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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**

**NINTH 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 all Americans. The Task Force comprehensively assesses the potential benefits and harms of services to prevent disease in people without signs or symptoms, including screening tests, behavioral counseling, and preventive medications.

Each year, Congress charges the USPSTF to provide a report that identifies high-priority gaps in the scientific evidence base and recommends areas for future research. In some cases, clinical preventive services have been well studied for the general population, but there are important evidence gaps that prevent the USPSTF from making recommendations for specific population and age groups. In this ninth annual Report to Congress, which covers 2018 to 2019, the Task Force calls for more research in areas where evidence is lacking, including evidence for specific population or age groups.

### Clinical Preventive Services For Which More Research Is Needed

Based on its recent recommendations, the USPSTF has identified six high-priority topics affecting mental health, substance use, and violence prevention that need more research. Mental illness, substance use, and violence affect the health and well-being of many Americans. They can increase the risk for other diseases, such as diabetes, heart disease, and cancer, as well as death. We need high-quality research to understand these complex health issues and how clinicians can meaningfully assist their patients in preventing them. This research can help improve health and well-being, and reduce illness and death. More specifically, more research is needed to:



### Mental Health and Substance Use

#### 1. Perinatal Depression: Preventive Interventions

- Identify who is at increased risk of perinatal depression
- Determine ways to improve the delivery of perinatal interventions

#### 2. Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions

- Assess effectiveness of screening for alcohol use in adolescents
- Improve the delivery of alcohol use screening and counseling for adults
- Examine whether different screening strategies for alcohol use are more effective in diverse populations

#### 3. Tobacco Use Prevention and Cessation in Children and Adolescents: Primary Care Interventions\*

- Identify effective ways to help youth quit using tobacco products
- Evaluate interventions tailored specifically to prevent youth from starting to use and to help them quit using e-cigarettes

#### 4. Illicit Drug Use, Including Nonmedical Use of Prescription Drug Use in Adolescents and Adults: Screening by Asking About Drug Use\*

- Evaluate in adolescents the effectiveness of screening tools – which consist of asking questions about use – and interventions for illicit drug use
- Identify the optimal interval to use screening tools – which ask questions about use – for detecting illicit drug use in adults
- Assess accuracy of screening tools that ask questions to help detect nonmedical use of prescription drugs, including opioids

\* This draft recommendation statement is not yet final and was made available for public input. The final recommendation statement will be developed after careful consideration of the feedback received.



## Violence Prevention

### 5. Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: Screening

- Evaluate screening for elder abuse and abuse of vulnerable adults
- Assess screening and interventions for intimate partner violence in men
- Determine the most effective components of ongoing support services

### 6. Child Maltreatment: Interventions

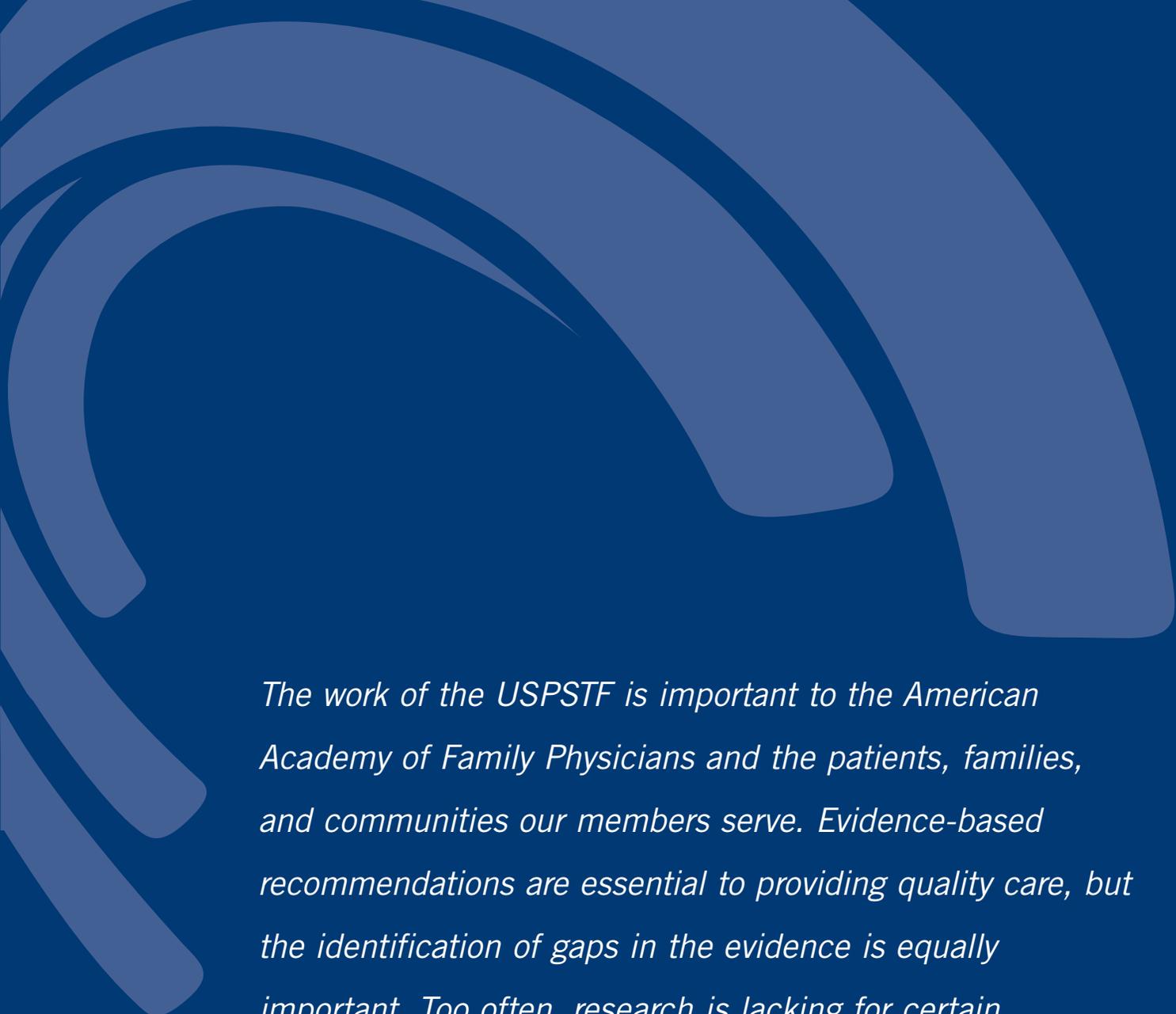
- Evaluate key outcomes consistently in studies, because using very different outcomes complicates a clear overall assessment of whether these interventions work
- Include additional populations in studies (e.g., families with substance abuse in the home or limited access to social services)
- Examine the extent and severity of unintended harms from risk assessment and preventive interventions

Future research in these areas can help fill these gaps and may result in important new recommendations that will help to improve the health of Americans. 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 and address important health issues.

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*The work of the USPSTF is important to the American Academy of Family Physicians and the patients, families, and communities our members serve. Evidence-based recommendations are essential to providing quality care, but the identification of gaps in the evidence is equally important. Too often, research is lacking for certain populations. As part of our ongoing commitment to addressing population health, including social determinants of health, we proudly support the USPSTF in its call for more research on these important topics.*

Gary L. LeRoy, M.D., F.A.A.F.P.  
President  
American Academy of Family Physicians



## 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 all Americans (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 all Americans by making evidence-based recommendations about clinical preventive services.**

The purpose of this report is to update Congress and the research community about high-priority evidence gaps in clinical preventive services identified by the Task Force from 2018 to 2019.

## II. BACKGROUND

Clinical preventive services have tremendous value in improving the health of the Nation. When provided appropriately, they can identify diseases at earlier stages when they are more treatable or 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, objective 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 other interventions 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 has been authorized by Congress to convene the Task Force and to provide ongoing scientific, administrative, and dissemination support. The Agency 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. It 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).

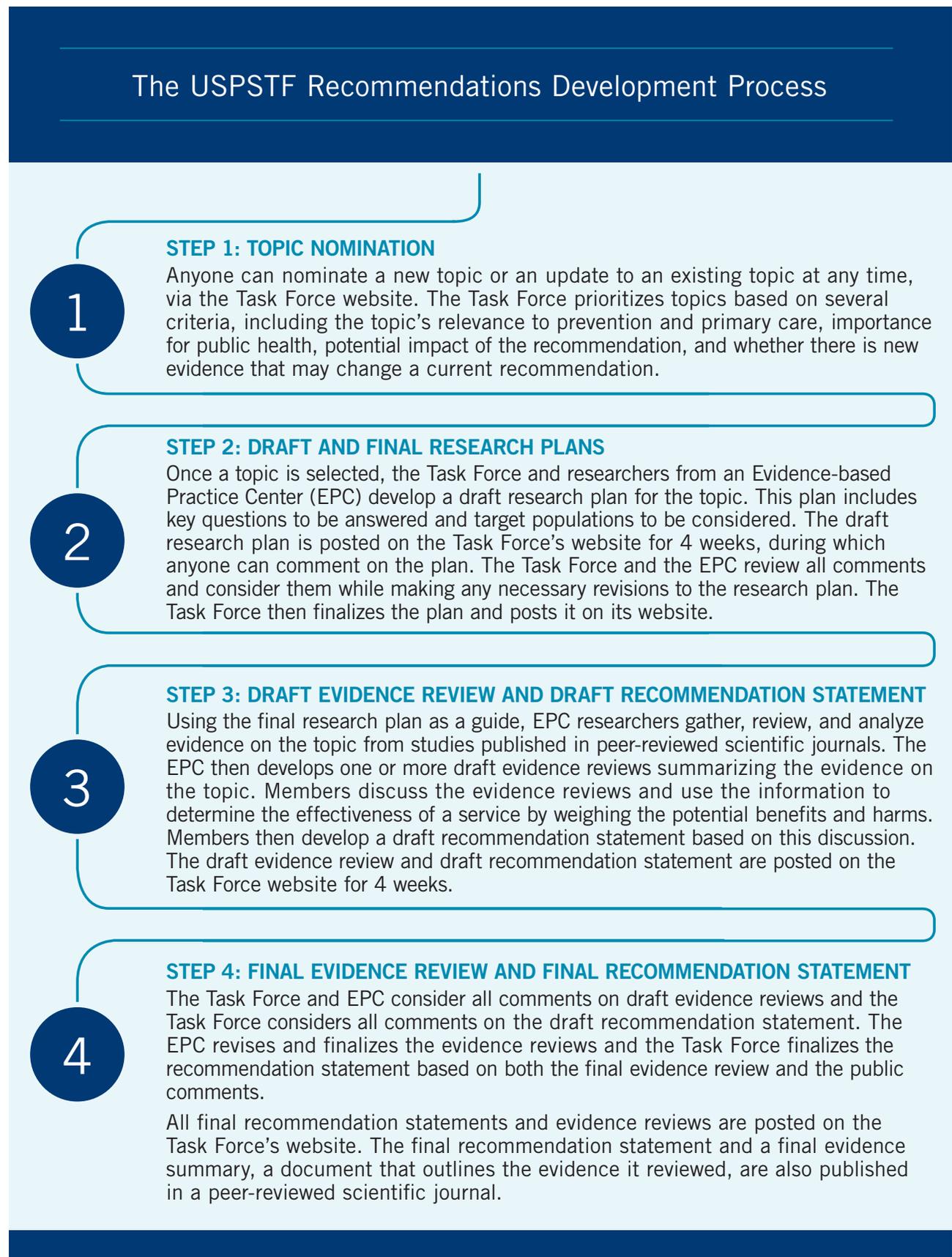
## How Does the Task Force Minimize Potential Conflicts of Interest?

To ensure that USPSTF recommendations are balanced, independent, and objective, the USPSTF has a long-standing and rigorous conflict of interest assessment and disclosure process.<sup>1</sup> 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. The Task Force does not conduct new research studies, but rather reviews and assesses published research. It follows a multistep process when developing each of its recommendations and obtains public input throughout the recommendation development process (see **Figure 1**).

Figure 1. Steps the USPSTF Takes to Make a Recommendation



When the Task Force reviews the evidence, it considers the benefits and harms of the preventive service. Potential benefits of preventive services can include helping people stay healthy throughout their lifetime, improving quality of life, preventing disease, and prolonging life. Potential harms can 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
<b>A</b>	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
<b>B</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.
<b>C</b>	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.
<b>D</b>	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.
<b>I Statement</b>	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.<sup>2</sup> 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 primary care 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 leadership, inviting them to comment on the drafts 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](http://www.uspreventiveservicestaskforce.org)) contains more information about the Task Force and its methods for developing recommendations, including engaging with experts, partners, and the public. More details are available on the “About the USPSTF” and “Methods and Processes” pages.

## III. CLINICAL PREVENTIVE SERVICES FOR WHICH MORE RESEARCH IS NEEDED: RECENT RESEARCH GAPS RELATED TO MENTAL HEALTH, SUBSTANCE USE, AND VIOLENCE PREVENTION

In order to develop recommendations that improve the health of all Americans, 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.

Congress has specifically charged the Task Force with identifying and reporting each year on areas where current evidence is insufficient to make a recommendation on the use of a clinical preventive service, with special attention to those areas where evidence is needed to make recommendations for specific population and age groups.

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 in a section called “Research Needs and Gaps.”

The USPSTF has established methods that guide how it issues recommendations for specific populations.<sup>3</sup> While many clinical preventive services have large bodies of evidence for the general population, there are often gaps in the evidence for particular populations and age groups, because they are not well represented in health research. Examples of such groups are older adults, children, racial/ethnic minority groups, and sexual and gender minority groups. Greater inclusion of these populations in research will help the USPSTF issue recommendations that improve the quality of preventive care for these groups and will help to reduce disparities in healthcare. **More research among diverse populations is needed in most areas of clinical preventive services.** This report highlights some of these gaps.

