleep Apnea	<input type="checkbox"/> Screening & Interventions to Prevent Dental Caries in Children	<input type="checkbox"/> Screening for Gestational Diabetes
<input type="checkbox"/> Screening for Obstructive Sleep Apnea	<input type="checkbox"/> Screening for Prediabetes & Diabetes in Youth	<input type="checkbox"/> Vitamin Supplementation to Prevent Heart Disease & Cancer	<input type="checkbox"/> Screening for Hearing Loss
<input type="checkbox"/> Screening for Osteoporosis	<input type="checkbox"/> Screening for Skin Cancer		<input type="checkbox"/> Screening for Hepatitis B in Adolescents & Adults
<input type="checkbox"/> Screening for Skin Cancer	<input type="checkbox"/> Screening for Syphilis in Nonpregnant Persons		<input type="checkbox"/> Screening for High Blood Pressure in Children & Adolescents
<input type="checkbox"/> Screening for Syphilis in Nonpregnant Persons	<input type="checkbox"/> Screening for Tuberculosis		<input type="checkbox"/> Screening for Hypertension in Adults
<input type="checkbox"/> Screening for Tuberculosis	<input type="checkbox"/> Statin Use for Prevention of Cardiovascular Disease		<input type="checkbox"/> Screening for Lung Cancer
			<input type="checkbox"/> Screening for Prediabetes & Type 2 Diabetes
			<input type="checkbox"/> Screening for Vitamin D Deficiency

Partner Engagement to Develop and Disseminate Recommendations

The USPSTF continued to work with its partner organizations to enhance the accuracy and relevance of its recommendations, disseminate the work of the USPSTF, and facilitate implementation of the Task Force recommendations into practice. As part of its commitment to improving health equity, the Task Force welcomed three new partner organizations in 2021:

- National Hispanic Medical Association (NHMA)
- National Medical Association (NMA)/Cobb Institute
- Department of Health and Human Services, Office of Minority Health (OMH)

The complete list of USPSTF Partners is available in **Appendices B** and **C**.

Efforts to Reduce Disparities in Healthcare

The Task Force has engaged in several efforts to further improve health equity and reduce disparities, including:

- Made a public commitment to the following specific actions to improve health equity⁶:
 1. Consider race primarily as a social and not a biological construct.
 2. Heighten the focus on racial and ethnic diversity in membership and leadership of the USPSTF.
 3. Commission a review of the evidence³³ on how systemic racism undermines the benefits of evidence-based clinical preventive services and causes preventable deaths.
 4. Update USPSTF methods to integrate the best evidence and consistently address evidence gaps for Black, Indigenous, and Hispanic/Latino populations.
 5. Communicate gaps in the evidence related to systemic racism in preventive care in recommendation statements and the USPSTF's annual report to Congress.
 6. Collaborate with other organizations to reduce the influence of systemic racism on health.
- Identified how social risks have been and could be considered in USPSTF recommendations, which will serve as the foundation for work to help ensure health equity and social risks are incorporated in USPSTF methods and recommendations^{5,34-36}

Dissemination Impact of USPSTF Recommendations

The USPSTF engages in a number of activities to disseminate its recommendations in order to increase their uptake. During the past fiscal year (October 1, 2020, to September 30, 2021), clinicians, patients, and other stakeholders viewed the USPSTF recommendations via the USPSTF website, the *Journal of the American Medical Association (JAMA)*, and the Prevention TaskForce app as follows:

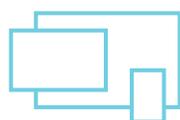


Email Outreach



64,557

Task Force email list subscribers notified regularly about topics and other activities



Digital Impact



19,424,423

Total page views of the Task Force website



5,577,064

Total unique visitors to the Task Force website

1,296,610 visits
Home Page

519,803 visits
A and B
Recommendations

249,238 visits
Final
Recommendations

Top visited pages of the Task Force website



Clinical Practice Impact



276,793

Total page views of Task Force articles published on *JAMA* website



84,856

Number of new Prevention TaskForce app downloads



998,057

Total number of Prevention TaskForce app downloads

Efforts to Fill USPSTF Research Gaps

The USPSTF works with its partner organizations to disseminate its evidence gaps, thus supporting future research to help fill the evidence gaps. In fiscal year 2021, the USPSTF, supported by AHRQ, has worked with the National Institutes of Health on two key efforts:

