Introduction

Counties are at the forefront of public health and wellness, providing a wide spectrum of essential services to their residents and often working hand-in-hand with federal, state, and community partners. Counties promote public health through 1,943 local health departments and serve as a crucial safety net for economically and socially disadvantaged residents. One of the essential services that many county health departments offer is the provision of critical resources for the prevention and treatment of HIV infection. This publication explores the county’s role in supporting the HIV continuum of care, from the initial diagnosis of HIV infection and linkage to HIV medical care to the continued connection to care over the long term. It also includes data from a recent survey conducted by the National Association of Counties (NACo) about county HIV services, as well as real-world perspectives and observations from county health officials.

HIV in the United States

In the United States (US), approximately 1.2 million people are living with HIV, including an estimated 156,000 people who are unaware of their HIV status. Approximately 35,000 new HIV infections occur every year in the US, and nearly 40% of new HIV infections are transmitted by people who do not know that they have the virus.

HIV infection has affected some populations more than others (Figure 1). Although gay, bisexual, and other men who have sex with men (MSM) continue to have the highest risk of HIV infection in the US, accounting for nearly 70% of all new infections, heterosexual people represent 23% of all new HIV diagnoses, and people who inject drugs (PWID) account for 7% of new HIV infections. Annually, the highest rate of HIV infections is among Black/African American individuals, who account for 41% of new infections, followed by Hispanic/Latino individuals, who account for 29%, and White individuals, who account for 25% (Figure 2).
Additionally, rates of HIV infection are not evenly distributed throughout the US (Figure 3). More than one-half of new HIV diagnoses occur in just 48 of the more than 3,000 counties in the US, Washington, DC, and San Juan, Puerto Rico (county data on HIV rates and cases are available at https://map.aidsvu.org/map). Regionally, the highest rates are in the South, followed by the Northeast, West, and Midwest. A federal initiative named Ending the HIV Epidemic (EHE) is currently focusing on regions in the US where HIV transmission is most common, providing 57 geographic areas (including the 48 counties described above) with additional expertise, technology, and other resources to develop and implement local EHE plans. The EHE aims to reduce the number of new HIV infections in the US by 75% by 2025 and at least 90% by 2030. Notably, in 2021, the Health Resources and Services Administration (HRSA) awarded $99 million to the EHE through the Ryan White HIV/AIDS Program to expand access to HIV care, treatment, medication, and support services.

The HIV Continuum of Care

The HIV continuum of care refers to the important steps in patient engagement with HIV care. The Centers for Disease Control and Prevention (CDC) tracks the following steps in the HIV continuum of care:

- Diagnosis
- Linkage to care
- Receipt of/retention in care
- Viral suppression

HIV Treatment as Prevention: “Undetectable = Untransmittable”

ART can suppress HIV to very low levels in a person's blood. Studies have overwhelmingly proven that people with HIV who take ART as prescribed can maintain an undetectable level of the virus that cannot be sexually transmitted to others, even though the virus is still present in the person's body. This concept is known as “Undetectable = Untransmittable,” or “U = U.” In laboratory testing, an “undetectable” level is defined as fewer than 200 copies of the virus per milliliter of a person's blood (this is also known as “viral suppression”).

Most people living with HIV who start taking ART daily as prescribed achieve an undetectable level of HIV by approximately 6 months after beginning treatment. Once laboratory testing has confirmed that a person has consistently sustained an undetectable level of virus, they cannot sexually transmit HIV to their HIV-negative partner(s), even if they have unprotected sex. U = U has been transformative for many people living with HIV. People report that they feel more in control of their health, are motivated to keep taking their HIV medications, and are less fearful that they will transmit HIV to their partners. They also report less stigma about their HIV status.

Fortunately, due to major advancements in antiretroviral therapy (ART), HIV has become a treatable chronic disease. Starting treatment at diagnosis with medications that combat HIV and consistently taking these medications can allow many people living with HIV to lead long, healthy lives and prevent HIV transmission.

**FIGURE 3. Rates of Persons Living With HIV in the US, 2018**

Researchers have identified several important gaps in the HIV continuum of care that result in higher rates of HIV transmission and worse outcomes for people living with HIV:\(^\text{15}\):

- 14% of people living with HIV are unaware that they are infected with the virus
- Another 23% of people living with HIV are aware that they are infected but are not receiving any HIV-specific care
- Approximately 11% of people living with HIV are receiving HIV care but have not achieved viral suppression

Considered together, these gaps show that nearly 50% of people living with HIV are not achieving and consistently maintaining viral suppression (Figure 4).\(^\text{15}\) Ensuring that people have access to the HIV care continuum improves their health and prevents the transmission of HIV to others.\(^\text{10}\)

**Proven Strategies for Preventing HIV Infection**

- **Pre-exposure prophylaxis (PrEP)** is medications that people with an increased risk of HIV can take to prevent getting HIV from sexual activity or injection drug use; when taken as prescribed, PrEP reduces the risk of getting HIV from sex by about 99% and by at least 74% from injection drug use.\(^\text{16}\)