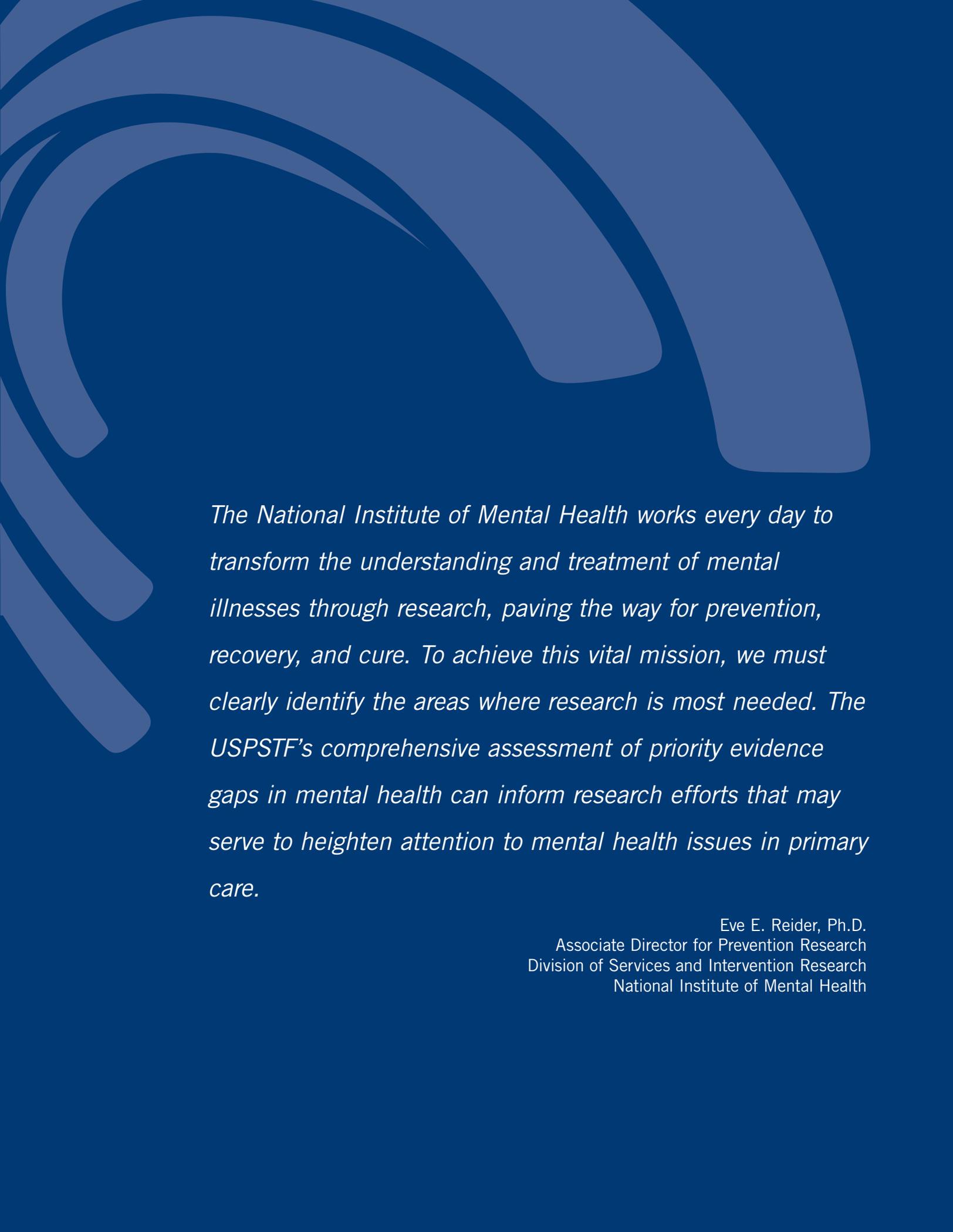
For studies to adequately address gaps in the evidence, researchers need to use methods that are consistent with the USPSTF’s criteria for assessing study quality, validity, and applicability. Studies addressing these gaps should do the following:

- 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

## Focusing on Mental Health, Substance Use, and Violence Prevention

For this 2019 annual report, the USPSTF reviewed recommendations released from October 2018 through September 2019 and calls attention to high-priority research gaps from its recommendations related to mental health, substance use, and violence prevention (see **Table 2**). Mental illness, substance use, and violence affect many Americans. We need high-quality research to understand these complex health issues and how clinicians can meaningfully assist their patients in preventing them. Focusing on these issues is especially timely given the epidemic of substance use and overdose deaths in our country, and the growing attention on the role of the medical system in addressing social determinants of health.<sup>4,5,6</sup>

The World Health Organization defines the social determinants of health as “the conditions in which people are born, grow up, live, work and age.”<sup>7</sup> Although definitions vary, interpersonal safety, substance use, and mental health are commonly included as social determinants.<sup>8</sup>



*The National Institute of Mental Health works every day to transform the understanding and treatment of mental illnesses through research, paving the way for prevention, recovery, and cure. To achieve this vital mission, we must clearly identify the areas where research is most needed. The USPSTF's comprehensive assessment of priority evidence gaps in mental health can inform research efforts that may serve to heighten attention to mental health issues in primary care.*

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Division of Services and Intervention Research  
National Institute of Mental Health

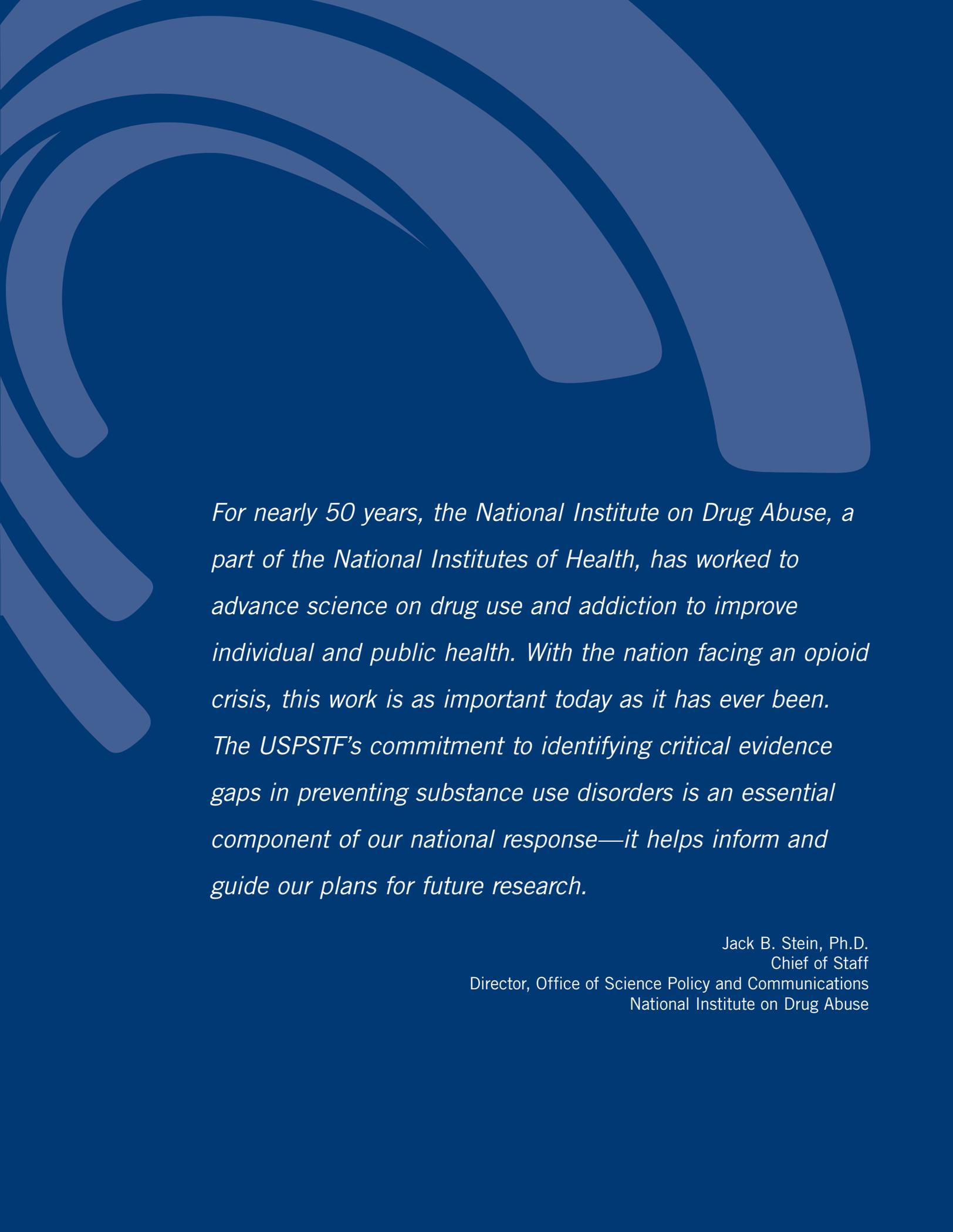
**Table 2.** Key Research Gaps for Clinical Preventive Services

Clinical Preventive Services <i>USPSTF Recommendation</i>	Gaps for Which Research Is Needed
<b>Mental Health and Substance Use</b>	
<p><b>Perinatal Depression: Preventive Interventions</b></p> <p><i>Recommended for persons at increased risk, Grade B</i></p>	<ul style="list-style-type: none"> <li>• Identify <b>who is at increased risk</b> for perinatal depression and would benefit the most from preventive interventions</li> <li>• Determine ways to <b>improve the delivery</b> of interventions to prevent perinatal depression, such as developing clinical pathways, training healthcare providers, and improving access to embedded behavioral health specialists</li> </ul>
<p><b>Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions</b></p> <p><i>Recommended for adults, Grade B</i></p> <p><i>Insufficient evidence for adolescents, I statement</i></p>	<ul style="list-style-type: none"> <li>• Assess effectiveness of screening for alcohol use and providing counseling interventions <b>among adolescents in primary care settings</b></li> <li>• Improve <b>the delivery</b> of alcohol use screening and counseling for adults</li> <li>• Examine whether different screening strategies for alcohol use are more effective in <b>diverse populations</b> that vary by age, sex, race/ethnicity, or baseline alcohol use severity</li> </ul>
<p><b>Tobacco Use Prevention and Cessation in Children and Adolescents: Primary Care Interventions*</b></p> <p><i>Recommended to prevent initiation of use, Grade B</i></p> <p><i>Insufficient evidence for cessation, I statement</i></p>	<ul style="list-style-type: none"> <li>• Identify effective ways to help children and adolescents <b>quit using tobacco products, including e-cigarettes</b></li> <li>• Evaluate interventions tailored specifically to prevent youth from starting to use and to help them quit using <b>e-cigarettes</b></li> </ul>
<p><b>Illicit Drug Use, Including Nonmedical Use of Prescription Drugs: Screening by Asking About Drug Use*</b></p> <p><i>Recommended for adults, Grade B</i></p> <p><i>Insufficient evidence for adolescents, I statement</i></p>	<ul style="list-style-type: none"> <li>• Evaluate in <b>adolescents</b> the effectiveness of screening tools—which consist of asking questions about use—and interventions for illicit drug use</li> <li>• Identify the <b>optimal interval</b> to use screening tools—which ask questions about use—for detecting illicit drug use in adults</li> <li>• Assess <b>accuracy of screening tools</b> that ask questions to help detect <b>nonmedical use of prescription drugs</b>, including opioids</li> </ul>

\* This draft recommendation statement is not yet final and was made available for public input. The final recommendation statement will be developed after careful consideration of the feedback received.

Clinical Preventive Services <i>USPSTF Recommendation</i>	Gaps for Which Research Is Needed
<b>Violence Prevention</b>	
<p><b>Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: Screening</b></p> <p><i>Recommended for women of reproductive age, Grade B</i></p> <p><i>Insufficient evidence for older and vulnerable adults, I statement</i></p>	<ul style="list-style-type: none"> <li>• Evaluate screening and interventions for <b>elder abuse and abuse of vulnerable adults</b> when there are no recognized signs and symptoms of abuse</li> <li>• Assess screening and interventions for intimate partner violence <b>in men</b> without recognized signs and symptoms of abuse</li> <li>• Determine the most effective <b>components of ongoing support services</b> for reducing intimate partner violence, including the optimal duration, format, and method of delivery for these services</li> </ul>
<p><b>Child Maltreatment: Interventions</b></p> <p><i>Insufficient evidence, I statement</i></p>	<ul style="list-style-type: none"> <li>• Evaluate <b>key outcome measures</b> consistently in studies, because using very different outcomes complicates a clear overall assessment of whether these interventions work</li> <li>• Include <b>additional populations</b> in studies, including families with known risk factors for child maltreatment (e.g., history of substance abuse in the home and limited access to social services)</li> <li>• Examine the extent and severity of <b>unintended harms</b> from risk assessment and preventive interventions</li> </ul>





*For nearly 50 years, the National Institute on Drug Abuse, a part of the National Institutes of Health, has worked to advance science on drug use and addiction to improve individual and public health. With the nation facing an opioid crisis, this work is as important today as it has ever been. The USPSTF's commitment to identifying critical evidence gaps in preventing substance use disorders is an essential component of our national response—it helps inform and guide our plans for future research.*

Jack B. Stein, Ph.D.  
Chief of Staff  
Director, Office of Science Policy and Communications  
National Institute on Drug Abuse

## Mental Health and Substance Use

Mental health conditions are common in the United States, with nearly 1 in 5 adults experiencing mental illness in the past year (46.6 million in 2017).<sup>9</sup> In addition to effects on emotional well-being, mental illness can also affect physical health and increase the risk for chronic diseases such as diabetes or heart disease.<sup>10</sup>

Substance use disorders, which often occur along with mental illnesses, are also common in the United States.<sup>11</sup> In 2017, approximately 7% of people aged 12 and older had a substance use disorder related to either alcohol or illicit drugs in the past year (19.7 million).<sup>9</sup> Substance use disorders can have wide-ranging effects on people, including immediate effects ranging from changes in mood to accidental overdose, and long-term effects such as increased risk of heart or lung disease, infections, mental illness, and cancer.<sup>12</sup>

The USPSTF has a number of recommendations related to the prevention of mental health conditions and substance use disorders, including screening for depression in adults and in children and adolescents; interventions to prevent perinatal depression; screening for illicit drug use in adults; interventions to prevent illicit drug use in children and adolescents; tobacco cessation in adults; interventions to prevent tobacco use in children and adolescents; and screening for unhealthy alcohol use in adults and adolescents.

