Recommendations to Address the Sustained Increase in Syphilis Infections in South Carolina

Summary

1. Consistent with the national trend, a sustained increase in reported syphilis and congenital syphilis cases is occurring in South Carolina (S.C.).
2. Provisional S.C. surveillance data suggests an increase in rates of primary and secondary (P&S) syphilis, early latent syphilis and congenital syphilis in 2021 compared to a year prior.
3. Males, adolescents and young adults are disproportionately impacted by syphilis infection in S.C.
4. To help reverse rising syphilis infection rates and prevent ongoing transmission, SC DHEC recommends that healthcare providers:
   a. Remain abreast on CDC-recommended syphilis clinical management (screening, testing, diagnosis, and treatment).
   b. Refer persons with syphilis infection and their sex partners to public health services available through local health departments.
   c. Report syphilis serologic test results to DHEC as indicated by the South Carolina List of Reportable Conditions.

Background

Syphilis is a sexually transmitted infection (STI) caused by the bacterium Treponema pallidum. It is transmitted via sexual contact with a person who has infection.\(^1\) Syphilis can be transmitted from a pregnant person with syphilis infection of any stage to an unborn infant. If left untreated, congenital syphilis infection can lead to poor health outcomes during pregnancy, such as miscarriage, stillbirth, preterm delivery, and perinatal death. Untreated congenital syphilis infection can also lead to long-term health complications involving the brain, nerves, eyes, heart, blood vessels, liver, and bones during infancy and childhood. Syphilis is a risk factor for subsequent HIV acquisition in certain populations.\(^2\)

Syphilis control requires a combination of clinical and public health interventions that includes routine screening of persons with risk behaviors to detect infection, prompt recognition of signs
and symptoms of infection, accurate infection staging, and adequate treatment and follow-up. Diagnosis and adequate antibiotic therapy are necessary to cure, prevent and/or slow progression of advanced syphilis disease as well as prevent ongoing transmission.

Syphilis infections in S.C. have increased since reaching their lowest level in the early 2000’s. The statewide increase in syphilis cases reported over a five year period (2015-2020) mirrors a national trend of all-time high reported STD cases for six consecutive years (2013-2019). From 2015-2020, the P&S syphilis infection rate increased 102% (from 6.49 to 13.1 per 100,000), and the early latent syphilis infection rate increased 44% (from 11.4 to 16.5 per 100,000) in S.C. Over the same five-year period, the congenital syphilis infection rate increased more than 6-fold (from 5.2 to 37.7 per 100,000 live births). Of note, the congenital syphilis rate percent change should be interpreted cautiously due to a small number of reported congenital syphilis cases (three reported in 2015 and 17 reported in 2020). Although most syphilis cases have historically been reported among males over the past decade, the syphilis infection rate among reproductive-age females aged 15-44 years and the congenital syphilis rate per 100,000 live births increased from 2015-2020.

In 2021, S.C. had the 20th highest primary and secondary syphilis rate and the 29th highest congenital syphilis rate in the nation. Preliminary national data indicates a continued rise in reported syphilis and congenital syphilis cases during the second year of the COVID-19 pandemic. Provisional 2021 S.C. surveillance data shows that P&S syphilis and early latent syphilis rates increased 23% (from 13.1 to 16.9 per 100,000) and 19% (from 16.5 to 19.6 per 100,000), respectively, compared to 2020. The congenital syphilis rate decreased 21% from 2020 to 2021 (from 37.7 to 29.8 per 1000,000 live births; reflective of 21 cases reported in 2020 and 17 reported in 2021).

Although STIs can affect anyone, males, racial/ethnic minority groups and youth are disproportionately impacted by syphilis infection in S.C. Persons under 29 years of age comprised 43% of all syphilis cases reported in 2021. Similar to 2020, males comprised the majority (~70%) of all syphilis cases reported in 2021, with African American males accounting for 45% of all reported cases.

Of note, the COVID-19 pandemic impacted trends in diagnosed and reported STIs as well as data collected through STI surveillance activities; thus, data reported for the years 2020 and 2021 should be interpreted with caution. Data presented in this report are provisional and subject to historic updates as continual surveillance data is received by DHEC.

**Recommendations for Health Care Providers**

To help reverse rising syphilis infection rates and control syphilis in S.C., SC DHEC recommends the following to health care providers:

- Review the signs/symptoms, screening recommendations, diagnosis, and treatment for syphilis (all stages), congenital syphilis, neurosyphilis, otosyphilis and ocular syphilis. Resources are available online through the [CDC](https://www.cdc.gov) and the [National STD Curriculum](https://www.cdc.gov/nchhstp/), which offers free continuing education credits (CME/CNE).
• Consider syphilis in the differential diagnosis of persons who have signs/symptoms consistent of syphilis infection and/or STI risk factors that place them at risk for syphilis and other STIs. Discuss the individual's sexual history, including sexual risk behaviors (e.g., sexual partners; sex practices, including sex while intoxicated by alcohol or illicit drugs; condom/barrier contraception use, previous STI history, treatment, and symptoms, pregnancy intention).