- **Committee on Addressing Evidence Gaps in Clinical Prevention.** The National Academies of Sciences, Engineering, and Medicine has convened a consensus committee³⁷ to examine issues in identifying and filling evidence gaps in clinical preventive service recommendations made by the USPSTF. The committee will develop a taxonomy to help categorize and communicate evidence gaps identified in the recommendations; identify potential research strategies that could help fill evidence gaps; and suggest approaches for AHRQ and NIH to accelerate research to close evidence gaps.
- **Workshop on Achieving Health Equity in Preventive Services.** The NIH and its Office of Disease Prevention (ODP) is a long-standing Federal partner of the USPSTF. The NIH ODP has given particular attention to evidence gaps that relate to health disparities in the use of USPSTF-recommended preventive services. In 2019, the ODP convened the Pathways to Prevention workshop, *Achieving Health Equity in Preventive Services*, to assess the available scientific evidence on achieving health equity in the use of USPSTF-recommended clinical preventive services to address three leading causes of death in the United States: cancer, heart disease, and diabetes. The workshop was intended to seek a better understanding of the root causes of disparities in use and in patient acceptance of clinical preventive services for these diseases, and how barriers might be addressed through provider and community interventions. Workshop members and Federal agencies used the findings from a systematic evidence review^{38,39} as well as presentations from USPSTF members and other resources to inform their recommendations^{40,41} for how to address disparities in the uptake of recommended clinical preventive services.

Since the workshop, the NIH has been considering multiple ways to address the panel's findings and recommendations, including publishing funding opportunity announcements. Additional discussions are underway to help NIH identify more ways to develop and test new interventions and strategies to address disparities and improve dissemination and implementation of evidence-based clinical preventive services.

Partnership With AARP: Reaching Patients Nationwide

About AARP

Founded in 1958, AARP is:

- The nation's largest nonprofit, nonpartisan organization dedicated to empowering people to choose how they live as they age.
- An advocate for its nearly 38 million members, focusing on what matters most to families—health, financial stability, and personal fulfillment.

AARP's reach to a wide range of audiences, including consumers and policymakers, enables it to shine a light on important issues such as health equity and disease prevention.

Promoting Prevention

Harnessing the power of its reach, AARP promoted the recent Task Force recommendation on colorectal cancer screening, a critical topic for its members. Using its surveying capabilities, AARP polled its members about their knowledge of colorectal cancer, uncovering important background information that guided its content strategy for consumers, policy makers, and researchers through its many public-facing channels, including blog posts on the AARP website.

Confronting Disparities

At the state and local level, AARP is bringing attention and solutions to issues related to inequities with its Disrupt Disparities initiative. Through convenings, forums, and published research, AARP brings stakeholders together to act on disparities in health, employment, financial security, caregiving, and long-term care.

Partnering With the Task Force

The partnership between AARP and the Task Force provides people nationwide with credible information about disease prevention and screening, empowering patients to make important health decisions with their clinicians.

V. THE USPSTF IN 2022

In the coming 12 months, it is expected that the USPSTF will continue to:

Develop and Release New Recommendation Statements

- Work on more than 36 topics that are in progress
- Work on 8 new topics nominated for consideration through the public topic nomination process
- Post 10 draft research plans and 10 draft recommendation statements and evidence reports for public comment
- Publish 10 final recommendation statements

Coordinate With Partners to Develop and Disseminate Recommendations

- Coordinate and enhance engagement with the [USPSTF Dissemination and Implementation Partners and Federal Liaisons](#) to solicit input and disseminate the recommendations to primary care clinicians and other stakeholders