This report focuses on research gaps related to four types of mental health conditions and substance use disorders recently reviewed by the Task Force: perinatal depression, unhealthy alcohol use, tobacco use, and drug use.

### *Perinatal Depression: Preventive Interventions*

Perinatal depression, which includes depression that develops during pregnancy or after childbirth, affects as many as 1 in 7 and is one of the most common complications of pregnancy and the postpartum period.<sup>13</sup> It is well established that perinatal depression can result in negative short- and long-term effects on both the parent and the child.<sup>14</sup> If left untreated, perinatal depression can last for months or years and interfere with a mother's ability to bond with and care for her child.<sup>15</sup> Consequently, this can lead to problems for the child with eating, sleeping, and other behaviors.<sup>16</sup> Although rare, it can also increase the risk of maternal suicide, suicidal thoughts, and thoughts of harming the child.

In 2019, the USPSTF released a new recommendation statement on interventions that can help prevent perinatal depression before it develops. It recommended that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions (B grade).<sup>17</sup> However, it also identified important areas for which more research is needed. To fill these gaps, the USPSTF needs well-designed studies that do the following:

- **Identify who is at increased risk for perinatal depression** and would benefit the most from preventive interventions
  - While we know that it is beneficial to provide counseling interventions to people at increased risk of perinatal depression, we need better ways to identify who is at increased risk. For example, this could include evaluating how to incorporate perinatal risk factors (rather than measures of current depression symptoms) into perinatal depression screening tools.
- **Determine ways to improve the delivery of interventions to prevent perinatal depression**, such as developing clinical pathways, training healthcare providers, and improving access to embedded behavioral health specialists
  - We know that it is beneficial to provide such interventions, but we need to identify ways to help primary care practices implement them.

## ***Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions***

Unhealthy alcohol use is defined as drinking amounts of alcohol that are thought to put people at risk for adverse effects of alcohol. The National Institute on Alcohol Abuse and Alcoholism recommends that healthy men (up to age 64) drink no more than 4 drinks per day and no more than 14 drinks per week; and healthy women of any age and healthy men 65 years and older drink no more than 3 drinks per day and no more than 7 drinks per week.<sup>18</sup> In 2017, about 1 in 4 Americans aged 12 and older (24.5% or 66.6 million people) were current binge alcohol users (defined as drinking 4 or more drinks per occasion for females and drinking 5 or more drinks per occasion for males).<sup>9</sup>

Excessive alcohol use is one of the most common causes of premature mortality in the United States<sup>19</sup>—it is responsible for 88,000 deaths annually.<sup>20</sup> Alcohol use also contributes to more than 200 diseases and injuries, including both short-term (e.g., injuries from motor vehicle accidents, violence) and long-term (e.g., liver cirrhosis, cardiovascular disease, and some cancers) harms.<sup>21</sup> There are disparities among racial/ethnic minorities in terms of prevalence of alcohol use disorder and adverse health consequences from alcohol use.<sup>20</sup>

In 2018, the USPSTF released a recommendation statement on screening and counseling for unhealthy alcohol use.<sup>22</sup> It recommended screening and counseling for unhealthy alcohol use in adults, including pregnant women (B grade) and found there was insufficient evidence to issue a recommendation for or against such screening and counseling in adolescents (I statement). The USPSTF identified important areas for which more research is needed. To fill these gaps, the USPSTF needs well-designed studies that do the following:

- **Assess the effectiveness of screening for alcohol use and providing counseling interventions among adolescents in primary care settings** (as opposed to school settings)
  - In addition to assessing whether screening and counseling could reduce alcohol use, it would be helpful to know whether these interventions could reduce other risky behaviors such as other drug use or risky sexual behaviors.
- **Improve the delivery of alcohol use screening and counseling for adults**
  - While we know that such screening and counseling is beneficial for adults, it is not regularly occurring in practice.<sup>23,24</sup> Therefore, we need to identify ways to help clinicians accomplish these objectives.
- **Examine whether different screening strategies for alcohol use are more effective in diverse populations** that vary by age, sex, race/ethnicity, or baseline alcohol use severity (in trials specifically designed to report the effects for diverse populations)

## ***Tobacco Use Prevention and Cessation in Children and Adolescents: Primary Care Interventions\****

Tobacco use is the leading cause of preventable death in the United States.<sup>25</sup> Preventing tobacco use in children is especially important, because nearly 90% of adult daily smokers started by age 18.<sup>25</sup> If youth smoking continues at current rates, an estimated 5.6 million of today's children will eventually die prematurely from a smoking-related illness.<sup>25</sup> Currently, e-cigarettes represent a new challenge in youth tobacco use, with recent data showing an alarming rise in use among U.S. middle and high school students.<sup>26</sup> In 2018, more than 3 million U.S. youth were using e-cigarettes,<sup>26</sup> a concerning finding since e-cigarettes can put youth at increased risk for addiction and future tobacco-related harms.<sup>27,28</sup>

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\* This draft recommendation statement is not yet final and was made available for public input. The final recommendation statement will be developed after careful consideration of the feedback received.

In 2019, the USPSTF issued a draft recommendation statement\* on prevention and cessation of tobacco use in children and adolescents.<sup>29</sup> It recommended interventions to prevent the initiation of tobacco use, including e-cigarettes, among children and adolescents (B grade), but found there was insufficient evidence to issue a recommendation for or against interventions to help children and adolescents quit using tobacco (I statement). The USPSTF identified important areas for which more research is needed. To fill these gaps, the USPSTF needs well-designed studies that do the following:

- **Identify effective ways to help children and adolescents quit using tobacco products, including e-cigarettes**
  - This includes studies that report outcomes at 6 months or later, and provide details on the interventions (e.g., intensity, frequency, setting, and type of intervention).
- **Evaluate interventions tailored specifically to prevent children and adolescents from starting to use and to help them quit using e-cigarettes**
  - Interventions can prevent initiation of tobacco use, including e-cigarettes, but more research is still needed to identify whether changes to, or different, interventions are needed to target e-cigarette use specifically.

### ***Illicit Drug Use, Including Nonmedical Use of Prescription Drugs: Screening by Asking About Drug Use\****

There is a growing epidemic of substance use and overdose deaths in the United States,<sup>4</sup> and illicit drug use and nonmedical prescription drug use has contributed to this widespread problem. In 2017, 51.8 million Americans used illicit drugs or misused prescription drugs.<sup>30</sup> There were more than 70,000 drug overdose deaths and the overdose death rate increased 9.6% from 2016.<sup>31</sup> Drug use has wide-ranging effects on individuals, families, and society. Consequences include harms to physical and mental health, economic costs such as loss of productivity and healthcare costs, and increases in crime, violence, motor vehicle accidents, and child maltreatment.<sup>32</sup>

To help people who may have a drug use disorder and may benefit from treatment, doctors can use screening tools that ask one or more questions about drug use, frequency of drug use, or risks related to drug use. When doctors use screening tools that ask patients questions about their illicit drug use, they create an opportunity for patients to talk with them. This allows doctors to help connect people who may have a drug use disorder to the care they need to get better.

In 2019, the USPSTF issued a draft recommendation statement\* on screening for illicit drug use, including nonmedical use of prescription drugs.<sup>33</sup> It recommended screening adults by asking them about their drug use (B grade), but found there was insufficient evidence to issue a recommendation for or against such screening for adolescents (I statement). The USPSTF identified important areas for which more research is needed. To fill these gaps, the USPSTF needs well-designed studies that do the following:

- **Evaluate in adolescents the effectiveness of screening tools—which consist of asking questions about use—and interventions for illicit drug use**
- **Identify the optimal interval to use screening tools—which ask questions about use—for detecting illicit drug use in adults**
  - While we know that screening by asking about drug use is effective, we don't know how frequently we should do it.

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- **Assess accuracy of screening tools that ask questions to help detect nonmedical use of prescription drugs, including opioids, in adults**
  - We know screening by asking is effective, but different tools may work better for different types of drug use.

## Violence Prevention

Violence and trauma are widespread in the United States<sup>34</sup> and affect people in all stages of life, from infancy through older adulthood.<sup>35</sup> In 2016, there were more than 19,000 victims of homicide and almost 45,000 people took their own lives.<sup>35</sup> In 2015, around 1.6 million people visited emergency departments due to assault.<sup>36</sup> Violence and trauma can have detrimental effects on an individual's mental and physical health and are also costly from a societal perspective.<sup>34</sup> For example, research shows that people who experience trauma in childhood are at increased risk for later developing certain medical conditions,<sup>37</sup> mental health or substance use conditions,<sup>37,38</sup> and can require more care coordination to manage complex health conditions and avoid lost revenue from late, cancelled, or no-show medical appointments.<sup>37</sup>

### *Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: Screening*

Intimate partner violence (which includes sexual violence, physical violence, and stalking) affects approximately 1 in 3 people in their lifetime (36.4% of women, 33.6% of men).<sup>39</sup> Severe physical violence is experienced by 21% of U.S. women and 15% of U.S. men during their lifetime.<sup>40</sup> Regarding elder abuse, in 2008, the estimated national prevalence of abuse or neglect of elderly adults in the United States (aged 60 and older) was 10%.<sup>41</sup> Regarding vulnerable adults, in 2004, a survey of Adult Protective Services agencies reported more than 40,000 substantiated cases of vulnerable adult abuse (aged 18 to 59 years) in 19 states.<sup>42</sup> Such violence can put people at risk for immediate health consequences such as injury or death as well as long-term negative effects on physical or mental health.<sup>43</sup>

In 2018, the USPSTF published a recommendation statement on screening for intimate partner violence, elder abuse, and abuse of vulnerable adults.<sup>44</sup> It recommended screening and ongoing support services for intimate partner violence in women of reproductive age (B grade) and found there was insufficient evidence to issue a recommendation for or against screening older and vulnerable adults (I statement). The USPSTF identified important areas for which more research is needed. To fill these gaps, the USPSTF needs well-designed studies that do the following:

- **Evaluate screening and interventions for elder abuse and abuse of vulnerable adults** when there are no recognized signs and symptoms of abuse
- **Assess screening and interventions in men** without recognized signs and symptoms of abuse
  - We know intimate partner violence is prevalent in men, but we do not know whether screening can help detect and reduce it in men.
- **Determine the most effective components of ongoing support services** for reducing intimate partner violence (e.g., home visits, cognitive behavioral therapy, or interventions that address multiple risk factors), including the optimal duration, format, and method of delivery for these services
  - While we know that screening and ongoing support services are beneficial in women of reproductive age, we need more information on the characteristics of these services to guide clinicians. We also need to study the effectiveness of ongoing support services for women of all ages, including non-pregnant women and women beyond reproductive age, as evidence is not currently available.

### ***Child Maltreatment: Interventions***

Child abuse and neglect affects about 1 in 4 children in their lifetime and 1 in 7 in the past year.<sup>45,46</sup> In 2017, 674,000 children experienced maltreatment (abuse, neglect, or both). Three-quarters (74.9%) experienced neglect, 18.3% experienced physical abuse, and 8.6% experienced sexual abuse. In 2017, more than 1,720 children died in the United States as a result of abuse and neglect.<sup>47</sup> Child abuse and neglect negatively affect not only children and their families but also take a significant economic toll, with a total lifetime economic cost of \$124 billion per year.<sup>48</sup>

In 2018, the USPSTF issued a recommendation statement on interventions to prevent child maltreatment.<sup>49</sup> It found there was insufficient evidence to issue a recommendation for or against interventions to prevent child maltreatment (I statement). To fill the gaps in the evidence, the USPSTF needs well-designed studies that do the following:

- **Evaluate key outcome measures for assessing effectiveness of child maltreatment interventions consistently in studies**
  - Existing studies include very different outcome measures, which complicates a definitive overall assessment of whether these interventions are effective.
- **Include additional populations in studies**, including families with known risk factors for child maltreatment (e.g., history of substance abuse in the home or limited access to social services)
- **Examine the unintended harms** from risk assessment and preventive interventions



*As the leading scientific and professional organization representing psychology in the United States, the American Psychological Association knows the importance of integrating mental health into primary care. The USPSTF is helping reinforce this connection by making recommendations that are inclusive of both physical and mental health. We join the USPSTF in its call to close the research gaps that prevent the development of evidence-based recommendations on some mental health topics. Together we can ensure that the best possible evidence is available to inform future recommendations.*

Arthur C. Evans Jr., Ph.D.  
Chief Executive Officer  
American Psychological Association

## IV. THE USPSTF IN 2019 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 85 preventive service recommendation statements, with 134 specific recommendation grades (see **Appendix D** for a complete listing of all current USPSTF recommendations). Many recommendation statements include multiple recommendation grades for different subpopulations. From October 1, 2018, to September 30, 2019, the Task Force accomplished the following:

- Received 9 nominations for new topics and 8 nominations to reconsider or update existing topics
- Posted 11 draft research plans for public comment
- Posted 14 draft recommendation statements and 17 draft evidence reports for public comment
- Published 13 final recommendation statements with 20 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 E**.

