



*Georgia Department of Public Health*

# Late HIV Diagnosis in Georgia, MATLC Area Counties, 2011

Presentation to: MATLC

Presented by: Dr. Jane Kelly, MD

Director, HIV/AIDS Epidemiology Section

Georgia Department of Public Health

Date: 04/21/2014



*We Protect Lives.*



## Objectives

- Define criteria for and significance of late diagnosis
- Review Georgia data on Care Continuum and late diagnosis among youth
- Discuss trends in new HIV diagnoses among youth

## Stage of HIV disease at diagnosis

- Stage at diagnosis is defined by the first CD4 done within 12 months of diagnosis
  - Stage 1 =  $CD4 \geq 500$
  - Stage 2 =  $CD4$  200-499
  - Stage 3 (AIDS) =  $CD4 < 200$  or OI
- Stage at diagnosis is unknown if no CD4 done within 12 months of diagnosis
- New (04/11/2014 MMWR) revised surveillance case definition: Stage 0 or acute infection

## **Late HIV diagnoses ( Late testers of HIV infection)**

- Defined as the number of persons who progressed from initial HIV diagnosis to Stage 3, AIDS (opportunistic infection or CD4 <200) within 12 months ( $\leq 12$ ) of HIV diagnosis date
- Late HIV diagnosis is associated with shorter lifespan compared to those with earlier diagnosis
- It is estimated that persons with late HIV diagnosis have been living 8-10 years with HIV, but have been undiagnosed and untreated
- Late HIV diagnosis reflects missed opportunities for prevention and treatment of HIV

# HIV Epidemic, Georgia, 1995 to 2011

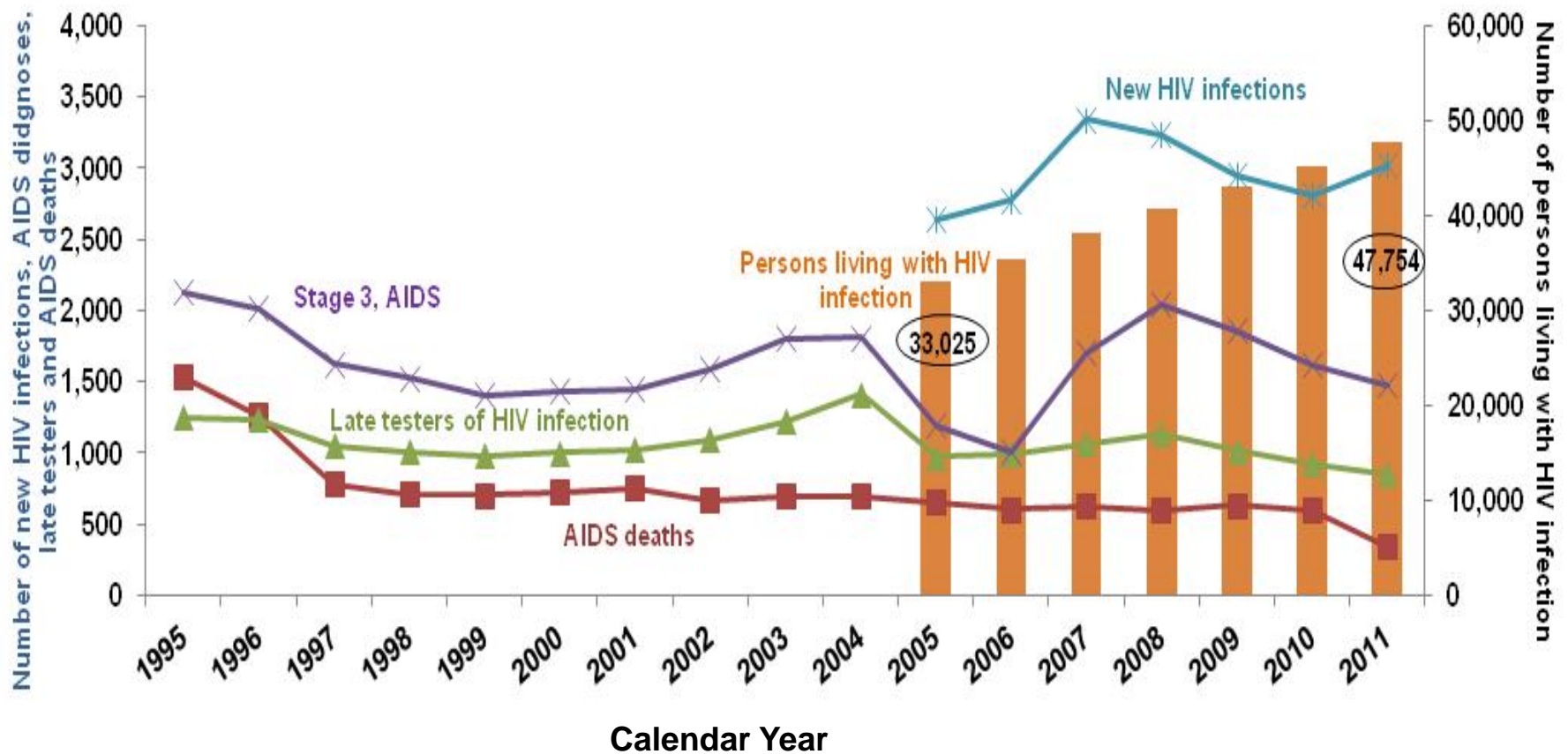
Year	AIDS deaths	Late testers of HIV infection	Stage 3, AIDS	New HIV infections	Persons living with HIV infection
1995	1,533	1,250	2,127		
1996	1,262	1,233	2,012		
1997	783	1,050	1,623		
1998	711	1,002	1,523		
1999	701	977	1,405		
2000	723	1,000	1,436		
2001	750	1,024	1,444		
2002	661	1,091	1,587		
2003	697	1,218	1,801		
2004	697	1,409	1,808		
2005	650	972	1,195	2,633	33,025
2006	600	994	1,001	2,772	35,430
2007	625	1,065	1,702	3,338	38,080
2008	596	1,133	2,037	3,236	40,718
2009	631	1,013	1,853	2,948	43,031
2010	592	917	1,620	2,812	45,116
2011	343	851	1,479	3,023	47,754

Note: Numbers for persons living with HIV infection are based on data entered through June 30, 2013 and have not been adjusted for reporting delays

Note: Cases of persons living with HIV infection are based on a current residence in Georgia and cases for new diagnoses are based on residence of diagnosis in Georgia respectively, regardless of stage of diagnosis

