

HIV in **Southeast Michigan** **and Detroit**

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Health

- This presentation would not have been possible without the work of Michigan's HIV Surveillance Staff
- Data Management and Analysis Team
 - Rieza Soelaeman
- MDCH Prevention Colleagues

Overview

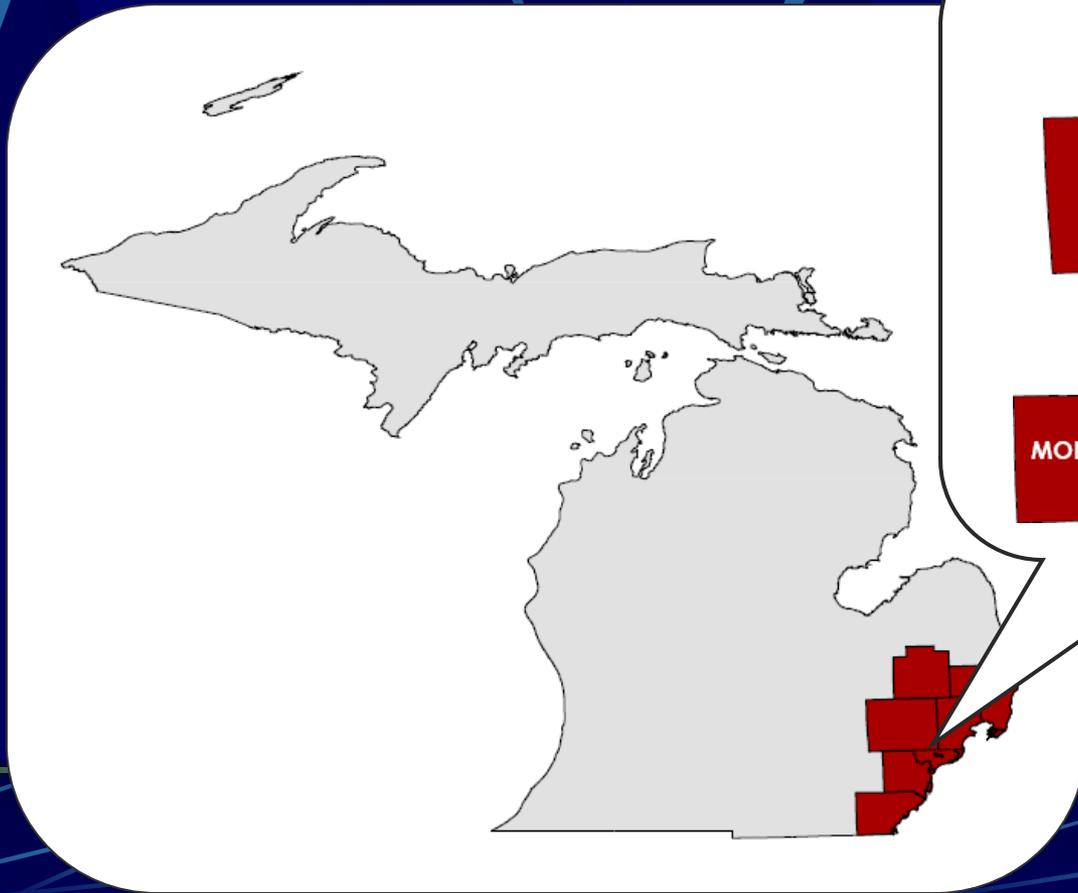
- Trends in new HIV diagnoses in SE MI 2004-2008 including impact on Blacks and teens
- Detroit specific data
- Adolescents and men who have sex with men (MSM)
- Discussion of possible reasons for disparities
- Testing data and the need to expand routine testing

*Without Data, You are Just
Another Person with an Opinion**

**Unless you are placed at a level at which your opinion becomes data*

Southeast Michigan (SE MI)

Wayne Co. incl. Detroit, and Lapeer, Macomb, Monroe, Oakland, St. Clair counties



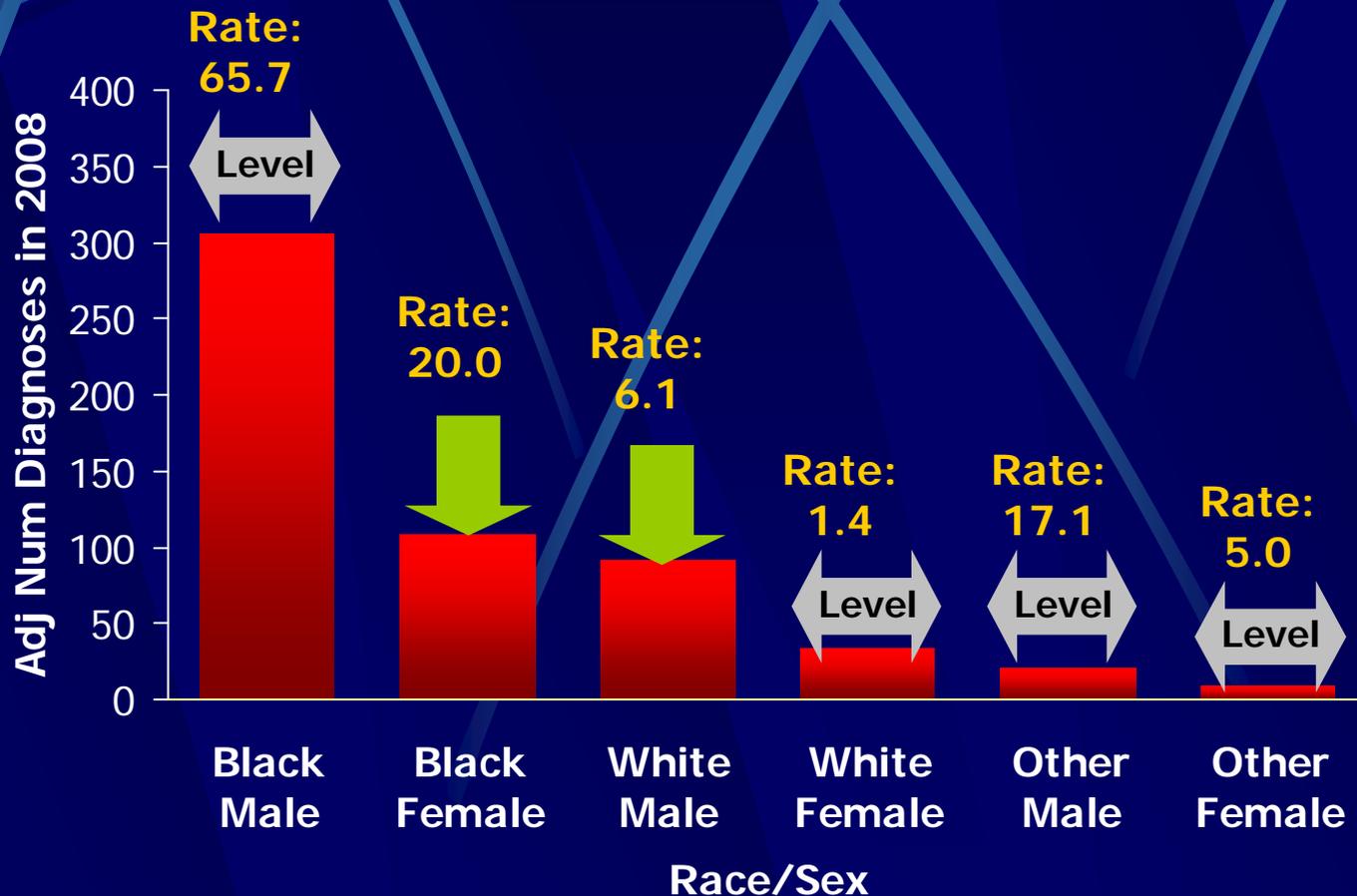
Methodology for Trend Analyses

- CDC SAS program used to adjust the data to account for reporting delay
- Includes cases in SE Michigan
- Statistical tests for trends new diagnoses 2004 through 2008

Overall Trends in HIV SE MI

- The number of new HIV diagnoses in SE Michigan decreased significantly between 2004 and 2008. The rate did not.
 - # 599 → 569; Rate averaged 13.2/100,000 pop
- Population decreased so one would expect number to decrease.
- Rate staying the same in a decreasing population means impact on the population is level or increasing.

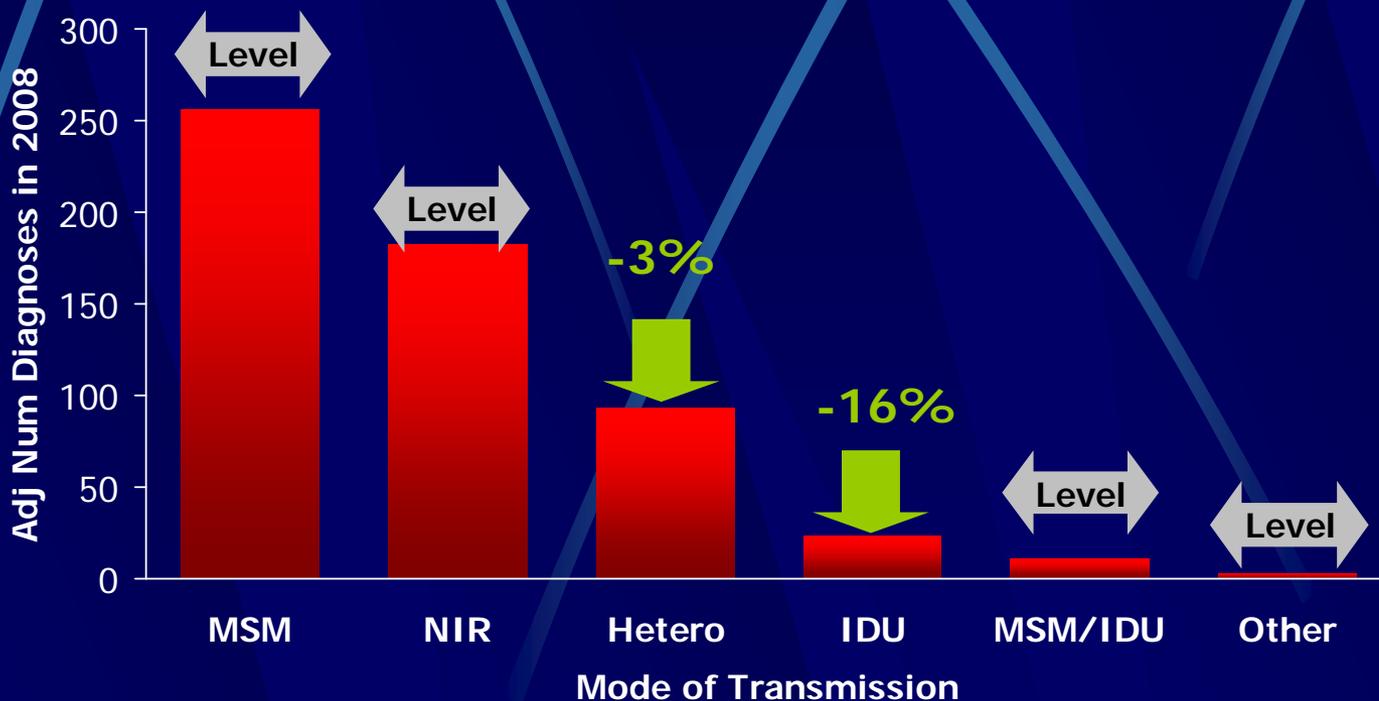
New diagnoses, SE MI, 2004-2008: Race/Sex Trends



Source: Annual Review of HIV Trends in SE Michigan (2004-2008). Data current as of Jan 1, 2010

