HIV in Southeast Michigan and Detroit

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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


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

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

All Males: 25%; All Females: 20%

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

Source: Unpublished MDCH data, 2010
Percentages of HIV/AIDS Cases and Population among Adolescents 13 to 19 Years of Age, by Race/Ethnicity Diagnosed in 2007—34 States

HIV/AIDS cases
N=1,744*

Population, 34 states
N = 19,769,265

- American Indian/Alaska Native: 72%
- Asian†: 13%
- Black/African American: 13%
- Hispanic/Latino$: 1%<1%
- Native Hawaiian/Other Pacific Islander: 1%
- White: 62%

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

Source: Unpublished MDCH data, 2010
Percentages of HIV/AIDS Cases among Adults and Adolescents, by Sex and Age Group Diagnosed in 2007—34 States

- **13–19 years**
  - Male: 69%
  - Female: 31%
  - Total: N=1,744

- **20–24 years**
  - Male: 77%
  - Female: 23%
  - Total: N=4,907

- **≥25 years**
  - Male: 74%
  - Female: 26%
  - Total: N=35,845

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
- Black MSM: 68%
- Black non-MSM: 23%
- Other non-MSM: 1%
- Other MSM: 2%
- White MSM: 1%
- White non-MSM: 5%

20+ YRS
- Black non-MSM: 42%
- Black MSM: 28%
- Other non-MSM: 3%
- Other MSM: 3%
- White non-MSM: 15%
- White MSM: 9%

Source: Unpublished MDCH data, 2010
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
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

Kaiser Family Foundation’s National Survey of Adolescents and Young Adults: Sexual Health Knowledge, Attitudes and Experiences 2003
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).

January 2010
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
New diagnoses, Detroit, 2004-2008: Percent MSM by age at HIV dx

<table>
<thead>
<tr>
<th>Age at HIV Diagnosis</th>
<th>% MSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12y</td>
<td>70%</td>
</tr>
<tr>
<td>13-19y</td>
<td>70%</td>
</tr>
<tr>
<td>20-24y</td>
<td>63%</td>
</tr>
<tr>
<td>25-29y</td>
<td>51%</td>
</tr>
<tr>
<td>30-34y</td>
<td>35%</td>
</tr>
<tr>
<td>35-39y</td>
<td>34%</td>
</tr>
<tr>
<td>40-44y</td>
<td>26%</td>
</tr>
<tr>
<td>45-49y</td>
<td>17%</td>
</tr>
<tr>
<td>50-54y</td>
<td>16%</td>
</tr>
<tr>
<td>55-59y</td>
<td>20%</td>
</tr>
<tr>
<td>60+y</td>
<td></td>
</tr>
</tbody>
</table>

Source: Unpublished MDCH data, 2010
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 30th 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
4. CDC. Revised guidelines for HIV counseling, testing, and referral. MMWR 2001;50(RR-13).


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 65% were among men who were infected through sexual contact with other men, 30% were among black, 22% were among whites, and 16% were among Hispanics (7). 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 reassert those findings and previous HIV testing behaviors among MSM, CDC analyzed data from five of 17 cities participating in the National HIV Behavioral Surveillance (NHSB) system. This report summarizes preliminary findings from the HIV-testing component of NHSB, 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.
# Black MSM – Very High HIV Prevalence Rates

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

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

MSM Prevalence by Age

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

<table>
<thead>
<tr>
<th>Age group (n)</th>
<th>HIV infection</th>
<th>Unrecognized HIV infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 (410)</td>
<td>14%</td>
<td>79%</td>
</tr>
<tr>
<td>25-29 (303)</td>
<td>17%</td>
<td>70%</td>
</tr>
<tr>
<td>30-39 (585)</td>
<td>29%</td>
<td>49%</td>
</tr>
<tr>
<td>40-49 (367)</td>
<td>37%</td>
<td>30%</td>
</tr>
<tr>
<td>50+ (102)</td>
<td>31%</td>
<td>34%</td>
</tr>
</tbody>
</table>

*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
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.