Of the Task Force's portfolio of **85 topics**, the following posted or published this year.

Draft Research Plan	Final Research Plan	Draft Recommendation	Final Recommendation
<input type="checkbox"/> Aspirin to Prevent Preeclampsia	<input type="checkbox"/> Aspirin to Prevent Preeclampsia	<input type="checkbox"/> Interventions for Prevention and Cessation of Tobacco Use in Children & Adolescents	<input type="checkbox"/> Interventions to Prevent Child Maltreatment
<input type="checkbox"/> Interventions to Prevent Opioid Use Disorder	<input type="checkbox"/> Screening for Abnormal Blood Glucose & Type 2 Diabetes Mellitus	<input type="checkbox"/> Interventions to Prevent Drug Use in Children, Adolescents & Young Adults	<input type="checkbox"/> Interventions to Prevent Perinatal Depression
<input type="checkbox"/> Prevention of Dental Caries in Children	<input type="checkbox"/> Screening for Colorectal Cancer	<input type="checkbox"/> Medication Use to Reduce Risk of Breast Cancer	<input type="checkbox"/> Medication Use to Reduce Risk of Breast Cancer
<input type="checkbox"/> Screening for Carotid Artery Stenosis	<input type="checkbox"/> Screening for Chlamydia & Gonorrhea	<input type="checkbox"/> PrEP for HIV Prevention	<input type="checkbox"/> Ocular Prophylaxis for Gonococcal Ophthalmia Neonatorum
<input type="checkbox"/> Screening for Colorectal Cancer	<input type="checkbox"/> Screening for Gestational Diabetes Mellitus	<input type="checkbox"/> Prevention of <i>BRCA</i> -Related Cancer	<input type="checkbox"/> PrEP for HIV Prevention
<input type="checkbox"/> Screening for Chlamydia & Gonorrhea	<input type="checkbox"/> Screening for Hearing Loss in Older Adults	<input type="checkbox"/> Screening for Abdominal Aortic Aneurysm	<input type="checkbox"/> Prevention of <i>BRCA</i> -Related Cancer
<input type="checkbox"/> Screening for Gestational Diabetes Mellitus	<input type="checkbox"/> Screening for Hepatitis B in Adolescents & Adults	<input type="checkbox"/> Screening for Asymptomatic Bacteriuria in Adults	<input type="checkbox"/> Prevention of Unhealthy Alcohol Use
<input type="checkbox"/> Screening for Hearing Loss in Older Adults	<input type="checkbox"/> Screening for High Blood Pressure in Adults	<input type="checkbox"/> Screening for Cognitive Impairment in Older Adults	<input type="checkbox"/> Screening for Asymptomatic Bacteriuria in Adults
<input type="checkbox"/> Screening for Hepatitis B in Adolescents & Adults	<input type="checkbox"/> Screening for High Blood Pressure in Children & Adolescents	<input type="checkbox"/> Screening for Illicit Drug Use	<input type="checkbox"/> Screening for Hepatitis B in Pregnant Women
<input type="checkbox"/> Screening for Vitamin D Deficiency	<input type="checkbox"/> Screening for Vitamin D Deficiency	<input type="checkbox"/> Screening for Hepatitis B in Pregnant Women	<input type="checkbox"/> Screening for HIV
<input type="checkbox"/> Vitamin Supplementation to Prevent CVD & Cancer	<input type="checkbox"/> Vitamin Supplementation to Prevent CVD & Cancer	<input type="checkbox"/> Screening for Hepatitis C in Adolescents & Adults	<input type="checkbox"/> Screening for Intimate Partner Violence & Elder Abuse
		<input type="checkbox"/> Screening for HIV	<input type="checkbox"/> Screening for Lead in Children & Pregnant Women
		<input type="checkbox"/> Screening for Lead in Children & Pregnant Women	<input type="checkbox"/> Screening for Pancreatic Cancer
		<input type="checkbox"/> Screening for Pancreatic Cancer	

## 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 year (October 1, 2018 to September 30, 2019), clinicians, patients, and other stakeholders viewed the USPSTF recommendations via the USPSTF website, *JAMA*, and ePSS app as follows:

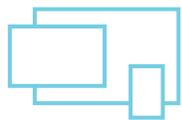


### Email Outreach



**54,563**

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



### Digital Impact



**7,032,685**

Total page views of the Task Force website



**168,170**

Average monthly unique visitors to the Task Force website

**490,292 visits**  
Home Page

**471,435 visits**  
All Recommendations

**320,014 visits**  
Final Recommendations

Top visited pages of the Task Force website



### Clinical Practice Impact



**210,887**

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



**88,503**

Number of new ePSS app downloads



**764,480**

Total number of ePSS app downloads

## Efforts to Fill USPSTF Research Gaps

The National Institutes of Health (NIH) reviews the research gaps identified by the USPSTF and uses this information when developing future funding opportunities. NIH has also funded research that has helped move prior USPSTF I statements to A, B, C, or D recommendations that provide clinicians with guidance on what they should do or not do.

### *USPSTF Research Gaps Stimulate New NIH Research*

In 2018, the USPSTF concluded there was not enough evidence on screening for abuse and neglect in older and vulnerable adults. To address this research gap, NIH is funding several projects to identify elder abuse and the mistreatment of people with physical and mental disabilities.

In 2018, the USPSTF also concluded there was not enough evidence on interventions to prevent child maltreatment. To build the evidence base, several NIH institutes and centers are funding research on child maltreatment. For example, the Eunice Kennedy Shriver National Institute of Child Health and Human Development is investing nearly \$21 million over 5 years to support [three specialized centers](#) to conduct research on all forms of child abuse and neglect.

In 2015, the USPSTF determined there was not enough evidence on the use of electronic nicotine delivery systems (ENDS) for tobacco cessation in adults, including in pregnant women. Since then, NIH has been working to develop a portfolio of grants, contracts, and funding opportunity announcements to build a stronger evidence base on ENDS.

### *NIH Funding Has Filled USPSTF-Identified Research Gaps*

In 2003, the USPSTF concluded that the evidence was insufficient to be able to recommend for or against routine screening for tobacco use or interventions to prevent and treat tobacco use and dependence in children or adolescents. But, in 2013, when the USPSTF reviewed the evidence again on this topic, it identified and considered new studies, including studies funded by NIH. The new evidence enabled the USPSTF to make a recommendation that clinicians should provide interventions to prevent tobacco use in children and adolescents (change from an I statement to a grade B recommendation).

## V. THE USPSTF IN 2020

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

### **Develop and Release New Recommendation Statements**

- Work on more than 40 topics that are in progress
- Work on 5 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 with the USPSTF Dissemination and Implementation Partners and Federal Liaisons to solicit input and disseminate the recommendations to primary care providers and other stakeholders

### **Address Research Gaps**

- Coordinate closely with NIH's Office of Disease Prevention to identify areas that might warrant expanded research efforts to fill evidence gaps
- Prepare a 10th annual report for Congress on high-priority evidence gaps

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 all Americans.

## VI. 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. PMID: 29254528.
2. 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. PMID: 29254529.
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):565-71. PMID: 28265649.
4. National Institute on Drug Abuse. Overdose Death Rates. <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>. Accessed August 8, 2019.
5. Magnan S. Social Determinants of Health 101 for Health Care: Five Plus Five. Washington, DC: National Academy of Medicine; 2017.
6. Krist AH, Davidson KW, Ngo-Metzger Q. What evidence do we need before recommending routine screening for social determinants of health? *American Fam Physician*. 2019;99(10):602-5. PMID: 31083876.
7. World Health Organization. Social Determinants. <http://www.euro.who.int/en/health-topics/health-determinants/social-determinants/social-determinants>. Accessed August 8, 2019.
8. Billieux A, Verlander K, Anthony S, et al. Standardized Screening for Health-Related Social Needs in Clinical Settings: The Accountable Health Communities Screening Tool. Washington, DC: National Academy of Medicine; 2017. <https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-Clinical-Settings.pdf>. Accessed August 8, 2019.
9. Substance Abuse and Mental Health Services Administration. Key Substance Use and Mental Health Indicators in the United States: Results From the 2017 National Survey on Drug Use and Health. HHS Publication No. SMA 18-5068, NSDUH Series H-53. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2018.
10. National Institute of Mental Health. Chronic Illness & Mental Health. <https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml>. Accessed August 8, 2019.
11. National Institute on Drug Abuse. Comorbidity: Substance Use and Other Mental Disorders. <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/comorbidity-substance-use-other-mental-disorders>. Accessed August 8, 2019.
12. National Institute on Drug Abuse. Health Consequences of Drug Misuse. <https://www.drugabuse.gov/related-topics/health-consequences-drug-misuse>. Accessed August 8, 2019.
13. Gavin NI, Gaynes BN, Lohr KN, et al. Perinatal depression: a systematic review of prevalence and incidence. *Obstet and Gynecol*. 2005;106(5):1071-83. PMID: 16260528.
14. O'Connor E, Senger CA, Henninger M, et al. Interventions to Prevent Perinatal Depression: A Systematic Evidence Review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 172. AHRQ Publication No. 18-05243-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; 2018.

15. Lovejoy MC, Graczyk PA, O'Hare E, et al. Maternal depression and parenting behavior: a meta-analytic review. *Clin Psychol Rev.* 2000;20(5):561-92. PMID: 10860167.
16. National Institute of Mental Health. Postpartum Depression Facts. <https://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml>. Accessed August 8, 2019.
17. U.S. Preventive Services Task Force. Interventions to prevent perinatal depression: US Preventive Services Task Force recommendation statement. *JAMA.* 2019;321(6):580-87. PMID: 30747971.
18. National Institute on Alcohol Abuse and Alcoholism. Helping Patients Who Drink Too Much: A Clinician's Guide. NIH Publication No. 07-3769. Rockville, MD: National Institutes of Health, U.S. Department of Health and Human Services; 2016.
19. Mokdad AH, Marks JS, Stroup DF, et al. Actual causes of death in the United States, 2000. *JAMA.* 2004;291(10):1238-45. PMID: 15010446.
20. O'Connor EA, Perdue LA, Senger CA, et al. Screening and Behavioral Counseling Interventions to Reduce Unhealthy Alcohol Use in Adolescents and Adults: An Updated Systematic Review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 171. AHRQ Publication No. 18-05242-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; 2018.
21. World Health Organization. Alcohol. <https://www.who.int/news-room/fact-sheets/detail/alcohol>. Accessed August 8, 2019.
22. U.S. Preventive Services Task Force. Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: US Preventive Services Task Force recommendation statement. *JAMA.* 2018;320(18):1899-1909. PMID: 30422199.
23. Borsky A, Zhan C, Miller T, et al. Few Americans receive all high-priority, appropriate clinical preventive services. *Health Aff (Millwood).* 2018;37(6):925-28. PMID: 29863918.
24. Shafer PR, Borsky A, Ngo-Metzger Q, et al. The practice gap: national estimates of screening and counseling for alcohol, tobacco, and obesity. *Ann Fam Med.* 2019;17(2):161-63. PMID: 30858260.
25. U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014.
26. Cullen KA, Ambrose BK, Gentzke AS, et al. Notes from the field: use of electronic cigarettes and any tobacco product among middle and high school students—United States, 2011–2018. *MMWR Morb Mortal Wkly Rep.* 2018;67(45):1276-77. PMID: 30439875.
27. National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems. Public Health Consequences of E-Cigarettes. Washington, DC: National Academies Press; 2018.
28. U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2016.

29. U.S. Preventive Services Task Force. Prevention and Cessation of Tobacco Use in Children and Adolescents: Primary Care Interventions Draft Recommendation Statement. Rockville, MD: U.S. Preventive Services Task Force; 2019.
30. Substance Abuse and Mental Health Services Administration. 2017 NSDUH Detailed Tables: Table 1.1A. <https://www.samhsa.gov/data/report/2017-nsduh-detailed-tables>. Accessed August 8, 2019.
31. Centers for Disease Control and Prevention. Drug Overdose Deaths. <https://www.cdc.gov/drugoverdose/data/statedeaths.html>. Accessed August 8, 2019.
32. U.S. Department of Health and Human Services, Office of the Surgeon General. Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Washington, DC: U.S. Department of Health and Human Services; 2016.
33. U.S. Preventive Services Task Force. Screening for Illicit Drug Use, Including Nonmedical Use of Prescription Drugs: Draft Recommendation Statement. Rockville, MD: U.S. Preventive Services Task Force; 2019.
34. Substance Abuse and Mental Health Services Administration. Trauma and Violence. <https://www.samhsa.gov/trauma-violence>. Accessed August 8, 2019.
35. Centers for Disease Control and Prevention. Violence Prevention: A Public Health Issue. <https://www.cdc.gov/violenceprevention/publichealthissue/index.html>. Accessed August 8, 2019.
36. Centers for Disease Control and Prevention. Fast Stats: Assault or Homicide. <https://www.cdc.gov/nchs/fastats/homicide.htm>. Accessed August 8, 2019.
37. Koball AM, Rasmussen C, Olson-Dorff D, et al. The relationship between adverse childhood experiences, healthcare utilization, cost of care and medical comorbidities. *Child Abuse Negl.* 2019;90:120-26. PMID: 30776737.
38. Torjesen I. Childhood trauma doubles risk of mental health conditions. *BMJ.* 2019;364(I854):1. PMID: 30796013.
39. Smith SG, Zhang X, Basile KC, et al. The National Intimate Partner and Sexual Violence Survey (NISVS): 2015 Data Brief – Updated Release. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2018.
40. Smith SG, Zhang X, Basile, KC, et al. The National Intimate Partner and Sexual Violence Survey (NISVS): 2015 Data Brief. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2018.
41. Acierno R, Hernandez MA, Amstadter AB, et al. Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: The National Elder Mistreatment Study. *Am J Public Health.* 2010;100(2):292-97. PMID: 20019303.
42. Teaster PB, Dugar TA, Mendiondo MS, et al. The 2004 Survey of State Adult Protective Services: Abuse of Vulnerable Adults 18 Years of Age and Older. Washington, DC: National Committee for the Prevention of Elder Abuse and National Adult Protective Services Association; 2007.
43. Centers for Disease Control and Prevention. Intimate Partner Violence Consequences. <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/consequences.html>. Accessed August 8, 2019.

