

State of the HIV Epidemic in Alameda County

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HIV/AIDS Epidemiology and Surveillance Unit
Alameda County Public Health Department



Outline of Presentation

Newly Diagnosed HIV cases

- Demographic characteristics
- Case rates by demographic groups
- Trends in rates, overall and by demographic and risk groups
- Geographic distribution

Persons Living with HIV/AIDS

- Demographic characteristics
- Demographic characteristics by each mode of transmission
- Geographic distribution

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Considerations in Interpreting Surveillance Data

Data likely underestimate true burden of HIV because:

- Estimates of new diagnoses of HIV infection are subject to reporting delays
- Data only include persons who have been tested/diagnosed and reported to the health department
- HIV-infected persons who are unaware of their diagnosis/infection are not included

Data are limited for certain groups, e.g. youth, transgendered persons, because of small counts or current reporting methods

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Newly Diagnosed HIV Cases, Newly Diagnosed AIDS Cases, Deaths and Persons Living With HIV/AIDS, Alameda County 2006-2012

	2006	2007	2008	2009	2010	2011	2012*
Number newly diagnosed HIV cases (with or without AIDS)	246	276	200	240	207	189	197
Number newly diagnosed AIDS cases	137	138	98	101	75	74	82
Number deaths	95	91	84	97	77	27	34
Number of persons living with HIV/AIDS (PLWHA)	4155	4340	4456	4599	4729	4891	5054

Note: * Data for 2012 are subject to reporting delays and should be considered preliminary

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Data to Inform Prevention Priorities: New HIV Cases

- Impact of new HIV diagnoses among groups- by sex, race/ethnicity, age, mode of transmission
- Comparison of burden among demographic groups (case rates)
- How HIV diagnoses have impacted these groups over time (trends)
- Geographic distribution of new HIV diagnoses

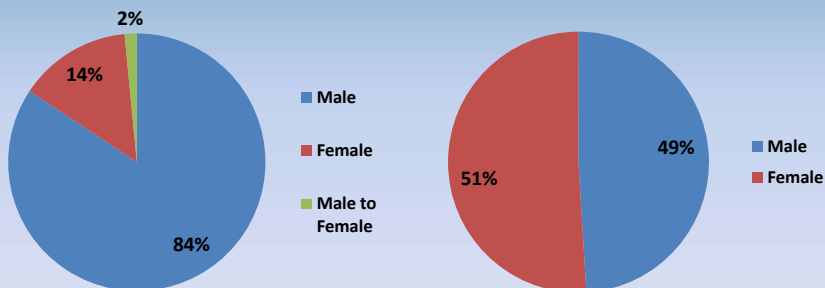
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Comparison of Newly Diagnosed HIV Cases and Alameda County Residents by Sex

Newly Diagnosed HIV Cases 2010-2012 (n=593)

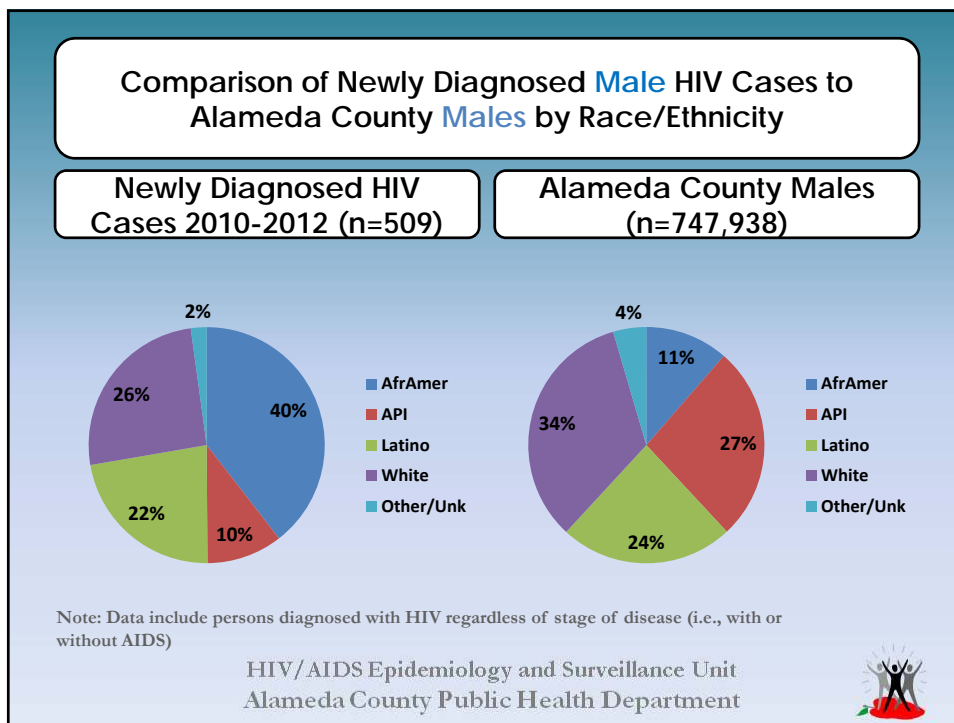
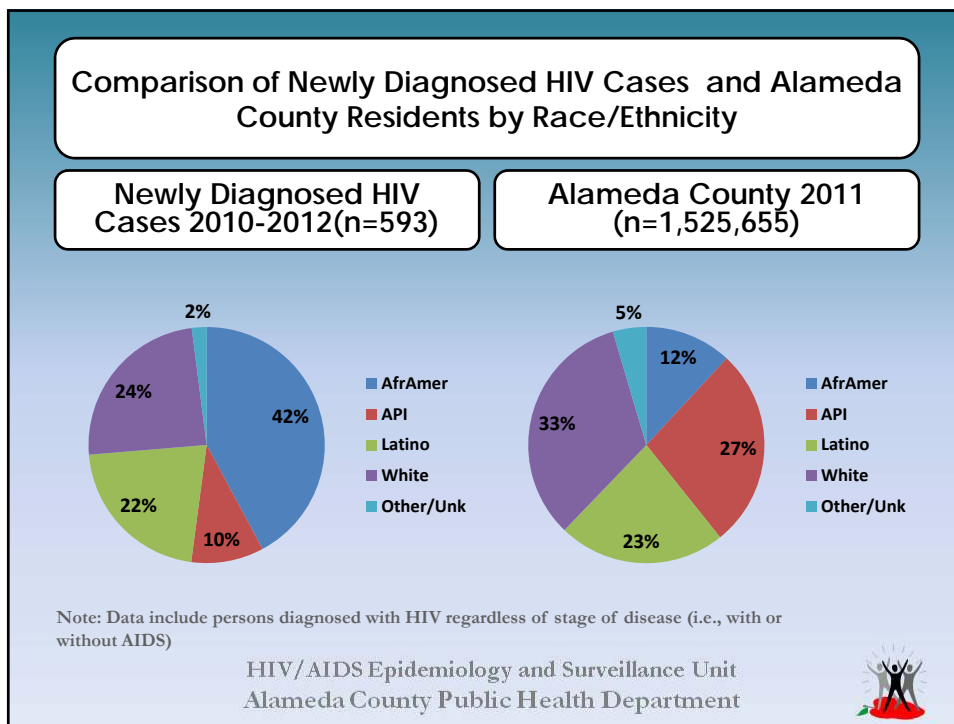
Alameda County 2011 (n=1,525,655)

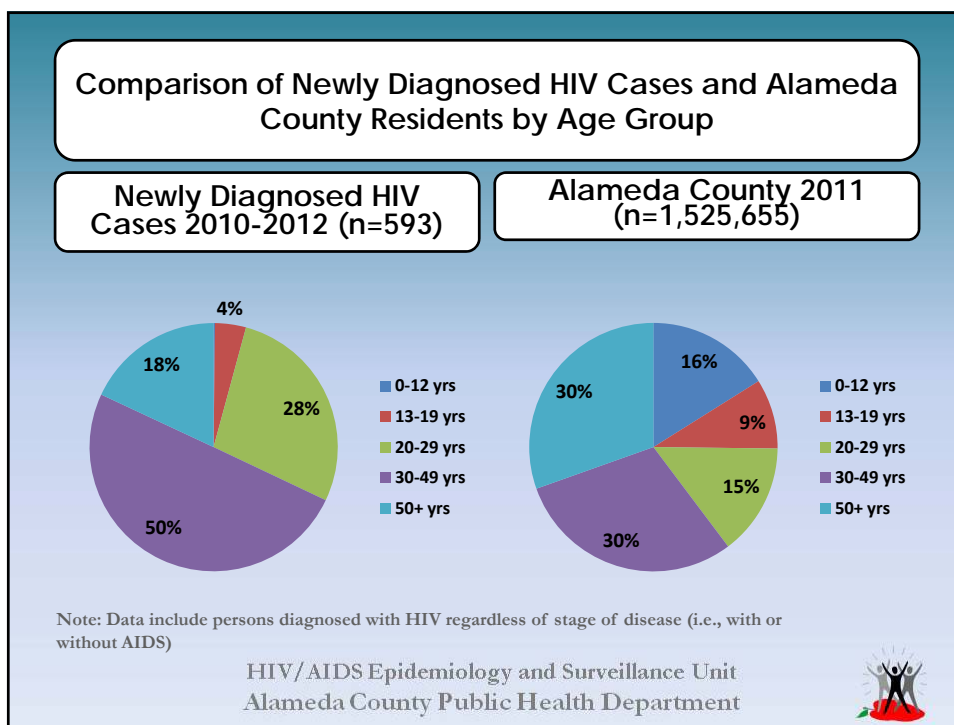
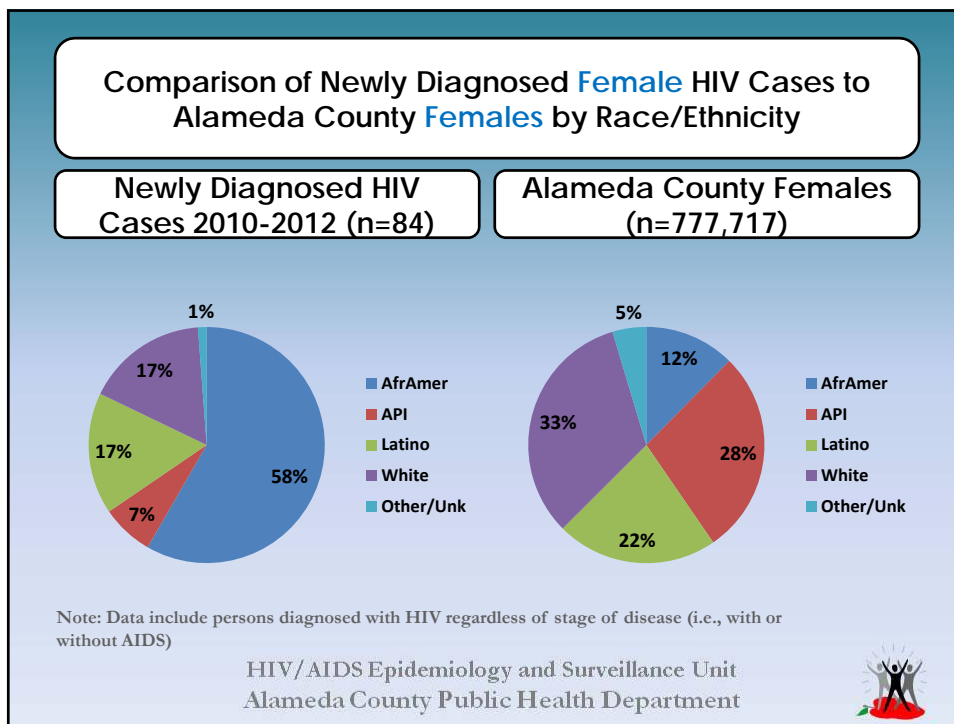


