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High-Priority Evidence Gaps For Clinical Preventive Services

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U.S. PREVENTIVE SERVICES
TASK FORCE

SEVENTH 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 and evidence-based medicine. The Task Force makes evidence-based recommendations about clinical preventive services to improve the health of all Americans (e.g., by improving quality of life and prolonging life). The Task Force comprehensively assesses evidence and makes recommendations about the effectiveness of screening tests, counseling about healthful behaviors, and preventive medications for infants, children, adolescents, adults, older adults, and pregnant women.

The USPSTF is charged by Congress to provide an annual report that identifies the gaps in the scientific evidence base and recommends areas for future research.

In this seventh annual report, the USPSTF calls attention to five clinical preventive services for which the Task Force found that the current evidence was insufficient to make a recommendation in 2016 to 2017 (also known as "I statements"). These include gaps in research on the effectiveness of preventive services for specific age groups; how providing preventive services affects health outcomes; identifying tools to assess people's risk for a specific disease; understanding the cause or progression of a disease that might be prevented; and the effectiveness of treatments for people who are found to have a disease through screening. 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.

Clinical Preventive Services Where More Research Is Needed

1. Screening for Celiac Disease
2. Screening for Obstructive Sleep Apnea in Adults
3. Screening for Gynecologic Conditions With Pelvic Examination
4. Vision Screening in Children Younger Than Age 3 Years
5. Statin Use for the Primary Prevention of Cardiovascular Disease in Adults Age 76 Years and Older

Evidence Gaps Relating to Specific Populations

While the Task Force's recommendations are for all Americans, there is not always evidence available for every population or community. Congress requests that the USPSTF identify evidence gaps that prevent it from making recommendations for specific populations or age groups. In this report, the USPSTF has highlighted the following four key evidence gaps.

1. Screening for Breast Cancer in African American Women
2. Screening for Prostate Cancer in African American Men
3. Screening for Illicit Drug Use in Children and Adolescents
4. Screening for Hearing Loss in Older Adults

The USPSTF hopes that identifying evidence gaps and highlighting them as priority areas for research will inspire public and private researchers to collaborate and target their efforts to generate new knowledge and address important health priorities.

TABLE OF CONTENTS

Appendices

"Representing more than 129,000 primary care physicians and medical students, the American Academy of Family Physicians (AAFP) is dedicated to using and disseminating the important work of the USPSTF to our members. The USPSTF's systematic evidence reviews and recommendation statements are the foundation of our clinical preventive services recommendations for primary care physicians. We applaud the USPSTF for identifying the critical evidence gaps highlighted in this report and hope future research will address these gaps in a timely manner, so our members can bring the best evidence-based knowledge to their work of improving the health of patients, families, and communities."

John Meigs, Jr., MD, FAAFP
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 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 include recommendations on screening tests, counseling about healthful behaviors, 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 key evidence gaps in clinical preventive services.

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 altogether. However, some clinical preventive services can fail to provide the expected benefit or even cause harm. To make informed decisions, health care 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 C** for current members).

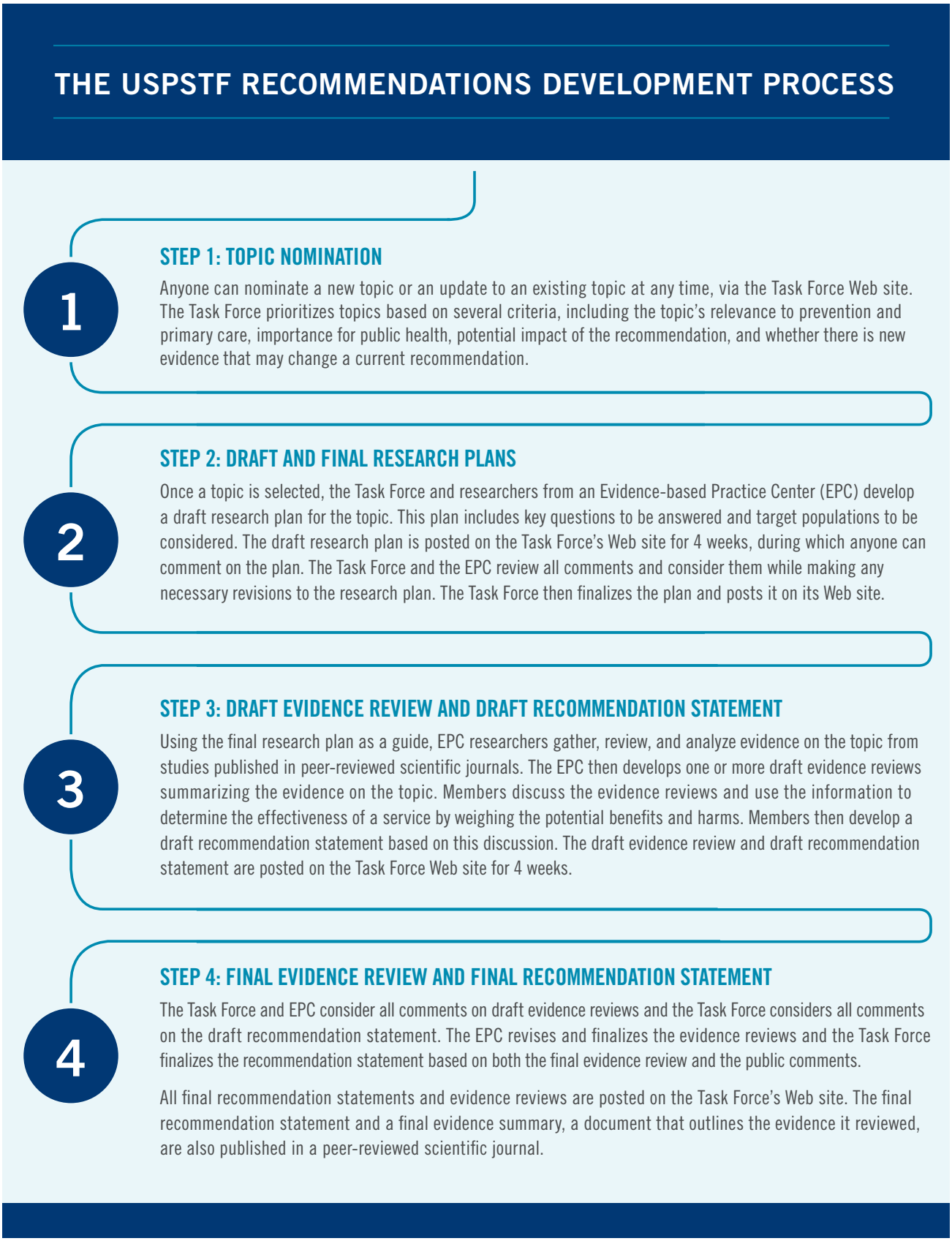
How Does the Task Force Minimize Potential Conflicts of Interest?