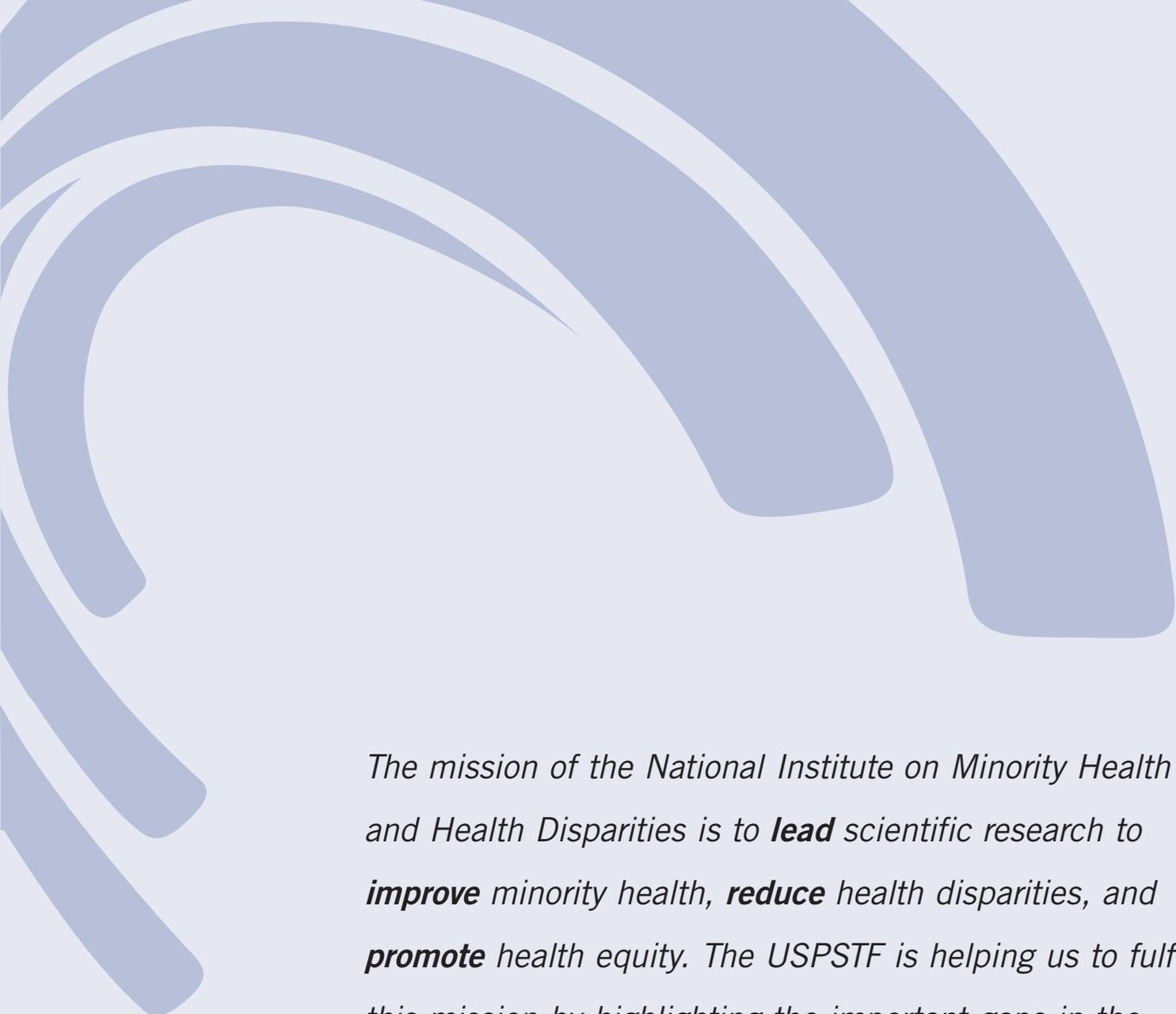
Address Research Gaps

- Review and respond to the National Academies of Sciences, Engineering, and Medicine report on addressing evidence gaps in clinical prevention
- Coordinate closely with the NIH ODP to identify areas that might warrant expanded research efforts to fill evidence gaps
- Prepare a 12th annual report for Congress on high-priority evidence gaps (see **Appendix E** for a list of prior reports)

Continue Efforts to Reduce Disparities in Healthcare

- Continue to advance the specific actions and commitments to address racism in clinical preventive services outlined in Section IV, such as updating USPSTF methods to integrate the best evidence and consistently address evidence gaps for populations historically underrepresented in research and disproportionately affected by health conditions⁶

The USPSTF appreciates the opportunity to report on its activities, to highlight critical evidence gaps, and to recommend important new areas for research in clinical preventive services. The members of the Task Force look forward to their ongoing work to improve the health of people nationwide.