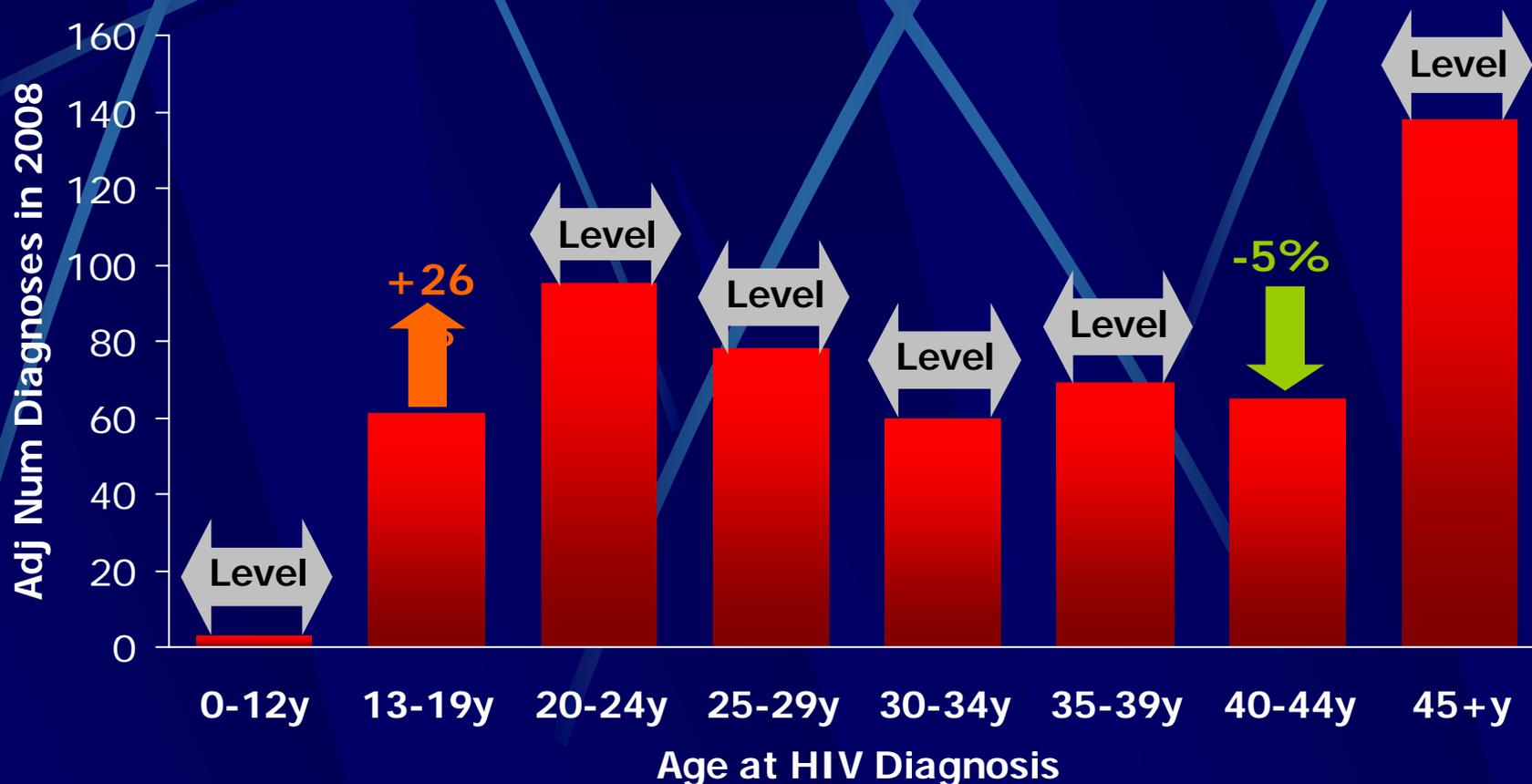


New diagnoses, SE MI, 2004-2008: Mode of Transmission Trends



Source: Annual Review of HIV Trends in SE Michigan (2004-2008). Data current as of Jan 1, 2010

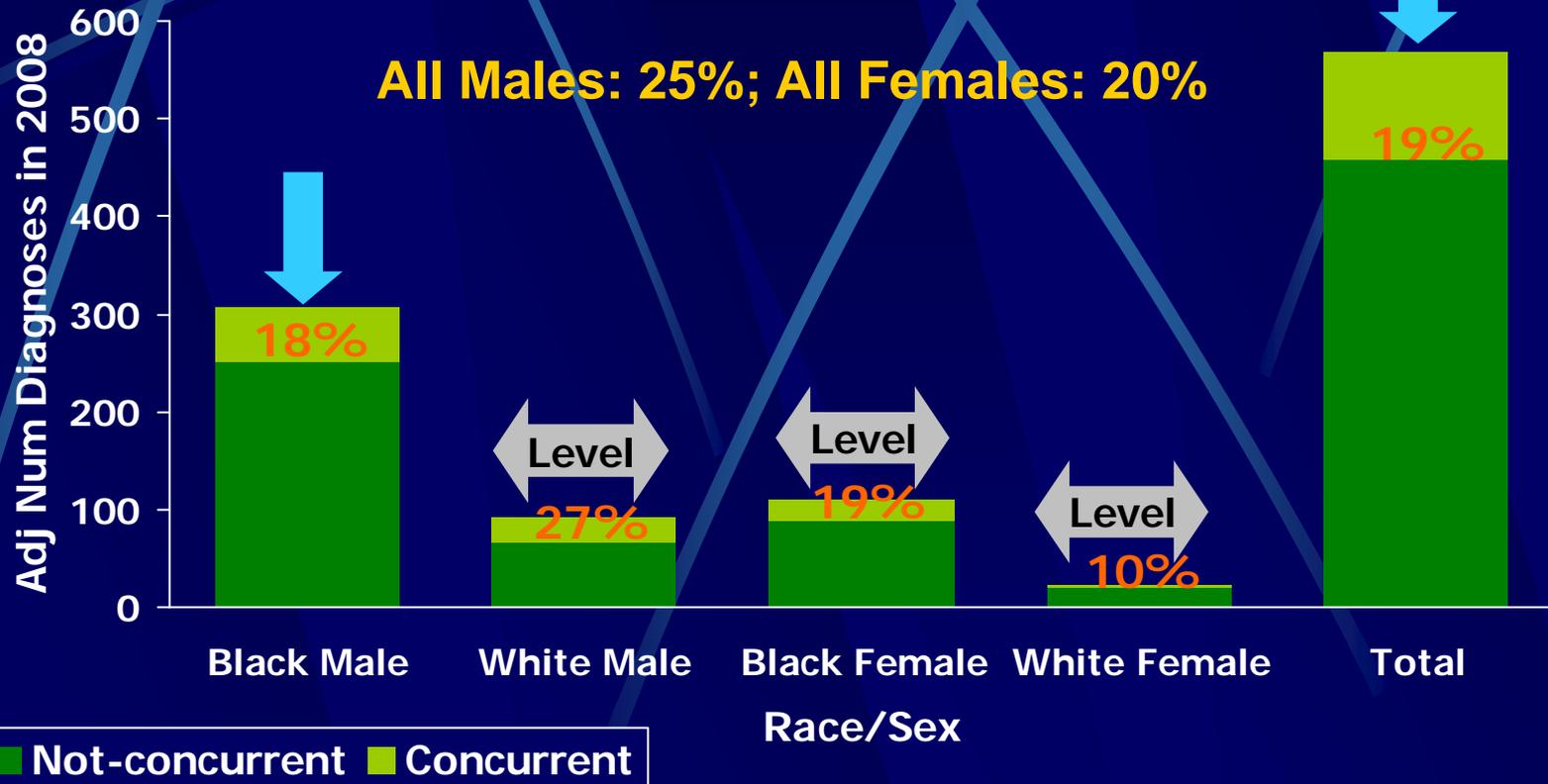
New diagnoses, SE MI, 2004-2008: Age at HIV Diagnosis Trends



Source: Annual Review of HIV Trends in SE Michigan (2004-2008). Data current as of Jan 1, 2010

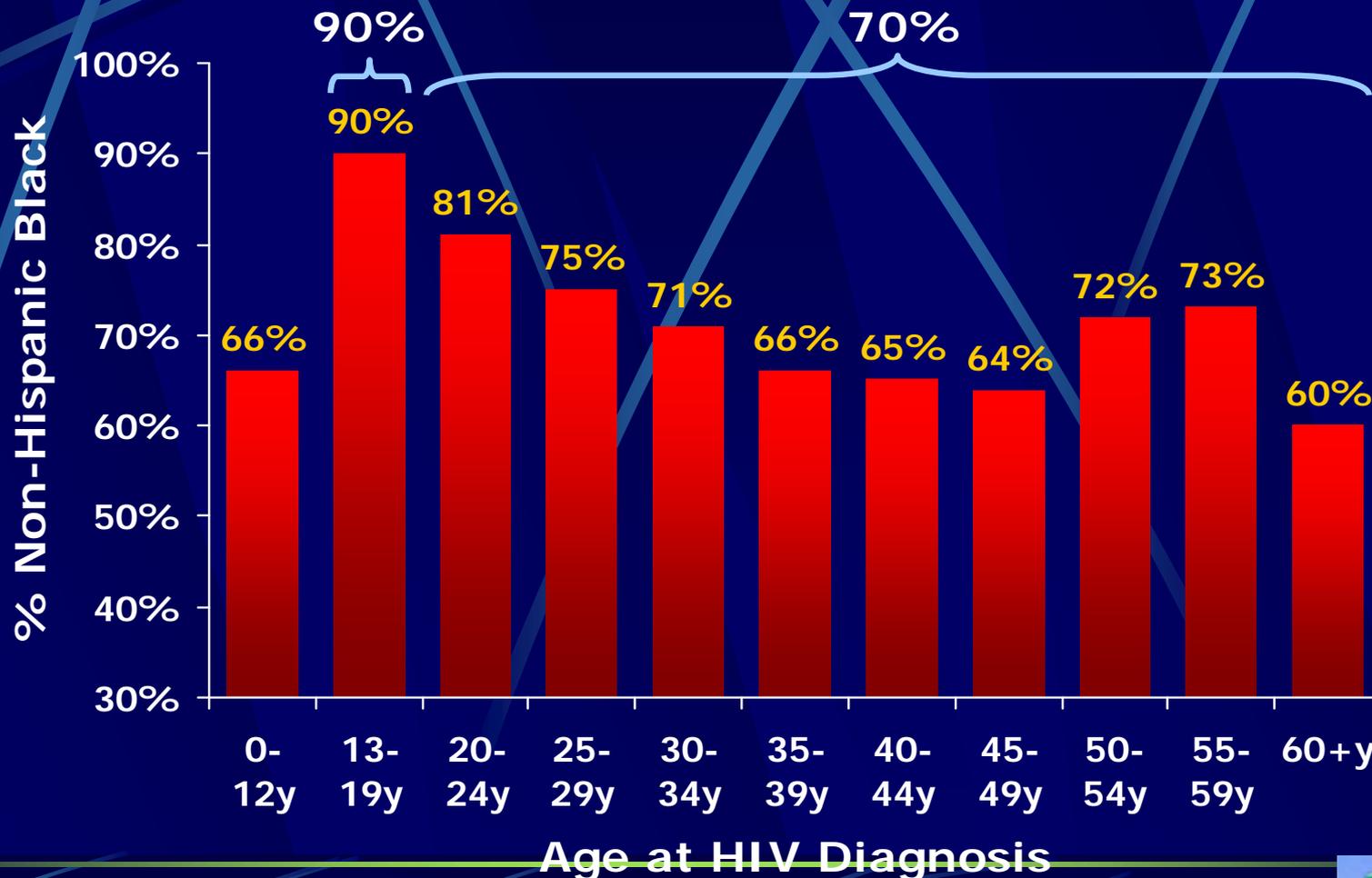


New diagnoses, SE MI, 2004-2008: Concurrent HIV Diagnoses Trends

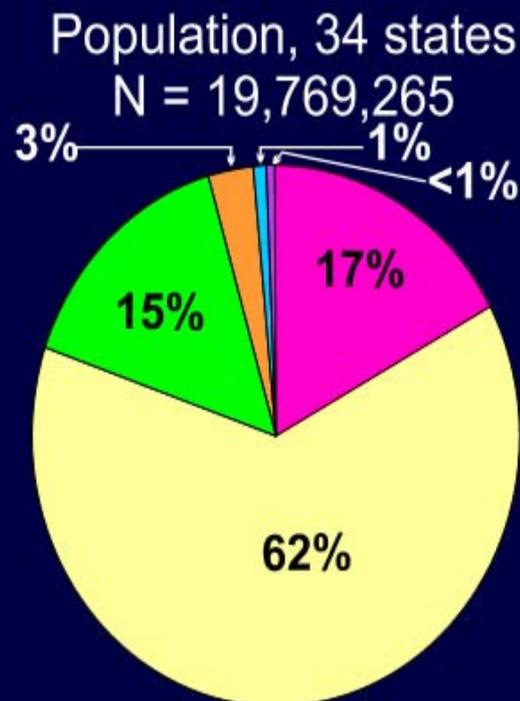
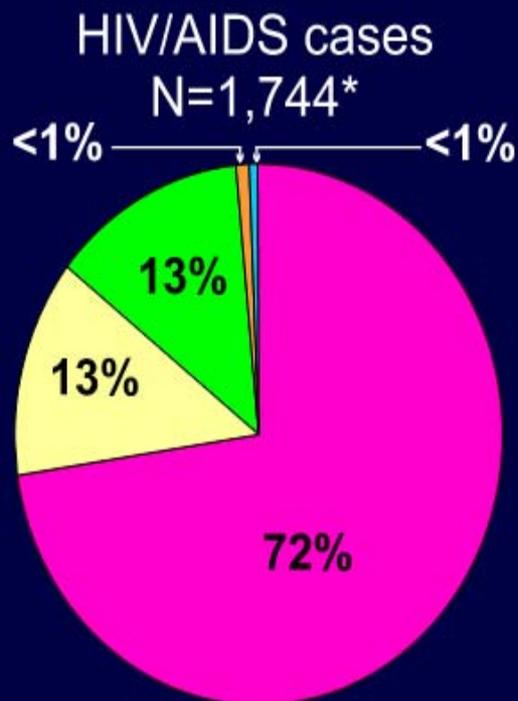


Source: Annual Review of HIV Trends in SE Michigan (2004-2008). Data current as of Jan 1, 2010

New diagnoses, SE MI, 2004-2008: Race by Age at HIV Diagnosis



Percentages of HIV/AIDS Cases and Population among Adolescents 13 to 19 Years of Age, by Race/Ethnicity Diagnosed in 2007—34 States



American Indian/Alaska Native
 Asian[†]
 Black/African American

Hispanic/Latino[§]
 Native Hawaiian/Other Pacific Islander
 White



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 34 states with confidential name-based HIV infection reporting since at least 2003. Data have been adjusted for reporting delays.