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.[1] The process for each member begins prior to appointment, and potential conflicts of interest are reviewed at least four 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 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, or receiving treatment when it is not needed or may not actually improve health (also known as "overdiagnosis" and "overtreatment").

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

Table 1. Meaning of USPSTF Grades

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

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

For each topic, the USPSTF actively seeks input from the public, its partners, and topic experts, including medical specialists, to ensure a focus on important clinical prevention topics for practicing clinicians and to ensure that the evidence relevant to each recommendation is considered.[2] At each step of the recommendation development process, the USPSTF solicits and reviews input. Anyone—the public, USPSTF partners, 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 Web site 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 D** and **E** for a list of partners).
- **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 Web site (www.uspreventiveservicestaskforce.org) contains more information about the Task Force and its methods for developing recommendations, including engaging with experts, partners, and the public. In particular, more details are available on the "About the USPSTF" and "Methods and Processes" pages.

III. CLINICAL PREVENTIVE SERVICES WHERE MORE RESEARCH IS NEEDED

Over the past year, the members of the Task Force continued working on a full portfolio of topics. The current USPSTF library includes 84 preventive service recommendation statements with 132 specific recommendation grades (see **Appendix F** for a complete listing of all current USPSTF recommendations). Many recommendation statements include multiple recommendation grades for different subpopulations. From October 1, 2016 to September 30, 2017, the Task Force accomplished the following:

- Received 18 nominations for new topics and 3 nominations to reconsider or update existing topics
- Posted 13 draft research plans for public comment
- Posted 12 draft recommendation statements and 15 draft evidence reports for public comment
- Published 12 final recommendation statements with 15 recommendation grades in a peer-reviewed journal

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

The USPSTF evidence-based recommendations about clinical preventive services are intended to help improve the health of all Americans. However, significant gaps in the scientific evidence limit the ability of the Task Force to make recommendations to help realize the full benefits of these preventive services.

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 populations 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."** When the USPSTF issues a recommendation for or against providing a service (i.e., an A, B, C, or D grade), it also points out where gaps in the evidence remain. This is described in each recommendation statement in a section called "Research Needs and Gaps."

For this annual report, the USPSTF calls attention to the "I statements" released from October 1, 2016 to September 30, 2017 to highlight where more research is needed (see **Table 2**). These include gaps in research on 1) the effectiveness of preventive services for specific age groups; 2) how providing preventive services affects health outcomes; 3)identifying tools to assess people's risk for a specific disease; 4) understanding the cause or progression of a disease that might be prevented; and 5) the effectiveness of treatments for people who are found to have a disease through screening.

What is an I statement?

When the Task Force issues an I statement, it means that there was not enough evidence at the time to make a recommendation for or against providing the preventive service. An I statement is a call for more research.

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

Table 2. Key Research Gaps for Clinical Preventive Services (October 1, 2016 to September 30, 2017)

Clinical Preventive Services	Gaps Where Research Is Needed
Screening for Celiac Disease	• Evidence about the onset and progression of celiac disease in people without signs or symptoms • Short- and long-term effects of treatment with a gluten-free diet among people at high risk for celiac disease without symptoms • Effectiveness of screening in populations at increased risk for celiac disease
Screening for Obstructive Sleep Apnea (OSA) in Adults	• Development of a risk assessment tool that can determine who will benefit the most from screening for OSA • Effect of screening for OSA on health outcomes (e.g., illness and death) • Evidence about whether improvements in intermediate outcomes (e.g., daytime sleepiness) as a result of early treatment lead to improvements in health outcomes (e.g., illness and death) • Effect of early treatment of OSA on health outcomes (e.g., illness and death)
Screening for Gynecologic Conditions With Pelvic Examination	• Accuracy and effectiveness of screening with pelvic examination to detect a wide range of gynecological conditions • Direct evidence on the benefits and harms of screening with pelvic examination • Effectiveness of risk assessment tools to determine which women would benefit the most from a pelvic examination
Vision Screening in Children Younger Than Age 3 Years	• Effect of treatment on health outcomes in children younger than 3 years • Trial evidence on the benefits and harms of vision screening in children younger than 3 years • Comparison of different screening approaches
Statin Use for the Primary Prevention of Cardiovascular Disease in Adults Age 76 Years and Older	• Benefits and harms of starting statin use for the primary prevention of cardiovascular events in adults age 76 years and older • The association between statin therapy and possible increased incidence of diabetes and cataracts • Underuse of statins among older adults who may benefit and overuse among frail older adults • When to stop prescribing a statin medication that is no longer likely to provide benefit and may cause harms

For studies to adequately address these gaps, 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 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

Screening for Celiac Disease

Celiac disease is an immune disorder; when people with celiac disease eat foods containing gluten (a protein found in wheat, rye, and barley), it damages the inner lining of their small intestine and prevents absorption of necessary nutrients. People who have a family history of celiac disease or have type 1 diabetes are at increased risk for the disease. In studies of U.S. populations, an estimated 0.40% to 0.95% of adults have celiac disease.[3] Prevalence is higher than average among non-Hispanic white people, people with a family history of celiac disease, and people with other autoimmune conditions.[4]

In 2017, the USPSTF concluded that the evidence was insufficient to issue a recommendation on screening for celiac disease in people without signs or symptoms. For the USPSTF to have enough evidence to issue a recommendation in the future, it needs good-quality studies to better understand the following key issues[5]:

- How celiac disease typically develops and progresses, especially among people who test positive for celiac disease through screening but do not have any signs or symptoms
- The short- and long-term effects of treatment with a gluten-free diet among people diagnosed with celiac disease through screening who do not yet have signs or symptoms, particularly people at high risk for celiac disease
- The effectiveness of screening in populations at increased risk for celiac disease, including people with a family history or type 1 diabetes

Screening for Obstructive Sleep Apnea in Adults

Obstructive sleep apnea (OSA) is a sleep disorder in which the airway can narrow and block the flow of air to and from the throat, causing a person to stop breathing many times during sleep. Based on data from the 1990s, the estimated prevalence in the United States is 10.0% for mild OSA and 3.8% to 6.5% for moderate-to-severe OSA.[6-8] Current prevalence may be higher, given the increasing prevalence of obesity, which is a significant risk factor.[9, 10]

In 2017, the USPSTF concluded that the evidence was insufficient to issue a recommendation on screening for sleep apnea in adults without signs or symptoms. To help the USPSTF have enough evidence to issue a recommendation in the future, it needs good-quality studies on the following[11]:

- The development of a risk assessment tool that can determine who would benefit from screening for OSA in primary care
- The effect of screening for OSA on health outcomes (e.g., quality of life, illness, and death) among people without signs or symptoms

- Whether improvements in intermediate outcomes (e.g., daytime sleepiness) as a result of early treatment lead to improvements in health outcomes (e.g., illness and death)
- Understanding the effect of early treatment of OSA on health outcomes (e.g., illness and death)

Screening for Gynecologic Conditions With Pelvic Examination

A pelvic examination assesses women's pelvic organs (vagina, cervix, uterus, fallopian tubes, and ovaries). Many conditions that can affect women's health are often evaluated through pelvic examination, such as gynecological cancers, pelvic inflammatory disease, and uterine fibroids. Although pelvic examinations are a common part of the physical examination, it is unclear whether performing regular screening pelvic examinations in women without symptoms has a significant effect on reducing illness and death.

