

The Epidemiology of HIV Disease in Iowa

2014 End-of-Year Iowa HIV Surveillance Update

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A BIG SHOUT OUT !

and

many thanks to Alagie "Al" Jatta, MS, for analyzing the data and creating an initial slide set!



Summary

- **99 new HIV diagnoses in 2014; down 23 from 2013 & 21 below 5-year average (2009-2013); still fits within 10-year pattern of variability**
- **Late diagnoses: good news/bad news/good news/bad news/badder news/but things may be looking up**
 - **37% (2007) → 47% (2010) → 35% (2011) → 39% (2012) → 48% (2013)**
→ concurrent diagnoses (AIDS within 3 months of HIV) are only 32%
 - **Concurrent diagnoses are generally about 90% of all late diagnoses**
- **Diagnoses among the foreign born: peaked at 22% in 2013 but fell back to 18 % in 2014 (consistent with 5-year average)**
- **Males 80% of diagnoses (consistent with 5-year average)**
- **Females dropped from a peak of 34 (28%) in 2013 to 20 in 2014 – right in line with the 5-year average**

Summary, continued

- **Overall mean and median ages in 2014: mean = 38.6; median = 37.0 (only slightly younger than 2013); males and females close in age**
- **Diagnoses among persons 45 years and older (that had jumped from 33 in 2012 to 50 in 2013) fell back to 34 in 2014**
- **Nearly half (44%) of all new diagnoses were among persons 25 to 44 years of age**
- **Youths (15 to 24 years of age) still a concern: 18 diagnoses in 2014, the same as in 2013; diagnoses in this group have averaged 22 per year from 2009 through 2013; 15 males (13 MSM), 3 females**

Summary, continued

- **Racial and ethnic disparities in 2014**
 - **non-Hispanic blacks/African Americans: diagnoses dropped from 26 (21%) in 2013 to 12 (12%) in 2014 – half the 5-year average; 3% of Iowa population; 5 times more likely to be diagnosed than whites; 3 foreign born**
 - **Hispanics = 5 % of population; 11 (11%) HIV diagnoses in 2014; 2.6 times more likely to be diagnosed than whites; 9 foreign born**
 - **non-Hispanic Asians = 2% of population; 1% of HIV diagnoses; dropped from peak of 8 in 2013 to 1 in 2014**
 - **non-Hispanic whites = 88% of population; 60% of diagnoses**

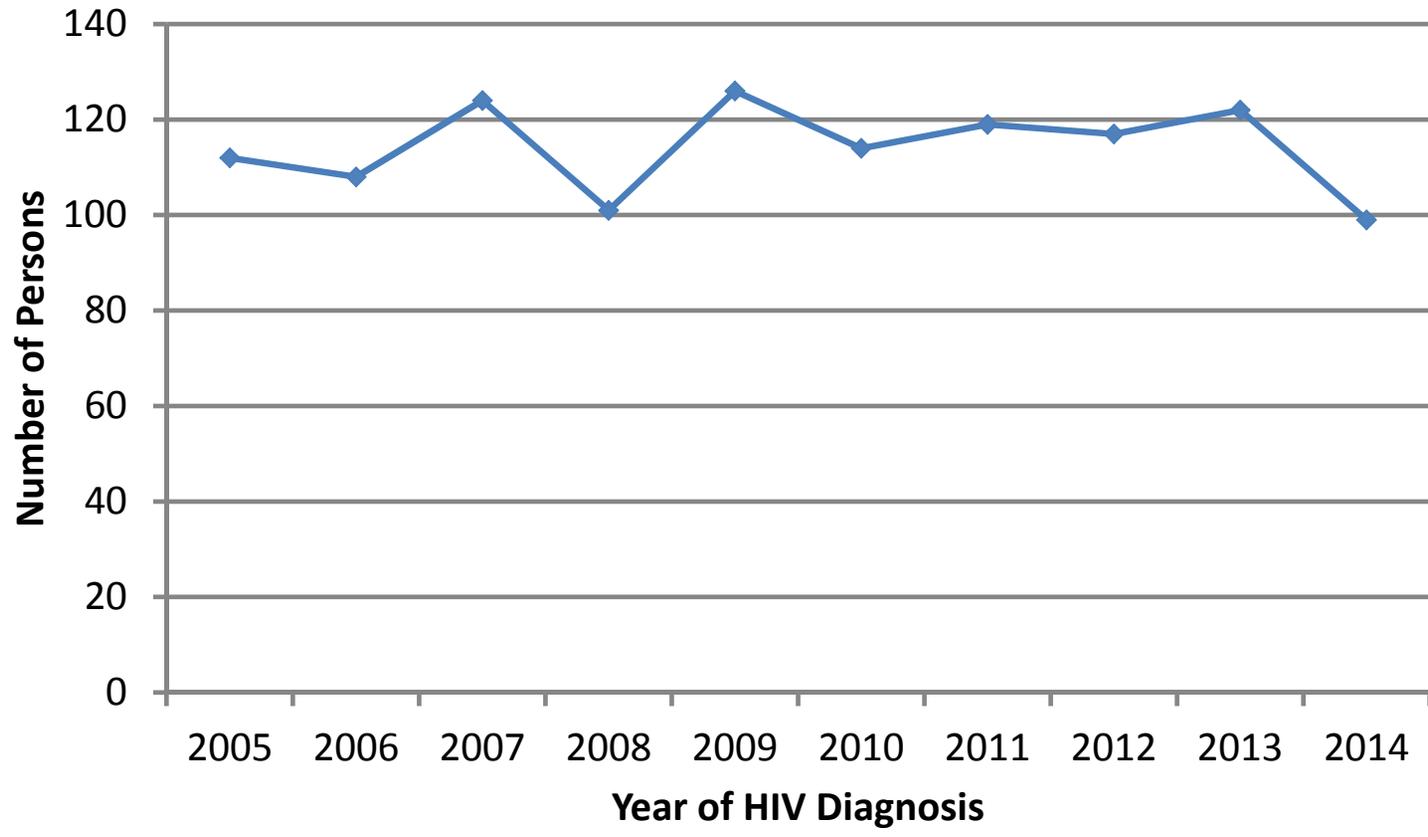
Summary, continued

- **Male-to-male sex (MSM plus MSM/IDU): over half (60%) of all exposures; over 70% of male exposures to HIV**
- **Prevalence among persons first diagnosed while living in Iowa: 2,169 persons living with HIV/AIDS at the end of 2014 (70/100,000 population); with adjustment for undiagnosed (15.8%) and under-reporting (1%) could be as many as 2,602; some persons may no longer be in Iowa**
- **Prevalence of all diagnosed HIV-infected persons living in Iowa at the end of 2014 = 2,369 (77/100,000 population), regardless of where they were living at first diagnosis**
 - **Four counties > 100/100,000 population (0.1% prevalence): Polk Co. = 149; Pottawattamie Co. = 146; Scott Co. = 113; Johnson Co. = 109**
 - **National and regional prevalence for 2012 (most current): U.S. = 292/100,000; Midwestern U.S. = 162; Western U.S. = 239; Southern U.S. = 339; Northeastern U.S. = 419**