*The mission of the National Institute on Minority Health and Health Disparities is to **lead** scientific research to **improve** minority health, **reduce** health disparities, and **promote** health equity. The USPSTF is helping us to fulfill this mission by highlighting the important gaps in the evidence that contribute to health inequities. We join the USPSTF in its call for more evidence about clinical preventive services and hope future research will help all populations live longer, healthier lives.*

Eliseo J. Pérez-Stable, M.D.
Director, National Institute on Minority Health
and Health Disparities,
National Institutes of Health

REFERENCES

1. Ngo-Metzger Q, Moyer V, Grossman D, et al. Conflicts of interest in clinical guidelines: update of U.S. Preventive Services Task Force policies and procedures. *Am J Prev Med.* 2018;54(1S1):S70-S80.
2. Epling JW, Borsky AE, Gerteis J. Improvements to the US Preventive Services Task Force recommendation statement. *JAMA.* 2019;322(12):1143-1144.
3. Bibbins-Domingo K, Whitlock E, Wolff T, et al. Developing recommendations for evidence-based clinical preventive services for diverse populations: methods of the U.S. Preventive Services Task Force. *Ann Intern Med.* 2017;166(8):565-571.
4. Kurth AE, Krist AH, Borsky AE, et al. U.S. Preventive Services Task Force methods to communicate and disseminate clinical preventive services recommendations. *Am J Prev Med.* 2018;54(1S1):S81-S87.
5. Davidson KW, Kemper AR, Doubeni CA, et al. Developing primary care-based recommendations for social determinants of health: methods of the U.S. Preventive Services Task Force. *Ann Intern Med.* 2020;173(6):461-467.
6. Doubeni CA, Simon M, Krist AH. Addressing systemic racism through clinical preventive service recommendations from the US Preventive Services Task Force. *JAMA.* 2021;325(7):627-628.
7. Agency for Healthcare Research and Quality. 2019 National Healthcare Quality and Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; 2020.
8. Kochanek KD, Xu J, Arias E. Mortality in the United States, 2019. *NCHS Data Brief.* 2020(395):1-8.
9. Ngo-Metzger Q, Bierman AS, Borsky A, Heslin KC, Moore BJ, Barrett ML. Coronary Artery Disease, Acute Myocardial Infarction, and Ischemic Stroke Rates Among Inpatient Stays, 2001–2014: Statistical Brief #241. In: *Healthcare Cost and Utilization Project (HCUP) Statistical Briefs.* Rockville, MD: Agency for Healthcare Research and Quality; 2006.
10. American Heart Association. What Is Cardiovascular Disease? <https://www.heart.org/en/health-topics/consumer-healthcare/what-is-cardiovascular-disease>. Updated May 31, 2017. Accessed July 29, 2021.
11. Petersen EE, Davis NL, Goodman D, et al. Vital signs: pregnancy-related deaths, United States, 2011-2015, and strategies for prevention, 13 states, 2013-2017. *MMWR Morbid and Mortal Wkly Rpt.* 2019;68(18):423-429.
12. Centers for Disease Control and Prevention. Know Your Risk for Heart Disease. https://www.cdc.gov/heartdisease/risk_factors.htm. Updated December 9, 2019. Accessed August 31, 2021.
13. Centers for Disease Control and Prevention. Health, United States Spotlight: Racial and Ethnic Disparities in Heart Disease. https://www.cdc.gov/nchs/hus/spotlight/HeartDiseaseSpotlight_2019_0404.pdf. Published April 2019. Accessed July 1, 2021.
14. Ostchega Y, Fryar CD, Nwankwo T, Nguyen DT. Hypertension prevalence among adults aged 18 and over: United States, 2017-2018. *NCHS Data Brief.* 2020(364):1-8.
15. Gyamfi-Bannerman C, Pandita A, Miller EC, et al. Preeclampsia outcomes at delivery and race. *J Matern Fetal Neonatal Med.* 2020;33(21):3619-3626.
16. Centers for Disease Control and Prevention. National Diabetes Statistics Report, 2020. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2020.

