HIV Care Continuum Report, Georgia, 2014

HIV/AIDS Epidemiology Section
Epidemiology Program
Division of Health Protection
Georgia Department of Public Health

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For more information on HIV surveillance in Georgia, visit

http://dph.georgia.gov/reporting-forms-data-requests

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Georgia HIV Core Surveillance Team contributors: Lauren Barrineau-Vejjajiva, Victoria Davis, Thelma Fannin, Brian Huylebroeck, Jane Kelly, Rodriques Lambert, Mildred McGainey, Latoya Moss, Rama Namballa, Doris Pearson, A. Eugene Pennisi, Akilah Spratling, Lakecia Vanerson, and Andrenita West.

This report was prepared by the following staff of the Georgia Department of Public Health: Jane Kelly, Brian Huylebroeck, Rodriques Lambert, A. Eugene Pennisi, Pascale Wortley, and Cherie Drenzek.

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Background

In January 2013, the Centers for Disease Control and Prevention released HIV Surveillance Supplemental Report Volume 18, Number 2 *Monitoring Selected National HIV Prevention and Care Objectives by Using HIV Surveillance Data – United States and 6 U.S. Dependent Areas - 2010*[1]. The report provides data by selected jurisdiction on stage of disease at diagnosis of HIV infection in 2010, and on the HIV Care Continuum (previously called the HIV Care Cascade), i.e., linkage to and retention in HIV care and viral suppression. These metrics can be used to monitor progress toward the achievement of objectives outlined in the National HIV/AIDS Strategy for the United States (NHAS), released by the White House in July 2010[2]. While there is no consensus or "gold standard" for measures of linkage and retention in care, several measures for retention have been reported to correlate with one another[3]. Selection of appropriate measures must take into consideration availability and accuracy of data collection systems, as well as potential uses of the metrics.

In July 2015, the White House released the new National HIV/AIDS Strategy (NHAS) 2020 goals, including a change to the metric for "linked to care." Whereas previously the metric for linkage was within 90 days of diagnosis, the new NHAS 2020 goals include Indicator #4: "Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of their HIV diagnosis to at least 85 percent." [4] In keeping with this new metric, we report here on linkage in Georgia within 30 days, a change from previous reports using 90 days.

Since January 1, 2004, Georgia has had a dual reporting system that legally requires HIV/AIDS reporting by both health care providers and laboratories (*O.C.G.A. §31-12-2(b)*). All health care providers diagnosing and/or providing care to a patient with HIV have the obligation to report using the HIV/AIDS Case Report Form. Case report forms are mandated to be completed within seven (7) days of diagnosing a patient with HIV and/or AIDS or within seven (7) days of assuming care of an HIV positive patient who is new to the provider, regardless of whether the patient has previously received care elsewhere. All laboratories certified and licensed by the State of Georgia are required to report laboratory test results indicative of HIV infection, such as positive Western Blot results, all detectable and undetectable viral loads, and all CD4 counts to the Georgia Department of Public Health (GDPH) HIV/AIDS Epidemiology Program (HAEP)[5]. Appendix A depicts the Georgia HIV/AIDS Reporting Flowchart. Appendix B contains the Georgia DPH Case Report Form.

Recent improvements in the Georgia electronic laboratory reporting (ELR) system have facilitated use of laboratory-based measures for linkage and retention in care. Although other measures such as missed appointments, health care visit consistency, and gaps in care may be assessed at individual health care facilities, it is difficult to accurately gather these measures on a statewide basis in Georgia. For these reasons, measures in this report and previous Georgia

Care Continuum reports rely on laboratory data-driven definitions. In addition, multiple measures, such as linked to care within 30 days of diagnosis, any HIV care (at least one CD4 or viral load in 12 months) as well as the HRSA medical visit performance measure (at least two CD4 or viral load measures as least three months apart within a 12 month period)[6] or "retained in care" can be useful to various stakeholders in monitoring impact of effort to improve outreach, testing, and care.

Efforts are underway to promote routine HIV testing in Georgia, identify those with acute infection, link and retain persons living with HIV in medical care, achieve higher rates of viral suppression overall, and eliminate disparities in HIV testing, treatment and care. Late diagnosis of HIV infection contributes to poorer outcomes for infected individuals and impedes HIV prevention efforts. Earlier diagnosis provides opportunity for interventions for viral suppression for the benefit of the individual and for reduced HIV transmission for the benefit of the community.

Report Organization

The Georgia HIV Care Continuum Surveillance Report, 2014 is organized as follows:

- Section One – HIV Care Continuum for persons living with HIV, Georgia, 2014
- Section Two – HIV Care Continuum for men who have sex with men (MSM), Georgia, 2014
- Section Three - HIV Care Continuum for the Atlanta Eligible Metropolitan Area (EMA), and for non-EMA Counties, Georgia 2014.
- Section Four - Viral suppression among persons retained in HIV care, Georgia, 2014

Supplementary slide sets are available on the Georgia DPH website for the care continuum stratified by sex, race, age and transmission category for persons living with HIV In Georgia, the Atlanta EMA, and non-EMA counties. https://dph.georgia.gov/hiv-care-continuum.

Methodology

Georgia Care Continuum Methodology, Persons Living With HIV (PLWH), 2014

- Persons included are adults and adolescents age 13 and older, diagnosed by 12/31/13 living as of 12/31/14 with a current address in Georgia.
- Linked to care within 30 days is measured only for the new diagnoses made in 2014, and includes laboratory tests drawn on the same day as diagnosis. This linkage measure differs from previous Care Continuum reports for Georgia, and should not be compared to previous years for trend analysis. In the slides and figures, linkage is shown in a different color from the rest of the continuum to emphasize the different denominator.
- "Any HIV care" is defined as having had at least 1 CD4 or viral load (VL) measurement in 2014.
- "Retained in care" is defined as having had at least 2 CD4 or VL at least 3 months apart in 2014.
- “Viral suppression” (VS) is defined as a VL<200 copies/ml or undetectable at the most recent VL in 2014. Persons missing viral load tests are assumed to not be virally suppressed.
- Each bar in the continuum is independent of those preceding it; all percentages are of the total number of persons diagnosed with HIV in category.

Current Residence

- Persons are categorized as having a current address in the Atlanta EMA or in a non-EMA county based on the most recent address available in the surveillance system. This address is referred to as their “current” address, though it may be several years old, and may not represent their true current address if they moved and have not have a lab result reported containing an updated address.
- Additionally, persons may receive care in an area different from where they reside, for example, a person lining in a non-EMA county may receive care in the Atlanta EMA.

