

Overcoming Barriers to HIV Prevention: Population Health Considerations on Optimizing PrEP Access

HIGHLIGHTS

- › Disparities and Barriers in Use of HIV Pre-Exposure Prophylaxis (PrEP)
- › Real-World Evidence on Access and Outcomes
- › Population Health Considerations for Improving Access and Adherence to PrEP

Overcoming Barriers to HIV Prevention: Population Health Considerations on Optimizing PrEP Access

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Overcoming Barriers to HIV Prevention: Population Health Considerations on Optimizing PrEP Access

OVERVIEW

This supplement to *The American Journal of Managed Care*[®] provides managed care audiences with insights into the disparities and barriers experienced by individuals who need pre-exposure prophylaxis (PrEP), and the critical role of population health decision-makers in facilitating PrEP access and coverage to reduce HIV diagnoses.

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Overcoming Barriers to HIV Prevention: Population Health Considerations on Optimizing PrEP Access

Patrick Sullivan, DVM, PhD; Diana Brixner, PhD;
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Introduction

The HIV epidemic remains a public health priority in the United States, with nearly 38,000 new diagnoses and an estimated 32,000 new infections in 2022.¹ Although these estimates and projections are likely to change with time, certain demographic groups remain disproportionately affected.^{2,3} Populations especially impacted by HIV include transgender women, Black/African American and Hispanic/Latino individuals (particularly Black cisgender women), and young Black/African American and Hispanic/Latino men who have sex with men (MSM).⁴

Use of HIV pre-exposure prophylaxis (PrEP) is associated with reductions in HIV transmission.⁵ However, barriers to PrEP uptake and equitable care persist. These include stigma, discrimination, and distrust; a lack of education and awareness of behaviors; limited access to PrEP services; current treatment modalities that do not meet all individual needs; a lack of normalization of sexual health dialogue; and an insufficient number of providers willing to prescribe PrEP; and inequities in their geographic distribution (Figure 1).⁶⁻¹²

Preventing HIV infections may avoid substantial health care costs incurred by people with HIV (PWH). The results of a matched cohort analysis using a large representative sample of commercially insured US adults found that PWH had significantly higher health care costs than did those without HIV between 2018 and 2023. The mean discounted lifetime health care costs (LTC) for PWH were estimated to be \$1,299,210 (median: \$1,298,786; 95% CI, \$1,279,397-\$1,321,458), whereas the mean discounted LTC for the matched non-HIV cohort were \$181,481 (median: \$181,236; 95% CI, \$169,392-\$194,036). Results showed that PWH had 6 times higher LTC than did those without HIV.¹³

This review article examines the critical role of population health decision-makers—including managed care organizations (MCOs) and federal and state policy makers—in facilitating PrEP access and coverage to reduce HIV diagnoses. Reaching this goal entails emphasizing the need for removing access barriers, ensuring compliance with US Preventive Services Task Force (USPSTF) recommendations, supporting educational efforts with individuals who need PrEP and health care professionals, and implementing

ABSTRACT

The HIV epidemic remains a critical public health priority in the United States. The Ending the HIV Epidemic (EHE) initiative seeks to reduce HIV diagnoses by 75% by 2025 and by 90% by 2030. Certain demographic groups—including transgender women, cisgender Black women, and Black/African American and Hispanic/Latino men who have sex with men—are disproportionately affected by HIV. Pre-exposure prophylaxis (PrEP) has proven effective in reducing HIV transmission. Real-world data indicate that the states with higher PrEP coverage have experienced steeper declines in new HIV diagnoses; however, several barriers hinder equitable PrEP access and uptake. Challenges such as stigma, discrimination, lack of education, and insurance barriers contribute to disparities in PrEP uptake and access to care, particularly in underserved communities. Population health decision-makers, including managed care organizations and federal and state policy makers, can play a vital role in expanding PrEP coverage and uptake by addressing these barriers and ensuring zero out-of-pocket costs for individuals who need PrEP. Enhancing health care provider education and person-centered HIV prevention strategies (eg, same-day PrEP services, telePrEP programs) also can increase PrEP uptake and adherence and patient satisfaction. A continuous focus on improving PrEP access can substantially contribute to achieving the EHE initiative's goal to end the HIV epidemic.

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For author information and disclosures, see end of text.

data-driven strategies to achieve the goals of the Ending the HIV Epidemic (EHE) initiative in the US.

Access to PrEP

Real-world data on PrEP coverage showed that states with higher coverage of PrEP among people who needed it experienced steeper declines in new HIV diagnoses over the past decade. Investigators calculated the quintiles of mean PrEP coverage and evaluated the estimated annual percent change in HIV diagnosis rates from 2012 to 2021. The findings highlight the importance and public health impact of expanding PrEP use to all individuals who need it by removing barriers to PrEP access and care. The analysis also revealed wide differences in the trajectories of PrEP programs in the US, with the lowest and highest performing states showing an 8-fold difference between the extent to which PrEP needs were met. PrEP coverage data can be used to monitor progress in state PrEP programs.¹⁴

The EHE initiative, introduced by the US Department of Health and Human Services (HHS) in 2019, focuses on reducing HIV diagnoses through targeted prevention and treatment approaches.¹⁵ Goals include reducing new diagnoses by 75% by 2025 and by at least 90% by 2030 and preventing approximately 250,000 total HIV diagnoses.¹⁵ The plan initially focused on US regions that have shown the highest rates of HIV diagnoses among persons 13 years or older (**Figure 2**).^{3,16}

The EHE initiative involves 4 key strategies: (1) diagnose all PWH as early as possible; (2) treat PWH rapidly and effectively to achieve

sustained viral suppression; (3) prevent new transmission using data-backed interventions including PrEP; and (4) respond quickly to potential HIV outbreaks with prevention and treatment services.¹⁷