Summary, continued

- **Iowa's 2014 Continuum of HIV Care**
 - **Based on 2,295 persons diagnosed with HIV as of December 31, 2013, and living as of December 31, 2014**
 - **1,655 (72%) of the 2,295 were retained in care**
 - **1,552 (68%) of the 2,295 were virally suppressed (< 200 copies/mL)**
 - **1,552 (94%) of the 1,655 retained in care were virally suppressed**

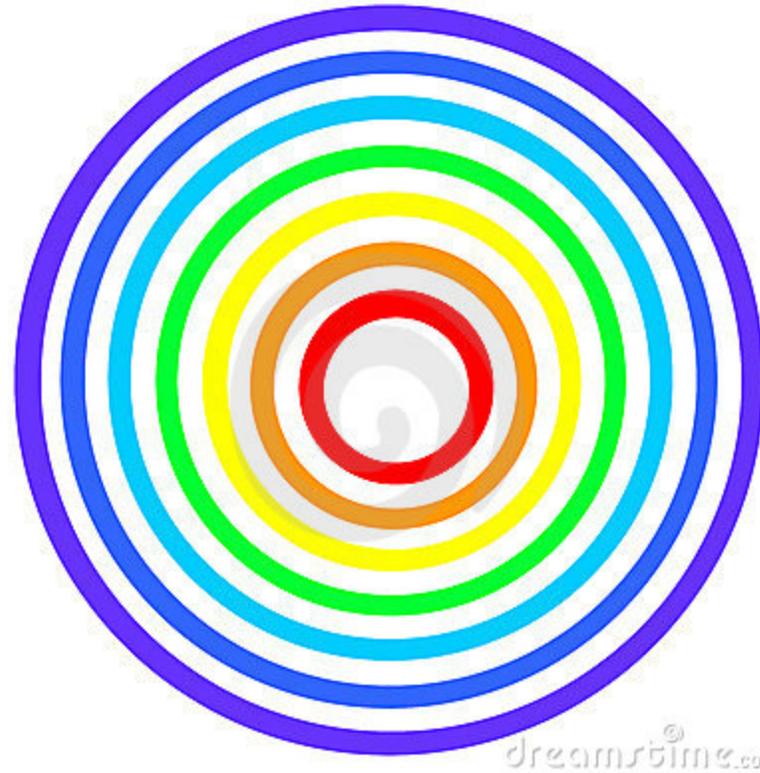
Diagnoses of HIV Infection in lowans: 2005 through 2014



HIV Tipping Point

- In the February 2, 2015, Journal of Acquired Immune Deficiency Syndromes, Irene Hall, et al, of CDC reported on using 2011 HIV surveillance data from 10 jurisdictions to assess the HIV tipping point in the United States.
 - The authors propose that keeping pace with new infections by assuring an equal or larger number of people achieve viral suppression may eventually eliminate HIV.
 - Tipping point ratio = number of new HIV diagnoses divided by number of people achieving viral suppression.
 - Target value: tipping point ratio less than one.
 - Iowa, one of the 10 jurisdictions, had a tipping point ratio of 0.83.
 - Iowa's plan: analyze data for years subsequent to 2011.

Tipping point is a target \rightarrow new diagnoses \div new viral suppressions < 1



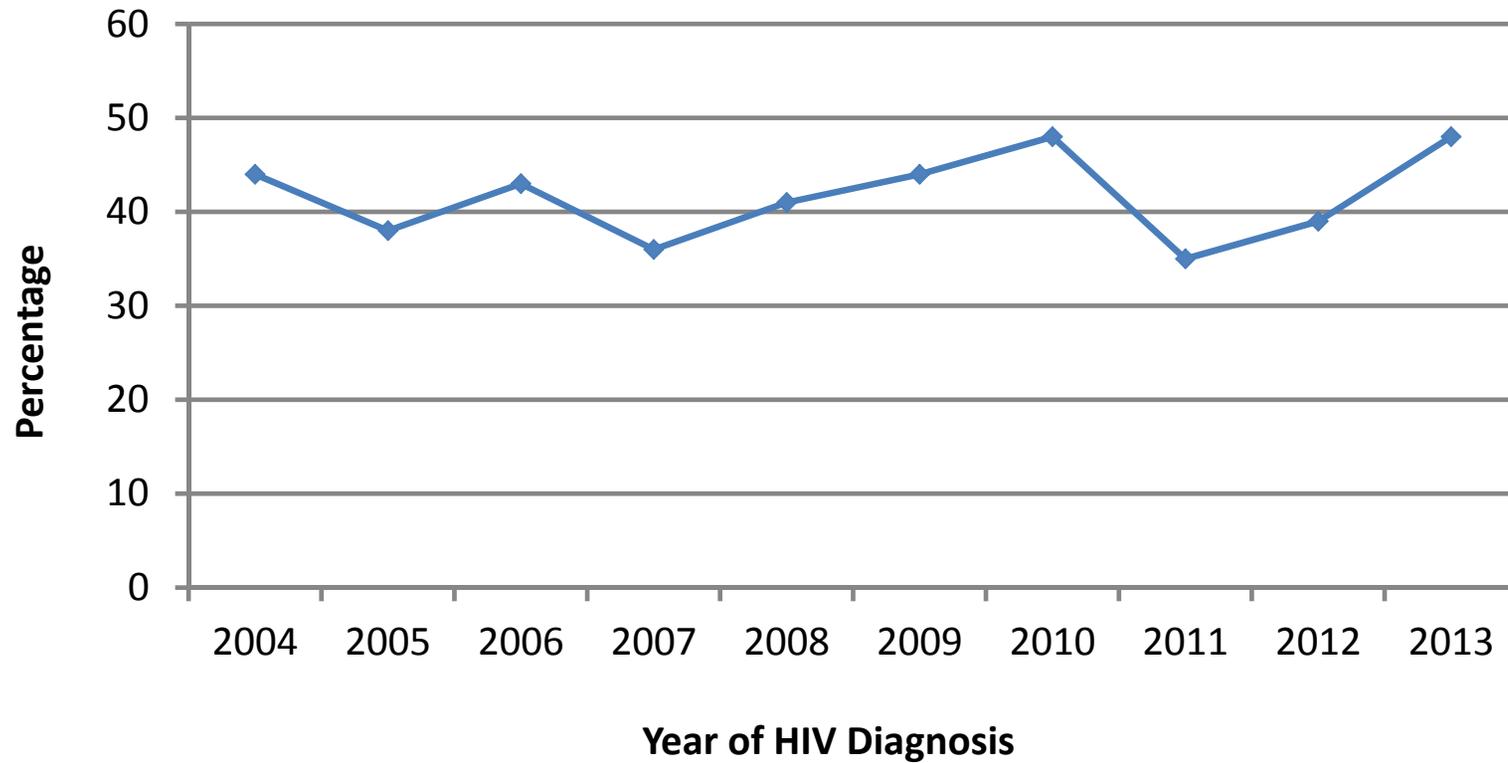
Viral Suppression = less than 200 copies per milliliter

