

Screening for Syphilis Infection During Pregnancy

US Preventive Services Task Force Reaffirmation Recommendation Statement

US Preventive Services Task Force

IMPORTANCE Untreated syphilis infection during pregnancy can be passed to the fetus, causing congenital syphilis. Congenital syphilis is associated with premature birth, low birth weight, stillbirth, neonatal death, and significant abnormalities in the infant such as deformed bones, anemia, enlarged liver and spleen, jaundice, brain and nerve problems (eg, permanent vision or hearing loss), and meningitis. In 2023, there were 3882 cases of congenital syphilis in the US, including 279 congenital syphilis-related stillbirths and neonatal/infant deaths, the highest number reported in more than 30 years.

OBJECTIVE The US Preventive Services Task Force (USPSTF) commissioned a reaffirmation evidence update focused on the benefits and harms of screening for syphilis infection in pregnancy.

POPULATION Adolescents and adults who are pregnant.

EVIDENCE ASSESSMENT The USPSTF concludes with high certainty that screening for syphilis infection in pregnancy has a substantial net benefit.

RECOMMENDATION The USPSTF recommends early, universal screening for syphilis infection during pregnancy; if an individual is not screened early in pregnancy, the USPSTF recommends screening at the first available opportunity. (A recommendation)

JAMA. doi:10.1001/jama.2025.5009
Published online May 13, 2025.

- + Editorial
- + Related article and JAMA Patient Page
- + Supplemental content
- + CME at jamacmelookup.com

Group Information: The US Preventive Services Task Force (USPSTF) members are listed at the end of this article.

Corresponding Author: Michael Silverstein, MD, MPH, Brown University, Hassenfeld Child Health Innovation Institute, 121 South Main St, Providence, RI 02903 (chair@uspstf.net).

Summary of Recommendation

Population	Recommendation	Grade
Asymptomatic pregnant women	The USPSTF recommends early, universal screening for syphilis infection during pregnancy; if an individual is not screened early in pregnancy, the USPSTF recommends screening at the first available opportunity.	A

USPSTF indicates US Preventive Services Task Force.

See the Summary of Recommendation figure.

Pathway to Benefit

To achieve the benefit of screening, it is important that screening occur as early in pregnancy as possible and that everyone with abnormal syphilis test results receive timely, evidence-based evaluation and treatment.

Mission Statement

The US Preventive Services Task Force (USPSTF) works to improve the health of people nationwide by making evidence-based recommendations on effective ways to prevent disease and prolong life.

Importance

Syphilis is an infection that is primarily sexually transmitted. Untreated syphilis infection during pregnancy can be passed to the fetus, causing congenital syphilis. Congenital syphilis is associated with premature birth, low birth weight, stillbirth, neonatal death, and significant abnormalities in the infant such as deformed bones, anemia, enlarged liver and spleen, jaundice, brain and nerve problems (eg, permanent vision or hearing loss), and meningitis.¹ In 2023, there were 3882 cases of congenital syphilis in the US, including 279 congenital syphilis-related stillbirths and neonatal/infant deaths,² the highest number reported in more than 30 years.

Rates of new syphilis cases have continued to rise over the past 3 decades, especially in women. Although men account for the majority of syphilis cases, the change in incidence among women was 2 to 4 times higher than that among men between 2017 and 2021.³ Consequently, cases of congenital syphilis have also increased. Congenital syphilis increased more than 10-fold over a recent decade, from 334 cases in 2012 to 3882 cases in 2023.^{2,4} It is estimated that almost 90% of new congenital syphilis cases could have been prevented with timely testing and treatment.⁴

Certain racial and ethnic groups in the US are disproportionately affected by syphilis. Based on 2023 sexually transmitted infection surveillance data from the Centers for Disease Control and Prevention (CDC), congenital syphilis rates were 9.3 cases per 100 000 live births in Asian women, 222.0 cases per 100 000 live births in Black women, 125.0 cases per 100 000 live births in Hispanic or Latina women, 680.8 cases per 100 000 live births in Native American/Alaska Native women, 295.6 live births per 100 000 live births in Native Hawaiian/Pacific Islander women, 82.2 cases per 100 000 live births in multiracial women, and 57.3 cases per 100 000 live births in White women.⁵ Reviews of medical, public health, and social science literature have reported that social context and disparities in social factors such as poverty, neighborhood opportunities, incarceration rates, segregation, and ratio of men to women may influence sexual behavior and sexual networks, likely contributing to the observed racial disparities in sexually transmitted infection rates.⁶⁻⁸

