

HIV Testing and Service Delivery Among Black Females — 61 Health Department Jurisdictions, United States, 2012–2014

Renee Stein, PhD¹; Taran Pierce, MPH¹; Natasha Hollis, PhD¹; Jennifer Smith, MPH¹

A primary goal of the national human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) Strategy is to reduce HIV-related health disparities (1). Among all HIV diagnoses among women in the United States in 2014, non-Hispanic black or African American (black) women accounted for an estimated 62% of diagnoses, despite constituting only 13% of the female population (2,3). Although HIV diagnoses continue to occur disproportionately among black women, HIV surveillance data indicate a 13.5% decrease in diagnoses from 2012 to 2014 (2,4). However, widespread HIV testing and early linkage to care are critical for persons with HIV to achieve viral suppression and improved health outcomes, and to reduce transmission of HIV to others (5). Analysis of CDC-funded program data on HIV testing services provided to black females and submitted by 61 state and local health departments during 2012–2014 revealed that the number of new HIV diagnoses among black females decreased 17% from 2,177 in 2012 to 1,806 in 2014. Among black females with newly diagnosed HIV infection, the percentage who were linked to HIV medical care within 90 days of diagnosis increased 48.2%, from 33.8% in 2012 to 50.1% in 2014. However, in 2010 the National HIV/AIDS Strategy established a goal to link 85% of persons with newly diagnosed HIV infection to HIV medical care (1). Enhanced efforts to diagnose HIV infection among black females and link them to HIV medical care are critical to address HIV infections in the United States.

During 2012–2014, CDC funded 61 state and local health departments and 151 community-based organizations* to conduct HIV testing and provide linkage to HIV medical care, partner services, and behavioral risk reduction services in the United States. National HIV Prevention Program Monitoring

and Evaluation (NHM&E) data on HIV testing events[†] and related services are collected and submitted without personal identifiers through a secure, online, CDC-supported system. Data are used by CDC to monitor and evaluate HIV testing activities at the national level. Any person who tested positive for HIV and did not report a previous HIV-positive test result is considered to have a newly diagnosed infection. The HIV positivity rate was calculated by dividing the number of newly diagnosed HIV infections by the total number of testing events. HIV testing services analyzed for this report include linkage to HIV medical care within 90 days of diagnosis[§] and interview for partner services (6).[¶] CDC analyzed NHM&E HIV testing data for 2012–2014 submitted as of March 19, 2015, by 61 CDC-funded state and local health departments in the United States, Puerto Rico, and the U.S. Virgin Islands.** Analyses were restricted to persons who reported their sex as female, their ethnicity as non-Hispanic, and their race as black; data were stratified by age group and U.S. Census region.

During 2012, a total of 764,296 CDC-funded testing events occurred among black females; this number increased 3.9% to 793,894 in 2013, and decreased to 702,328 in 2014, representing an 11.5% decrease compared with 2013, and an 8.1% decrease compared with 2012. Women aged 20–29 years accounted for an average of 44.7% of all testing events conducted among black females during 2012–2014, the largest proportion of any age group. (Table).

The number of newly diagnosed HIV infections in black females during the 3-year analysis period was 2,177 in 2012, 2,196 in 2013, and 1,806 in 2014, representing a 17% decline

* CDC-funded partners include health departments in the 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and eight directly funded city/county health departments (Baltimore, Maryland; Chicago, Illinois; Fulton County, Georgia; Houston, Texas; Los Angeles County, California; New York City, New York; Philadelphia, Pennsylvania; and San Francisco, California) and 151 community-based organizations. Community-based organizations report their National HIV Prevention Program Monitoring and Evaluation HIV testing data to their jurisdiction's health department who then submit them to CDC.

[†] An HIV testing event is the performance of one or more HIV tests to determine a person's HIV infection status. During one testing event, a person might be tested once (e.g., one rapid test or one conventional test) or multiple times (e.g., one rapid test followed by one conventional test to confirm a preliminary HIV-positive test result). Valid testing events were defined as tests for which either a test technology (conventional, rapid, nucleic acid amplification, or other testing) or test result (positive, negative, indeterminate, or invalid) was reported.

[§] Linkage to HIV medical care within 90 days of diagnosis means confirmation that the person attended her first HIV medical care appointment within 90 days of the HIV test date.

[¶] Interview for partner services elicits information from the HIV-positive person about her sex and drug-injecting partners, who can then be confidentially notified of their possible exposure and potential risk and offered services that can protect the health of partners and prevent HIV transmission to others.

** Data were submitted by 59 health departments in 2012 (all except Michigan and Oregon), 61 health departments in 2013, and 60 health departments in 2014 (all except Arkansas).