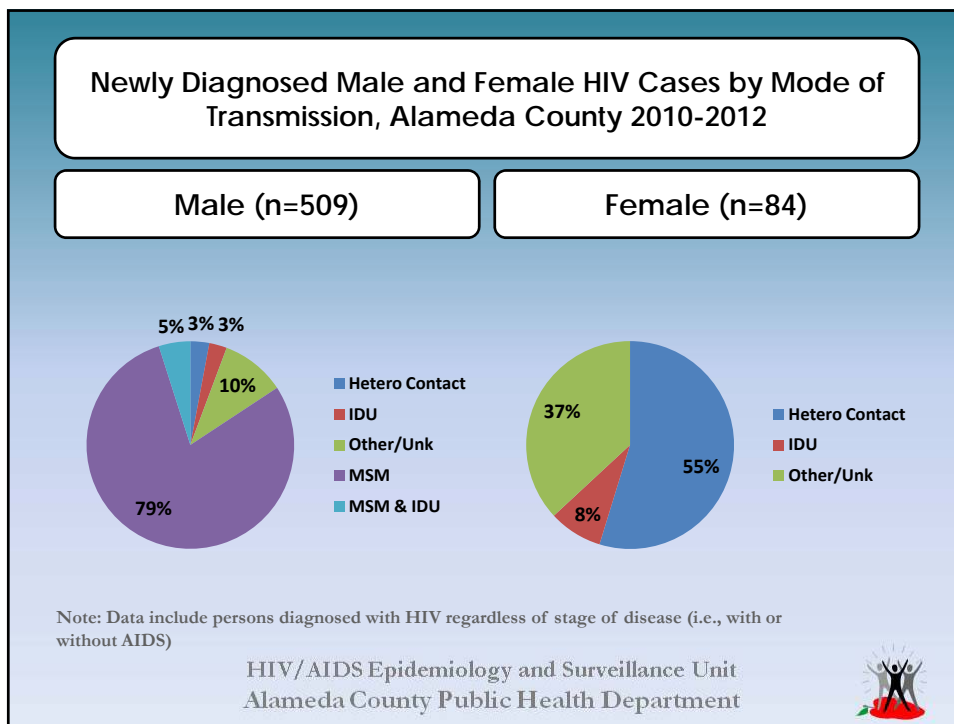
Note: Data include persons diagnosed with HIV regardless of stage of disease (i.e., with or without AIDS)

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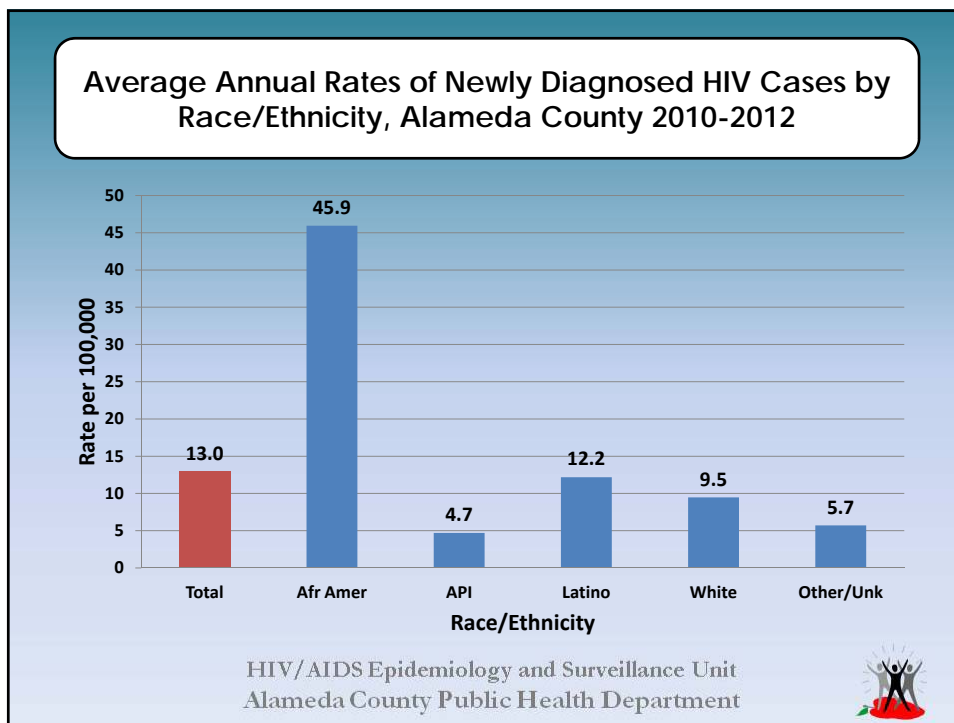
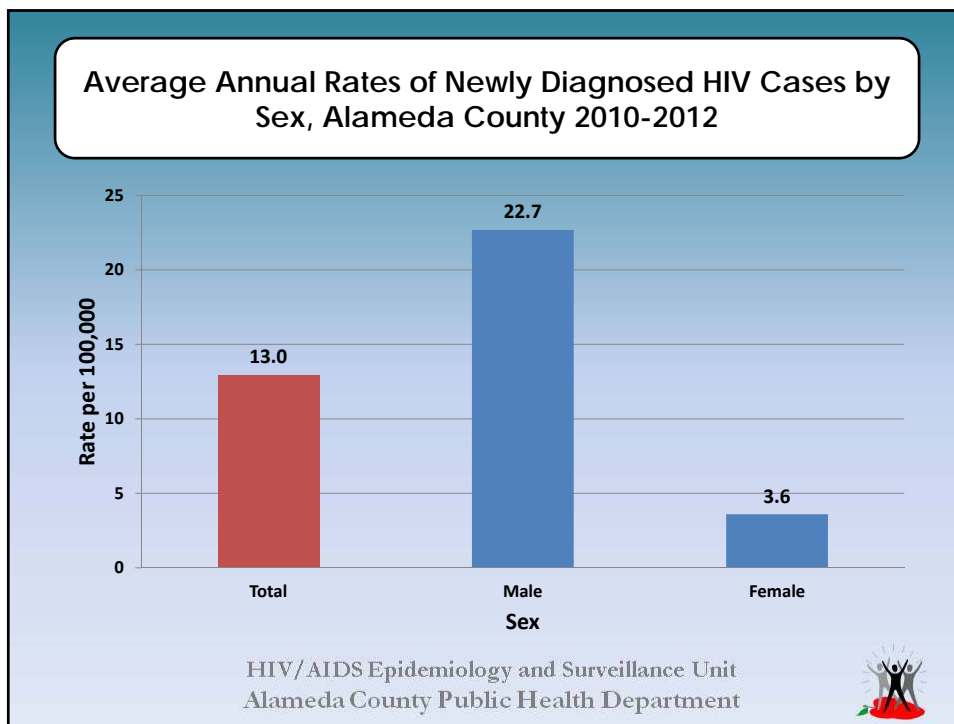


Annual Average Rates of Newly Diagnosed HIV Cases by Selected Characteristics, Alameda County 2010-2012

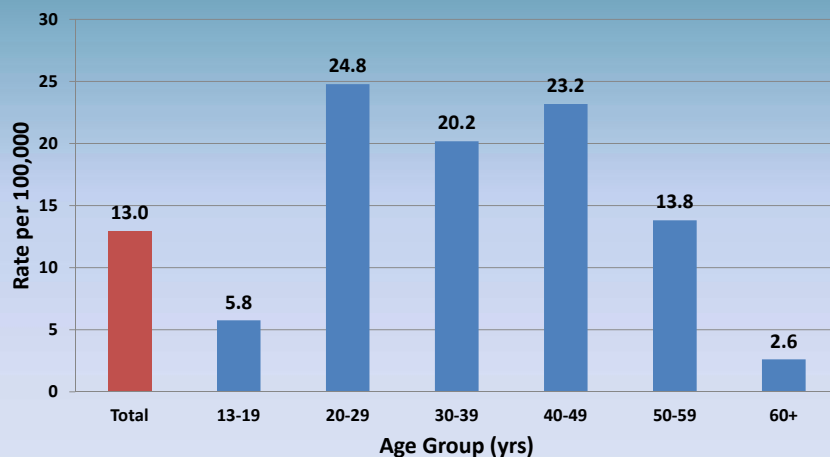
	Three Year Average Number	Three Year Average Rate per 100,000
TOTAL	198	13.0
SEX		
Male	170	22.7
Female	28	3.6
RACE/ETHNICITY		
African American	83	45.9
Asian or Pacific Islander	20	4.7
Latino	43	12.2
White	48	9.5
Other/Unknown	<5	5.7

Note: * Data in 2012 are subject to reporting delays and should be considered preliminary

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Average Annual Rates of Newly Diagnosed HIV Cases by Age Group, Alameda County 2010-2012



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Summary Findings: Characteristics of New HIV Cases

- New HIV diagnoses in Alameda County are predominantly among males, African Americans, and MSM
- Over 58% of HIV diagnoses among women are among African Americans; about half of new HIV diagnoses among women are attributed to heterosexual contact
- The burden of new HIV diagnoses among males is 6.3 times that for females
- African Americans bear almost 10 times the burden of new HIV diagnoses compared to API, 5 times the burden among Whites and 4 times the burden among Latinos
- Adults 20-49 years old have the greatest burden of new HIV diagnoses

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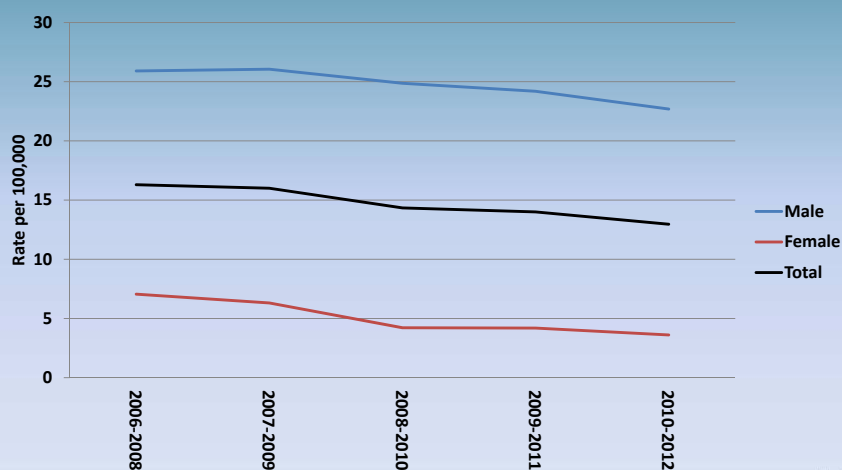
Trends: Changes in HIV Diagnoses Over Time

- Trends in rates can be variable due to small number of cases, especially in smaller subgroups
- Three years of data were combined to calculate average annual case rates for greater reliability
- Apparent changes in rates over time (decline or increase) may not be statistically significant because of variability despite using this approach
- Trends do highlight the impact of HIV among different groups over the course of the epidemic