The number of people who use PrEP increased by 17% from 2022 to 2023 alone.¹⁸ However, the prescribing of PrEP remains low for the approximately 1.2 million individuals in the US who need PrEP.¹⁹ Gains have been made in PrEP use since 2012, yet in 2023, less than half of the 1.2 million individuals in the US who need PrEP were prescribed it.¹⁸ Greater and more equitable PrEP uptake is needed to meet the 2030 EHE goal of reducing new HIV infections.¹⁹

To improve health equity, efforts aimed at increasing PrEP awareness, countering stigma, and breaking down socio-structural barriers are required (**eAppendix Figure 1** available at ajmc.com).^{20,21} These goals may be achieved through expanded and tailored awareness and access programs that include education for individuals who need PrEP, improved linkage to person-centered care and integrated services that consider individual preferences, and an expanded pool of knowledgeable, well-versed PrEP providers.^{11,22}

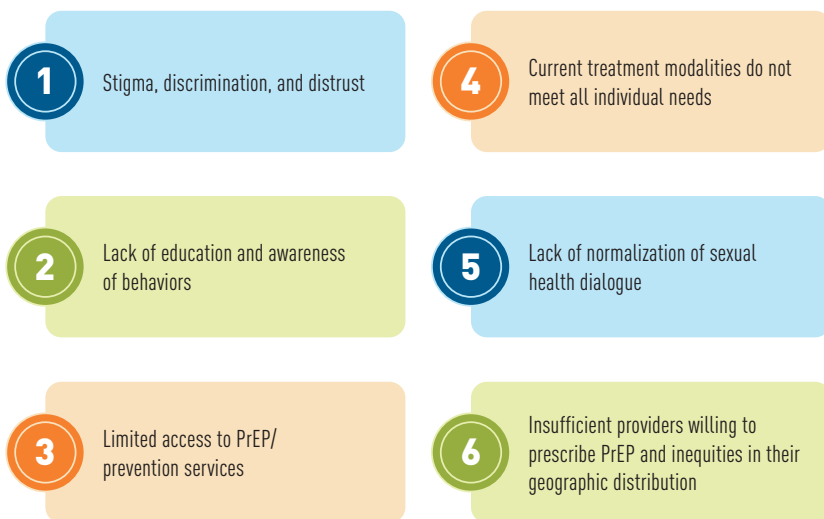
Disparities in PrEP Use Among Disproportionately Affected US Populations

PrEPVu (**PrEPVu.org**) is a platform from AIDSvu containing 2012–2023 data that provide a visual representation of PrEP use and equity in communities across the United States. Data are categorized by demographics such as age, sex, race/ethnicity, and region to provide comparative insights for public health officials, policymakers, and researchers.^{18,23}

New HIV diagnoses disproportionately affect underserved communities, including those with limited HIV awareness and access to care.² In recognition of these disparities, targeted interventions have been developed to address the gaps in PrEP uptake among marginalized groups.² For example, the HHS Minority HIV/AIDS Fund operated the Targeted Highly Effective Interventions to Reverse the HIV Epidemic (THRIVE) demonstration project from 2015 to 2020.²⁴ The goal of the project was to provide HIV prevention and care services to certain prioritized populations (ie, transgender women and Black and Hispanic/Latino MSM).²⁴ Programs that aim to decrease new HIV diagnoses must focus on improving PrEP uptake in highly impacted communities with low PrEP utilization relative to their epidemic need—for example, the US South and the US Midwest regions.²¹

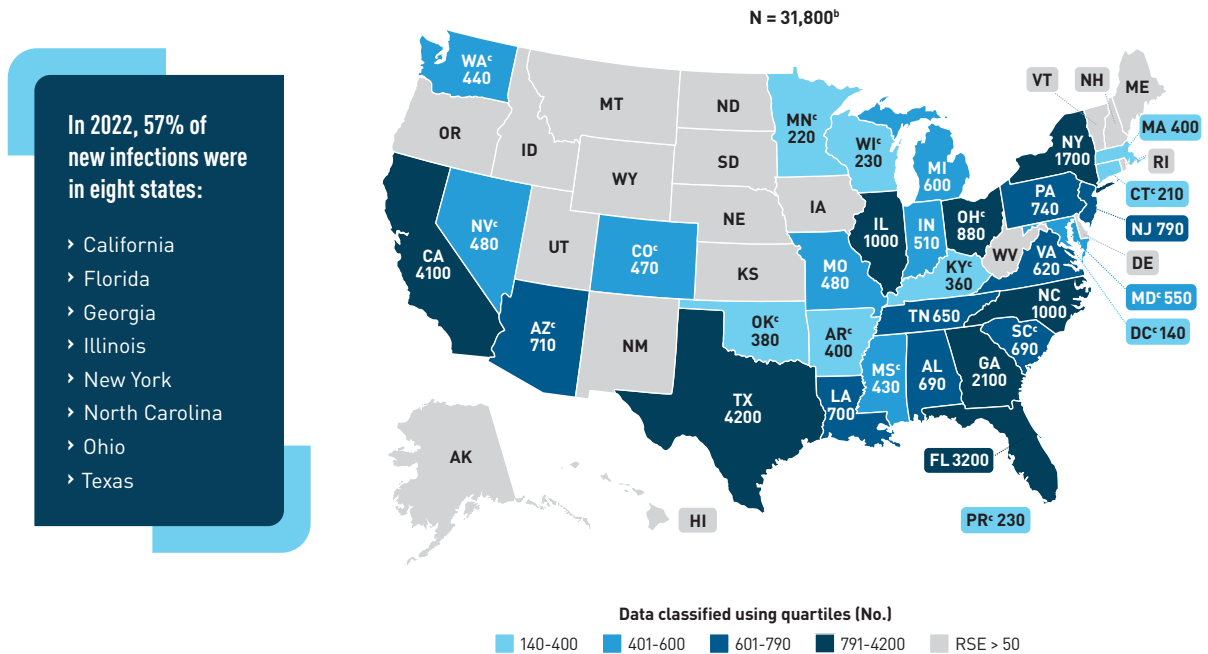
The PrEP-to-need ratio (PnR) is a useful metric for visualizing PrEP uptake that is often used on the PrEPVu website. The PnR compares

FIGURE 1. Barriers to Uptake of PrEP^{6–12}



PrEP, pre-exposure prophylaxis.