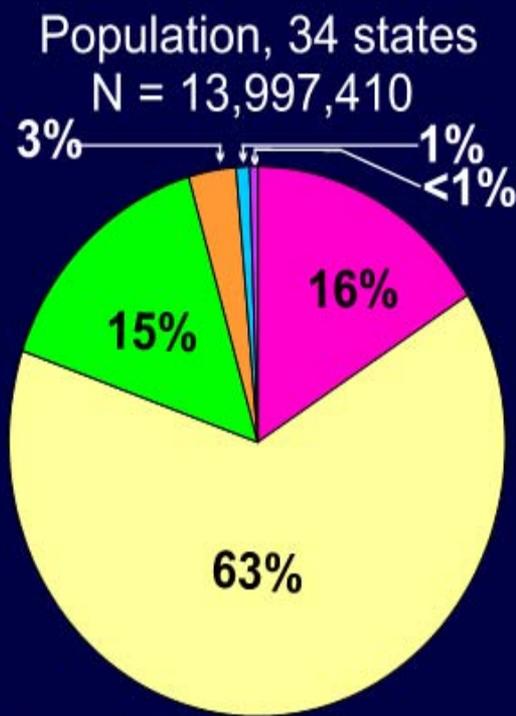
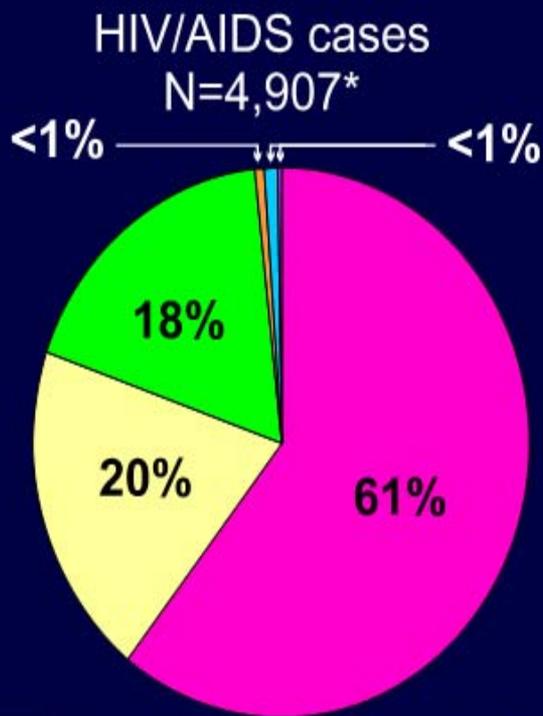
*Includes 10 persons of unknown race or multiple races.

†Includes Asian and Pacific Islander legacy cases.

§Hispanics/Latinos can be of any race.



Percentages of HIV/AIDS Cases and Population among Young Adults 20 to 24 Years of Age, by Race/Ethnicity Diagnosed in 2007—34 States



■ American Indian/Alaska Native
■ Asian[†]
■ Black/African American

■ Hispanic/Latino[§]
■ Native Hawaiian/Other Pacific Islander
■ White

Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 34 states with confidential name-based HIV infection reporting since at least 2003. Data have been adjusted for reporting delays.

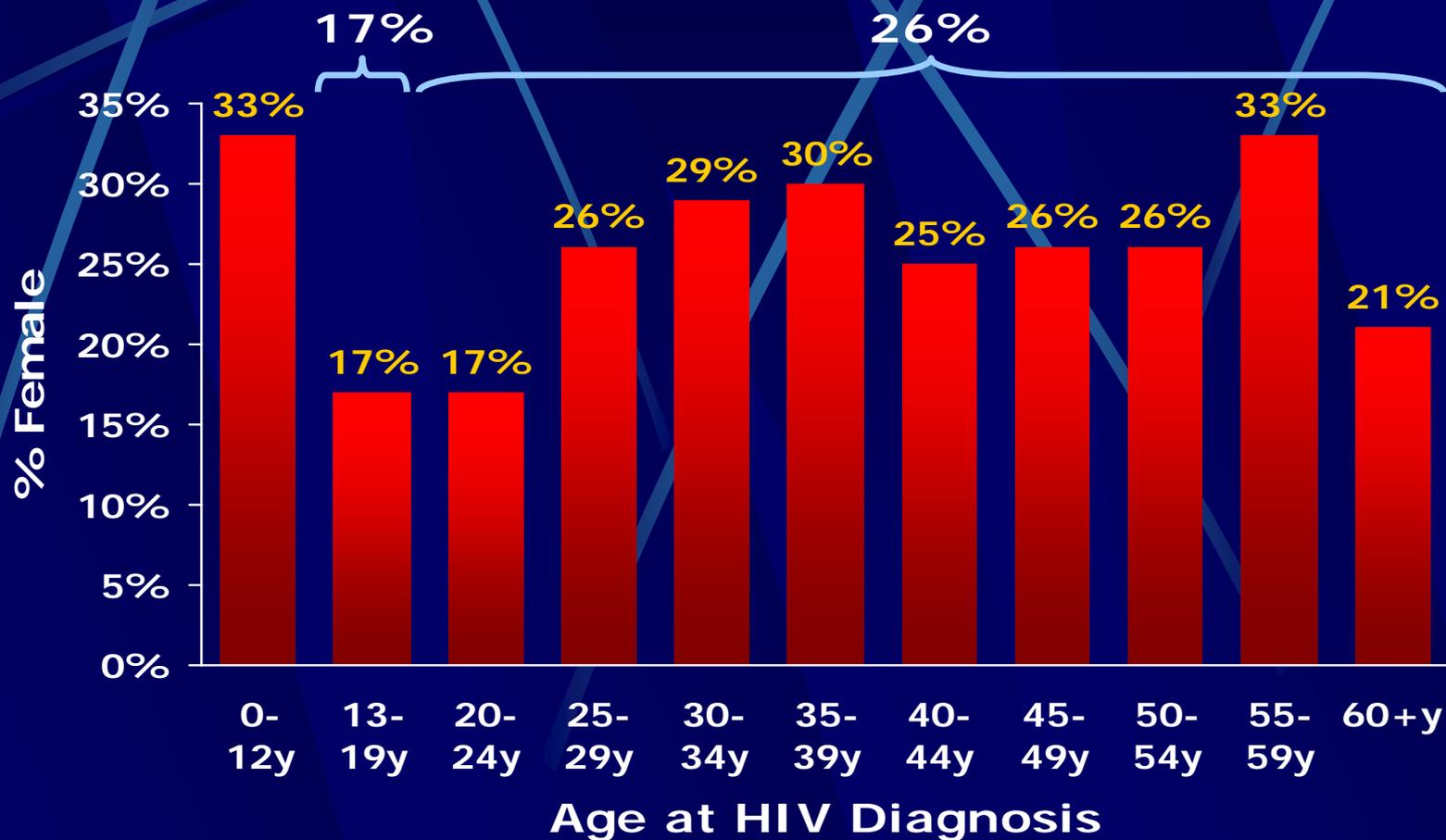
*Includes 41 persons of unknown race or multiple races.

†Includes Asian and Pacific Islander legacy cases.

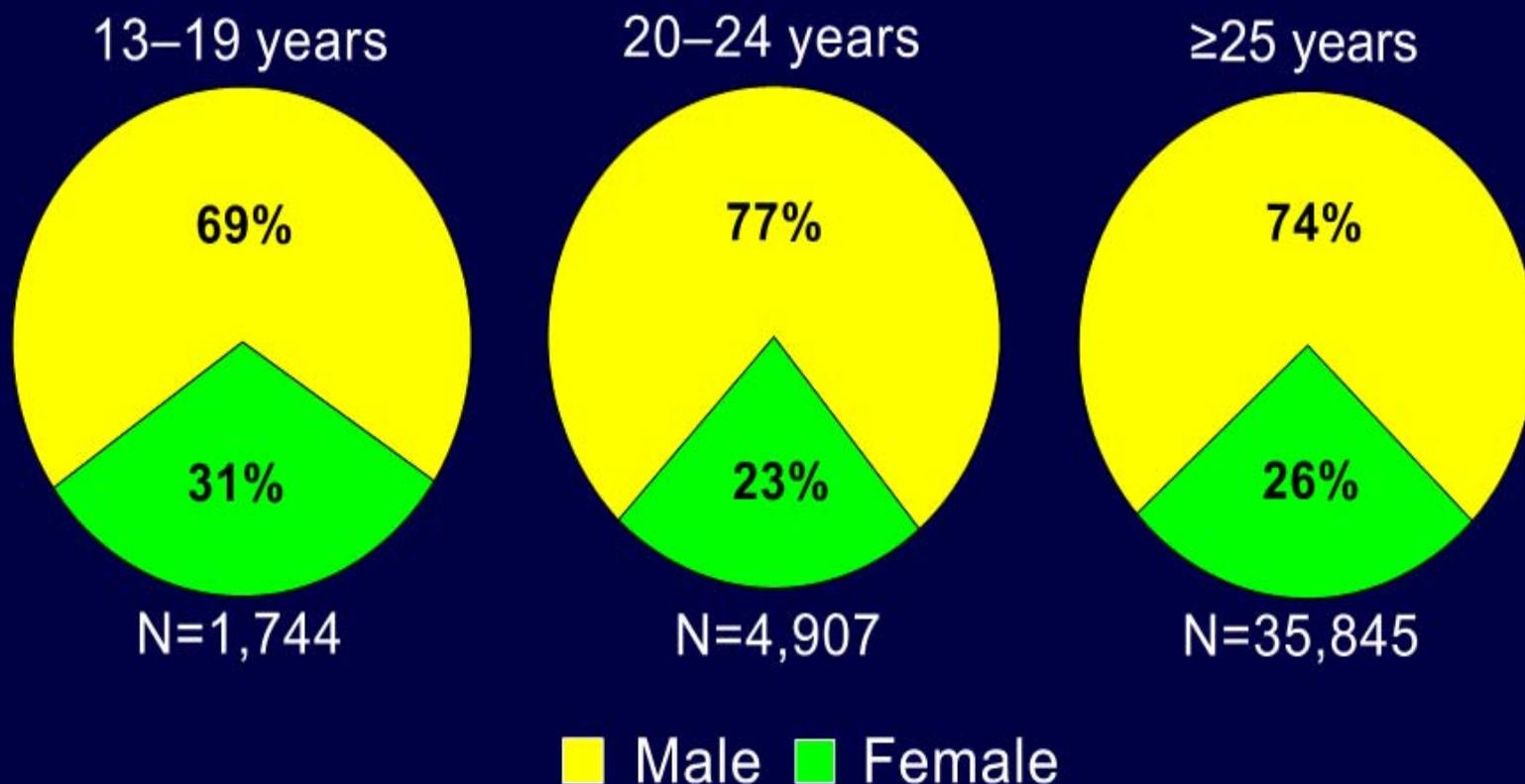
§Hispanics/Latinos can be of any race.



New diagnoses, SE MI, 2004-2008: Sex by Age at HIV Diagnosis



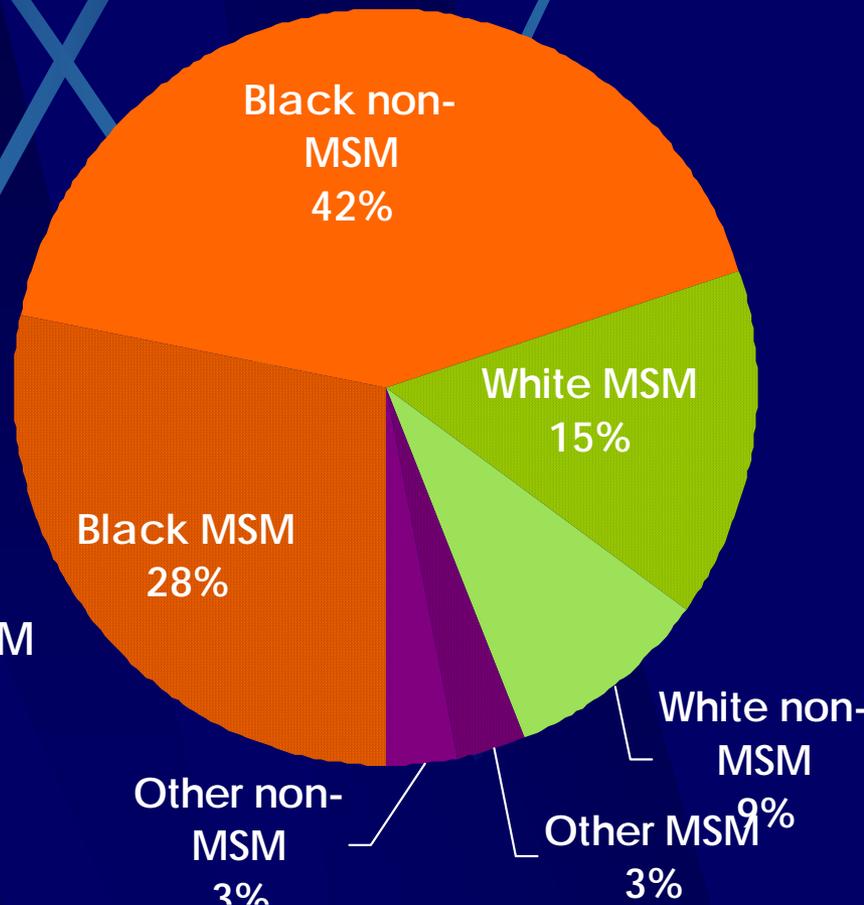
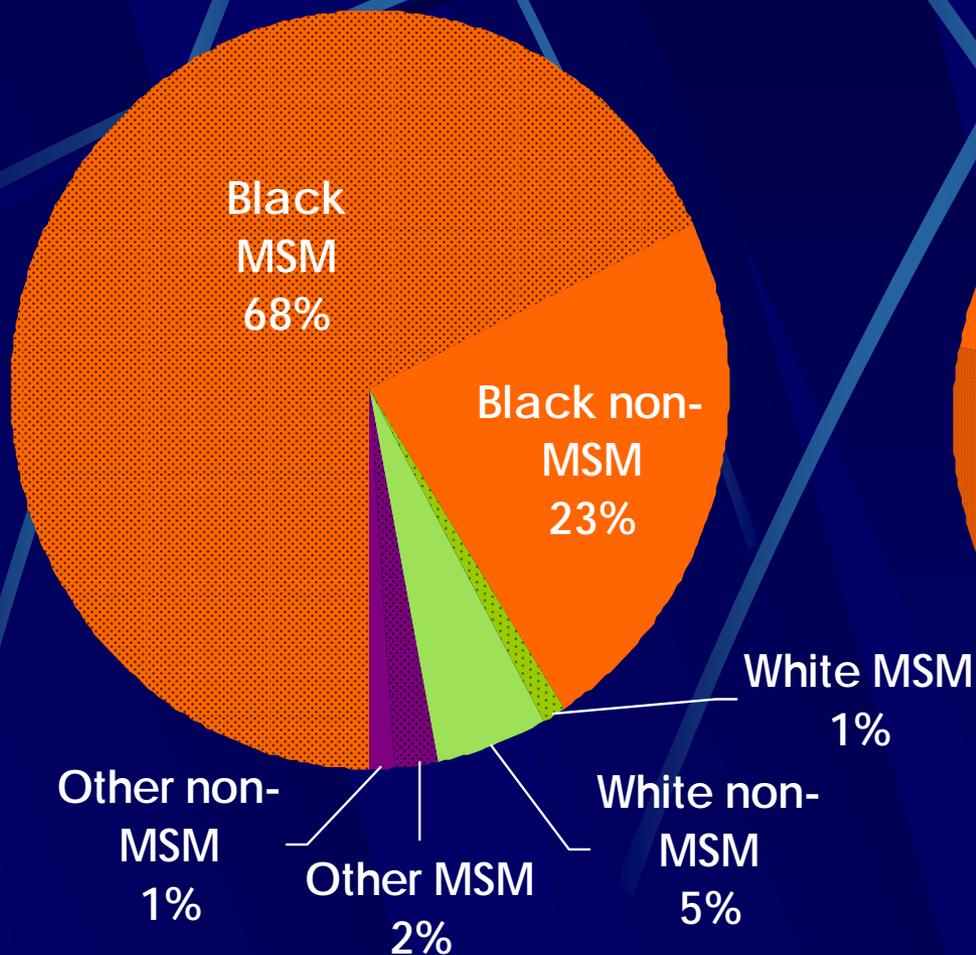
Percentages of HIV/AIDS Cases among Adults and Adolescents, by Sex and Age Group Diagnosed in 2007—34 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 34 states with confidential name-based HIV infection reporting since at least 2003. Data based on person's age at diagnosis. Data have been adjusted for reporting delays.