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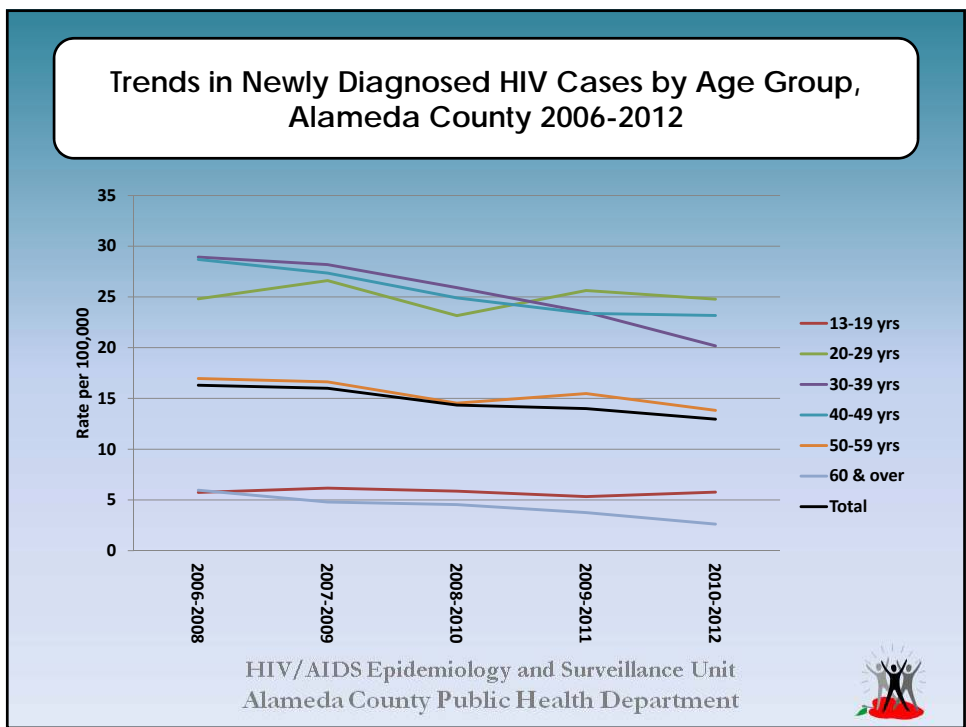
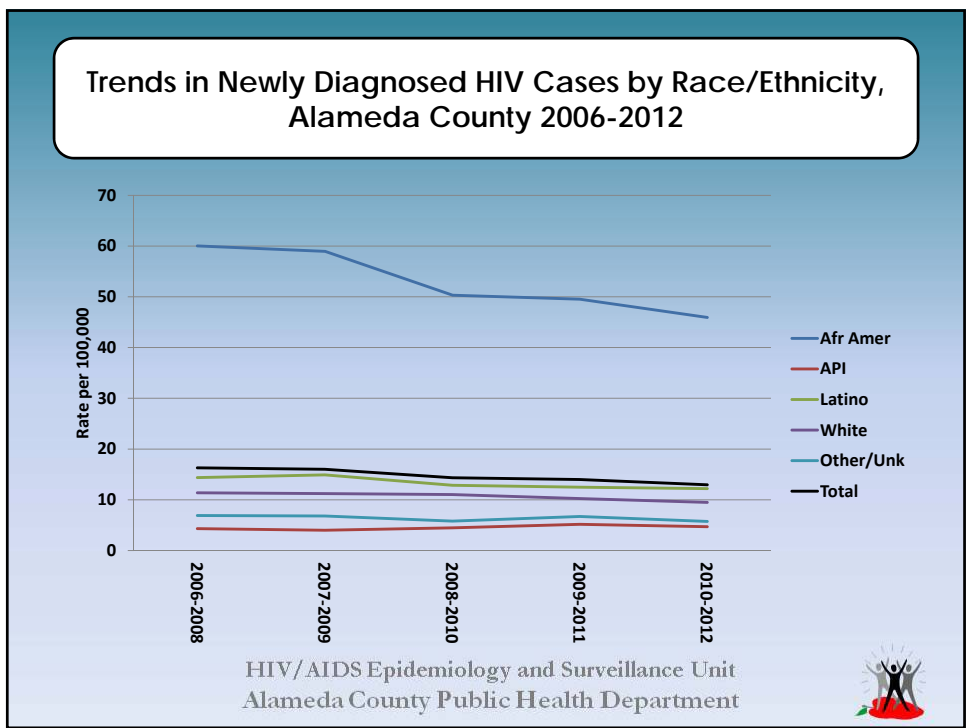


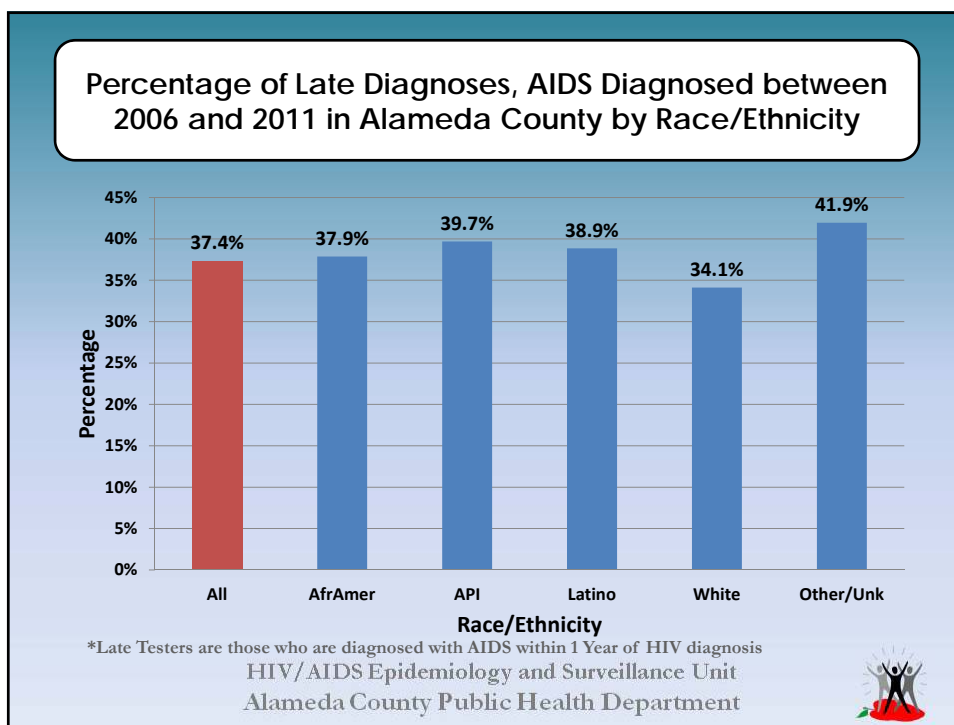
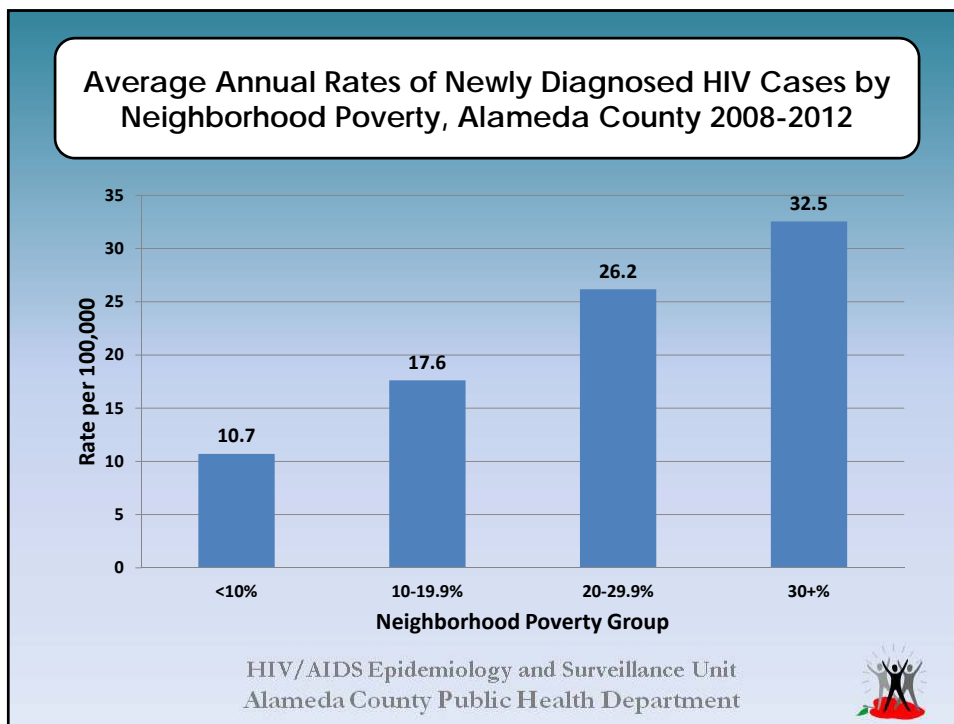
Trends in Newly Diagnosed HIV Cases by Sex, Alameda County 2006-2012



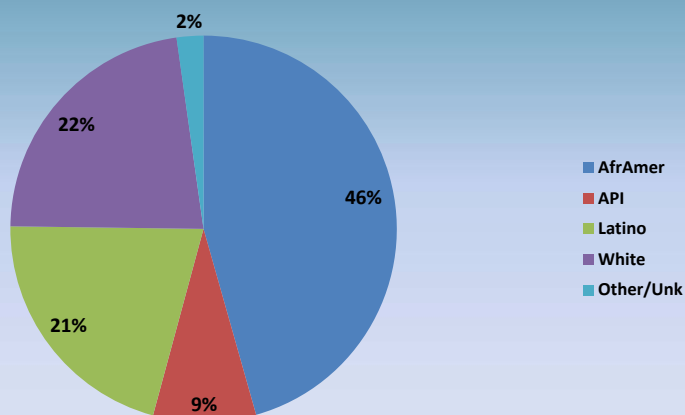
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Proportion of Late Diagnoses, AIDS Diagnosed between 2006 and 2011 in Alameda County, by Race/Ethnicity (n=581)



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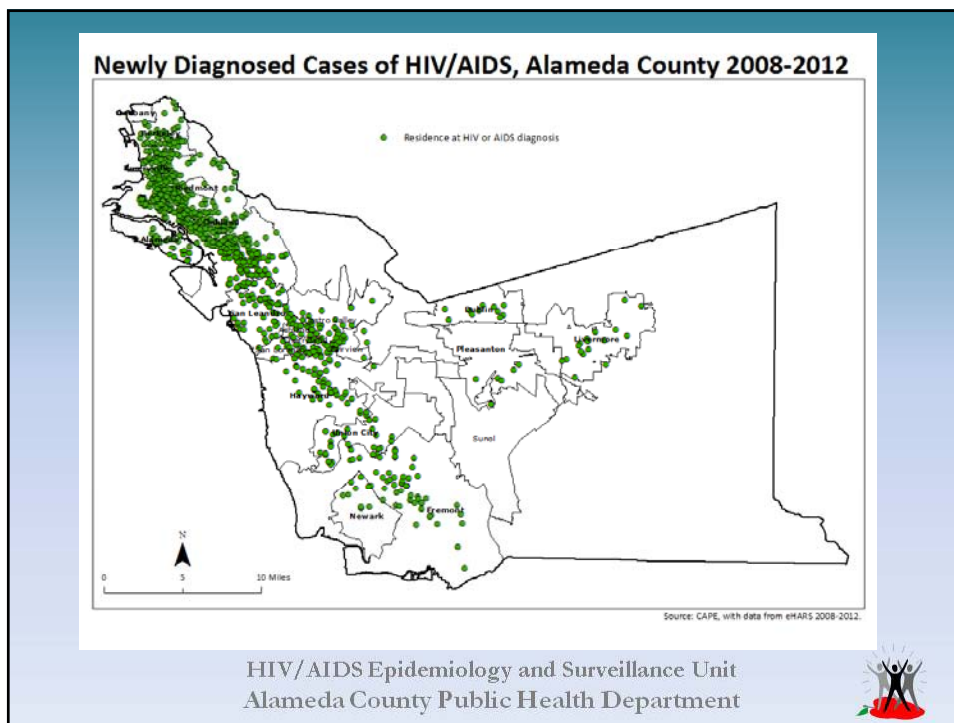
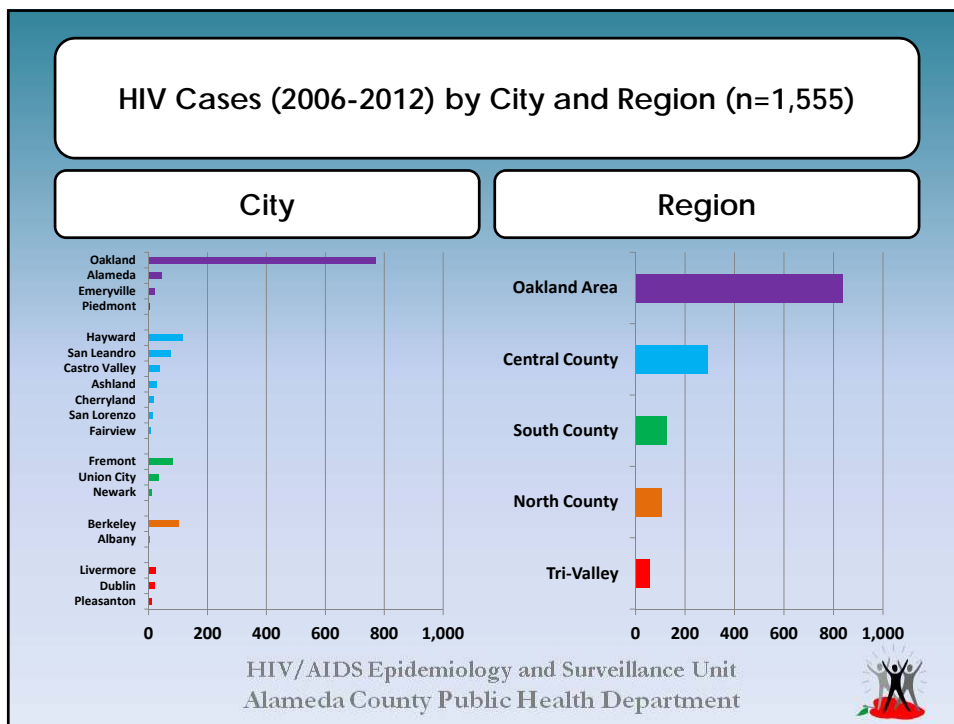