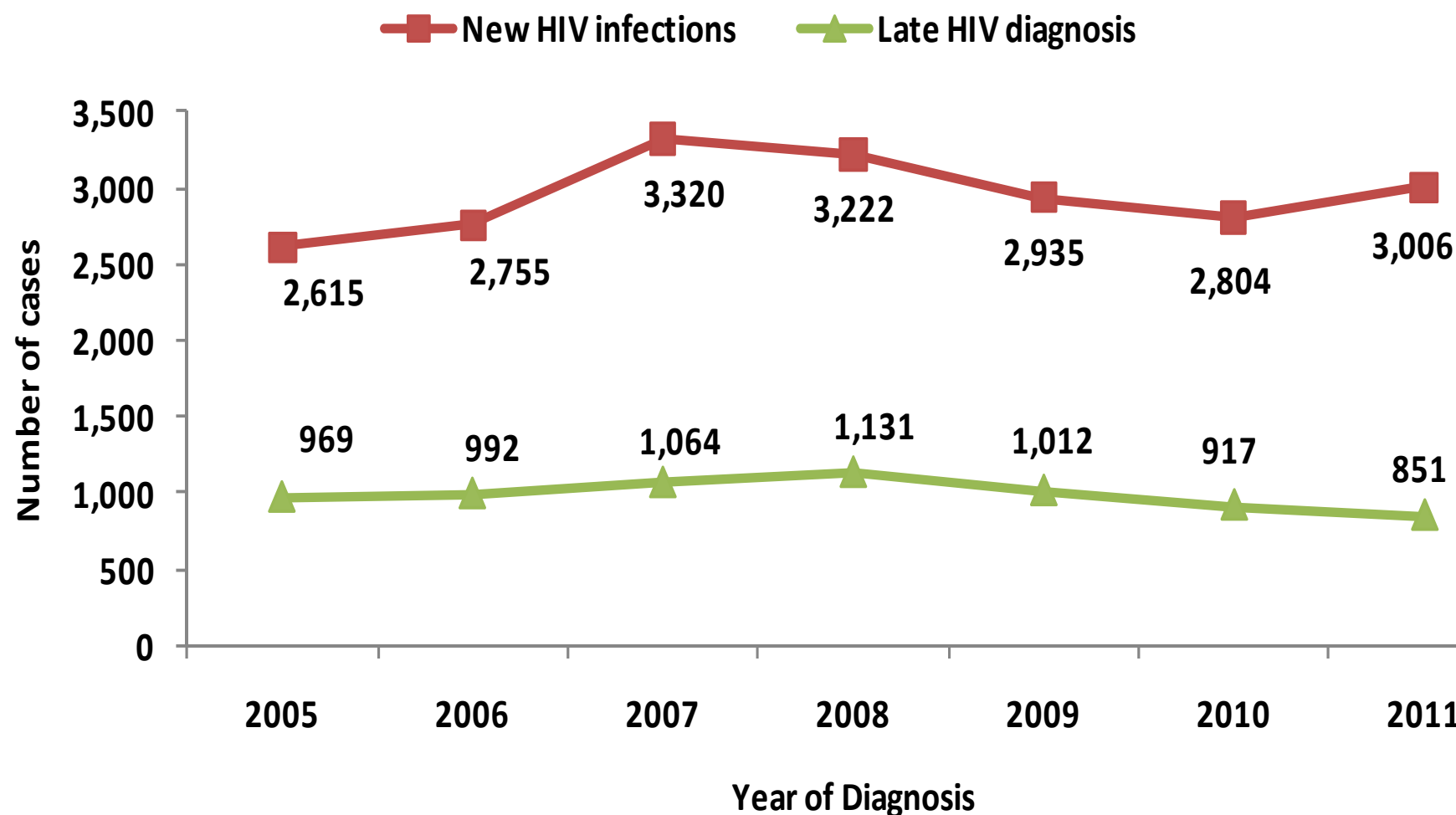
Note: Case counts include incarcerated persons who may artificially inflate the numbers

# HIV/AIDS Profile, Georgia, 1995-2011

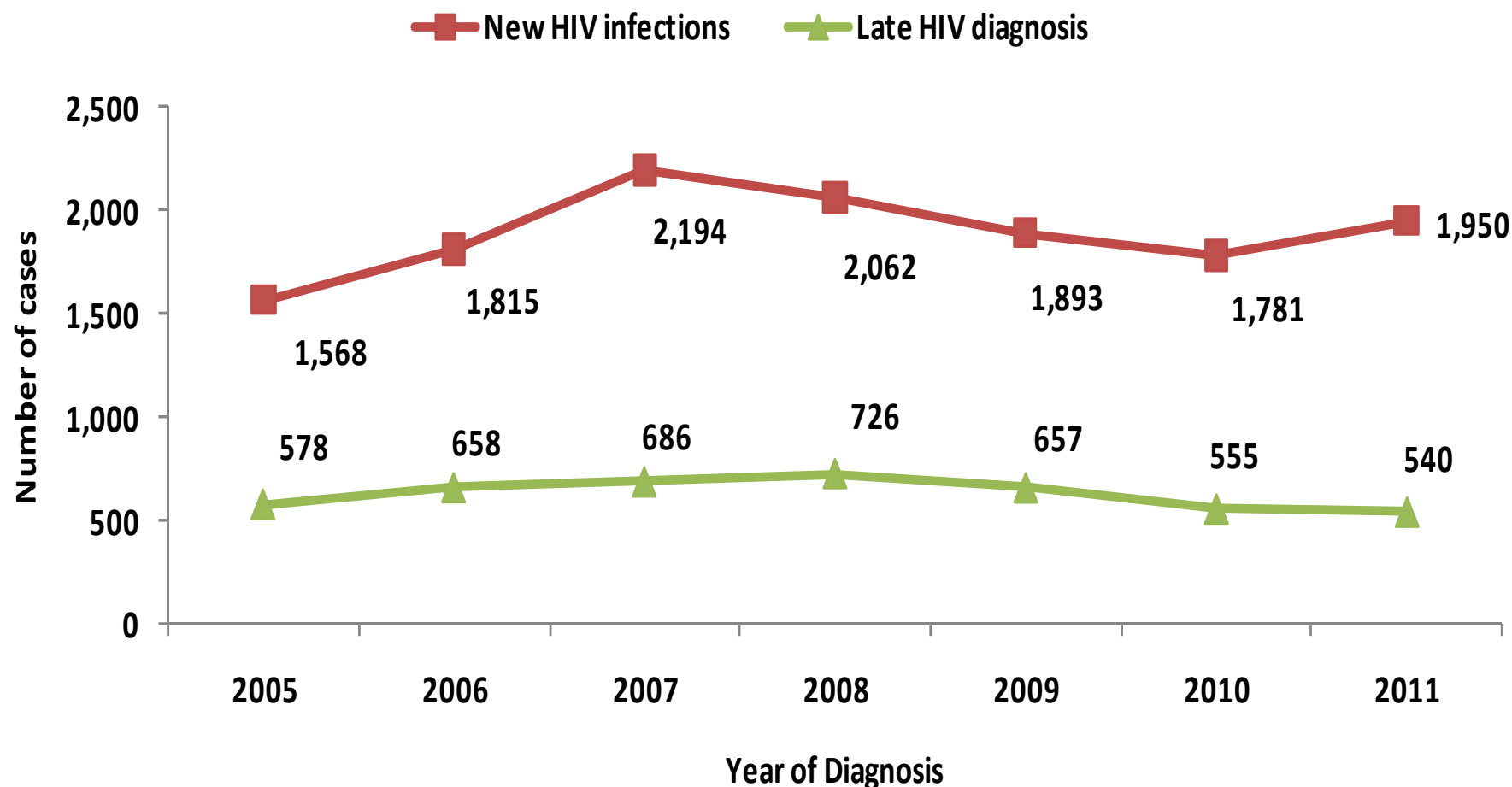


*We Protect Lives.*

## New HIV infections vs. Late HIV diagnosis, Georgia among adults and adolescents aged $\geq 13$ years, 2005 to 2011



## New HIV infections vs. Late HIV diagnosis, MATLC Area Counties, among adults and adolescents, aged $\geq 13$ years. 2005 to 2011