FIGURE 2. Estimated HIV Incidence (Persons Aged ≥ 13 Years) by Area of Residence, 2022—United States and Puerto Rico^{3a}



RSE, relative standard error.

^aEstimates were derived from a CD4-based depletion model using HIV surveillance data. Estimates for years 2020-2022 should be interpreted cautiously due to adjustments made to the monthly distribution of reported diagnoses during those years to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates should be interpreted cautiously for jurisdictions that do not have laws requiring complete reporting of laboratory data or have incomplete reporting. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico. Areas with a lapse in reporting during 2022: Mississippi and West Virginia.

^bTotal does not include Puerto Rico.

^cAn estimate that meets a lower standard of reliability (RSE of estimate, 30%-50%) and should be interpreted with caution. An estimate with an RSE greater than 50% is statistically unreliable and is not displayed.

Adapted from: Estimated HIV incidence and prevalence in the United States, 2018-2022. Figure 11. *HIV Surveillance Supplemental Report*. 29(1):17. CDC. May 2024. Accessed October 11, 2024. https://stacks.cdc.gov/view/cdc/156513/cdc_156513_DS1.pdf References made to specific commercial products, manufacturers, companies, or trademarks do not constitute their endorsement or recommendation by the United States Government, Department of Health and Human Services, or Centers for Disease Control and Prevention. Materials are available on the Centers for Disease Control and Prevention website at no charge.

the number of individuals using PrEP to the number of new HIV diagnoses; a lower PnR signifies a greater unmet need for PrEP.^{18,25} PrEP use varies across different US regions, with the lowest PnR seen in the South (**eAppendix Figure 2**).^{18,26} Indeed, the South accounted for more than half (53%) of all new HIV diagnoses in 2022 but only 39% of PrEP users in 2023.¹⁸

Furthermore, PrEP uptake among women continues to fall behind PrEP uptake among men in the US.¹⁸ Although women represented 19% of new HIV diagnoses in 2022, only 8% of individuals on PrEP in 2023 were female.¹⁸ According to preliminary 2022 CDC data, only 15% of women who need PrEP received prescriptions vs 41% of men.¹⁹ As of 2023, men have a PnR that is twice that for women.¹⁸

The rate of PrEP use has increased consistently across all races and ethnicities, yet equity in PrEP use by race and ethnicity has decreased over time, with the PnR increasing at a much lower rate for

Black and Hispanic people than for White people.^{21,27} A comparison of rates of new HIV diagnoses to prevalence of PrEP use shows that gaps in PrEP equity disproportionately affect Hispanic/Latinx and Black/African American individuals and particularly Black women (**eAppendix Figure 3**).^{18,21,27} For example, an analysis of data from the THRIVE project found that among a population of 2805 Black women who were eligible for PrEP, only 9.6% were connected to a PrEP clinician, and only 6.8% were prescribed PrEP.²⁴

Low PrEP uptake is also noted among people who inject drugs. Results from an analysis of 2010-2019 commercial insurance claims showed that among individuals with likely injection drug use, fewer than 1 in 500 had pharmacy claims for PrEP. The authors noted that PrEP should be consistently offered alongside treatment for substance use disorder and other harm reduction and HIV prevention services.²⁸

Understanding Hesitancy and Barriers Among Individuals Who Need PrEP

HIV prevention with PrEP is critical, and it has the potential to change the trajectory of the HIV epidemic; however, multiple barriers to uptake may limit this potential. Education about PrEP is key for overcoming systemic barriers to its uptake and for individuals who need PrEP to understand the importance of adherence. In studies examining MSM, the costs and potential adverse events (AEs) associated with PrEP, provider stigma, and the belief that they were not at risk of contracting HIV contributed to PrEP hesitancy (eAppendix Figure 1).^{20,29,30} Barriers to PrEP uptake identified among Black and Latina cisgender women include medical mistrust, low perceived HIV risk, concerns about potential AEs, and anticipated insurance difficulties.³¹

Use of PrEP among transgender people who need PrEP often is limited by concerns about interactions between gender-affirming hormones and PrEP, as well as mistrust of the health care system. Results of a survey by the National HIV Behavioral Surveillance Among Transgender Women showed that transgender women with transgender-specific health insurance coverage were significantly more likely to discuss PrEP with a health care provider than were those without such coverage (63.6% vs 47.3%, respectively [bivariate association: adjusted prevalence ratio, 1.33; 95% CI, 1.16-1.53; $P < .01$]).³²

Among people who inject drugs, factors contributing to PrEP hesitancy include limited perception of HIV risk, negative experiences with health care providers, social stigma, concerns about AEs, and competing priorities associated with drug use. Additionally, limited PrEP awareness and access may be related to economic and structural barriers often encountered in this population; these include inadequate health care resource availability, homelessness, lack of money or identification, and criminal justice system involvement.³³⁻³⁵