January 2010
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

MARITAL STATUS BY RACE/ETHNICITY (1995, NSFG)

- **Married**
  - Black: 25.2%
  - White: 54.3%
  - Hispanic: 47.4%
  - Asian: 48.8%

- **Former**

- **Never**
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

Women
- Hispanic
- Non-Hispanic white
- Non-Hispanic black

Men
- Hispanic
- Non-Hispanic white
- Non-Hispanic black

Percent not married by age 35


CONTEXT-NETWORK RELATIONSHIPS

Adimora VJ, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. JID 2005:191:S115
Male:Female Sex Ratio by Race/Ethnicity Detroit, 2000

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

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 ½ 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)
Testing - Treatment - Prevention

HIV Positive

EARLY TREATMENT

Lower Viral load, Less infectious Aware
Higher Quality of Life
Partners notified and tested

Opportunity for PREVENTION

Fewer New Cases

HIV Negative

Testing - TREATMENT - Prevention
Status IS Everything!

Brought to you by:
African American Office of Gay Concerns
877 Broad St. Suite 211
Newark NJ 07102
973.639.0700 | www.nagc.org

I got tested for HIV.

Why? Because I'm in control of my health.
Don't wait for your doctor to bring it up.

One in five Americans who are infected with HIV doesn't know it.

It's your life. It's your body. Get tested for HIV.

eliminating racism empowers women
YWCA
Change Begins with Me

15,000 American women infected with HIV every year. It's finding out early if you are HIV-positive. Free and confidential or anonymous tests are available. Call 1-800-342-HELP, or visit test

HIV Testing Message
FROM PRESIDENT OBAMA

The absolute latest fashion is to
KNOW YOUR HIV STATUS

Get Tested
LIVE LONGER

www.ActionEqualsLife.com
<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Ever Had an HIV Test</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37.3</td>
<td>(35.7-38.9)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 24</td>
<td>24.0</td>
<td>(18.4-29.2)</td>
</tr>
<tr>
<td>25 – 34</td>
<td>51.4</td>
<td>(47.1-55.6)</td>
</tr>
<tr>
<td>35 – 44</td>
<td>51.6</td>
<td>(48.3-54.8)</td>
</tr>
<tr>
<td>45 – 54</td>
<td>32.0</td>
<td>(29.6-34.5)</td>
</tr>
<tr>
<td>55 – 64</td>
<td>22.5</td>
<td>(20.5-24.6)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33.5</td>
<td>(31.2-35.9)</td>
</tr>
<tr>
<td>Female</td>
<td>41.1</td>
<td>(39.1-43.2)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White non-Hispanic</td>
<td>32.1</td>
<td>(30.5-33.8)</td>
</tr>
<tr>
<td>Black non-Hispanic</td>
<td>62.9</td>
<td>(57.9-67.6)</td>
</tr>
<tr>
<td>Other non-Hispanic</td>
<td>43.6</td>
<td>(36.1-51.5)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>41.9</td>
<td>(31.8-52.8)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>43.3</td>
<td>(35.7-51.1)</td>
</tr>
<tr>
<td>High school graduate</td>
<td>33.5</td>
<td>(30.6-36.6)</td>
</tr>
<tr>
<td>Some college</td>
<td>38.2</td>
<td>(35.4-41.1)</td>
</tr>
<tr>
<td>College graduate</td>
<td>38.8</td>
<td>(36.2-41.4)</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $20,000</td>
<td>46.5</td>
<td>(41.3-51.7)</td>
</tr>
<tr>
<td>$20,000 - $34,999</td>
<td>39.5</td>
<td>(35.5-43.8)</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>35.5</td>
<td>(31.5-39.7)</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>33.8</td>
<td>(30.5-37.4)</td>
</tr>
<tr>
<td>$75,000 +</td>
<td>37.1</td>
<td>(34.3-40.0)</td>
</tr>
</tbody>
</table>

*Among those aged 18 - 64 years (n = 6,183), 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

- 2003 prevalence per 100,000 women
- 2003 testing rate among pregnant women

- Rubella: 0
- Hepatitis B: 5
- Syphilis: 2
- Chlamydia: 573
- HIV: 73
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
Michigan quarterly HIV statistics are available via email. Sign up at: www.michigan.gov/hivstd

Go to HIV/AIDS ➔ Statistics and Reports ➔ HIV/AIDS Statewide Quarterly Analyses
Contact Information

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