In 2017, the Task Force found insufficient evidence on screening with pelvic examination for gynecologic conditions other than cervical cancer, gonorrhea, and chlamydia. The USPSTF continues to recommend screening for cervical cancer, gonorrhea, and chlamydia in separate recommendation statements. To help the USPSTF have enough evidence to issue a recommendation on screening with pelvic examination in the future, it needs good-quality studies that do the following[12]:

- Evaluate the accuracy and effectiveness of screening pelvic examination to detect a wide range of gynecological conditions
- Understand the benefits and harms, including quantifiable psychological benefits and harms, of screening with pelvic examination in women without signs or symptoms
- Develop and evaluate the effectiveness of risk assessment tools to determine which women would benefit from a pelvic examination

Vision Screening in Children Younger Than Age 3 Years

Children can experience a variety of conditions that affect their vision, including amblyopia (also known as "lazy eye"), which can lead to permanent vision loss in the affected eye.[13, 14]

In 2017, the Task Force recommended vision screening in children ages 3 to 5 years (B recommendation). However, there was not enough evidence to allow the Task Force to make a recommendation for or against vision screening in children younger than age 3 years. To help the Task Force make a recommendation for this subpopulation in the future, it needs good-quality studies that do the following[15]:

- Examine the effect of treatment on health outcomes (e.g., quality of life and functioning) in children younger than age 3 years
- Examine the benefits and harms of vision screening in children younger than age 3 years
- Compare screening approaches so it is clear which screening test or combination of tests is best for use in primary care settings

Statin Use for the Primary Prevention of Cardiovascular Disease in Adults Age 76 Years and Older

Cardiovascular disease, which includes heart attacks and strokes, is the leading cause of death in the United States, accounting for 1 of every 3 deaths among adults.[16] Statins are a type of medication that work in the liver to prevent the formation of cholesterol. Statins may also protect arteries by reducing inflammation and slowing the buildup of plaque in the arteries.[17]

In 2016, the Task Force issued B and C recommendations on statin use in adults ages 40 to 75 years with specific risk factors, but found the evidence was insufficient to issue a recommendation for adults age 76 years and older without a history of cardiovascular disease. To help the USPSTF have enough evidence to issue a recommendation for this subpopulation in the future, it needs good-quality studies on the following[18]:

- Benefits and harms of starting statin therapy for the primary prevention of cardiovascular events in adults age 76 years and older; currently, there is no trial evidence in this population
  - For example, studies are needed on the potential harms of starting statin therapy in an older adult population who may have multiple chronic conditions and who may be taking many medications with side effects and drug interactions
- The association between statin therapy and possible increased incidence of diabetes and cataracts
- The underuse of statins among older adults who may benefit and the possible overuse among frail older adults who may not experience a benefit
- When to stop prescribing a statin medication that is no longer likely to provide benefit and may cause harms

"The American College of Physicians is the Nation's largest medical-specialty organization, representing more than 152,000 members, including internists, internal medicine specialists, medical students, residents, and fellows. By providing comprehensive, evidence-based preventive service recommendations, the USPSTF helps our members work toward our mission to enhance the delivery of care and improve the health of patients."

Amir Qaseem, MD, PhD, MHA, FACP
Vice President, Clinical Policy
American College of Physicians

IV. EVIDENCE GAPS RELATING TO SPECIFIC POPULATIONS

The USPSTF has established methods that guide how it issues recommendations for specific populations.[19] Several clinical preventive services have been well studied for the general population, but important evidence gaps prevent the USPSTF from making recommendations for specific populations and age groups. This is often because these groups are not well represented in health research. Prime examples of such groups are older adults, children, and racial/ethnic minority groups. Greater inclusion of these populations in research will help the USPSTF issue recommendations that can be used to improve the quality of preventive care for these groups and to eliminate disparities in health care.

There are four research gaps for specific populations for whom the USPSTF believes more research is needed (see **Table 3**). These include gaps for specific racial/ethnic populations and age groups.

Table 3. Key Research Gaps for Specific Populations

Specific Populations and Clinical Preventive Service	Gaps Where Research Is Needed
Screening for Breast Cancer in African American Women	• Benefits and harms of screening for breast cancer in African American women more often or earlier than in the general population • Effect of screening for breast cancer on health outcomes among African American women
Screening for Prostate Cancer in African American Men	• Benefits and harms of screening for prostate cancer in African American men more often or earlier than in the general population • Effect of screening for prostate cancer on health outcomes among African American men • Strategies to minimize harms and maximize benefits of screening, diagnostic followup, and treatment (including active surveillance) in African American men
Screening for Illicit Drug Use in Children and Adolescents	• Tools to measure current and past substance use • Benefits and harms of various behavioral counseling interventions to prevent or stop drug use • Effectiveness of behavioral counseling interventions, with and without parental involvement, and effectiveness of interventions that address drug use in the context of other substances, including tobacco and alcohol
Screening for Hearing Loss in Older Adults	• Benefits and harms of treatment at different ages, including in adults older than age 70 years • Effect of screening for hearing loss on health outcomes among older adults • Benefits and harms of screening adults without recognized symptoms compared with screening and treating those who seek treatment • Specific factors that are associated with increased and sustained use of hearing aids

Specific Racial/Ethnic Groups

Screening for Breast Cancer in African American Women

Despite the fact that white and African American women now have comparable incidence rates of breast cancer,[20] African American women have higher rates of death from breast cancer than white women (about 29 vs. 21 breast cancer deaths per 100,000 women per year, respectively).[21] Disparities may be due in part to differences in underlying disease biology, as well as social issues, such as access to care. African American women are disproportionally affected by more aggressive and treatment-resistant forms of breast cancer. These types of cancer may be least likely to benefit from screening because they can grow so rapidly that they develop and spread between screenings.[22, 23] The difference in death rate may also be due to socioeconomic differences and health system failures. Multiple studies have shown an association between being African American and experiencing delays in receiving health care services for cancer, not receiving appropriate treatment, or not receiving treatment at all.[24-26] African American women are also not well represented in mammography screening trials.