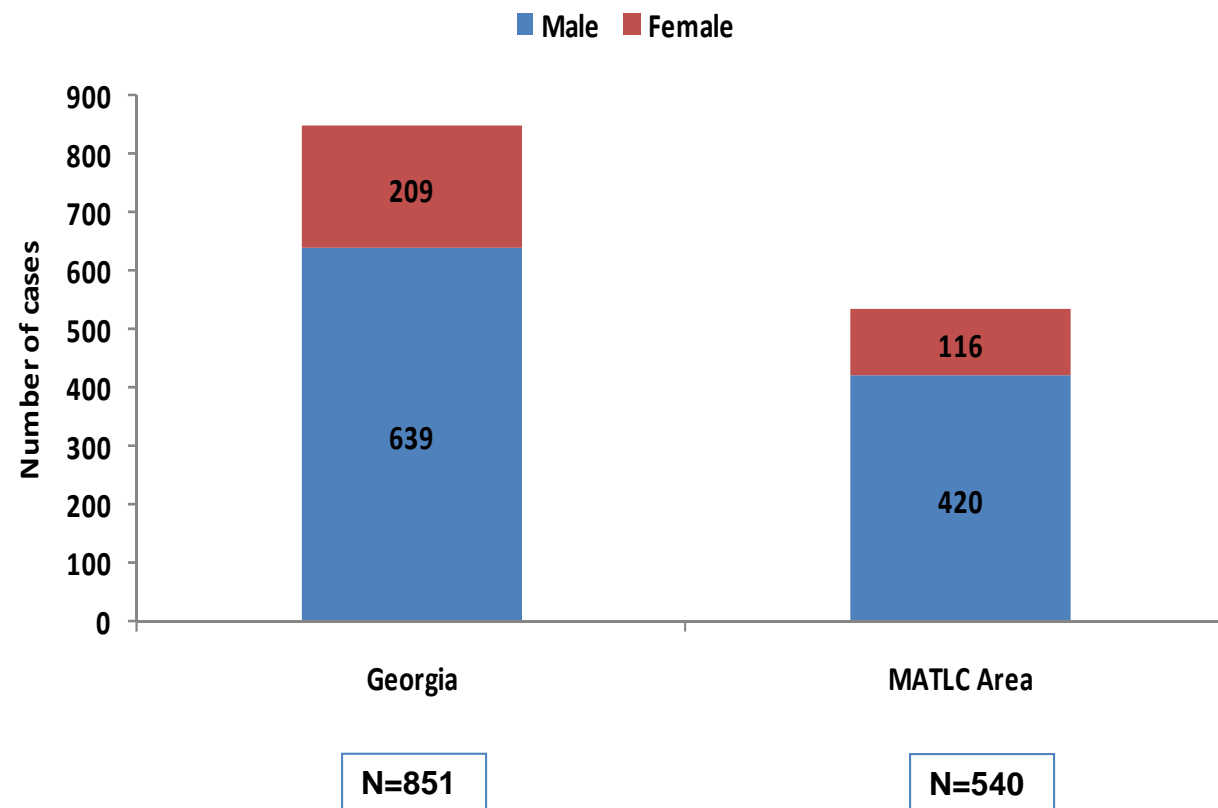


Counties included in the MATLC Area are Fulton, DeKalb, Cobb, Douglas, Gwinnett, Clayton, Carroll, Heard, Troup, Coweta, Butts, Meriwether, Fayette, Henry, Spalding, Pikes, Lamar, and Upson

*We Protect Lives.*



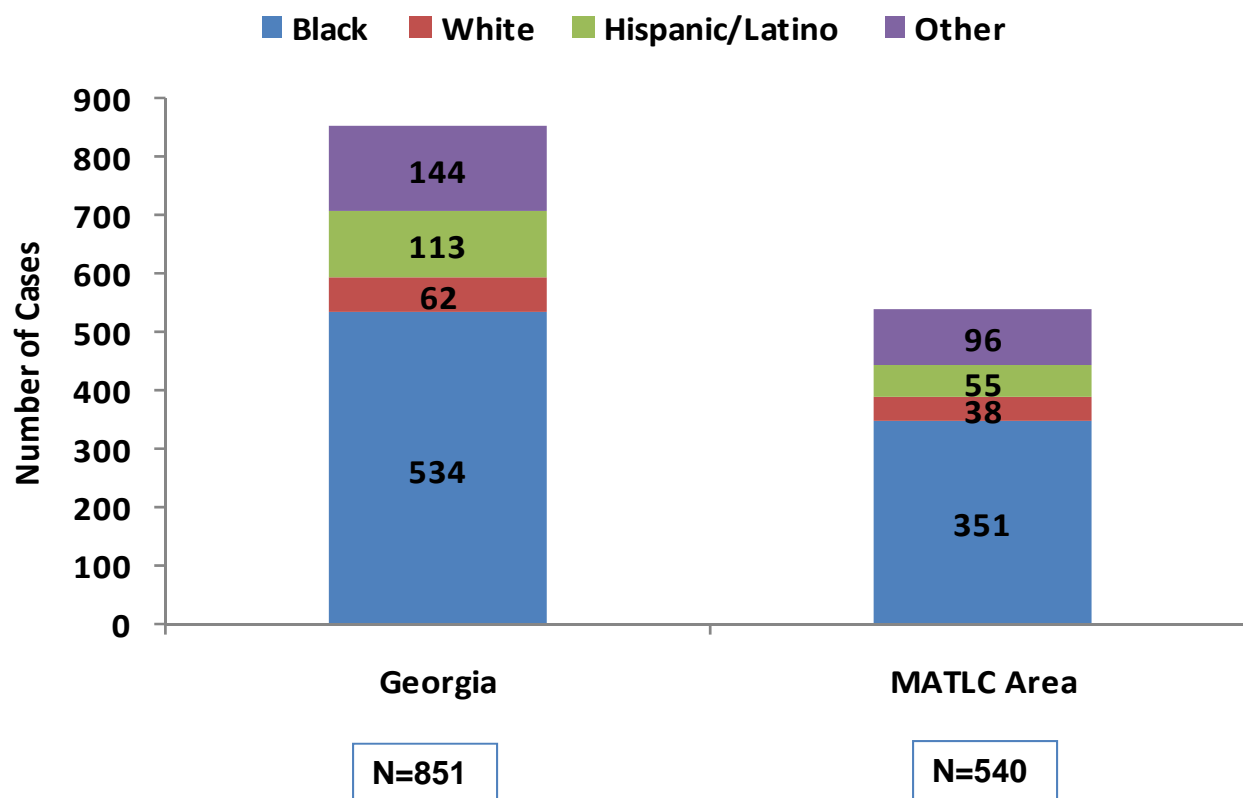
# Late HIV Diagnosis by sex, Georgia and MATLC Area Counties, among adults and adolescents $\geq 13$ years, 2011



\*N=Total number of cases in the category  
There were 5 and 4 cases with missing gender among Georgia and MATLC Area cases respectively