New diagnoses, SE MI 2004-2008: MSM by Race/Age at HIV diagnosis



13-19 YRS

20+ YRS

Why is this important?

- Large racial differences in younger cases widen race gap in prevalent cases
- Longer lifetime of sexual contact
- Longer lifetime medical costs → publicly funded

Unique Adolescent Issues, in- and out- of school youth [1]

- Among all surveyed 15-17 year olds
 - 73% were “very” or “somewhat” concerned about getting HIV
 - 76% were “very” or “somewhat” concerned about getting other STDs
 - 80% agreed with “sex without a condom isn’t worth the risk”
 - 10% agreed with “it’s not that big a deal to have sex without a condom once in a while”

Unique Adolescent Issues, in- and out- of school youth [2]

- Among **sexually active** 15-17 year olds:
 - 25% have been tested for HIV
 - 31% tested for other STDs
 - 70% use a condom “all of the time”- only 4% said never

Unique Adolescent Issues

In-School Youth

- Michigan high school students:
 - 42% have had sex
 - 5% had sex <13 years
 - Black and Hispanic students were more likely than white students:
 - To have had first sex <13 yrs
 - To have had 4+ partners
 - To have had their first partner be 3 or more years older
- Obstacles: lack of transportation, lack of insurance, lack of info about services

MI Youth Risk Behavior Survey (YRBS) 9-12 graders 2007;
excludes out-of-school youth

Impact of HIV on Blacks in Southeast Michigan

Rates of HIV Infection by Race in SE MI

- The rate of HIV infection among Blacks is **633 per 100,000** population, almost **8 times higher** than the rate among whites (**83 per 100,000** population).

Rates of HIV Infection by Race and Sex in SE MI

- MDCH estimates that as many as:
 - **one out of 100 black males** and **one out of 290 black females** may be HIV-infected.
 - **one out of 675 white males** and **one out of 5290 white females** may be HIV infected

Rates of HIV Infection: Black Females SE MI

- In SE Michigan a black female is **2.3 times** more likely to be HIV positive than a white male,
- and almost **18 times** more likely to be HIV positive than a white female.



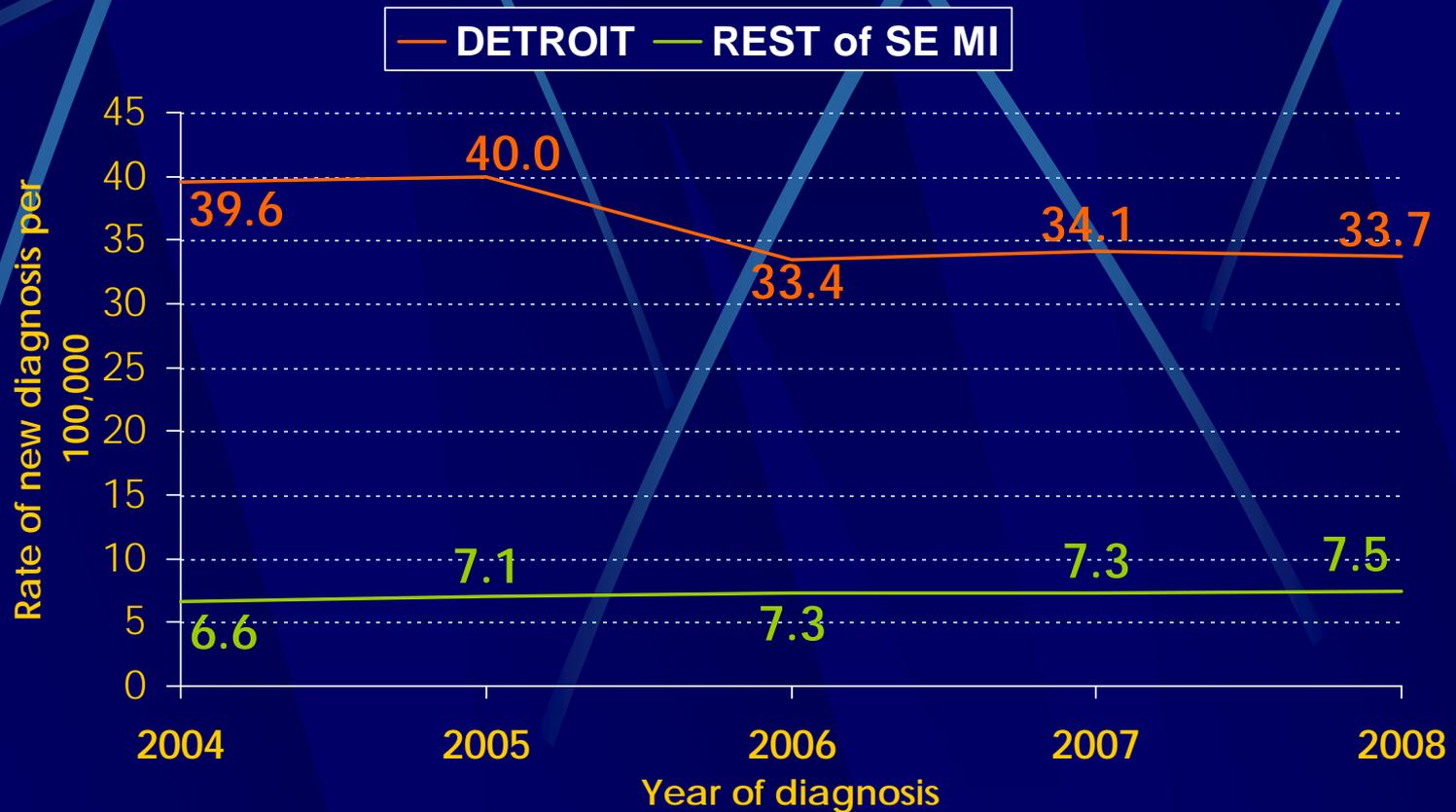
Detroit-specific data

- Adolescents
- MSM
- General Population of the city

Detroit and SE Michigan

- 59% of Southeast Michigan HIV cases are in Detroit
- 20% of the population of Southeast Michigan lives in Detroit

Rates of new HIV diagnoses, Detroit vs. rest of SE MI, 2004-2008

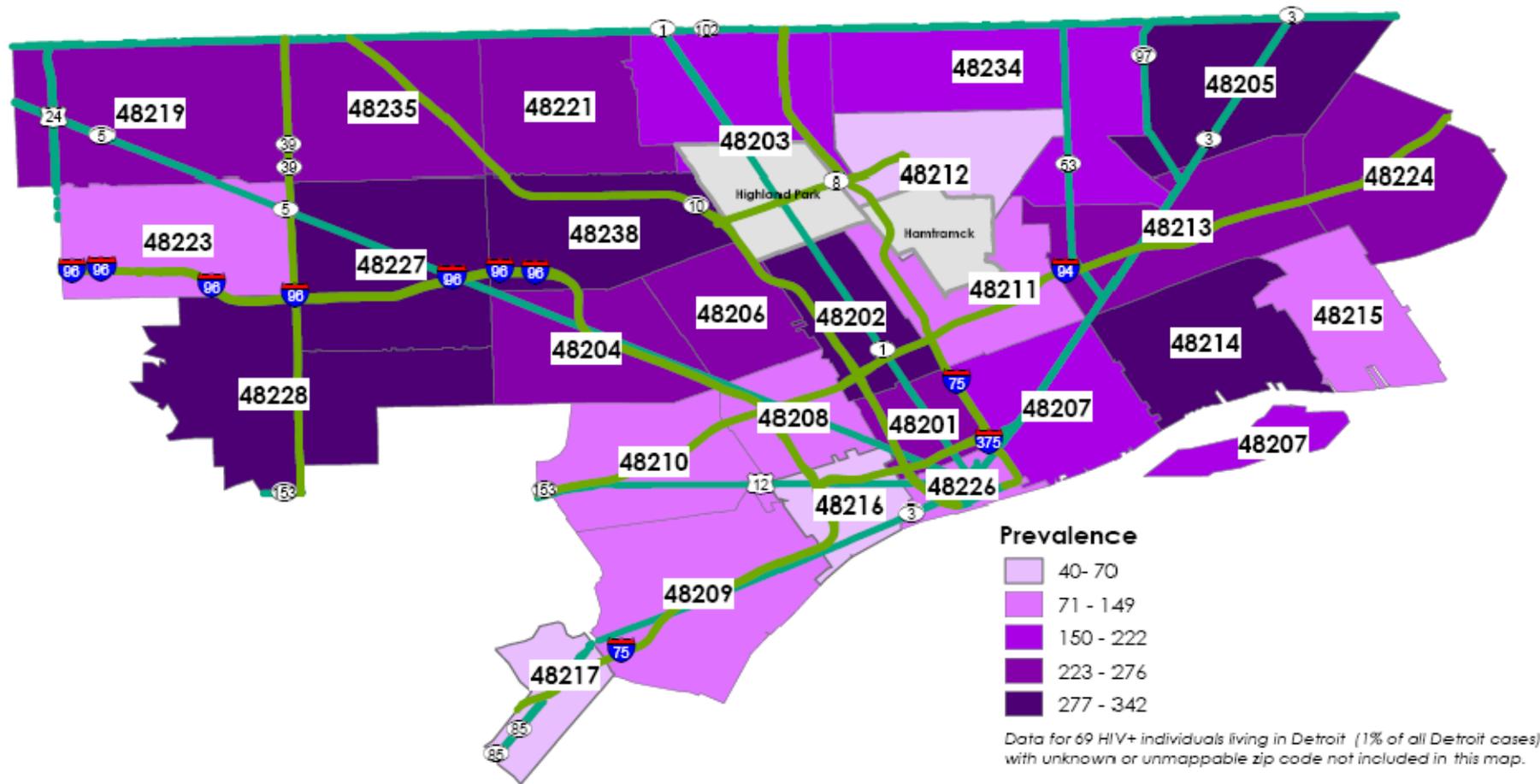


Source: Unpublished MDCH data, current as of Jan 1, 2010



PREVALENCE OF HIV/AIDS IN DETROIT BY ZIP CODE AT DIAGNOSIS (n=5,611):