Geographic Definitions: Region by Cities

- North County: **Albany, Berkeley**
- Oakland Area: **Oakland, Emeryville, Piedmont, Alameda**
- Central County: **San Leandro, San Lorenzo, Ashland, Cherryland, Fairview, Castro Valley, Hayward**
- South County: **Union City, Fremont, Newark, Sunol**
- Tri-Valley: **Livermore, Dublin, Pleasanton**

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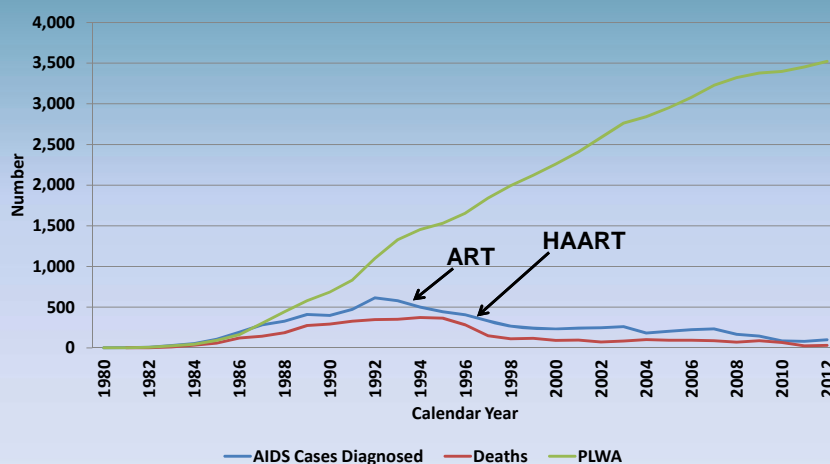
Summary Findings: Trends and Geographic Concentration

- Between 2006 and 2012 HIV case rates declined steadily
- HIV case rates remained stable among males and declined substantially among females
- There was also a steady decline in case rates among African Americans in recent years
- Since 2009 case rates among 20-29 year olds surpassed those for 30-39 year olds and 40-49 year olds
- New cases of HIV are most densely located in the Oakland and Central County areas and most concentrated in the cities of Oakland, Hayward, San Leandro, and Berkeley.

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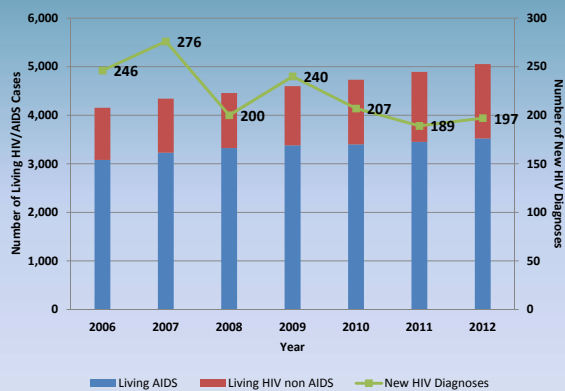
AIDS Cases, Deaths and Persons Living with AIDS (PLWA) by Calendar Year, Alameda County 1980-2012



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Newly Diagnosed HIV cases*, HIV non-AIDS Cases and AIDS Cases, Alameda County 2006-2012

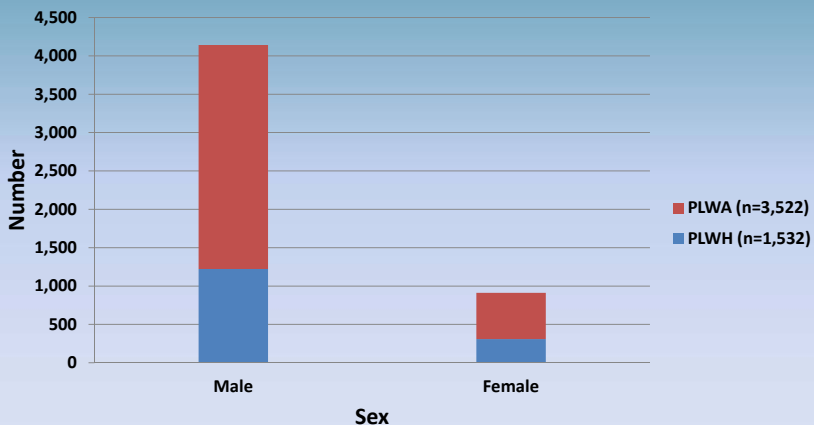


Note: *Data include persons diagnosed with HIV regardless of stage of disease (i.e., with or without AIDS)

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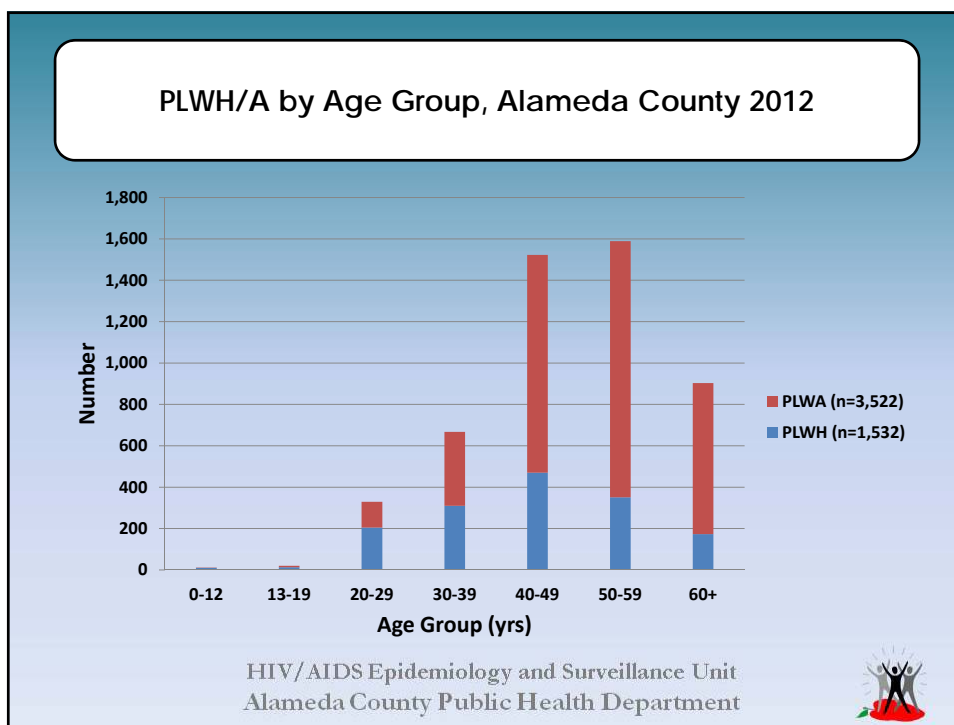
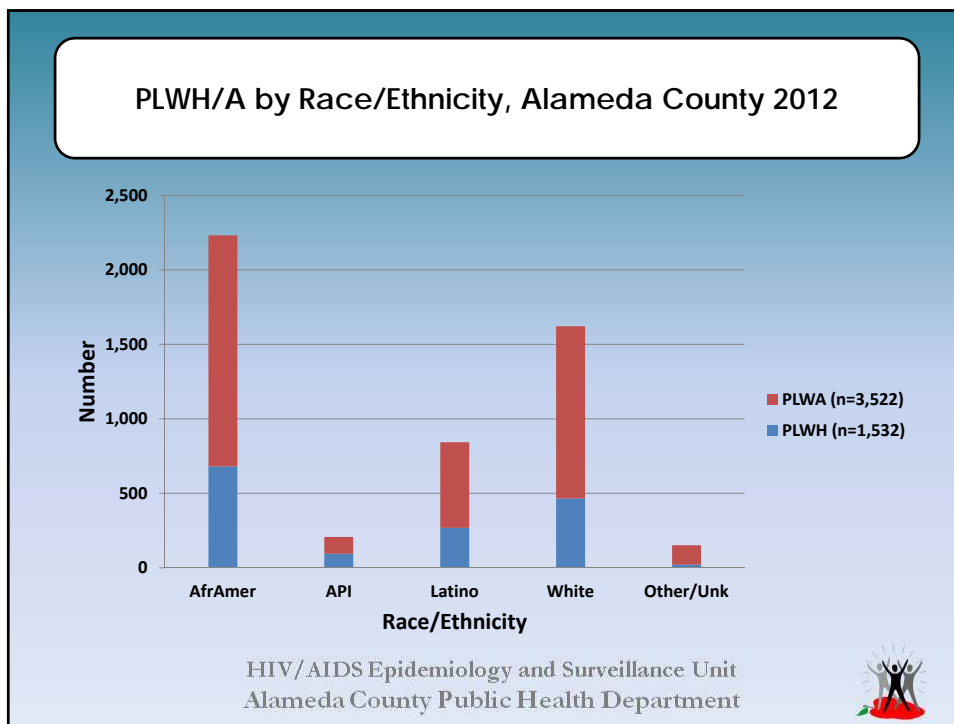