*We Protect Lives.*

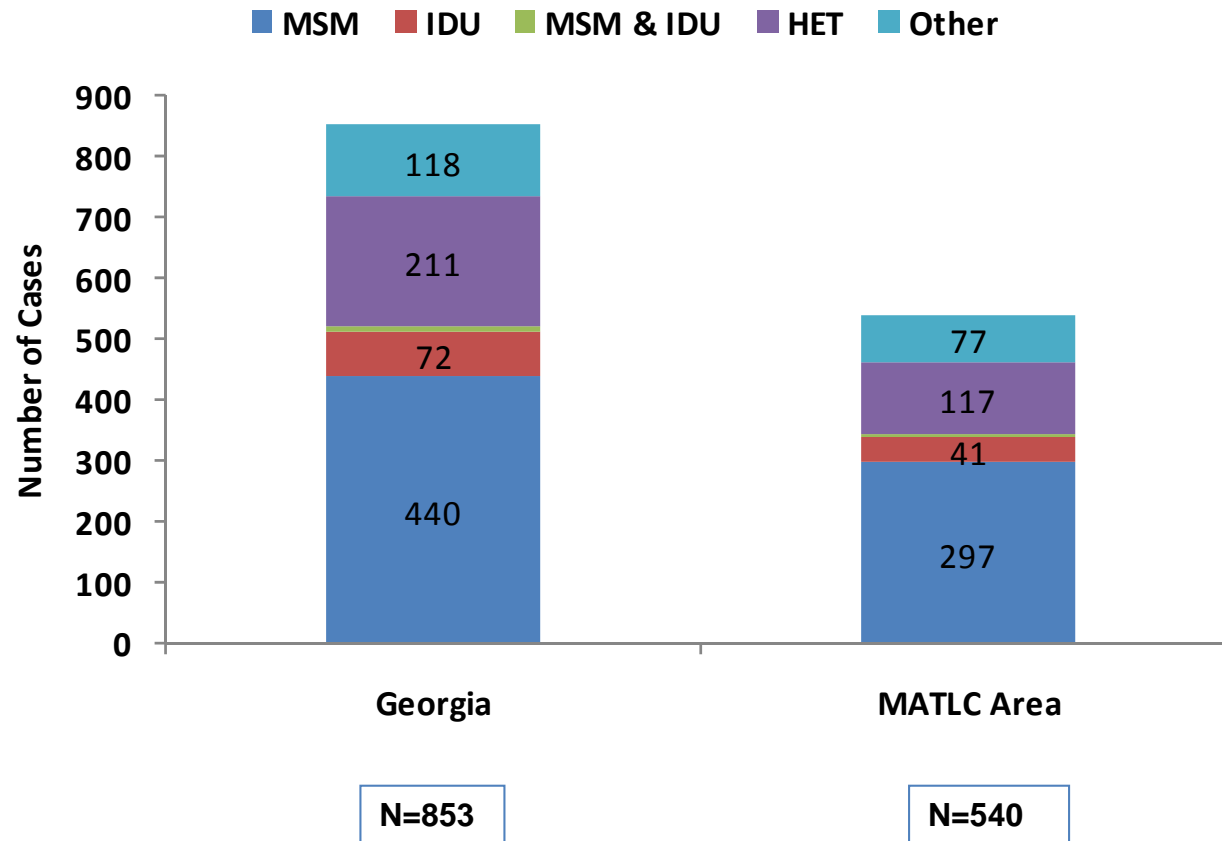
# Late HIV Diagnosis by race/ethnicity, Georgia and MATLC Area Counties, among adults and adolescents $\geq 13$ years, 2011



\* Other Includes Asian, Hawaiian/Pacific Islander, Multiracial, American Indian, Alaskan Native and Unknown

*We Protect Lives.*

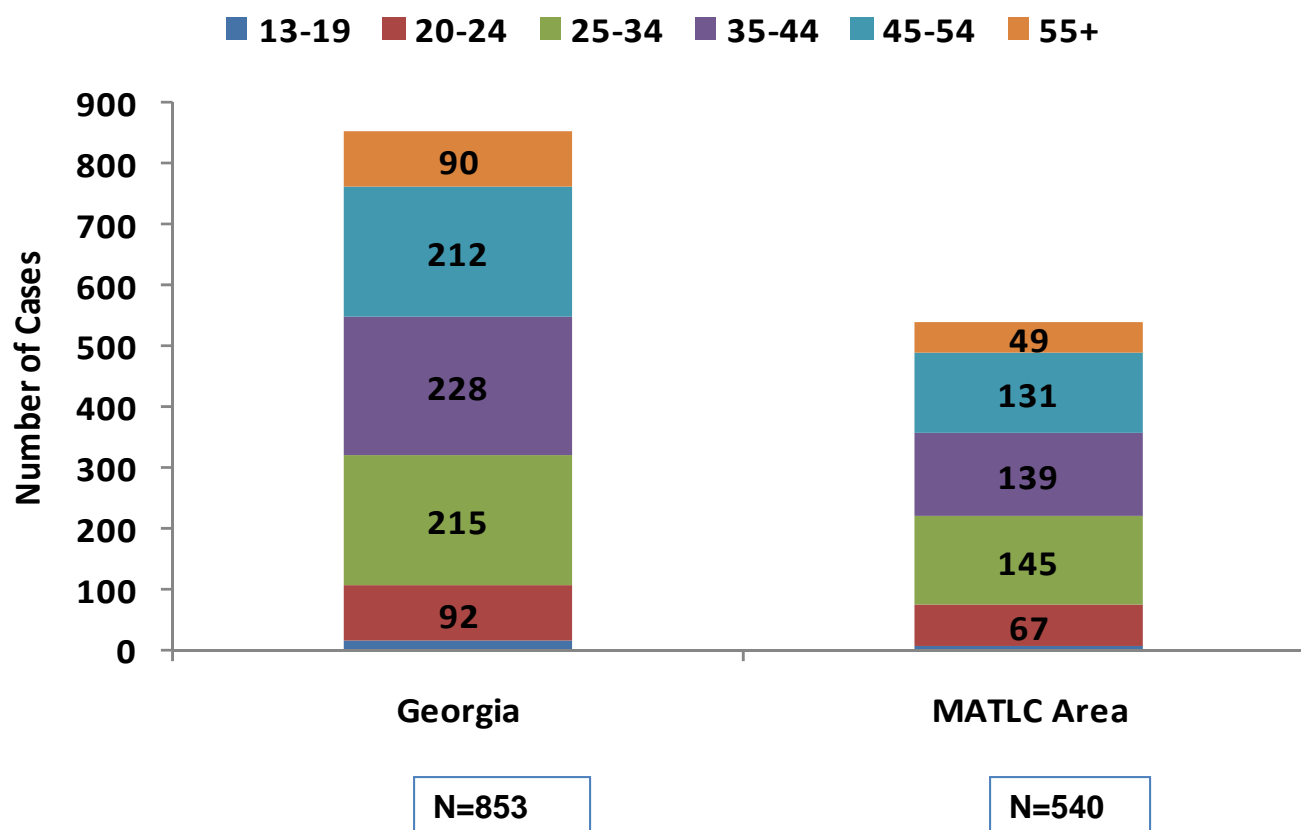
# Late HIV Diagnosis by transmission category in Georgia and MATLC Area Counties among adults and adolescents $\geq 13$ years, 2011



Note: Data includes adults & adolescents  $\geq$  age 13, diagnosed  
There were 12 and 8 cases in the MSM & IDU category for Georgia and MATLC Area Counties respectively