Transmission Category Definitions

Transmission category is determined from risk behavior noted on case report forms or obtained through match with other databases (such as CAREWare from the Ryan White program, or non-

HIV sources such as the Georgia DPH tuberculosis and STD databases). The transmission category assignments are hierarchical as per CDC methodology[8] and defined as follows:

- MSM is defined as male to male sexual contact
- IDU is defined as injection drug use
- The MSM/IDU transmission category includes those persons who reported both male sexual contact and injection drug use
- HET is defined as heterosexual contact with a person known to have, or to be at high risk for, HIV infection
- Other includes the transmission categories of hemophilia, blood transfusion, and perinatal exposure.

Multiple Imputations

Missing data is an ongoing problem in routinely collected data or large-scale epidemiologic studies. Because a substantial proportion of persons with diagnosed HIV infection are reported to the Georgia Department of Public Health without an identified risk factor, multiple imputation methods are used to assign transmission categories to those persons whose diagnoses are reported without a risk factor.

Multiple imputation (MI) is a statistical approach in which missing transmission categories for each person are replaced with plausible values that represent the uncertainty regarding the actual, but missing, values. This is the same statistical strategy that the CDC uses to assign transmission categories to those reported without a risk factor in the national dataset.[9]

Whether these transmission category adjustments using MI introduce any systematic bias in overestimation or underestimation of percentages of HIV infection attributed to specific categories is unknown. Instead of estimating the risk factor distribution probabilities for cases with missing risk factors by a simple redistribution approach, MI draws a random sample of the missing values from its distribution.

Then, instead of filling in a single value for each missing value, MI replaces each missing value with a set of plausible values that reserve the statistical distribution of the imputed variable and the relationship with other variables in the imputation model. The multiply-imputed datasets are then analyzed by using standard procedures for complete data. Results from these analyses are then combined to get the final estimates.

MI is considered a sound approach for large datasets.[10] In an analysis comparing the Care Continuum for the Georgia HIV prevalent population in 2012 stratified by transmission category

estimated with and without use of MI, little difference was found, similar to the experience with the national dataset.[9] Specific examples can be found in the slide set "Multiple Imputation, Georgia 2012" found on the Georgia DPH website.

Summary of Methodology Changes

This Georgia 2014 report of the HIV Care Continuum represents a refinement of the Georgia 2012 Care Continuum Report. The changes include:

- Linkage to care is measured by CD4 or VL within 30 days of diagnosis including the day of diagnosis for persons diagnosed in 2014 only. The Georgia 2012 report excluded laboratory values drawn on the day of diagnosis.
- The term "any HIV care" is used for those having had at least one CD4 or VL in 2014. In previous reports this measure was referred to as "engaged in care".
- Previous reports provided dichotomized sex into "male" and "female" based on sex at birth. This report still provides the care continuum by sex at birth, but also includes data on persons categorized as transgender based on information on the HIV case report form or other sources (e.g., SENDSS and CAREWare).

Highlights

HIV Care Continuum among persons living with diagnosed HIV (PLWH), Georgia, 2014

- Linkage to care within 30 days was 75% for Georgia overall, ranging from 72% for Blacks to 83% for Whites. PLWH aged 13-19 and 20-24 years had the lowest linkage proportion (68%).
- Although somewhat higher proportions of females than males were linked within 30 days, received "any care", and were retained in care, viral suppression (VS) was the same for males and females at 45%.
- A lower proportion of Black than Asian, Hispanic/Latino, White, and Multiple races PLWH were retained in care (47%) and virally suppressed (43%).
- The number of American Indian/Alaska Native (AI/AN) and Native Hawaiian or Other Pacific Islander (NHOPI) PLWH is small in Georgia, and low proportions retained in care and virally suppressed should be viewed with caution. These measures may represent a health disparity, or a reporting artifact. AI/AN PLWH may receive care at Indian Health

Service facilities that are not required by law to report laboratory data to the Department of Public Health.

- Retention in care and VS measures decrease substantially from persons aged 13-19 years (58% and 52% respectively) to those aged 20-24 (45%, 38%) and 25-25 years (43%, 38%), then increase with increasing age; they do not, however, reach the same proportion as in the youngest age group
- By transmission category, lower proportions of IDU (40%) and MSM/IDU (41%) were virally suppressed, compared to HET (46%) and MSM (47%).

HIV Care continuum for men who have sex with men (MSM), Georgia, 2014

- MSM represent 58% (28924/49922) of PLWH in Georgia in 2014.
- The HIV Care Continuum for MSM is similar to that for Georgia overall, with 73% linked within 30 days, 62% receiving any care, 48% retained in care, and 45% virally suppressed.
- Stratified by race/ethnicity, a lower proportion of black MSM were retained and virally suppressed (46% and 43%, respectively) compared with Hispanic/Latino MSM (48%, 46%), white MSM (52%, 54%) Asian (55%, 61%, and Multiple race MSM (64%, 60%). The proportion of MSM of unknown, AI/AN, and NHOPI race that were retained and virally suppressed were lower, but caution should be used in interpretation, as the number of persons in these groups is small.

HIV Care Continuum for the Atlanta Eligible Metropolitan Area (EMA), and for non-EMA counties, Georgia 2014

- The majority (69% or 34593/49922) of PLWH in Georgia have a "current" address in the Atlanta EMA.
- While the proportions of linked and virally suppressed are higher overall (77% and 47%, respectively) in the EMA compared to non-EMA (72% and 42%), the proportion with any care and retained in care are slightly higher for those who live in the non-EMA counties (62% and 49%) vs. EMA counties (61% and 47%).
- The proportion virally suppressed is higher among PLWH in EMA than non-EMA counties for blacks (44% vs. 42%), Hispanic/Latinos (47% vs 42%), whites (54% vs 47%), multiple race (60% vs. 58%), and Asians (59% vs. 35%). Caution should be used in interpretation, as the number of Asian PLWH in the non-EMA is small.

- The proportion virally suppressed is higher for PLWH in the EMA than in the non-EMA counties for all age groups, with a substantial difference for PLWH aged 13-19 living in the EMA (57%) compared to non-EMA (39%).
- The proportion virally suppressed is higher for PLWH in EMA than non-EMA counties for all transmission categories except IDU, for which VS is equal at 40%. This is surprising in view of greater availability of substance abuse services in the Atlanta EMA. However, persons whose mode of transmission is injection drug use may not currently be injecting drugs.