Iowa HIV Tipping Point Calculations: 2011 Diagnosis Year

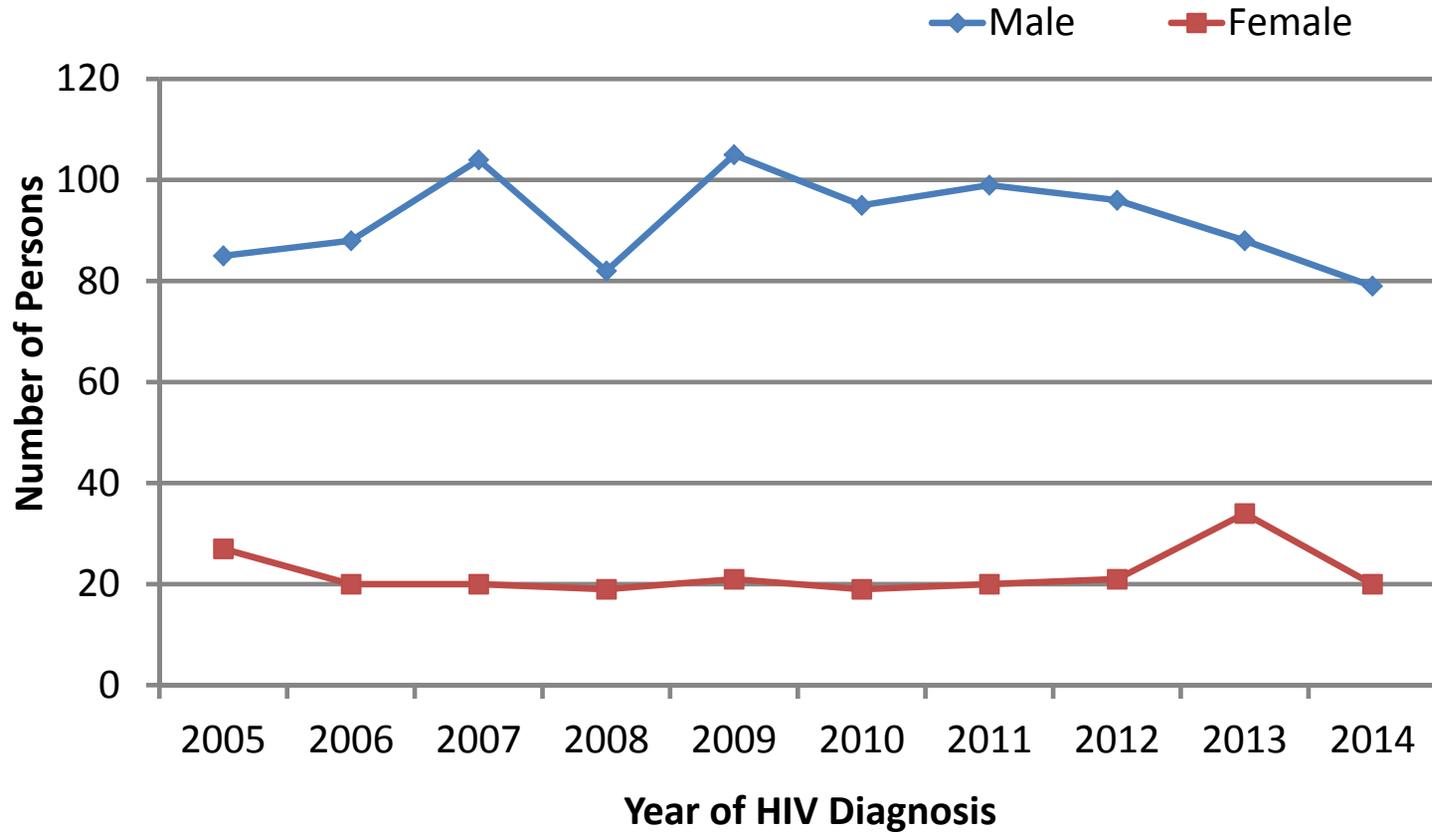
Viral load < 200 copies/mL	2010	2010_{TOTAL VS}	900
	2011	2010_{VS} – remained suppressed in 2011	780
		2010_{UNSUPP} – became suppressed in 2011	122
		2010_{NO VL} – became suppressed in 2011	97
		2011_{NEW DX VS} – suppressed in 2011	39
		2011_{TOTAL VS}	1,038
Difference in viral suppression, 2011 vs. 2010 = 1,038 minus 900			138
New diagnoses in 2011			114
Tipping Point Ratio = New Diagnoses₂₀₁₁ ÷ VS Difference₂₀₁₁₋₂₀₁₀ = 114 ÷ 138			0.83

Percentage of Iowa Late HIV Diagnoses ("Late Testers"): 2005 through 2014

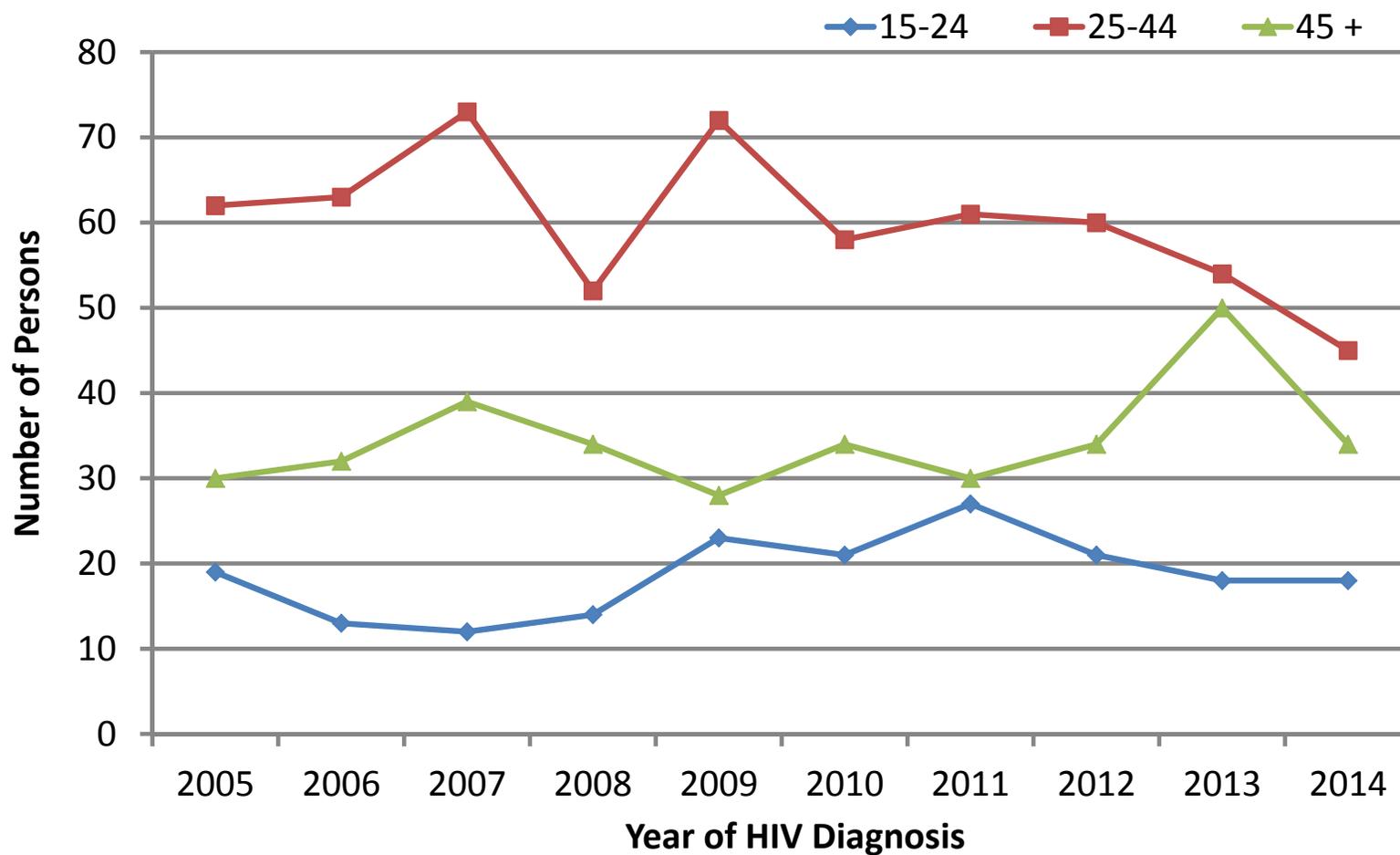
(AIDS diagnosed within 12 months of initial HIV diagnosis)