*We Protect Lives.*

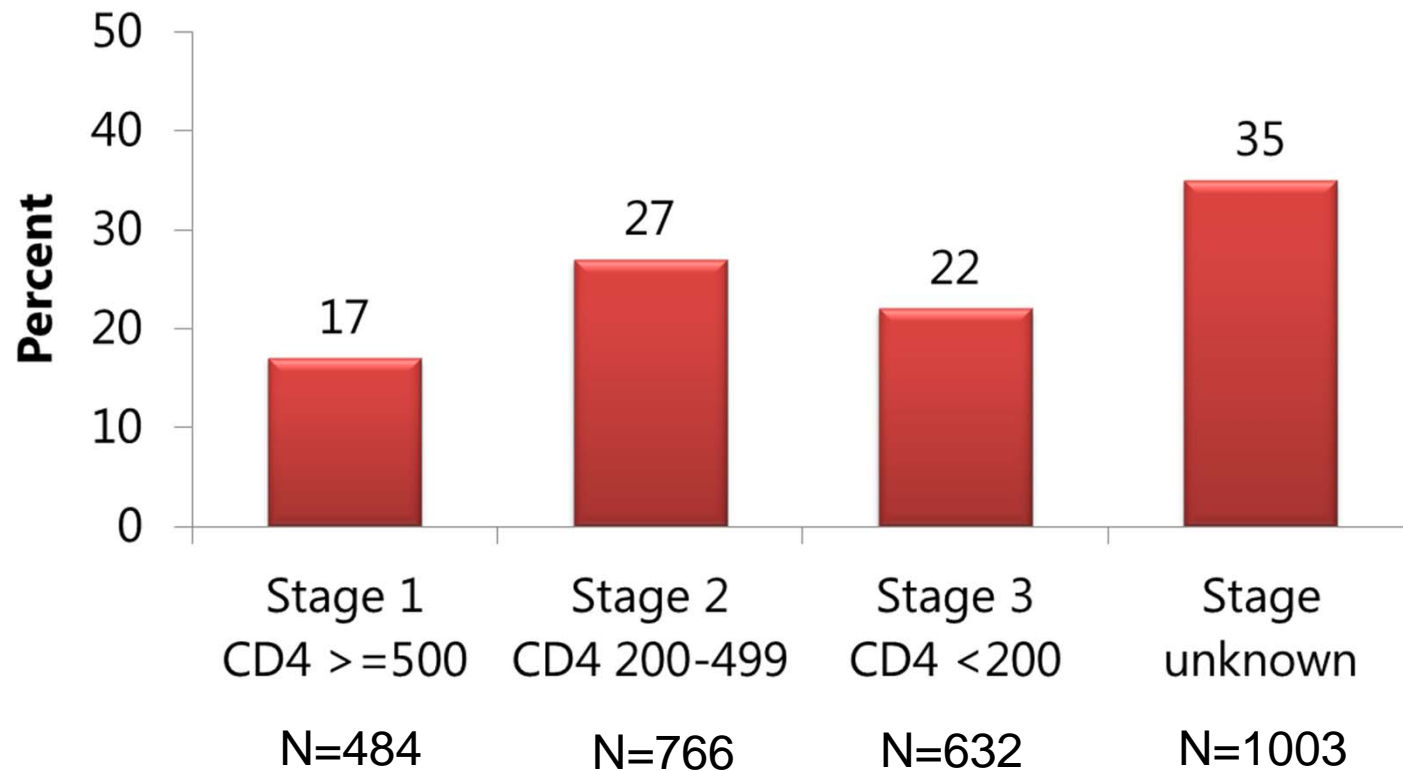
# Late HIV Diagnosis by age group (in years), Georgia, MATLC Area Counties, among adults and adolescents $\geq 13$ years, 2011



There were 16 and 9 cases in the 13-19 age category for Georgia and MATLC Area counties respectively

*We Protect Lives.*

## Stage of disease by earliest CD4 count within 12 months of HIV diagnosis, adults and adolescents, Georgia, 2011



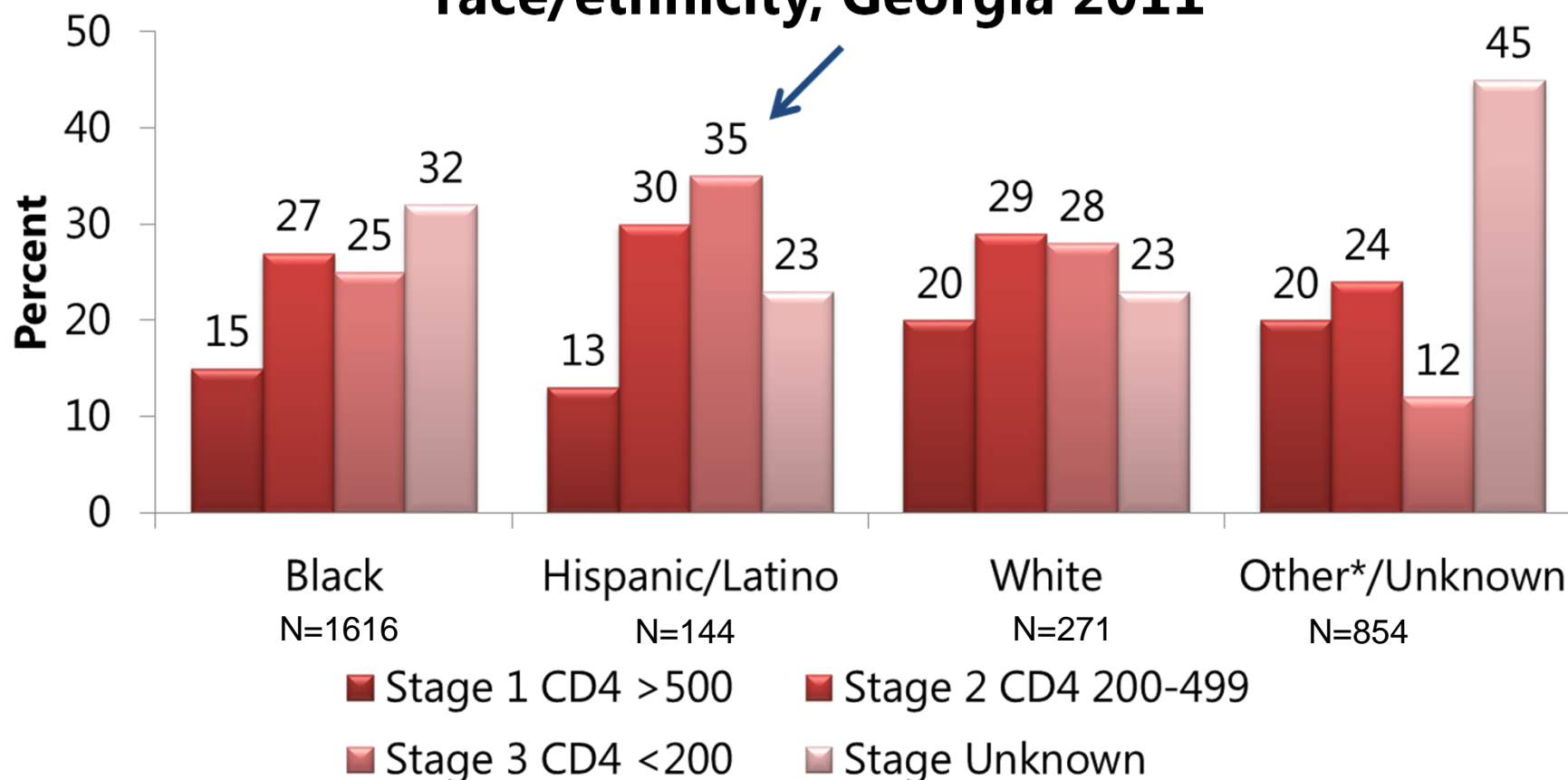
Adults and adolescents  $\geq$  age 13, diagnosed 1/1/2011 - 12/31/2011, Georgia = 2885

CD4 < 200 = Stage 3 disease (AIDS)

Stage unknown = no CD4 within 12 months of diagnosis

*We Protect Lives.*

# **Stage of disease by earliest CD4 count within 12 months of HIV diagnosis, adults and adolescents, by race/ethnicity, Georgia 2011**