High out-of-pocket (OOP) costs and insurance barriers may negatively impact PrEP adherence and dispensation for individuals who need PrEP.^{36,37} According to the results of an analysis evaluating data from 58,529 individuals with a new prescription claim for oral PrEP in the ICON Symphony Health Integrated Dataverse database (September 30, 2016, to June 2, 2018), increased OOP costs were associated with an increased rate of patient abandonment of PrEP prescriptions.³⁶ The risk-adjusted PrEP abandonment rate of 5.5% at zero OOP costs rose to 42.6% at OOP costs higher than \$500; even a small OOP increase from \$0 to \$10 was predicted to double the rate of abandonment. Conversely, patients with OOP costs over \$500 showed an abandonment rate of 48%; this was predicted to drop to 7.3% if those costs were cut to zero. Furthermore, HIV diagnoses were approximately 2 to 3 times higher among patients who abandoned PrEP prescriptions than among those who filled them. Limitations of this analysis included the use of claims data, which carries the possibility of misclassification and missing information; this also may include overestimation of PrEP abandonment or

underestimation of HIV cases if patients received relevant medications or testing outside of this data set.³⁶

A retrospective analysis of 2020-2022 data from the Walgreens Pharmacy Database examined the characteristics and drivers of initial prescription dispensation among 143,315 adults who were newly prescribed oral PrEP. Initial PrEP prescriptions were categorized by processing and pickup status (eg, filled or unfilled, dispensed or not dispensed, respectively). Prescription rejections due to pharmacy prior authorizations were more frequently observed for unfilled prescriptions (31%) than for prescriptions dispensed within 14 days (19%). Approximately 1 in 4 first oral PrEP prescriptions were not dispensed within 14 days. Furthermore, mean OOP costs were higher for prescriptions not dispensed (\$61-\$1008) compared with prescriptions dispensed within 14 days (\$7-\$25) regardless of insurance type. This analysis was limited by the inability to further delineate any attempts at request rejection overrides and prior authorization submissions and did not include individuals who had their prescription problem resolved after 30 days. As the study authors noted, barriers to PrEP initiation occur at the retail pharmacy level through claims adjudication. These results emphasize the importance of addressing potential barriers to PrEP use after prescribing medication to achieve the goals of the EHE initiative.³⁷

Educating Health Care Providers on PrEP

Provider-related educational barriers further compound the challenges associated with individual access to PrEP. Health care providers note that a lack of knowledge about PrEP, feelings of discomfort in discussing sexual health, and other clinical priorities are challenges to discussing PrEP with their patients.^{12,38} Many providers report low familiarity with PrEP and associated clinical guidelines or consider PrEP to be beyond the scope of their practice.^{38,39} Providers also mention concerns about the costs of PrEP and adherence. Additionally, a provider's personal biases and the belief that PrEP use would promote *riskier* sexual behavior (ie, anticipated sexual risk compensation) may negatively influence PrEP prescribing.^{38,40}

Provider education that focuses on topics including trauma-informed care, cultural competency, stigma, discrimination, implicit biases, sexual health proficiency, social determinants of health, and PrEP and HIV prevention is important to ensure that the diverse needs of individuals are met.^{2,41}

USPSTF PrEP Recommendations and ACA Coverage Mandates

The USPSTF issued a grade A recommendation that PrEP be prescribed to those individuals at increased risk of HIV acquisition to decrease the risk of acquiring HIV.⁴² Individuals prescribed PrEP also should receive counseling about antiretroviral medication adherence and safer sex practices including condom use, regular testing for HIV, and other necessary diagnostics (eg, testing for sexually transmitted

infections).⁴² Further, the Patient Protection and Affordable Care Act (ACA) states that health plans must cover USPSTF grade A and B recommended services and medications with zero OOP costs to individuals.⁴³⁻⁴⁶ Coverage plans also must have an appropriate exceptions process (eg, one that allows for same-day PrEP services), and plans cannot restrict the number of times a person starts preventive therapy or the frequency that an individual uses USPSTF-specified services; the frequency of services are specified within the USPSTF recommendations.⁴⁶ Grandfathered plans under the Employee Retirement Income Security Act are exempt from ACA provisions,⁴⁴ whereas non-grandfathered private plans and Medicaid expansion must provide coverage with zero OOP costs for USPSTF grade A or B recommendations.⁴⁷

Real-World Evidence on Access and Outcomes

An analysis of a large real-world claims database provided by IQVIA evaluated PrEP prescriptions and HIV infection rates relative to the release of USPSTF recommendations. More than 500,000 individuals with over 3 million PrEP claims were included in the analysis. Individuals with private insurance claims for various PrEP regimens were identified. This study assessed 3 key milestones observed before and after USPSTF guideline implementation; these included the initial USPSTF recommendation on PrEP, the mandate to cover PrEP with zero OOP costs, and the release of a sheet with frequently asked questions and their answers to clarify coverage requirements. Results demonstrated that compliance with USPSTF guideline implementation increased over time, leading to an increased proportion of PrEP claims with zero OOP costs and a corresponding decline in HIV incidence (Figure 3). However, approximately one-third of individuals eligible for PrEP still experienced OOP costs for PrEP care.⁴⁸

Results of an analysis of a real-world prescriptions database demonstrated the impact of formulary coverage on the dispensing status of PrEP claims in the US. Assessment of 4.6 million PrEP claims showed that individuals with Medicare had 28% lower odds of dispensing than did those with commercial insurance. Furthermore, the odds of dispensing decreased proportionally with increasing OOP costs. These results highlight the need to ensure that different types of PrEP are covered by insurance plans with zero OOP costs.⁴⁹