Current as of April 1, 2010



Michigan Department
of Community Health

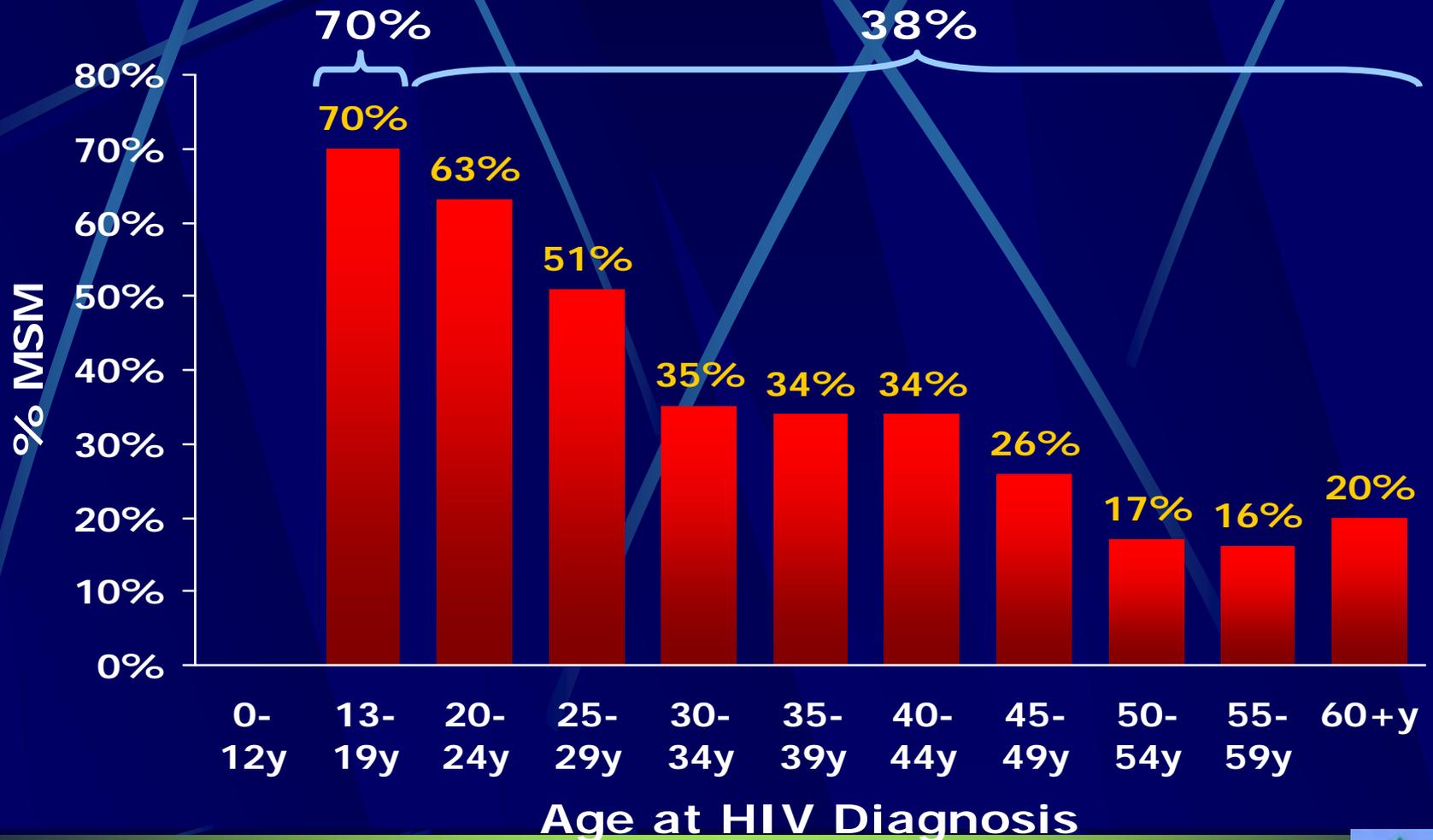


HIV/STD/VH/TB Epidemiology Section
Division of Communicable Disease
Bureau of Epidemiology
Michigan Department of Community Health

Jennifer M. Granholm, Governor
Janet Olszewski, Director

Source: enhanced HIV/AIDS Reporting System (eHARS)
April 2010 database.

New diagnoses, Detroit, 2004-2008: Percent MSM by age at HIV dx





MMWR™

Morbidity and Mortality Weekly Report

Weekly

June 24, 2005 / Vol. 54 / No. 24

National HIV Testing Day — June 27, 2005

National HIV Testing Day (NHTD) is June 27. NHTD is sponsored by the National Association of People with AIDS to encourage persons at risk to receive voluntary counseling and testing for human immunodeficiency virus (HIV). This year's theme, "Take the Test. Take Control," highlights the need for testing and counseling persons at risk to maintain their health and protect their partners. In addition, this year marks the 20th anniversary of the first commercially available HIV test (1), and NHTD offers an opportunity to recognize how much progress has been made in diagnosing, counseling, treatment, and care since 1985.

Approximately 1 million persons in the United States are HIV positive, and nearly one quarter of those infected are not aware of their infections (2). HIV testing has become easier, more accessible, and less invasive than ever before (3). Persons who know they are infected can benefit: from advances in medical care to prolong their lives and can take action to prevent transmission of HIV to others (4).

Additional information about where to get tested for HIV and local events being held to encourage testing among populations at greatest risk (e.g., non-Hispanic blacks, Hispanics, and men who have sex with men) is available at <http://www.hivtest.org>.

References

1. R. Angus, J. Katz. The AIDS epidemic at 20 years: selected milestones. Washington, DC: Kaiser Family Foundation; 2001. Available at <http://www.kff.org/doc/AIDS20>.
2. Glynn M, Rhodes P. Estimated HIV prevalence in the United States at the end of 2003 [Abstract T1-B1101]. Presented at the National HIV Prevention Conference, Atlanta, GA; June 2005.
3. CDC. Advancing HIV prevention: new strategies for a changing epidemic—United States, 2003. *MMWR* 2003;52:329–32.
4. CDC. Revised guidelines for HIV counseling, testing, and referral. *MMWR* 2001;50(No. RR-19).

HIV Prevalence, Unrecognized Infection, and HIV Testing Among Men Who Have Sex with Men — Five U.S. Cities, June 2004–April 2005

Well into the third decade of the human immunodeficiency virus (HIV) epidemic, rates of HIV infection remain high, especially among minority populations. Of newly diagnosed HIV infections in the United States during 2003, CDC estimated that approximately 63% were among men who were infected through sexual contact with other men, 50% were among blacks, 32% were among whites, and 16% were among Hispanics (1). Studies of HIV infection among young men who have sex with men (MSM) in the mid to late 1990s revealed high rates of HIV prevalence, incidence, and unrecognized infection, particularly among young black MSM (2–4). To reassess those findings and previous HIV testing behaviors among MSM, CDC analyzed data from five of 17 cities participating in the National HIV Behavioral Surveillance (NHBS) system. This report summarizes preliminary findings from the HIV-testing component of NHBS, which indicated that, of MSM surveyed, 25% were infected with HIV, and 48% of those infected were unaware of their infection. To decrease HIV transmission, MSM should be encouraged to receive an HIV test at least annually, and prevention programs should improve means of reaching persons unaware of their HIV status, especially those in populations disproportionately at risk.

INSIDE

- 601 Use of Social Networks to Identify Persons with Undiagnosed HIV Infection — Seven U.S. Cities, October 2003–September 2004
- 605 Human Tuberculosis Caused by *Mycobacterium bovis* — New York City, 2001–2004
- 610 QuickStats



Black MSM – Very High HIV Prevalence Rates

HIV infection and Unrecognized Infection among
MSM (N), 5 US Cities*, aged >18:

Race/ethnicity (n)	HIV infection	Unrecognized HIV infection
Black (444)	206 (46%)	139 (67%)
White (616)	127 (21%)	23 (18%)
Hispanic (466)	80 (17%)	38 (48%)
Multiracial (86)	16 (19%)	8 (50%)
Other (139)	18 (13%)	9 (50%)

MMWR. HIV Prevalence, Unrecognized Infection, and HIV Testing Among Men
Who Have Sex with Men – Five U.S. Cities, June 2004–April 2005. June 24, 2005.

*Baltimore, Los Angeles, Miami, NYC, San Francisco

MSM Prevalence by Age

HIV infection and Unrecognized Infection among MSM (N), 5 US Cities*, aged >18:

Age group (n)	HIV infection	Unrecognized HIV infection
18-24 (410)	14%	79%
25-29 (303)	17%	70%
30-39 (585)	29%	49%
40-49 (367)	37%	30%
50+ (102)	31%	34%

MMWR. HIV Prevalence, Unrecognized Infection, and HIV Testing Among Men Who Have Sex with Men—Five U.S. Cities, June 2004–April 2005. June 24, 2005.
*Baltimore, Los Angeles, Miami, NYC, San Francisco

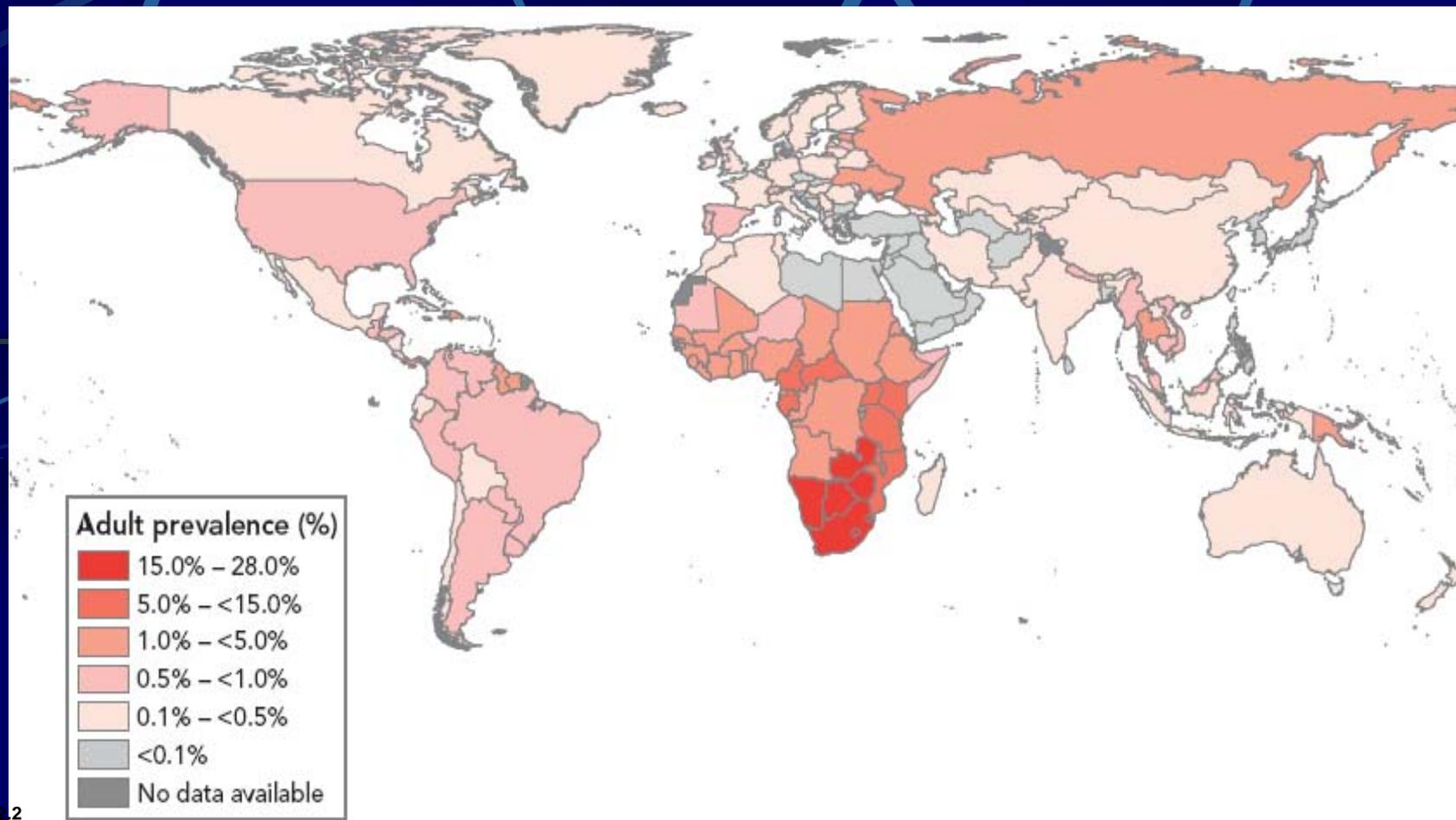


HIV infection among MSM in Detroit 2008

- 315 MSM interviewed at venues such as bars, dance clubs and gay social organizations in Detroit
- 14% were HIV positive
- 69% did not know they were HIV positive
- Sample is ~55% Black, 29% white and 8% Hispanic
- 100% gave a Wayne County zip code to be included