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Viral suppression among persons retained in HIV care, Georgia, 2014

- VS among those retained in care is an indicator that inadequate VS is not solely the result of poor access to care, but also reflects non-prescribing of ART or inadequate ART adherence.
- Overall in Georgia, among PLWH retained in care, the proportion virally suppressed was higher among males compared to females (82% vs. 78%), and increased with increasing age from aged 20-24 years (70%) through those aged 55 years and older (86%). Among 13-19 year olds retained in care, 78% were virally suppressed. This pattern is true for PLWH in both EMA and non-EMA counties, though a higher proportion of those retained were virally suppressed in the EMA for each age group.
- Racial disparity in VS among those retained in care is seen in both among PLWH in EMA and non-EMA counties, with 73%, 82%, 82% VS among retained for black, Hispanic/Latino and white PLWH respectively in the non-EMA counties, and 80%, 85%, 91%, respectively, for the EMA.
- The proportion virally suppressed among persons retained in care was higher in every transmission category in the EMA compared to the non-EMA counties.

Technical Notes

This report includes data reported to Georgia DPH HAEP from January 1, 2004 (when name-based HIV reporting began in Georgia) through December 27, 2015.

All data reported here are provisional and should be interpreted with caution. Not all HIV infected persons in Georgia have been tested or some may have been tested at a point too early in infection to be detected by the test used. Although HIV reporting is mandated for health care providers and laboratory facilities, not all providers and laboratories may comply,

resulting in missing data. Laboratory tests performed in other jurisdictions may not be reported to Georgia DPH and therefore would not be included in these analyses.

In this report, missing data for sex, race/ethnicity and transmission category are indicated as unknown. Missing data may result from incomplete or absent Adult Care Report Forms, inadequacy of records for patients lost to follow-up, or patients accessing HIV treatment from health care systems outside Georgia. Follow-up of missing data cases is ongoing.

Definitions and hierarchy for assignment of transmission category follows the definitions used by CDC.[8] Data by transmission category were statistically adjusted using multiple imputation method to account for missing risk factor information. Estimates are rounded to the nearest whole number. Data referring to diagnoses of HIV infection and persons living with HIV infection include all persons with HIV infection regardless of stage of disease (Stage 1, 2, 3 [AIDS] or unknown) at the time of diagnosis.

Limitations

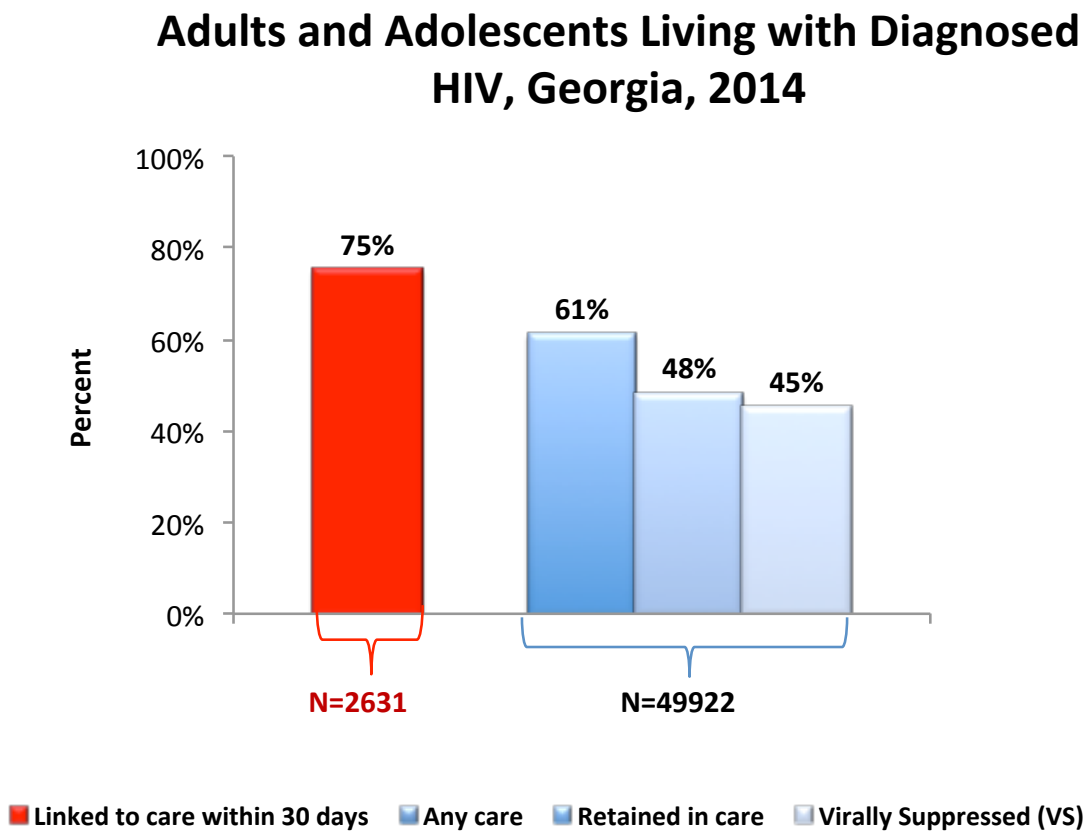
Limitations to this report include:

- CD4 or viral load is used as a proxy measure for linkage, any care, and retention in care. If laboratory tests are obtained prior to an HIV care appointment which is not kept, retention in care may be overestimated; conversely, a person may be seen for HIV care without laboratory data marking the visit, resulting in an underestimation of retention in care.
- Missing laboratory report data result in an underestimation of care and viral suppression.
- Incomplete reporting on case report forms on race, sex, complete address at diagnosis, and risk behavior (which is used in defining transmission category) limit stratification and comparison among groups.
- The high proportion of missing risk behavior information on case report forms limits comparisons among groups. Rather than presenting the data as No Reported Risk for all of these cases, Georgia utilizes multiple imputations, a statistical technique, to re-distribute missing information and estimate transmission category.
- Populations for which data are missing may be fundamentally different from other groups for which race, sex and transmission category are known.
- The number of individuals in some groups is small and caution should be used in interpretation.