PLWH/A by Sex, Alameda County 2012

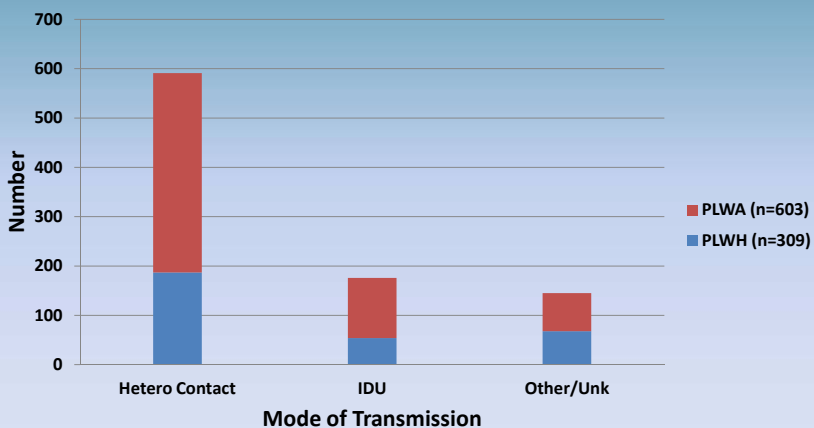


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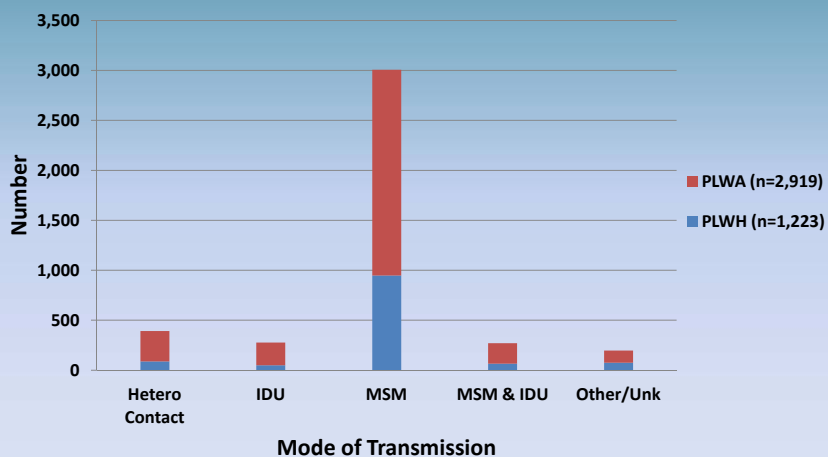
Female PLWH/A by Mode of Transmission, Alameda County 2012



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Male PLWH/A by Mode of Transmission, Alameda County 2012



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Data to Inform Priorities in Care and Services: PLWHA

- Proportions of PLWHA by demographics and mode of transmission can highlight priority populations for HIV care and services
- Demographic composition by each mode can further highlight important target populations
- Geographic location/concentration of PLWHA in the county can help identify areas of need and gaps in access to HIV care and services

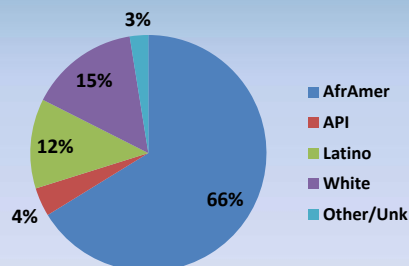
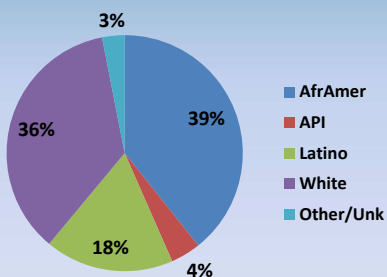
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PLWHA Males and Females by Race/Ethnicity, Alameda County 2012

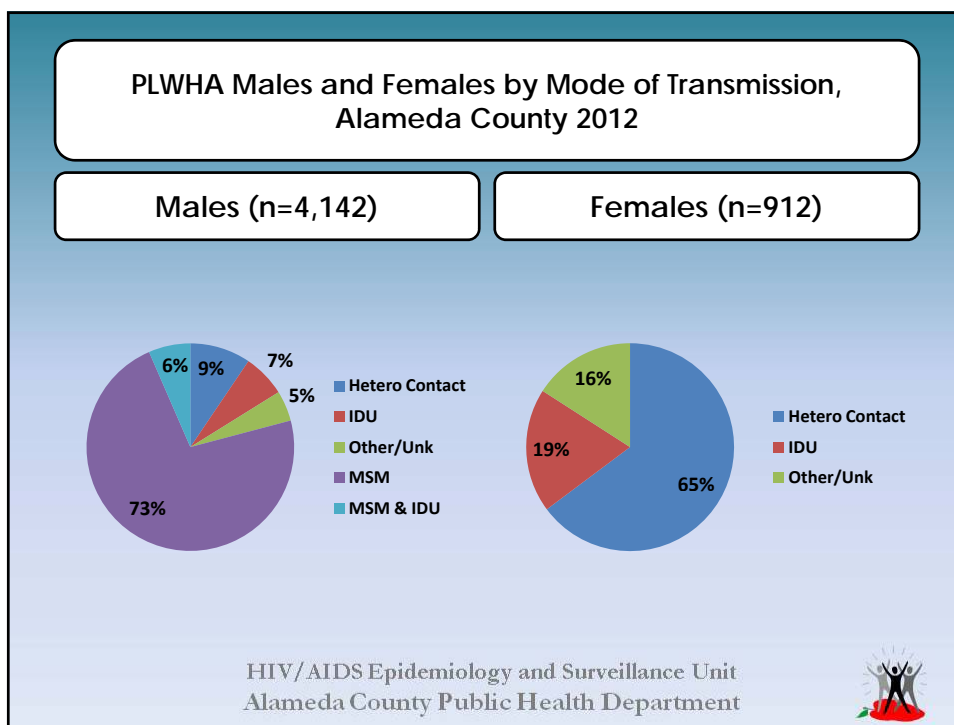
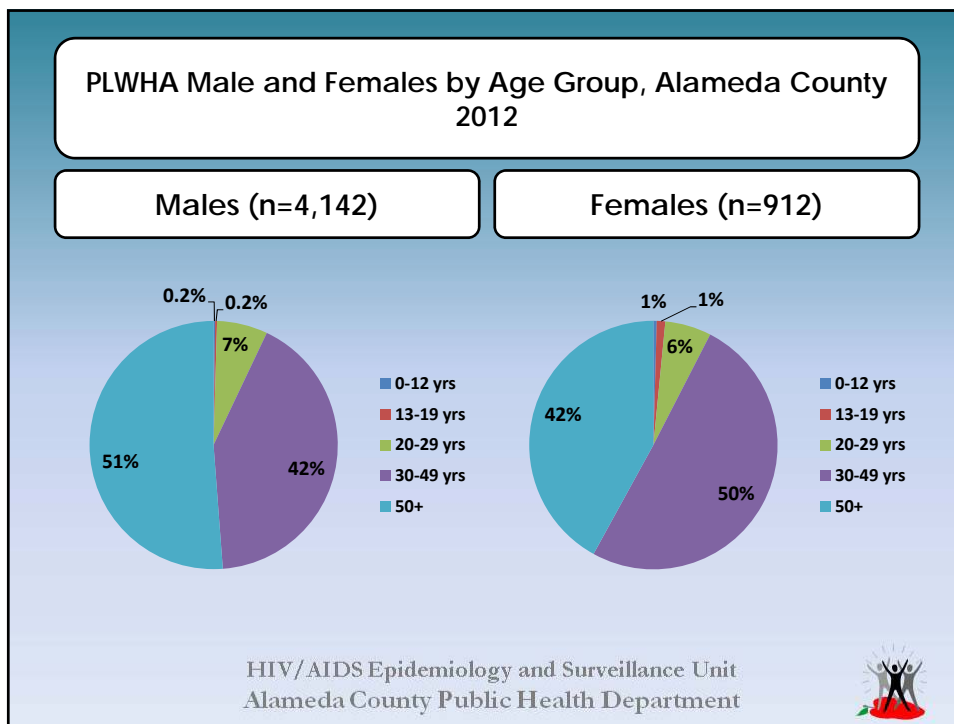
Males (n=4,142)

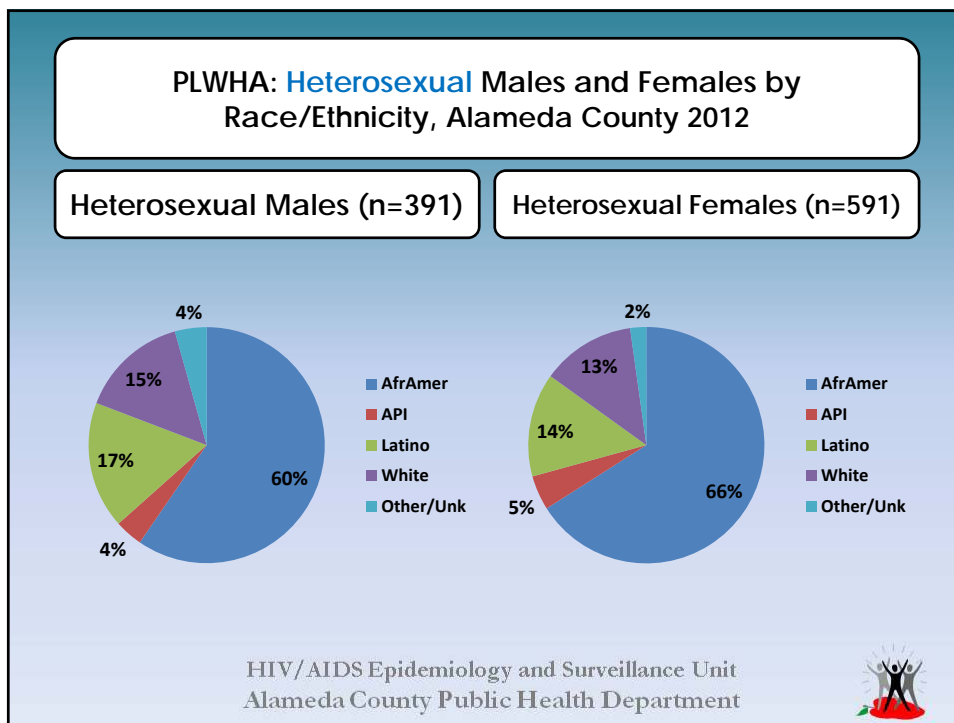
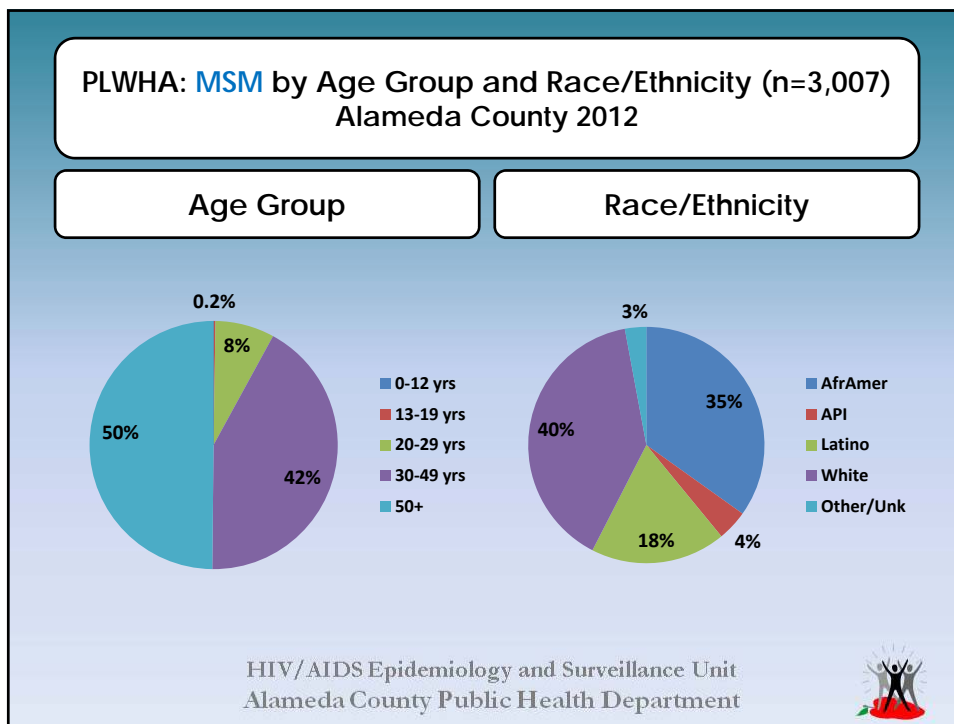
Females (n=912)