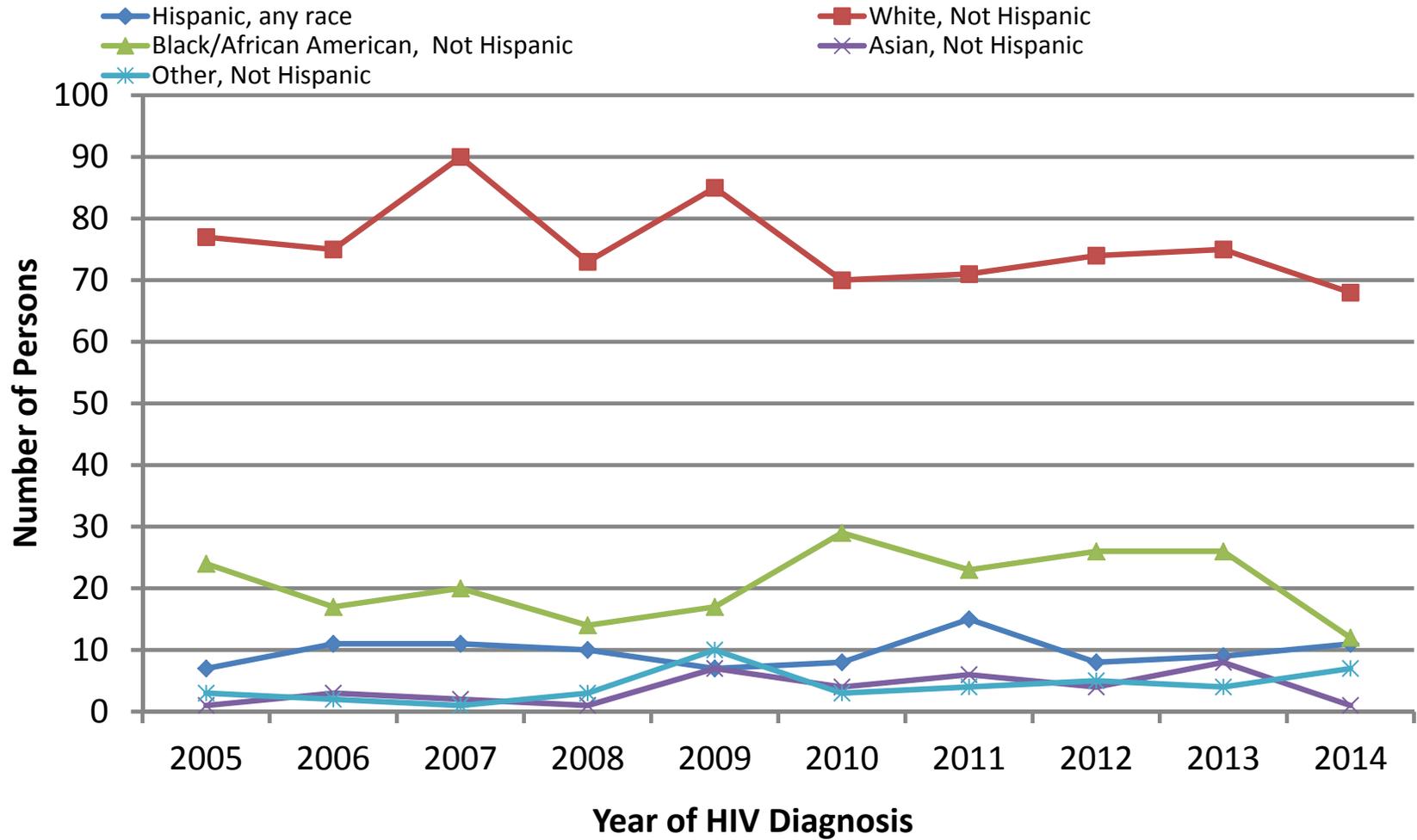
Diagnoses of HIV Infection by Sex: 2005 through 2014



