

SPECIAL ARTICLE

From Diagnosis to Viral Suppression: The Impact of Ryan White Part B EHE in Ending the HIV Epidemic in Mississippi

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The Mississippi State Department of Health (MSDH), through the Ryan White Part B Ending the HIV Epidemic (EHE) initiative, is driving transformative change in Mississippi's approach to HIV care. Focused on reducing new infections by 75% by 2025 and 90% by 2030, the initiative aims to improve access to healthcare, increase viral suppression rates, and enhance the state's capacity for detecting and responding to emerging HIV clusters. Mississippi faces substantial challenges, including barriers like stigma, limited healthcare access, and persistent workforce shortages, especially within African American, MSM, and rural communities. The initiative leverages a comprehensive array of core medical and support services—from rapid antiretroviral therapy (ART) and mental health services to housing and transportation support. Expanding telehealth, mobile health units, and community health worker (CHW) engagement in underserved areas ensures that those in need receive timely and culturally responsive care. MSDH's partnerships with key community organizations, such as the Mississippi State Medical Association (MSMA), Community Health Center Association of Mississippi (CHCAMS), and Plan A Health, bolster efforts in prevention, retention in care, and stigma reduction. Through innovative, community-centered, and data-driven approaches, the Ryan White Part B EHE initiative in Mississippi sets the foundation for a sustainable and equitable path toward ending the HIV epidemic.

Introduction

The HIV/AIDS epidemic continues to impact communities across Mississippi, yet recent initiatives bring renewed hope. In alignment with national goals, the Ending the HIV Epidemic (EHE) initiative is working to reduce new HIV infections by 75% by 2025 and by 90% by 2030.¹ Through targeted efforts in diagnosis, treatment, prevention, and response, this initiative expands the capacity of the Ryan White HIV/AIDS Program to transform healthcare access for people living with HIV (PLWH) and those at risk across Mississippi.

Since its inception in 1990, the Ryan White HIV/AIDS Program has served as a vital resource for PLWH, offering essential healthcare and support services to fill gaps for uninsured or underinsured individuals.² By improving

health outcomes, expanding medical care access, and lowering transmission risk, the program significantly contributes to the EHE's "Treat" pillar. This contribution includes facilitating rapid access to antiretroviral therapy (ART) to achieve sustained viral suppression. Research has demonstrated that individuals with an undetectable viral load cannot sexually transmit the virus, a concept known as "U=U" (Undetectable = Untransmittable), which underscores the importance of timely diagnosis and effective treatment.³

Mississippi's approach aligns with the "Treat" and "Respond" pillars of the EHE, emphasizing rapid ART access and a proactive response to emerging clusters. The program's objectives include increasing engagement in HIV care annually by 10% and, by 2030, achieving a 90% viral suppression rate among those receiving care. To support these goals, the Mississippi State Department of Health (MSDH) is also establishing a Cluster and Outbreak Response Team (CORT) to rapidly detect and address potential HIV outbreaks across the state.⁴

The EHE initiative aims to broaden the Ryan White program's reach and enhance service accessibility, particularly within Mississippi's rural communities, where healthcare access and transportation barriers present ongoing challenges. EHE's support for innovative telehealth and mobile clinic models addresses these obstacles by bringing rapid ART, mental and behavioral health support, and other crucial services to underserved areas.⁵

In addition to expanding clinical services, the EHE initiative actively aims for collaborations with community-based organizations, including barbershops, salons, youth-focused groups, and faith-based groups to integrate HIV prevention, treatment, support, and education into everyday settings. By working with Community Health Workers (CHWs) and Disease Intervention Specialists (DISs), Mississippi's EHE efforts ensure that HIV testing, prevention, and treatment services are accessible, community-centered, and stigma-reducing.⁶

Mississippi HIV Epidemiological Profile and Needs Assessment

Mississippi continues to face significant challenges in managing the HIV epidemic. As of 2022, there were 9,915 individuals living with HIV in the state, resulting in a prevalence rate of 401 cases per 100,000 population. This rate surpasses the national average of 388 cases per 100,000, highlighting the state's elevated burden.⁷

In 2022, Mississippi reported 448 new HIV diagnoses, equating to a rate of 18 cases per 100,000 population. This rate is higher than the national average of 13 cases per 100,000, indicating ongoing transmission concerns.⁷

The epidemic disproportionately affects Black communities, which constitute 37.1% of Mississippi's population but represent 72.9% of all HIV cases. This disparity underscores the need for targeted interventions to address health inequities.⁷

