"Can You Hear Me Now?" Linking STIs and HIV infection

David B. Johnson – Sr. Public Health Advisor Dr. Roxanne Barrow – Medical Epidemiologist

Division of STD Prevention





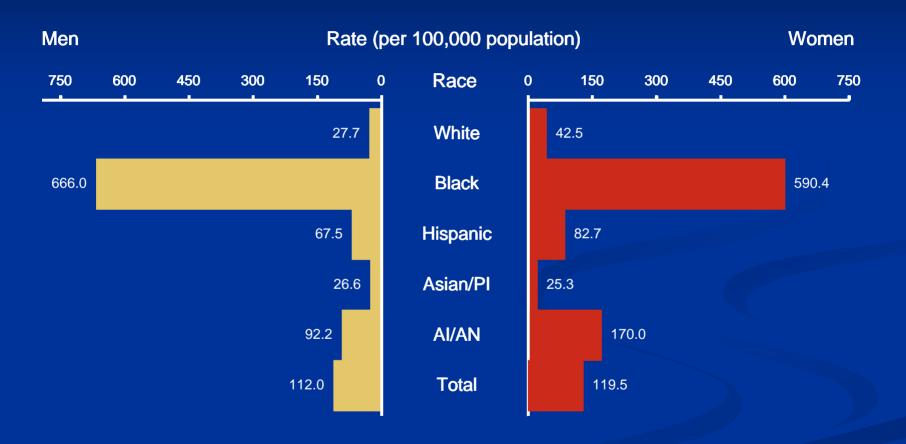
From Coast to Coast

We got Issues





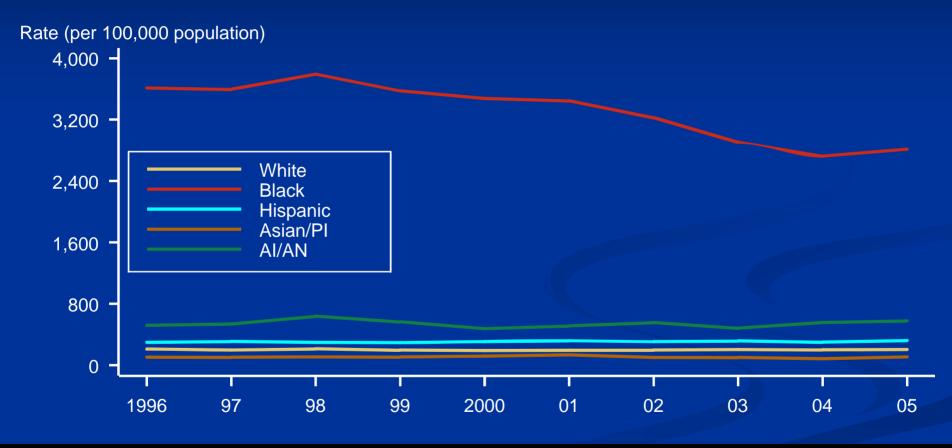
Gonorrhea — Rates by race/ethnicity and sex: United States, 2005







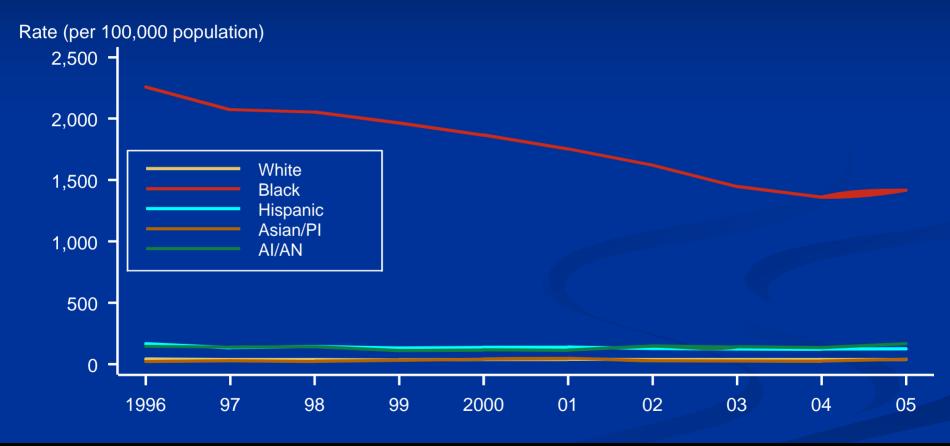
Gonorrhea — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1996–2005







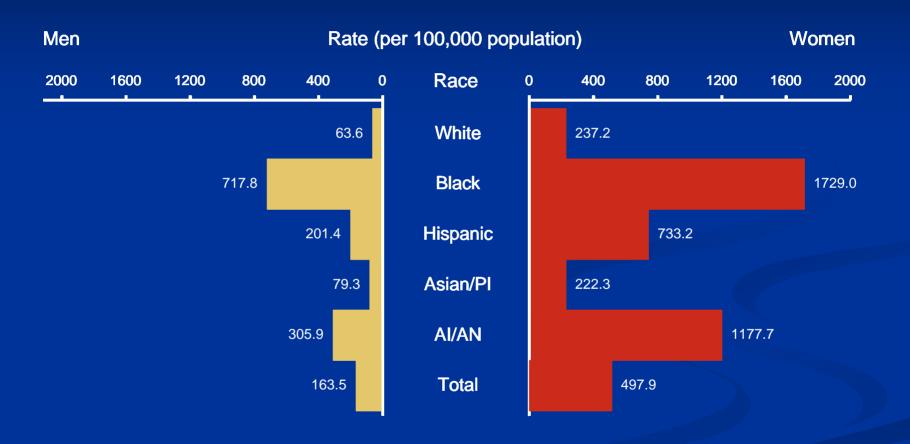
Gonorrhea — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1996–2005