17. Clarke TC, Norris T, Schiller JS. Early Release of Selected Estimates Based on Data From the 2016 National Health Interview Survey. Centers for Disease Control and Prevention, National Center for Health Statistics. <https://www.cdc.gov/nchs/data/nhis/earlyrelease/earlyrelease201705.pdf>. Published May 2017. Accessed August 31, 2021.
18. US Preventive Services Task Force. Screening for hypertension in adults: US Preventive Services Task Force reaffirmation recommendation statement. *JAMA*. 2021;325(16):1650-1656.
19. US Preventive Services Task Force. Aspirin use to prevent preeclampsia and related morbidity and mortality: US Preventive Services Task Force recommendation statement. *JAMA*.
20. US Preventive Services Task Force. Screening for prediabetes and type 2 diabetes: US Preventive Services Task Force recommendation statement. *JAMA*. 2021;326(8):736-743.
21. US Preventive Services Task Force. Behavioral counseling interventions to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors: US Preventive Services Task Force recommendation statement. *JAMA*. 2020;324(20):2069-2075.
22. National Cancer Institute. What Is Cancer? <https://www.cancer.gov/about-cancer/understanding/what-is-cancer>. Updated May 5, 2021. Accessed July 29, 2021.
23. American Cancer Society. What Is Cancer? <https://www.cancer.org/cancer/cancer-basics/what-is-cancer.html>. Updated November 6, 2020. Accessed July 29, 2021.
24. National Cancer Institute. Cancer Prevention Overview (PDQ®)—Patient Version. <https://www.cancer.gov/about-cancer/causes-prevention/patient-prevention-overview-pdq>. Updated August 20, 2021. Accessed August 31, 2021.
25. National Cancer Institute. Risk Factors for Cancer. <https://www.cancer.gov/about-cancer/causes-prevention/risk>. Updated December 23, 2015. Accessed July 29, 2021.
26. Centers for Disease Control and Prevention. Risk Factors and Cancer. https://www.cdc.gov/cancer/risk_factors.htm. Updated February 18, 2021. Accessed July 29, 2021.
27. National Cancer Institute. Cancer Disparities. <https://www.cancer.gov/about-cancer/understanding/disparities>. Updated November 17, 2020. Accessed July 1, 2021.
28. Haiman CA, Stram DO, Wilkens LR, et al. Ethnic and racial differences in the smoking-related risk of lung cancer. *N Engl J Med*. 2006;354(4):333-342.
29. Siegel RL, Miller KD, Goding Sauer A, et al. Colorectal cancer statistics, 2020. *CA Cancer J Clin*. 2020;70(3):145-164.
30. National Cancer Institute. Cancer Stat Facts: Colorectal Cancer. <https://seer.cancer.gov/statfacts/html/colorect.html>. Accessed March 30, 2021.
31. US Preventive Services Task Force. Screening for lung cancer: US Preventive Services Task Force recommendation statement. *JAMA*. 2021;325(10):962-970.
32. US Preventive Services Task Force. Screening for colorectal cancer: US Preventive Services Task Force recommendation statement. *JAMA*. 2021;325(19):1965-1977.
33. Lin JS, Hoffman L, Bean SI, O'Connor EA, Martin AM, Iacocca MO, Bacon OP, Davies MC. Addressing Racism in Preventive Services: A Methods Project for the U.S. Preventive Services Task Force. Rockville, MD: Agency for Healthcare Research and Quality; 2021. AHRQ Publication No. 21-05281-EF-1.

34. Davidson KW, Krist AH, Tseng C-W, et al. Incorporation of social risk in US Preventive Services Task Force recommendations and identification of key challenges for primary care. *JAMA*. 2021 Sep 1.
35. Eder M, Henninger M, Durbin S, et al. Screening and interventions for social risk factors: technical brief to support the US Preventive Services Task Force. *JAMA*. 2021 Sep 1.
36. Eder M, Henninger M, Durbin S, et al. Screening and Interventions for Social Risk Factors: A Technical Brief to Support the U.S. Preventive Services Task Force. Rockville, MD: Agency for Healthcare Research and Quality; 2021. AHRQ Publication No. 20-05267-EF-1.
37. National Academies of Sciences, Engineering, and Medicine. Addressing Evidence Gaps in Clinical Prevention. <https://www.nationalacademies.org/our-work/addressing-evidence-gaps-in-clinical-prevention>. Accessed July 19, 2021.
38. Nelson HD, Cantor A, Wagner J, et al. Effectiveness of patient navigation to increase cancer screening in populations adversely affected by health disparities: a meta-analysis. *J Gen Intern Med*. 2020;35(10):3026-3035.
39. Nelson HD, Cantor A, Wagner J, et al. Achieving health equity in preventive services: a systematic review for a National Institutes of Health Pathways to Prevention workshop. *Ann Intern Med*. 2020;172(4):258-271.
40. Carey TS, Bekemeier B, Campos-Outcalt D, Koch-Weser S, Millon-Underwood S, Teutsch S. National Institutes of Health Pathways to Prevention workshop: achieving health equity in preventive services. *Ann Intern Med*. 2020;172(4):272-278.
41. National Institutes of Health Office of Disease Prevention. A Report From the Federal Partners Meeting of the National Institutes of Health Pathways to Prevention Workshop: Achieving Health Equity in Preventive Services. https://prevention.nih.gov/sites/default/files/2020-08/PreventiveServices-P2P-FPM-Report_FINAL_508.pdf. Published February 24, 2020. Accessed September 21, 2021.