44. U.S. Preventive Services Task Force. Screening for intimate partner violence, elder abuse, and abuse of vulnerable adults: US Preventive Services Task Force final recommendation statement. *JAMA*. 2018;320(16):1678-87. PMID: 30357305.
45. Finkelhor D, Turner HA, Shattuck A, et al. Violence, crime, and abuse exposure in a national sample of children and youth: an update. *JAMA Pediatr*. 2013;167(7):614-21. PMID: 23700186.
46. Centers for Disease Control and Prevention. Child Maltreatment: Facts at a Glance. <https://www.cdc.gov/violenceprevention/pdf/childmaltreatment-facts-at-a-glance.pdf>. Accessed August 8, 2019.
47. U.S. Department of Health & Human Services, Administration for Children and Families Administration on Children Youth and Families, Children's Bureau. Child Maltreatment 2017. Washington, DC: Children's Bureau; 2017.
48. Centers for Disease Control and Prevention. Child Abuse and Neglect Prevention. <https://www.cdc.gov/violenceprevention/childabuseandneglect/index.html>. Accessed August 8, 2019.
49. U.S. Preventive Services Task Force. Interventions to prevent child maltreatment: US Preventive Services Task Force recommendation statement. *JAMA*. 2018;320(20):2122-28. PMID: 30480735.





# APPENDICES



## APPENDIX A: 2019 MEMBERS OF THE USPSTF



### **Douglas K. Owens, M.D., M.S., Chair**

Dr. Owens is a general internist and investigator at the Center for Innovation to Implementation at the Veterans Affairs (VA) Palo Alto Health Care System. He is the Henry J. Kaiser, Jr., professor at Stanford University, where he is also a professor of medicine, health research and policy (by courtesy), and management science and engineering (by courtesy). Dr. Owens is director of the Center for Primary Care and Outcomes Research in the Stanford University School of Medicine and the Center for Health Policy in the Freeman Spogli Institute for International Studies.



### **Karina W. Davidson, Ph.D., M.A.Sc., Vice Chair**

Dr. Davidson is senior vice president of research, dean of academic affairs, and head of a new center focused on Personalized Trials at the Feinstein Institute 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.



### **Alex H. Krist, M.D., M.P.H., Vice Chair**

Dr. Krist is a professor of family medicine and population health at Virginia Commonwealth University and an active clinician and teacher at the Fairfax Family Practice Residency. He is co-director of the Virginia Ambulatory Care Outcomes Research Network and director of community-engaged research at the Center for Clinical and Translational Research.



### **Michael J. Barry, M.D., Member**

Dr. Barry is 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 at the Albert Einstein College of Medicine. He is also Physician-in-Chief at the Children's Hospital at Montefiore and the Chair of the Department of Pediatrics at the Albert Einstein College of Medicine.



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

Dr. Caughey is a professor in and 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 women and infants through guidelines and policies, working with all the health systems in the state.



**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.



**John W. Epling, Jr., M.D., M.S.Ed., Member**

Dr. Epling is a professor of family and community medicine at the Virginia Tech Carilion School of Medicine in Roanoke, VA. He is the medical director of research for family and community medicine, is the medical director of employee health and wellness for the Carilion Clinic and maintains an active clinical primary care practice.



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

Dr. Kubik is a professor and director of the Department of Nursing at the Temple University College of Public Health and holds the David R. Devereaux endowed chair in nursing. Dr. Kubik is a nurse scientist, active researcher and past standing member on the National Institutes of Health’s Community-Level Health Promotion Study Section. Dr. Kubik is a Fellow of the American Academy of Nursing.



**C. Seth Landefeld, M.D., Member**

Dr. Landefeld is the chair of the Department of Medicine and the Spencer chair in medical science leadership at the University of Alabama at Birmingham (UAB) School of Medicine. Dr. Landefeld also serves on the board of directors of the American Board of Internal Medicine, the UAB Health System and the University of Alabama Health Services Foundation.



**Carol M. Mangione, M.D., M.S.P.H., Member**

Dr. Mangione is the chief of the Division of General Internal Medicine and Health Services Research and the Barbara A. Levey, M.D., and Gerald S. Levey, M.D., endowed chair in medicine at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA). She is 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 Translational Science Institute.



**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 and Training at the University of Massachusetts Medical School.



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

Dr. Silverstein is a professor of pediatrics, director of the Division of General Academic Pediatrics, and vice chair of research for the Department of Pediatrics at the Boston University School of Medicine. He is also associate chief medical officer for research and population health at Boston Medical Center.



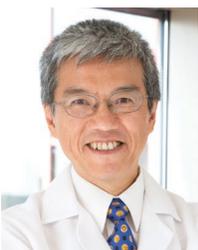
**Melissa A. Simon, M.D., M.P.H., Member**

Dr. Simon is the George H. Gardner professor of clinical gynecology, the vice chair of clinical research in the Department of Obstetrics and Gynecology, and professor of preventive medicine and medical social sciences at the Northwestern University Feinberg School of Medicine. She is the founder and director of the Center for Health Equity Transformation and the Chicago Cancer Health Equity Collaborative and a member of the Robert H. Lurie Comprehensive Cancer Center.



**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, a professor, and the associate 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 chief of the Division of Clinical Decision Making and a primary care clinician in the Department of Medicine at Tufts Medical Center and a professor of medicine at the Tufts University School of Medicine. He is also the director of comparative effectiveness research for the Tufts Clinical Translational Science Institute and a professor of medicine in the Tufts University Sackler School of Graduate Biomedical Sciences.

## **APPENDIX B: 2019 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

Canadian Task Force on Preventive Health Care

Community Preventive Services Task Force

National Association of Pediatric Nurse Practitioners

National Business Group on Health

National Committee for Quality Assurance

Patient-Centered Outcomes Research Institute

## **APPENDIX C: 2019 FEDERAL LIAISONS TO THE USPSTF**

Centers for Disease Control and Prevention

Centers for Medicare & Medicaid Services

Department of Defense Military Health System

Department of Veterans Affairs 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: COMPLETE LISTING OF ALL USPSTF RECOMMENDATIONS AS OF OCTOBER 2019

Grade	Title
A	<p><b>Cervical Cancer: Screening in Women Ages 21 to 65 Years</b></p> <p>The USPSTF recommends screening for cervical cancer every 3 years with cervical cytology alone in women ages 21 to 29 years. For women ages 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting).</p> <p>This recommendation applies to individuals who have a cervix, regardless of their sexual history or HPV vaccination status. This recommendation does not apply to individuals who have been diagnosed with a high-grade precancerous cervical lesion or cervical cancer, individuals with in utero exposure to diethylstilbestrol, or those who have a compromised immune system (e.g., women living with HIV).</p>
A	<p><b>Colorectal Cancer: Screening in Adults Ages 50 to 75 Years</b></p> <p>The USPSTF recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years. The risks and benefits of different screening methods vary.</p>
A	<p><b>Folic Acid to Prevent Neural Tube Defects: Preventive Medication in Women Planning or Capable of Pregnancy</b></p> <p>The USPSTF recommends that all women who are planning or capable of pregnancy take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µg) of folic acid.</p>
A	<p><b>Hepatitis B Virus: Screening in Pregnant Women</b></p> <p>The USPSTF recommends screening for hepatitis B virus (HBV) infection in pregnant women at their first prenatal visit.</p>
A	<p><b>High Blood Pressure: Screening in Adults</b></p> <p>The USPSTF recommends screening for high blood pressure in adults age 18 years and older. The USPSTF recommends obtaining measurements outside of the clinical setting for diagnostic confirmation before starting treatment.</p>
A	<p><b>HIV Prevention: Pre-Exposure Prophylaxis</b></p> <p>The USPSTF recommends that clinicians offer pre-exposure prophylaxis (PrEP) with effective antiretroviral therapy to persons who are at high risk of HIV acquisition.</p>
A	<p><b>HIV: Screening in Adolescents and Adults Ages 15 to 65 Years</b></p> <p>The USPSTF recommends that clinicians screen for HIV infection in adolescents and adults ages 15 to 65 years. Younger adolescents and older adults who are at increased risk for infection should also be screened.</p>
A	<p><b>HIV: Screening in Pregnant Women</b></p> <p>The USPSTF recommends that clinicians screen for HIV infection in all pregnant persons, including those who present in labor or at delivery whose HIV status is unknown.</p>

Grade	Title
A	<p><b>Ocular Prophylaxis for Gonococcal Ophthalmia Neonatorum: Preventive Medication</b></p> <p>The USPSTF recommends prophylactic ocular topical medication for all newborns to prevent gonococcal ophthalmia neonatorum.</p>
A	<p><b>Rh(D) Incompatibility: Screening in All Pregnant Women</b></p> <p>The USPSTF strongly recommends Rh(D) blood typing and antibody testing for all pregnant women during their first visit for pregnancy-related care.</p>
A	<p><b>Syphilis: Screening in Nonpregnant Adolescents and Adults</b></p> <p>The USPSTF recommends screening for syphilis infection in persons who are at increased risk for infection.</p>
A	<p><b>Syphilis: Screening in Pregnant Women</b></p> <p>The USPSTF recommends early screening for syphilis infection in all pregnant women.</p>
A	<p><b>Tobacco Smoking Cessation: Behavioral and Pharmacotherapy Interventions in Nonpregnant Adults</b></p> <p>The USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and U.S. Food and Drug Administration–approved pharmacotherapy for cessation to adults who use tobacco.</p>
A	<p><b>Tobacco Smoking Cessation: Behavioral Interventions in Pregnant Women</b></p> <p>The USPSTF recommends that clinicians ask all pregnant women about tobacco use, advise them to stop using tobacco, and provide behavioral interventions for cessation to pregnant women who use tobacco.</p>
B	<p><b>Abdominal Aortic Aneurysm: Screening in Men Ages 65 to 75 Years Who Have Ever Smoked</b></p> <p>The USPSTF recommends one-time screening for abdominal aortic aneurysm with ultrasonography in men ages 65 to 75 years who have ever smoked.</p>
B	<p><b>Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening in Adults</b></p> <p>The USPSTF recommends screening for abnormal blood glucose as part of cardiovascular risk assessment in adults ages 40 to 70 years who are overweight or obese. Clinicians should offer or refer patients with abnormal glucose to intensive behavioral counseling interventions to promote a healthful diet and physical activity.</p> <p>This recommendation applies to adults ages 40 to 70 years who are seen in primary care settings and do not have obvious symptoms of diabetes. Persons who have a family history of diabetes, have a history of gestational diabetes or polycystic ovarian syndrome, or are members of certain racial/ethnic groups (i.e., African Americans, American Indians or Alaskan Natives, Asian Americans, Hispanics or Latinos, or Native Hawaiians or Pacific Islanders) may be at increased risk for diabetes at a younger age or at a lower body mass index. Clinicians should consider screening earlier in persons with one or more of these characteristics.</p>

Grade	Title
B	<p><b>Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Ages 50 to 59 Years</b></p> <p>The USPSTF recommends initiating low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer in adults ages 50 to 59 years who have a 10% or greater 10-year CVD risk, are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years.</p>
B	<p><b>Aspirin to Prevent Morbidity and Mortality From Preeclampsia: Preventive Medication in Pregnant Women</b></p> <p>The USPSTF recommends the use of low-dose aspirin (81 mg/day) as preventive medication after 12 weeks of gestation in women who are at high risk for preeclampsia.</p>
B	<p><b>Asymptomatic Bacteriuria: Screening in Pregnant Persons</b></p> <p>The USPSTF recommends screening pregnant persons for asymptomatic bacteriuria using urine culture.</p>
B	<p><b>BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing in Women at Increased Risk</b></p> <p>The USPSTF recommends that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or who have an ancestry associated with breast cancer susceptibility 1 and 2 (<i>BRCA1/2</i>) gene mutations with an appropriate brief familial risk assessment tool. Women with a positive result on the risk assessment tool should receive genetic counseling and, if indicated after counseling, genetic testing.</p>
B	<p><b>Breast Cancer: Medication Use to Reduce Risk in Women at Increased Risk</b></p> <p>The USPSTF recommends that clinicians offer to prescribe risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, to women who are at increased risk for breast cancer and at low risk for adverse medication effects.</p>
B	<p><b>Breast Cancer: Screening With Mammography in Women Ages 50 to 74 Years*</b></p> <p>The USPSTF recommends biennial screening mammography in women ages 50 to 74 years.</p> <p>This recommendation applies to asymptomatic women age 40 years and older who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a <i>BRCA1</i> or <i>BRCA2</i> gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.</p>

\* The Department of Health and Human Services, in implementing the Affordable Care Act under the standard it sets out in revised Section 2713(a)(5) of the Public Health Service Act and Section 9(h)(v)(229) of the 2015 Consolidated Appropriations Act, utilizes the 2002 USPSTF recommendation on breast cancer screening (available at <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening-2002>).

