Disparities in HIV/AIDS: The District of Columbia Experience

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Leadership Summit on Health Disparities
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A Public Health/Academic Partnership between the District of Columbia Department of Health and The George Washington University School of Public Health and Health Services Department of Epidemiology and Biostatistics

Contract Number POHC-2006-C-0030
“It is bad enough that people are dying of AIDS, but no one should die of ignorance.”

~Elizabeth Taylor
Objectives

• Provide a snapshot of the epidemiology of national HIV/AIDS epidemic
• Compare and contrast the national HIV/AIDS epidemic to the District of Columbia epidemic
• Become familiar with local strategies to reduce HIV infection and related disparities
History of CDC AIDS Case Definition for Surveillance in the U.S.*

- 1981 – Reports of Pneumocystis carinii pneumonia (PCP) and Kaposi’s sarcoma (KS) in young gay men in SF, NY and LA
- 1982 – CDC clinical AIDS case definition developed including 20 opportunistic illnesses, including infections (bacteria, fungi, protozoa) and cancers (KS and lymphoma)
- 1987 – Case definition expanded to include TB, wasting syndrome, and dementia
- 1993 – Expanded again to include cervical cancer, bacterial pneumonia, pulmonary TB, and HIV+, CD4<200

*www.thebody.com/encyclo/aids.html
Measures of Spectrum of HIV/AIDS Morbidity and Mortality

Exposure → Incident HIV Infection → HIV Diagnosis (Positive Antibody test) → Viral Load → CD4 count

CD4 count below 200 → AIDS - OI → Death
HIV Prevalence and Proportion Unaware of Their HIV Infection in MSM in 21 Cities – NHBS, 2008

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total Tested</th>
<th>HIV Prevalence N</th>
<th>(%)</th>
<th>Undiagnosed HIV Infection N</th>
<th>(%)</th>
</tr>
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<td>Total</td>
<td>8,153</td>
<td>1,562</td>
<td>(19)</td>
<td>680</td>
<td>(44)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
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<tr>
<td>18-24</td>
<td>1,889</td>
<td>198</td>
<td>(11)</td>
<td>136</td>
<td>(69)</td>
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<td>25-29</td>
<td>1,529</td>
<td>223</td>
<td>(15)</td>
<td>128</td>
<td>(57)</td>
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<tr>
<td>30-39</td>
<td>2,231</td>
<td>470</td>
<td>(21)</td>
<td>214</td>
<td>(46)</td>
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<tr>
<td>40-49</td>
<td>1,712</td>
<td>474</td>
<td>(28)</td>
<td>164</td>
<td>(35)</td>
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<tr>
<td>≥ 50</td>
<td>792</td>
<td>197</td>
<td>(25)</td>
<td>38</td>
<td>(19)</td>
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<tr>
<td>Race</td>
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<tr>
<td>White</td>
<td>3,580</td>
<td>560</td>
<td>(16)</td>
<td>143</td>
<td>(26)</td>
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<tr>
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<td>1,895</td>
<td>539</td>
<td>(28)</td>
<td>318</td>
<td>(59)</td>
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<tr>
<td>Hispanic</td>
<td>2,045</td>
<td>358</td>
<td>(18)</td>
<td>163</td>
<td>(46)</td>
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<tr>
<td>API/NA/AN</td>
<td>107</td>
<td>19</td>
<td>(18)</td>
<td>5</td>
<td>(26)</td>
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<tr>
<td>Multiracial/Other</td>
<td>336</td>
<td>72</td>
<td>(21)</td>
<td>42</td>
<td>(58)</td>
</tr>
</tbody>
</table>

Adapted from MMWR. Vol 59 (37), Sept 24, 2010.
Incidence Surveillance Estimates, 2006

- Through the end of 2006, CDC estimated that there were
  - 56,300 new infections in 2006 (95%CI 48,200- 64,500)
  - 55,400 new infections per year between 2003 and 2006
  - 1.1 million HIV-infected persons living in the U.S. (including an estimated 25% who are unaware of their infections)

Source: *JAMA*, Vol 300 No 5 August 6, 2008
Estimated Number* of New HIV Cases—22 States 2006

*Rounded to the nearest 100. Data have been adjusted for reporting delay.
Estimated Rate of New HIV Infections by Race/Ethnicity—United States, 2006