Despite these limitations, by maintaining methodological consistency across reporting time periods, Georgia DPH uses the HIV Care Continuum to identify disparities and monitor improvements in HIV linkage, retention in care and ultimately viral suppression.

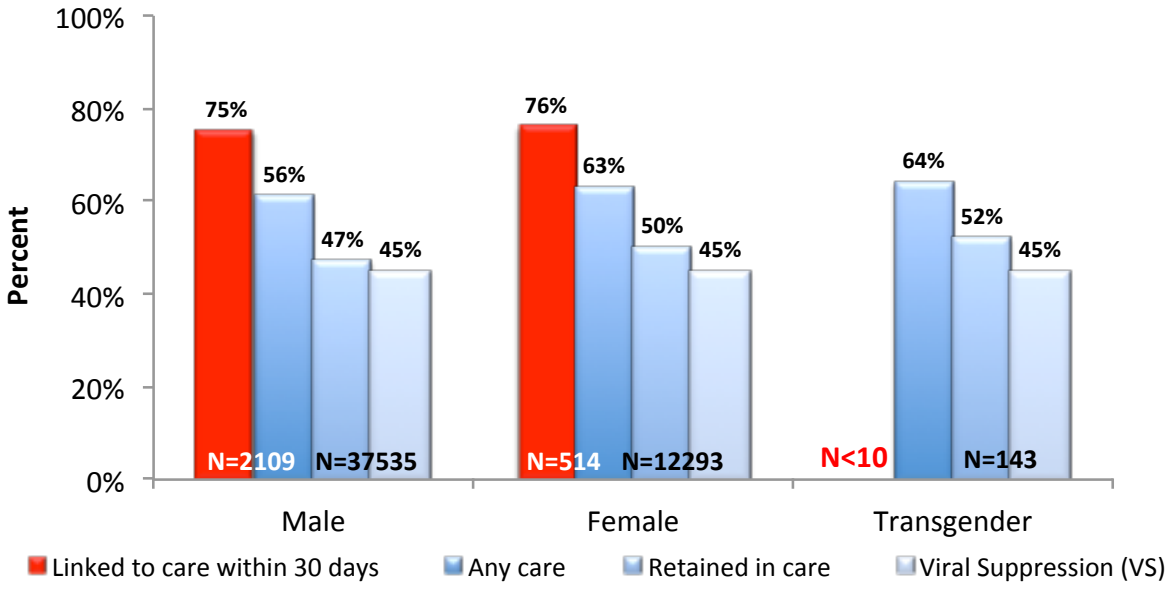
Section 1: Care Continuum among Persons Living with Diagnosed HIV, Georgia, 2014

While linkage to care within 30 days of diagnosis for persons diagnosed in 2013 is fairly high at 75% receipt of any HIV care and retention in care for all persons living with HIV in Georgia is substantially lower at 61% and 48% respectively. Forty-five percent of Georgians living with diagnosed HIV were virally suppressed (VL<200 or undetectable) as of their last viral load in 2014.

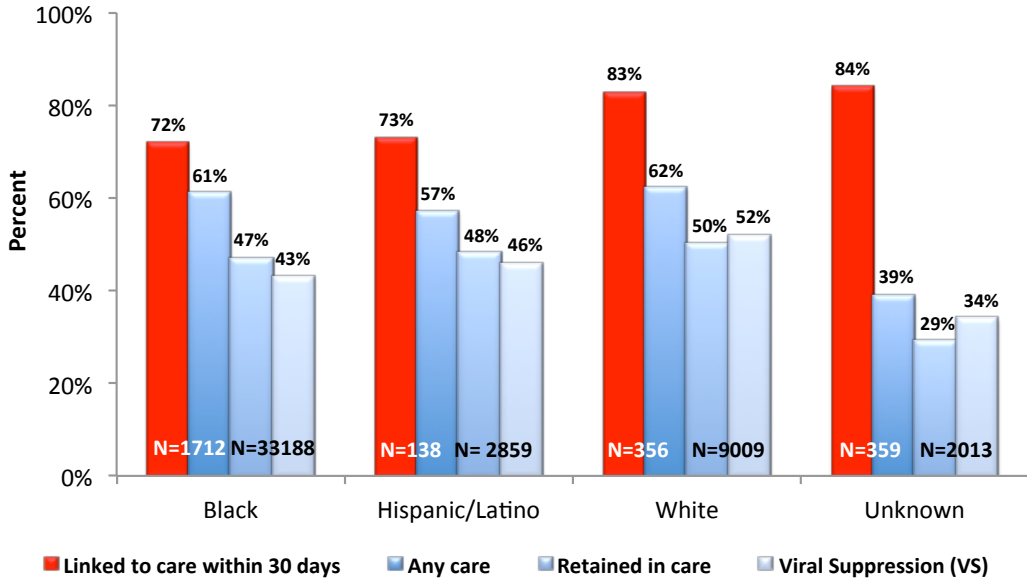


The following figures depict the HIV Care Continuum for Georgia, 2014, stratified by sex, race/ethnicity, age, and transmission category.

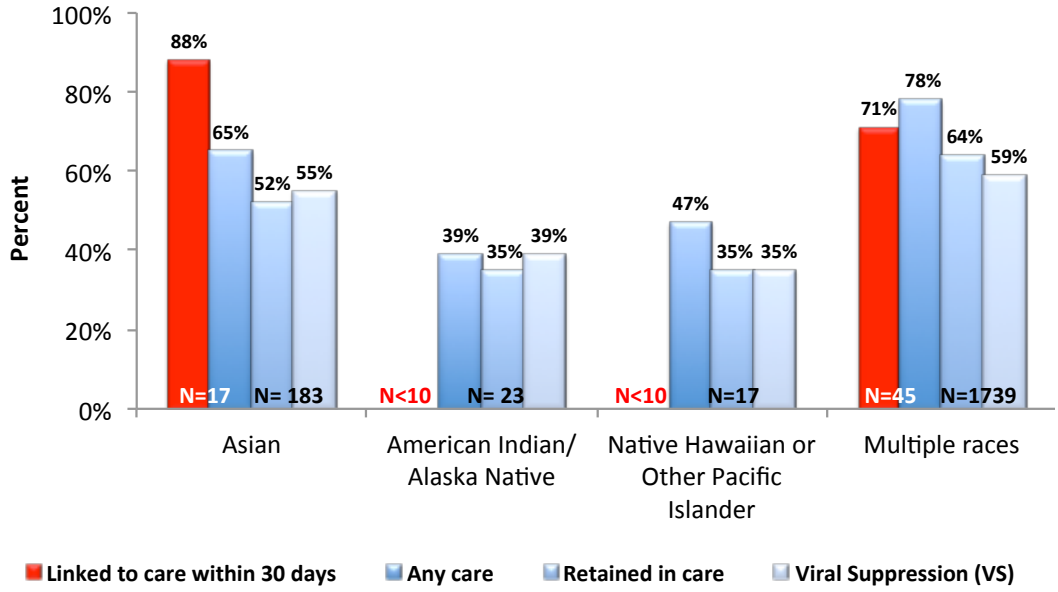
Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014 by Sex