Grade	Title
B	<p><b>Breastfeeding: Interventions in Pregnant Women and New Mothers</b></p> <p>The USPSTF recommends providing interventions during pregnancy and after birth to support breastfeeding.</p>
B	<p><b>Chlamydia: Screening in Women</b></p> <p>The USPSTF recommends screening for chlamydia in sexually active women age 24 years and younger and in older women who are at increased risk for infection.</p>
B	<p><b>Dental Caries: Preventive Medication in Children Age 5 Years and Younger</b></p> <p>The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.</p>
B	<p><b>Dental Caries: Preventive Medication in Children Age 5 Years and Younger</b></p> <p>The USPSTF recommends that primary care clinicians prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride.</p>
B	<p><b>Depression: Screening in Children and Adolescents Ages 12 to 18 Years</b></p> <p>The USPSTF recommends screening for major depressive disorder in adolescents ages 12 to 18 years. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate followup.</p>
B	<p><b>Depression: Screening in Adults</b></p> <p>The USPSTF recommends screening for depression in the general adult population, including pregnant and postpartum women. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate followup.</p>
B	<p><b>Falls Prevention in Community-Dwelling Older Adults: Interventions in Adults Age 65 Years and Older at Increased Risk for Falls</b></p> <p>The USPSTF recommends exercise interventions to prevent falls in community-dwelling adults 65 years and older who are at increased risk for falls.</p> <p>This recommendation applies to community-dwelling adults not known to have osteoporosis or vitamin D deficiency.</p>
B	<p><b>Gestational Diabetes Mellitus: Screening in Pregnant Women After 24 Weeks of Gestation</b></p> <p>The USPSTF recommends screening for gestational diabetes mellitus in asymptomatic pregnant women after 24 weeks of gestation.</p>
B	<p><b>Gonorrhea: Screening in Women</b></p> <p>The USPSTF recommends screening for gonorrhea in sexually active women age 24 years and younger and in older women who are at increased risk for infection.</p>

Grade	Title
B	<p><b>Healthful Diet and Physical Activity to Prevent Cardiovascular Disease: Behavioral Counseling Interventions in Adults With Risk Factors</b></p> <p>The USPSTF recommends offering or referring adults who are overweight or obese and have additional cardiovascular risk factors to intensive behavioral counseling interventions to promote a healthful diet and physical activity for cardiovascular disease prevention.</p>
B	<p><b>Hepatitis B Virus: Screening in Adolescents and Adults at High Risk</b></p> <p>The USPSTF recommends screening for hepatitis B virus infection in persons who are at high risk for infection.</p>
B	<p><b>Hepatitis C Virus: Screening in Adults at High Risk</b></p> <p>The USPSTF recommends screening for hepatitis C virus infection in adults at high risk for infection. The USPSTF also recommends offering one-time screening for hepatitis C virus infection to adults born between 1945 and 1965.</p>
B	<p><b>Intimate Partner Violence: Screening Women of Reproductive Age</b></p> <p>The USPSTF concludes that clinicians screen for intimate partner violence (IPV) in women of reproductive age and provide or refer women who screen positive to ongoing support services.</p>
B	<p><b>Latent Tuberculosis Infection: Screening in Adults</b></p> <p>The USPSTF recommends screening for latent tuberculosis infection in populations at increased risk.</p>
B	<p><b>Lung Cancer: Screening in Adults Ages 55 to 80 Years</b></p> <p>The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults ages 55 to 80 years who have a 30 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.</p>
B	<p><b>Obesity-Related Morbidity and Mortality: Behavioral Weight Loss Interventions in Adults</b></p> <p>The USPSTF recommends that clinicians offer or refer adults with a body mass index of 30 kg/m<sup>2</sup> or higher to intensive, multicomponent behavioral interventions.</p>
B	<p><b>Obesity: Screening in Children and Adolescents Age 6 Years and Older</b></p> <p>The USPSTF recommends that clinicians screen for obesity in children and adolescents age 6 years and older and offer or refer them to comprehensive, intensive behavioral interventions to promote improvements in weight status.</p>

Grade	Title
B	<p><b>Osteoporosis to Prevent Fractures: Screening in Postmenopausal Women Younger Than Age 65 Years at Increased Risk of Osteoporosis</b></p> <p>The USPSTF recommends screening for osteoporosis with bone measurement testing to prevent osteoporotic fractures in postmenopausal women younger than age 65 years who are at increased risk of osteoporosis, as determined by a formal clinical risk assessment tool.</p>
B	<p><b>Osteoporosis to Prevent Fractures: Screening in Women Age 65 Years and Older</b></p> <p>The USPSTF recommends screening for osteoporosis with bone measurement testing to prevent osteoporotic fractures in women age 65 years and older.</p>
B	<p><b>Perinatal Depression: Preventive Interventions</b></p> <p>The USPSTF recommends that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions.</p>
B	<p><b>Preeclampsia: Screening in Pregnant Women</b></p> <p>The USPSTF recommends screening for preeclampsia in pregnant women with blood pressure measurements throughout pregnancy.</p>
B	<p><b>Rh(D) Incompatibility: Screening in Unsensitized Rh(D)-Negative Pregnant Women</b></p> <p>The USPSTF recommends repeated Rh(D) antibody testing for all unsensitized Rh(D)-negative women at 24 to 28 weeks of gestation, unless the biological father is known to be Rh(D)-negative.</p>
B	<p><b>Sexually Transmitted Infections: Behavioral Counseling Interventions in Adolescents and Adults at Increased Risk</b></p> <p>The USPSTF recommends intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections.</p>
B	<p><b>Skin Cancer Prevention: Behavioral Counseling in Persons Ages 6 Months to 24 Years</b></p> <p>The USPSTF recommends counseling young adults, adolescents, children, and parents of young children about minimizing exposure to ultraviolet radiation for persons ages 6 months to 24 years with fair skin types to reduce their risk of skin cancer.</p>

Grade	Title
B	<p><b>Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Ages 40 to 75 Years at Moderate Risk</b></p> <p>The USPSTF recommends that adults without a history of cardiovascular disease (CVD) use a low- to moderate-dose statin for the prevention of CVD events and mortality when all of the following criteria are met: 1) they are ages 40 to 75 years; 2) they have one or more CVD risk factors (dyslipidemia, diabetes, hypertension, or smoking); and 3) they have a calculated 10-year risk of a cardiovascular event of 10% or greater. Identification of dyslipidemia and calculation of 10-year CVD event risk requires universal lipids screening in adults ages 40 to 75 years.</p> <p><i>Considerations for Implementation:</i> To determine whether a patient is a candidate for statin therapy, clinicians must first determine the patient’s risk of having a future CVD event. However, clinicians’ ability to accurately identify a patient’s true risk is imperfect, because the best currently available risk estimation tool, which uses the Pooled Cohort Equations from the 2013 American College of Cardiology/American Heart Association guidelines on the assessment of cardiovascular risk, has been shown to overestimate actual risk in multiple external validation cohorts. The reasons for this possible overestimation are still unclear. The Pooled Cohort Equations were derived from prospective cohorts of volunteers from studies conducted in the 1990s and may not be generalizable to a more contemporary and diverse patient population seen in current clinical practice. Furthermore, no statin clinical trials enrolled patients based on a specific risk threshold calculated using a CVD risk prediction tool; rather, patients had one or more CVD risk factors other than age and sex as a requirement for trial enrollment.</p> <p>Because the Pooled Cohort Equations lack precision, the risk estimation tool should be used as a starting point to discuss with patients their desire for lifelong statin therapy. The likelihood that a patient will benefit from statin use depends on his or her absolute baseline risk of having a future CVD event, a risk estimation that is imprecise based on the currently available risk estimation tool. Thus, clinicians should discuss with patients the potential risk of having a CVD event and the expected benefits and harms of statin use. Patients who place a higher value on the potential benefits than on the potential harms and inconvenience of taking a daily medication may choose to initiate statin use for reduction of CVD risk. The USPSTF has made several other recommendations relevant to the prevention of CVD in adults.</p> <p><i>Patient Population Under Consideration:</i> These recommendations apply to adults age 40 years and older without a history of CVD who do not have current signs and symptoms of CVD (i.e., symptomatic coronary artery disease or ischemic stroke). Some individuals in this group may have undetected, asymptomatic atherosclerotic changes; for the purposes of this recommendation statement, the USPSTF considers these persons to be candidates for primary prevention interventions. These recommendations do not apply to adults with a low-density lipoprotein cholesterol level greater than 190 mg/dL (to convert LDL-C values to mmol/L, multiply by 0.0259) or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.</p>
B	<p><b>Tobacco Use: Behavioral Counseling Interventions in Children and Adolescents</b></p> <p>The USPSTF recommends that primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents.</p>

Grade	Title
<b>B</b>	<p><b>Unhealthy Alcohol Use in Adults: Screening and Behavioral Counseling Interventions</b></p> <p>The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years and older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.</p>
<b>B</b>	<p><b>Visual Impairment: Screening in Children Ages 3 to 5 Years</b></p> <p>The USPSTF recommends vision screening at least once in all children ages 3 to 5 years to detect amblyopia or its risk factors.</p>
<b>C</b>	<p><b>Abdominal Aortic Aneurysm: Screening in Men Ages 65 to 75 Years Who Have Never Smoked</b></p> <p>The USPSTF recommends selectively offering screening for abdominal aortic aneurysm in men ages 65 to 75 years who have never smoked rather than routinely screening all men in this group.</p>
<b>C</b>	<p><b>Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Ages 60 to 69 Years</b></p> <p>The decision to initiate low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer in adults ages 60 to 69 years who have a 10% or greater 10-year CVD risk should be an individual one. Persons who are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years are more likely to benefit. Persons who place a higher value on the potential benefits than the potential harms may choose to initiate low-dose aspirin.</p>

Grade	Title
C	<p><b>Breast Cancer: Screening With Mammography in Women Ages 40 to 49 Years*</b></p> <p>The decision to start screening mammography in women prior to age 50 years should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening between the ages of 40 and 49 years.</p> <p>For women who are at average risk for breast cancer, most of the benefit of mammography results from biennial screening during ages 50 to 74 years. Of all of the age groups, women ages 60 to 69 years are most likely to avoid breast cancer death through mammography screening. While screening mammography in women ages 40 to 49 years may reduce the risk for breast cancer death, the number of deaths averted is smaller than that in older women and the number of false-positive results and unnecessary biopsies is larger. The balance of benefits and harms is likely to improve as women move from their early to late 40s.</p> <p>In addition to false-positive results and unnecessary biopsies, all women undergoing regular screening mammography are at risk for the diagnosis and treatment of noninvasive and invasive breast cancer that would otherwise not have become a threat to their health, or even apparent, during their lifetime (known as “overdiagnosis”). Beginning mammography screening at a younger age and screening more frequently may increase the risk for overdiagnosis and subsequent overtreatment.</p> <p>Women with a parent, sibling, or child with breast cancer are at higher risk for breast cancer and thus may benefit more than average-risk women from beginning screening in their 40s.</p> <p>This recommendation applies to asymptomatic women age 40 years and older who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a <i>BRCA1</i> or <i>BRCA2</i> gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.</p>
C	<p><b>Colorectal Cancer: Screening in Adults Ages 76 to 85 Years</b></p> <p>The decision to screen for colorectal cancer in adults ages 76 to 85 years should be an individual one, taking into account the patient’s overall health and prior screening history.</p> <p>Adults in this age group who have never been screened for colorectal cancer are more likely to benefit.</p> <p>Screening would be most appropriate among adults who 1) are healthy enough to undergo treatment if colorectal cancer is detected and 2) do not have comorbid conditions that would significantly limit their life expectancy.</p>

\* The Department of Health and Human Services, in implementing the Affordable Care Act under the standard it sets out in revised Section 2713(a)(5) of the Public Health Service Act and Section 9(h)(v)(229) of the 2015 Consolidated Appropriations Act, utilizes the 2002 USPSTF recommendation on breast cancer screening (available at <https://www.preventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening-2002>).