USPSTF Assessment of Magnitude of Net Benefit

In 2018, the US Preventive Services Task Force (USPSTF) reviewed the evidence for screening for syphilis infection in asymptomatic pregnant women and issued an A recommendation.⁹ The USPSTF has decided to use a reaffirmation deliberation process to update this recommendation. The USPSTF uses the reaffirmation process for well-established, evidence-based standards of practice in current primary care practice for which only a very high level of evidence would justify a change in the grade of the recommendation.¹⁰

Table 1. Summary of USPSTF Rationale

Rationale	Assessment
Detection	The USPSTF found adequate evidence that tests are available that can accurately detect syphilis infection during pregnancy.
Benefits of early detection and intervention and treatment	The USPSTF found convincing evidence that early universal screening for syphilis infection during pregnancy reduces the incidence of congenital syphilis and the adverse outcomes of pregnancy associated with maternal infection.
Harms of early detection and intervention and treatment	Screening for syphilis infection during pregnancy may result in potential harms, including false-positive or discordant results that require additional clinical evaluation and anxiety associated with the initial screening and clarification of questionable results. Harms of intervention include adverse effects such as an allergy to treatment medications or the Jarisch-Herxheimer reaction from treatment with antibiotic medications. However, the USPSTF concluded that these harms are no greater than small.
USPSTF assessment	Using a reaffirmation process, the USPSTF concludes with high certainty that the net benefit of screening for syphilis infection during pregnancy is substantial.

Abbreviation: USPSTF, US Preventive Services Task Force.

In its deliberation of the evidence, the USPSTF considers whether the new evidence is of sufficient strength and quality to change its previous conclusions about the evidence.

Using a reaffirmation process, the USPSTF concludes with high certainty that screening for syphilis infection in pregnancy has a **substantial net benefit**.

See Table 1 for more information on the USPSTF recommendation rationale and assessment and the eFigure in the Supplement for information on the recommendation grade. See the Figure for a summary of the recommendation for clinicians. For more details on the methods the USPSTF uses to determine the net benefit, see the USPSTF Procedure Manual.¹⁰

Practice Considerations

Patient Population Under Consideration

This recommendation applies to all adolescents and adults who are pregnant, whether or not risk factors for syphilis are present.

Screening Tests

Screening for syphilis involves a blood test that detects antibodies that may reflect infection with *Treponema pallidum*, the organism that causes syphilis. Treponemal tests, such as the *T pallidum* particle agglutination (TP-PA) test, detect an antibody response to antigens specific to *T pallidum*.¹¹ Nontreponemal tests, such as the Venereal Disease Research Laboratory or rapid plasma reagin test, detect antibodies that may reflect tissue damage from *T pallidum* infection or tissue damage from other conditions that can cause the release of lipoidal antigens. Because of high false-positive rates associated with nontreponemal tests alone, especially in pregnancy, a 2-step process is used to improve diagnostic accuracy. A *traditional screening algorithm* is a 2-step process that begins with a nontreponemal test (eg, Venereal Disease Research Laboratory or rapid plasma reagin) followed by a confirmatory treponemal test (eg, TP-PA) for persons with positive nontreponemal test results. A *reverse sequence algorithm* uses an automated treponemal test