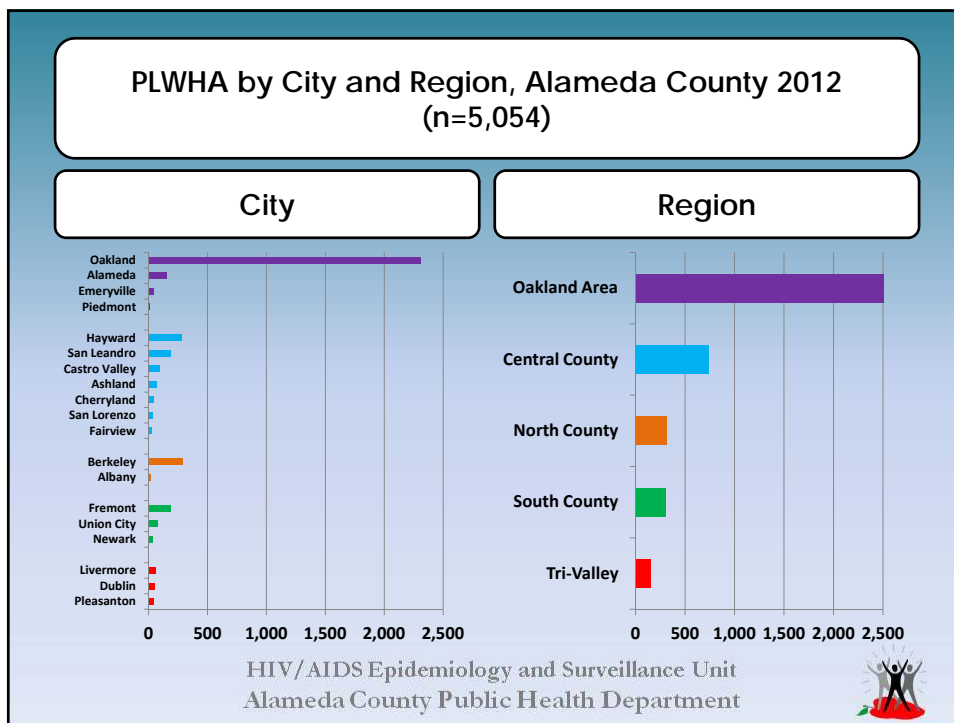
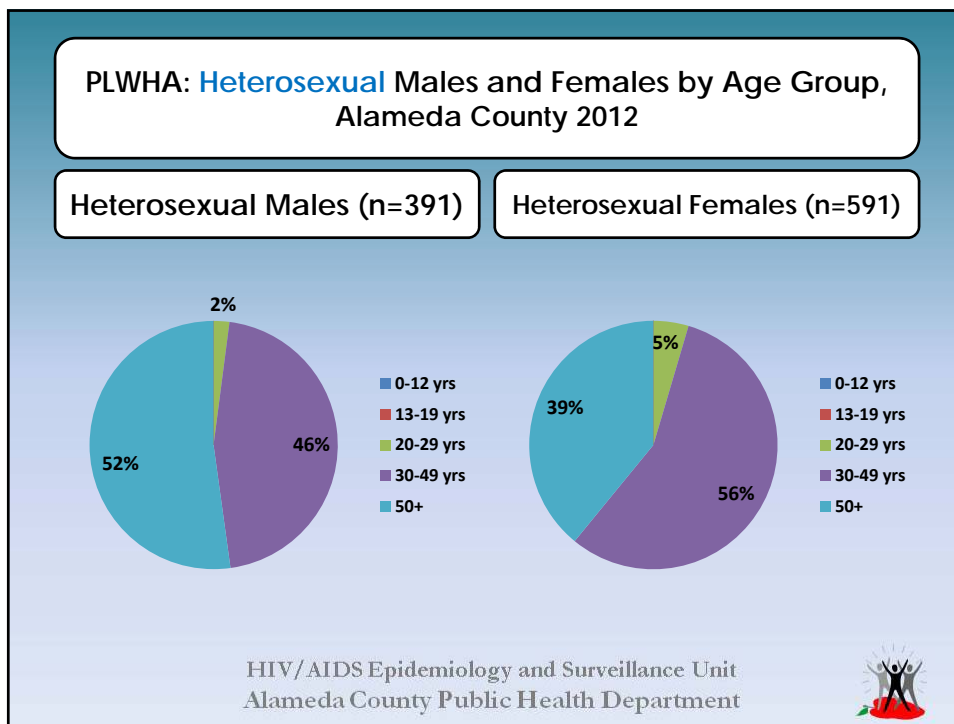


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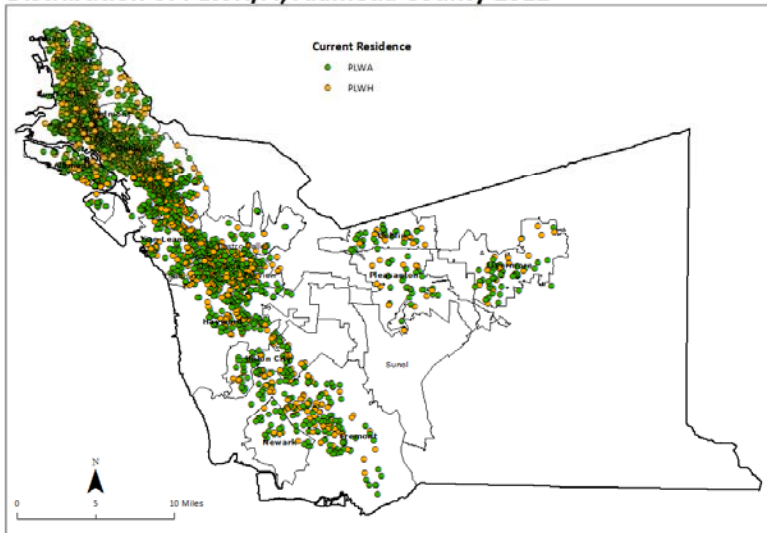








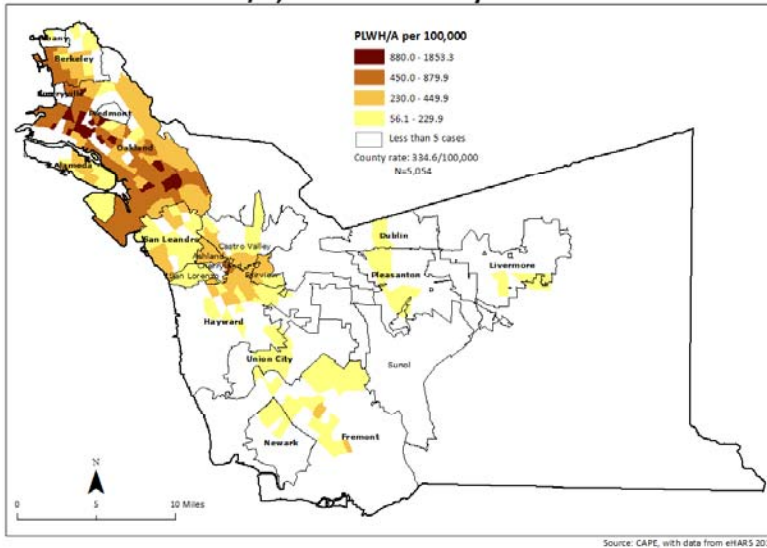
Distribution of PLWH/A, Alameda County 2012



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Case Rates for PLWH/A, Alameda County 2012



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Summary Findings: PLWHA Characteristics in 2012

- The number of persons living with AIDS have surpassed those living with HIV non-AIDS in all groups by sex, race/ethnicity, age group, and mode of transmission
- African Americans and Whites make up similar proportions (just over one-third) of men living with HIV or AIDS; however, African Americans comprise two-thirds of women living with HIV or AIDS
- Among male PLWHA just over half are 50 years or older; however, among female PLWHA half are 30-49 years old
- Among male PLWHA three-fourths are MSM; among females two-thirds are heterosexual

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Summary Findings: PLWHA Characteristics in 2012

- Whites and African Americans together comprise three-fourths of MSM living with HIV or AIDS; Latinos comprise almost one in five MSM PLWHA
- About two-thirds of heterosexual PLWHA males and females are African American
- The age distribution of heterosexual PLWHA is different for males and females: just over half of males are 50 years or older, while over half of women are 30-49 years old
- Persons living with HIV or AIDS are predominantly located in the Oakland and Central County areas and are most concentrated in the cities of Oakland, Hayward, San Leandro, and Berkeley

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Acknowledgements

Epidemiology & Surveillance Team

Ross Fineman – Epidemiology Intern
Maly Sok – Surveillance Unit Clerk
Oliver Heitkamp – Surveillance Intern
George Banks – Public Health Investigator
Karen Francisco – Accredited Records Technician
Jesus Altamirano – Public Health Investigator
Michael Tachet – Public Health Investigator

Information Systems Staff

Wei Chen – Information Systems Analyst

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Appendix A

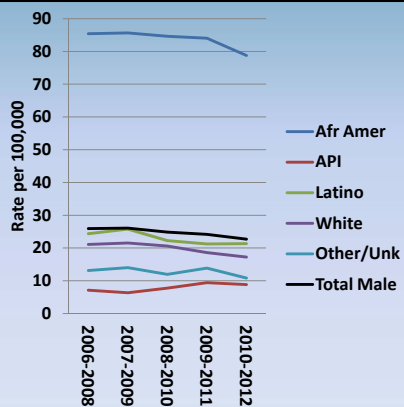
New HIV Cases: Trends

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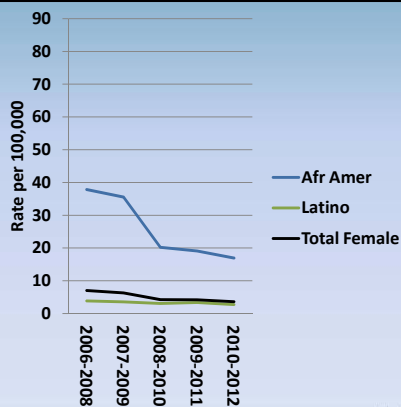


Trends in Newly Diagnosed HIV Cases: Race/Ethnic Disparities Among Males and Females, Alameda County 2006-2012

Male (n=1,273)



Female (n=282)

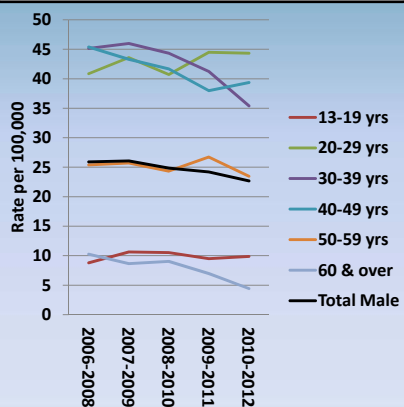


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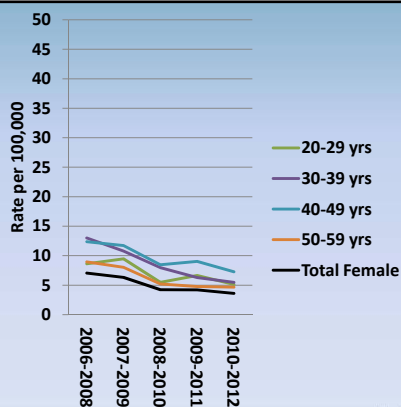


Trends in Newly Diagnosed HIV Cases Among Males and Females by Age Group, Alameda County 2006-2012

Male (n=1,273)

