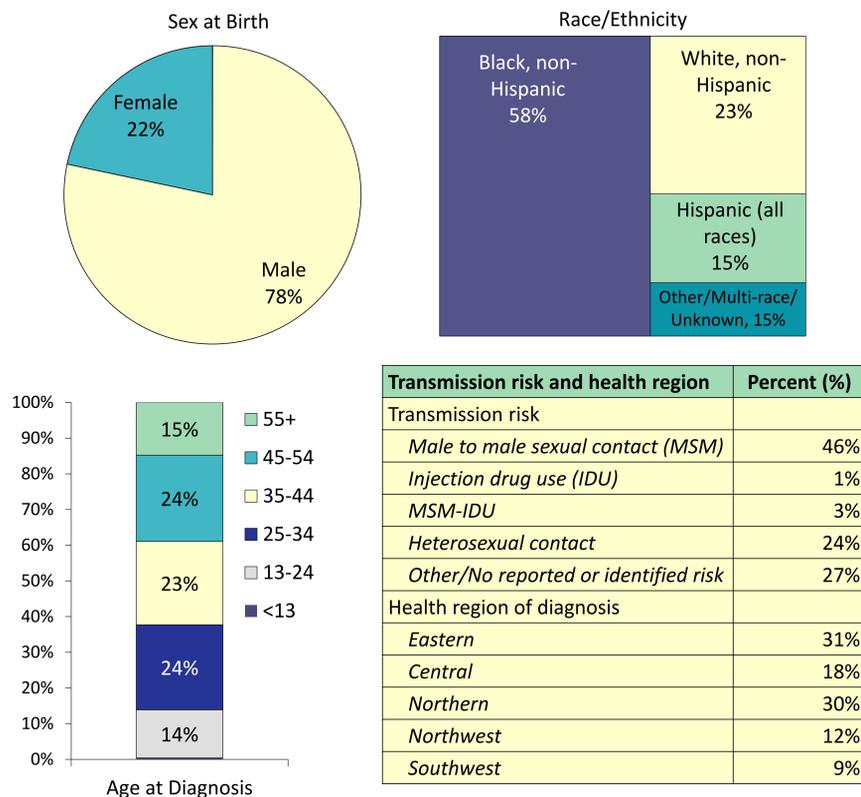


Background

- Persons living with HIV (PLWH) who are diagnosed late, defined as an AIDS diagnosis within one year of HIV diagnosis, are at higher risk for reduced response to HIV treatment and morbidity.¹
- Research suggests that there may be demographic disparities among persons who are diagnosed late and that late diagnosis may have an effect on retention and viral suppression among PLWH.²
- Identifying persons in the early stages of HIV aligns with the 2020 National HIV/AIDS Strategy in the United States to reduce new HIV infection and improve health outcomes for PLWH.³

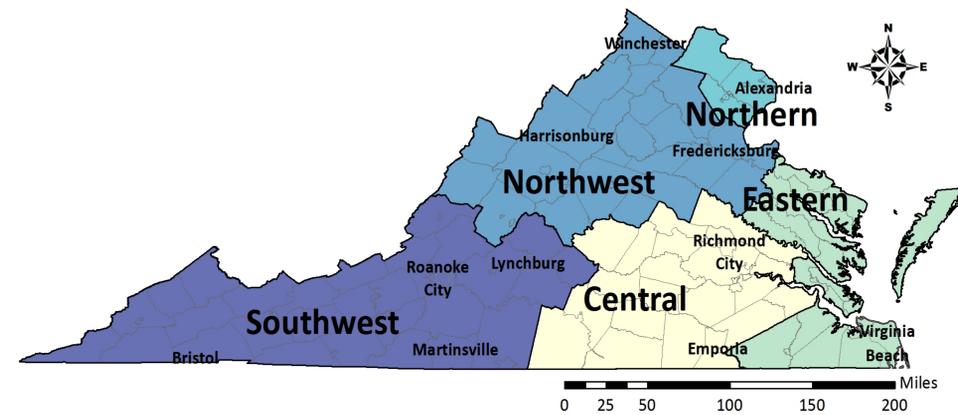
Demographics of the Late Diagnosed Population, 2013



Data and Definitions for Assessing HIV Care Continuum Outcomes

- Care Markers Database:** Contains information on care markers for PLWH from several sources, including HIV Surveillance, Ryan White, AIDS Drug Assistance Program, Medicaid, and others
- Care Markers:** Defined as evidence of a viral load, CD4 count, HIV-related medical visit or antiretroviral therapy (ART)
- Retention:** 2 Care Markers in a 12-month period at least 90 days apart
- Viral Suppression:** Last viral load in 12 month period at <200 copies/mL
- Demographics:** Sex at birth, race/ethnicity, transmission risk, age at diagnosis, health region of HIV diagnosis
- Late Diagnosis:** Persons who were diagnosed with AIDS at initial diagnosis or persons diagnosed with AIDS within one year of initial HIV diagnosis