Geographically, the highest rates of new HIV diagnoses in 2022 were observed in Adams County (90 per 100,000), Pike County (46 per 100,000), Coahoma County (43 per 100,000), Hinds County (37 per 100,000), and Simpson County (37 per 100,000). These areas may benefit from focused, equity-driven prevention and treatment efforts.⁷

Achieving viral suppression remains a significant challenge in Mississippi. According to 2022 data, only 33.6% of individuals living with diagnosed HIV have achieved viral suppression, falling short of the state's goal of 75% by 2025. This gap highlights the necessity for enhanced access to consistent and effective HIV medical services.⁷

Mississippi's largely rural geography, particularly in the Mississippi Delta, presents significant challenges to comprehensive HIV care. The shortage of HIV service providers, especially HIV physicians, and nurse practitioners, leaves many residents without timely access to services, creating pronounced health inequities. Transportation issues limited preventive health and treatment options and high rates of chronic illness further hinder rural populations. For those in rural areas, accessing HIV care can mean long travel distances, often resulting in missed or delayed treatments. While telehealth has alleviated some of these barriers, it remains insufficient for complex healthcare needs.⁴

Social factors compound these issues, particularly in the Mississippi Delta, where extreme poverty, food insecurity, and inadequate housing exacerbate health disparities among African American communities. Stigma surrounding HIV, particularly in rural and LGBTQ+ communities, remains a major obstacle, deterring people from seeking rapid treatment and preventive services like PrEP. Additionally, low health literacy rates contribute to limited awareness of available services, reducing engagement and adherence to treatment protocols.³

With some nonurban counties now reporting higher HIV rates than many large U.S. cities, targeted interventions in rural areas are increasingly critical. Workforce shortages in essential services, such as dental and mental health, further strain Mississippi's healthcare system, limiting comprehensive care access and deepening health disparities across the state.⁴

The Four Pillars of the Ryan White Part B EHE Initiative

The Mississippi State Department of Health's (MSDH) Ryan White Part B Ending the HIV Epidemic (EHE) initiative is driven by a vision to make Mississippi a model state in the fight to end the HIV epidemic. The mission is

clear: to bring together the best health professionals and sustainable practices to achieve optimal outcomes necessary for ending the epidemic across the state. Aligned with national EHE goals, Mississippi aims to reduce new HIV infections by 75% by 2025 and by 90% by 2030, grounded in strategies that engage at least 90% of people living with HIV in ongoing care.¹

The Ryan White Part B EHE initiative in Mississippi covers all four EHE pillars in diverse ways: Diagnose, Treat, Prevent, and Respond. Each pillar represents a fundamental component in the mission to curb the epidemic. The first pillar, Diagnose, emphasizes early HIV detection to ensure timely intervention.⁸ The second, Treat, aims to provide rapid and effective antiretroviral therapy (ART) to achieve sustained viral suppression. Research demonstrates that sustained viral suppression can achieve U=U (Undetectable = Untransmittable), where individuals with an undetectable viral load cannot transmit the virus sexually.⁸ The third pillar, Prevent, focuses on reducing new HIV transmissions through interventions like pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), and non-occupational post-exposure prophylaxis (nPEP), and syringe service programs.² The fourth, Respond, entails swift action in response to potential HIV outbreaks, ensuring that essential prevention and treatment services reach those in need.

Mississippi's Ryan White Part B EHE initiative places a particular focus on Pillar Two: Treat and Pillar Four: Respond. In Pillar Two, the priority is rapid linkage to antiretroviral therapy (ART) for people diagnosed with HIV, aiming for viral suppression that supports the U=U goal. Sustained viral suppression reduces transmission rates and enhances overall health outcomes. In Pillar Four, MSDH is establishing a Cluster and Outbreak Response Team (CORT) to monitor and respond to emerging HIV clusters across Mississippi. This team will focus on identifying and responding to HIV clusters by implementing prompt interventions in partnerships with community-based organizations (CBOs), community health centers (CHCs), other state and federally funded entities to prevent further spread.⁴ This rapid response approach is crucial, given the unique challenges Mississippi faces with rural areas and healthcare provider shortages.⁷

Through these focused pillars, Mississippi's Ryan White Part B EHE initiative aligns with the broader national vision to end the HIV epidemic, ensuring services and care are both accessible and impactful.

Comprehensive Services of Ryan White Part B EHE

The Ryan White Part B Ending the HIV Epidemic (EHE) initiative in Mississippi provides a broad spectrum of services that go beyond just medical treatment, ensuring that people living with HIV (PLWH) receive holistic care and support. The initiative also serves to fill the gap between the existing services available through the Ryan White Part B program and access to care for PLWH throughout the state. The services are designed to address

both the clinical needs of PLWH and the social determinants of health that impact their quality of life. This comprehensive approach aims to facilitate rapid treatment, improve health outcomes, and encourage continuous care engagement.