Figure. Clinician Summary: Screening for Syphilis Infection During Pregnancy

What does the USPSTF recommend?	For pregnant women: Provide early, universal screening for syphilis infection during pregnancy; if someone is not screened early in pregnancy, screen at the first available opportunity. Grade A
To whom does this recommendation apply?	This recommendation applies to all adolescents and adults who are pregnant, whether or not risk factors for syphilis are present.
What's new?	This recommendation is consistent with the 2018 USPSTF recommendation.
How to implement this recommendation?	<ul style="list-style-type: none"> Perform screening as early in pregnancy as possible, when a pregnant patient first presents to care. If early screening was not done, screening should occur at the first opportunity, even if that is at presentation for delivery. Screening should include both a treponemal and nontreponemal test.
What additional information should clinicians know?	The Centers for Disease Control and Prevention (CDC), Women's Preventive Services Initiative (WPSI), American Academy of Pediatrics (AAP), and American College of Obstetricians and Gynecologists (ACOG) recommend initial screening for syphilis infection in all pregnant women at their first prenatal visit, even if previously tested. ACOG recommends universal rescreening during the third trimester and at birth and the CDC, WPSI, and AAP recommend rescreening at 28 weeks of gestation and again at delivery in women at high risk for acquiring syphilis.
Why is this recommendation and topic important?	<ul style="list-style-type: none"> Untreated syphilis infection during pregnancy can be passed to the fetus, causing congenital syphilis. Congenital syphilis is associated with premature birth, low birth weight, stillbirth, neonatal death, and significant abnormalities in the infant such as deformed bones, anemia, enlarged liver and spleen, jaundice, brain and nerve problems (eg, permanent vision or hearing loss), and meningitis. In 2023, there were 3882 cases of congenital syphilis in the US, including 279 congenital syphilis-related stillbirths and neonatal/infant deaths, the highest number reported in more than 30 years. Certain racial and ethnic groups in the US are disproportionately affected by syphilis. In 2023, congenital syphilis rates were: <ul style="list-style-type: none"> 9.3 cases per 100 000 live births in Asian women 222.0 cases per 100 000 live births in Black women 125.0 cases per 100 000 live births in Hispanic/Latina women 680.8 cases per 100 000 live births in Native American/Alaska Native women 295.6 live births per 100 000 live births in Native Hawaiian/Pacific Islander women 82.2 cases per 100 000 live births in multiracial women 57.3 cases per 100 000 live births in White women
What are other relevant USPSTF recommendations?	The USPSTF has issued a recommendation on screening for syphilis in nonpregnant adolescents and adults, available at https://www.uspreventiveservicestaskforce.org/uspstf/
What are additional tools and resources?	A list of state prenatal syphilis screening laws and regulations (https://www.cdc.gov/syphilis/hcp/prenatal-screening-laws/index.html) and county-level data on syphilis infection rates (https://www.cdc.gov/sti-statistics/county-level-syphilis-data/) are available from the CDC. The CDC also provides multilingual materials for patients on syphilis prenatal screening (https://www.cdc.gov/sti/php/communication-resources/syphilis-prenatal-screening-protect-your-baby.html).
Where to read the full recommendation statement?	Visit the USPSTF website (https://www.uspreventiveservicestaskforce.org/uspstf/) or the JAMA website (https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force) to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation.

(eg, enzyme-linked or chemiluminescence immunoassay) for the initial screening, followed by a nontreponemal test for reactive samples. Discordant results in the reverse sequence are resolved with a second confirmatory treponemal test (TP-PA preferred). The automated processes used in reverse sequence may be appropriate for high-volume laboratories.^{1,11}

Point-of-care tests for antibodies to *T pallidum* are available that can be performed in a clinical setting or at home using fingerstick blood samples that do not require laboratory processing.¹² It is unclear how results from these tests alone, without additional confirmatory testing, should guide treatment decisions.

Screening Timing and Intervals

All pregnant women should be tested for syphilis when they first present to care. Screening for syphilis should occur as early in pregnancy as possible. If early testing is not done, testing should occur at the first opportunity, which could be as late as at admission for delivery. A recent analysis of national data from 2022 found that 5% of congenital syphilis cases (197/3761 cases) occurred in late pregnancy after having had a negative syphilis screening result earlier in pregnancy.⁴ Similar to the disparities seen in the burden of syphilis, 40.6% of these cases occurred in Black women, 28.4% occurred in Hispanic or Latina women, and 19.8% occurred in White women.⁴

Some retrospective studies estimate that 25% to 50% of congenital syphilis cases could be prevented by repeat screening in the third trimester of pregnancy.¹³⁻¹⁵ The CDC,¹⁶ Women's Preventive Services Initiative (WPSI),¹⁷ American Academy of Pediatrics (AAP),¹⁸ and American College of Obstetricians and Gynecologists (ACOG)¹⁹ recommend repeat screening in the early third trimester (approximately 28 weeks of gestation) and again at delivery; however, these organizations differ in whether they recommend repeat screening for all pregnant women¹⁹ or just for those at high risk for syphilis infection. Women at high risk for syphilis infection include those who live in high-prevalence areas; have a history of HIV, incarceration, or multiple sexual partners; engage in sex in combination with drug use or commercial sex work; or are experiencing homelessness.^{16,18} Clinicians should be aware of the prevalence of syphilis infection in the communities they serve and state mandates for syphilis screening. Most states mandate screening for syphilis in all pregnant women at the first prenatal visit, and some mandate repeat screening early in the third trimester and at delivery.²⁰

Treatment

The CDC recommends parenteral penicillin G as the only treatment with documented efficacy during pregnancy. Treatment protocols are specific to the stage of syphilis infection, with later-stage infection requiring longer duration of treatment. When syphilis is diagnosed during the second half of pregnancy, management should include a sonographic fetal evaluation for signs of congenital syphilis. Pregnant women with a penicillin allergy should be desensitized and then treated with penicillin. Approximately 10% of patients report a penicillin allergy, although the number of patients who are truly allergic may be much smaller.^{16,21,22} Clinicians are encouraged to refer to the CDC's "Sexually Transmitted Infection Treatment Guidelines" for the most up-to-date treatment guidance.¹⁶

Additional Tools and Resources

A list of state prenatal syphilis screening laws and regulations (<https://www.cdc.gov/syphilis/hcp/prenatal-screening-laws/index.html>) and county-level data on syphilis infection rates (<https://www.cdc.gov/sti-statistics/county-level-syphilis-data/>) are available from the CDC. The CDC also provides multilingual materials for patients on syphilis prenatal screening (<https://www.cdc.gov/sti/php/communication-resources/syphilis-prenatal-screening-protect-your-baby.html>).