- American Indian/Alaska Native: 14.6
- Asian/Pacific Islander: 10.3
- Black/African American: 83.7
- Hispanic/Latino: 29.3
- White: 11.5

Note: Data have been adjusted for reporting delay.
Estimated Percentage of New HIV Infections by Sex and Transmission Category—United States, 2006
N = 54,230

Male
- Heterosexual contact*: 13%
- Male-to-male and injection drug use: 5%
- Injection drug use: 9%
- Male-to-male sexual contact: 72%

Female
- Injection drug use: 20%
- Heterosexual contact*: 80%

*Heterosexual contact with a person known to have, or to be at risk for, HIV infection

Note: Data have been adjusted for reporting delay and cases without risk factor information were proportionately redistributed. Data presented on blacks/African Americans, Hispanics/Latinos, and whites only. The small number of new infections in Asians/Pacific Islanders and American Indians/Alaska Natives precludes further stratification.
Diagnoses of HIV Infection among Adults and Adolescents, by Transmission Category, 2005—2008—37 States and 5 U.S. Dependent Areas

- Male-to-male sexual contact
- Heterosexual contact
- Injection drug use
- Male-to-male sexual contact and injection drug use
- Other

Year of diagnosis:
- 2005
- 2006
- 2007
- 2008

Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
Data from 37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting since at least January 2005.
All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays and missing risk-factor information, but not for incomplete reporting.

*Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.
*b Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.
Rates of Diagnoses of HIV Infection among Adults and Adolescents, by Sex and Race/Ethnicity, 2008—37 States

**Note.** Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data from 37 states with confidential name-based HIV infection reporting since at least January 2005. All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not for incomplete reporting.

*Hispanics/Latinos can be of any race.*
Adults and Adolescents Living with a Diagnosis of HIV Infection, by Sex and Race/Ethnicity, Year-end 2007—37 States and 5 U.S. Dependent Areas

Males
N=433,944

- 37% Black/African American
- 40% White
- 20% Hispanic/Latino
- <1% Native Hawaiian/Other Pacific Islander
- <1% Asian
- <1% American Indian/Alaska Native
- <1% Multiple races

Females
N=162,884

- 61% White
- 19% Hispanic/Latino
- 18% Black/African American
- <1% Native Hawaiian/Other Pacific Islander
- <1% Asian
- <1% American Indian/Alaska Native
- <1% Multiple races

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data from 37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting since at least January 2005. All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not for incomplete reporting.

* Includes Asian/Pacific Islander legacy cases

b Hispanics/Latinos can be of any race.
Rates of Adults and Adolescents Living with a Diagnosis of HIV Infection, Year-end 2007—37 States and 5 U.S. Dependent Areas

Total Rate = 336.7

Rates per 100,000 population
- <100.0
- 100.0 – 149.9
- 150.0 – 199.9
- 200.0 – 249.9
- ≥200.0

American Samoa 4.7
Guam 76.2
Northern Mariana Islands 28.5
Puerto Rico 576.5
U.S. Virgin Islands 641.1

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
Data from 37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting since at least January 2005. All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not for incomplete reporting.
Diagnoses of HIV Infection among Adults and Adolescents, by Population of Area of Residence, 2008—37 States

<table>
<thead>
<tr>
<th>MSA Population</th>
<th>No.</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 500,000</td>
<td>31,972</td>
<td>30.2</td>
</tr>
<tr>
<td>50,000 – 499,999</td>
<td>5,469</td>
<td>15.5</td>
</tr>
<tr>
<td>Nonmetropolitan</td>
<td>3,392</td>
<td>9.8</td>
</tr>
</tbody>
</table>

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data from 37 states with confidential name-based HIV infection reporting since at least January 2005. All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not for incomplete reporting. Rates are per 100,000 population. Data exclude persons whose county of residence is unknown.
Estimated HIV Prevalence in the United States at the end of 2003

- Through the end of 2000, CDC estimated that there were
  - 850,000 - 950,000 HIV-infected persons living in the U.S.
  - 25% undiagnosed and unaware of their HIV infection

