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Characteristics of HIV-Positive Transgender Men Receiving Medical Care: United States, 2009–2014

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Abstract

Objectives—To present the first national estimate of the sociodemographic, clinical, and behavioral characteristics of HIV-positive transgender men receiving medical care in the United States.

Methods—This analysis included pooled interview and medical record data from the 2009 to 2014 cycles of the Medical Monitoring Project, which used a 3-stage, probability-proportional-to-size sampling methodology.

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CONTRIBUTORS

A. Lemons led the development of the article concept, drafted the article, incorporated all edits and revisions, and was the corresponding author for Centers for Disease Control and Prevention scientific clearance with *AJPH*. L. Beer conducted the data analyses, produced the table, and contributed technical expertise for presenting the data in the article. T. Finlayson and D. Lentine contributed their subject matter expertise to the development of the concept. D. H. McCree and R. L. Shouse contributed senior technical expertise. All authors contributed significantly to developing the concept, interpreting findings, revising drafts, and approving the final article.

HUMAN PARTICIPANT PROTECTION

In accordance with guidelines for defining public health research, the Centers for Disease Control and Prevention determined that the Medical Monitoring Project was public health surveillance used for disease control, program, or policy purposes. Local institutional review board approval was obtained at participating states, territories, and facilities when required. Informed consent was obtained from all interviewed participants.

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Results—Transgender men accounted for 0.16% of all adults and 11% of all transgender adults receiving HIV medical care in the United States from 2009 to 2014. Of these HIV-positive transgender men receiving medical care, approximately 47% lived in poverty, 69% had at least 1 unmet ancillary service need, 23% met criteria for depression, 69% were virally suppressed at their last test, and 60% had sustained viral suppression over the previous 12 months.

Conclusions—Although they constitute a small proportion of all HIV-positive patients, more than 1 in 10 transgender HIV-positive patients were transgender men. Many experienced socioeconomic challenges, unmet needs for ancillary services, and suboptimal health outcomes. Attention to the challenges facing HIV-positive transgender men may be necessary to achieve the National HIV/AIDS Strategy goals of decreasing disparities and improving health outcomes among transgender persons.

Transgender persons (individuals whose gender identity differs from their sex assigned at birth) experience poorer health outcomes than do cisgender persons (people whose gender identity is concordant with the sex they were assigned at birth).¹ Transgender persons disproportionately experience depression and sexually transmitted infections^{2,3} and, despite higher levels of educational attainment, have lower incomes and higher levels of poverty than do those in the general population.⁴ Because of structural and social factors, transgender persons face complications accessing necessary health care and social services^{1,2} and are disproportionately affected by HIV.^{5–7} In the United States, HIV research on transgender men (assigned a female sex at birth) is eclipsed by that on transgender women (assigned a male sex at birth), mainly because estimates of HIV prevalence are higher (25%–31%) among transgender women than among transgender men (0%–3%).⁶ However, research suggests that transgender men who have sex with men are at increased risk for HIV acquisition,^{8,9} and transgender men constitute 15.4% of the newly diagnosed HIV cases among trans-gender persons.¹⁰ Transgender men are an understudied population lacking evidence-based HIV interventions to address their needs.

The National HIV/AIDS Strategy for the United States: Updated to 2020 (NHAS) calls for improving the health outcomes of people living with HIV and decreasing health disparities among transgender people.⁵ However, limited data exist for transgender persons, especially transgender men living with HIV, which impedes efforts to improve their health and well-being. Surveillance systems designed to monitor health outcomes of the general population often lack adequate data about gender identity, making it difficult to distinguish between transgender and cisgender persons.⁹ This article is the first to present sociodemographic, clinical, and behavioral characteristics of HIV-positive transgender men drawn from a representative sample of adults receiving medical care in the United States.

METHODS

The Medical Monitoring Project (MMP) is an HIV surveillance system supported by the Centers for Disease Control and Prevention that produces annual nationally representative estimates of behavioral and clinical characteristics of HIV-positive adults receiving medical care in the United States. This analysis included pooled data from interviews and medical record abstractions from the 2009 to 2014 cycles, which used a 3-stage, probability-proportional-to-size sampling methodology. MMP methods, including response rates, are

described in detail elsewhere.¹¹ Persons eligible for MMP were HIV positive, were aged 18 years or older, and received HIV medical care in sampled, participating facilities in a given cycle year.

Respondents were asked their sex assigned at birth and current gender identity. Trans-gender men (n = 45) were defined as respondents who reported their sex assigned at birth as female and identified as currently being transgender or male. Sexual activity was defined as any oral, anal, or vaginal sex from 2009 to 2013, but oral sex was excluded in 2014. All percentages reported were weighted to account for unequal selection probabilities and nonresponse.

RESULTS

The 45 transgender men accounted for 0.16% (95% confidence interval [CI] = 0.10, 0.21) of all adults and 11.0% (95% CI = 7.0, 14.0) of all transgender adults receiving HIV medical care in the United States from 2009 to 2014. Most (59%) transgender men were between ages 18 and 49 years, 47% were non-Hispanic Black, and 76% obtained the equivalent of a high school diploma or higher (Table 1). Approximately 53% had a sexual partner in the past 12 months. Almost half (47%) reported household incomes at or below the federal poverty threshold, and 33% reported being uninsured or having only Ryan White program coverage for HIV medical care. Of the transgender men, 69% reported having at least 1 unmet ancillary service need (e.g., HIV case management, housing services, drug or alcohol counseling or treatment), and 23% met criteria for depression in the past 2 weeks, as measured by the 8-item Patient Health Questionnaire depression scale.