To fill these gaps, the USPSTF needs good-quality studies that do the following[27]:

- Include sufficient numbers of African American women in studies to allow for examination of the effectiveness of screening for breast cancer in African American women
- Determine whether screening for breast cancer in African American women more often or earlier results in more benefit than harm relative to standard screening recommendations for the general population

Screening for Prostate Cancer in African American Men

In the United States, African American men are more likely to develop prostate cancer than white men (189 vs. 113 cases per 100,000 men per year, respectively).[28] African American men are also more than twice as likely as white men to die of prostate cancer (42 vs. 19 deaths per 100,000 men per year, respectively).[29] The higher death rate is due in part to an earlier age at cancer onset, more advanced cancer stage at diagnosis, and higher rates of more aggressive cancer among African American men. The disparity in death from prostate cancer may also reflect lower rates of receipt of high-quality care. However, there is currently no direct evidence that demonstrates whether earlier or more frequent screening offers greater benefits for African American men compared with the general population without increasing harms.[30]

To fill these gaps, the USPSTF needs good-quality studies that do the following[30]:

- Determine whether African American men who are screened for prostate cancer have similar reductions in prostate cancer deaths compared with men in the general population
- Examine the optimal screening frequency, and whether beginning screening before age 55 years provides benefits in African American men
- Understand strategies to minimize harms and maximize benefits of screening, diagnostic followup, and treatment (including active surveillance) in African American men

Specific Age Groups

Screening for Illicit Drug Use in Children and Adolescents

According to a 2015 survey sponsored by the National Institute on Drug Abuse, approximately half of adolescents have abused an illicit drug at least once by the 12th grade.[31] Illicit drug use includes the abuse of illegal drugs and the misuse of prescription medications or household substances.[32] The consequences of drug use include risk for progression to a substance use disorder, an increase in risk-taking behaviors while under the influence (e.g., driving under the influence, unsafe sexual activity, and violence), and lower educational achievement and attainment.[33] It is also a significant contributor to three of the leading causes of death among adolescents—motor vehicle accidents, homicide, and suicide.

Despite this widespread public health problem, evidence on the effects of behavioral interventions in adolescents is limited, and high-quality studies that focus on the role of primary care professionals in preventing initiation of drug use and reducing use among those who have experimented are needed.

The USPSTF issued an I statement on this topic in 2014, and important research gaps remain. More specifically, the USPSTF needs good-quality studies that do the following[33]:

- Develop tools to accurately measure current and past substance use
- Examine the benefits and harms of brief interventions; interventions that link screening with tailored interventions; and social media, cell phone, and Internet-based interventions
- Examine the effectiveness of behavioral counseling interventions, with and without parental involvement, and effectiveness of interventions that address drug use in the context of other substances, including tobacco and alcohol

Screening for Hearing Loss in Older Adults

After high blood pressure and arthritis, hearing loss is the most common chronic health problem in older adults.[34] Based on 2005–2006 data, the estimated prevalence of hearing loss was 63.1% in adults older than age 70 years.[35] Although common, some people may not realize that they have hearing loss because their symptoms are relatively mild or slowly progressive. They may perceive hearing loss but not seek help for it, or they may have difficulty recognizing or reporting hearing loss due to other illnesses or conditions, such as cognitive impairment. Screening could identify people with hearing loss who could benefit from the use of hearing aids or other therapies.[36]

The USPSTF issued an I statement on this topic in 2012, and important research gaps remain. More specifically, the USPSTF needs good-quality studies on the following:[37]

- Benefits and harms of treatment at different ages, including in patients older than age 70 years
- Effect of screening for hearing loss on health outcomes, such as quality of life, communication ability, and emotional, social, and cognitive functioning, particularly among adults without self-perceived or established hearing loss before screening
- Benefits and harms of screening adults without symptoms compared with screening and treating those who seek treatment of perceived hearing impairment
- Knowledge of specific factors that are associated with increased and sustained use of hearing aids

"Championing the importance of prevention, the National Institutes of Health (NIH) Office of Disease Prevention works in collaboration with NIH Institutes and Centers to assess and facilitate research on disease prevention. We look to the Task Force's systematic efforts to identify gaps in prevention research, which help inform our research efforts and investments. Together with the Task Force, our goal is to improve the health of all Americans through evidence-based prevention."

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

V. THE USPSTF IN 2018

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

Develop and Release New Recommendation Statements

- Work on more than 30 topics that are in progress
- Work on 4 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 the National Institutes of Health's Office of Disease Prevention to identify areas that might warrant expanded research efforts to fill evidence gaps
- Prepare an eighth annual report for Congress on high-priority evidence gaps

The National Institutes of Health (NIH) Office of Disease Prevention conducts an annual assessment of NIH-supported research to fill USPSTF evidence gaps. In 2017, there were 1,036 active grants, 338 active funding opportunity announcements, 129 active contracts, and 33 recent meetings, workshops, or conferences underway to address the research gaps in 48 USPSTF "I statements."

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.

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APPENDICES

APPENDIX A: MAJOR ACTIVITIES OF THE USPSTF IN 2016–2017

Over the past year, the members of the Task Force continued working on a full portfolio of topics. It published 12 final recommendation statements with 15 recommendation grades in a peer-reviewed journal between October 1, 2016 and September 30, 2017. For a complete listing of all current USPSTF recommendations, see **Appendix F**.

Appendix A Table. Final Recommendation Statements Published by the USPSTF, October 1, 2016 to September 30, 2017

Topic	Recommendation
Breastfeeding: Primary Care Interventions	The USPSTF recommends providing interventions during pregnancy and after birth to support breastfeeding. (Grade B)
Celiac Disease: Screening	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. (I statement)
Folic Acid for the Prevention of Neural Tube Defects: Preventive Medication	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. (Grade A)
Genital Herpes Infection: Serologic Screening	The USPSTF recommends against routine serologic screening for genital herpes simplex virus infection in asymptomatic adolescents and adults, including those who are pregnant. (Grade D)
Gynecological Conditions: Periodic Screening With the Pelvic Examination	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. (I statement) This statement does not apply to specific disorders for which the USPSTF already recommends screening (i.e., screening for cervical cancer with a Papanicolaou smear, screening for gonorrhea and chlamydia).
Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults Without Known Risk Factors: Behavioral Counseling	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. (Grade C)
Obesity in Children and Adolescents: Screening	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. (Grade B)
Obstructive Sleep Apnea in Adults: Screening	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. (I statement)

Topic	Recommendation
Preeclampsia: Screening	The USPSTF recommends screening for preeclampsia in pregnant women with blood pressure measurements throughout pregnancy. (Grade B)
Statin Use for the Primary Prevention of Cardiovascular Disease in Adults: Preventive Medication	The USPSTF recommends that adults without a history of cardiovascular disease (CVD) (i.e., symptomatic coronary artery disease or ischemic stroke) 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 (i.e., 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. (Grade B) Although statin use may be beneficial for the primary prevention of 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 (i.e., dyslipidemia, diabetes, hypertension, or smoking); and 3) they have a calculated 10-year risk of a cardiovascular event of 7.5% to 10%. (Grade C) 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 CVD events and mortality in adults age 76 years and older without a history of heart attack or stroke. (I statement) *Considerations for Implementation:* 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. 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. *Patient Population Under Consideration:* 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 or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.