APPENDICES

APPENDIX A: 2021 MEMBERS OF THE USPSTF



Karina W. Davidson, Ph.D., M.A.Sc., Chair

Dr. Davidson is the senior vice president of research, dean of academic affairs, and head of a new institute focused on health system science, including personalized trials at the Feinstein Institutes for Medical Research at Northwell Health. She is also a professor of behavioral medicine at the Zucker School of Medicine at Hofstra University/Northwell Health.



Carol M. Mangione, M.D., M.S.P.H., Vice Chair

Dr. Mangione is the chief of the Division of General Internal Medicine and Health Services Research; holds the Barbara A. Levey, M.D., and Gerald S. Levey, M.D., endowed chair in medicine; and is a distinguished professor of medicine at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA) and the executive vice chair for Health Equity and Health Services Research in the Department of Medicine. She is a distinguished professor of public health at the UCLA Fielding School of Public Health, director of the UCLA Resource Center for Minority Aging Research/Center for Health Improvement of Minority Elderly, and associate director of the UCLA Clinical and Translational Science Institute. Dr. Mangione is a member of the National Academy of Medicine.



Michael J. Barry, M.D., Vice Chair

Dr. Barry is the director of the Informed Medical Decisions Program in the Health Decision Sciences Center at Massachusetts General Hospital. He is also a professor of medicine at Harvard Medical School and a clinician at Massachusetts General Hospital.



Michael Cabana, M.D., M.A., M.P.H., Member

Dr. Cabana is a professor of pediatrics and the chair of the Department of Pediatrics at the Albert Einstein College of Medicine. He is also the physician-in-chief at the Children's Hospital at Montefiore.



Aaron B. Caughey, M.D., M.P.P., M.P.H., Ph.D., Member

Dr. Caughey is a professor in and the chair of the Department of Obstetrics and Gynecology and the associate dean for Women's Health Research and Policy at Oregon Health & Science University. He is the founder and chair of the Oregon Perinatal Collaborative, funded by the Centers for Disease Control and Prevention, which aims to improve outcomes for pregnant people and infants through guidelines and policies, working with all the health systems in the state.



Esa M. Davis, M.D., M.P.H., Member

Dr. Davis is an associate professor of medicine and clinical and translational science at the University of Pittsburgh School of Medicine and the director of the University of Pittsburgh Medical Center Tobacco Treatment Service. She is the co-director of the Clinical and Translational Science Institute's KL2 Scholars' Program and director of the Career Education and Enhancement for Health Care Research Diversity Program at the University of Pittsburgh. Dr. Davis is a practicing family physician and health services researcher.



Katrina Donahue, M.D., M.P.H., Member

Dr. Donahue is a professor and vice chair of research at the University of North Carolina at Chapel Hill Department of Family Medicine. She is a family physician and senior research fellow at the Cecil G. Sheps Center for Health Services Research and the co-director of the North Carolina Network Consortium, a meta-network of six practice-based research networks and four academic institutions in North Carolina.



Chyke A. Doubeni, M.D., M.P.H., Member

Dr. Doubeni is a family physician and the inaugural director of the Mayo Clinic Center for Health Equity and Community Engagement Research, which addresses health disparities throughout the life course and advances the ideal of health equity locally and globally through research and community engagement.



Martha Kubik, Ph.D., R.N., Member

Dr. Kubik is a professor in the School of Nursing in the College of Health and Human Services at George Mason University. She is a nurse scientist, active researcher, and past standing member of the National Institutes of Health's Community-Level Health Promotion Study Section. Dr. Kubik is an advanced practice nurse and a fellow of the American Academy of Nursing.



Li Li, M.D., Ph.D., M.P.H., Member

Dr. Li is a family physician and the Walter M. Seward professor and the chair of family medicine at the University of Virginia School of Medicine. He is also the director of population health at UVA Health and leader of the Cancer Control and Population Health program at the UVA Cancer Center.



Gbenga Ogedegbe, M.D., M.P.H., Member

Dr. Ogedegbe is the inaugural and founding director of the Institute for Excellence in Health Equity at NYU Langone Health. He is the Dr. Adolph and Margaret Berger Professor of Medicine and Population Health at NYU Grossman School of Medicine, where he serves as the director of the Division of Health & Behavior in the Department of Population Health.



