

Dynamic Trends in HIV/AIDS Diagnoses and its Biological, Sexual and Drug Use Risk Factors in Young People in Washington, DC

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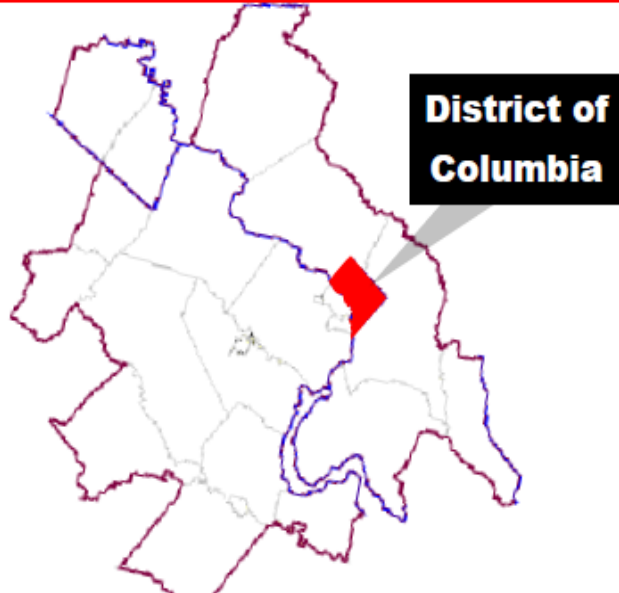
HIV/AIDS, Hepatitis, STD and TB Administration
Washington DC Department of Health

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50% of people with HIV in the United States Reside in 12 Cities

Washington, DC Metropolitan Area



Living with HIV: 0.64
Rate of New HIV Diagnoses: 60.7
Metropolitan Population: 4.4*
DC Population: 0.6

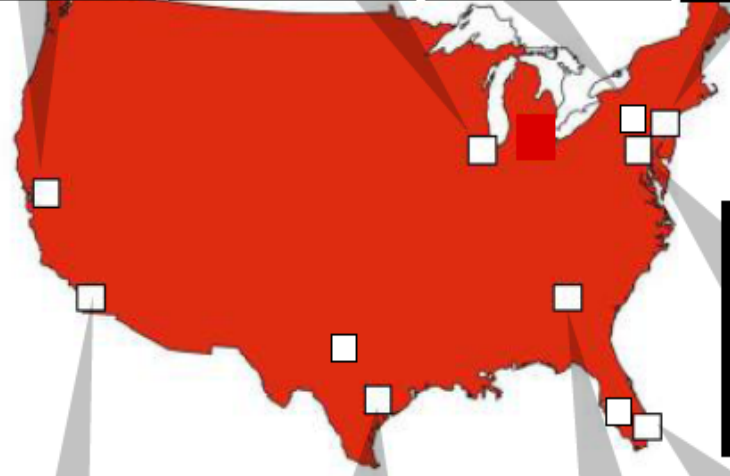
United States

San Francisco Metropolitan Area
 Living with HIV per 100,000: **0.62**
 Rate of New HIV Cases in 2007: **30.4**
 Population: **3.6***

Chicago Metropolitan Area
 Living with HIV per 100,000: **0.34**
 Rate of New HIV Cases in 2007: **22.8**
 Population: **7.7***

Philadelphia Metropolitan Area
 Living with HIV per 100,000: **0.52**
 Rate of New HIV Cases in 2007: **36.2**
 Population: **4.8***

New York Metropolitan Area
 Living with HIV per 100,000: **0.81**
 Rate of New HIV Cases in 2007: **36.9**
 Population: **15.8***



Baltimore Metropolitan Area
 Living with HIV per 100,000: **0.78**
 Rate of New HIV Cases in 2007: **64.2**
 Population: **2.2***

Los Angeles Metropolitan Area
 Living with HIV per 100,000: **0.40**
 Rate of New HIV Cases in 2007: **25.9**
 Population: **10.4***