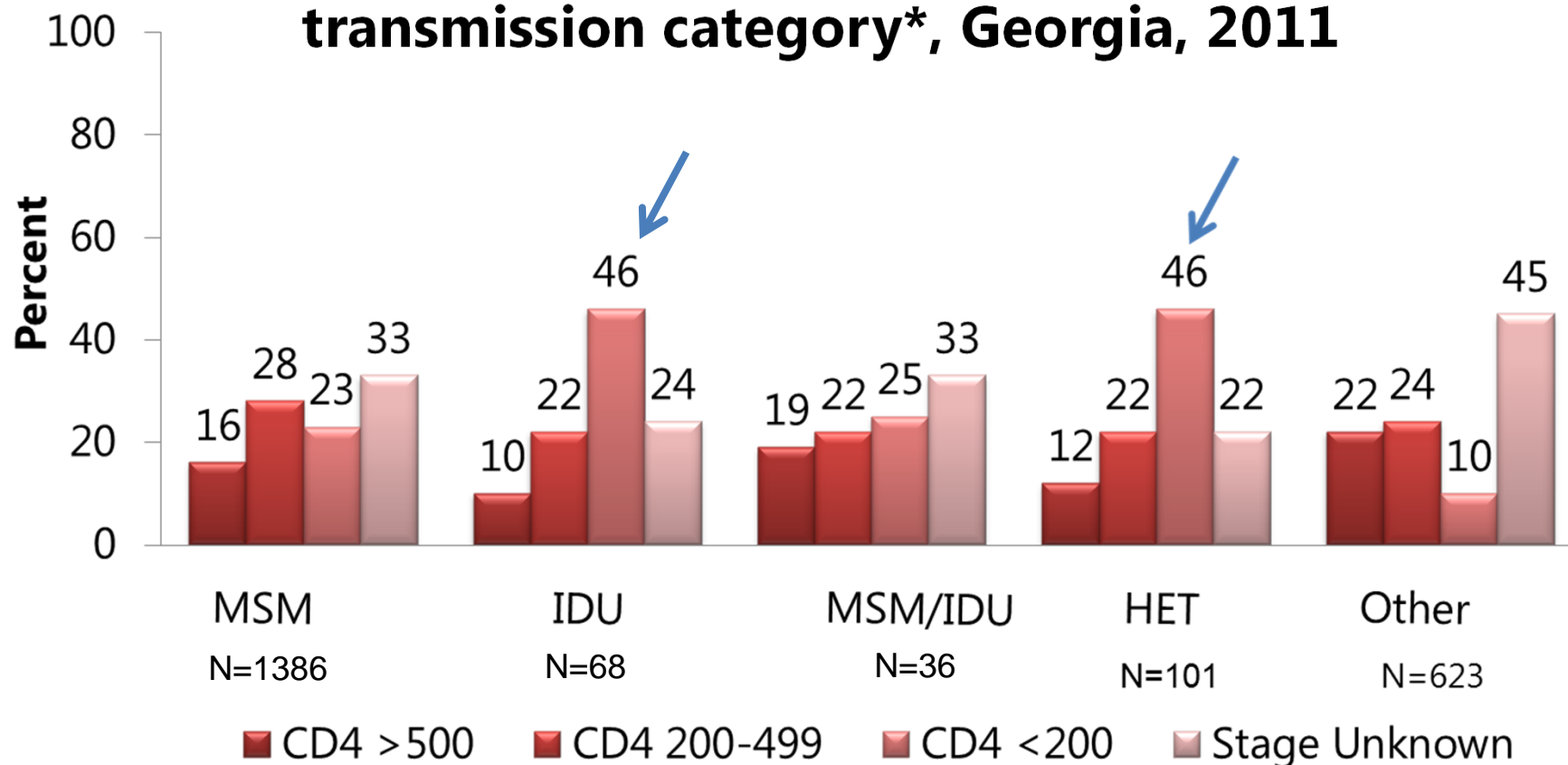
Adults  $\geq$  age 13, diagnosed 1/1/2011 - 12/31/2011, Georgia = 2885

CD4 < 200 = Stage 3 disease (AIDS)

Stage Unknown = no CD4 within 12 months of diagnosis

\*American Indian/Alaska Native, Asian and Native Hawaiian/Pacific Islander groups together constitute <2% of adults diagnosed with HIV in Georgia, 2010 and are grouped with Unknown race/ethnicity

## Stage of disease by earliest CD4 count within 12 months of HIV diagnosis, adult and adolescent males, by transmission category\*, Georgia, 2011



Adult and adolescent males  $\geq$  age 13, diagnosed 1/1/2011 - 12/31/2011, Georgia = 2214

CD4<200 = Stage 3 disease (AIDS)   Stage Unknown = no CD4 within 12 months of diagnosis

Multiple imputation used to re-distribute transmission category where missing

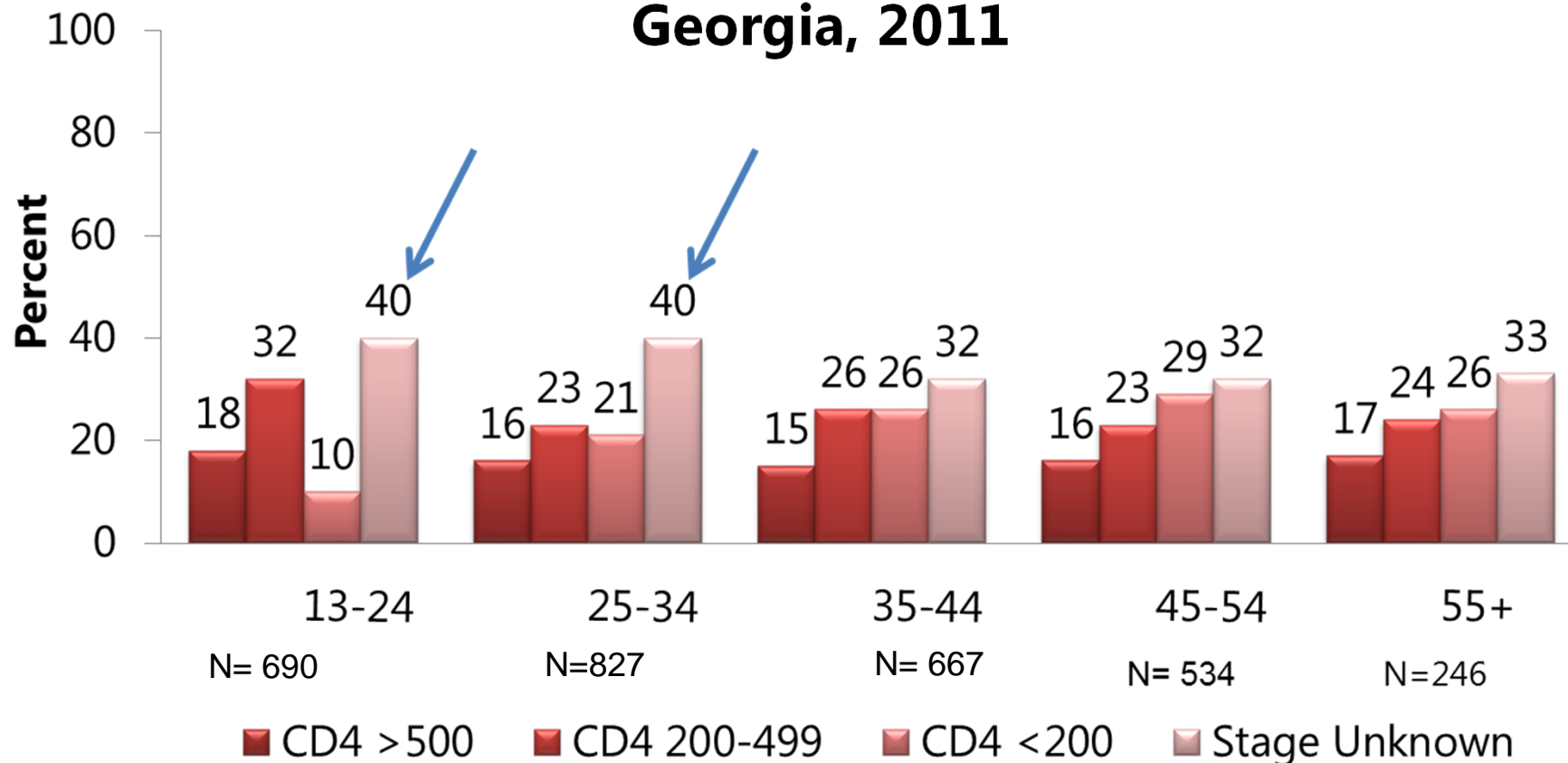
\*MSM = Male to male sexual contact   IDU = Injection drug use