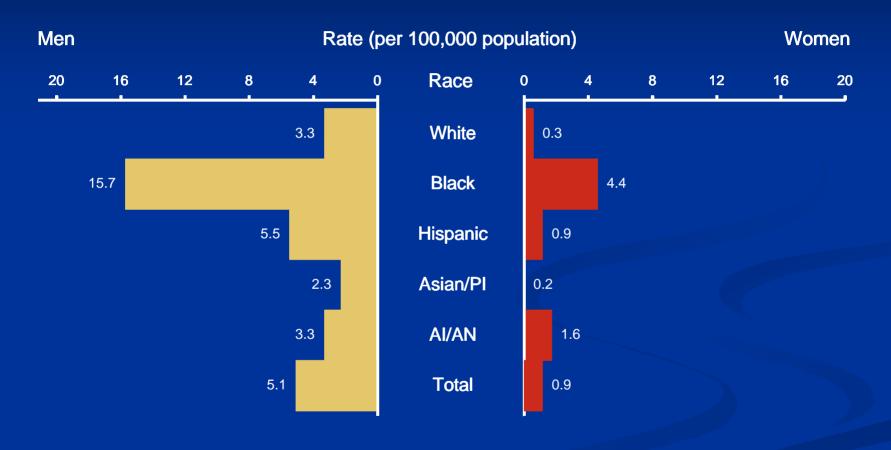
Chlamydia — Rates by race/ethnicity and sex: United States, 2005







Primary and secondary syphilis — Rates by race/ethnicity and sex: United States, 2005







What's the link between STIs and HIV/AIDS?





The STD-HIV/AIDS Connection

- Increased susceptibility
 - Individuals who are infected with STDs are at least two to five times more likely than uninfected individuals to acquire HIV

Genital ulcers (e.g., syphilis, herpes, or chancroid) result in breaks in the genital tract lining or skin which create a portal of entry for HIV

Non-ulcerative STDs (e.g., chlamydia, gonorrhea, and trichomoniasis) increase the concentration of cells in genital secretions that can serve as targets for HIV (e.g., CD4+ cells)





The STD-HIV/AIDS Connection

Increased infectiousness

- HIV-infected individuals co-infected with another STD are more likely to transmit HIV through sexual contact than other HIV-infected persons (Wasserheit, 1992)
 - HIV-infected individuals co-infected with other STDs are more likely to have HIV in their genital secretions
 - Men infected with both gonorrhea and HIV are more than twice as likely to shed HIV in their genital secretions than are those who are infected only with HIV
 - The median concentration of HIV in semen is as much as 10 times higher in men who are infected with both gonorrhea and HIV than in men infected only with HIV





What does any of this mean?

Clarity, Choices, and Networks





Clarity





Sexual behavior measured in terms of

number of partners

sexual practices

condom use

other individual level parameters

does <u>not</u> account for the observed racial disparities in STI





- → African American women have the highest rates of STI in most analyses they do NOT have the highest levels of risk behavior.
- → Having a sexually transmitted infection does not mean the person is engaging in risky sexual behaviors.





Choices





Sexual Mixing Patterns

Assortative Mixing

- Partnerships between people who are at similar risk for infection
- Keeps infection within the risk subpopulation
- Most social and sexual networks are relatively assortative

Dissortative Mixing

- High and low risk people form partnerships
- Disseminates infection throughout the population





Mixing Among African Americans

Limited published data re: general black population

National Health and Social Life Survey

More frequent contact between individuals with many partners (core) and those with few partners (dissortative)

Sexual networks relatively segregated by race Laumann E, Youm Y. Sex Transm Dis 1999;26:250-261





Population Level Interventions





Population Level Intervention

Los Angeles County

- Initiated a Women of Color Advisory Committee
- Initiated a Media Campaign with Power 106 Targeting African Americans
- Public Housing Project Nickerson Gardens, Jordan Downs, Imperial Courts





Population Level Intervention

Maryland and Baltimore Health Department

- Initiated a self-administered test for chlamydia using the Internet - <u>www.iwantthekit.org</u>
- In 2004, tested 400 women and 41 tested positive for chlamydia
- Continued use of the Internet site that has been expanded to include men





Population Level Intervention

US Public Health Region IV

- Infertility initiative to screen women for chlamydia and gonorrhea
- Annually screen African American women that attend historically Black colleges and universities within the Region





Networks





Consultation to Address STD Disparities in African American Communities

- Meeting held June 5-6, 2007
- Consultants included external and internal partners
- Meeting activities
 - Review the epidemiology of bacterial STDs
 - Discuss the determinants
 - Discuss the individual, social, and health impact of the disparities
 - Develop an action plan for CDC and meeting consultants to address STD disparities among African Americans
 - Identify opportunities for collaboration with other sexual health issues such as HIV, herpes, and hepatitis B





Consultation to Address STD Disparities in African American Communities

Initial activities

- Commitment of four workgroups consisting of CDC and external partners to continue collaborative postmeeting activities for at least the next year
- Development of preliminary goals and action items
 - Conduct community outreach to improve screening especially for males
 - Establish a community coalition to foster policy changes
 - Promote advocacy for reimbursement of screening costs by healthcare providers





Consultation to Address STD Disparities in African American Communities

- Lessons learned (Fenton Five)
 - Expand the public health paradigm
 - Partner with diverse groups and organization
 - Define a new dialectic about sexuality and sexual health in African American communities
 - Promote cultural competent interventions
 - Move from general principles to specific actions





"The important stuff is always simple."

"The simple things are always hard."