Houston Metropolitan Area
 Living with HIV per 100,000: **0.44**
 Rate of New HIV Cases in 2007: **30.7**
 Population: **4.4***

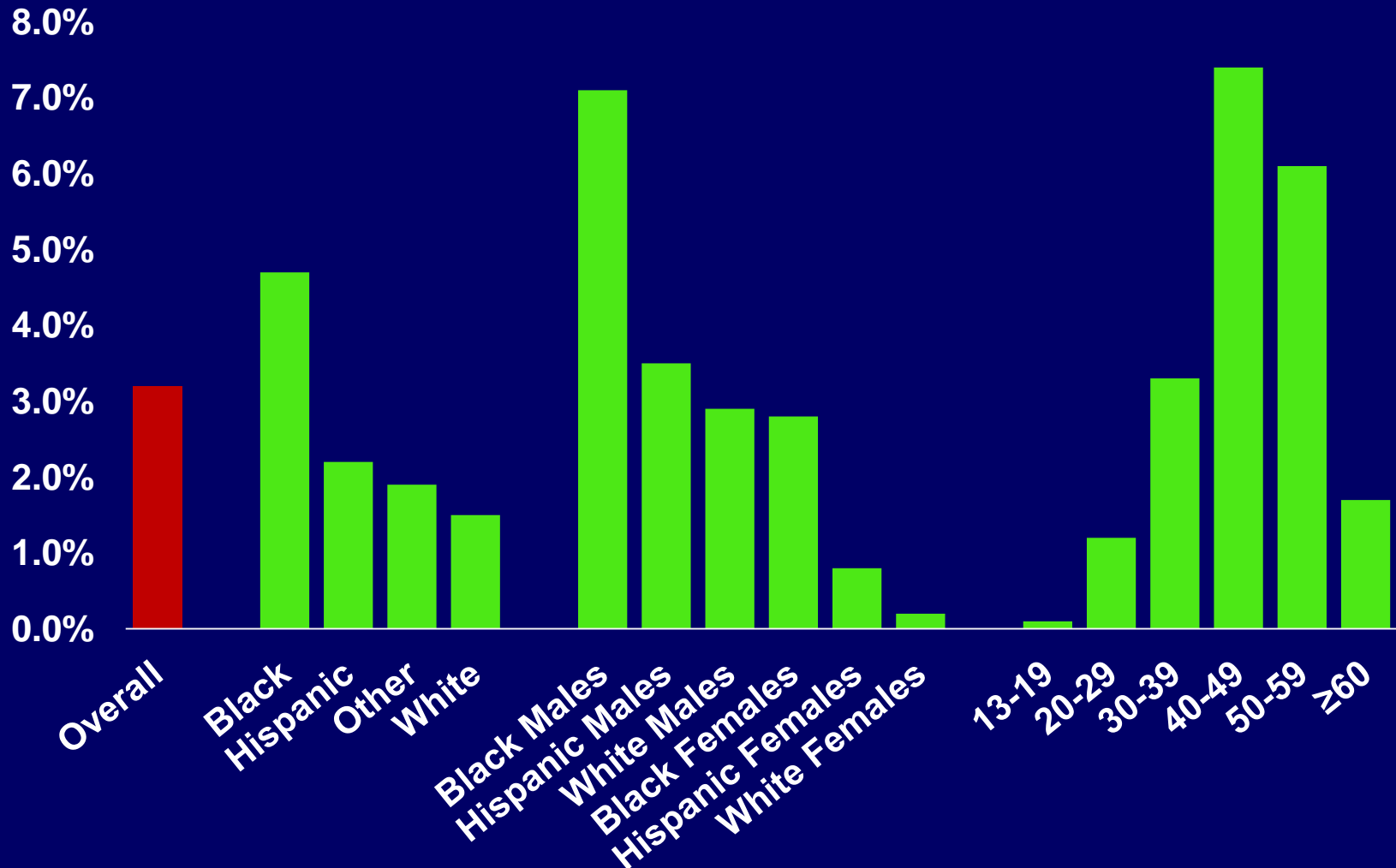
Atlanta Metropolitan Area
 Living with HIV per 100,000: **0.47**
 Rate of New HIV Cases in 2007: **41.0%**
 Population: **4.2***