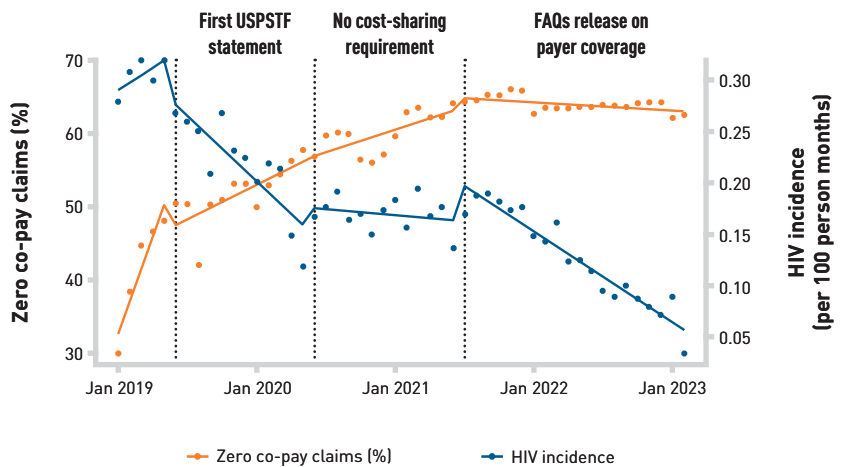
Further, a transmission model based on CDC and pivotal trial data developed by researchers from Yale and Harvard estimated that for every 10% decrease in the number of MSM for whom PrEP is indicated and who are receiving this

preventative regimen, there could be an additional 1140 primary HIV transmissions among MSM in the US during the following year. PrEP coverage for MSM in 2020 was estimated at 28%; based on modeling analysis, the authors predicted that lowering PrEP coverage to 10% via the suspension of ACA provisions requiring zero OOP costs for HIV preventative services would lead to an additional 2057 new HIV infections in MSM. The authors stated that such models offer valuable insights into the potential impact of changes in PrEP uptake on HIV transmission rates among people who are at risk of contracting HIV in the US.⁴³

Impact of PrEP Nonadherence and Delays in Dispensing

There is substantial evidence showing that adherence to PrEP decreases the risk of HIV infection in people at a high risk of being infected.⁴² An analysis of current usage patterns has shown low long-term adherence to PrEP overall.⁵⁰ Investigators retrospectively reviewed pharmacy claims data of adults (aged 16-89 years) with Medicare Advantage Prescription Drug coverage who were dispensed oral PrEP at least once for a duration of more than 30 days between 2012 and 2020. Among the 707 people evaluated, adherence was high during the initial 3 months after individuals were prescribed PrEP (84.9%; proportion of days covered [PDC], ≥ 0.80); however, adherence decreased at 12 months (58.7%; PDC, ≥ 0.80).⁵⁰ Supporting PrEP uptake and adherence is particularly important for people known to have lower adherence rates to PrEP.⁴² For example, among those

FIGURE 3. Impact of USPSTF Guidelines on Percentage of PrEP Zero Co-Pay Claims and Incidence of HIV⁴⁸



FAQs, frequently asked questions; PrEP, pre-exposure prophylaxis; USPSTF, United States Preventive Services Task Force.

Repurposed from: Zachry W, Yang J, Gruber J, Mezzio D, McGuinness P, Tao L. Impact of the United States Preventive Services Task Force (USPSTF) guidelines on pre-exposure prophylaxis (PrEP) claims and HIV 1 infection incidence: an interrupted time series with segmented regression analysis. Presented at: AMCP Nexus, October 16-19, 2023; Orlando, FL.

who need PrEP, Black individuals tend to show lower adherence to PrEP than do White individuals.⁴²

Analyzing the impact of PrEP discontinuation and nonpersistence on HIV infection diagnoses is important for optimizing PrEP care and delivery and prioritizing resources to support sustained PrEP use. Investigators in 1 study used data for 123,901 individuals obtained from IQVIA between April 2021 and March 2022 to evaluate the impact of PrEP nonpersistence on HIV incidence in people prescribed oral PrEP. Interruption of PrEP use was associated with a 2-fold increase in HIV infection rates compared with the rate noted with consistent use of PrEP regimens (incidence rate ratio: 1.96; 95% CI, 1.84-2.10). The greatest predictor of acquiring HIV infection was being off PrEP. The highest rates of HIV infection in those not adhering to PrEP were observed in cisgender men, transgender women, adults aged 25 to 44 years, and people living in the Midwestern US.⁵¹

Results from a study were presented on the real-world effects of PrEP prescription uptake and dispensing status on HIV infection risk in the US. The impact of delays in filling PrEP prescriptions was evaluated in 522,273 individuals receiving prescriptions for various PrEP regimens selected from the IQVIA database. Those in the non-dispensed-rejected and non-dispensed-abandoned cohorts had a

95% (2-fold) and 38% higher risk of new HIV infection, respectively (Figure 4). Delays beyond same-day dispensing of PrEP were associated with a substantially higher risk of acquiring HIV. The increased risk for new HIV diagnoses and higher risk associated with delays in the time to the first dispensed claim highlight the need to mitigate the impact of rejected insurance claims on person disengagement and to eliminate barriers to same-day access to PrEP.⁵²

Statewide Legislation in Advancing PrEP: Pharmacy-Driven PrEP

California serves as a pioneering example in advancing HIV prevention legislation among pharmacists. Senate Bill (SB) 159 was the first US legislation to authorize licensed pharmacists to furnish or provide PrEP and postexposure prophylaxis (PEP) without a prescription and under specific conditions.⁵³⁻⁵⁵ According to the bill, pharmacists can prescribe up to a 60-day supply of PrEP once every 2 years without a prescription under certain circumstances.⁵³ For example, under the Medi-Cal program, pharmacists are required to complete a training program and enroll as a provider.^{54,56}

This bill also prohibits insurance companies from requiring individuals to obtain prior authorization requirements before using their benefits to obtain PrEP or PEP.⁵³ Another California bill (SB 339) was passed in 2024, which allows a pharmacist to supply up to 90 days of PrEP if certain conditions (eg, the pharmacist ensuring that the individual undergoes applicable HIV testing and follow-up care according to CDC guidelines) are met.⁵⁵ This bill also required the California State Board of Pharmacy to adopt emergency regulations to implement these expanded provisions by October 31, 2024.⁵⁵