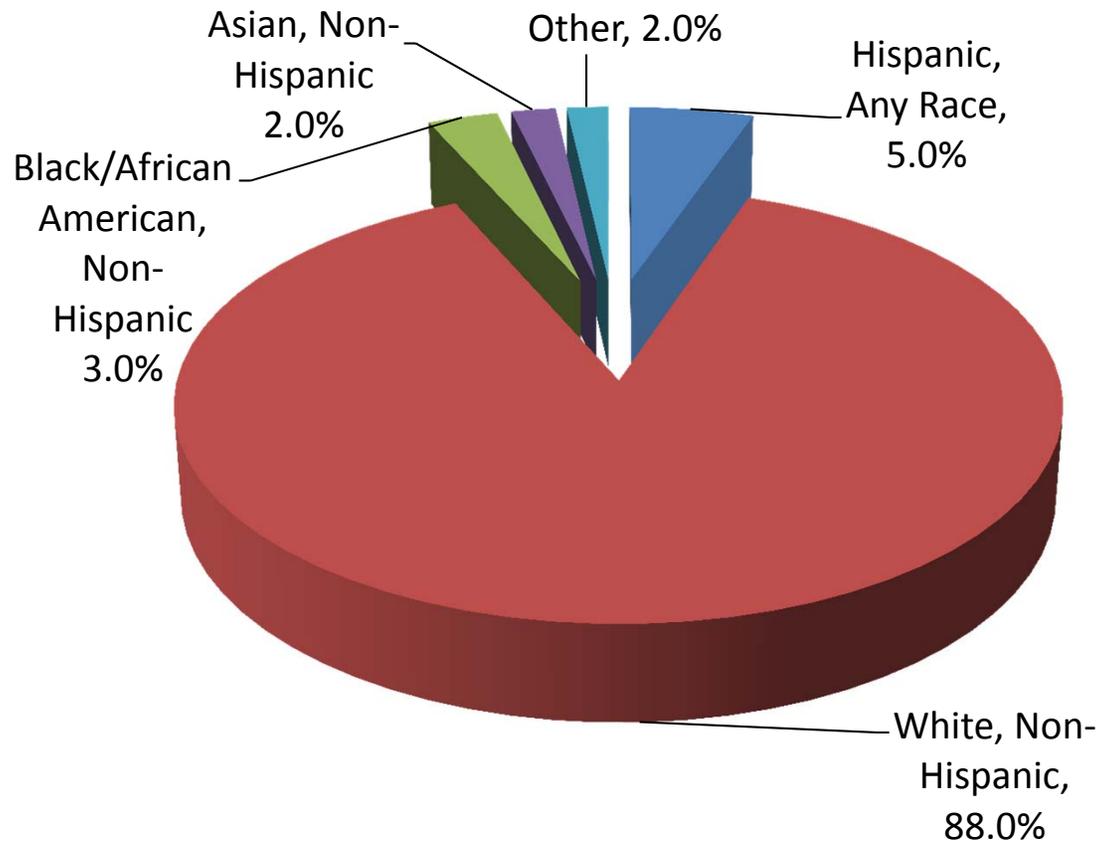
Age in Years at Diagnosis of HIV: 2005 through 2014



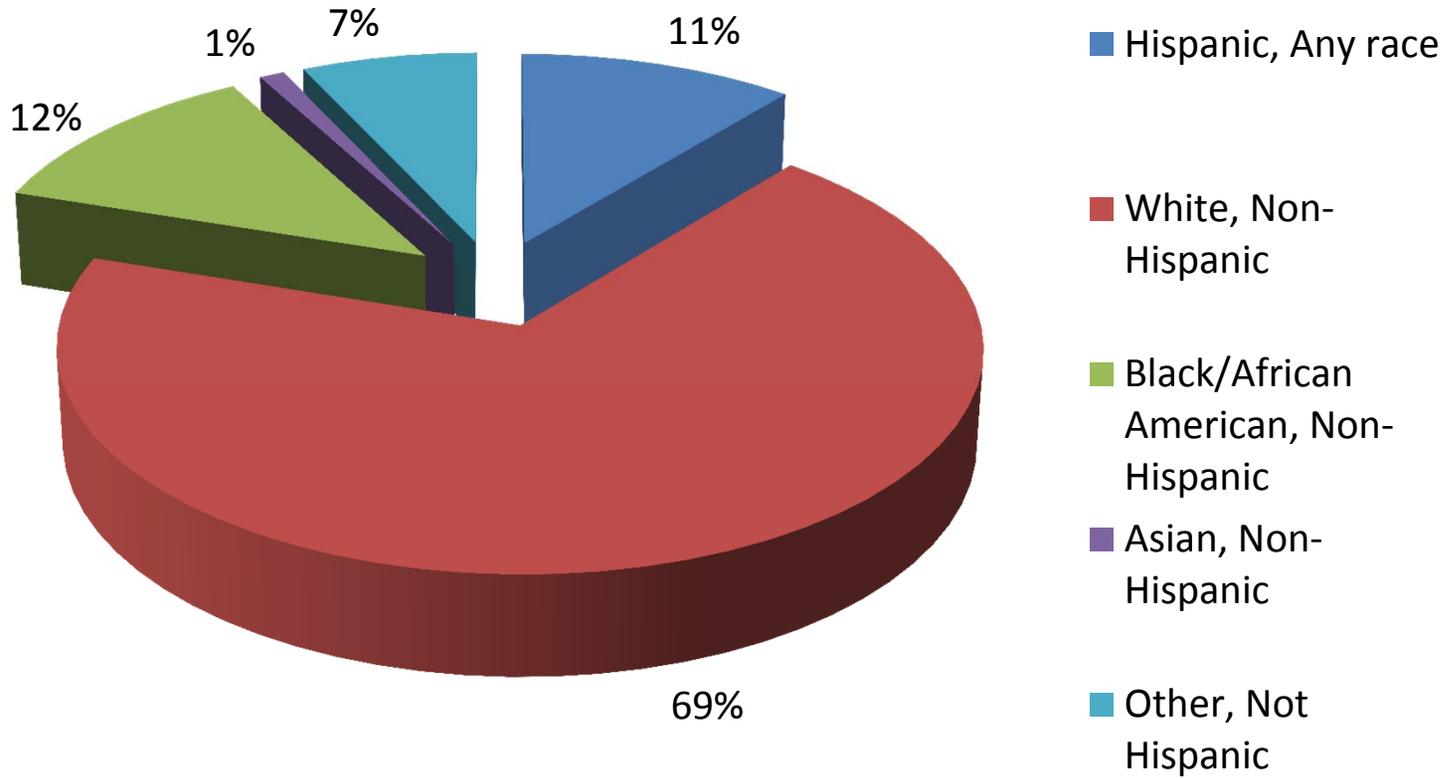
Diagnoses of HIV Infection by Race and Ethnicity: 2005 through 2014