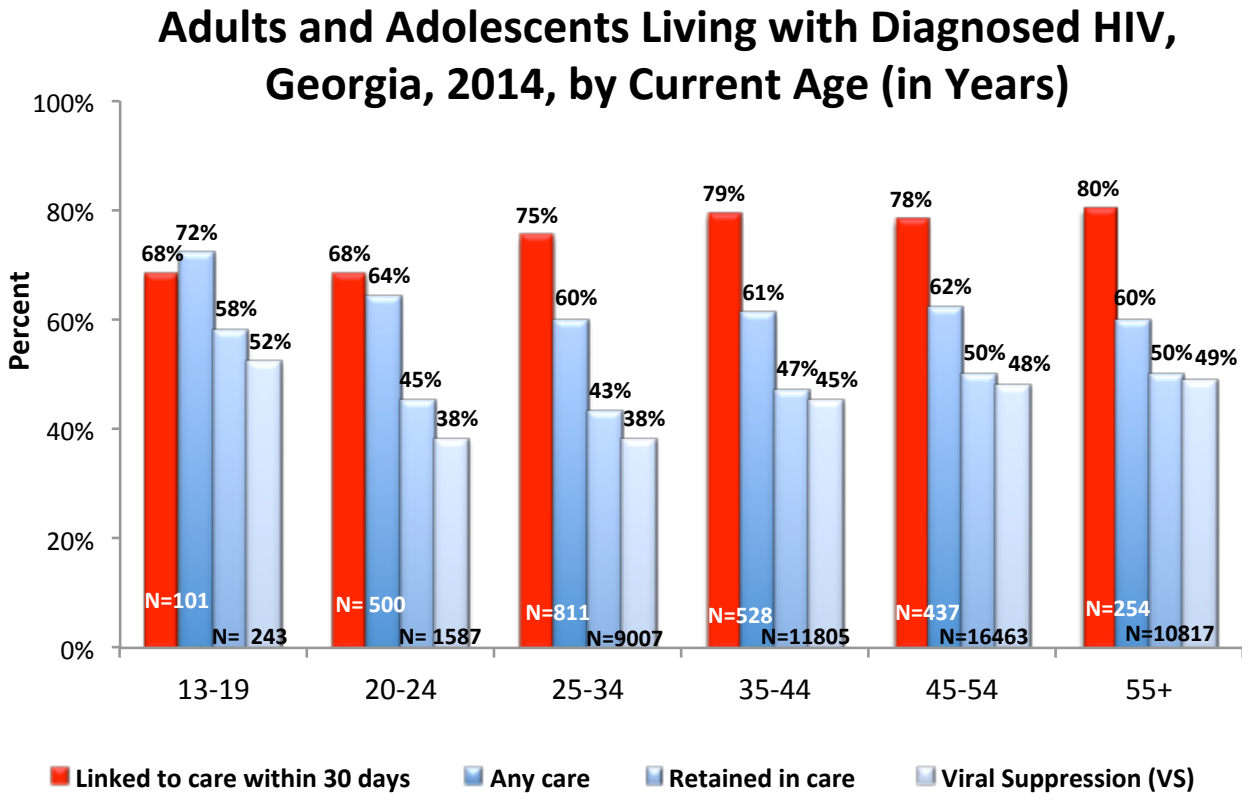


Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014, by Race/Ethnicity



Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014, by Race/Ethnicity




Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014, by Current Age (in Years)
Percent
100%
80%
60%
40%
20%
0%
68%
72%
58%
52%
N=101
N= 243
68%
64%
45%
38%
N= 500
N= 1587
75%
60%
43%
38%
N=811
N=9007
79%
61%
47%
45%
N=528
N=11805
78%
62%
50%
48%
N=437
N=16463
80%
60%
50%
49%
N=254
N=10817
13-19
20-24
25-34
35-44
45-54
55+
Linked to care within 30 days
Any care
Retained in care
Viral Suppression (VS)

Adults and Adolescents Living with Diagnosed HIV, Georgia, 2014, by Transmission Category