A global view of HIV infection

33 million people [30–36 million] living with HIV, 2007

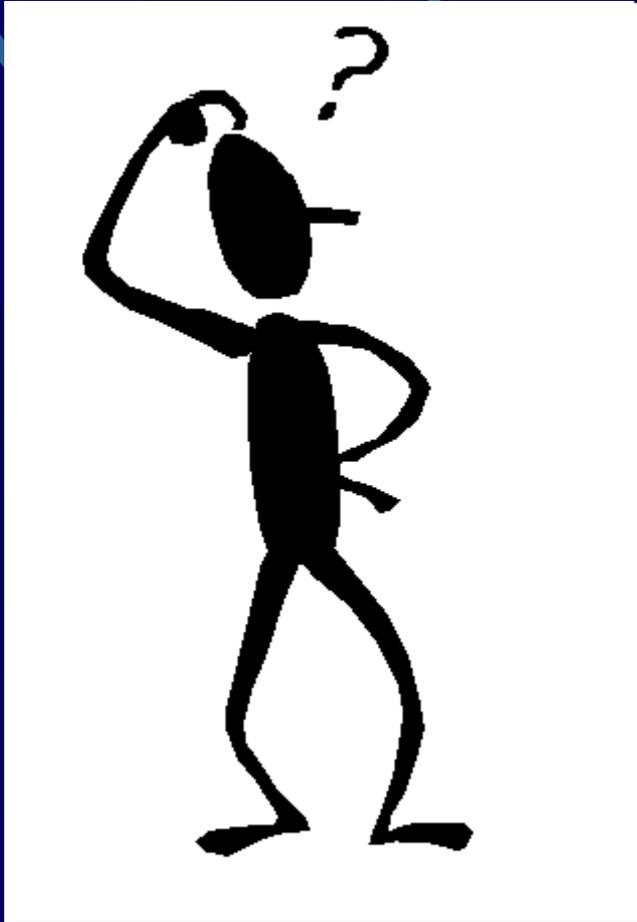
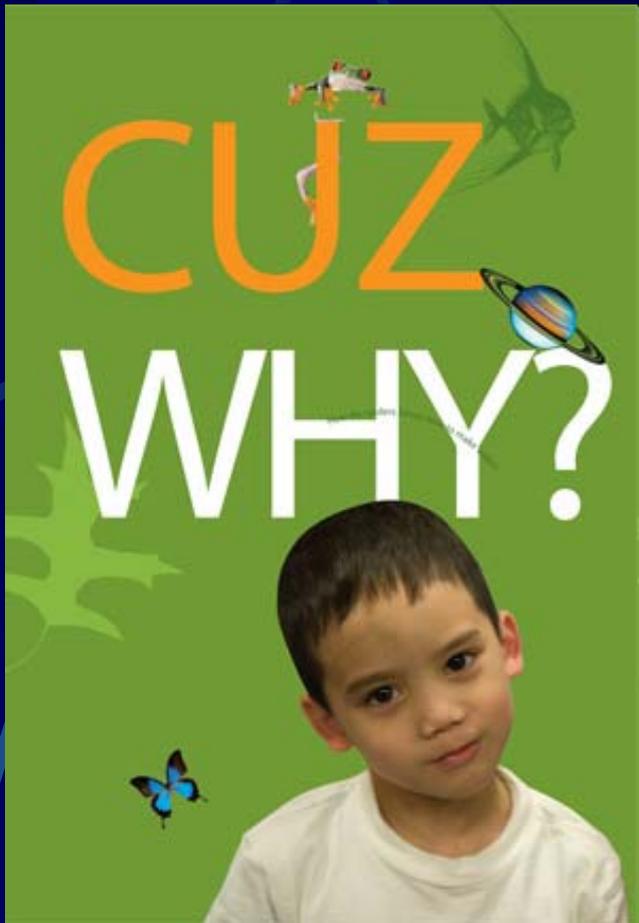


HIV in Detroit

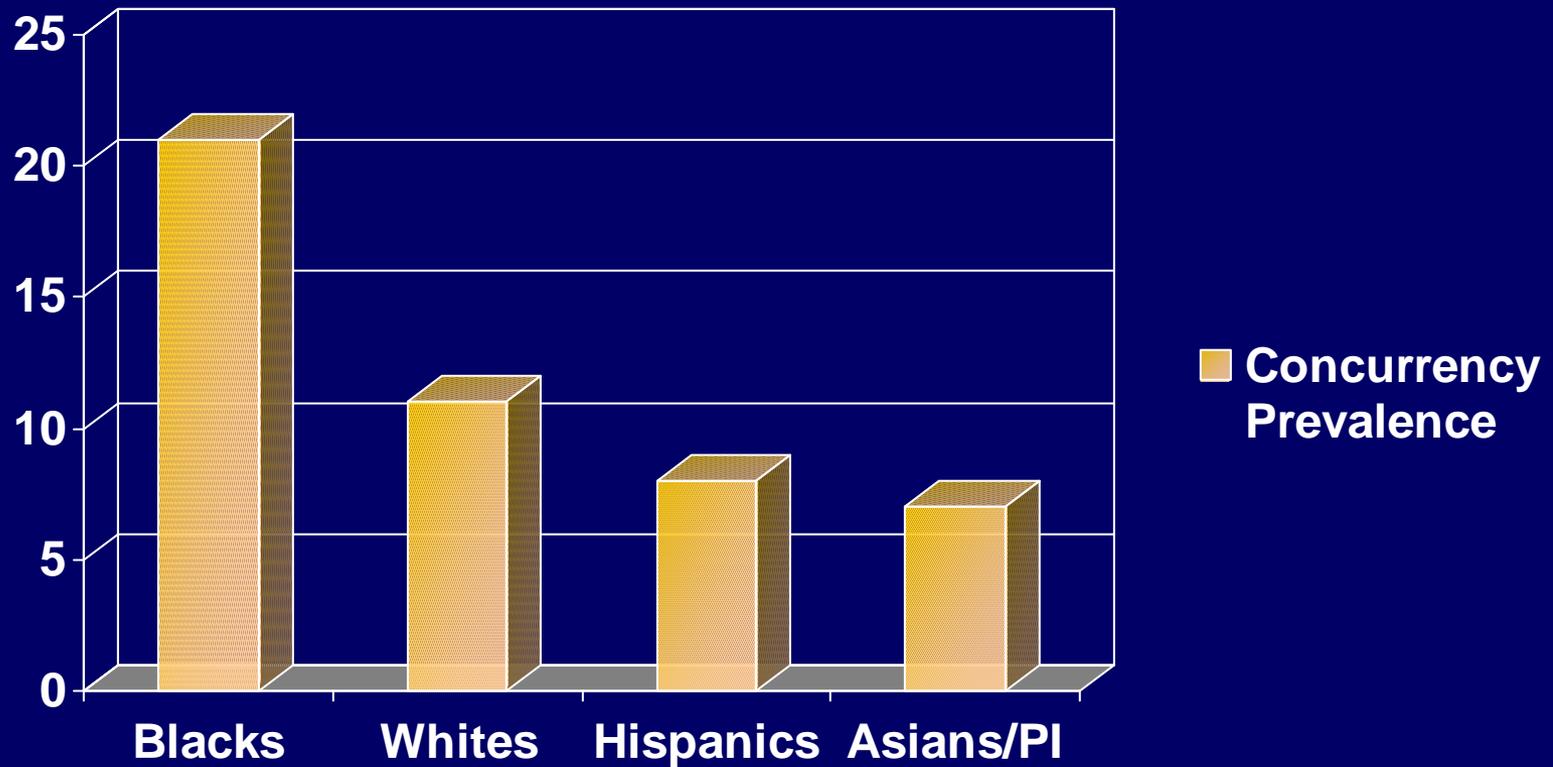
- 9% of Michigan's population lives in the City of Detroit.
- 38% of Michigan residents living with HIV disease were in Detroit at the time of diagnosis.

HIV in Detroit: Disproportionate Impact on Blacks

- 82% of the population of Detroit is black
- 89% of the people living with HIV in Detroit are black (statistically significant difference)
- 92% of children who are diagnosed with HIV under the age of 13 in Detroit are black

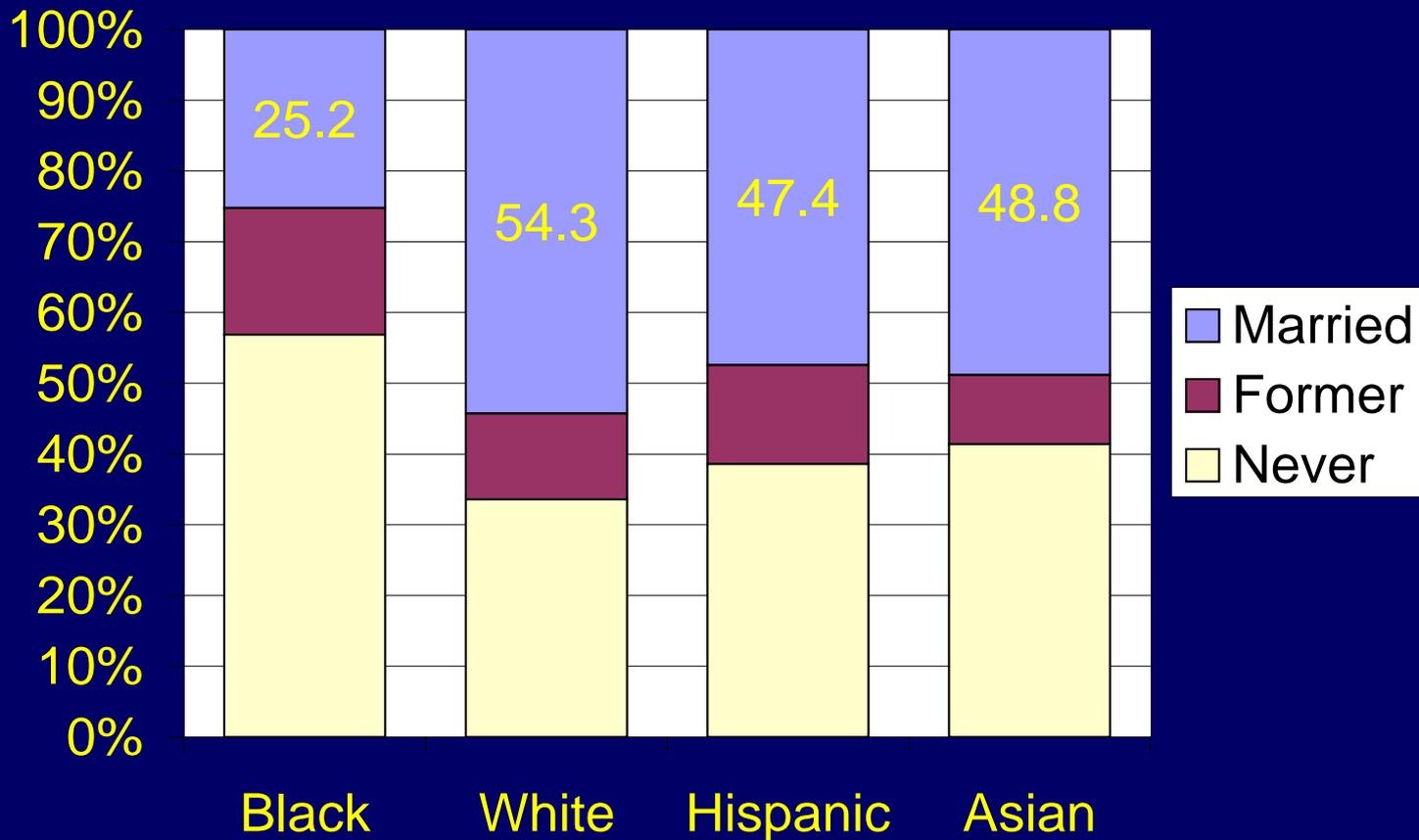


CONCURRENCY PREVALENCE WOMEN, U.S. (1995, NSFG)



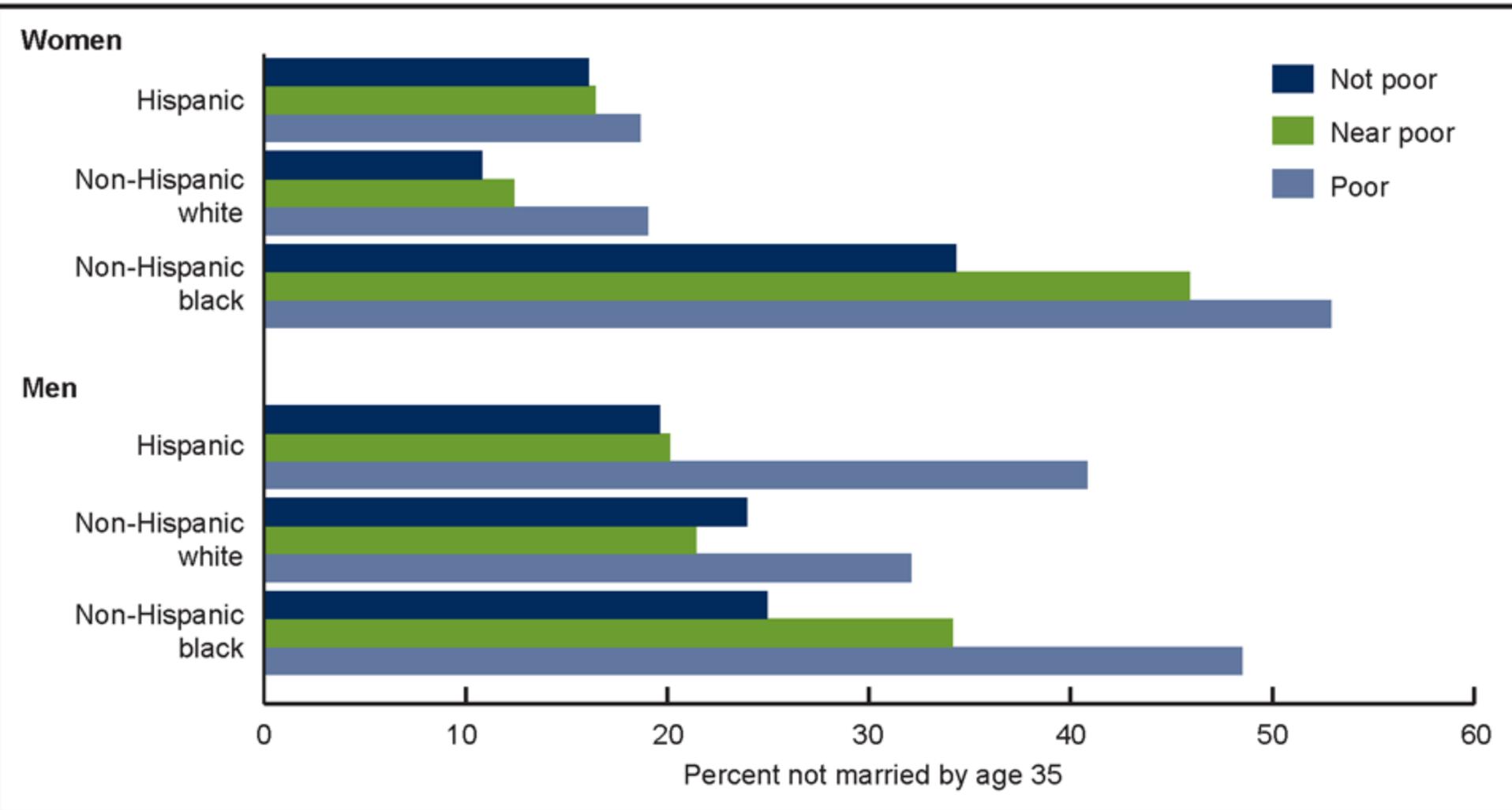
- Adimora AA, Schoenbach VJ, Bonas DM, et al. Concurrent Partnerships among Women in the US. *Epidemiology* 2002; 13:320-327

MARITAL STATUS BY RACE/ETHNICITY (1995, NSFG)



Marriage Rates by Sex, Race and Poverty Status (NSFG 2002)

Figure 6. Percentages of women and men 35–44 years of age who had not married by age 35, by race, Hispanic origin, and poverty status: United States, 2002



SOURCE: CDC/NCHS, National Survey of Family Growth, Cycle 6.