Other Related USPSTF Recommendations

The USPSTF has issued recommendations on screening for syphilis in adults and adolescents who are not pregnant,²³ as well as screening for other sexually transmitted infections, including chlamydia and gonorrhea,²⁴ hepatitis B virus,^{25,26} genital herpes,²⁷ and HIV.²⁸ The USPSTF has also issued a recommendation on counseling to prevent sexually transmitted infections.²⁹ Current versions of these and other related USPSTF recommendations are available at <https://www.uspreventiveservicestaskforce.org/uspstf/>.

Reaffirmation of Previous USPSTF Recommendation

This recommendation is a reaffirmation of the USPSTF 2018 reaffirmation recommendation statement. In 2018, the USPSTF reviewed the evidence for screening for syphilis infection during pregnancy

and found that the benefits of screening substantially outweighed the harms.⁹ The USPSTF found no new substantial evidence that could change its recommendation and, therefore, reaffirms its recommendation to screen for syphilis infection during pregnancy.

Supporting Evidence

Scope of Review

To reaffirm its recommendation, the USPSTF commissioned a reaffirmation evidence update. The aim of the evidence update that supports the reaffirmation process is to identify "new and substantial evidence sufficient enough to justify a change in the grade of the recommendation."¹⁰ The reaffirmation update focused on key questions on the benefits and harms of screening for syphilis infection in adolescents and adults who are pregnant.

Benefits of Early Detection and Treatment

The USPSTF found no new evidence that was inconsistent with the previously established benefits of screening for syphilis infection during pregnancy. No new studies were identified that evaluated the effectiveness of screening to decrease congenital syphilis rates or improve maternal health outcomes.^{1,30} Evidence from previous reviews³¹ demonstrates fewer adverse pregnancy outcomes among pregnant women screened and treated for syphilis infection compared with those not treated. Treatment appears to be more beneficial when provided earlier rather than later in pregnancy.³¹ A 2014 systematic review of 54 observational studies found that the incidence of congenital syphilis, preterm birth, low birth weight, stillbirth, and neonatal death was dramatically reduced in pregnant women treated for syphilis during pregnancy compared with those who had untreated syphilis.³² The reduction in stillbirth and fetal loss was much smaller when treatment did not occur until the third trimester. The USPSTF previously reviewed evidence on the effects of implementing a free syphilis screening and treatment program for all pregnant women living in Shenzhen, China, from 2002 to 2012 (n = 2 441 237).³³ During follow-up, screening uptake increased from 89.8% to 97.2%, and the congenital syphilis case rate decreased from 109.3 to 9.4 cases per 100 000 live births. During the same time, the incidence of adverse pregnancy outcomes decreased from 42.7% to 19.2%, and the incidence of stillbirth or fetal loss decreased from 19.0% to 3.3%.

Harms of Screening and Treatment

Potential harms of screening for and treatment of syphilis infection include false-positive or discordant results from screening that require clinical evaluation, unnecessary anxiety to the patient, and harms of antibiotic medication use for treatment. The current reaffirmation review identified 5 studies (51 118 participants) that evaluated the harms of screening and 2 studies (130 participants) that evaluated the harms of treatment.^{1,30} The 5 studies³⁴⁻³⁸ that evaluated the harms of screening were all conducted in the US (1 study was conducted in the US and Argentina³⁸) and reported on false-positive rates of a single screening test. All 5 of these studies included participants from a variety of racial and ethnic backgrounds; however, only 2 studies^{34,38} reported this information for their full study cohort. Black participants ranged from 18% to 67%, White participants ranged from 5% to 20%, and "Other"

participants ranged from 0.2% to 13%. One of the studies additionally reported including 3% Asian participants and 75% Hispanic participants.³⁴ Two studies, conducted in Canada and Brazil, reported on the harms of treatment, which included rates of Jarisch-Herxheimer reactions (an acute, febrile reaction that often includes body aches, tachycardia, hypotension, and rash and can occur within the first 24 hours of antibiotic treatment of a spirochete infection^{16,39}) and immediate hypersensitivity reactions to penicillin.^{40,41}

For treatment harms, 1 small study (n = 39) reported that 5.1% of patients receiving penicillin therapy experienced Jarisch-Herxheimer reactions.⁴⁰ A second small study (n = 91) evaluated an algorithm to help guide penicillin desensitization among pregnant patients with syphilis who had a clinical history of immediate hypersensitivity reaction to penicillin.⁴¹ Among patients considered at high risk for an immediate hypersensitivity reaction, 27.3% experienced it after oral desensitization and 2.5% experienced it after intravenous desensitization; 2.5% of patients considered at low risk for an immediate hypersensitivity reaction experienced it after penicillin provocation. Overall, the USPSTF found this evidence consistent with the previously known harms of syphilis screening and treatment during pregnancy.