- Through the end of 2003, CDC estimated that there were
  - 1,039,000 – 1,185,000 HIV-infected persons living in the U.S.
  - 24-27% undiagnosed and unaware of their HIV infection
Estimated Numbers of AIDS Cases, Deaths, and Persons Living with AIDS, 1985–2007—United States and Dependent Areas

Note. Data have been adjusted for reporting delays.
Time from AIDS diagnosis after HIV infection ("Late Testers")

- Nationally, 36% of cases progressed from HIV to AIDS in less than 12 months
- More late testing in:
  - 35 yrs and older
  - Hispanics
  - Male IDUs and male HRH cases
- Indicative of
  - Delays in testing
  - Access to care and treatment
  - Inadequate care and treatment
Proportion of Persons Surviving, by Months after AIDS Diagnosis during 1998–2005 and by Race/Ethnicity—United States and Dependent Areas
Estimated Numbers of Perinatally Acquired AIDS Cases by Year of Diagnosis, 1985–2007—United States and Dependent Areas

No. of cases

Year of diagnosis

Note. Data have been adjusted for reporting delays and missing risk-factor information.
“I recommend the same therapies for all humans with HIV. There is no reason to believe that physiologic responses to therapy will vary across lines of class, culture, race or nationality.”

~Paul Farmer
Epidemiology of HIV/AIDS in the District of Columbia
The District of Columbia HIV/AIDS Epidemic

Outlook
Sunday, December 2, 2007

Of these world capitals, which has the highest rate of HIV/AIDS infection?

Adult HIV Prevalence for Selected Countries, 2007

- Senegal: 1.0
- Ghana: 1.9
- Angola: 2.1
- Ethiopia: 2.1
- Rwanda: 2.8
- District of Columbia: 3.0
- Nigeria: 3.1
- Congo: 3.5

Estimated Prevalence Rates for Adults and Adolescents Living with AIDS (per 100,000 population), 2007 United States and Dependent Areas

Note. Data have been adjusted for reporting delays.
* Includes persons whose area of residence is unknown or missing.
Proportion of Adults/Adolescents Diagnosed and Living with HIV/AIDS by Race/Ethnicity, District of Columbia, 2008

- **White**: 1.8%
- **Hispanic**: 2.1%
- **Black**: 4.7%

Overall DC HIV/AIDS Prevalence Among Adults and Adolescents: 3.2%
Proportion of Adults/Adolescents Diagnosed and Living with HIV/AIDS by Race and Sex, District of Columbia, 2008

Overall DC HIV/AIDS prevalence Among Adults and Adolescents

- Black Males: 7.1%
- Hispanic Males: 3.4%
- White Males: 2.9%
- Black Females: 2.8%
- Hispanic Females: 0.7%
- White Females: 0.2%

Proportion of DC Residents Diagnosed and Living with HIV/AIDS by Race and Sex
Proportion of Each Age Group Currently Diagnosed and Living with HIV/AIDS by Current Age, District of Columbia, 2008

Overall DC HIV/AIDS Prevalence Among Adults and Adolescents

- 3.2%
- 1.0%

Proportion of DC Residents Living With HIV/AIDS

- 13-19: 0.1%
- 20-29: 1.2%
- 30-39: 3.6%
- 40-49: 7.6%
- 50-59: 5.9%
- ≥60: 1.5%
HIV/AIDS Cases, by Age at Diagnosis
N=16,513

- 13-19: 2.8%
- 20-29: 9.6%
- 30-39: 27.0%
- 40-49: 22.6%
- 50-59: 35.7%
- ≥60: 2.4%

HIV/AIDS Cases, by Current Age
N=16,513

- 13-19: 9.0%
- 20-29: 0.4%
- 30-39: 8.2%
- 40-49: 25.6%
- 50-59: 20.1%
- ≥60: 36.8%

Proportion of Adults and Adolescents Living with HIV/AIDS by Age at Diagnosis and Current Age, District of Columbia, 2008
Proportion of Adults and Adolescents Living with HIV/AIDS by Mode of Transmission in the District of Columbia, 2008 (N=16,513)

**Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders and Unknown races.**
Numbers of Persons Living with HIV/AIDS among Adults and Adolescents by Ward, District of Columbia, through 2008 (N= 14,132)