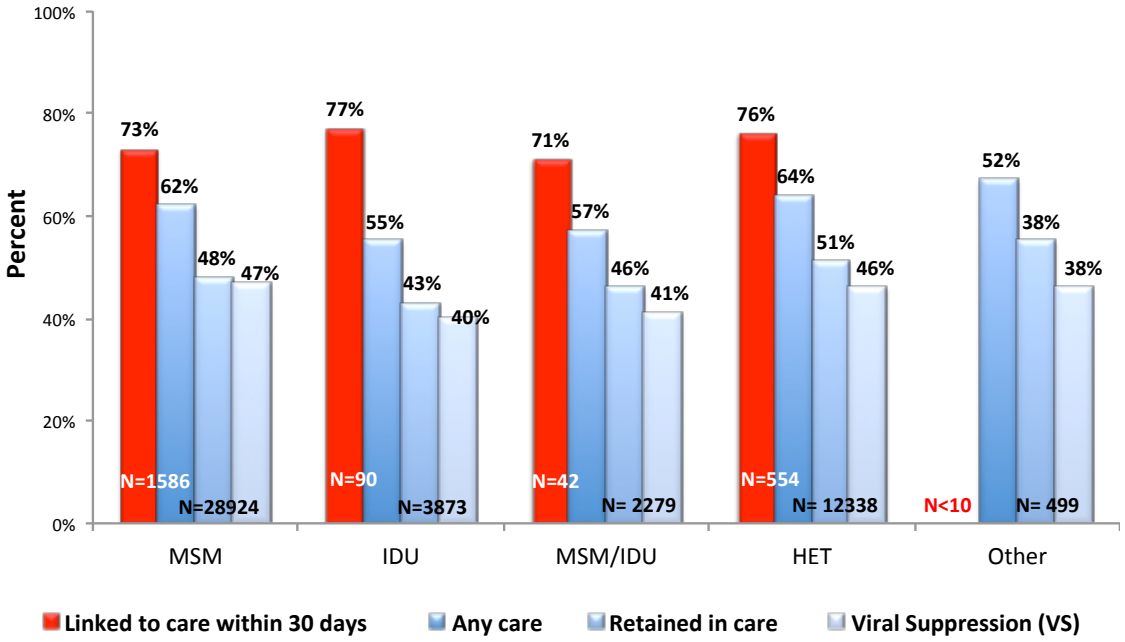


Table 1. HIV Care Continuum, Georgia, 2014

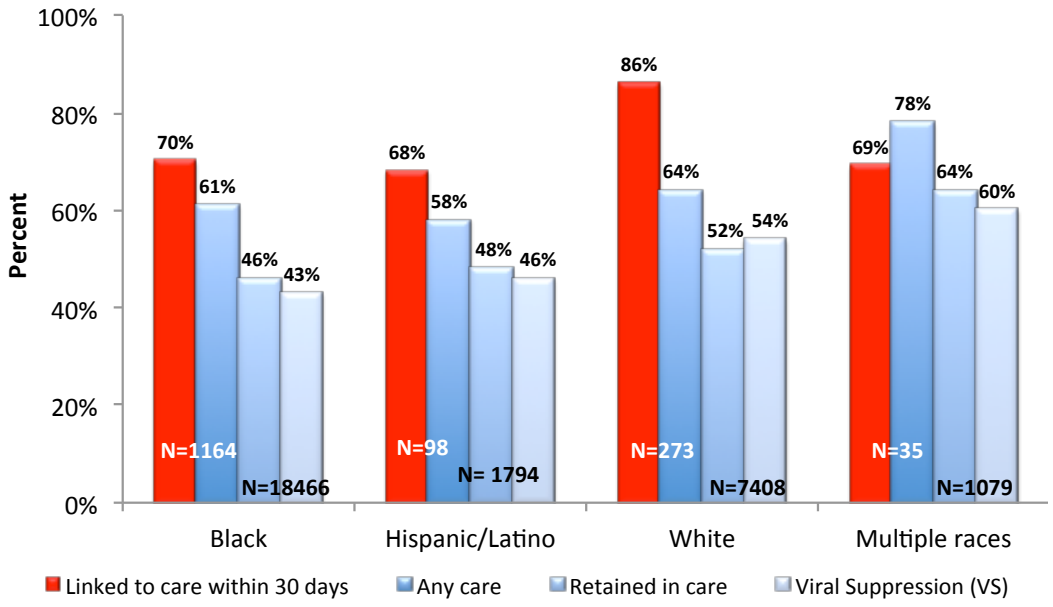
Population	Linked within 30 days % (N*)	Any care % (N)	Retained in care % (N)	Viral suppression % (N)
Overall	75 (2,623)	61 (49,922)	48 (49,922)	45 (49,922)
Sex				
Male	75 (2,109)	56 (37,535)	47 (37,535)	45 (37,535)
Female	84 (514)	63 (12,293)	50 (12,293)	45 (12,293)
Transgender	N<10	64 (143)	52 (143)	45 (143)
Race/ethnicity				
AI/AN	N<10	39 (23)	35 (23)	39 (23)
Asian	88 (17)	65 (183)	52 (183)	55 (183)
Black	72 (1,712)	61 (33,188)	47 (33,188)	43 (33,188)
Hispanic/Latino	73 (138)	57 (2,859)	48 (2,859)	46 (2,859)
NHOPI	N<10	47 (17)	35 (17)	35 (17)
White	83 (356)	62 (9,900)	50 (9,900)	52 (9,900)
Multiple races	71 (43)	78 (1,739)	64 (1,739)	59 (1,739)
Unknown	84 (359)	39 (2,013)	29 (2,013)	34 (2,013)
Age group				
13-19	68 (101)	72 (243)	58 (243)	52 (243)
20-24	68 (500)	64 (1,587)	45 (1,587)	38 (1,587)
25-34	75 (811)	60 (9,007)	43 (9,007)	38 (9,007)
35-44	79 (528)	61 (11,805)	47 (11,805)	45 (11,805)
45-54	72 (437)	62 (16,463)	50 (16,463)	48 (16,463)
55+	80 (254)	60 (10,817)	50 (10,817)	49 (10,817)
Transmission category				
HET	76 (554)	64 (12,338)	51 (12,338)	46 (12,338)
IDU	77 (90)	55 (3,873)	43 (3,873)	40 (3,873)
MSM	73 (1,586)	62 (28,924)	48 (28,924)	47 (28,924)
MSM/IDU	71 (42)	57 (2,279)	46 (2,279)	41 (2,279)

*** N=denominator**

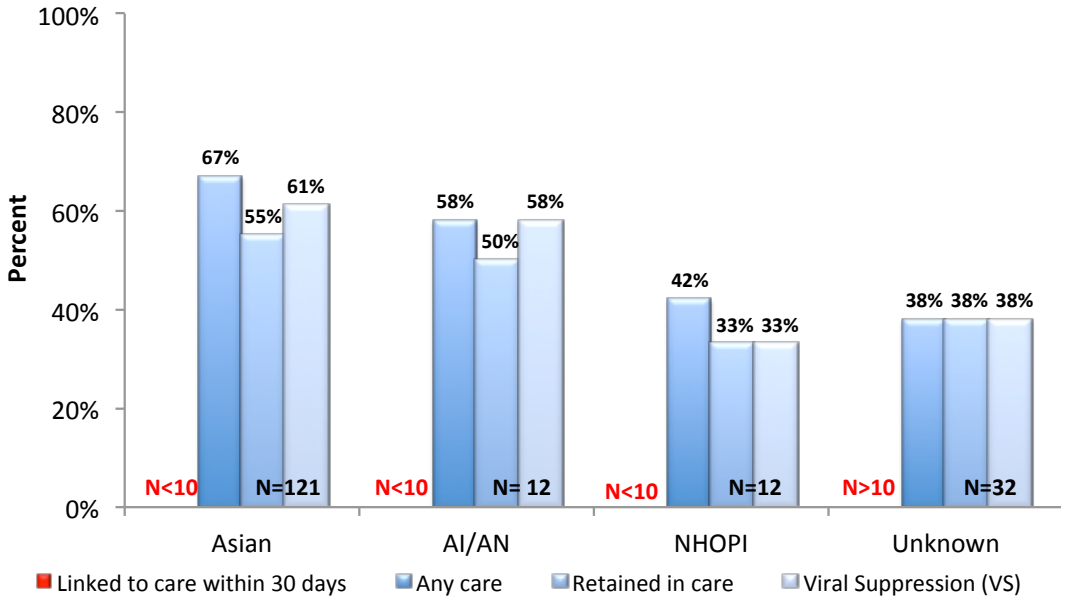
Section 2 – HIV Care Continuum for Men who Have Sex with Men (MSM), Georgia, 2014