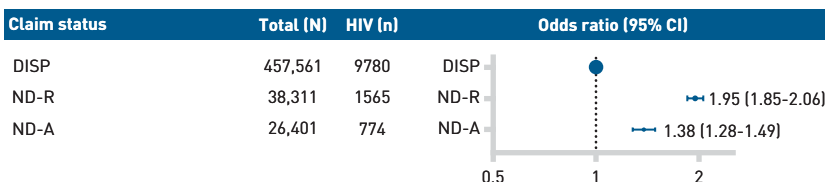
Similar legislative efforts in states including Colorado, Maine, Nevada, Oregon, Utah, Virginia, and Illinois grant pharmacists direct prescribing authority for PrEP. Many other states have collaborative practice agreement authority that is broad enough to allow pharmacists to prescribe PrEP.⁵⁷

Population Health Considerations: Person-Centric Solutions for Improving Access and Adherence to PrEP

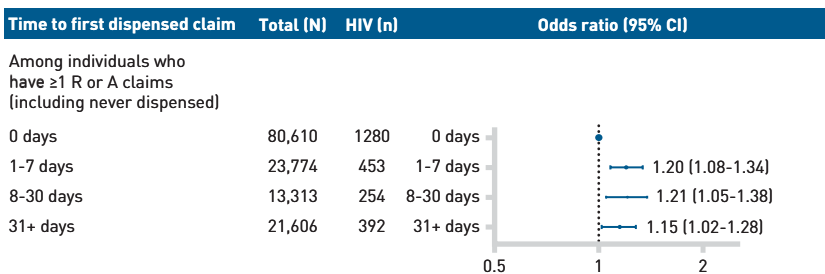
Population health decision-makers have an important role in enhancing access to care, improving health equity, and expanding HIV prevention efforts related to PrEP. Numerous approaches can be leveraged to expand HIV prevention efforts and improve care.²

FIGURE 4. Relationship Between HIV Infection Risk and Prescription Dispensing Status and Time to First PrEP Dispensing Within 12 Months of First PrEP Claim⁵²

A. Relationship between prescription dispensing status and HIV infection risk



B. Relationship between time to first PrEP dispensing and HIV infection risk



A, abandoned; DISP, ≥1 PrEP claim dispensed; ND-A, never had PrEP dispensed with more than 50% of claims abandoned; ND-R, never had PrEP dispensed with at least 50% of claims rejected by payer; PrEP, pre-exposure prophylaxis.

Adapted from: Tao L, Yang J, Zachry W, Gruber J, Mezzio D. *Open Forum Infect Dis.* 2023;10(suppl 2):ofad500.1392. doi:10.1093/ofid/ofad500.1392. https://academic.oup.com/ofid/article/10/Supplement_2/ofad500.1392/7448068 licensed under CC BY 4.0.

Person-centric HIV prevention is guided by an individual's personal choice while recognizing that needs and choices change over time and are shaped by personal, contextual, and structural forces (eg, age, gender identity, socioeconomic status, community, racism, political and legal participation).⁵⁸ Thus, clinician engagement with individuals who need PrEP is critical for effective HIV prevention and care. Approaches for improving adherence include fostering trust and open dialogue, providing education on PrEP, implementing systems that provide reminders for medication intake, and having preestablished plans to address any potential medication-related AEs.⁴² The diverse needs and preferences of individuals must be considered while preserving their autonomy and decision-making abilities.^{58,59} A person-centric approach includes fostering shared decision-making between an individual and their health care provider to improve PrEP uptake.^{12,58}

Population health decision-makers can enhance HIV prevention efforts by supporting efforts that decrease barriers to PrEP access. Investigators have identified options such as increasing availability of mobile PrEP programs, supporting same-day PrEP starts, decreasing the frequency of required in-person visits, and implementing alternative options for laboratory workups (eg, at-home HIV testing) for those with reliable adherence to PrEP.^{17,60,61} *Low-threshold* interventions (eg, drop-in visits, same-day PrEP prescription, streamlined testing, standing orders for laboratory tests, 90-day prescriptions) correlate with greater PrEP uptake and persistence and can lead to high individual satisfaction.^{60,62}

Use of technology (eg, telemedicine or telepharmacy) can improve accessibility for those who may need to travel long distances to access care and can help mitigate stigma associated with traditional clinic-based care (eAppendix Figure 1).^{6,20} Integration of HIV prevention tactics into the electronic health record (EHR) can promote accurate and timely gathering and sharing of information. EHRs also can provide clinical decision-support tools to improve screening to identify individuals who need PrEP and facilitate reengagement in HIV treatment or prevention for those present for other health care services.² TelePrEP programs may offer online counseling, mail-in testing, and medication delivery without in-person visit requirements.^{17,63}

It is essential that health systems emphasize provider training on the importance of PrEP and integrate PrEP services into routine practice. Offering providers support through resources, incentives, training, and technical assistance can increase their capacity to connect individuals with HIV testing, prevention, and support services, particularly in resource-limited areas.^{2,17,19}

Pharmacy-based PrEP services can increase access and adherence, especially among historically marginalized and underserved populations.^{60,64} Additionally, individuals who need PrEP may be more likely to trust in and engage with community pharmacists than with other health care providers.⁶⁴ Pharmacy settings authorized in

HIV prevention (eg, those with collaborative practice agreements and that can provide counseling and risk assessment, laboratory testing, and PrEP dispensing) can enhance accessibility and convenience, and often can provide care at convenient locations and outside of traditional health care hours.⁶⁵

Furthermore, states with such comprehensive measures as drug-assistance programs and/or Medicaid expansion tend to have higher PrEP usage rates and PnR ratios (eAppendix Figure 1).^{20,66} Medicaid programs may be able to support improved access to PrEP via care coordination, reimbursement of PrEP medications, and PrEP program services.⁶⁷

Conclusions

Ending the HIV epidemic remains a critical public health priority in the US, particularly in regions (eg, Southern states) with a high HIV burden. Addressing disparities in HIV prevention across different demographic groups, and especially among Black and Hispanic/Latinx communities, is essential to achieving this goal. National programs such as the EHE initiative have set ambitious targets aimed at reducing new HIV diagnoses by 2030. Despite the proven effectiveness of PrEP in reducing HIV infection, persistent challenges in PrEP access and uptake remain. These include limited awareness, stigma, access issues, OOP costs for PrEP, and drug formulary restrictions (eg, prior authorizations).