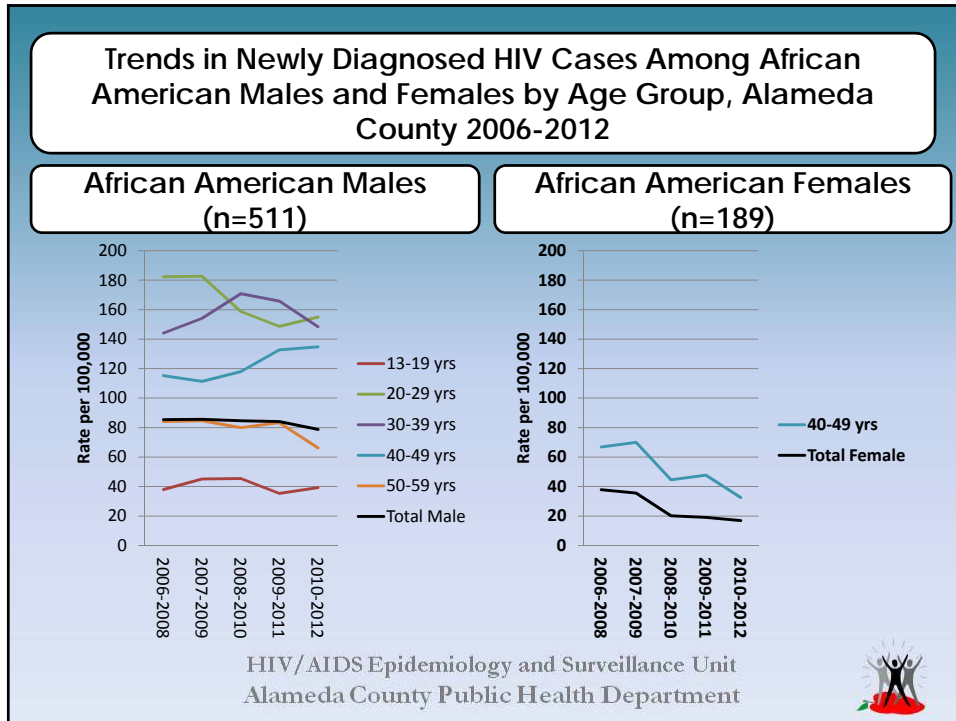


Female (n=282)



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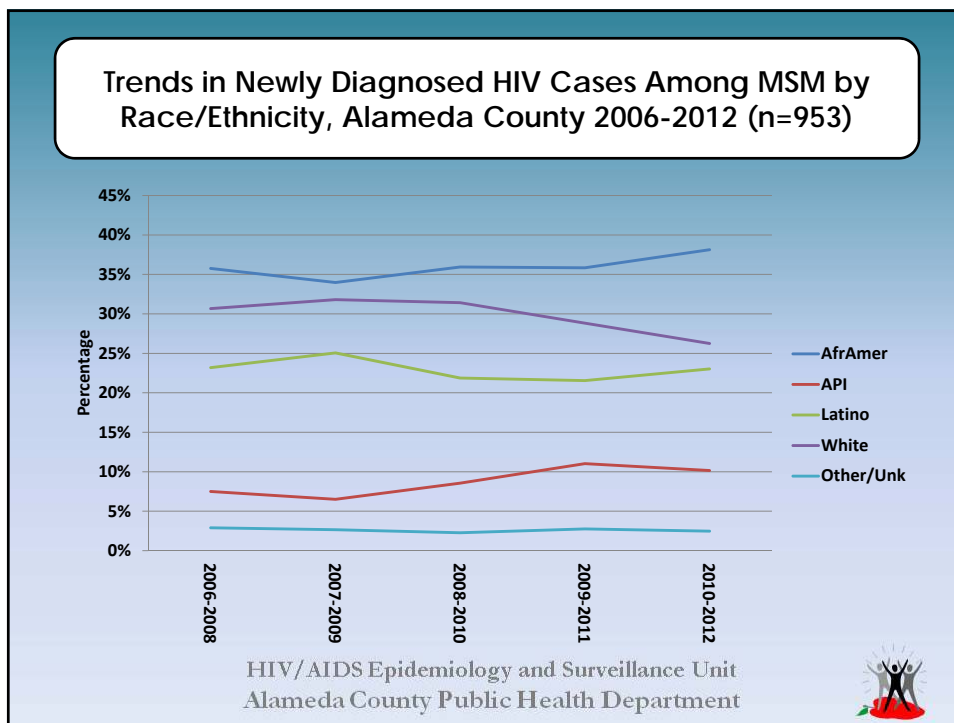
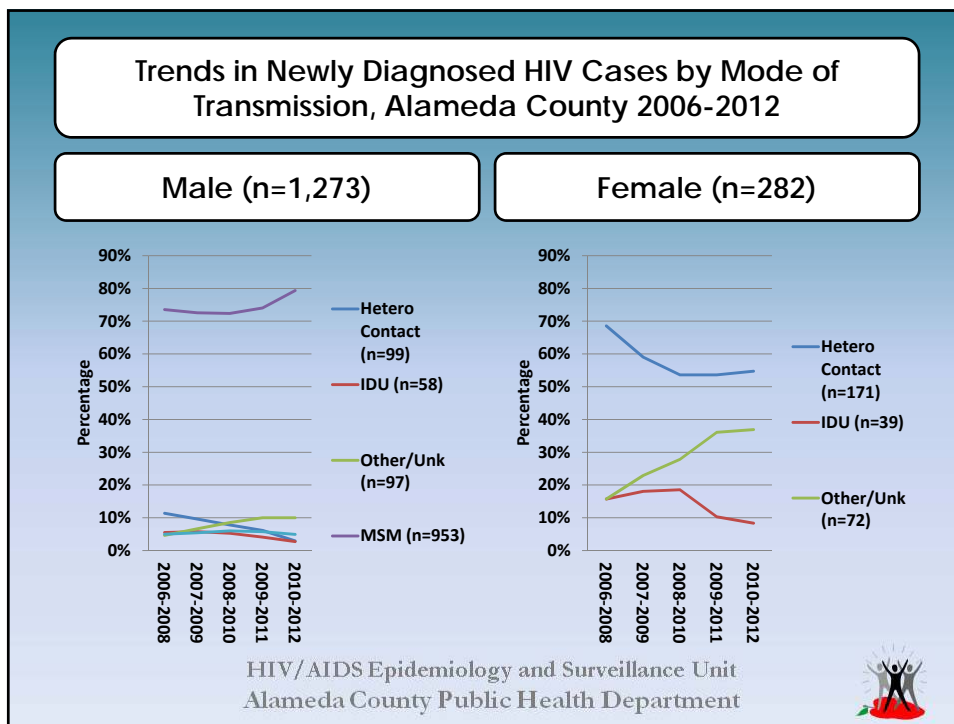


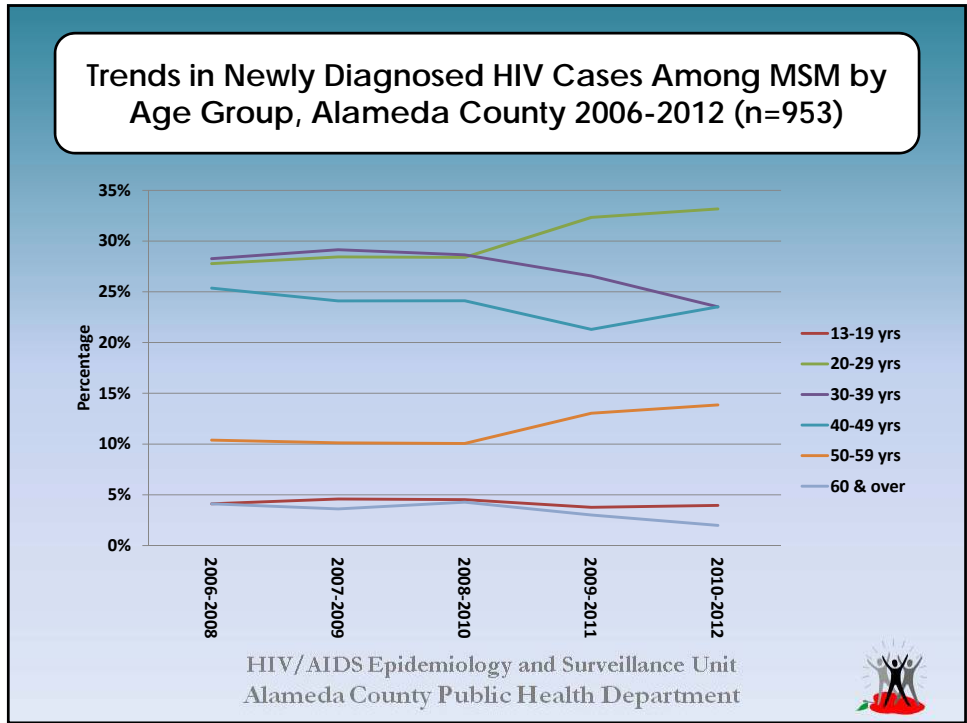


Summary Findings: Selected Trends in Case Rates

- Between 2006 and 2012 there was a significant decline in HIV case rates among African American females
- HIV case rates among males 20-29 years old surpassed the rates for 30-49 year-olds
- Among African American men 20-29 and 40-49 years old, case rates increased during this time period

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Summary Findings: Trends by Mode

- Between 2006 and 2012, the proportion of MSM among new HIV cases increased
- MSM of color comprised an increasing proportion of new HIV cases; Whites comprised a decreasing percentage of new cases

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Appendix B

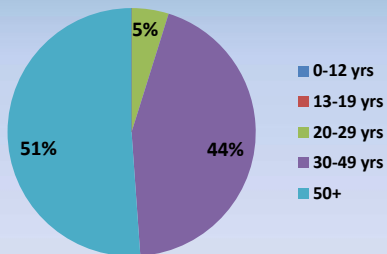
PLWHA by Modes of Transmission

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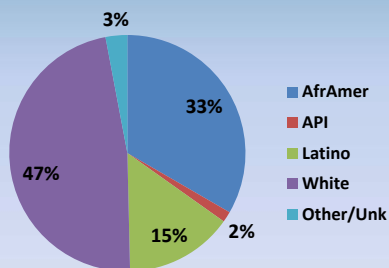