Response to Public Comments

A draft version of this recommendation statement was posted for public comment on the USPSTF website from November 19 to December 23, 2024. A few comments were received asking that the USPSTF align with recommendations from other organizations and recommend repeat screening later in pregnancy. The USPSTF acknowledges that the recent rise of congenital syphilis cases is concerning and is dedicated to finding evidence-based strategies to prevent congenital syphilis. Due to limited available evidence, the USPSTF was not able to assess the effectiveness of screening more than once during pregnancy and is not making a recommendation for or against repeat screening. The USPSTF is calling for more research on the effectiveness of repeat screening during pregnancy and highlights this in the Research Needs and Gaps section. The USPSTF also describes other organizations' approaches to repeat screening in the Practice Considerations section and Recommendations of Others section. Some comments also sought clarity on the specific time point when screening should be performed. Although a specific time point for screening could not be identified through the evidence, the USPSTF found that generally, reductions in congenital syphilis rates were greater when treatment was completed earlier in pregnancy rather than later. However, benefits were still seen when screening and treatment occurred later in pregnancy. Thus, the USPSTF recommends that screening occur as early in pregnancy as possible, even when this may be late in pregnancy or at delivery. This has been clarified in

Table 2. Research Needs and Gaps for Screening for Syphilis Infection During Pregnancy

To fulfill its mission to improve health by making evidence-based recommendations for preventive services, the USPSTF routinely highlights the most critical evidence gaps for making actionable preventive services recommendations. The USPSTF often needs additional evidence to create the strongest recommendations for everyone and especially for persons with the greatest burden of disease. This table summarizes key bodies of evidence needed for the USPSTF to make recommendations for screening for syphilis infection during pregnancy. For additional information and detail on research needed to address these evidence gaps, see the Research Gaps Taxonomy table on the USPSTF website (https://www.uspreventiveservicestaskforce.org/home/getfilebytoken/nfP93-Hva3bvxxkvk8StTgm).
Screening for Syphilis Infection During Pregnancy
Studies evaluating the benefits and harms of repeat screening later in pregnancy.
Studies evaluating the benefits and harms of screening strategies during pregnancy that include rapid point-of-care tests.
Studies evaluating interventions to reduce congenital syphilis rates in populations experiencing high burdens of disease.
Research evaluating disparities in congenital syphilis incidence and syphilis screening rates during pregnancy across populations.

Abbreviations: USPSTF, US Preventive Services Task Force.

the recommendation. Last, a few comments sought clarification on who should be screened for syphilis during pregnancy. The USPSTF recommends universal syphilis screening in *all* adolescents and adults who are pregnant, whether or not risk factors for syphilis are present. Clarifying language has been added to the Practice Considerations section.

Research Needs and Gaps

See **Table 2** for research needs and gaps related to screening for syphilis infection during pregnancy.

Recommendations of Others

This recommendation statement is consistent with those of other professional and public health organizations. The CDC,¹⁶ WSPI,¹⁷ AAP,¹⁸ and ACOG¹⁹ recommend initial screening for syphilis infection in all pregnant women at their first prenatal visit, even if previously tested. ACOG¹⁹ recommends universal rescreening during the third trimester and at birth and the CDC,¹⁶ WPSI,¹⁷ and AAP¹⁸ recommend rescreening at 28 weeks of gestation and again at delivery in women at high risk for acquiring syphilis. AAP¹⁸ and ACOG¹⁹ also recommend repeat screening after exposure to an infected partner. The American Academy of Family Physicians supports the 2018 USPSTF recommendation on screening for syphilis infection in pregnant women.⁴²

ARTICLE INFORMATION

Accepted for Publication: March 26, 2025.