MSM represent the largest group of PLWH by transmission category, 58% of HIV positive Georgians at the end of 2014. Racial disparities in the care continuum for MSM are similar to that of Georgia as a whole, with slightly higher rates of VS among Asian, white and multiple race MSM than the overall population.

Adults and Adolescent MSM Living with Diagnosed HIV, Georgia, 2014, by Race/Ethnicity



Adults and Adolescent MSM Living with Diagnosed HIV, Georgia, 2014, by Race/Ethnicity



Section 3 - HIV Care Continuum for PLWH living in the Atlanta Eligible Metropolitan Area (EMA), and in non-EMA counties, Georgia 2014.

The EMA consists of the following counties: Bartow, Paulding, Carroll, Coweta, Fayette, Spalding, Henry, Newton, Rockdale, Gwinnett, Walton, Barrow, Forsyth, Cherokee, Pickens, DeKalb, Fulton, Clayton, Cobb and Douglas. Non-EMA counties are all others in Georgia.

Table 2 displays percent of PLWH (with denominator in parentheses) who are linked, in any care, retained in care, and virally suppressed for the Atlanta EMA and non-EMA counties.

Proportional differences between EMA and non-EMA that were statistically significant with $p<0.05$ are indicated by bold font and gray shading. Significantly lower proportions of Linked and VS in 2014 are present in almost every strata for non-EMA residents (Tables2). While Retention in Care is higher at a statistically significant level among persons living in non-EMA counties compared to the EMA overall, the proportion of PLWH with VS is significantly higher in the EMA for all sub-groups except IDU and MSM/IDU

Table 2. HIV Care Continuum by last known address for persons living in the EMA and non-EMA counties in Georgia, 2014*

Population	Linked within 30 days % (N**)		Any care % (N)		Retained in care % (N)		Viral suppression (VS) % (N)	
	EMA	Non-EMA	EMA	Non-EMA	EMA	Non-EMA	EMA	Non-EMA
Overall	**77% (1,725)**	**72% (898)**	61% (34,520)	62% (15,329)	**47% (34,520)**	**49% (15,329)**	**47% (34,520)**	**42% (15,329)**
Sex								
Male	**77% (1,409)**	**71% (700)**	60% (27,375)	61% (10,160)	**47% (27,375)**	**48% (3,171)**	**47% (27,375)**	**42% (15,718)**
Female	77% (316)	75% (198)	62% (7,145)	63% (5,148)	**48% (7,145)**	**51% (5,148)**	**37% (7,145)**	**43% (5,148)**
Transgender	N<10	N<10	64% (126)	59% (17)	54% (126)	41% (17)	45% (126)	41% (17)
Black	**74% (1,113)**	**68% (599)**	**60% (22,966)**	**64% (10,222)**	46% (22,966)	51% (10,222)	**44% (22,966)**	**42% (10,222)**
Hispanic/ Latino	74% (106)	72% (32)	58% (2,095)	55% (764)	49% (2,095)	46% (764)	**47% (2,095)**	**42% (764)**
White	85% (216)	81% (140)	63% (6,789)	61% (3,171)	51% (6,729)	49% (3171)	**54% (6,729)**	**47% (3,171)**
Multiple races	72% (29)	69% (16)	77% (1,255)	80% (484)	63% (1,255)	66% (484)	**60% (1,255)**	**58% (484)**
13-19	73% (63)	59% (37)	75% (171)	64% (72)	61% (173)	53% (72)	**57% (171)**	**39% (72)**
20-24	**72% (306)**	**61% (194)**	**67% (1,023)**	**60% (564)**	**47% (1,255)**	**43% (564)**	**40% (1,023)**	**33% (564)**
25-34	76% (575)	74% (236)	61% (6,538)	58% (2,469)	43% (6,538)	45% (2,469)	**39% (6,538)**	**35% (2,469)**
35-44	81% (349)	76% (179)	61% (8,438)	60% (3,367)	46% (8,438)	47% (3,367)	**46% (8,438)**	**41% (3,367)**
45-54	80% (289)	74% (148)	61% (11,477)	63% (4,986)	**49% (11,477)**	**52% (4,986)**	**50% (11,477)**	**45% (4,986)**
55+	78% (148)	82% (106)	59% (6,946)	62% (3,871)	**49% (6,946)**	**51% (3,871)**	**50% (6,946)**	**47% (3,871)**
HET	77% (329)	74% (226)	**63% (7,014)**	**65% (5,324)**	**49% (7,014)**	**53% (5,324)**	**47% (7,014)**	**44% (5,324)**
IDU	76% (51)	78% (39)	**52% (2,277)**	**59% (1,595)**	**41% (2,277)**	**47% (1,595)**	40% (2,277)	40% (1,595)
MSM	75% (1,071)	68 (516)	62% (21,930)	63% (6,993)	**48% (21,931)**	**50% (6,993)**	**48% (21,931)**	**44% (10,444)**
MSM/IDU	75% (28)	N<10	**56% (1,698)**	**61% (582)**	45% (1,698)	47% (582)	42% (1,697)	40% (582)

*Differences between EMA and non-EMA that were statistically significant with P<.05 are indicated by bold font/gray shading

**N=denominator

Section 4: Viral Suppression among Persons Retained in HIV Care, Georgia, 2014

Overall about 80% of persons retained in care were virally suppressed. Patterns of viral suppression among persons retained in care are very similar to those among all persons living with HIV: among persons retained in care, a substantially lower proportion of blacks compared with others were virally suppressed, and a lower proportion of persons 20 to 34 were virally suppressed compared both to persons 35 and older and persons 13 to 19. The proportion virally suppressed among those retained in care was consistently lower in the non-EMA counties. The greater availability of substance abuse services in Atlanta compared to the rest of the state that could provide support for IDU and MSM/IDU may impact these outcomes.