MSM/IDU = Male to male sexual contact and injection drug use

HET = Heterosexual contact with a person known to have, or to be at high risk for, HIV infection

Other = hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified

# Stage of disease by earliest CD4 count within 12 months of HIV diagnosis, adult and adolescent males, by age, Georgia, 2011



Adult and adolescent males  $\geq$  age 13, diagnosed 1/1/2011 - 12/31/2011, Georgia = 2214  
 CD4<200 = Stage 3 disease (AIDS)  
 Stage Unknown = no CD4 within 12 months of diagnosis

*We Protect Lives.*

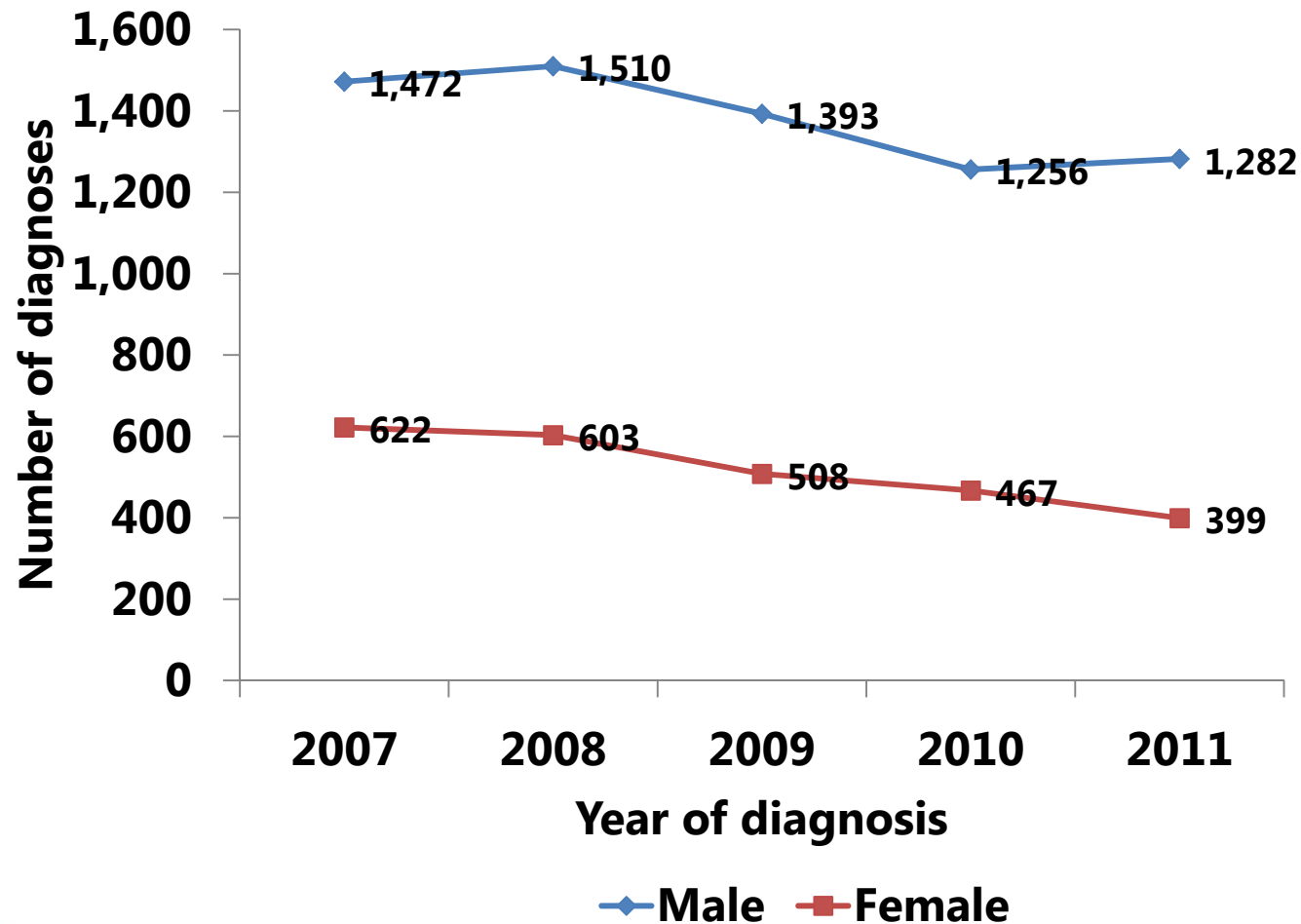


## Costs of Late Diagnosis

- One of the biggest costs of late diagnosis is ongoing transmission
- Each person with late HIV diagnosis has twice the average lifetime risk of transmitting HIV<sup>1</sup>
- Depending on risk behaviors, number of partners, concurrent STDs, lifetime transmission risk can be even higher
- Further, persons unaware of their HIV diagnosis have a higher annual rate of sexual transmission on HIV (9% vs. 0.4% per person per year)<sup>1</sup>

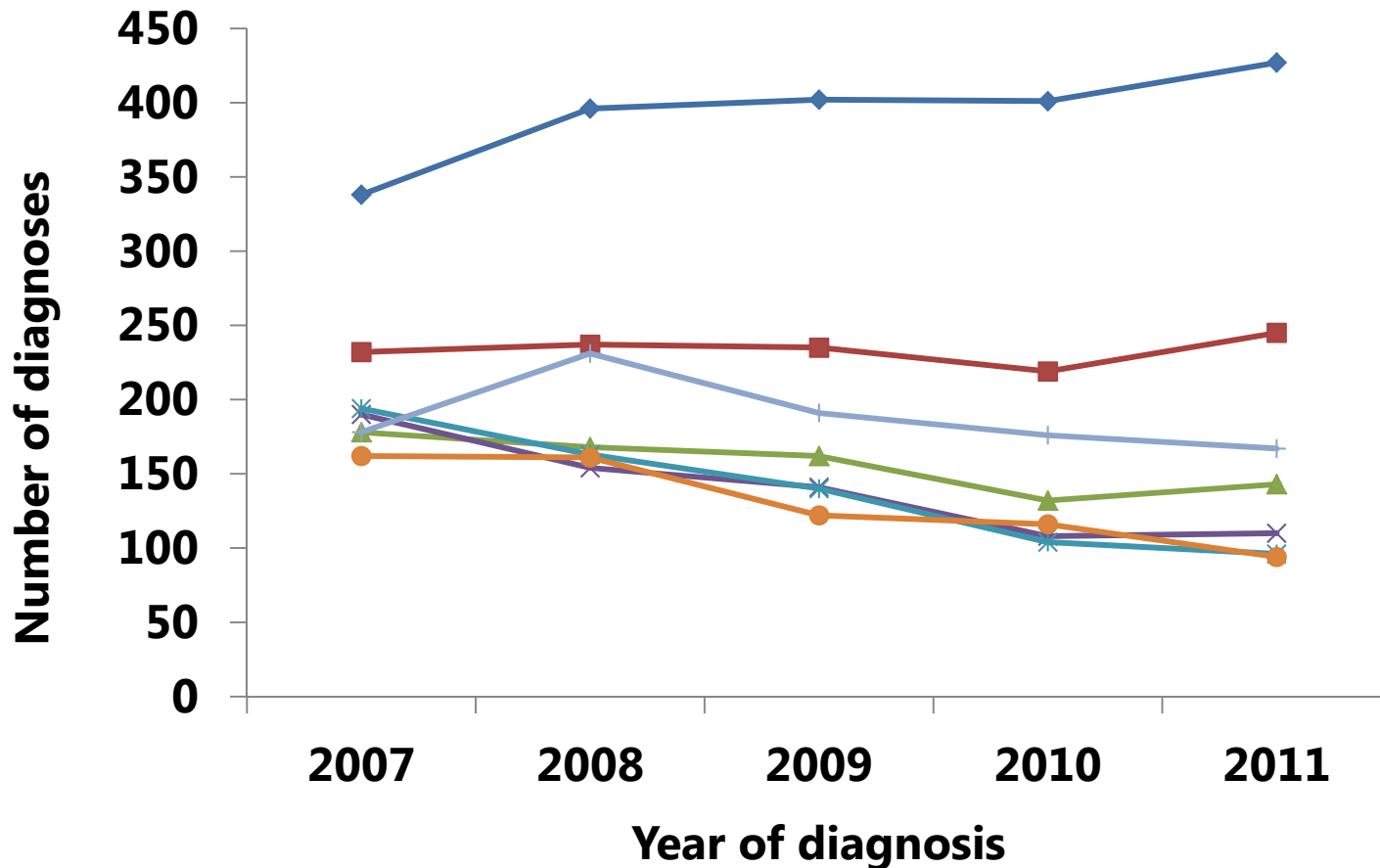
<sup>1</sup> Farnham, P.G., et al, *J Acquir Immune Defic Syndr*, Vo. 64, No. 2, Oct 1,2013.