Population health decision-makers are uniquely positioned to overcome these barriers by ensuring broad and equitable access to PrEP. Compliance with USPSTF guidelines—which mandate PrEP coverage with zero OOP costs under the ACA—is critical. Supporting efforts aimed at removing insurance barriers such as formulary restrictions and prior authorization requirements—particularly in underserved communities—can facilitate timely and uninterrupted PrEP access.

Moreover, population health decision-makers might also consider person-centered engagement strategies including innovative programs such as same-day PrEP services to enhance patient autonomy and choice in HIV prevention. Health care providers will benefit from reinforced education and training that emphasize the cultural and educational needs of individuals who need PrEP. By implementing these strategies and fostering collaboration across health care sectors, population health decision-makers can play a pivotal role in achieving the ambitious goals set by the EHE initiative and ending the HIV epidemic. ■

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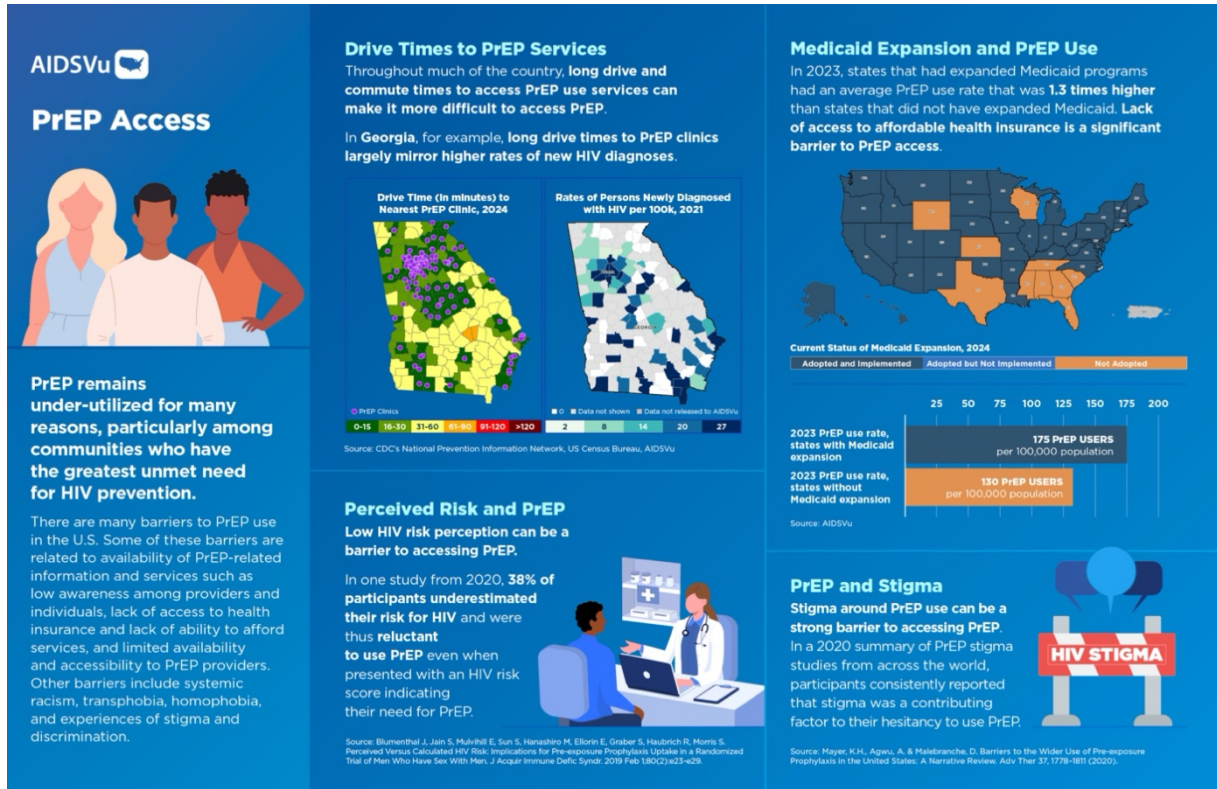
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eAppendix Materials

- **eAppendix Figure 1.** Association of PrEP Use Rates With Medicaid Expansion
- **eAppendix Figure 2.** PrEP Use by US Region, 2022
- **eAppendix Figure 3.** PrEP Use in Black Communities