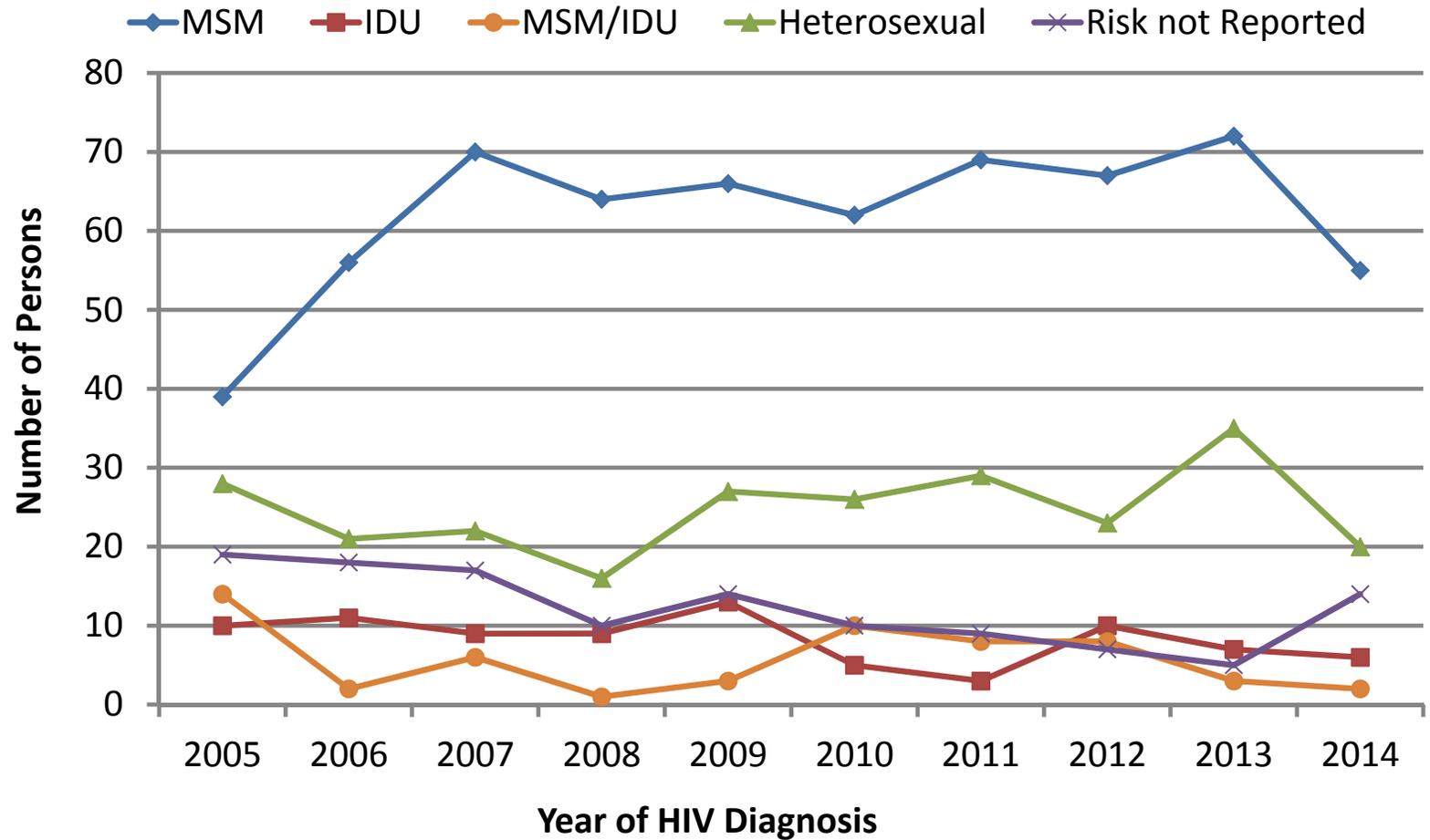
Population of Iowa by Ethnicity and Race: 2014



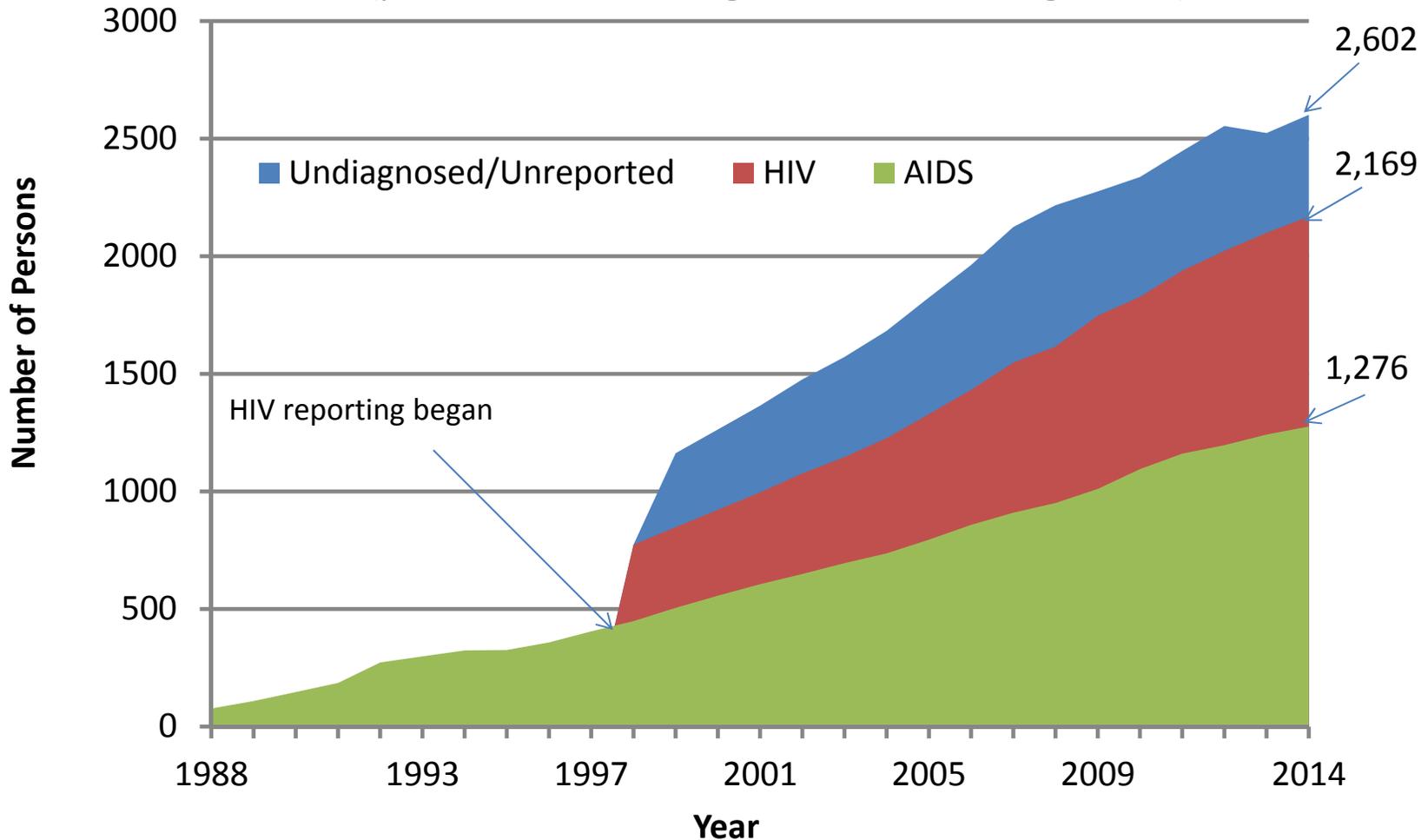
HIV Diagnoses by Ethnicity and Race: 2014