TABLE. HIV testing events, newly diagnosed HIV infections, and HIV service delivery among non-Hispanic black or African American females with newly diagnosed HIV infections, by age group and U.S. census region — United States, Puerto Rico, and U.S. Virgin Islands, 2012–2014*

Characteristic	HIV testing events			Newly diagnosed HIV infections [†]			Women with newly diagnosed HIV infection, linked to care within 90 days of diagnosis			Interviewed for HIV partner services		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Age group (yrs)												
13–19	93,497 (12.2)	87,543 (11.0)	72,811 (10.4)	98 (0.10)	71 (0.08)	57 (0.08)	32 (32.7)	33 (46.5)	33 (57.9)	32 (32.7)	40 (56.3)	41 (71.9)
20–29	341,656 (44.7)	355,459 (44.8)	312,949 (44.6)	544 (0.16)	530 (0.15)	487 (0.16)	164 (30.1)	243 (45.8)	230 (47.2)	170 (31.3)	251 (47.4)	256 (52.6)
30–39	150,618 (19.7)	162,261 (20.4)	147,764 (21.0)	515 (0.34)	544 (0.34)	458 (0.31)	174 (33.8)	246 (45.2)	244 (53.3)	173 (33.6)	254 (46.7)	240 (52.4)
40–49	94,541 (12.4)	95,652 (12.0)	82,102 (11.7)	557 (0.59)	517 (0.54)	400 (0.49)	180 (32.3)	226 (43.7)	202 (50.5)	185 (33.2)	228 (44.1)	196 (49.0)
≥50	80,390 (10.5)	89,461 (11.3)	82,778 (11.8)	445 (0.55)	483 (0.54)	396 (0.48)	183 (41.1)	228 (47.2)	193 (48.7)	149 (33.5)	239 (49.5)	199 (50.3)
U.S. census region												
Northeast	118,204 (15.5)	110,125 (13.9)	97,091 (13.8)	338 (0.29)	310 (0.28)	303 (0.31)	147 (43.5)	195 (62.9)	197 (65.0)	47 (13.9)	180 (58.1)	159 (52.5)
Midwest	73,935 (9.7)	97,977 (12.3)	90,771 (12.9)	146 (0.20)	166 (0.17)	162 (0.18)	50 (34.2)	58 (34.9)	70 (43.2)	49 (33.6)	65 (39.2)	52 (32.1)
South	546,847 (71.5)	553,489 (69.7)	482,578 (68.7)	1,616 (0.30)	1,640 (0.30)	1,247 (0.26)	512 (31.7)	705 (43.0)	601 (48.2)	600 (37.1)	761 (46.4)	664 (53.2)
West	23,430 (3.1)	29,379 (3.7)	29,293 (4.2)	77 (0.33)	78 (0.27)	91 (0.31)	27 (35.1)	42 (53.8)	36 (39.6)	18 (23.4)	42 (53.8)	59 (64.8)
Total	764,296 (100.0)	793,894 (100.0)	702,328 (100.0)	2,177 (0.28)	2,196 (0.28)	1,806 (0.26)	736 (33.8)	1,001 (45.6)	904 (50.1)	714 (32.8)	1,049 (47.8)	934 (51.7)

Abbreviation: HD = health department; HIV = human immunodeficiency virus.

Source: National HIV Prevention Program Monitoring and Evaluation system.

* HIV testing events were defined as tests for which either a test technology (conventional, rapid, nucleic acid amplification testing, or other) or test result (positive, negative, indeterminate, or invalid) was reported. Persons who tested HIV-positive but did not report a previous positive test result were categorized as newly diagnosed HIV-positive persons. Data were submitted by 59 HDs in 2012 (all except Michigan and Oregon), 61 HDs in 2013, and 60 HDs in 2014 (all except Arkansas). The percentage of missing data was 57.9%, 46.7%, and 38.4% for linkage to HIV medical care in 2012, 2013, and 2014, respectively. The percentage of missing data was 43.5%, 35.8%, and 23.4% for interview for partner services 2012, 2013, and 2014, respectively.

[†] HIV positivity rate was calculated by dividing the number of newly diagnosed HIV infections by the total number of testing events.

from 2012 to 2014. The percentage of newly diagnosed HIV infections among all testing events was similar in all 3 years, ranging from 0.26% in 2014 to 0.28% in 2012 and 2013. Although black females aged 40–49 years and ≥50 years accounted for an average of only 12.1% and 11.1% of testing events, respectively, the highest rates of newly diagnosed HIV infections during all 3 years were observed in these age groups (mean = 0.54% [40–49 years] and 0.52% [≥50 years]) (Table).

Among U.S. Census regions, an average of 70% of all testing events conducted among black females occurred in the South census region during 2012–2014; 14.4% occurred in the Northeast, 11.6% in the Midwest, and 3.6% in the West. Mean HIV positivity rates were similar in the Northeast (0.29%), South (0.29%), and West (0.30%), and lower in the Midwest (0.18%) (Table).