Lori Pbert, Ph.D., Member

Dr. Pbert is a professor in the Department of Population and Quantitative Health Sciences, associate chief of the Division of Preventive and Behavioral Medicine, and founder and director of the Center for Tobacco Treatment Research & Training at the UMass Chan Medical School.



Michael Silverstein, M.D., M.P.H., Member

Dr. Silverstein is a professor of public health at the Brown University School of Public Health and Director of the Hassenfeld Institute for Child Health Innovation at Brown University.



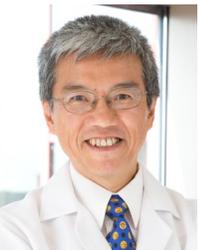
James Stevermer, M.D., M.S.P.H., Member

Dr. Stevermer is the vice chair for clinical affairs and a professor of family and community medicine at the University of Missouri (MU). He is the medical director of MU Health Care Family Medicine–Callaway Physicians, where he practices and teaches rural primary care. His scholarly activities focus on dissemination and evidence-based medicine.



Chien-Wen Tseng, M.D., M.P.H., M.S.E.E., Member

Dr. Tseng is the Hawaii Medical Service Association endowed chair in health services and quality research, and a professor and the research director in the Department of Family Medicine and Community Health at the University of Hawaii John A. Burns School of Medicine. She is also a physician investigator with the nonprofit Pacific Health Research and Education Institute.



John B. Wong, M.D., Member

Dr. Wong is the interim chief scientific officer, vice chair for Clinical Affairs, chief of the Division of Clinical Decision Making, and a primary care clinician in the Department of Medicine at Tufts Medical Center. He is also the director of comparative effectiveness research for the Tufts Clinical Translational Science Institute.

APPENDIX B: 2021 USPSTF DISSEMINATION AND IMPLEMENTATION PARTNER ORGANIZATIONS

AARP

American Academy of Family Physicians

American Academy of Pediatrics

American Academy of Physician Assistants

American Association of Nurse Practitioners

American College of Obstetricians and Gynecologists

American College of Physicians

American College of Preventive Medicine

American Medical Association

American Osteopathic Association

American Psychological Association

America's Health Insurance Plans

Business Group on Health

Canadian Task Force on Preventive Health Care

Community Preventive Services Task Force

National Association of Pediatric Nurse Practitioners

National Committee for Quality Assurance

National Hispanic Medical Association

National Medical Association/Cobb Institute

Patient-Centered Outcomes Research Institute

APPENDIX C: 2021 FEDERAL LIAISONS TO THE USPSTF

Centers for Disease Control and Prevention

Centers for Medicare & Medicaid Services

Department of Defense Military Health System

Department of Health and Human Services, Office of Minority Health

Department of Veterans Affairs National Center for Health Promotion and Disease Prevention

Health Resources and Services Administration

Indian Health Service

National Cancer Institute

National Institutes of Health

Office of the Assistant Secretary for Health, Office of Disease Prevention and Health Promotion

Substance Abuse and Mental Health Services Administration

U.S. Food and Drug Administration

APPENDIX D: LISTING OF USPSTF FINAL RECOMMENDATIONS PUBLISHED OCTOBER 2020–SEPTEMBER 2021

Over the past year, the members of the Task Force continued working on a full portfolio of topics. It published 15 final recommendation statements with 23 recommendation grades in a peer-reviewed journal between October 1, 2020, and September 30, 2021. For a complete listing of all current USPSTF recommendations, see the USPSTF website (<https://www.uspreventiveservicestaskforce.org/>).

Appendix D Table. Final Recommendation Statements Published by the USPSTF, October 1, 2020, to September 30, 2021

