

EDITORIAL

# Ending the HIV and Hepatitis C Epidemics in Mississippi: Modern Strategies for Prevention and Treatment

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Keywords: Hepatitis C, HIV, Mississippi

<https://doi.org/10.67225/001c.129864>

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Journal of the Mississippi State Medical Association

Vol. 66, Issue 1/2, 2025

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Mississippi faces numerous public health challenges, with HIV and Hepatitis C (HCV) among the most significant due to their high morbidity, mortality, and costs. These bloodborne infections often go undiagnosed, driven by their silent progression, the stigma surrounding them, and limited access to care, particularly among disproportionately affected populations. Fortunately, recent advancements in therapeutics have made these infections largely preventable, treatable, and, in the case of HCV, curable. Mississippi must implement evidence-based strategies to expand access to testing and new therapeutics to make the most of these advancements.

**The Current Landscape of HIV and HCV in Mississippi.** Mississippi bears a significant burden of HIV and HCV infections in the United States. Mississippi consistently ranks among states with the highest rates of new HIV infections, nearly double the national average.<sup>1</sup> Similarly, the rate of newly reported chronic HCV infections has been increasing, placing Mississippi among the top five states in 2020.<sup>2</sup> This overlapping burden of HIV and HCV is primarily owed to systemic challenges, including limited access to care, pervasive stigma, underfunded public health programs, and disparities tied to race, socioeconomic status, and rural geography.

**HIV and HCV Prevention Strategies.** Preventing new infections is the most effective strategy for controlling the spread of HIV and HCV. In Mississippi, key prevention priorities include routinizing non-targeted HIV and HCV testing, increasing the use of HIV pre-exposure prophylaxis (PrEP) among individuals at higher risk of HIV, and implementing harm reduction interventions for a growing number of persons who inject drugs (PWID).

- ***Routine Testing.*** Despite routine testing recommendations for HIV and HCV from the Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF), routine testing for HIV and HCV in Mississippi remains sluggish. Early detection of HIV and HCV is essential for preventing disease progression and reducing the risk of transmission to others. The current HIV testing guidelines from the CDC and the USPSTF

recommend testing for all individuals aged 13 to 65, with annual testing for those at higher risk.<sup>3,4</sup> Additionally, HCV testing is recommended at least once in a lifetime for all adults.<sup>5,6</sup> Expanding routine testing will increase infection awareness and provide critical data to guide resource allocation and evaluate the effectiveness of prevention and treatment interventions.

- ***HIV Pre-Exposure Prophylaxis (PrEP).*** PrEP, an antiretroviral medication, reduces the risk of HIV transmission by over 99% when taken consistently. Exciting advancements in PrEP delivery are reshaping HIV prevention efforts. New long-acting injectable forms of PrEP have demonstrated even greater efficacy, addressing adherence challenges associated with daily oral regimens.<sup>7</sup> Recent studies on the twice-yearly injectable lenacapavir have shown significantly lower HIV incidence rates compared to oral PrEP, marking a significant breakthrough in prevention strategies.<sup>8,9</sup> Despite the transformative potential of these injectable options, PrEP awareness, access, and utilization in Mississippi remain historically low. Limited healthcare coverage and barriers to care in rural areas are significant obstacles. To overcome these challenges, expanding Medicaid, leveraging telehealth solutions, and implementing robust public and provider awareness campaigns are critical steps to improving PrEP access and uptake across the state.
- ***Harm Reduction Strategies for Persons Who Inject Drugs (PWID).*** The rise in injection drug use in Mississippi has significantly contributed to the spread of bloodborne infections like HIV and HCV, underscoring the urgent need for comprehensive harm-reduction strategies. Improving access to clean needles through syringe service programs (SSPs), increasing access to medication-assisted treatment (MAT), and implementing overdose prevention initiatives are critical to addressing this growing public health crisis. These measures not only mitigate the risks of HCV and HIV transmission but also significantly improve addiction treatment outcomes. Harm reduction programs also offer a critical opportunity to surveil HIV and HCV infections through the engagement of individuals who use these services but might otherwise avoid or lack access to the healthcare system. To reap these benefits, Mississippi will need to address legal and political barriers to SSPs and fund expanded access to medication-assisted therapy.

**Treatment as Prevention.** Modern treatments for HIV and HCV have revolutionized care, offering an opportunity to not only improve the outcomes of those infected but also reduce the spread to others.

- ***HIV Antiretroviral Therapy (ART):*** Currently, only 33% of persons living with HIV in Mississippi are virally suppressed, and engaging efforts to identify and re-engage those living with HIV and who are out of care is paramount.<sup>1</sup> Antiretroviral therapy (ART) is vital for HIV prevention, as it not only improves the health and longevity of individuals living with HIV but also prevents transmission by reducing viral levels to undetectable and untransmittable levels. The “Undetectable = Untransmittable” (U=U) message is a cornerstone of HIV prevention efforts and should be amplified across Mississippi to reduce stigma and encourage treatment adherence.<sup>10</sup> Effectively identifying and re-engaging individuals living with HIV will require coordinated efforts among health systems, clinics, correctional facilities, and the state health department. Additionally, it will necessitate support services to address social determinants of health, such as housing and transportation.
- ***HCV Cure and the Opportunity for HCV Elimination:*** Advances in direct-acting antivirals (DAAs) have transformed HCV from a chronic, potentially fatal condition into a disease that can be cured with 8 to 12 weeks of all-oral medications. This advancement in treatment has created a realistic opportunity to eliminate HCV from our communities – a goal endorsed by the CDC and the Department of Health and Human Services.<sup>11,12</sup> Mississippi must implement comprehensive strategies to eliminate HCV, including expanded testing, community engagement, heightened surveillance, implementation of harm reduction services, and, most importantly, improved access to DAAs. The high cost of DAAs and limited access to care pose significant barriers to achieving HCV cures, particularly for critical populations such as PWID, individuals experiencing homelessness, and those who are incarcerated.

**Addressing Barriers to Care.** Mississippi faces significant barriers to both HIV prevention and HCV elimination. The state’s decision not to expand Medicaid has left hundreds of thousands of residents without healthcare coverage, limiting access to essential services like PrEP for HIV prevention and the care needed to support HCV elimination efforts. Advocacy efforts will be crucial in securing the funding and policy changes to implement these strategies. Additionally, the state’s predominantly rural geography poses

a substantial challenge, as many residents lack access to nearby healthcare facilities, specialized providers, and testing services. To address these barriers, integrating telehealth into HIV and HCV strategies will be critical. Telehealth can bridge the gap between patients and providers, facilitate remote consultations, and expand access to vital testing and treatment services, particularly in underserved rural areas.

**Call to Action.** Mississippi stands at a critical crossroads in its fight against HIV and HCV. Addressing HIV and HCV, along with the disparities that drive them, is not only a public health imperative but also a moral and economic necessity. Proven tools to end these epidemics are readily available, but significant statewide structural barriers exist. Forward-thinking public health policies will be essential, and success will depend on collaboration among public health officials, policymakers, healthcare providers, and community leaders to prioritize these efforts. Mississippi must advocate for increased federal funding and build partnerships with federal, state, and industry stakeholders to support these initiatives. Investments in prevention, treatment, and education will yield significant returns—not only by saving lives but also by reducing healthcare costs and creating healthier communities.

Submitted: February 10, 2025 CDT. Accepted: February 10, 2025 CDT. Published: February 10, 2025 CDT.

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