Published Online: May 13, 2025.
doi:10.1001/jama.2025.5009

The US Preventive Services Task Force (USPSTF) Members: Michael Silverstein, MD, MPH; John B. Wong, MD; Esa M. Davis, MD, MPH; David Chelminow, MD; Tumaini Rucker Coker, MD, MBA;

Alicia Fernandez, MD; Ericka Gibson, MD, MPH; Carlos Roberto Jaén, MD, PhD, MS; Marie Krousel-Wood, MD, MSPH; Sei Lee, MD, MAS; Wanda K. Nicholson, MD, MPH, MBA; Goutham Rao, MD; John M. Ruiz, PhD; James Stevermer, MD, MSPH; Joel Tsevat, MD, MPH; Sandra Millon Underwood, PhD, RN; Sarah Wiehe, MD, MPH.

Affiliations of The US Preventive Services Task Force (USPSTF) Members: Brown University,

Providence, Rhode Island (Silverstein); Tufts University School of Medicine, Boston, Massachusetts (Wong); University of Maryland School of Medicine, Baltimore (Davis); Virginia Commonwealth University, Richmond (Chelminow); University of Washington, Seattle (Coker); University of California, San Francisco (Fernandez); Kaiser Permanente, Atlanta, Georgia (Gibson); The University of Texas Health Science Center,

San Antonio (Jaén, Tsevat); Tulane University, New Orleans, Louisiana (Krousel-Wood); University of California, San Francisco (Lee); George Washington University, Washington, DC (Nicholson); Case Western Reserve University, Cleveland, Ohio (Rao); University of Arizona, Tucson (Ruiz); University of Missouri, Columbia (Stevermer); University of Wisconsin, Milwaukee (Underwood); Indiana University, Bloomington (Wiehe).

Author Contributions: Dr Silverstein had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. The USPSTF members contributed equally to the recommendation statement.

Conflict of Interest Disclosures: Authors followed the policy regarding conflicts of interest described at <https://uspreventiveservicestaskforce.org/uspstf/about-uspstf/conflict-interest-disclosures>. All members of the USPSTF receive travel reimbursement and an honorarium for participating in USPSTF meetings. Dr Lee reported receiving grants from the National Institute on Aging (K24AGO66998, R01AGO79982) outside the submitted work. No other disclosures were reported.

Funding/Support: The USPSTF is an independent, voluntary body. The US Congress mandates that the Agency for Healthcare Research and Quality (AHRQ) support the operations of the USPSTF.

Role of the Funder/Sponsor: AHRQ staff assisted in the following: development and review of the research plan, commission of the systematic evidence review from an Evidence-based Practice Center, coordination of expert review and public comment of the draft evidence report and draft recommendation statement, and the writing and preparation of the final recommendation statement and its submission for publication. AHRQ staff had no role in the approval of the final recommendation statement or the decision to submit for publication.

Disclaimer: Recommendations made by the USPSTF are independent of the US government. They should not be construed as an official position of AHRQ or the US Department of Health and Human Services.

Additional Contributions: We thank Tina Fan, MD, MPH (AHRQ), who contributed to the writing of the manuscript, and Lisa Nicolella, MA (AHRQ), who assisted with coordination and editing.

Additional Information: Published by JAMA®—Journal of the American Medical Association under arrangement with the Agency for Healthcare Research and Quality (AHRQ). ©2025 AMA and United States Government, as represented by the Secretary of the Department of Health and Human Services (HHS), by assignment from the members of the United States Preventive Services Task Force (USPSTF). All rights reserved.

REFERENCES

1. Asher GN, Viswanathan M, Takyi A, Middleton JC, Baker C, Kahwati LC. *Screening for Syphilis Infection in Pregnancy: A Limited Systematic Evidence Review Update for the US Preventive Services Task Force. Evidence Synthesis No. 243.* Agency for Healthcare Research and Quality; 2025. AHRQ publication 24-05317-EF-1.