Topic	Recommendation
Thyroid Cancer: Screening	The USPSTF recommends against screening for thyroid cancer in asymptomatic adults. (Grade D)
Vision in Children Ages 6 Months to 5 Years: Screening	The USPSTF recommends vision screening at least once in all children ages 3 to 5 years to detect amblyopia or its risk factors. (Grade B) 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. (I statement)

APPENDIX B: 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 Web site at: https://www.uspreventiveservicestaskforce.org/Page/Name/reports-to-congress.

Appendix B Table. Prior Annual Reports to Congress

Year	Title	Theme
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

APPENDIX C: 2017 MEMBERS OF THE USPSTF

David C. Grossman, M.D., M.P.H., Chair

Dr. Grossman is a board-certified pediatrician recognized for his research on clinical preventive services, injury prevention, and Native American health. He is senior investigator at the Kaiser Permanente Washington Health Research Institute, a pediatrician at Kaiser Permanente Washington, and a senior medical director for the Washington Permanente Medical Group. Dr. Grossman is also a professor of health services and adjunct professor of pediatrics at the University of Washington.

Susan J. Curry, Ph.D., Vice Chair

Dr. Curry is interim executive vice president and provost of the University of Iowa, where she also serves as a distinguished professor of health management and policy in the College of Public Health. She is also a member of the National Academy of Medicine. Dr. Curry's many professional activities include past service as dean of the University of Iowa College of Public Health from 2008 to 2017, vice chair of the board of directors of the Truth Initiative, and member of the National Cancer Institute's Board of Scientific Advisors.

Douglas K. Owens, M.D., M.S., Vice Chair

Dr. Owens is a general internist and Associate Director of 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.

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 physician at Massachusetts General Hospital.

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

Dr. Davidson is a vice dean and professor in the Departments of Medicine, Cardiology, and Psychiatry and the director of the Center for Behavioral Cardiovascular Health at Columbia University Medical Center. She is also a psychologist in the Department of Psychiatry at New York Presbyterian Hospital/Columbia University Medical Center.

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

Dr. Doubeni is the chair of the Department of Family Medicine and Community Health, where he holds the Presidential professorship, and an associate professor of epidemiology at the University of Pennsylvania Perelman School of Medicine. He is a senior scholar at the Center for Clinical Epidemiology and Biostatistics and a senior fellow in the Leonard Davis Institute of Health Economics at the University of Pennsylvania.

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, medical director of employee health and wellness for the Carilion Clinic, and maintains an active clinical primary care practice.

Alex R. Kemper, M.D., M.P.H., M.S., Member

Dr. Kemper is a board-certified pediatrician and Chief of the Division of Ambulatory Pediatrics at Nationwide Children's Hospital. Dr. Kemper is also the deputy editor of *Pediatrics*.

Alex H. Krist, M.D., M.P.H., Member

Dr. Krist is a professor of family medicine and population health at Virginia Commonwealth University and 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.

Ann E. Kurth, Ph.D., C.N.M., M.S.N., M.P.H., Member

Dr. Kurth is dean and Linda Koch Lorimer Professor of the Yale School of Nursing. An epidemiologist and certified nurse-midwife, she is a fellow of the National Academy of Medicine and of the Connecticut Academy of Science and Engineering. Dr. Kurth is also an adjunct professor at New York University.

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, MD, and Gerald S. Levey, MD, endowed chair in medicine at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA). She is also professor of public health at the UCLA Fielding School of Public Health and the director of the UCLA/Drew Resource Center for Minority Aging Research/Center for Health Improvement of Minority Elderly.

Maureen G. Phipps, M.D., M.P.H., Member

Dr. Phipps is the department chair and Chace-Joukowsky professor of obstetrics and gynecology and assistant dean for teaching and research in women's health at the Warren Alpert Medical School of Brown University. In addition, she is the chief of obstetrics and gynecology at Women & Infants Hospital of Rhode Island and the executive chief of obstetrics and gynecology at Care New England.

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 and a staff pediatrician 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 Northwestern University Feinberg School of Medicine. She is the founder of 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, an associate 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.

APPENDIX D: 2017 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
Consumers Union
National Association of Pediatric Nurse Practitioners
National Business Group on Health
National Committee for Quality Assurance
Patient-Centered Outcomes Research Institute

APPENDIX E: 2017 FEDERAL LIAISONS

Centers for Disease Control and Prevention
Centers for Medicare & Medicaid Services
Community Preventive Services Task Force
Department of Defense/Military Health System
Department of Veterans Affairs
Food and Drug Administration
Health Resources and Services Administration
Indian Health Service
National Cancer Institute
National Institutes of Health
Office of Disease Prevention and Health Promotion
Substance Abuse and Mental Health Services Administration

APPENDIX F: COMPLETE LISTING OF ALL USPSTF RECOMMENDATIONS AS OF OCTOBER 2017

Grade	Title
A	**Asymptomatic Bacteriuria: Screening in Pregnant Women** The USPSTF recommends screening for asymptomatic bacteriuria with urine culture in pregnant women at 12 to 16 weeks of gestation or at their first prenatal visit, if later.
A	**Cervical Cancer: Screening in Women Ages 21 to 65 Years (Cytology) or 30 to 65 Years (Cytology With HPV Testing)** The USPSTF recommends screening for cervical cancer in women ages 21 to 65 years with cytology (Pap smear) every 3 years or, for women ages 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years.
A	**Colorectal Cancer: Screening in Adults Ages 50 to 75 Years** 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.
A	**Folic Acid to Prevent Neural Tube Defects: Preventive Medication in Women Planning or Capable of Pregnancy** 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.
A	**Gonococcal Ophthalmia Neonatorum: Preventive Medication in Newborns** The USPSTF recommends prophylactic ocular topical medication for all newborns for the prevention of gonococcal ophthalmia neonatorum.
A	**Hepatitis B Virus: Screening in Pregnant Women** The USPSTF recommends screening for hepatitis B virus infection in all pregnant women at their first prenatal visit.
A	**High Blood Pressure: Screening in Adults** 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.
A	**HIV: Screening in Adolescents and Adults Ages 15 to 65 Years** The USPSTF recommends screening for HIV infection in adolescents and adults ages 15 to 65 years. Younger adolescents and older adults who are at increased risk should also be screened.
A	**HIV: Screening in Pregnant Women** The USPSTF recommends screening for HIV infection in all pregnant women, including those who present in labor who are untested and whose HIV status is unknown.
A	**Rh(D) Incompatibility: Screening in All Pregnant Women** The USPSTF strongly recommends Rh(D) blood typing and antibody testing for all pregnant women during their first visit for pregnancy-related care.
A	**Syphilis: Screening in Nonpregnant Adolescents and Adults** The USPSTF recommends screening for syphilis infection in persons who are at increased risk for infection.

