

Women's Health

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UPDATED

It's back — nearly eliminated syphilis rates are increasing

While the world's attention has been focused on the SARS-CoV-2 pandemic since early 2020, an “ancient” disease, also known as the great pretender because its symptoms can mimic many other diseases, continued to spread, reaching levels not seen in decades. Prior to the emergence of SARS-CoV-2, the United States was in the midst of a precipitous rise in syphilis, along with other common sexually transmitted infections. Since reaching a historic low in 2000 and 2001, the rate of primary and secondary syphilis has increased almost every year.¹ Between 2014 and 2018, reported cases of primary and secondary syphilis rose 71%, and during 2018–2019 rose an additional 11.2%.^{1,2} Reported cases of congenital syphilis (infection of a fetus in utero) rose 185% between 2014 and 2018, during 2018–2019 rose an additional 41.4%, and continued to rise in 2020.^{1,2}

Figure 1. Increasing rates of syphilis 2010 and 2019, United States¹

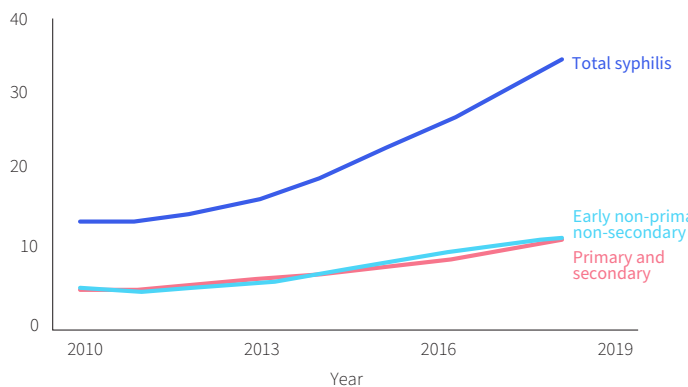
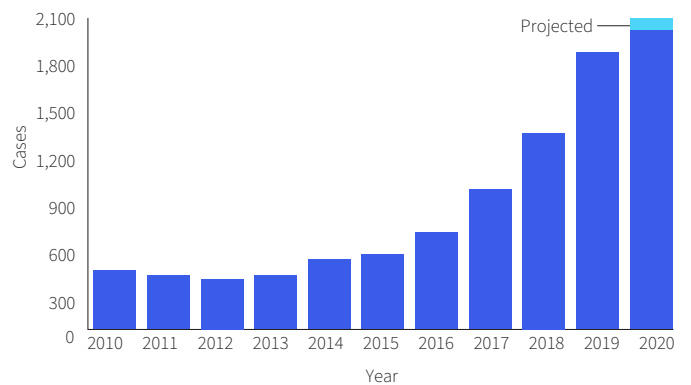


Figure 2. Increasing rates of congenital syphilis, United States³



* Reported and projected 2020 congenital syphilis data are preliminary as of July 29, 2021.

In response to the rising incidence of these STIs, the Department of Health and Human Services released the STI National Strategic Plan: 2021–2025. The plan outlined 5 high level goals and several specific objectives to address the rising prevalence of STIs in the United States. Achieving each goal, listed in Table 1, requires integration and coordination between relevant stakeholders, including patients, clinicians, public health authorities, laboratories and pharmaceutical and medical device developers.⁴

Table 1. High Level Goals and Objectives of the STI National Strategic Plan

Goal Focus	
1	Prevent New STIs
2	Improve the Health of People by Reducing Adverse Outcomes of STIs
3	Accelerate Progress in STI Research, Technology and Innovation
4	Reduce STI — Related Health Disparities and Health Inequities
5	Achieve Integrated, Coordinated Efforts that Address the STI Epidemic

The availability of accurate diagnostics with clear interpretive guidance is important to fulfill the objectives of the STI National Strategic Plan: 2021–2025. Below, we summarize the current state of diagnostics for syphilis and the guidance for interpreting results.

Syphilis

Syphilis, caused by the bacterium *Treponema pallidum* (*T. pallidum*) has been divided into stages on the basis of clinical symptoms:⁵

- Primary syphilis: classic single painless ulcer or chancre at the site of infection or multiple, atypical or painful lesions
- Secondary syphilis: skin rash, mucocutaneous lesions distant from the primary lesion, and lymphadenopathy
- Latent syphilis: absence of clinical symptoms, early latent is infection that occurred within the past 12 months, late latent is infection that occurred more than 12 months prior
- Tertiary syphilis: can affect multiple organ systems including the heart, brain nerves, eyes, livers, etc.