2. Centers for Disease Control and Prevention. National overview of STIs in 2023. Published November 12, 2024. Accessed March 17, 2025. <https://www.cdc.gov/sti-statistics/annual/summary.html>
3. Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2021. Published July 2021. Accessed March 17, 2025. https://www.cdc.gov/sti-statistics/media/pdfs/2024/07/2021-STD-Surveillance-Report-PDF_ARCHIVED-2-16-24.pdf
4. McDonald R, O'Callaghan K, Torrone E, et al. Vital Signs: missed opportunities for preventing congenital syphilis—United States, 2022. *MMWR Morb Mortal Wkly Rep.* 2023;72(46):1269-1274. doi:10.15585/mmwr.mm7246e1
5. Centers for Disease Control and Prevention. Sexually transmitted infections surveillance 2023: congenital syphilis. Accessed March 17, 2025. <https://www.cdc.gov/sti-statistics/annual/slides.html>
6. Adimora AA, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *J Infect Dis.* 2005; 191(suppl 1):S115-S122. doi:10.1086/425280
7. Thomas JC, Thomas KK. Things ain't what they ought to be: social forces underlying racial disparities in rates of sexually transmitted diseases in a rural North Carolina county. *Soc Sci Med.* 1999;49(8):1075-1084. doi:10.1016/S0277-9536(99)00197-5
8. Hogben M, Leichter JS. Social determinants and sexually transmitted disease disparities. *Sex Transm Dis.* 2008;35(12)(suppl):S13-S18. doi:10.1097/OLQ.0b013e31818d3cad
9. US Preventive Services Task Force. Screening for syphilis infection in pregnant women: US Preventive Services Task Force reaffirmation recommendation statement. *JAMA.* 2018;320(9):911-917. doi:10.1001/jama.2018.11785
10. US Preventive Services Task Force. US Preventive Services Task Force Procedure Manual. Published May 2021. Accessed March 17, 2025. <https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/procedure-manual>
11. Papp JR, Park IU, Fakile Y, Pereira L, Pillay A, Bolan GA. CDC laboratory recommendations for syphilis testing, United States, 2024. *MMWR Recomm Rep.* 2024;73(1):1-32. doi:10.15585/mmwr.rr7301a1
12. US Food and Drug Administration. FDA marketing authorization enables increased access to first step of syphilis diagnosis. Published August 16, 2024. Accessed March 17, 2025. <https://www.fda.gov/news-events/press-announcements/fda-marketing-authorization-enables-increased-access-first-step-syphilis-diagnosis>
13. Slutsker JS, Hennessy RR, Schillinger JA. Factors contributing to congenital syphilis cases—New York City, 2010-2016. *MMWR Morb Mortal Wkly Rep.* 2018;67(39):1088-1093. doi:10.15585/mmwr.mm6739a3
14. Sykes KJ, Scranton RA, Villarreal L, Anderson BV, Salek S, Stall J. Using surveillance data to respond to an outbreak of congenital syphilis in Arizona through third-trimester screening policies, 2017-2018. *Public Health Rep.* 2021;136(1):61-69. doi:10.1177/0033354920967350

15. Matthias JM, Rahman MM, Newman DR, Peterman TA. Effectiveness of prenatal screening and treatment to prevent congenital syphilis, Louisiana and Florida, 2013-2014. *Sex Transm Dis.* 2017;44(8):498-502. doi:10.1097/OLQ.0000000000000638
16. Workowski KA, Bachmann LH, Chan PA, et al. Sexually transmitted infections treatment guidelines, 2021. *MMWR Recomm Rep.* 2021;70(4):1-187. doi:10.15585/mmwr.rr7004a1
17. Women's Preventive Services Initiative. Recommendations for well-woman care: 2024 clinical summary tables. Accessed March 17, 2025. <https://www.womenspreventivehealth.org/wp-content/uploads/FINAL-WPSI-Clinical-Summary-Tables-2024.pdf>
18. AAP Committee on the Fetus and Newborn and ACOG Committee on Obstetric Practice. *Guidelines for Perinatal Care.* 8th ed. American Academy of Pediatrics; 2017.
19. American College of Obstetricians and Gynecologists. Practice advisory: screening for syphilis in pregnancy. Published April 2024. Accessed March 17, 2025. <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2024/04/screening-for-syphilis-in-pregnancy>
20. Centers for Disease Control and Prevention. State statutory and regulatory language regarding prenatal syphilis screenings in the United States. Published July 25, 2024. Accessed March 17, 2025. <https://www.cdc.gov/syphilis/media/pdfs/2024/07/Prenatal-Syphilis-Screening-Laws-Web-Document-25-July-2024-final.pdf>
21. Centers for Disease Control and Prevention. Clinical features of penicillin allergy. Accessed March 17, 2025. <https://www.cdc.gov/antibiotic-use/hcp/clinical-signs/index.html>
22. Joint Task Force on Practice Parameters; American Academy of Allergy, Asthma and Immunology; American College of Allergy, Asthma and Immunology; Joint Council of Allergy, Asthma and Immunology. Drug allergy: an updated practice parameter. *Ann Allergy Asthma Immunol.* 2010;105(4):259-273. doi:10.1016/j.anaai.2010.08.002
23. US Preventive Services Task Force. Screening for syphilis infection in nonpregnant adolescents and adults: US Preventive Services Task Force reaffirmation recommendation statement. *JAMA.* 2022;328(12):1243-1249. doi:10.1001/jama.2022.15322
24. US Preventive Services Task Force. Screening for chlamydia and gonorrhea: US Preventive Services Task Force recommendation statement. *JAMA.* 2021;326(10):949-956. doi:10.1001/jama.2021.14081
25. US Preventive Services Task Force. Screening for hepatitis B virus infection in pregnant women: US Preventive Services Task Force reaffirmation recommendation statement. *JAMA.* 2019;322(4):349-354. doi:10.1001/jama.2019.9365
26. US Preventive Services Task Force. Screening for hepatitis B virus infection in adolescents and adults: US Preventive Services Task Force recommendation statement. *JAMA.* 2020;324(23):2415-2422. doi:10.1001/jama.2020.22980
27. US Preventive Services Task Force. Serologic screening for genital herpes infection: US Preventive Services Task Force reaffirmation

recommendation statement. *JAMA*. 2023;329(6):502-507. doi:10.1001/jama.2023.0057