Grade	Title
A	**Syphilis: Screening in Pregnant Women** The USPSTF recommends screening for syphilis infection in all pregnant women.
A	**Tobacco Smoking Cessation: Behavioral and Pharmacotherapy Interventions in Nonpregnant Adults** 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.
A	**Tobacco Smoking Cessation: Behavioral Interventions in Pregnant Women** 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.
B	**Abdominal Aortic Aneurysm: Screening in Men Ages 65 to 75 Years Who Have Ever Smoked** The USPSTF recommends one-time screening for abdominal aortic aneurysm with ultrasonography in men ages 65 to 75 years who have ever smoked.
B	**Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening in Adults** 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. 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.
B	**Alcohol Misuse: Screening and Behavioral Counseling Interventions in Adults** The USPSTF recommends screening for alcohol misuse in adults age 18 years and older and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse.
B	**Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Ages 50 to 59 Years** 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.
B	**Aspirin to Prevent Morbidity and Mortality From Preeclampsia: Preventive Medication in Pregnant Women** 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.
B	**BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing in Women at Increased Risk** The USPSTF recommends screening in women who have family members with breast, ovarian, tubal, or peritoneal cancer with one of several screening tools designed to identify a family history that may be associated with an increased risk for potentially harmful mutations in breast cancer susceptibility genes (*BRCA1* or *BRCA2*). Women with positive screening results should receive genetic counseling and, if indicated after counseling, BRCA testing.

Grade	Title
B	**Breast Cancer: Preventive Medication in Women at Increased Risk** The USPSTF recommends that clinicians engage in shared, informed decisionmaking with women who are at increased risk for breast cancer about medications to reduce their risk. For women who are at increased risk for breast cancer and at low risk for adverse medication effects, clinicians should offer to prescribe risk-reducing medications, such as tamoxifen or raloxifene.
B	**Breast Cancer: Screening With Mammography in Women Ages 50 to 74 Years*** The USPSTF recommends biennial screening mammography in women ages 50 to 74 years. This recommendation applies to asymptomatic women age 40 years or 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 *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.
B	**Breastfeeding: Interventions in Pregnant Women and New Mothers** The USPSTF recommends providing interventions during pregnancy and after birth to support breastfeeding.
B	**Chlamydia: Screening in Women** 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.
B	**Dental Caries: Preventive Medication in Children Age 5 Years and Younger** 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.
B	**Dental Caries: Preventive Medication in Children Age 5 Years and Younger Whose Water Supply Is Deficient in Fluoride** 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.
B	**Depression: Screening in Children and Adolescents Ages 12 to 18 Years** 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.
B	**Depression: Screening in Adults** 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.
B	**Falls Prevention: Interventions and Preventive Medication in Older Adults** The USPSTF recommends exercise or physical therapy and vitamin D supplementation to prevent falls in community-dwelling adults age 65 years and older who are at increased risk for falls. No single recommended tool or brief approach can reliably identify older adults at increased risk for falls, but several reasonable and feasible approaches are available for primary care clinicians.

* 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 http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening-2002).

Grade	Title
B	**Gestational Diabetes Mellitus: Screening in Pregnant Women After 24 Weeks of Gestation** The USPSTF recommends screening for gestational diabetes mellitus in asymptomatic pregnant women after 24 weeks of gestation.
B	**Gonorrhea: Screening in Women** 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.
B	**Healthful Diet and Physical Activity to Prevent Cardiovascular Disease: Behavioral Counseling Interventions in Adults With Risk Factors** 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.
B	**Hepatitis B Virus: Screening in Nonpregnant Adolescents and Adults** The USPSTF recommends screening for hepatitis B virus infection in persons who are at high risk for infection.
B	**Hepatitis C Virus: Screening in Adults at High Risk** 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.
B	**Intimate Partner Violence: Screening in Women of Childbearing Age** The USPSTF recommends that clinicians screen women of childbearing age for intimate partner violence, such as domestic violence, and provide or refer women who screen positive to intervention services.
B	**Latent Tuberculosis Infection: Screening in Adults** The USPSTF recommends screening for latent tuberculosis infection in populations at increased risk.
B	**Lung Cancer: Screening in Adults Ages 55 to 80 Years** 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.
B	**Obesity: Screening and Behavioral Counseling Interventions in Adults** The USPSTF recommends screening for obesity in all adults. Clinicians should offer or refer patients with a body mass index of 30 kg/m^2 or greater to intensive, multicomponent behavioral interventions.
B	**Obesity: Screening in Children and Adolescents Age 6 Years and Older** 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.
B	**Osteoporosis: Screening in Women Age 65 Years and Older** The USPSTF recommends screening for osteoporosis in women age 65 years and older and in younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors.

Grade	Title
B	**Preeclampsia: Screening in Pregnant Women** The USPSTF recommends screening for preeclampsia in pregnant women with blood pressure measurements throughout pregnancy.
B	**Rh(D) Incompatibility: Screening in Unsensitized Rh(D)-Negative Pregnant Women** 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.
B	**Sexually Transmitted Infections: Behavioral Counseling Interventions in Adolescents and Adults at Increased Risk** The USPSTF recommends intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections.
B	**Skin Cancer: Behavioral Counseling Interventions in Children, Adolescents, and Adults Ages 10 to 24 Years** The USPSTF recommends counseling children, adolescents, and young adults ages 10 to 24 years who have fair skin about minimizing their exposure to ultraviolet radiation to reduce risk for skin cancer.
B	**Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Ages 40 to 75 Years With No History of CVD, One or More CVD Risk Factors, and a Calculated 10-Year CVD Event Risk of 10% or Greater** 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. *Considerations for Implementation:* 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. 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. *Patient Population Under Consideration:* 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 or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.

Grade	Title
B	**Tobacco Use: Behavioral Counseling Interventions in Children and Adolescents** 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.
B	**Visual Impairment: Screening in Children Ages 3 to 5 Years** The USPSTF recommends vision screening at least once in all children ages 3 to 5 years to detect amblyopia or its risk factors.
C	**Abdominal Aortic Aneurysm: Screening in Men Ages 65 to 75 Years Who Have Never Smoked** 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.
C	**Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Ages 60 to 69 Years** 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.
C	**Breast Cancer: Screening With Mammography in Women Ages 40 to 49 Years*** 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. • 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. • 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. • 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. This recommendation applies to asymptomatic women age 40 years or 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 *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.

* 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 http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening-2002).

Grade	Title
C	**Colorectal Cancer: Screening in Adults Ages 76 to 85 Years** 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. • Adults in this age group who have never been screened for colorectal cancer are more likely to benefit. • 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.
C	**Falls Prevention: Multifactorial Risk Assessment in Older Adults** The USPSTF does not recommend automatically performing an in-depth multifactorial risk assessment in conjunction with comprehensive management of identified risks to prevent falls in community-dwelling adults age 65 years and older because the likelihood of benefit is small. 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 the circumstances of prior falls, comorbid medical conditions, and patient values.
C	**Healthful Diet and Physical Activity to Prevent Cardiovascular Disease: Behavioral Counseling Interventions in Adults Without Risk Factors** 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.