- **Condom distribution programs** are a public health strategy that helps to increase the availability, accessibility, and acceptability of condoms in an effort to prevent the spread of HIV and other sexually transmitted infections (STIs).\(^\text{17}\)

- **Needle and syringe exchange programs** provide access to sterile syringes and injection equipment and often also offer HIV testing, linkage to medical care, and substance use treatment; syringe services programs have been shown to reduce HIV infection and other blood-borne infections such as hepatitis C virus (HCV) by an estimated 50%.\(^\text{18}\)
The County’s Role

In August 2021, NACo conducted a survey of 54 health officials from 58 counties across the US about the HIV services they provide. The majority of survey respondents were county health department officials or county healthcare providers who work in HIV testing or treatment services. Key findings of the 2021 NACo survey include:

■ Most counties surveyed provide HIV testing (87%), and 39% offer at-home testing
■ Nearly all counties surveyed provide prevention services, including:
  – Community outreach and education about HIV (87%)
  – Condom provision programs (84%)
  – Multimedia prevention and education strategies (67%)
  – PrEP or referrals to healthcare providers who prescribe PrEP (56%)
  – Needle exchange programs (47%)
■ More than one-half (56%) of counties surveyed provide HIV treatment, including:
  – Access to free or affordable ART (76% of those that provide HIV treatment)
  – Access to case workers for people living with HIV (72% of those that provide HIV treatment)
  – Telehealth visits (56% of those that provide HIV treatment)
■ Stigma regarding HIV testing and treatment from patients and primary care providers remains one of the largest barriers to residents accessing testing or treatment services

Counties also reported successful approaches to testing and treatment for HIV, including:

■ Offering walk-in visits (however, during the COVID-19 pandemic, most county health services were limited to appointment-only visits)
■ Providing low-cost or free HIV testing to anyone wanting a test and ensuring confidentiality and privacy
■ Using rapid-result HIV tests (ie, results are available at same visit) and at-home testing kits
■ Establishing mobile testing services and drive-through testing sites

■ Offering HIV testing at needle/syringe exchange sites
■ Ensuring same-day linkage to HIV care and treatment after a positive HIV test result
■ Having dedicated staff to support and follow up with newly diagnosed patients
■ Increasing use of telehealth services
■ Facilitating patient access to food pantries and transportation services

Real-World Perspective

“Harris County Public Health (HCPH) has found success in partnering with Sunday Funday, an event in the heart of Montrose District (local LGBTQ community). HCPH has brought its Medical Mobile Unit to the event and provides free testing and conducts outreach regarding prevention through community health workers and printed materials. This provides convenient testing where our target population gathers.”

- Barbie Robinson, MPP, JD, CHC, Harris County Public Health in Texas
“The Test and Treat/Rapid Access (TTRA) program is one of our best success stories. The TTRA protocol uses a warm hand-off, VIP approach to provide a medical visit, appropriate laboratory tests, and a filled prescription for ART medication(s) the same day a person tests positive for HIV or is reconnected to care after a treatment absence. An initial mental health visit is included in the TTRA process to facilitate the assessment and diagnosis of any mental health issues that might prevent a client from adhering to their ART treatment regimen. This protocol also offers immediate connection to a medical case manager for the purpose of coordinating ongoing care.”

- Kira Villamizar BS, MPH, Florida Department of Health in Miami-Dade County

Effects of the COVID-19 Pandemic on HIV Prevention, Testing, and Treatment

The stay-at-home orders and social distancing recommendations related to the COVID-19 pandemic caused major disruptions to most aspects of HIV prevention, testing, and treatment. Record-breaking unemployment, loss of health insurance, and food insecurity also likely contributed to reduced access to HIV testing and treatment. One large commercial laboratory reported that 45% fewer HIV screening tests were administered in the US from March 2020 to September 2020, compared with the number of tests administered during the same months in 2019. Likewise, prescriptions for PrEP fell substantially, and access to ART was limited by disruptions to HIV care. For example, in one urban HIV clinic, the percentage of people with HIV who were virally suppressed (ie, taking ART as prescribed) fell by 30% during shelter-in-place orders.
To ensure ongoing access to HIV testing and treatment services during the COVID-19 pandemic, many NACo survey respondents reported that their counties expanded telehealth and mobile linkage services.

**Real-World Perspective**

“As we’ve witnessed with COVID, HIV impacts all of us. Very often when you hear conversations around HIV or STIs, it’s always perceived like it’s a ‘them’ issue. But in reality, it impacts all of us.”

- Nafissa Cisse Egbuonye, PhD, MPH, Black Hawk County Public Health in Iowa

**Conclusion**

Counties—especially county health departments—play a key role in working side-by-side with federal, state, and local partners to tackle the HIV epidemic and support a robust HIV care continuum. As demonstrated by the findings from the NACo survey, many counties offer crucial HIV prevention, testing, and treatment services. Although the COVID-19 pandemic had negative effects on HIV services, counties made important efforts to maintain the HIV care continuum. County leaders are in a unique position to be aware of and help meet the multifaceted needs and challenges facing residents who have an increased risk of HIV or are living with HIV infection.
References


**APPENDIX. Counties Represented in the NACo Survey Responses**

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