Core Medical Services

The 13 core medical services are designed to support rapid initiation of antiretroviral therapy (ART) and continuous, holistic healthcare for PLWH, contributing to sustained viral suppression and improved health outcomes:

1. **AIDS Drug Assistance Program (ADAP) Treatments:** Provides essential access to FDA-approved medications, including ART, ensuring that PLWH can start and maintain their medication regimens to achieve viral suppression.
2. **AIDS Pharmaceutical Assistance:** Supplements ADAP by covering additional medication costs, reducing financial barriers to access essential HIV medications.
3. **Early Intervention Services (EIS):** Provides comprehensive support immediately following diagnosis, including HIV testing, counseling, and linkage to care, ensuring PLWH quickly begin their treatment journey.
4. **Health Insurance Premium and Cost Sharing Assistance:** Assists with health insurance premiums and out-of-pocket costs, making healthcare access more affordable and sustainable.
5. **Home and Community-Based Health Services:** Delivers essential healthcare support at home for individuals with mobility issues or other challenges accessing traditional care settings, ensuring continuity of care.
6. **Home Health Care:** Offers in-home medical services for those who need ongoing healthcare support, particularly valuable for individuals with limited mobility or severe health conditions.
7. **Hospice Care:** Provides compassionate, end-of-life care for PLWH, focusing on comfort, dignity, and quality of life during advanced stages of illness.
8. **Medical Case Management (including treatment adherence services):** Supports PLWH by coordinating healthcare services, facilitating adherence to ART, and linking clients with additional resources as needed.

9. **Medical Nutrition Therapy:** Addresses dietary and nutritional needs, helping PLWH maintain optimal health and manage any HIV-related complications.
10. **Mental Health Services:** Provides psychological support, helping clients manage mental health challenges that can impact treatment adherence and overall well-being.
11. **Oral Health Care:** Ensures access to dental services, addressing common HIV-related oral health issues and contributing to overall health and quality of life.
12. **Outpatient/Ambulatory Health Services:** Offers regular, ongoing medical care for PLWH, allowing for timely management of their HIV and any related health issues.
13. **Substance Abuse Outpatient Care:** Provides support for substance use issues, helping individuals manage co-occurring disorders and reinforcing stability in their treatment journey.

Support Services

In addition to medical services, 15 support services address the broader social determinants of health that affect PLWH, helping reduce barriers to care and improving long-term outcomes:

1. **Child Care Services:** Provides childcare assistance for PLWH who need support attending medical appointments, ensuring that childcare responsibilities do not hinder their ability to seek care.
2. **Emergency Financial Assistance:** Offers short-term financial aid during crises, helping clients address immediate needs and reducing stress that could impact treatment adherence.
3. **Food Bank/Home-Delivered Meals:** Provides nutritious food options, addressing food insecurity and ensuring PLWH can maintain a healthy diet to support their treatment.
4. **Health Education/Risk Reduction:** Educates clients on health maintenance and risk reduction strategies, empowering them with knowledge to support their well-being and prevent transmission.
5. **Housing Assistance:** Assists with stable housing, a critical need for PLWH, as secure housing significantly impacts health outcomes and care retention.

6. **Linguistic Services:** Offers translation and interpretation services for clients with language barriers, ensuring they fully understand their healthcare options and treatment plans.
7. **Medical Transportation:** Provides transportation to medical appointments, addressing a significant barrier for individuals in rural areas or without reliable transport.
8. **Non-Medical Case Management Services:** Helps clients access additional services such as benefits, housing, and other social services, supporting their overall stability and well-being.
9. **Other Professional Services:** Offers legal aid, financial counseling, and other professional services that can help clients address various life challenges impacting their health.
10. **Outreach Services:** Engages underserved and high-risk populations, connecting them with HIV services and helping reduce stigma around HIV care.
11. **Psychosocial Support Services:** Provides counseling and group support, helping clients manage the emotional aspects of living with HIV and fostering community connections.
12. **Referral for Health Care and Support Services:** Connects clients with additional healthcare and social services as needed, ensuring they receive comprehensive support.
13. **Rehabilitation Services:** Supports PLWH who need physical therapy or other rehabilitation services, helping them regain and maintain physical health.
14. **Respite Care:** Offers temporary relief for primary caregivers, providing PLWH and their families with much-needed breaks to reduce caregiver burnout.
15. **Substance Abuse Services (Residential):** Provides residential care for individuals struggling with substance abuse, supporting recovery and enhancing overall health.