Grade	Title
C	**Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Ages 40 to 75 Years With No History of CVD, One or More CVD Risk Factors, and a Calculated 10-Year CVD Event Risk of 7.5% to 10%** 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%. *Considerations for Implementation:* 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. 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. *Patient Population Under Consideration:* 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 or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.
D	**Abdominal Aortic Aneurysm: Screening in Women Who Have Never Smoked** The USPSTF recommends against routine screening for abdominal aortic aneurysm in women who have never smoked.
D	**Asymptomatic Bacteriuria: Screening in Men and Nonpregnant Women** The USPSTF recommends against screening for asymptomatic bacteriuria in men and nonpregnant women.
D	**Bacterial Vaginosis: Screening in Pregnant Women at Low Risk for Preterm Delivery** The USPSTF recommends against screening for bacterial vaginosis in asymptomatic pregnant women who are at low risk for preterm delivery.

Grade	Title
D	**Beta-Carotene and Vitamin E to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults** The USPSTF recommends against the use of beta-carotene or vitamin E supplements for the prevention of cardiovascular disease or cancer.
D	**BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing in Women Not at Increased Risk** The USPSTF recommends against routine genetic counseling or BRCA testing in women whose family history is not associated with an increased risk for potentially harmful mutations in the *BRCA1* or *BRCA2* genes.
D	**Breast Cancer: Preventive Medication in Women Not at Increased Risk** The USPSTF recommends against the routine use of medications, such as tamoxifen or raloxifene, for risk reduction of primary breast cancer in women who are not at increased risk for breast cancer.
D	**Carotid Artery Stenosis: Screening in Adults** The USPSTF recommends against screening for asymptomatic carotid artery stenosis in the general adult population.
D	**Cervical Cancer: Screening in Women Older Than Age 65 Years** 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.
D	**Cervical Cancer: Screening in Women Who Have Had a Hysterectomy** The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and who do not have a history of a high-grade precancerous lesion (cervical intraepithelial neoplasia grade 2 or 3) or cervical cancer.
D	**Cervical Cancer: Screening in Women Younger Than Age 21 Years** The USPSTF recommends against screening for cervical cancer in women younger than age 21 years.
D	**Cervical Cancer: Screening With HPV Testing in Women Younger Than Age 30 Years** The USPSTF recommends against screening for cervical cancer with human papillomavirus (HPV) testing, alone or in combination with cytology, in women younger than age 30 years.
D	**Chronic Obstructive Pulmonary Disease: Screening in Adults** The USPSTF recommends against screening for chronic obstructive pulmonary disease in asymptomatic adults.
D	**Coronary Heart Disease: Screening With Electrocardiography in Adults at Low Risk** The USPSTF recommends against screening with resting or exercise electrocardiography for the prediction of coronary heart disease events in asymptomatic adults at low risk for such events.
D	**Genital Herpes: Serologic Screening in Adolescents and Adults** The USPSTF recommends against routine serologic screening for genital herpes simplex virus infection in asymptomatic adolescents and adults, including those who are pregnant.

Grade	Title
D	**Hormone Therapy With Combined Estrogen and Progestin: Preventive Medication in Postmenopausal Women** The USPSTF recommends against the use of combined estrogen and progestin for the prevention of chronic conditions in postmenopausal women. This recommendation applies only to postmenopausal women who are considering hormone therapy for the primary prevention of chronic medical conditions. This is not a recommendation about the use of hormone therapy to treat menopausal symptoms, such as hot flashes or vaginal dryness; the USPSTF did not review the evidence related to this possible indication because it falls outside of the mission and scope of the USPSTF. This recommendation also does not apply to women younger than age 50 years who have had surgical menopause.
D	**Hormone Therapy With Estrogen: Preventive Medication in Postmenopausal Women Who Have Had a Hysterectomy** The USPSTF recommends against the use of estrogen for the prevention of chronic conditions in postmenopausal women who have had a hysterectomy. This recommendation applies only to postmenopausal women who are considering hormone therapy for the primary prevention of chronic medical conditions. This is not a recommendation about the use of hormone therapy to treat menopausal symptoms, such as hot flashes or vaginal dryness; the USPSTF did not review the evidence related to this possible indication because it falls outside of the mission and scope of the USPSTF. This recommendation also does not apply to women younger than age 50 years who have had surgical menopause.
D	**Idiopathic Scoliosis: Screening in Adolescents** The USPSTF recommends against routine screening for idiopathic scoliosis in asymptomatic adolescents.
D	**Lead: Screening in Children Ages 1 to 5 Years at Average Risk** The USPSTF recommends against routine screening for elevated blood lead levels in asymptomatic children ages 1 to 5 years who are at average risk.
D	**Lead: Screening in Pregnant Women** The USPSTF recommends against routine screening for elevated blood lead levels in asymptomatic pregnant women.
D	**Ovarian Cancer: Screening in Women** The USPSTF recommends against screening for ovarian cancer in asymptomatic women.
D	**Pancreatic Cancer: Screening in Adults** The USPSTF recommends against routine screening for pancreatic cancer in asymptomatic adults with abdominal palpation, ultrasonography, or serologic markers. *Rationale:* The USPSTF found no evidence that screening for pancreatic cancer is effective in reducing mortality. There is a potential for significant harm due to the very low prevalence of pancreatic cancer, limited accuracy of available screening tests, the invasive nature of diagnostic tests, and the poor outcomes of treatment. As a result, the USPSTF concluded that the harms of screening for pancreatic cancer exceed any potential benefits.
D	**Prostate Cancer: Prostate-Specific Antigen-Based Screening in Men** The USPSTF recommends against prostate-specific antigen-based screening for prostate cancer.

Grade	Title
D	**Testicular Cancer: Screening in Adolescents and Adults** The USPSTF recommends against screening for testicular cancer in adolescent or adult men.
D	**Thyroid Cancer: Screening in Adults** The USPSTF recommends against screening for thyroid cancer in asymptomatic adults.
D	**Vitamin D and Calcium to Prevent Fractures: Low-Dose Preventive Medication in Postmenopausal Women** 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 noninstitutionalized, postmenopausal women.
I	**Abdominal Aortic Aneurysm: Screening in Women Ages 65 to 75 Years Who Have Ever Smoked** 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.
I	**Abuse and Neglect: Screening in Elderly or Vulnerable Adults** 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 elderly or vulnerable (physically or mentally dysfunctional) adults.
I	**Alcohol Misuse: Screening and Behavioral Counseling Interventions in Adolescents** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening and behavioral counseling interventions in primary care settings in adolescents to reduce alcohol misuse.
I	**Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Age 70 Years and Older** 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.
I	**Aspirin to Prevent Cardiovascular Disease and Colorectal Cancer: Preventive Medication in Adults Younger Than Age 50 Years** 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.
I	**Autism Spectrum Disorder: Screening in Young Children** 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 the disorder have been raised by their parents or a clinician.
I	**Bacterial Vaginosis: Screening in Pregnant Women at High Risk for Preterm Delivery** 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.