# New HIV Diagnoses Among Blacks, by sex, Georgia, 2007-2011



*We Protect Lives.*

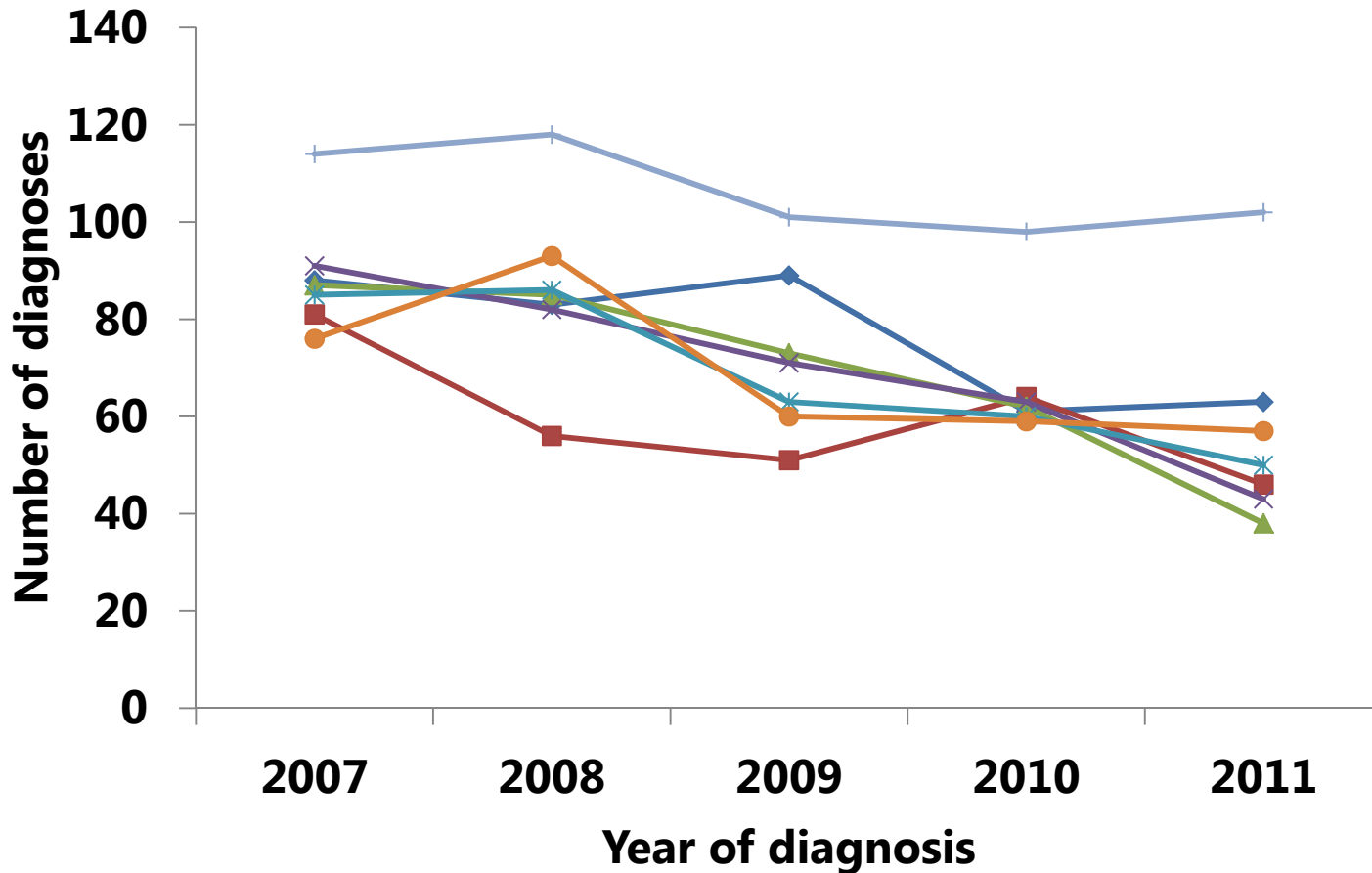
# New HIV Diagnoses Among Black Males, by age at diagnosis, Georgia, 2007-2011



◆ 13-24   ■ 25-29   ▲ 30-34   ✕ 35-39   \* 40-44   ● 45-49   + 50+

*We Protect Lives.*

# New HIV Diagnoses Among Black Females, by age at diagnoses, Georgia, 2008-2011



◆ 13-24   ■ 25-29   ▲ 30-34   ✕ 35-39   ✱ 40-44   ● 45-49   + 50+

*We Protect Lives.*

# Trends

It's not enough to look at the overall numbers, we need to look at subgroups:

- New HIV diagnoses among Blacks overall are decreasing
- New HIV diagnoses are increasing among younger Black males and older Black females
- Different groups need different interventions
- Even among the youngest age group (age 13-24 years at diagnosis), at least 10% are late testers (Stage 3 AIDS at diagnosis or within 12 months)

# Limitations and Implications

- HIV diagnosis date used as a proxy for date of HIV infection for a case
- Lack of CD4 count lab report availability at the time of HIV diagnosis and/or at 3 months of HIV diagnosis in the surveillance data will give a reduced estimate of late HIV diagnosis
- Treatment might delay progression to AIDS and those cases may have been misclassified as early testers (persons diagnosed with AIDS after 12 months of their HIV diagnosis date)
- Populations for which data are missing may be fundamentally different
- Late HIV diagnoses are helpful in understanding barriers to early HIV testing, linkage and retention in care

# Contact

## **HIV/AIDS Epi Section**

Jane Kelly, Director

[jakelly@dhr.state.ga.us](mailto:jakelly@dhr.state.ga.us)

Tel: 404-657-2601

## **HIV/AIDS Epidemiology Section website:**

<http://dph.georgia.gov/data-fact-sheet-summaries>

A red decorative graphic consisting of a curved shape on the left side that tapers into a horizontal bar extending across the bottom of the slide.

*We Protect Lives.*