<table>
<thead>
<tr>
<th>Ward</th>
<th>Cases (N)</th>
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<tbody>
<tr>
<td>Ward 1</td>
<td>2,165</td>
</tr>
<tr>
<td>Ward 2</td>
<td>1,985</td>
</tr>
<tr>
<td>Ward 3</td>
<td>2,115</td>
</tr>
<tr>
<td>Ward 4</td>
<td>1,463</td>
</tr>
<tr>
<td>Ward 5</td>
<td>2,095</td>
</tr>
<tr>
<td>Ward 6</td>
<td>2,173</td>
</tr>
<tr>
<td>Ward 7</td>
<td>1,888</td>
</tr>
<tr>
<td>Ward 8</td>
<td>2,072</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Cases (N)</th>
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<tbody>
<tr>
<td>Jail</td>
<td>823</td>
</tr>
<tr>
<td>Homeless</td>
<td>395</td>
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Community Viral Load

• Results
  – 7,556 (48.1%) HIV/AIDS cases had at least one VL reported from 2004-2008
  – Mean CVL 55,879 (95%CI: 48,881-62,877) copies/ml
  – Total CVL was 422,176,120 copies/ml

Proportion of Persons Surviving, by Number of Years after AIDS Diagnosis and Race/Ethnicity, District of Columbia, 1998-2006 (N=7,039)

"Other" includes American Indian/Alaskan Native, Native Hawaiian/Pacific Islander and two or more races.
### Syphilis HIV Co-Infections

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
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<td><strong>Sex</strong></td>
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</tr>
<tr>
<td>Male</td>
<td>160</td>
<td>100.0</td>
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<tr>
<td>Total</td>
<td>160</td>
<td>100.0</td>
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<tr>
<td><strong>Race</strong></td>
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<tr>
<td>AI/AN</td>
<td>&lt;3</td>
<td>--</td>
</tr>
<tr>
<td>Asian</td>
<td>&lt;3</td>
<td>--</td>
</tr>
<tr>
<td>Black</td>
<td>86</td>
<td>53.8</td>
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<tr>
<td>Other*</td>
<td>8</td>
<td>5.0</td>
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<tr>
<td>Unknown</td>
<td>3</td>
<td>1.9</td>
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<tr>
<td>White</td>
<td>60</td>
<td>37.5</td>
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<tr>
<td>Total</td>
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<td>100.0</td>
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<tr>
<td><strong>Ethnicity</strong></td>
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<tr>
<td>Non-hispanic</td>
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<td>91.3</td>
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<td>Unknown</td>
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<td>Total</td>
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<td><strong>Age at HIV Diagnosis</strong></td>
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<td>7.5</td>
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<tr>
<td>20-29</td>
<td>51</td>
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<td>50-59</td>
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<td>6.9</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>100.0</td>
</tr>
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</table>

### HIV and Syphilis Co-Infection in the District

- 15.5% of co-infected cases had syphilis diagnosed more than 6 months **before** the HIV diagnosis.
- More than 1/3rd (34.8%) of cases were diagnosed with HIV and syphilis **within** 6 months of each other.
- Nearly half (49.7%) of cases were diagnosed with syphilis more than 6 months **after** the HIV diagnosis.

- HIV-Related Deaths: 46.3%
- Non-AIDS-Defining Malignancies: 25.6%
- Cardiovascular: 12.3%
- Substance Abuse: 6.0%
- Accidental Death: 2.1%
- Other**: 7.1%
- Unknown: 0.5%
Perinatal Infections by Year of Birth in the District of Columbia, 1998-2008 (N=62)
National HIV Behavioral Surveillance Project (NHBS) Heterosexual Cycle (N=750)

HIV Prevalence Rate (%)

New HIV Cases:
* 47% New Diagnosis
* 74% Health Care Visit < 12 months
NHBS MSM Cycle 2008 (N=500)

~Overall Positivity Rate: 14.1%

New HIV Cases:
*41% New Diagnosis
*84% Health Care Visit < 12 months
HIV Prevalence among DC NHBS Study Populations

- Black MSM: 25.0%
- White MSM: 7.7%
- IDU: 13.0%
- Male Heterosexuals: 3.9%
- Female Heterosexuals: 6.3%
- Female Heterosexuals: 3.2%
- Female Heterosexuals: 1.0%
Potential New HIV Prevention Strategies

• Pre-exposure prophylaxis (PrEP)
  • Daily oral FTC-TDF reduced the risk of acquiring HIV infection by 43.8 percent among MSM (p=0.005) (Grant et al.)