EHE Initiative Services include non-traditional services such as:

1. Ryan White program services for persons living with HIV (PLWH) who are not eligible to receive any of the existing Ryan White services.
2. Non-Ryan White Services for PLWH within the state.
3. Any type of non-traditional service to PLWH that is not covered by any existing Ryan White Part/program.

Benefits for Families and Communities

Beyond serving PLWH, the Ryan White Part B EHE initiative also benefits families and communities. Supportive programs extend to family members, providing services like psychosocial support and health education to help families better understand HIV and reduce stigma. Additionally, community engagement initiatives, such as partnerships with local organizations, help spread awareness, create supportive environments, and improve care retention for PLWH. This community-centered approach fosters an inclusive atmosphere where individuals affected by HIV feel supported and empowered to seek treatment without fear of discrimination.

Partnerships

The Ryan White Part B EHE initiative in Mississippi is strengthened through diverse partnerships with healthcare professionals, community organizations, and educational institutions across the state. Key partners include the Mississippi State Medical Association (MSMA), Plan A Health, the University of Mississippi Medical Center, through its MSAETC Program, Community Health Center Association of Mississippi, and various community health centers and clinics, such as Outreach Health Services, Aaron. E. Henry Comm Health Services Center, G.A. Carmichael Family Health Center, Jefferson Comprehensive Health Center, Central Mississippi Health Services, Delta Health Center, Dr. A. C. Mallory Community Health Center, Family Health Center, and Claiborne County Family Center. These organizations play a crucial role in making HIV care accessible to communities across Mississippi, particularly in rural and underserved regions. By collaborating with local entities like barbershops, faith-based groups, and community health workers, our initiative can extend its reach, reduce stigma, and ensure that HIV prevention, testing, and treatment services are integrated into everyday community settings.

Call to Action

To achieve the ambitious goals of reducing new HIV infections by 75% by 2025 and 90% by 2030, the Ryan White Part B EHE initiative calls upon individuals, organizations, and communities to join this collective effort.

Healthcare Professionals:

- Join our network of HIV care champions. We aim to recruit six new HIV physicians each quarter—two per region—by offering training sessions focused on stigma-free, culturally responsive HIV care. Additionally, we aim to recruit at least three new statewide provider champions who can advocate for Ryan White services and engage with both patients and professionals to foster a supportive and effective care

network. Physicians, nurse practitioners, and other healthcare professionals will have access to resources, mentorship, and opportunities to lead in this vital mission.

Community Organizations:

- Partner with us to create pathways to care for and support people living with HIV (PLWH). By integrating HIV care messaging and resources into community hubs such as barbershops, faith-based organizations, and other local spaces, you can help reduce stigma and connect individuals to lifesaving care.

General Public:

- Be an advocate for change. Educate yourself and your community about HIV prevention, testing, and treatment. Learn about and practice a healthy sexual lifestyle. Promote U=U (Undetectable = Untransmittable) to help reduce stigma and encourage people living with HIV to seek care.

Researchers and Academics:

- Collaborate on data-driven strategies to address disparities in care and outcomes. By advancing knowledge and sharing best practices, we can continue to improve care models and health equity.

Together, we can turn the vision of the Ryan White Part B EHE initiative into a reality. By expanding partnerships, recruiting dedicated professionals, and engaging communities, we can create a resilient healthcare system that not only ends the HIV epidemic in Mississippi but serves as a model for the nation. Your action today can save lives including yours and those in your community tomorrow.

Conclusion

HIV continuum - the journey “From Diagnosis to Viral Suppression” reflects the transformative impact of the Ryan White Part B EHE initiative in Mississippi’s fight against the HIV epidemic. By emphasizing early diagnosis, rapid linkage and continued access to treatment, viral suppression, targeted prevention strategies, and an agile response to outbreaks, the program is reshaping the healthcare landscape for people living with and at risk of HIV in Mississippi. This initiative does not stand alone; it thrives on the strength of diverse partnerships, a growing network of healthcare professionals, and the engagement of community-based organizations that work tirelessly to bridge the gaps in care, especially in Mississippi’s rural and underserved areas.

While the path to reducing new HIV infections by 75% by 2025 and 90% by 2030 is ambitious, the commitment and collaboration fostered by the Ryan White Part B EHE initiative provide hope that these goals are within reach. As we look to the future, the continued expansion of these partnerships, the recruitment of new healthcare professionals, and the support of community champions will be crucial. Together, we are building a resilient healthcare infrastructure and a supportive environment that not only suppresses HIV but transforms Mississippi into a model for ending the epidemic nationwide.

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