CONTEXT-NETWORK RELATIONSHIPS



inmates: sex in
pool with high
HIV prevalence

new long term links
with antisocial
networks

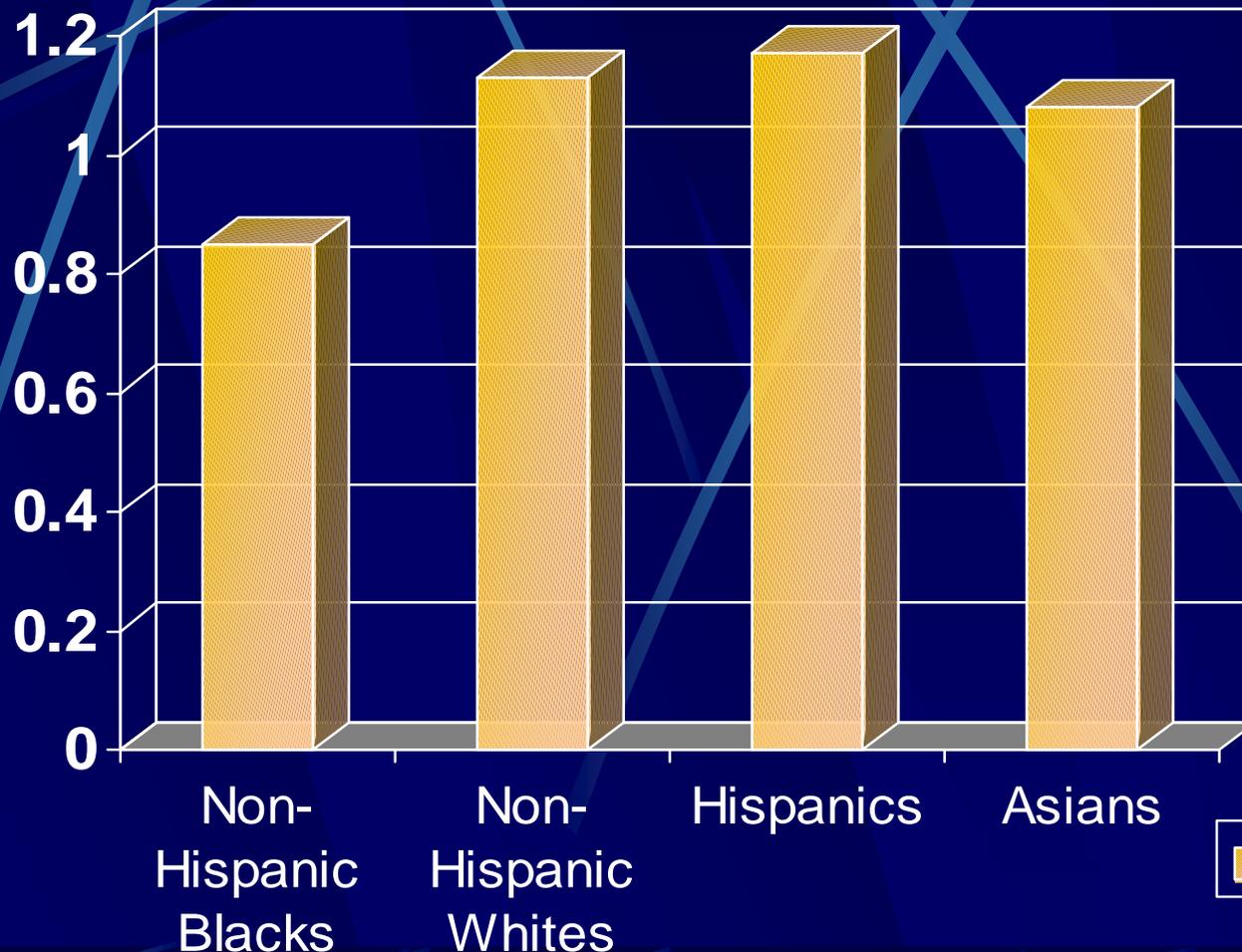
reduces
employment
prospects

disrupts
partnerships

pool of men
in community

SEXUAL NETWORKS

Male:Female Sex Ratio by Race/Ethnicity Detroit, 2000



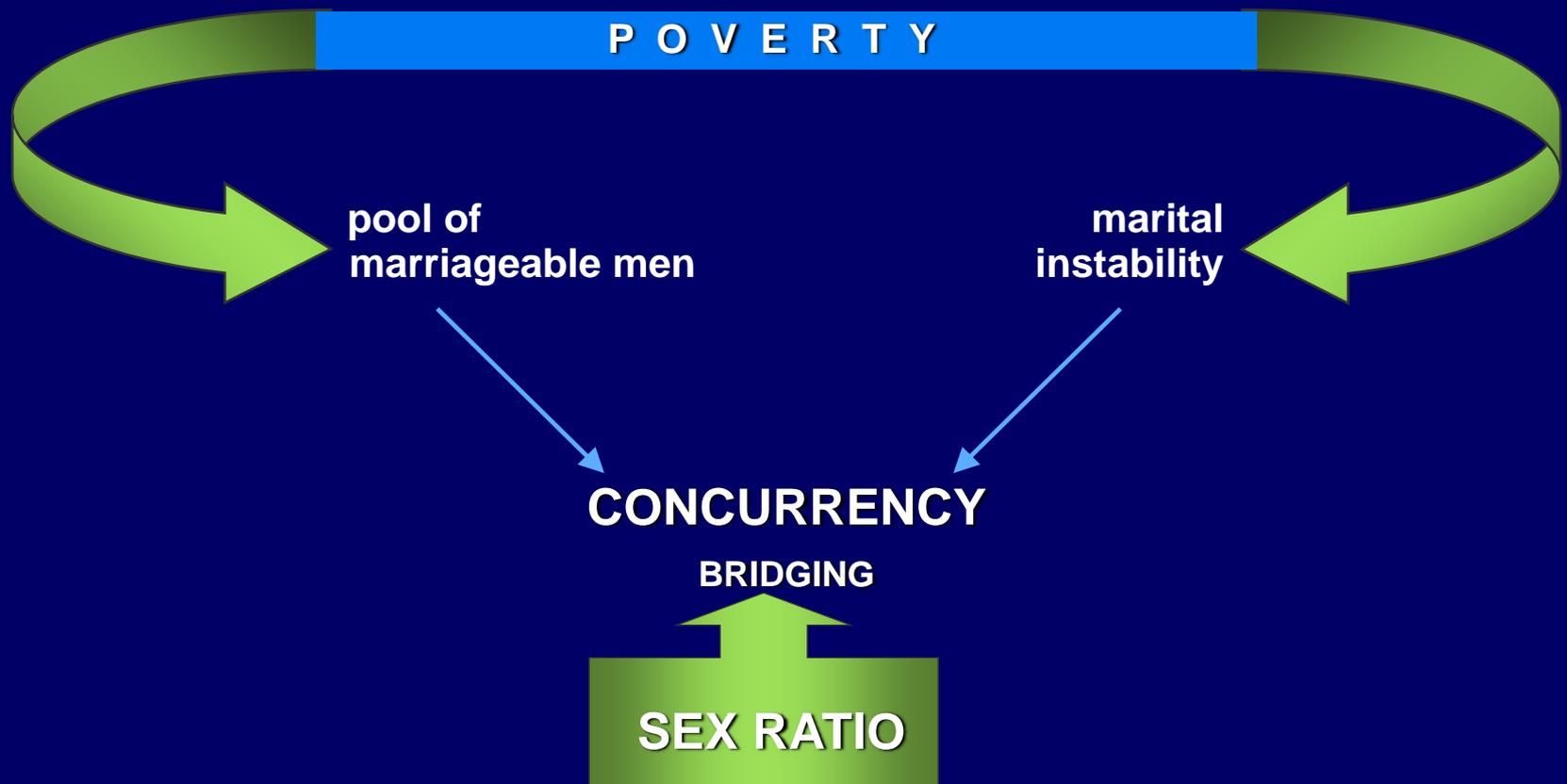
M:F sex ratio under one = more females than males

■ M:F Sex Ratio

Source: US Bureau of the Census. Census 2000



CONTEXT-NETWORK PATHWAYS



Adimora VJ, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. JID 2005;191:S115

Higher Rates Among Black MSM

- Black MSM engage in less risky sexual behavior and are less likely to use drugs
- BUT rate of unknown seropositivity, low access to/use of ART leads to men with higher viral loads → more infectious
 - Even modest levels of sexual risk taking can result in high transmission rates

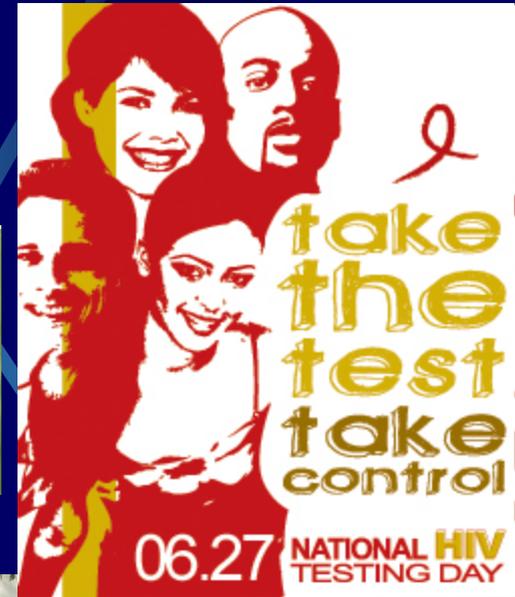
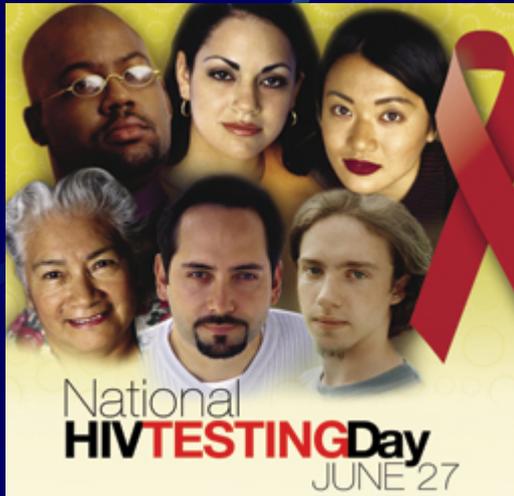
What To Do?