Grade	Title
C	<p><b>Falls Prevention in Community-Dwelling Older Adults: Interventions in Adults Age 65 Years and Older at Increased Risk for Falls</b></p> <p>The USPSTF recommends that clinicians selectively offer multifactorial interventions to prevent falls to community-dwelling adults age 65 years and older who are at increased risk for falls. Existing evidence indicates that the overall net benefit of routinely offering multifactorial interventions to prevent falls is small. When determining whether this service is appropriate for an individual, patients and clinicians should consider the balance of benefits and harms based on the circumstances of prior falls, presence of comorbid medical conditions, and the patient’s values and preferences.</p> <p>This recommendation applies to community-dwelling adults who are not known to have osteoporosis or vitamin D deficiency.</p>
C	<p><b>Healthful Diet and Physical Activity to Prevent Cardiovascular Disease: Behavioral Counseling Interventions in Adults Without Risk Factors</b></p> <p>The USPSTF recommends that primary care professionals individualize the decision to offer or refer adults without obesity who do not have hypertension, dyslipidemia, abnormal blood glucose levels, or diabetes to behavioral counseling to promote a healthful diet and physical activity. Existing evidence indicates a positive but small benefit of behavioral counseling for the prevention of cardiovascular disease in this population. Persons who are interested and ready to make behavioral changes may be most likely to benefit from behavioral counseling.</p>
C	<p><b>Prostate Cancer: Screening in Men Ages 55 to 69 Years</b></p> <p>For men ages 55 to 69 years, the decision to undergo periodic prostate-specific antigen (PSA)–based screening for prostate cancer should be an individual one. Before deciding whether to be screened, men should have an opportunity to discuss the potential benefits and harms of screening with their clinician and to incorporate their values and preferences in the decision. Screening offers a small potential benefit of reducing the chance of death from prostate cancer in some men. However, many men will experience potential harms of screening, including false-positive results that require additional testing and possible prostate biopsy; overdiagnosis and overtreatment; and treatment complications, such as incontinence and erectile dysfunction. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of family history, race/ethnicity, comorbid medical conditions, patient values about the benefits and harms of screening and treatment-specific outcomes, and other health needs. Clinicians should not screen men who do not express a preference for screening.</p>
C	<p><b>Skin Cancer Prevention: Behavioral Counseling in Adults Older Than Age 24 Years</b></p> <p>The USPSTF recommends that clinicians selectively offer counseling to adults older than age 24 years with fair skin types about minimizing their exposure to ultraviolet radiation to reduce risk of skin cancer. Existing evidence indicates that the net benefit of counseling all adults older than age 24 years is small. In determining whether counseling is appropriate in individual cases, patients and clinicians should consider the presence of risk factors for skin cancer.</p>

Grade	Title
C	<p data-bbox="337 212 1432 279"><b>Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Ages 40 to 75 Years at Low Risk</b></p> <p data-bbox="337 296 1432 569">Although statin use may be beneficial for the primary prevention of cardiovascular disease (CVD) events in some adults with a 10-year CVD event risk of less than 10%, the likelihood of benefit is smaller, because of a lower probability of disease and uncertainty in individual risk prediction. Clinicians may choose to offer a low- to moderate-dose statin to certain adults without a history of CVD when all of the following criteria are met: 1) they are ages 40 to 75 years; 2) they have one or more CVD risk factors (dyslipidemia, diabetes, hypertension, or smoking); and 3) they have a calculated 10-year risk of a cardiovascular event of 7.5% to 10%.</p> <p data-bbox="337 583 1432 1024"><i>Considerations for Implementation:</i> To determine whether a patient is a candidate for statin therapy, clinicians must first determine the patient’s risk of having a future CVD event. However, clinicians’ ability to accurately identify a patient’s true risk is imperfect, because the best currently available risk estimation tool, which uses the Pooled Cohort Equations from the 2013 American College of Cardiology/American Heart Association guidelines on the assessment of cardiovascular risk, has been shown to overestimate actual risk in multiple external validation cohorts. The reasons for this possible overestimation are still unclear. The Pooled Cohort Equations were derived from prospective cohorts of volunteers from studies conducted in the 1990s and may not be generalizable to a more contemporary and diverse patient population seen in current clinical practice. Furthermore, no statin clinical trials enrolled patients based on a specific risk threshold calculated using a CVD risk prediction tool; rather, patients had one or more CVD risk factors other than age and sex as a requirement for trial enrollment.</p> <p data-bbox="337 1039 1432 1381">Because the Pooled Cohort Equations lack precision, the risk estimation tool should be used as a starting point to discuss with patients their desire for lifelong statin therapy. The likelihood that a patient will benefit from statin use depends on his or her absolute baseline risk of having a future CVD event, a risk estimation that is imprecise based on the currently available risk estimation tool. Thus, clinicians should discuss with patients the potential risk of having a CVD event and the expected benefits and harms of statin use. Patients who place a higher value on the potential benefits than on the potential harms and inconvenience of taking a daily medication may choose to initiate statin use for reduction of CVD risk. The USPSTF has made several other recommendations relevant to the prevention of CVD in adults.</p> <p data-bbox="337 1396 1432 1703"><i>Patient Population Under Consideration:</i> These recommendations apply to adults age 40 years and older without a history of CVD who do not have current signs and symptoms of CVD (i.e., symptomatic coronary artery disease or ischemic stroke). Some individuals in this group may have undetected, asymptomatic atherosclerotic changes; for the purposes of this recommendation statement, the USPSTF considers these persons to be candidates for primary prevention interventions. These recommendations do not apply to adults with a low-density lipoprotein cholesterol level greater than 190 mg/dL (to convert LDL-C values to mmol/L, multiply by 0.0259) or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.</p>

Grade	Title
D	<p><b>Abdominal Aortic Aneurysm: Screening in Women Who Have Never Smoked</b></p> <p>The USPSTF recommends against routine screening for abdominal aortic aneurysm in women who have never smoked.</p>
D	<p><b>Asymptomatic Bacteriuria: Screening Nonpregnant Adults</b></p> <p>The USPSTF recommends against screening for asymptomatic bacteriuria in nonpregnant adults.</p>
D	<p><b>Bacterial Vaginosis: Screening in Pregnant Women at Low Risk for Preterm Delivery</b></p> <p>The USPSTF recommends against screening for bacterial vaginosis in asymptomatic pregnant women who are at low risk for preterm delivery.</p>
D	<p><b>Beta-Carotene or Vitamin E to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults</b></p> <p>The USPSTF recommends against the use of beta-carotene or vitamin E supplements for the prevention of cardiovascular disease or cancer.</p>
D	<p><b>BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing in Women Not at Increased Risk</b></p> <p>The USPSTF recommends against routine risk assessment, genetic counseling, or genetic testing for women whose personal or family history or ancestry is not associated with potentially harmful <i>BRCA1/2</i> gene mutations.</p>
D	<p><b>Breast Cancer: Medication to Reduce Risk in Women Not at Increased Risk</b></p> <p>The USPSTF recommends against the routine use of risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, in women who are not at increased risk for breast cancer.</p>
D	<p><b>Cardiovascular Disease Risk: Screening With Electrocardiography in Adults at Low Risk</b></p> <p>The USPSTF recommends against screening with resting or exercise electrocardiography to prevent cardiovascular disease (CVD) events in asymptomatic adults at low risk of CVD events.</p>
D	<p><b>Carotid Artery Stenosis: Screening in Adults</b></p> <p>The USPSTF recommends against screening for asymptomatic carotid artery stenosis in the general adult population.</p>

Grade	Title
D	<p><b>Cervical Cancer: Screening in Women Older Than Age 65 Years</b></p> <p>The USPSTF recommends against screening for cervical cancer in women older than age 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer.</p> <p>This recommendation applies to individuals who have a cervix, regardless of their sexual history or human papillomavirus (HPV) vaccination status. This recommendation does not apply to individuals who have been diagnosed with a high-grade precancerous cervical lesion or cervical cancer, individuals with in utero exposure to diethylstilbestrol, or those who have a compromised immune system (e.g., women living with HIV).</p>
D	<p><b>Cervical Cancer: Screening in Women Who Have Had a Hysterectomy</b></p> <p>The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion (i.e., cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer.</p>
D	<p><b>Cervical Cancer: Screening in Women Younger Than Age 21 Years</b></p> <p>The USPSTF recommends against screening for cervical cancer in women younger than age 21 years.</p> <p>This recommendation applies to individuals who have a cervix, regardless of their sexual history or human papillomavirus (HPV) vaccination status. This recommendation does not apply to individuals who have been diagnosed with a high-grade precancerous cervical lesion or cervical cancer, individuals with in utero exposure to diethylstilbestrol, or those who have a compromised immune system (e.g., women living with HIV).</p>
D	<p><b>Chronic Obstructive Pulmonary Disease: Screening in Adults</b></p> <p>The USPSTF recommends against screening for chronic obstructive pulmonary disease in asymptomatic adults.</p>
D	<p><b>Falls Prevention in Community-Dwelling Older Adults Age 65 Years and Older: Interventions</b></p> <p>The USPSTF recommends against vitamin D supplementation to prevent falls in community-dwelling adults age 65 years and older.</p> <p>This recommendation applies to community-dwelling adults not known to have osteoporosis or vitamin D deficiency.</p>
D	<p><b>Genital Herpes: Serologic Screening in Adolescents and Adults</b></p> <p>The USPSTF recommends against routine serologic screening for genital herpes simplex virus infection in asymptomatic adolescents and adults, including those who are pregnant.</p>
D	<p><b>Hormone Therapy With Combined Estrogen and Progestin in Postmenopausal Women: Primary Prevention of Chronic Conditions</b></p> <p>The USPSTF recommends against the use of combined estrogen and progestin for the primary prevention of chronic conditions in postmenopausal women.</p>

Grade	Title
D	<p><b>Hormone Therapy With Estrogen in Postmenopausal Women Who Have Had a Hysterectomy: Primary Prevention of Chronic Conditions</b></p> <p>The USPSTF recommends against the use of estrogen alone for the primary prevention of chronic conditions in postmenopausal women who have had a hysterectomy.</p>
D	<p><b>Ovarian Cancer: Screening</b></p> <p>The USPSTF recommends against screening for ovarian cancer in asymptomatic women. This recommendation applies to asymptomatic women who are not known to have a high-risk hereditary cancer syndrome.</p>
D	<p><b>Pancreatic Cancer: Screening</b></p> <p>The USPSTF recommends against screening for pancreatic cancer in asymptomatic adults.</p>
D	<p><b>Prostate Cancer: Screening in Men Age 70 Years and Older</b></p> <p>The USPSTF recommends against prostate-specific antigen (PSA)–based screening for prostate cancer in men age 70 years and older.</p>
D	<p><b>Testicular Cancer: Screening in Adolescent and Adult Men</b></p> <p>The USPSTF recommends against screening for testicular cancer in adolescent or adult men.</p>
D	<p><b>Thyroid Cancer: Screening in Adults</b></p> <p>The USPSTF recommends against screening for thyroid cancer in asymptomatic adults.</p>
D	<p><b>Vitamin D, Calcium, or Combined Supplementation for the Primary Prevention of Fractures in Community-Dwelling Adults: Low-Dose Preventive Medication in Postmenopausal Women</b></p> <p>The USPSTF recommends against daily supplementation with 400 IU or less of vitamin D and 1,000 mg or less of calcium for the primary prevention of fractures in community-dwelling, postmenopausal women.</p> <p>These recommendations apply to community-dwelling, asymptomatic adults. “Community-dwelling” is defined as not living in a nursing home or other institutional care setting. These recommendations do not apply to persons with a history of osteoporotic fractures, increased risk for falls, or a diagnosis of osteoporosis or vitamin D deficiency.</p>
I	<p><b>Abdominal Aortic Aneurysm: Screening in Women Ages 65 to 75 Years Who Have Ever Smoked</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for abdominal aortic aneurysm in women ages 65 to 75 years who have ever smoked.</p>

Grade	Title
I	<p><b>Adolescent Idiopathic Scoliosis: Screening</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for adolescent idiopathic scoliosis in children and adolescents ages 10 to 18 years.</p>
I	<p><b>Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Age 70 Years and Older</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of cardiovascular disease and colorectal cancer in adults age 70 years and older.</p>
I	<p><b>Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Younger Than Age 50 Years</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of cardiovascular disease and colorectal cancer in adults younger than age 50 years.</p>
I	<p><b>Atrial Fibrillation: Screening With Electrocardiography in Older Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for atrial fibrillation with electrocardiography.</p>
I	<p><b>Autism Spectrum Disorder: Screening in Young Children</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for autism spectrum disorder in young children for whom no concerns of autism spectrum disorder have been raised by their parents or a clinician.</p>
I	<p><b>Bacterial Vaginosis: Screening in Pregnant Women at High Risk for Preterm Delivery</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for bacterial vaginosis in asymptomatic pregnant women who are at high risk for preterm delivery.</p>
I	<p><b>Bladder Cancer: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for bladder cancer in asymptomatic adults.</p>

Grade	Title
I	<p><b>Breast Cancer: Adjunctive Screening in Women With Dense Breasts*</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of adjunctive screening for breast cancer using breast ultrasonography, magnetic resonance imaging, digital breast tomosynthesis, or other methods in women identified to have dense breasts on an otherwise negative screening mammogram.</p> <p>This recommendation applies to asymptomatic women age 40 years and older who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a <i>BRCA1</i> or <i>BRCA2</i> gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.</p>
I	<p><b>Breast Cancer: Screening in Women Age 75 Years and Older*</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening mammography in women age 75 years and older.</p> <p>This recommendation applies to asymptomatic women age 40 years and older who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a <i>BRCA1</i> or <i>BRCA2</i> gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.</p>
I	<p><b>Breast Cancer: Screening With Digital Breast Tomosynthesis*</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the benefits and harms of digital breast tomosynthesis as a primary screening method for breast cancer.</p> <p>This recommendation applies to asymptomatic women age 40 years and older who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a <i>BRCA1</i> or <i>BRCA2</i> gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.</p>
I	<p><b>Cardiovascular Disease: Risk Assessment With Nontraditional Risk Factors in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of adding the ankle-brachial index, high-sensitivity C-reactive protein level, or coronary artery calcium score to traditional risk assessment for cardiovascular disease (CVD) in asymptomatic adults to prevent CVD events.</p>

\* The Department of Health and Human Services, in implementing the Affordable Care Act under the standard it sets out in revised Section 2713(a)(5) of the Public Health Service Act and Section 9(h)(v)(229) of the 2015 Consolidated Appropriations Act, utilizes the 2002 USPSTF recommendation on breast cancer screening (available at <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening-2002>).