Miami Metropolitan Area
 Living with HIV per 100,000: **1.0**
 Rate of New HIV Cases in 2007: **77.2**
 Population: **4.5***

* Number in Millions

Source: Hall HI et al, *Epidemiology of HIV Infection in Large Urban Areas in the United States*. PLoS One. 2010 Sep 15;5(9):e12756.

HIV/AIDS in DC



Objective

- This study was to assess the dynamic trends of HIV/AIDS diagnoses and its biological, sexual and drug use risk factors in young people (13-24 years) in Washington D.C.

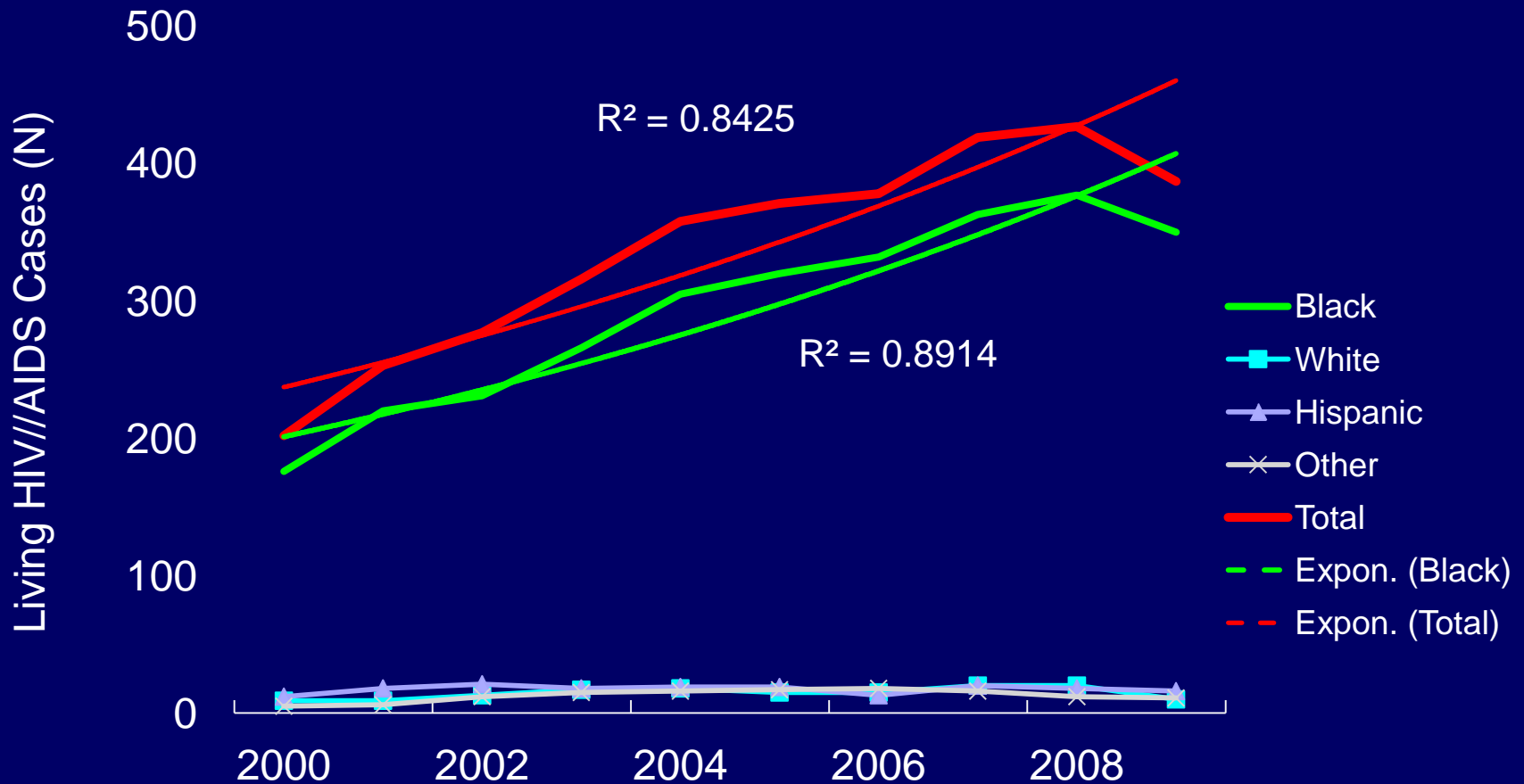
Methods and Data Sources

- Estimated annual percentage changes (EAPCs) for HIV infected and diagnosed young people aged 13-24 years were calculated using Poisson regression, with $p < 0.05$ indicating significance.
- Data sources
 - Youth Risk Behavioral Surveillance Survey (YRBSS)
 - Case Report Surveillance Data

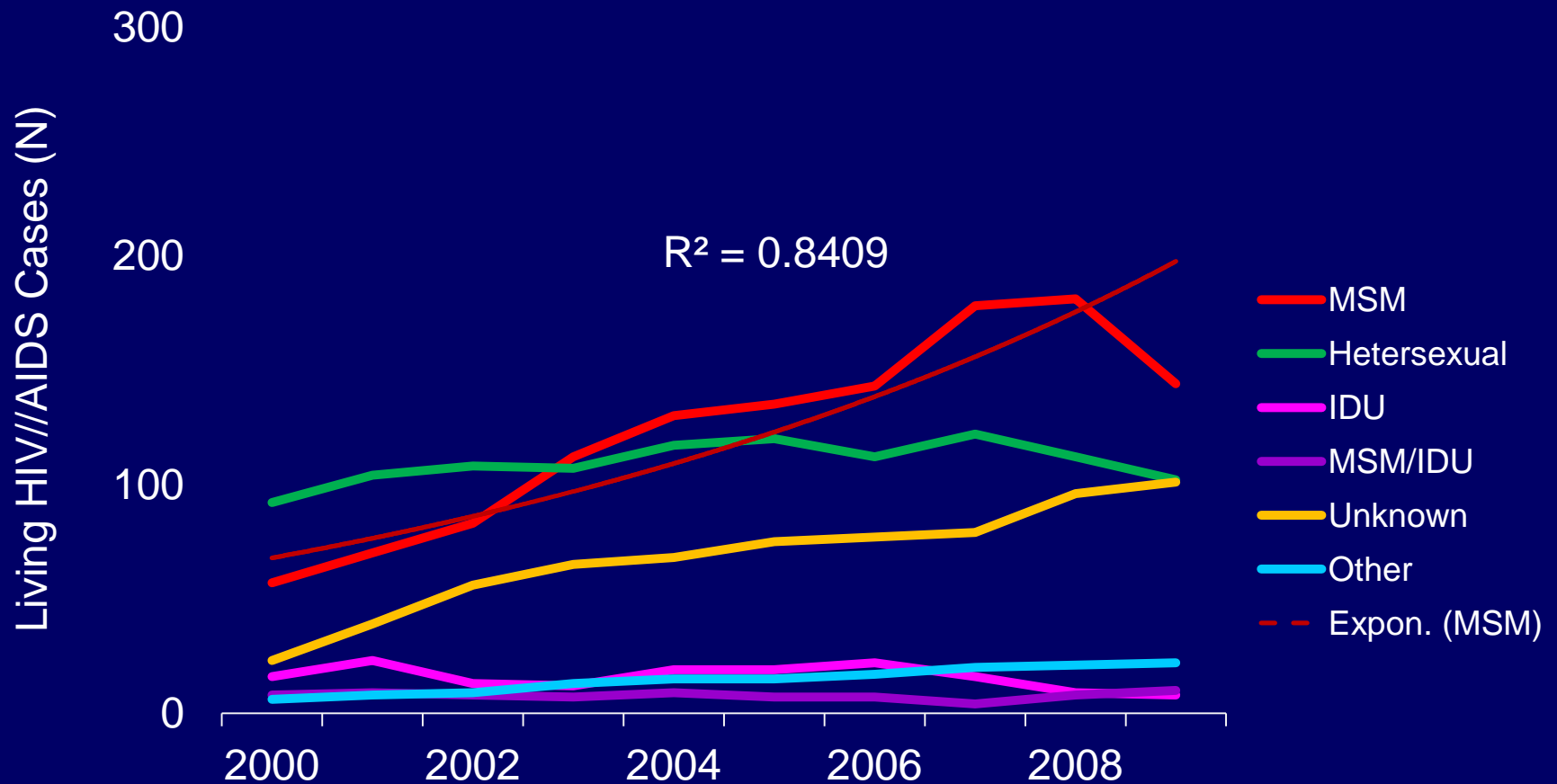
Results (1) HIV Prevalence in DC's Young People (13-24 yrs)