Topic	Recommendation
Aspirin Use to Prevent Preeclampsia and Related Morbidity and Mortality	The USPSTF recommends the use of low-dose aspirin (81 mg/day) as preventive medication after 12 weeks of gestation in persons who are at high risk for preeclampsia. (Grade B)
Behavioral Counseling Interventions for Healthy Weight and Weight Gain in Pregnancy	The USPSTF recommends that clinicians offer pregnant persons effective behavioral counseling interventions aimed at promoting healthy weight gain and preventing excess gestational weight gain in pregnancy. (Grade B)
Behavioral Counseling Interventions to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors	The USPSTF recommends offering or referring adults with cardiovascular disease risk factors to behavioral counseling interventions to promote a healthy diet and physical activity. (Grade B)
Interventions for Tobacco Smoking Cessation in Adults, Including Pregnant Persons	<p>The USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and US Food and Drug Administration—approved pharmacotherapy for cessation to nonpregnant adults who use tobacco. (Grade A)</p> <p>The USPSTF recommends that clinicians ask all pregnant persons about tobacco use, advise them to stop using tobacco, and provide behavioral interventions for cessation to pregnant persons who use tobacco. (Grade A)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of pharmacotherapy interventions for tobacco cessation in pregnant persons. (I statement)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of electronic cigarettes (e-cigarettes) for tobacco cessation in adults, including pregnant persons. The USPSTF recommends that clinicians direct patients who use tobacco to other tobacco cessation interventions with proven effectiveness and established safety. (I statement)</p>

Topic	Recommendation
Screening for Asymptomatic Carotid Artery Stenosis	The USPSTF recommends against screening for asymptomatic carotid artery stenosis in the general adult population. (Grade D)
Screening for Chlamydia and Gonorrhea	<p>The USPSTF recommends screening for chlamydia in all sexually active women 24 years or younger and in women 25 years or older who are at increased risk for infection. (Grade B)</p> <p>The USPSTF recommends screening for gonorrhea in all sexually active women 24 years or younger and in women 25 years or older who are at increased risk for infection. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydia and gonorrhea in men. (I statement)</p>
Screening for Colorectal Cancer	<p>The USPSTF recommends screening for colorectal cancer in all adults aged 50 to 75 years. (Grade A)</p> <p>The USPSTF recommends screening for colorectal cancer in adults aged 45 to 49 years. (Grade B)</p> <p>The USPSTF recommends that clinicians selectively offer screening for colorectal cancer in adults aged 76 to 85 years. Evidence indicates that the net benefit of screening all persons in this age group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the patient’s overall health, prior screening history, and preferences. (Grade C)</p>
Screening for Gestational Diabetes	<p>The USPSTF recommends screening for gestational diabetes in asymptomatic pregnant persons at 24 weeks of gestation or after. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for gestational diabetes in asymptomatic pregnant persons before 24 weeks of gestation. (I statement)</p>
Screening for Hearing Loss in Older Adults	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for hearing loss in older adults. (I statement)</p>
Screening for Hepatitis B Virus Infection in Adolescents and Adults	<p>The USPSTF recommends screening for hepatitis B virus infection in adolescents and adults at increased risk for infection. (Grade B)</p>

Topic	Recommendation
Screening for High Blood Pressure in Children and Adolescents	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for high blood pressure in children and adolescents. (I statement)
Screening for Hypertension in Adults	The USPSTF recommends screening for hypertension in adults 18 years or older with office blood pressure measurement. The USPSTF recommends obtaining blood pressure measurements outside of the clinical setting for diagnostic confirmation before starting treatment. (Grade A)
Screening for Lung Cancer	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. (Grade B)
Screening for Prediabetes and Type 2 Diabetes	The USPSTF recommends screening for prediabetes and type 2 diabetes in adults aged 35 to 70 years who have overweight or obesity. Clinicians should offer or refer patients with prediabetes to effective preventive interventions. (Grade B)
Screening for Vitamin D Deficiency in Adults	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for vitamin D deficiency in asymptomatic adults. (I statement)

APPENDIX E: PRIOR ANNUAL REPORTS TO CONGRESS ON HIGH-PRIORITY EVIDENCE GAPS FOR CLINICAL PREVENTIVE SERVICES

The table below lists the prior annual Reports to Congress on High-Priority Evidence Gaps for Clinical Preventive Services. Electronic versions of each report are available on the USPSTF website at <https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/reports-congress>.

Appendix E Table. Prior Annual Reports to Congress

Year	Title	Theme
2020	Tenth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Child and adolescent health and health inequities
2019	Ninth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Mental health, substance use, and violence prevention
2018	Eighth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Recent evidence gaps related to cancer prevention and cardiovascular health
2017	Seventh Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Recent evidence gaps
2016	Sixth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Recent evidence gaps
2015	Fifth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Women's health
2014	Fourth Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Child and adolescent health
2013	Third Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Older adult health
2012	Second Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Recent evidence gaps
2011	First Annual Report to Congress on High-Priority Evidence Gaps for Clinical Preventive Services	Recent evidence gaps