More than half (57%) of the transgender men had received their HIV diagnosis more than 10 years ago, and 55% had ever met criteria for HIV disease stage 3 (AIDS). Most had been prescribed antiretroviral therapy (93%), and 88% reported currently taking antiretroviral therapy. Among those taking antiretroviral therapy, 83% reported being 100% dose adherent during the past 3 days. About 69% had an undetectable viral load at their most recent test, and 60% had maintained undetectable viral loads over the previous 12 months. The majority (66%) had at least 1 viral load test documented in their medical records in each 6-month period during the past 12 months, an indicator of regular HIV care use. However, only 40% reported receiving counseling from a health care provider about protecting themselves or partners from acquiring HIV or sexually transmitted infections.

DISCUSSION

Many transgender men receiving HIV medical care in the United States face socioeconomic challenges and suboptimal health outcomes. Most had at least a high school education, yet almost half were living at or below the federal poverty level. Although these transgender men had access to HIV medical care, many experienced poor health outcomes and unmet needs; for example, viral suppression was far lower than the NHAS goal of 80% for all diagnosed persons.⁵ HIV-positive transgender men in the United States who are not receiving medical care likely experience even poorer health outcomes and lower levels of viral suppression.

NHAS aims to reduce HIV-related health disparities among groups such as transgender persons, and a recommended strategy to achieve health equity is to “support and strengthen capacity to implement innovative and culturally appropriate models to effectively deliver care along the continuum.”⁵(p9) We found evidence of poor health outcomes and unmet needs among HIV-positive transgender men receiving medical care who might benefit from these models. By addressing their needs and improving the health outcomes of transgender men living with HIV, we may help reduce disparities and decrease the risk of HIV transmission. Although more data are needed about HIV transmission among transgender men living with HIV, we found a need to improve delivery of care and prevention services because many were not sustainably virally suppressed and reported low rates of HIV and sexually transmitted infection prevention counseling.

These results were subject to several limitations. Our ability to examine characteristics among transgender men in greater detail was limited by the small sample size; however, the low proportion of transgender men in our sample was not unexpected considering the low estimated prevalence of HIV among transgender men and the relatively small size of the transgender population.⁶ Also, the sample size contributed to wide confidence intervals around our estimates; however, all but 1 estimate had acceptable coefficients of variation. Finally, because of MMP’s annual, cross-sectional design, 4 respondents reported participating in previous MMP cycles. We found no substantive differences in our estimates when excluding these cases, and because systematically excluding respondents who participated in a previous MMP cycle could bias our sample by underrepresenting transgender men receiving routine HIV care, we chose to include these cases in the analysis.

PUBLIC HEALTH IMPLICATIONS

More than 1 in 10 transgender persons receiving HIV care were transgender men. HIV-positive transgender men receiving medical care in the United States constitute a small group with socioeconomic challenges, unmet needs for supportive services, and poor health outcomes. To decrease disparities and achieve health equity among transgender men, HIV care models could incorporate transgender-sensitive health care and mental health services and health insurance inclusive of sex reassignment procedures and physical sex-related care.¹² Although more information is needed to understand how health professionals can improve the health and well-being of transgender men living with HIV in the United States, MMP data provide the first national estimates of important sociodemographic, clinical, and behavioral characteristics among this population.

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Note. The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the CDC.

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TABLE 1

Selected Characteristics of HIV-Positive Transgender Men Receiving Medical Care: US Medical Monitoring Project, 2009–2014

	No.	% (95% CI)
Age, y		
18–49	25	59 (43, 75)
50	20	41 (25, 57)
Race/ethnicity		
Non-Hispanic Black	22	47 (30, 64)
Hispanic	11	27 (12, 42)
Non-Hispanic White	12	26 ^a (11, 42)
Gay or bisexual identity	18	40 (25, 56)
Educational attainment		
< high school	12	25 (13, 37)
High school diploma or general equivalency diploma	14	34 (18, 49)
> high school	19	42 (24, 59)
federal household poverty threshold	21	47 (34, 60)
Health insurance or coverage for medical care or medications		
Any private insurance	10	22 (10, 35)
Public insurance only	19	45 (31, 58)
Uninsured or only Ryan White program coverage	14	33 (19, 47)
1 unmet need for ancillary support services	32	69 (54, 84)
Other or major depression, past 2 wk	10	23 (11, 36)
Sexually active	22	53 (39, 67)
Length of time since HIV diagnosis, y		
< 10	19	43 (28, 59)
10	26	57 (41, 72)
HIV disease stage ^b		
AIDS or nadir CD4 cell count 0–199 cells/μL	25	55 (39, 71)
No AIDS and nadir CD4 cell count ≥ 200 cells/μL	20	45 (29, 61)
Antiretroviral therapy		
Prescribed ^b	42	93 (85, 100)
Currently taking	40	88 (78, 99)
Adherent to 100% of doses, past 3 d	31	83 (70, 95)
Viral suppression		

	No.	% (95% CI)
Most recent viral load undetectable or < 200 copies/mL ^b	32	69 (55, 83)
All viral loads in past 12 mo undetectable or < 200 copies/mL ^b	28	60 (45, 76)
Geometric mean CD4 cell count > 500 cells/μL ^b	24	57 (41, 73)
Had ≥ 1 viral load test every 6 mo ^b	30	66 (48, 83)
Receipt of HIV or STI prevention counseling by a health care professional	19	40 (23, 57)

Note. CI = confidence interval; STI = sexually transmitted infection. All percentages are weighted; time period is 12 mo prior to interview unless otherwise noted; all variables measured by interview self-report unless otherwise noted. The sample size was n = 45.

^a Coefficient of variation > 0.30; estimate may be unstable.

^b Documented in medical record.