Among black females with newly diagnosed HIV infection, the percentage who were linked to HIV medical care within 90 days of diagnosis increased overall from 33.8% in 2012 to 50.1% in 2014, and among all age groups and U.S. Census regions. The largest increase occurred among females aged 13–19 years, from 32.7% in 2012 to 57.9% in 2014. The Northeast census region linked the highest percentage of black females with newly diagnosed HIV-infection to care (average = 56.7%), followed by the West (42.7%), the South (40.4%) and the Midwest (37.6%) (Table).

During 2012–2014, interviews for partner services among black females with newly diagnosed HIV infection increased overall from 32.8% to 51.7%, and for all age groups and in all U.S. Census regions except the Midwest. The largest increases

occurred among females aged 13–19 years (from 32.7% to 71.9%), and in the Northeast (from 13.9% to 52.5%) and West (from 23.4% to 64.8%) census regions. During 2012–2014, the percentage of black females with newly diagnosed HIV infection who were interviewed for partner services ranged from an average of 41.3% for persons aged 40–49 years to 50% for persons aged 13–19 years (Table).

Discussion

The National HIV/AIDS Strategy goal to reduce disparities in the rate of new HIV diagnoses among black females in the United States by at least 15% compared with diagnoses in the overall population from 2010 to 2020 was met 8 years early, in 2012. However, a decrease in the rate of new diagnoses is just one indicator of progress. To reduce HIV-related disparities for black females, it is also important to reach National HIV/AIDS Strategy goals that aim to increase the percentage of HIV-positive black females living with HIV who know their status and who are linked to HIV medical care (1). Although increasing these proportions among black females won't alone reduce all HIV-related disparities, it is critical to the larger public health effort to prevent HIV infections and strengthen care.

Persons who are aware of their HIV-positive status are more likely to take steps to prevent HIV transmission to others (7) and to get linked to HIV medical care. HIV testing and partner services are two important strategies for increasing the number of persons living with HIV who know their status. Although CDC funding for HIV testing programs remained relatively stable during 2012–2014, the findings in this report

Summary**What is already known on this topic?**

Although a recent decline in the number of new human immunodeficiency virus (HIV) diagnoses has been seen among non-Hispanic black or African American (black) women, this population is still disproportionately affected by HIV. HIV testing, early linkage to HIV medical care, and partner services are critical for ensuring that HIV-positive black women are aware of their status and receive the care they need to achieve viral suppression and improved health outcomes.

What is added by this report?

Analysis of National HIV Prevention Program Monitoring and Evaluation data on CDC-funded HIV testing events and HIV prevention services from 61 state and local health departments and 151 community-based organizations indicated that the number of HIV testing events among black females declined slightly from 2012 to 2014, and the HIV positivity rate remained relatively stable. Linkage to HIV medical care within 90 days of diagnosis for black females with newly diagnosed HIV infection increased from 33.8% to 50.1% from 2012 to 2014; however, this is below the goal set by the National HIV/AIDS Strategy to link 85% of HIV-positive persons to HIV medical care.

What are the implications for public health practice?

Enhanced efforts to diagnose new HIV infections among black females, and link those with HIV infection to HIV medical care will help to eliminate health disparities among this group through improved health outcomes and viral suppression.

show that the number of CDC-funded testing events provided to black females declined slightly during this period and the HIV positivity rate remained relatively stable. Although the number of black females with newly diagnosed HIV infection interviewed for partner services increased during this period, only slightly more than half (51.7%) were interviewed in 2014.

Increasing evidence supports the benefits of early linkage to HIV medical care. A recent study determined that 91.5% of new HIV infections are attributable to persons with HIV who are not in HIV medical care and underscores the importance of early diagnosis and ongoing care and treatment (8). Early linkage to care is critical because it leads to improved health outcomes and survival for the person living with HIV (5). The findings in this report indicate that the percentage of black females with newly diagnosed HIV infection who were linked to HIV medical care within 90 days of diagnosis increased from 33.8% to 50.1% from 2012 to 2014. Although this represents improvement, 50.1% is still well below the National HIV/AIDS Strategy target of 85% (1).

The findings in this report are subject to at least three limitations. First, these findings describe CDC-funded HIV testing events only, and therefore, are not representative of all HIV testing among all black females in the United States. Second,

for this report, the percentage with linkage to HIV medical care represents the minimum percentage achieved because all persons with newly diagnosed HIV infection are included in the denominator, even if data for linkage are missing or invalid. Finally, because self-report of current HIV status is used, the number of new positive results and HIV positivity are likely overestimates. Although NHM&E data completeness and accuracy have steadily improved from 2012 to 2014, continued training and technical assistance for CDC-funded partners are needed to effectively monitor and evaluate HIV prevention program efforts.

To continue to reduce HIV-related health disparities for black females in the United States, increasing HIV testing efforts among this group is needed to increase the percentage of black females living with HIV who are aware of their status, and to ensure that every black female with HIV infection is linked to HIV medical care soon after her diagnosis, is retained in care, and achieves viral suppression.

Acknowledgment

Prevention Program Branch, Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC.

¹Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC.

Corresponding author: Renee Stein, rstein1@cdc.gov, 404-639-3517.

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