Table 3. Viral suppression among those retained in care for Georgia overall, for the EMA and for the non-EMA counties, 2014*

Population	Georgia % (N)	Atlanta EMA counties % (N)	Non-EMA counties % (N)
Overall	81% (23,841)	**83% (16,310)**	**76% (7,531)**
Sex			
Male	82% (17,728)	**84% (12,827)**	**76% (4,901)**
Female	78% (6,113)	**81% (3,483)**	**74% (2,630)**
Transgender	80% (75)	78% (57)	N<10
Race/ethnicity			
Black	77% (15,703)	**80% (10,498)**	**73% (5,205)**
Hispanic/Latino	84% (1,158)	85% (1,026)	82% (351)
White	88% (4953)	**91% (3,405)**	**82% (1,548)**
Multiple races	81% (1,116)	83% (795)	78% (321)
AI/AN	N<10	N<10	N<10
Asian	92% (96)	92% (86)	90% (10)
NHOPI	N<10	N<10	N<10
Age group			
13-19	78% (142)	81% (104)	71% (38)
20-24	70% (719)	70% (477)	68% (242)
25-34	71% (3,912)	**72% (2,813)**	**70% (1,099)**
35-44	80% (5,499)	**83% (3,914)**	**74% (1,585)**
45-54	83% (8,074)	**86% (5,621)**	**76% (2,453)**
55+	86% (5,376)	**89% (3,386)**	**80% (1,990)**
Transmission category			
HET	78% (6,275)	**81% (3,463)**	**74% (2,812)**
IDU	79% (6,275)	**82% (932)**	**75% (751)**
MSM	82% (13997)	**84% (10,493)**	**77% (3,504)**
MSM/IDU	78% (1,039)	80% (766)	74% (273)

* Differences between EMA and non-EMA that were statistically significant with P<.05 are indicated by bold font/gray shading

References

1. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data – United States and 6 U.S. dependent areas – 2010. *HIV Surveillance Supplemental Report* 2013; 18(No. 2, part B). http//www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental. Published January 2013. Accessed March 31, 2013

2. National HIV/AIDS Strategy for the United States. http://www.whitehouse.gov/administration/eop/onap/nhas/. Published July 2010. Accessed March 31, 2013.

3. Yehia, Baligh R., Fleishman, John A., Metlay, Joshua P., et al. Comparing different measures of retention in outpatient HIV care. *AIDS* 2012, 26:1131-1139.

4. Office of National AIDS Policy, National HIV/AIDS Strategy for the United States: Updated to 2020, July 2015. https://aids.gov/federal-resources/national-hiv-aids-strategy/nhas-update.pdf Accessed May 5, 2016

5. O.C.G.A. §31-12-2. http://www.ecphd.com/Resources/353.pdf, Accessed March 31, 2013

6. Health Resources and Service Administration, HIV/AIDS Bureau, HAB HIV core clinical performance measures for adult/adolescent clients: group 1. http://hab.hrsa.gov/deliverhivaidscare/files/habgrp1pms08.pdf Accessed March 31, 2013.

7. Centers for Disease Control and Prevention. *HIV Surveillance Report, 2011*; vol. 23. http://www.cdc.gov/hiv/topics/surveillance/resources/reports/. Accessed May 4, 2013.

8. CDC. Terms, definitions and calculations used in CDC HIV surveillance publications. Atlanta, GA: US Department of Health and Human Services, CDC; 2012. Available at

http://www.cdc.gov/hiv/topics/surveillance/resources/factsheets/pdf/surveillance_terms_definitions.pdf Accessed March 31, 2013.

9. Harrison KM, Kajese T, Hall HI, Song R. Risk factor redistribution of the national HIV/AIDS surveillance data: an alternative approach. Public Health Rep 2008;123:618–27.

10. Rubin DB. Multiple imputation for nonresponse in surveys. New York: John Wiley & Sons; 1987.

Appendix A - HIV Surveillance and Reporting Law in Georgia

Complete and timely reporting of HIV infection cases by is critical for monitoring the epidemic in Georgia and ensuring federal funding for public sector HIV prevention, care and treatment services since funding allocation is directly linked to the number of cases.

- Georgia Department of Public Health (DPH), HIV/AIDS Epidemiology Program (HAEP) is responsible for monitoring the HIV epidemic in the state by using the enhanced HIV/AIDS Reporting system to collect, manage, analyze and report surveillance data to Centers for Disease Control and Prevention

- Georgia began collecting AIDS case reports in the early 1980s. HIV (not AIDS) reporting was mandated in Georgia on December 31, 2003

- Georgia law (OCGA § 31-22-9.2) requires health care providers to submit a confidential case report for patients diagnosed with HIV infection within seven days of diagnosis to the Georgia DPH HAEP.

- Case report forms are mandated to be completed within seven (7) days of diagnosing a patient with HIV and/or AIDS or within seven (7) days of assuming care of an HIV positive patient who is new to the provider, regardless of whether the patient has previously received care elsewhere.

- All laboratories certified and licensed by the State of Georgia are required to report laboratory test results indicative of HIV infection, such as positive Western Blot results, all detectable and undetectable viral loads, all CD4 counts, and all viral nucleotide sequence results to the Georgia DPH HAEP.

To access the Adult and Pediatric Case Report Forms visit: http://dph.georgia.gov/reporting-forms-data-requests

NEW: HIV Electronic Case Reporting through SENDSS

An electronic Adult Case Report Form (eACRF) can be transmitted to Georgia's Department of Public Health through the secure disease reporting system called SENDSS (State Electronic Notifiable Disease Surveillance System). A user login and password must be assigned. To begin the process, please contact Lauren Barrineau-Vejjajiva, ELR Lab Liaison, at Lauren.Barrineau-Vejjajiva@dph.ga.gov or 404-463-3753.To create a SENDSS authorized user account, or for assistance with an existing account, please contact Angela Alexander, SENDSS Administrator at Angela.Alexander@dph.ga.gov or 404-657-6450.

Please review the eACRF Tutorial for guidance on how to fill out the eACRF.

FOR MORE INFORMATION CONTACT: Georgia Department of Public Health, HIV/AIDS Epidemiology Program http://health/state.ga.us/epi/hivaids

Other resources:

www.AIDSVu.org

www.cdc.gov/hiv