- Structural issues
 - Education
 - Incarceration
 - Poverty
 - Employment
- Improve access to medical care
- Normalize and increase routine HIV testing

CDC Recommendations

- 2006: recommendations that all persons 13-64 be routinely screened unless they decline
- Recognized adolescents as a “cohort of persons at risk”
- Pediatricians advised to obtain sexual history
 - Fewer than 1/2 do so

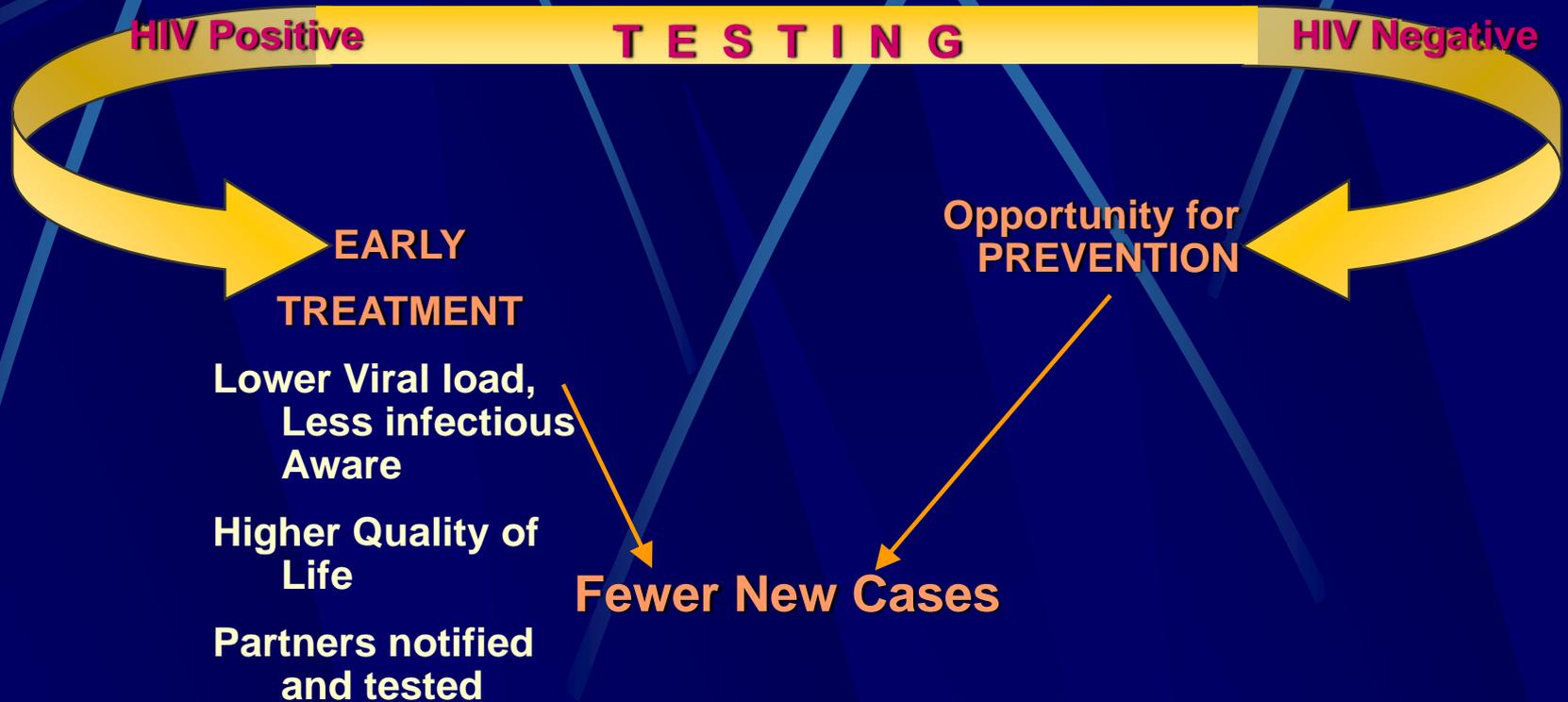
Centers for Disease Control and Prevention. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings. MMWR September 22, 2006; 2006;55 (No. RR-14)



the **Risk** is **NOT**
knowing.
Get tested.



Testing –Treatment-Prevention



Status
IS
Everything!



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KNOW YOUR HIV STATUS
Get Tested
LIVE LONGER
www.ActionEqualsLife.com



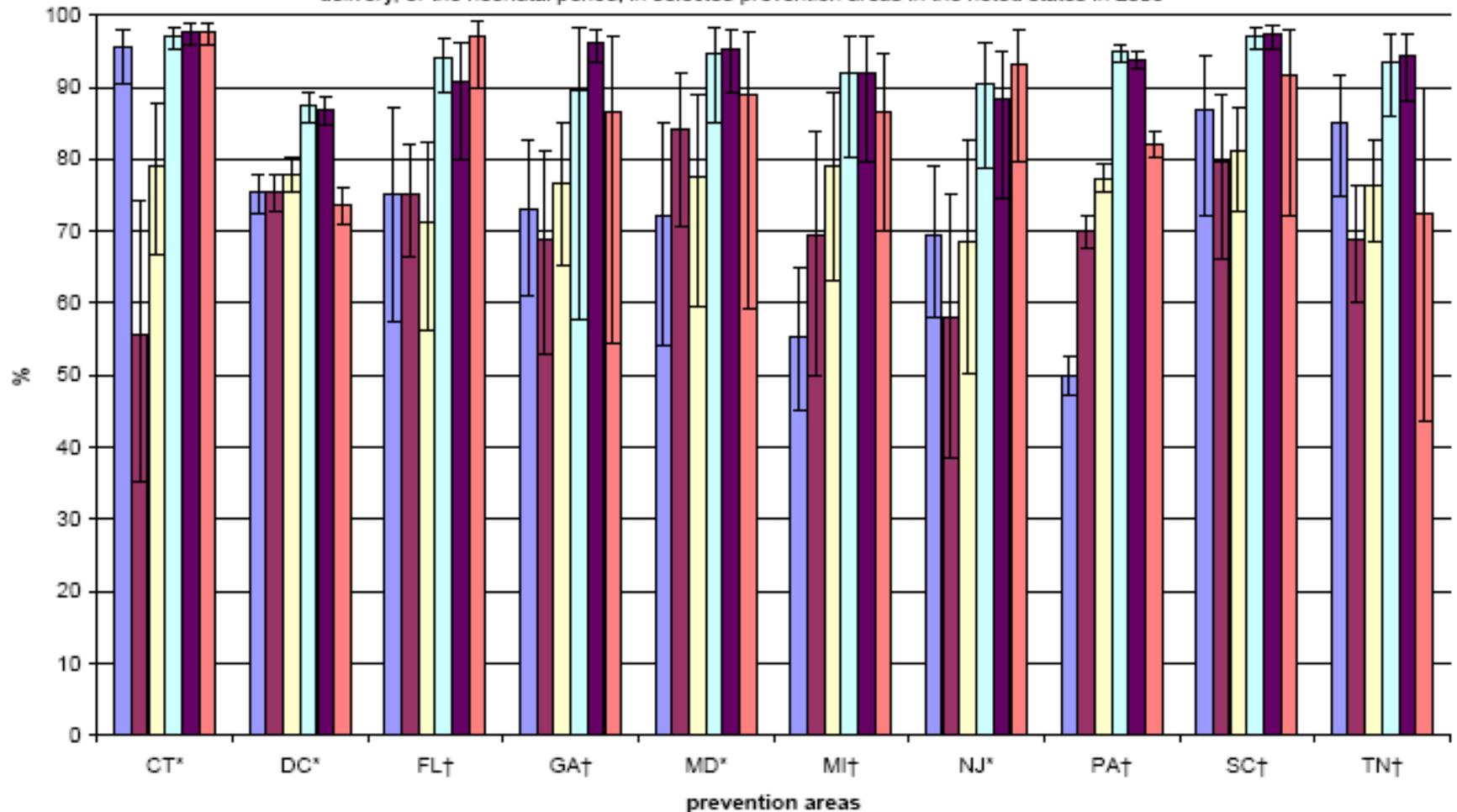
**Table 30: HIV Testing Among Adults Aged 18 - 64 Years
2008 Michigan BRFSS- Preliminary**

Demographic Characteristics	Ever Had an HIV Test ^a	
	%	95% Confidence Interval
Total	37.3	(35.7-38.9)
Age		
18 – 24	24.0	(19.4-29.2)
25 – 34	51.4	(47.1-55.6)
35 – 44	51.6	(48.3-54.8)
45 – 54	32.0	(29.6-34.5)
55 – 64	22.5	(20.5-24.6)
Gender		
Male	33.5	(31.2-35.9)
Female	41.1	(39.1-43.2)
Race/Ethnicity		
White non-Hispanic	32.1	(30.5-33.8)
Black non-Hispanic	62.9	(57.9-67.6)
Other non-Hispanic	43.6	(36.1-51.5)
Hispanic	41.9	(31.8-52.8)
Education		
Less than high school	43.3	(35.7-51.1)
High school graduate	33.5	(30.6-36.6)
Some college	38.2	(35.4-41.1)
College graduate	38.8	(36.2-41.4)
Household Income		
< \$20,000	46.5	(41.3-51.7)
\$20,000 - \$34,999	39.5	(35.5-43.8)
\$35,000 - \$49,999	35.5	(31.5-39.7)
\$50,000 - \$74,999	33.8	(30.5-37.4)
\$75,000 +	37.1	(34.3-40.0)

^aAmong those aged 18 - 64 years (n = 6,163), the proportion who reported that they ever had been tested for HIV, apart from tests that were part of a blood donation.

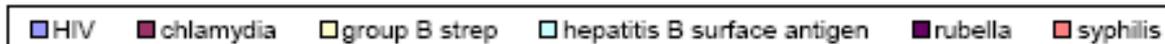
Received at least one test

Proportion of mother-infant pairs with documentation of at least one test for selected infections during pregnancy, delivery, or the neonatal period, in selected prevention areas in the noted states in 2003

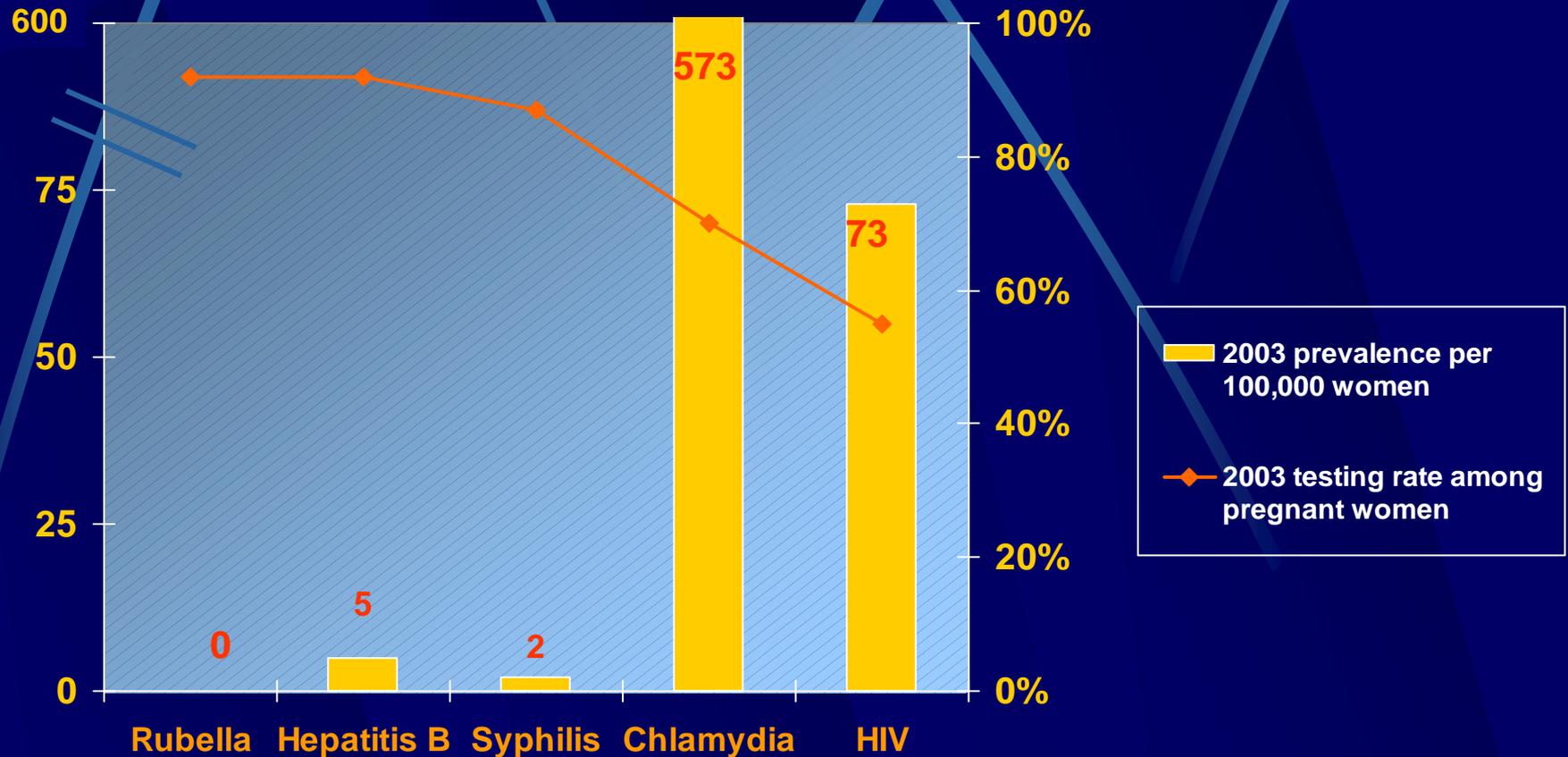


*Entire state

†Selected counties



Testing and Prevalence Rates of Selected STIs/Other Infections among Pregnant Women in Michigan 2003



Publicly Supported HIV Testing

- Local health departments
- Community based organizations (e.g., C-HAG, Horizons)
- Health care facilities (EDs at HFH and DMC, DCHC clinic)
 - 70% of publicly supported tests in MI are in Detroit, Wayne and Oakland Counties
 - 85% of statewide positive tests are in these two counties

Conclusions [1]

- The trend data point to a failure to prevent HIV among young black teens in SE MI, particularly males who have sex with other males.
- This is the 5th year we have measured these trends and found a significant increase among teens.
- Engaging this group in routine testing, prevention strategies and medical care must be a priority.

Conclusions [2]

- Decrease the structural barriers to health discussed earlier.
- Current city and national administrations are working to improve structural issues in the city: poverty, education, employment, health care, etc.

Conclusions [3]

● Testing

- Recent announcement of CDC funding to increase testing- Michigan will apply

● Testing

- MI law changing to decrease barriers to informed consent- House Bill 4583
- Why expanded testing is important.

● Testing

- Some success in increasing testing among blacks
- Plans to increase testing within the City of Detroit

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statistics are available via
email.**

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**Go to HIV/AIDS → Statistics and Reports →
HIV/AIDS Statewide Quarterly Analyses**

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