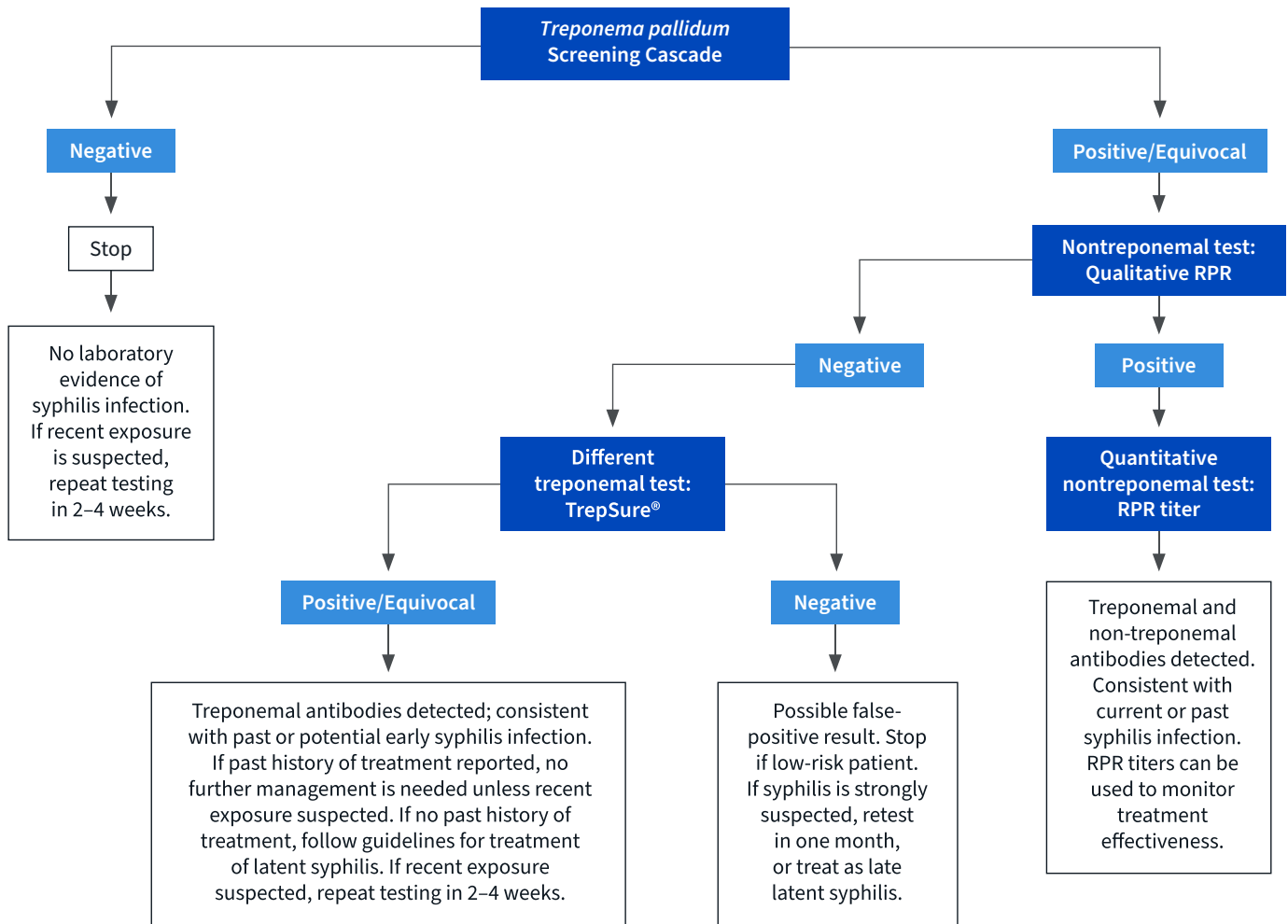
In 2019, there were 129, 813 reported cases of syphilis in the U.S., including 38,992 cases of primary and secondary syphilis, the most infectious stages of the disease.⁵ All regions of the U.S. are experiencing increased rates of syphilis infection. The populations disproportionately impacted are men who have sex with men (MSM), pregnant people, and racial and ethnic minorities. While rates of primary and secondary syphilis are lower among women, rates have increased in recent years with a 178.6% increase noted during 2015–2019 suggesting an accelerating heterosexual syphilis epidemic.¹ The increased rate in women is especially concerning as it is concurrent with a significant increase in the rate of congenital syphilis cases.

