The Potential Impact of PrEP Implementation at CDC-Funded Nonclinical HIV Testing Venues

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Background

HIV/AIDS is a leading cause of death worldwide, and disproportionately burdens socioeconomically disadvantaged communities (WHO 2014). In the U.S., new HIV diagnosis rates are 8x higher among Black than among White populations (CDC 2014), and are particularly alarming among young Black men who have sex with men (MSM). Figure 1 illustrates overlapping distributions of poverty and HIV transmission in the U.S.

92% (30% or 61%, respectively) of new HIV transmissions in the U.S. are attributable to persons who are infected but undiagnosed, or diagnosed but not retained in medical care (JAMA Intern Med 2015).

CDC funds HIV testing programs in non-health care (NHC) settings (e.g., community-based organizations), to minimize barriers to testing among high-risk clients not otherwise engaged in routine medical care, by providing more culturally competent, linguistically appropriate, and geographically accessible services (CDC 2016).

NHC programs may similarly be effective but under-utilized venues for implementing pre-exposure prophylaxis (PrEP). We aim to quantify the HIV infections that might be averted by scaling up PrEP implementation at CDC-funded NHC testing sites.

Results

Of the 39,566 new HIV diagnoses reported to the CDC from 49 states and D.C. during the year 2014, 5,136 (13%) of diagnoses were made at CDC-funded NHC settings. The proportion of new diagnoses that were made at NHC sites was in the 0-28% range for each state (Figure 2). Wisconsin has one of the highest proportions, at 24% (52/218 diagnoses).

Positivity rate for HIV testing at CDC-funded NHC facilities is 2x greater than that at CDC-funded health care and correctional facilities combined.

CDC-funded non-health care settings may be more effective than other venues (e.g., private/academic clinics) at reaching young Black MSM, a population at very high risk for HIV infection (Figure 3).

Case Report: Confidential Testing and Referral (CTR) Programs in the State of Wisconsin

- It is of interest to study NHC facilities in Wisconsin, which has
  - 3rd highest proportion of diagnoses made at CDC-funded NHC settings (Figure 2)
  - 5th highest Black:White HIV prevalence ratio (CDC 2014)

- Among 310 new HIV diagnoses made at CTR sites in the years 2013-2015, at least 57 (1 in 5) had a client ID that matched an earlier negative test in the years 2008-2015, representing clients whose HIV infection may have been prevented if NHC sites had offered PrEP.

- The 57 clients pursued HIV testing a median of once every 11 months in the 2008-2015 period, demonstrating adherence to regular care at NHC facilities.

- The 57 clients were among high-risk and socioeconomically marginalized populations: 53% were age 20-29 years old, 53% were Black, and notably 89% were MSM.

Methods

- We analyzed publicly-available data from the CDC’s annual HIV Surveillance Report and CDC-Funded HIV Testing reports from 2014 to determine the proportion of new HIV diagnoses in each U.S. state and D.C. resulting from testing events at NHC settings.

- To assess the potential number of HIV cases that might be prevented under ideal conditions when PrEP is universally delivered to high-risk clients who test negative, we analyzed client-level data collected from the Wisconsin Division of Public Health’s Confidential HIV Testing and Referral (CTR) Program. Using a unique identification code entered by clients at the time of testing, we identified cases of confirmed new HIV diagnosis that could be linked to a prior, negative HIV testing event at a CTR site.

Conclusions

- A substantial number of HIV infections could be averted if there were robust mechanisms for linking NHC clients to highly effective prevention services.
  - Both nationally and in Wisconsin, NHC settings are effective at reaching high-risk populations.
  - In Wisconsin, high-risk populations regularly pursue services at NHC facilities.
  - Since the per capita utilization of NHC testing venues in Wisconsin is relatively low, the potential impact nationally of PrEP implementation at NHC venues is likely even greater than that for Wisconsin.

- Limitations:
  - National data from published, aggregated reports may not reflect site-specific variations in data collection or reporting.
  - Wisconsin analysis underestimates potential impact of PrEP implementation: >57 CTR clients had previous indeterminate or pre-2008 negative HIV tests.
  - PrEP implementation at CDC-funded NHC facilities would be consistent with recommendations for improving access to PrEP, from July 2016 community listening sessions hosted by HHS Office of HIV/AIDS and Infectious Disease Policy, White House Office of National AIDS Policy, and HHS Office of Minority Health.