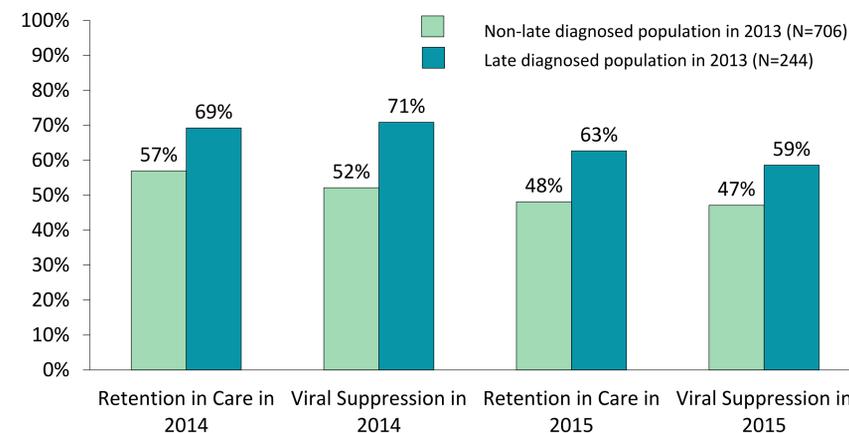
Health Regions of Virginia



Research Question and Analysis

- A series of logistic regression models assessed if there was:
 - A relationship between demographic characteristics (sex at birth, race/ethnicity, transmission risk, age at diagnosis, health region of HIV diagnosis) and late diagnosis.
 - A relationship between persons diagnosed late (N=244) in 2013 and retention and viral suppression outcomes in CY 2014 and CY 2015.
- 972 persons were diagnosed with HIV in Virginia in Calendar Year (CY) 2013.
 - 26 persons died in 2013 or 2014 and were excluded from the analysis.
 - N= 946 for persons newly diagnosed and living in Virginia in CY 2013, N=244 (26% of 946) were identified as late diagnoses.
- Crude (OR) and Adjusted Odds Ratios (aORs) were reported.

Results



Results

Table 1: Crude and Adjusted Odds Ratios (OR/aOR) for Retention in Care and Viral Suppression, 2014 and 2015 OR/aORs (95% Confidence Interval)

Late Diagnosed Versus Non-Late Diagnosed Population	Retention in Care in 2014	Viral Suppression in 2014	Retention in Care in 2015	Viral Suppression in 2015
aOR	1.7 (1.2, 2.4)*	2.3 (1.7, 3.3)*	1.8 (1.4, 2.6)*	1.6 (1.1, 2.1)*
OR	1.7 (1.2, 2.3)*	2.2 (1.6, 3.0)*	1.8 (1.3, 2.5)*	1.6 (1.2, 2.1)*

Odds Ratio adjusted by sex at birth, race/ethnicity, transmission risk, age at diagnosis, and health region of diagnosis
*Denotes statistically significant finding

Table 2: Crude and Adjusted Odds Ratios (OR/aOR) for Late Diagnosis, 2013 OR/aORs (95% Confidence Interval)*

	Late Diagnosis
Health region of diagnosis (OR): Northwest versus Eastern [ref]	1.7 (1.0, 2.9)*
Health region of diagnosis (adjusted for age at diagnosis)	1.5 (0.9, 2.5)
Age of diagnosis (OR): 13-24 versus 55+ [ref]	0.2 (0.1, 0.4)*
Age of diagnosis (OR): 25-34 versus 55+ [ref]	0.4 (0.2, 0.6)*
Age of diagnosis: 13-24 versus 55+ [ref] (adjusted for health region of diagnosis)	0.2 (0.1, 0.4)*
Age of diagnosis: 25-34 versus 55+ [ref] (adjusted for health region of diagnosis)	0.4 (0.2, 0.7)*

*Denotes statistically significant finding

Conclusions and Next Steps

- Persons who were diagnosed late in 2013 were more likely to be retained in care in 2014 and 2015 and virally suppressed in 2014 and 2015 than those persons who were not diagnosed late, after controlling for demographic characteristics.
- In unadjusted models, persons diagnosed in the predominantly rural Northwest region of Virginia were more likely to be diagnosed late than persons living in the predominantly urban Eastern region. After adjustment for age at diagnosis, health region of diagnosis was not statistically significant.
- Persons who were diagnosed at a younger age were less likely to be diagnosed late than persons 55 and older, even after controlling for health region of diagnosis.
- To impact timely diagnosis of HIV across the state, testing efforts should consider geographic areas and populations at greater risk for late diagnosis, in addition to current efforts within areas of high HIV incidence and prevalence.
- Continued analysis and exploration of late diagnosis by geography, age, and other social determinants of health is needed.

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