Grade	Title
I	<p><b>Cardiovascular Disease Risk: Screening With Electrocardiography in Adults at Intermediate or High Risk</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening with resting or exercise electrocardiography to prevent cardiovascular (CVD) events in asymptomatic adults at intermediate or high risk of CVD events.</p>
I	<p><b>Celiac Disease: Screening in Children, Adolescents, and Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for celiac disease in asymptomatic persons.</p>
I	<p><b>Child Maltreatment: Interventions</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. Children with signs or symptoms suggestive of maltreatment should be assessed or reported according to the applicable state laws.</p>
I	<p><b>Chlamydia and Gonorrhea: Screening in Men</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.</p>
I	<p><b>Cognitive Impairment: Screening in Older Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for cognitive impairment.</p>
I	<p><b>Dental Caries: Screening in Children Age 5 Years and Younger</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine screening for dental caries performed by primary care clinicians in children age 5 years and younger.</p>
I	<p><b>Depression: Screening in Children Age 11 Years and Younger</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for major depressive disorder in children age 11 years and younger.</p>
I	<p><b>Drug Use, Illicit: Behavioral Interventions in Children and Adolescents</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care–based behavioral interventions to prevent or reduce illicit drug or nonmedical pharmaceutical use in children and adolescents.</p> <p>This recommendation applies to children and adolescents who have not already been diagnosed with a substance use disorder.</p>

Grade	Title
I	<p><b>Drug Use, Illicit: Screening in Adolescents, Adults, and Pregnant Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening adolescents, adults, and pregnant women for illicit drug use.</p>
I	<p><b>Elder Abuse and Abuse of Vulnerable Adults: Screening</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for abuse and neglect in all older or vulnerable adults.</p>
I	<p><b>Gestational Diabetes Mellitus: Screening in Pregnant Women Before 24 Weeks of Gestation</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 mellitus in asymptomatic pregnant women before 24 weeks of gestation.</p>
I	<p><b>Glaucoma: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for primary open-angle glaucoma in adults.</p>
I	<p><b>Gynecological Conditions: Screening With the Pelvic Examination</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic women for the early detection and treatment of a range of gynecologic conditions.</p> <p>This statement does not apply to specific disorders for which the USPSTF already recommends screening (i.e., screening for cervical cancer with a Pap smear, screening for gonorrhea and chlamydia).</p>
I	<p><b>Hearing Loss: Screening in Adults Age 50 Years and Older</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for hearing loss in asymptomatic adults age 50 years and older.</p>
I	<p><b>High Blood Pressure: Screening in Children and Adolescents</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for primary hypertension in asymptomatic children and adolescents to prevent subsequent cardiovascular disease in childhood or adulthood.</p>
I	<p><b>Iron Deficiency Anemia: Preventive Medication in Pregnant Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine iron supplementation for pregnant women to prevent adverse maternal health and birth outcomes.</p>

Grade	Title
I	<p><b>Iron Deficiency Anemia: Screening in Children Ages 6 to 24 Months</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for iron deficiency anemia in children ages 6 to 24 months.</p>
I	<p><b>Iron Deficiency Anemia: Screening in Pregnant Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for iron deficiency anemia in pregnant women to prevent adverse maternal health and birth outcomes.</p>
I	<p><b>Lead: Screening in Children Ages 5 Years and Younger</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for elevated blood lead levels in asymptomatic children.</p>
I	<p><b>Lead: Screening in Pregnant Persons</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for elevated blood lead levels in asymptomatic pregnant persons.</p>
I	<p><b>Lipid Disorders: Screening in Children and Adolescents Age 20 Years and Younger</b></p> <p>The USPSTF concludes that the evidence is insufficient to assess the balance of benefits and harms of screening for lipid disorders in children and adolescents age 20 years and younger.</p>
I	<p><b>Multivitamins to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the use of multivitamins for the prevention of cancer or cardiovascular disease.</p>
I	<p><b>Nutrient Supplements to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the use of single- or paired-nutrient supplements (except beta-carotene and vitamin E) for the prevention of cancer or cardiovascular disease.</p>
I	<p><b>Obstructive Sleep Apnea: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for obstructive sleep apnea in asymptomatic adults.</p>
I	<p><b>Oral Cancer: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for oral cancer in asymptomatic adults.</p>

Grade	Title
I	<p><b>Osteoporosis to Prevent Fractures: Screening in Men</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis to prevent osteoporotic fractures in men.</p>
I	<p><b>Peripheral Artery Disease and Cardiovascular Disease Risk: Screening With the Ankle-Brachial Index</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for peripheral artery disease and cardiovascular disease risk with the ankle-brachial index in asymptomatic adults.</p>
I	<p><b>Skin Cancer Prevention: Behavioral Counseling About Skin Self-Examination in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of counseling adults about skin self-examination to prevent skin cancer.</p>
I	<p><b>Skin Cancer: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of visual skin examination by a clinician to screen for skin cancer in adults.</p>
I	<p><b>Speech and Language Delay and Disorders: Screening in Children Age 5 Years and Younger</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for speech and language delay and disorders in children age 5 years and younger.</p>

Grade	Title
I	<p><b>Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Age 76 Years and Older</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of initiating statin use for the primary prevention of cardiovascular disease events and mortality in adults age 76 years and older without a history of heart attack or stroke.</p> <p><i>Considerations for Implementation:</i> To determine whether a patient is a candidate for statin therapy, clinicians must first determine the patient’s risk of having a future CVD event. However, clinicians’ ability to accurately identify a patient’s true risk is imperfect, because the best currently available risk estimation tool, which uses the Pooled Cohort Equations from the 2013 American College of Cardiology/American Heart Association guidelines on the assessment of cardiovascular risk, has been shown to overestimate actual risk in multiple external validation cohorts. The reasons for this possible overestimation are still unclear. The Pooled Cohort Equations were derived from prospective cohorts of volunteers from studies conducted in the 1990s and may not be generalizable to a more contemporary and diverse patient population seen in current clinical practice. Furthermore, no statin clinical trials enrolled patients based on a specific risk threshold calculated using a CVD risk prediction tool; rather, patients had one or more CVD risk factors other than age and sex as a requirement for trial enrollment.</p> <p>Because the Pooled Cohort Equations lack precision, the risk estimation tool should be used as a starting point to discuss with patients their desire for lifelong statin therapy. The likelihood that a patient will benefit from statin use depends on his or her absolute baseline risk of having a future CVD event, a risk estimation that is imprecise based on the currently available risk estimation tool. Thus, clinicians should discuss with patients the potential risk of having a CVD event and the expected benefits and harms of statin use. Patients who place a higher value on the potential benefits than on the potential harms and inconvenience of taking a daily medication may choose to initiate statin use for reduction of CVD risk. The USPSTF has made several other recommendations relevant to the prevention of CVD in adults.</p> <p><i>Patient Population Under Consideration:</i> These recommendations apply to adults age 40 years and older without a history of CVD who do not have current signs and symptoms of CVD (i.e., symptomatic coronary artery disease or ischemic stroke). Some individuals in this group may have undetected, asymptomatic atherosclerotic changes; for the purposes of this recommendation statement, the USPSTF considers these persons to be candidates for primary prevention interventions. These recommendations do not apply to adults with a low-density lipoprotein cholesterol level greater than 190 mg/dL (to convert LDL-C values to mmol/L, multiply by 0.0259) or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.</p>
I	<p><b>Suicide Risk: Screening in Adolescents, Adults, and Older Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in adolescents, adults, and older adults in primary care.</p>

Grade	Title
I	<p><b>Thyroid Dysfunction: Screening in Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for thyroid dysfunction in nonpregnant, asymptomatic adults.</p>
I	<p><b>Tobacco Smoking Cessation: Electronic Nicotine Delivery Systems in Adults, Including Pregnant Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to recommend electronic nicotine delivery systems for tobacco cessation in adults, including pregnant women. The USPSTF recommends that clinicians direct patients who smoke tobacco to other cessation interventions with established effectiveness and safety.</p>
I	<p><b>Tobacco Smoking Cessation: Pharmacotherapy Interventions in Pregnant Women</b></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 women.</p>
I	<p><b>Unhealthy Alcohol Use in Adolescents: Screening and Behavioral Counseling Interventions</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening and brief behavioral counseling interventions for alcohol use in primary care settings in adolescents ages 12 to 17 years.</p>
I	<p><b>Visual Impairment: Screening in Older Adults</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for impaired visual acuity in older adults.</p>
I	<p><b>Visual Impairment: Screening in Children Younger Than Age 3 Years</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of vision screening in children younger than age 3 years.</p>
I	<p><b>Vitamin D, Calcium, or Combined Supplementation for the Primary Prevention of Fractures in Community-Dwelling Adults: High-Dose Preventive Medication in Postmenopausal Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of daily supplementation with doses greater than 400 IU of vitamin D and greater than 1,000 mg of calcium for the primary prevention of fractures in community-dwelling, postmenopausal women.</p> <p>These recommendations apply to community-dwelling, asymptomatic adults. “Community-dwelling” is defined as not living in a nursing home or other institutional care setting. These recommendations do not apply to persons with a history of osteoporotic fractures, increased risk for falls, or a diagnosis of osteoporosis or vitamin D deficiency.</p>

Grade	Title
I	<p><b>Vitamin D, Calcium, or Combined Supplementation for the Primary Prevention of Fractures in Community-Dwelling Adults: Preventive Medication in Men and Premenopausal Women</b></p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of vitamin D and calcium supplementation, alone or combined, for the primary prevention of fractures in men and premenopausal women.</p> <p>These recommendations apply to community-dwelling, asymptomatic adults. “Community-dwelling” is defined as not living in a nursing home or other institutional care setting. These recommendations do not apply to persons with a history of osteoporotic fractures, increased risk for falls, or a diagnosis of osteoporosis or vitamin D deficiency.</p>
I	<p><b>Vitamin D Deficiency: Screening in Adults</b></p> <p>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.</p>

## APPENDIX E: LISTING OF USPSTF FINAL RECOMMENDATIONS PUBLISHED OCTOBER 2018–SEPTEMBER 2019

Over the past year, the members of the Task Force continued working on a full portfolio of topics. It published 13 final recommendation statements with 20 recommendation grades in a peer-reviewed journal between October 1, 2018, and September 30, 2019. For a complete listing of all current USPSTF recommendations, see **Appendix D**.

**Appendix E Table.** Final Recommendation Statements Published by the USPSTF, October 1, 2018, to September 30, 2019

Topic	Recommendation
<b>Asymptomatic Bacteriuria in Adults: Screening</b>	<p>The USPSTF recommends screening pregnant persons for asymptomatic bacteriuria using urine culture. (Grade B)</p> <p>The USPSTF recommends against screening for asymptomatic bacteriuria in nonpregnant adults. (Grade D)</p>
<b>Breast Cancer: Medication Use to Reduce Risk</b>	<p>The USPSTF recommends that clinicians offer to prescribe risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, to women who are at increased risk for breast cancer and at low risk for adverse medication effects. (Grade B)</p> <p>The USPSTF recommends against the routine use of risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, in women who are not at increased risk for breast cancer. (Grade D)</p>
<b>Elevated Blood Lead Levels in Children and Pregnant Women: Screening</b>	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for elevated blood lead levels in asymptomatic children. (I statement)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for elevated blood lead levels in asymptomatic pregnant persons. (I statement)</p>
<b>Interventions to Prevent Child Maltreatment</b>	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. Children with signs or symptoms suggestive of maltreatment should be assessed or reported according to the applicable state laws. (I statement)</p>
<b>Intimate Partner Violence, Elder Abuse and Abuse of Vulnerable Adults</b>	<p>The USPSTF concludes that clinicians screen for intimate partner violence (IPV) in women of reproductive age and provide or refer women who screen positive to ongoing support services. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for abuse and neglect in all older or vulnerable adults. (I statement)</p>
<b>Ocular Prophylaxis for Gonococcal Ophthalmia Neonatorum: Preventive Medication</b>	<p>The USPSTF recommends prophylactic ocular topical medication for all newborns to prevent gonococcal ophthalmia neonatorum. (Grade A)</p>

Topic	Recommendation
<b>Perinatal Depression: Preventive Interventions</b>	The USPSTF recommends that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions. (Grade B)
<b>Pre-Exposure Prophylaxis for the Prevention of HIV Infection</b>	The USPSTF recommends that clinicians offer pre-exposure prophylaxis (PrEP) with effective antiretroviral therapy to persons who are at high risk of HIV acquisition. (Grade A)
<b>Risk Assessment, Genetic Counseling, and Genetic Testing for <i>BRCA</i>-Related Cancer</b>	<p>The USPSTF recommends that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or who have an ancestry associated with breast cancer susceptibility 1 and 2 (<i>BRCA1/2</i>) gene mutations with an appropriate brief familial risk assessment tool. Women with a positive result on the risk assessment tool should receive genetic counseling and, if indicated after counseling, genetic testing. (Grade B)</p> <p>The USPSTF recommends against routine risk assessment, genetic counseling, or genetic testing for women whose personal or family history or ancestry is not associated with potentially harmful <i>BRCA1/2</i> gene mutations. (Grade D)</p>
<b>Screening for Hepatitis B Virus Infection in Pregnant Women</b>	The USPSTF recommends screening for hepatitis B virus (HBV) infection in pregnant women at their first prenatal visit. (Grade A)
<b>Screening for HIV</b>	<p>The USPSTF recommends that clinicians screen for HIV infection in adolescents and adults ages 15 to 65 years. Younger adolescents and older adults who are at increased risk for infection should also be screened. (Grade A)</p> <p>The USPSTF recommends that clinicians screen for HIV infection in all pregnant persons, including those who present in labor or at delivery whose HIV status is unknown. (Grade A)</p>
<b>Screening for Pancreatic Cancer</b>	The USPSTF recommends against screening for pancreatic cancer in asymptomatic adults. (Grade D)
<b>Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions</b>	<p>The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years and older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use. (Grade B)</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening and brief behavioral counseling interventions for alcohol use in primary care settings in adolescents ages 12 to 17 years. (I statement)</p>

## APPENDIX F: 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/Page/Name/reports-to-congress>.

**Appendix F Table.** Prior Annual Reports to Congress

Year	Title	Theme
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