Diagnoses of Adult HIV Infection by Exposure Category: 2005 through 2014

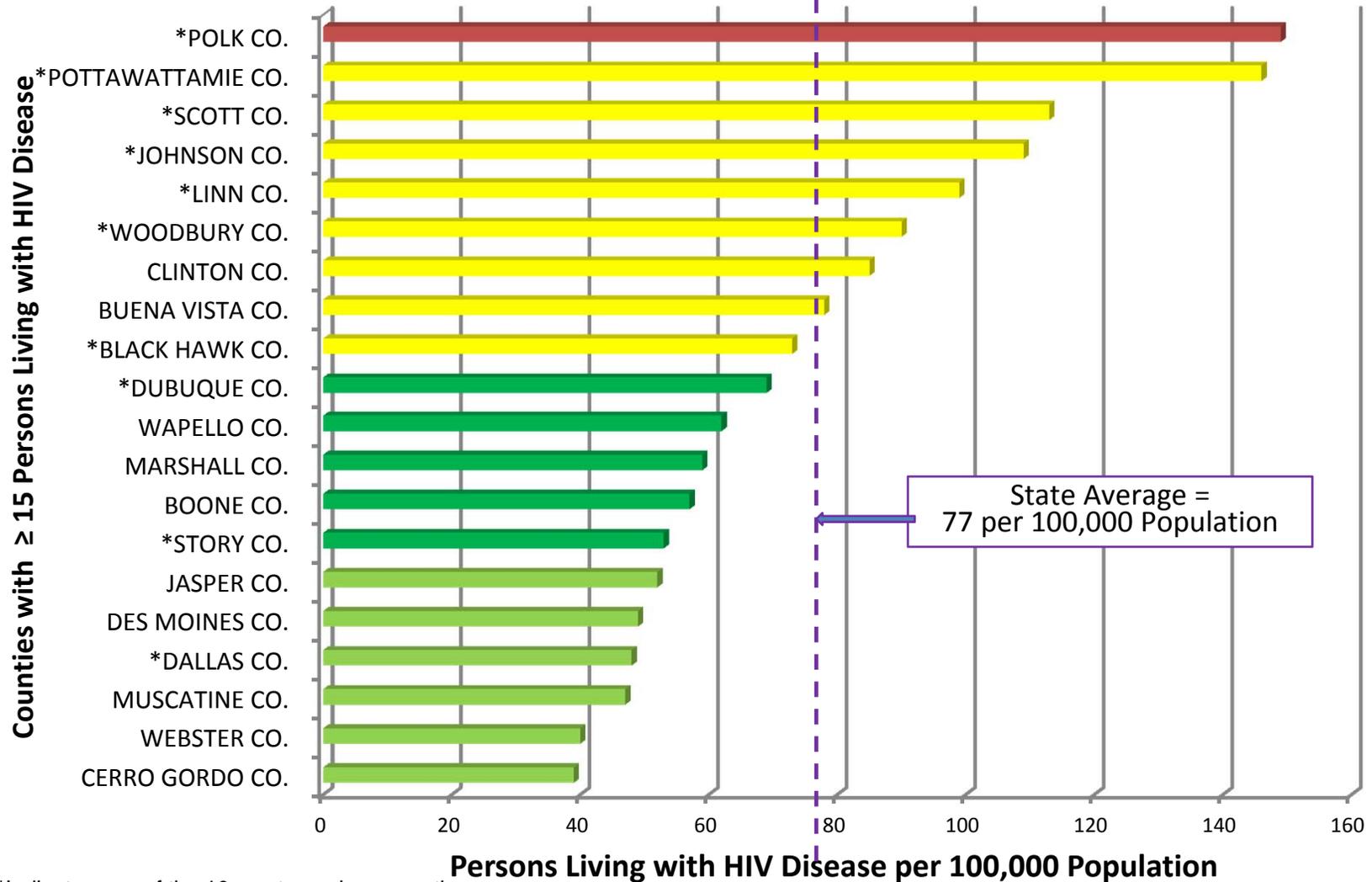


Estimated Number of Iowans Living with HIV Disease (HIV or AIDS) as of December 31 of each Year: 1988 through 2014
 (persons whose first diagnosis was while living in Iowa)



Because this graph includes an historical accounting of people living with HIV or AIDS, it does NOT reflect all people currently living with HIV or AIDS in Iowa. It only represents people living in Iowa at the time of their diagnosis.

Prevalence of HIV Disease by County of Residence: Iowans Living with HIV Disease (HIV or AIDS) per 100,000 Population as of December 31, 2014