PLWHA: MSM & IDU by Age Group and Race/Ethnicity (n=270) Alameda County 2012

Age Group

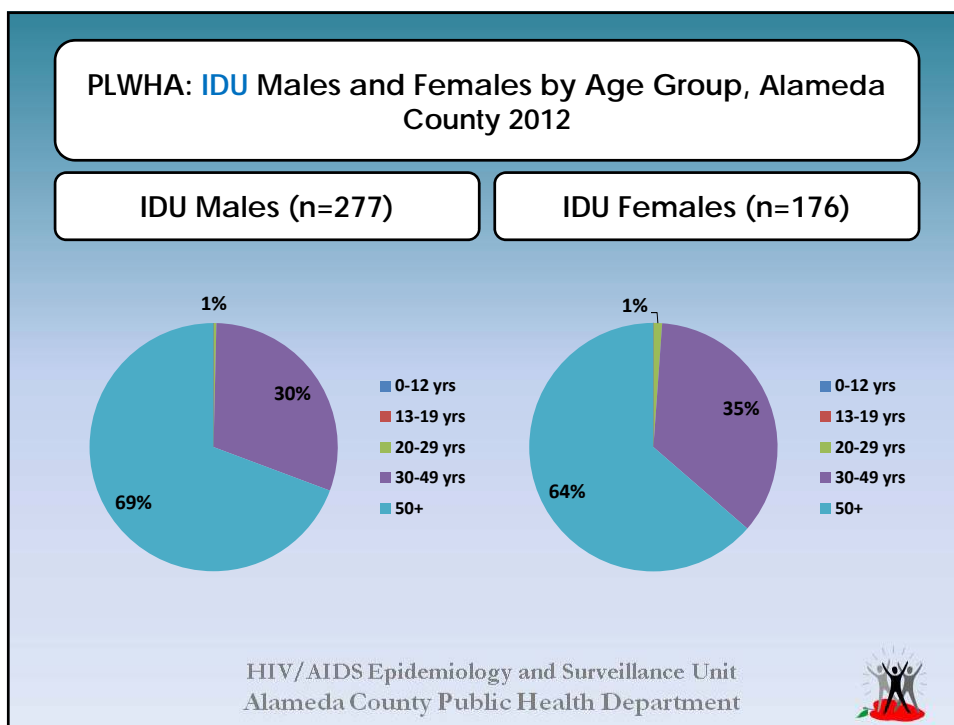
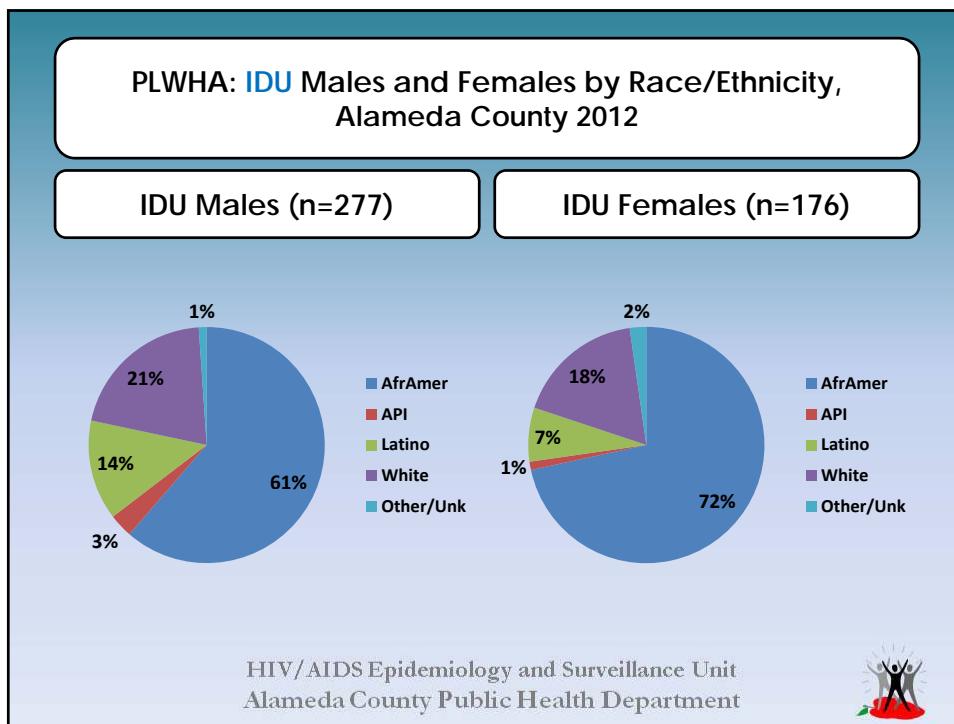


Race/Ethnicity



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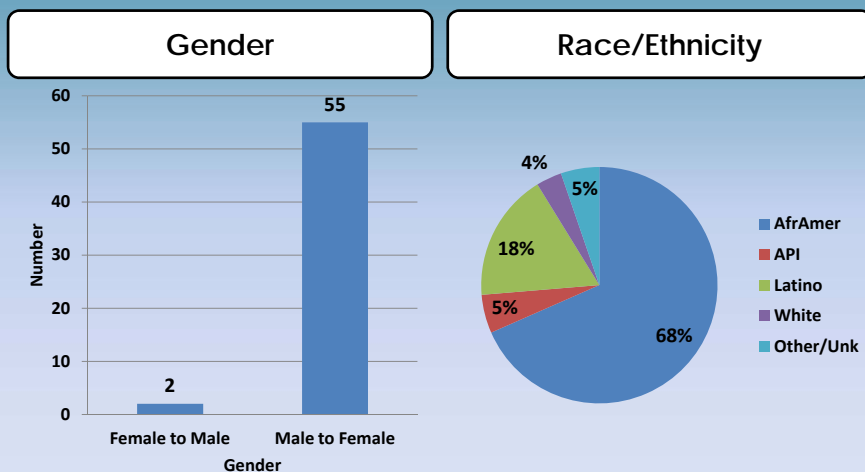
Appendix C

Characteristics of Transgender PLWHA

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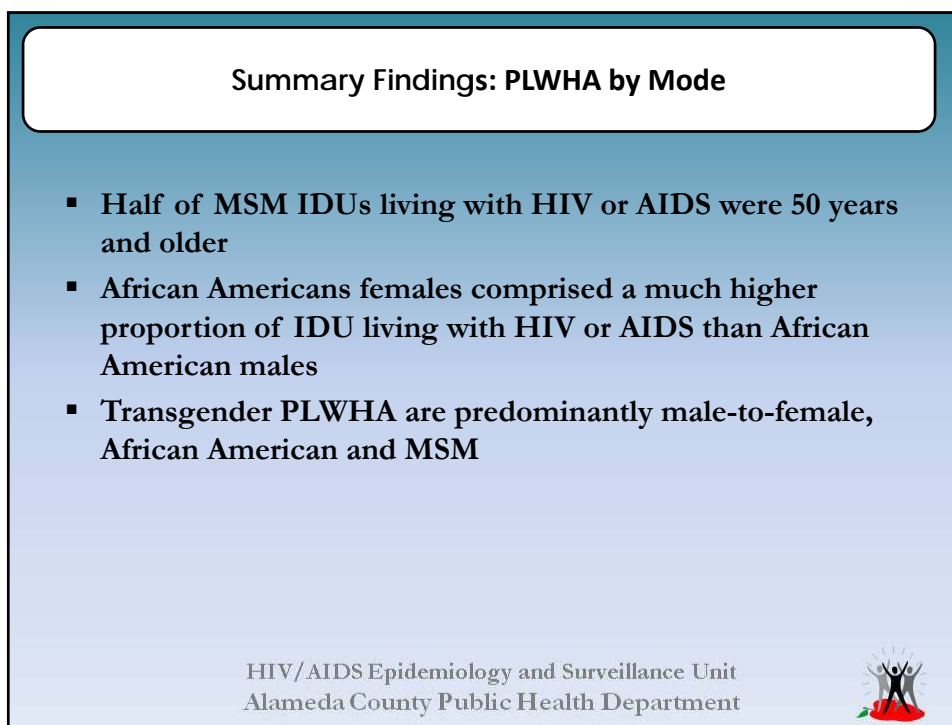
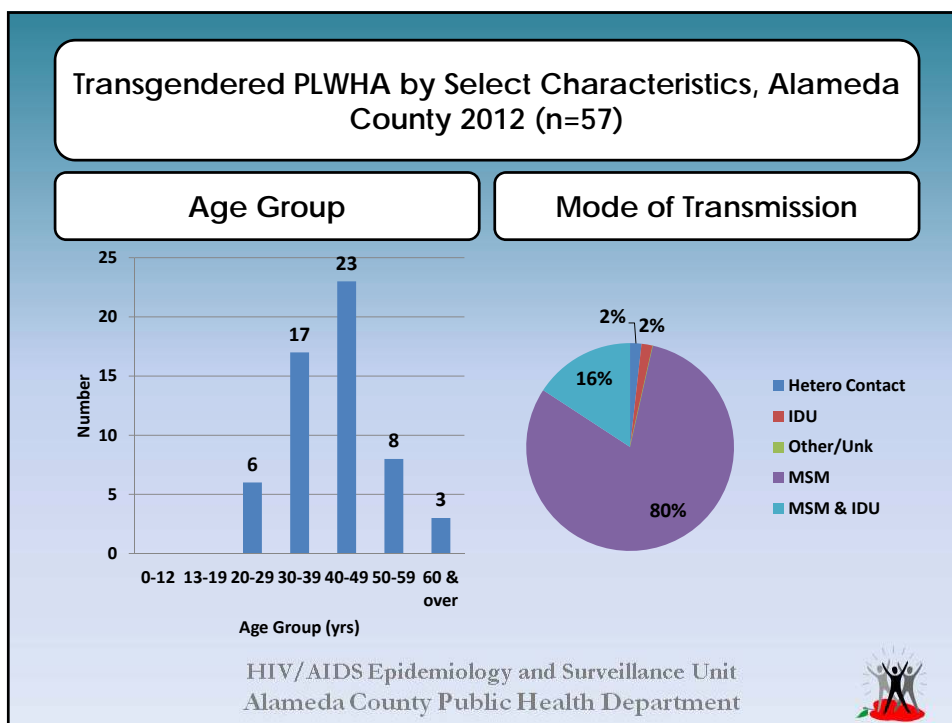


Transgendered PLWHA by Select Characteristics, Alameda County 2012 (n=57)



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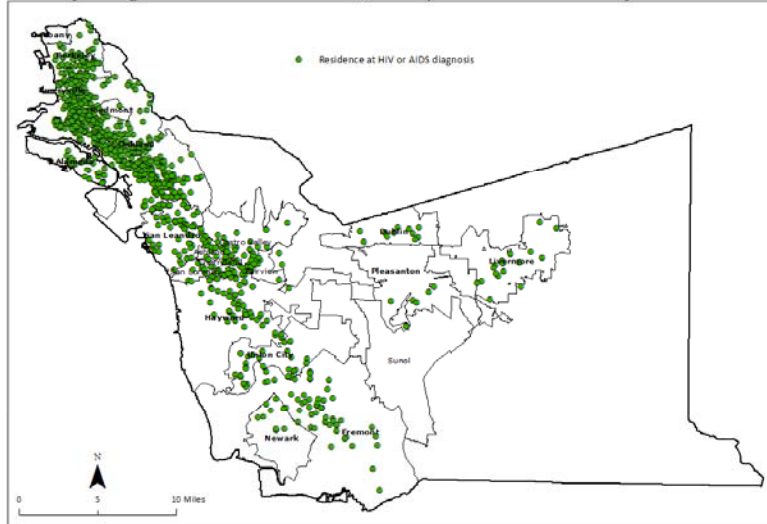
Appendix D

Geographic distribution of new HIV cases, PLWH, PLWA, and selected socioeconomic characteristics in AC

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Newly Diagnosed Cases of HIV/AIDS, Alameda County 2008-2012

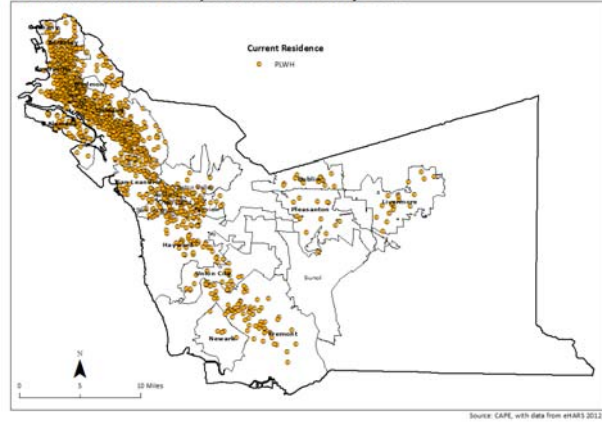


Source: CAPE, with data from eHARS 2008-2012.

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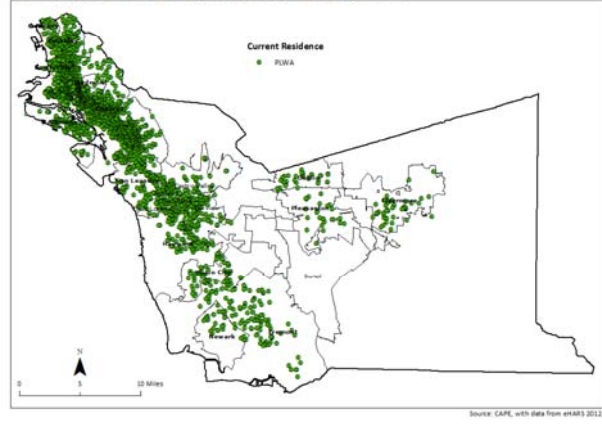
Distribution of PLWH, Alameda County 2012



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Distribution of PLWA, Alameda County 2012



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