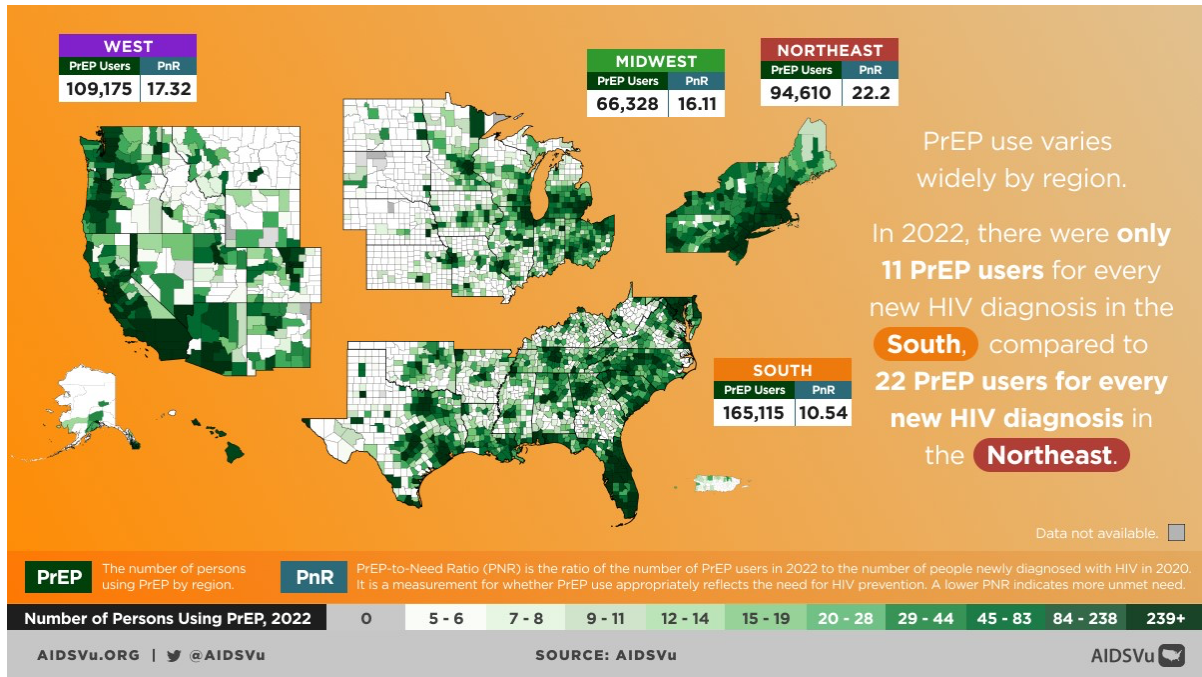
eAppendix Figure 1. Association of PrEP Use Rates With Medicaid Expansion²⁰



PrEP, pre-exposure prophylaxis.

Source: AIDSvu (aidsvu.org). Emory University, Rollins School of Public Health.

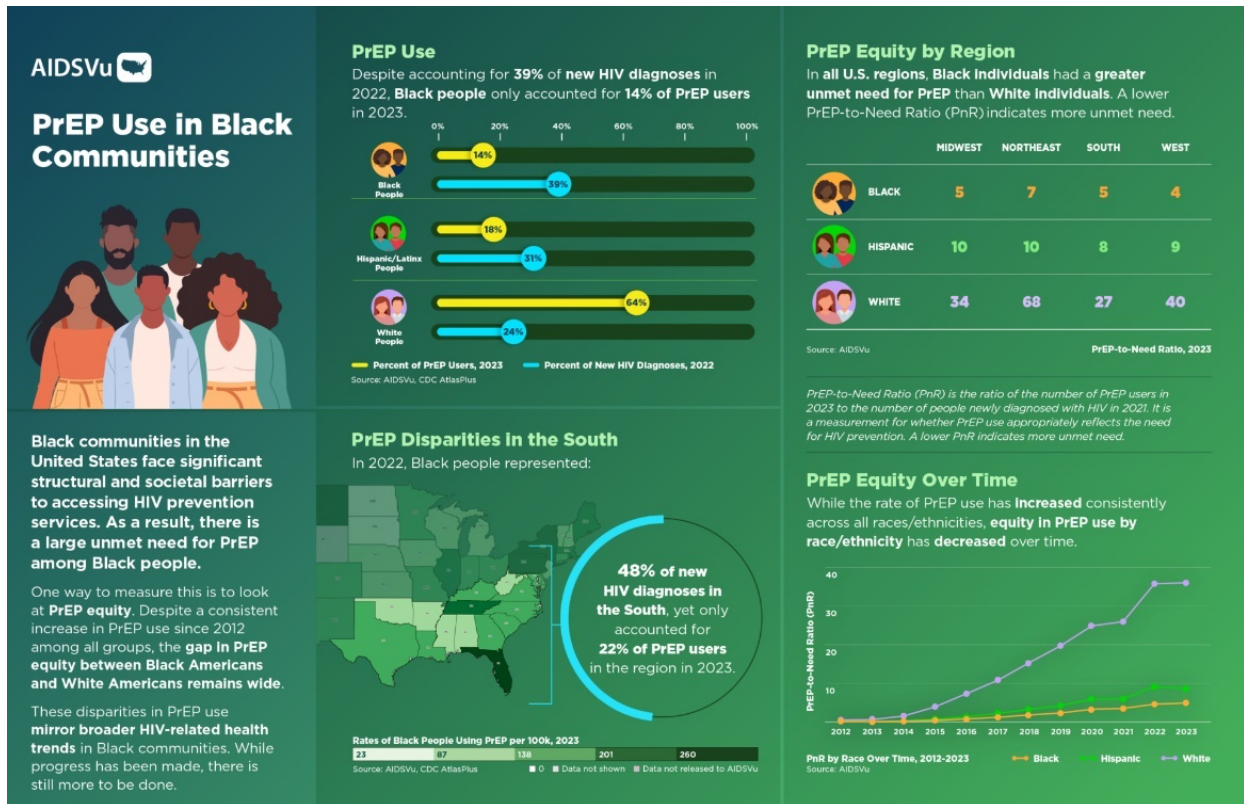
eAppendix Figure 2. PrEP Use by US Region, 2022²⁶



PrEP, pre-exposure prophylaxis; PnR, PrEP-to-need ratio.

Source: AIDSVu (aidsvu.org). Emory University, Rollins School of Public Health.

eAppendix Figure 3. PrEP Use in Black Communities²⁷



PrEP, pre-exposure prophylaxis.

Source: AIDSvu (aidsvu.org). Emory University, Rollins School of Public Health.