Congenital Syphilis

Concomitant with the increasing rates of syphilis in women of reproductive age, the rate of congenital syphilis reported in the U.S. has consistently increased since 2015 with 1,870 cases reported in 2019, and 2,022 cases reported in 2020.³ Congenital syphilis can result in significant negative outcomes including miscarriage, stillbirth, prematurity, low birth weight, or death shortly after birth. Babies born with congenital syphilis can experience deformed bones, severe anemia, jaundice, enlarged liver and spleen, blindness or deafness, and skin rashes.⁶

Reverse algorithm

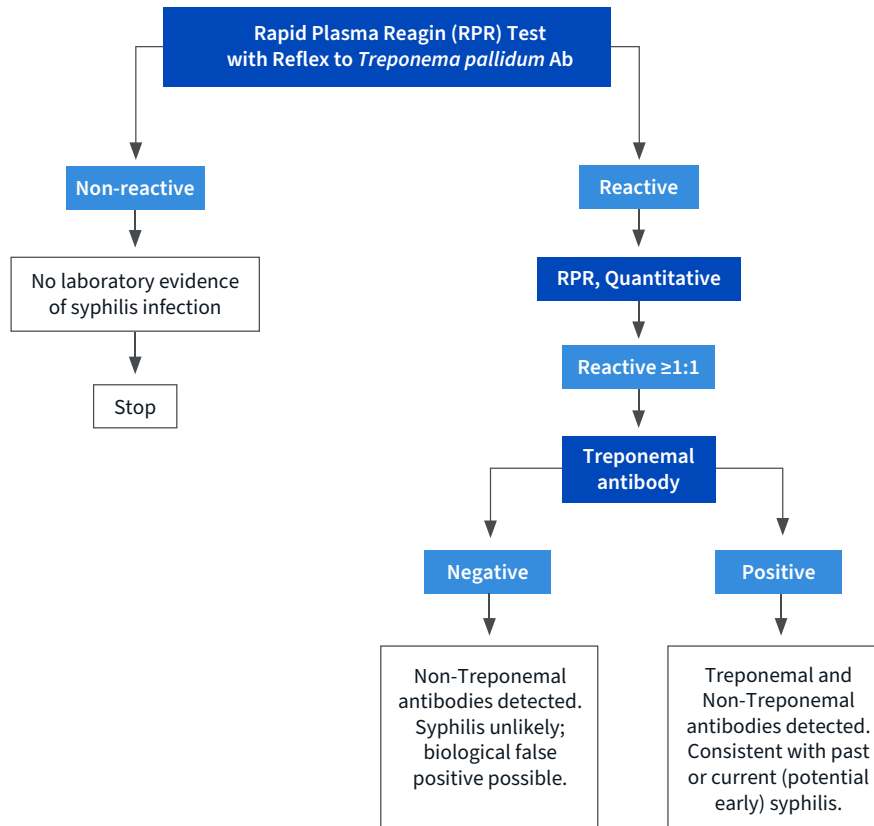
The reverse algorithm can identify persons previously treated for syphilis, those with untreated or incompletely treated syphilis and those with false-positive nontreponemal results that can occur.



Test Name	Test Results	Actions
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Traditional cascade

Syphilis is a treatable disease and negative outcomes can be avoided with timely diagnosis and treatment. The development of opportunities for direct to consumer and/or point of care testing for syphilis may help to remove barriers to testing in the future.



Test Name	Test Results	Actions
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Labcorp is proud to be at the forefront for offering a comprehensive suite of STI testing options. For more information on test options and how our STI portfolio can support the goals of the STI National Strategic Plan: 2021–2025, [click here](#).

January Health Awareness Calendar

- Cervical Health Awareness Month
- National Birth Defects Prevention Month



View [past editions](#) of Labcorp's Women's Health Newsletter

References

1. National Overview — Sexually Transmitted Disease Surveillance, 2019. <https://www.cdc.gov/std/statistics/2019/overview.htm#Syphilis>. Accessed December 17, 2021.
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4. Sexually Transmitted Infections National Strategic Plan for the United States | 2021–2025. <https://www.hhs.gov/programs/topic-sites/sexually-transmitted-infections/plan-overview/toolkit/index.html>. Accessed August 18, 2021.
5. Syphilis – CDC Fact Sheet (Detailed). <https://www.cdc.gov/std/syphilis/stdfact-syphilis-detailed.htm>. Accessed December 12, 2021.
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7. Sexually Transmitted Diseases (STDs) — Provider Pocket Guides — Syphilis Pocket Guide for Providers. <https://www.cdc.gov/std/products/provider-pocket-guides.htm>. Accessed December 12, 2021.