• Repeat syphilis screening in the third trimester and at delivery for pregnant persons at risk for syphilis per United States Preventive Services Task Force (USPSTF) recommendations and CDC. The CDC recommends serologic testing twice during the third trimester: at 28-32 weeks’ gestation and at delivery for pregnant women who live in communities with high rates of syphilis infection and who have maternal risk factors for syphilis during pregnancy. While S.C. Law requires syphilis screening at the first prenatal visit or at delivery, this may not be sufficient to prevent congenital syphilis among pregnant women at increased risk nor allow sufficient time to detect and treat syphilis infection (if present) before delivery.

• Refer to the CDC Sexually Transmitted Infections Treatment Guidelines, 2021 for current, evidence-based recommendations for syphilis screening, diagnosis and treatment. Syphilis treatment varies based on syphilis stage, pregnancy status, penicillin allergy, presence of congenital syphilis infection, and presence of neurosyphilis, otosyphilis or ocular syphilis. Congenital syphilis clinical management is discussed separately by the guidelines. Treat any patient with syphilis signs/symptoms. Presumptively treat persons with exposure to someone diagnosed with early syphilis infection.

• Healthcare providers who are unable to start or complete syphilis treatment should contact the DHEC Partner Services Region Field Operations Manager (preferred) for the public health region in which the patient resides to facilitate treatment services at a local health department clinic. Alternatively, the DHEC Partner Services State Program Manager may be contacted. Local health departments do not provide treatment for tertiary syphilis, congenital syphilis, neurosyphilis, otosyphilis and ocular syphilis.

• Test and treat sex and other at-risk partners of individuals who test positive for syphilis per CDC guideline recommendations for management of sex partners. DHEC Partner Services facilitate confidential partner notification as well as link individuals to testing, treatment and STI/HIV risk reduction services at local health departments. Contact information for DHEC Partner Services in the public health regions can be found here. Advise all persons diagnosed with syphilis that they may be contacted by a DHEC staff person for routine public health follow up regarding confidential identification, notification, testing and treatment of sex and other at-risk partners. Encourage persons to engage with DHEC staff when contacted.

• Report syphilis serologic test results to DHEC as outlined in the South Carolina List of Reportable Conditions. Syphilis serologic test results are urgently reportable within 24 hours by electronic lab reporting notification or by phone (if electronic lab reporting is not possible) for:
  o Primary and secondary syphilis (including syphilitic lesion or rash)
- **Congenital syphilis (all initial and follow-up test results; both positive and negative).**

For all other syphilis stages, serologic test results (including both treponemal and nontreponemal test results if at least one serologic test is positive) must be reported within 3 business days.

Reports may be submitted via:
- Electronic Lab Reporting (ELR) or DHEC's secure electronic reporting system (SCIONx)
  - For inquiries about ELR, contact MUHELPDESK@dhec.sc.gov. For inquiries about SCIONx or other electronic reporting options, contact SCIONHELP@dhec.sc.gov.
- Mailing a **DHEC 1129 Disease Reporting Form** in a confidential envelope to:
  - Division of Surveillance, Assessment and Evaluation; Mills/Jarrett Complex; 2100 Bull Street, Columbia SC 29201; or
  - Phone: 1-800-277-0873

- **To schedule an appointment for STD/HIV services at a DHEC county health department, call 1-855-472-3432 or visit www.scdhec.gov/health/health-public-health-clinics.**

### DHEC contact information for reportable diseases and reporting requirements

Reporting of **syphilis and congenital syphilis** is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61- 20) as per the DHEC 2022 List of Reportable Conditions available at: [https://scdhec.gov/sites/default/files/Library/CR-005869.pdf](https://scdhec.gov/sites/default/files/Library/CR-005869.pdf)

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

### DHEC Partner Services Contact Information

**Region Field Operations Managers**

- **Lowcountry**
  - Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg
  - **Robert Glover**
    - Office: **(843) 412-7316**
    - Email: gloverrl@dhec.sc.gov

- **Midlands**
  - Aiken, Barnwell, Chester, Edgefield, Fairfield, Lancaster, Lexington, Kershaw, Newberry, Richland, Saluda, York
  - **Kathy George**
    - Office: **(803) 745-5047**
    - Email: georgekm@dhec.sc.gov
DHEC Partner Services State Program Manager
Bernard Gilliard
Office: (803) 898-0452
Email: gilliab@dhec.sc.gov

References

Categories of Health Alert messages:
- **Health Alert**
  Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory**
  Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update**
  Provides updated information regarding an incident or situation; unlikely to require immediate action.
- **Info Service**
  Provides general information that is not necessarily considered to be of an emergent nature.