28. US Preventive Services Task Force. Screening for HIV infection: US Preventive Services Task Force recommendation statement. *JAMA*. 2019;321(23):2326-2336. doi:10.1001/jama.2019.6587

29. US Preventive Services Task Force. Behavioral counseling interventions to prevent sexually transmitted infections: US Preventive Services Task Force recommendation statement. *JAMA*. 2020;324(7):674-681. doi:10.1001/jama.2020.13095

30. Asher GN, Viswanathan M, Takyi A, Middleton JC, Baker C, Kahwati LC. Screening for syphilis infection during pregnancy: updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. Published online May 13, 2025. doi:10.1001/jama.2025.1179

31. Lin JS, Eder M, Bean S. *Screening for Syphilis Infection in Pregnant Women: A Reaffirmation Evidence Update for the US Preventive Services Task Force*. Evidence Synthesis No. 167. Agency for Healthcare Research and Quality; 2018. AHRQ publication 18-05238-EF-1.

32. Qin J, Yang T, Xiao S, Tan H, Feng T, Fu H. Reported estimates of adverse pregnancy outcomes among women with and without syphilis: a systematic review and meta-analysis. *PLoS One*. 2014;9(7):e102203. doi:10.1371/journal.pone.0102203

33. Qin JB, Feng TJ, Yang TB, et al. Synthesized prevention and control of one decade for mother-to-child transmission of syphilis and determinants associated with congenital syphilis and adverse pregnancy outcomes in Shenzhen, South China. *Eur J Clin Microbiol Infect Dis*. 2014;33(12):2183-2198. doi:10.1007/s10096-014-2186-8

34. Adhikari EH, Frame IJ, Hill E, et al. Abbott ARCHITECT syphilis TP chemiluminescent immunoassay accurately diagnoses past or current syphilis in pregnancy. *Am J Perinatol*. 2020;37(1):112-118. doi:10.1055/s-0039-3400994

35. Chen MW, Akinboyo IC, Sue PK, et al. Evaluating congenital syphilis in a reverse sequence testing environment. *J Perinatol*. 2019;39(7):956-963. doi:10.1038/s41372-019-0387-9

36. Williams JEP, Bazan JA, Turner AN, et al. Reverse sequence syphilis screening and discordant results in pregnancy. *J Pediatr*. 2020;219:263-266.e1. doi:10.1016/j.jpeds.2019.11.035

37. Zofkie AC, Seasely AR, Gaffney D, et al. Syphilis immunoassay signal strength correlates with active infection in pregnant women. *Am J Perinatol*. 2020;37(7):671-678. doi:10.1055/s-0039-3402748

38. Christenson RH, Lessig M, Miles G, Luebcke S, Stillions C, Jones P. Evaluation of the Elecsys syphilis immunoassay for detection of syphilis in

populations at risk of disease in the US and Argentina. *J Appl Lab Med*. 2018;3(1):89-99. doi:10.1373/jalm.2017.024943

39. Dhakal A, Sbar E. Jarisch-Herxheimer reaction. Updated April 24, 2023. Accessed March 17, 2025. <https://www.ncbi.nlm.nih.gov/books/NBK557820/>

40. Macumber S, Singh AE, Gratrix J, et al. Retrospective cohort study of the incidence and outcomes of Jarisch-Herxheimer reactions after treatment of infectious syphilis in late pregnancy. *Sex Transm Dis*. 2022;49(10):e107-e109. doi:10.1097/OLQ.0000000000001610

41. Garcia JFB, Aun MV, Motta AA, Castells M, Kalil J, Giavina-Bianchi P. Algorithm to guide re-exposure to penicillin in allergic pregnant women with syphilis: efficacy and safety. *World Allergy Organ J*. 2021;14(6):100549. doi:10.1016/j.waojou.2021.100549

42. American Academy of Family Physicians. Clinical preventive service recommendation: syphilis. Accessed October 24, 2024. <https://www.aafp.org/family-physician/patient-care/clinical-recommendations/all-clinical-recommendations/syphilis.html>