Maternal and congenital syphilis has increased sharply in recent years in the US. Between 2020 and 2021, pregnant individuals with syphilis increased 36.4%, and congenital syphilis jumped 32.4%. For some states, however, the magnitude of the increase in this tragic and preventable disease has been even more explosive. In Mississippi, for example, congenital syphilis hospitalizations spiked 10-fold between 2016 and 2022.

These troubling statistics show the ongoing and escalating nature of this urgent public health crisis. Pressing public health interventions are needed because untreated primary and secondary maternal syphilis carry at least a 60% risk for vertical transmission. Congenital syphilis has been associated with serious perinatal outcomes, including preterm deliveries, stillbirths, and neonatal death. Additionally, surviving infants are at risk for developing severe acute and long-term health complications, including blindness, developmental delay, and skeletal deformities. Yet, these harmful health consequences are avoidable with early treatment of maternal infection. These statistics also raise the question of why congenital syphilis is no longer preventable in one of the world’s most economically advanced and affluent countries. Far from being unavoidable, the resurgence of congenital syphilis in the US represents a multisystem failure to anticipate the reemergence of preventable diseases and to address such illnesses in an efficient and timely manner. We describe how one of the country’s hardest-hit states, Mississippi, can combat the surge in syphilis, and in the process, rebuild a sustainable public health infrastructure predicated on preventing crises rather than merely responding to them after it is already too late.

Differentiating Between Primary and Secondary Prevention

In Mississippi, the resurgence of congenital syphilis is driven by a complex mixture of poverty, institutional racism, inadequate public health services, and untreated maternal substance use. Yet, distinguishing between the causes of maternal and congenital syphilis is essential alongside establishing the appropriate preventive pathways for each subpopulation. Primary prevention of congenital syphilis necessitates understanding the causes behind the rapid increase in maternal syphilis and finding ways to reduce those rates. By contrast, secondary prevention implies blocking the vertical transmission of syphilis from pregnant patients to their infants—a causal chain that continues to thrive due to the failure to treat pregnant persons effectively for this disease.

Primary Prevention Through Education

To decrease syphilis and other sexually transmitted diseases (STDs), public health leaders, educators, and community stakeholders need to promote and enable the appropriate use of barrier contraceptives. Recent research, however, has identified a troubling upward trend in the prevalence of unprotected sex among sexually active high school students in vulnerable states such as Mississippi. Between 2001 and 2019, for example, there was a 2% average annual increase in the proportion of sexually active high school students who did not use condoms. By comparison, this average annual increase was only 0.4% across the nation. The difference in these statistics highlights the urgent need to educate Mississippi’s youth on the importance of safe sex practices.
According to the American Academy of Pediatrics, comprehensive sex education can reduce rates of STDs, curtail unwanted teen pregnancies, and promote healthy relationships. Moreover, the lack of comprehensive sex education can exacerbate existing health disparities and disproportionately impact vulnerable minority groups and low-income groups. Despite the well-established benefits of comprehensive sex education, however, Mississippi has not adopted such an approach. Currently, Mississippi law requires public schools to use abstinence-only or abstinence-plus education, a program that in practice excludes most education on contraceptive use and prohibits instructions on how to use condoms appropriately. Given Mississippi's escalating rates of syphilis and other STDs, our state needs to reevaluate its current sex education curriculum and consider the benefits of more comprehensive programs.

Secondary Prevention through Timely Diagnosis

The Centers for Disease Control and Prevention attributes nearly 90% of congenital syphilis cases to a lack of timely screening and adequate treatment of maternal syphilis. Until recently, Mississippi was one of the few states that did not require mandatory syphilis screening during pregnancy. To aid in secondary prevention efforts, the Mississippi State Department of Health introduced mandatory syphilis screening during pregnancy in 2023, a measure that did not require legislative action. The state adopted this new policy after initiating in-depth research on congenital syphilis and building a robust surveillance system that incorporates population-based data sources such as state hospital discharge data. Although this represents much-needed progress in public health surveillance and prevention, many other structural barriers impeding the early detection and treatment of congenital syphilis continue to persist.

Barriers to Screening and Treatment

Early detection and treatment of maternal syphilis are not possible without timely access to health care. Despite being a resource-limited state, Mississippi has not expanded Medicaid under the Affordable Care Act and recently implemented presumptive Medicaid eligibility to begin July 1, 2024, a policy option that provides temporary coverage to individuals likely to qualify for Medicaid. Leaders within and beyond the government need to advocate for changes to such policies to promote access to early prenatal care. Adopting adequate insurance coverage for all pregnant patients will be a major step toward reducing congenital syphilis cases and improving overall maternal health.

Another serious problem limiting access to health care in Mississippi is the shortage of health care professionals, in particular obstetricians and nurse midwives. According to the March of Dimes, more than half of all counties in Mississippi do not have either a hospital or birth center offering obstetric care and are considered maternal care deserts. Finally, Mississippi's public health structures struggle to survive and maintain basic services due to years of defunding. The lack of adequate health insurance coverage, maternal care deserts, and weakened public health preventive services have fueled severe maternal and infant health issues among the state's most vulnerable populations, including the spikes in maternal and congenital syphilis detailed previously.

Fighting Back With Research, Collaboration, and Pragmatism

In a recent report, the Association of State and Territorial Health Officials recommended a set of policy measures aimed at expanding access to prenatal care and reducing congenital syphilis nationwide. This report, however, lacks practical guidance on how to overcome entrenched cultural, religious, political, and economic objections to these recommendations—obstacles that are especially strong in conservative states like Mississippi. The pathway for surmounting these obstacles and reducing maternal and congenital syphilis requires multisector discussions, evidence-based
interventions, and support from policymakers and community leaders. Public health organizations could facilitate this process by providing access to data for research. At the same time, research institutions can accelerate and steer in-depth epidemiological research on the ongoing syphilis epidemic and explore novel related topics, including the impact of obstetric deserts on maternal health outcomes.

Mississippi's public health leaders, health insurers, and politicians need to discuss how to prioritize prevention as the most efficient way to curtail medical costs and improve health outcomes. To promote prevention, Mississippi should replace ideology with pragmatism and invest in its struggling public health infrastructure. The recent adoption of presumptive Medicaid eligibility exemplifies how strong collaborative work and open pragmatic dialogue can lead to the successful implementation of urgently needed and beneficial health policies that will help to overcome the epidemic of maternal and congenital syphilis.

ARTICLE INFORMATION
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