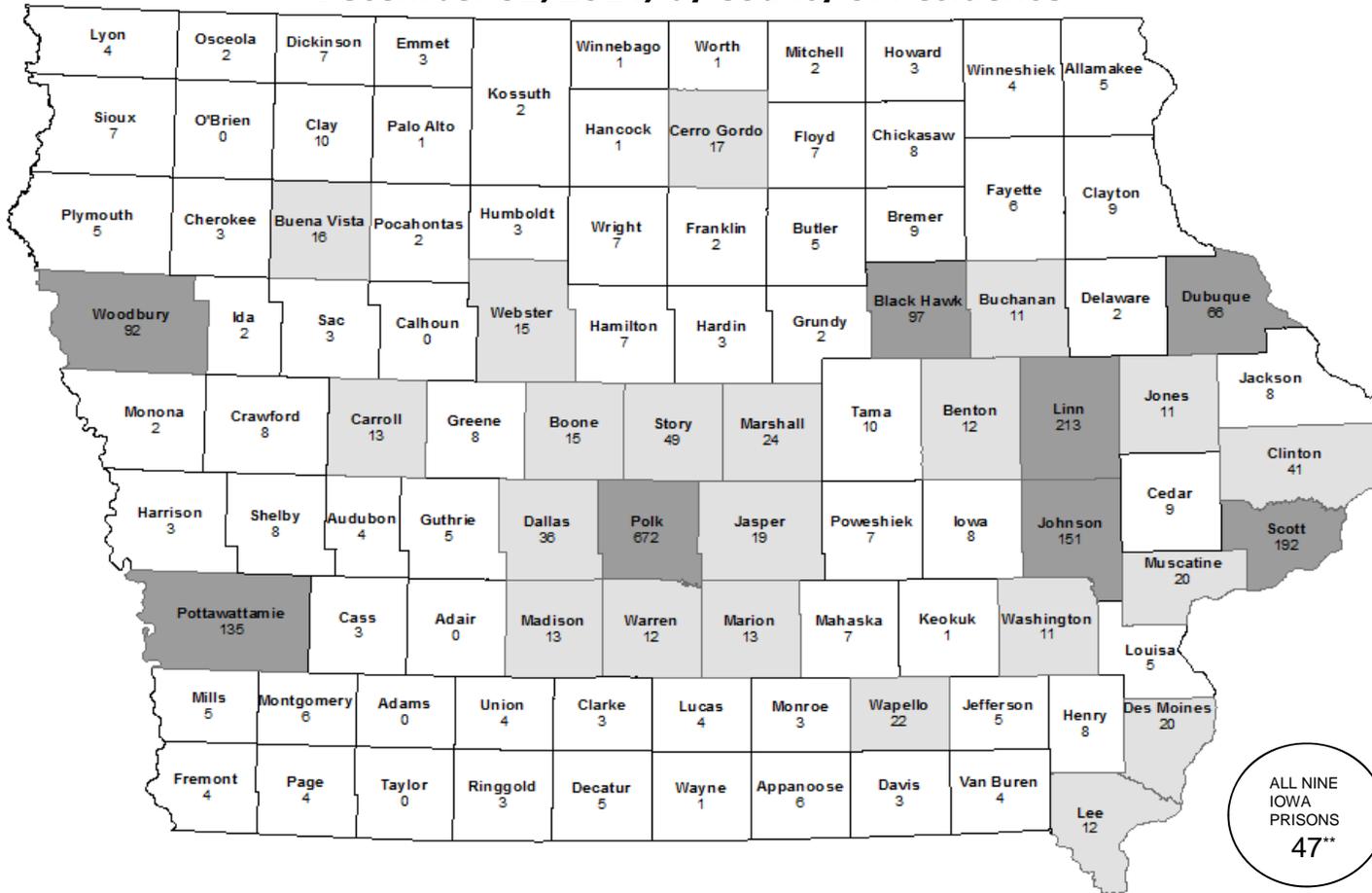


*Indicates one of the 10 most populous counties

– County rates do not include persons diagnosed in prison

– County populations are based on the 2013 U.S. Census estimates

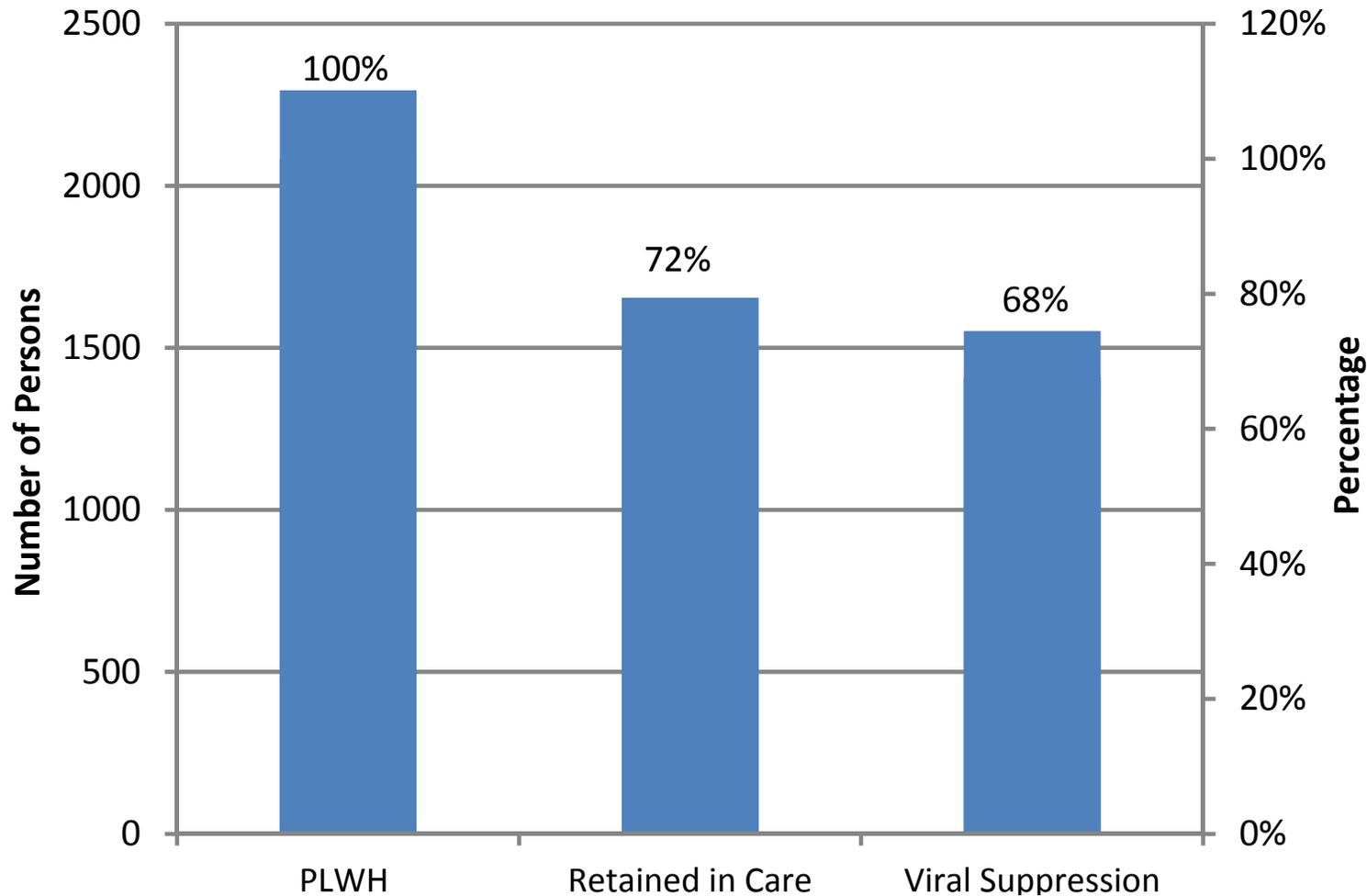
Number of Iowans Living with HIV Disease (HIV or AIDS) as of December 31, 2014, by County of Residence



This map shows the number of persons living with HIV or AIDS as of December 31, 2014. It indicates counties where persons were living at the end of 2014. All deaths may not have been reported. Prisoners were being held in Iowa Department of Corrections facilities in the following counties: Jasper (16), Webster (8), Page (7), Johnson (5), Lee (4), Jones (3), Henry (2), and Calhoun (2). ** Indicates persons in Iowa Department of Corrections facilities. These persons are excluded from county totals shown on the map.

Ten Most Populous Counties

Iowa HIV Care Continuum 2014



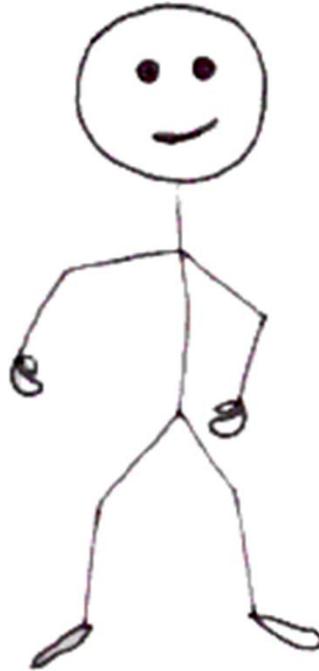
PLWH: defined as persons diagnosed with HIV disease as of December 31, 2013, and living in Iowa at the end of 2014

Retained in Care: defined as PLWH having 2 or more CD4 or viral load lab results at least 3 months apart or having 1 CD4 or viral load lab result and also virally suppressed during 2014

Viral Suppression: defined as persons retained in care and virally suppressed (viral load < 200 copies/mL) at the end of 2014

- 1,655 (72%) of the 2,295 PLH in Iowa at the end of 2014 were retained in care, and 1,552 (94%) of them were virally suppressed. Viral suppression for all PLWH (in care and out of care) was 68%.

This is
my
thank you
dance!



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