- A total of 419 new diagnoses in 2009
 - 67% were male; 90% African Americans, the major transmission categories were male-to-male sexual contacts (MSM, 51.8%), heterosexual (36.7%), and injection drug use (7%)
- The prevalence of new diagnoses increased significantly (EAPC=10%)
 - From 0.3% (95%CI: 0.2%-0.3%) in 2000 to 0.5% (95%CI: 0.4%-0.5%) in 2009
- The prevalence rates of diagnoses from 2000 to 2009 contributed mainly
 - Black/African American (EAPC: 15%, $P < 0.01$), MSM (EAPC: 32%, $P < 0.01$), and Male (EAPC: 30%, $P < 0.01$)

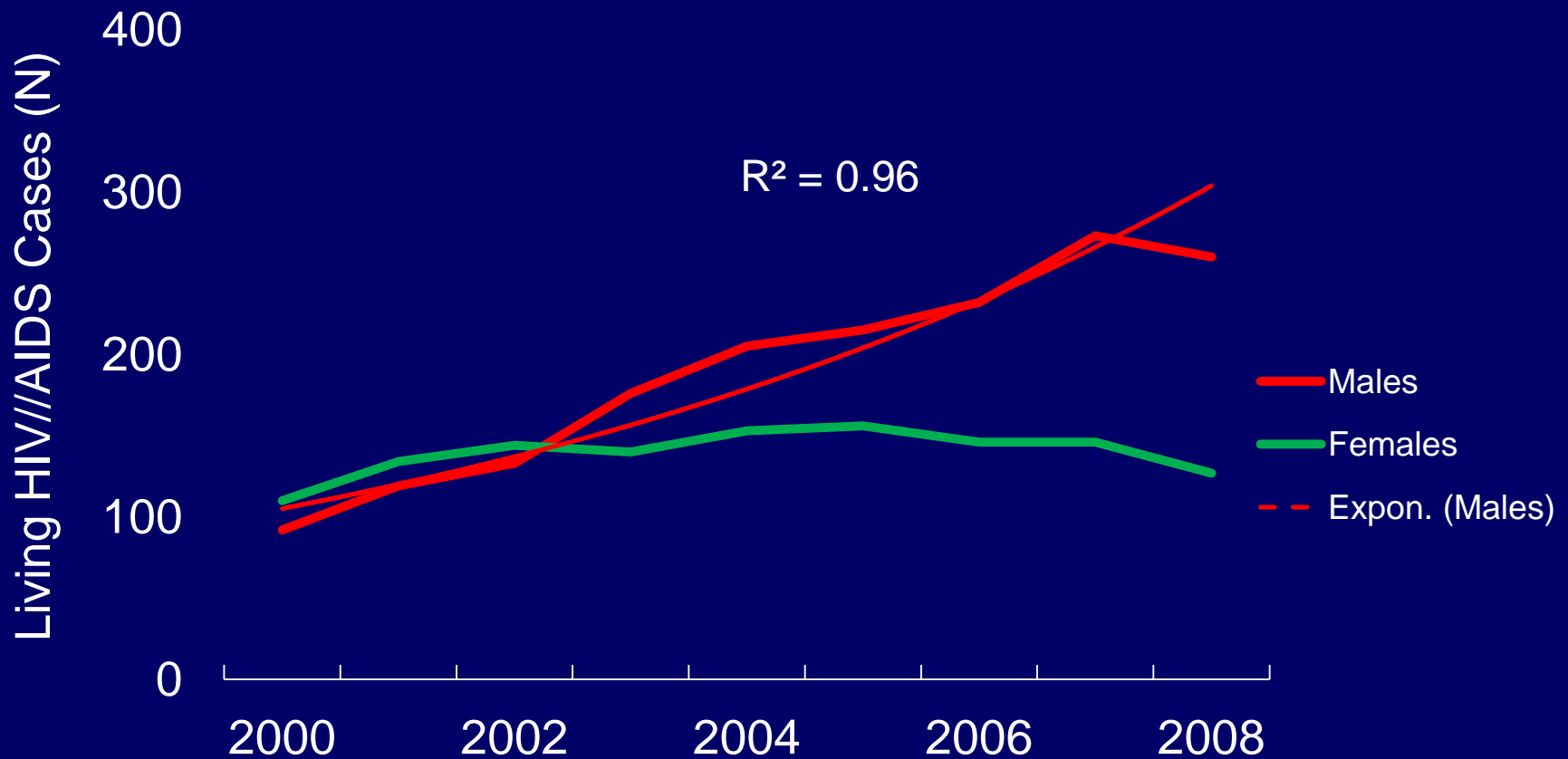
Results(2): HIV Prevalence in DC's Young People (13-24 yrs) by Race/Ethnicity



Results (3) HIV Prevalence in DC's Young People (13-24yrs) by Subgroups



Results (4) HIV Prevalence in DC's Boys & Girls (13-24 yrs)



Results (5) Sexually Transmitted Infections

- From 2000 to 2009, the number of primary and secondary syphilis diagnoses increased significantly among males and blacks, leveled in other groups. Chlamydia (5%) and Gonorrhea (2%) diagnoses are common among youths with most of them occurred among blacks (Chlamydia: 73%; Gonorrhea: 81%)

Results (6): Substance Use

- Serial YRBSS from 1999 to 2009 suggested that high school students had sex (48%-65%), more sexual partners ($\geq 23\%$ -40%), sex in the past 3 months (34%-48%), unprotected sex in the last act (75%-82%), drug/alcohol use before sex (12%-16%) were common. High proportion (25%-41%) of high school students involved in offering/selling drugs;
- Among middle/high school students, alcohol use was common (38%-67%); marijuana (11%-45%) and inhalant (6%-16%) were most common drugs, followed by Ecstasy (4%-9%), cocaine (2%-7%), methamphetamine (2%-6%), and heroin (2%-5%)

Discussion

- There is a continuing rise of HIV new diagnoses in DC's young people.
- Multiple sex partners, unprotected sex, substance use are common among DC's young people.
- Structural interventions that address access to health care as well as individual prevention interventions that address sexual/drug use risks including harm reduction services are needed to reduce HIV transmission in young people and reduce HIV disparities.

**Any questions and comments are
most welcome!**

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