Grade	Title
I	**Bladder Cancer: Screening in Adults** 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.
I	**Breast Cancer: Adjunctive Screening in Women With Dense Breasts*** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of adjunctive screening for breast cancer with breast ultrasonography, magnetic resonance imaging, digital breast tomosynthesis, or other methods in women identified to have dense breasts on an otherwise negative screening mammogram. This recommendation applies to asymptomatic women age 40 years or 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 *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.
I	**Breast Cancer: Screening in Women Age 75 Years and Older*** 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. This recommendation applies to asymptomatic women age 40 years or 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 *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.
I	**Breast Cancer: Screening With Digital Breast Tomosynthesis*** 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. This recommendation applies to asymptomatic women age 40 years or 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 *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age.
I	**Celiac Disease: Screening in Children, Adolescents, and Adults** 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.
I	**Child Maltreatment: Interventions in Primary Care** 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. The recommendation applies to children who do not have signs or symptoms of maltreatment.
I	**Chlamydia and Gonorrhea: Screening in Men** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydia and gonorrhea in men.
I	**Chronic Kidney Disease: Screening in Adults** The USPSTF concludes that the evidence is insufficient to assess the balance of benefits and harms of routine screening for chronic kidney disease in asymptomatic adults.

*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	**Cognitive Impairment: Screening in Older Adults** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for cognitive impairment.
I	**Coronary Heart Disease: Screening With Electrocardiography in Adults at Intermediate or High Risk** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening with resting or exercise electrocardiography for the prediction of coronary heart disease events in asymptomatic adults who are at intermediate or high risk for such events.
I	**Coronary Heart Disease: Screening With Nontraditional Risk Factors in Adults** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of using the nontraditional risk factors studied to screen asymptomatic men and women with no history of coronary heart disease to prevent coronary heart disease events. The nontraditional risk factors included in this recommendation are high-sensitivity C-reactive protein, ankle-brachial index, leukocyte count, fasting blood glucose level, periodontal disease, carotid intima-media thickness, coronary artery calcification score on electron-beam computed tomography, homocysteine level, and lipoprotein(a) level.
I	**Dental Caries: Screening in Children Age 5 Years and Younger** 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.
I	**Depression: Screening in Children Age 11 Years and Younger** 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.
I	**Drug Use, Illicit: Behavioral Interventions in Children and Adolescents** 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. This recommendation applies to children and adolescents who have not already been diagnosed with a substance use disorder.
I	**Drug Use, Illicit: Screening in Adolescents, Adults, and Pregnant Women** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for illicit drug use in adolescents, adults, and pregnant women.
I	**Gestational Diabetes Mellitus: Screening in Pregnant Women Before 24 Weeks of Gestation** 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.
I	**Glaucoma: Screening in Adults** 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.

Grade	Title
I	**Gynecological Conditions: Screening With the Pelvic Examination** 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. This statement does not apply to specific disorders for which the USPSTF already recommends screening (screening for cervical cancer with a Pap smear, screening for gonorrhea and chlamydia).
I	**Hearing Loss: Screening in Adults Age 50 Years and Older** 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.
I	**High Blood Pressure: Screening in Children and Adolescents** 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.
I	**Hip Dysplasia: Screening in Infants** The USPSTF concludes that the evidence is insufficient to recommend routine screening for developmental dysplasia of the hip in infants.
I	**Iron Deficiency Anemia: Preventive Medication in Pregnant Women** 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.
I	**Iron Deficiency Anemia: Screening in Children Ages 6 to 24 Months** 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.
I	**Iron Deficiency Anemia: Screening in Pregnant Women** 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.
I	**Lead: Screening in Children Ages 1 to 5 Years at Increased Risk** The USPSTF concludes that the evidence is insufficient to recommend for or against routine screening for elevated blood lead levels in asymptomatic children ages 1 to 5 years who are at increased risk.
I	**Lipid Disorders: Screening in Children and Adolescents Age 20 Years and Younger** 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.
I	**Multivitamins to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults** 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.

Grade	Title
I	**Nutrient Supplements to Prevent Cancer and Cardiovascular Disease: Preventive Medication in Adults** 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.
I	**Obstructive Sleep Apnea: Screening in Adults** 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.
I	**Oral Cancer: Screening in Adults** 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.
I	**Osteoporosis: Screening in Men** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis in men.
I	**Peripheral Artery Disease and Cardiovascular Disease: Screening With Ankle-Brachial Index in Adults** 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 assessment with the ankle-brachial index in adults.
I	**Skin Cancer: Behavioral Counseling Interventions in Adults Older Than Age 24 Years** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of counseling adults older than age 24 years about minimizing risks to prevent skin cancer.
I	**Skin Cancer: Screening in Adults** 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.
I	**Speech and Language Delay and Disorders: Screening in Children Age 5 Years and Younger** 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.

Grade	Title
I	**Statins to Prevent Cardiovascular Disease: Preventive Medication in Adults Age 76 Years and Older With No History of CVD** 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. *Considerations for Implementation:* 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. 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. *Patient Population Under Consideration:* 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 or known familial hypercholesterolemia; these persons are considered to have very high cholesterol levels and may require statin use.
I	**Suicide Risk: Screening in Adolescents, Adults, and Older Adults** 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.
I	**Thyroid Dysfunction: Screening in Adults** 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.
I	**Tobacco Smoking Cessation: Electronic Nicotine Delivery Systems in Adults, Including Pregnant Women** 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.
I	**Tobacco Smoking Cessation: Pharmacotherapy Interventions in Pregnant Women** 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.

Grade	Title
I	**Visual Impairment: Screening in Adults Age 65 Years and Older** 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.
I	**Visual Impairment: Screening in Children Younger Than Age 3 Years** 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.
I	**Vitamin D and Calcium to Prevent Fractures: High-Dose Preventive Medication in Postmenopausal Women** The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of daily supplementation with greater than 400 IU of vitamin D and greater than 1,000 mg of calcium for the primary prevention of fractures in noninstitutionalized, postmenopausal women.
I	**Vitamin D and Calcium to Prevent Fractures: Preventive Medication in Premenopausal Women** The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of combined vitamin D and calcium supplementation for the primary prevention of fractures in premenopausal women.
I	**Vitamin D and Calcium to Prevent Fractures: Preventive Medication in Men** The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of combined vitamin D and calcium supplementation for the primary prevention of fractures in men.
I	**Vitamin D Deficiency: Screening in Adults** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for vitamin D deficiency in asymptomatic adults.

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