• Vaginal microbicides
  • 39% lower HIV incidence in women using Tenofovir vs. placebo (Karim et al)

• Vaccines??
  • 31.2% efficacy in Thai trial of gp120 vaccine

• Male circumcision???
National HIV AIDS
Strategic Goals for 2010

• Reduce new HIV infections

• Increase access to care and improve health outcomes for people living with HIV

• Reduce HIV-related health disparities

• Improve access to prevention and care services for all America
“The Federal government can’t do this alone, nor should it. Success will require the commitment of governments at all levels, businesses, faith communities, philanthropy, the scientific and medical communities, educational institutions, people living with HIV, and others,”

~Barack Obama
The District’s Response to its HIV/AIDS Epidemic
Examples of the DC’s Response

• Implementation of routine opt-out HIV testing
• Data driven programmatic responses
• Partnership for AIDS Progress
  • TLC-Plus
  • DC Cohort
• Community Viral Load
• National HIV/AIDS Strategy
Routine HIV Testing Scale-up in DC

1) June 2006, Testing Campaign
   >50 Partners
   Rapid Test Expansion
   DC Jail

2) Focus on Medical Settings:
   Ask for the Test
   Offer the Test

3) Preliminary Positive?
   Go directly to HIV care
Care and Treatment: The 4R’s

- Recruitment
  - Health System Navigator
  - Red Carpet Entry
- Recapture/Re-engagement
  - Blitz!
- Retention
  - Acuity Scale & MCM Guidelines
- Results
  - Linkages
  - Treatment Promotion
Linkage to Care: Red Carpet Entry Program

- New appointments within the next business day for HIV+ clients who are new or re-engaging in care
- Access to a “Red Carpet Concierge” who can be directly contacted to arrange these appointments
- A phrase new clients use when they arrive so that they can be identified as Red Carpet Entry clients e.g. Dr. White
Results of Comprehensive Testing Initiatives, 2004-2008

- Publically funded testing increased (20K to 90K)
- Identified 17% more HIV/AIDS diagnoses
- Improved rates of linkage to care within 3 months (67% to 80%)
- Higher CD4 at diagnosis (216 to 343 cells/ml)
- Slower progression from HIV to AIDS (47% to 28%)

Castel et al. CROI 2010
Social Marketing

Being in a Relationship Isn’t Always Easy: Know Where You Stand

1. Do we know our HIV status?
2. Is it just the two of us?
3. Do we use condoms?

Know Where You Stand
DC Needle Exchange (DC NEX)

- Announced Jan 2, 2008
- 1 Expert harm reduction group
- 3 Groups “new” to NEX
  - Primary Care, Sex Worker & Street Outreach, Food & Homeless Services
- Early (~6 month) results:
  - 130,000 needles off the streets
  - ~900 persons served
  - >40% linked to detox/treatment
- Issue: Needle Exchange Vans all in same areas

*Acknowledgements:
Prevention Works!, Family Medical Counseling Services, HIPS, Bread for the City*
ADAP Advertising

Advertising Doubled ADAP Enrollment

DC ADAP Enrollment: 2007 -2008

- New Clients
- Enrollment

<table>
<thead>
<tr>
<th>1st Ad Phase</th>
<th>2nd Ad Phase</th>
<th>3rd Ad Phase</th>
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<tbody>
<tr>
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<td>Jan.'08</td>
<td>Aug.'08</td>
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<td>Apr.'07</td>
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<td>Dec. '07</td>
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<td>May '09</td>
</tr>
<tr>
<td>Jan. '08</td>
<td>Nov. '08</td>
<td>June '09</td>
</tr>
</tbody>
</table>

- Media outlets (Print, TV, Radio, Metro): 25
- Number of ads: >9,000
- Average audience: 6.5 million
- Amount spent: $830,000
- Increase ADAP enrollment: 50%
Formation of Innovative Partnerships: Local-Federal

- DC Partnership for AIDS Progress
  - DC DOH-NIH, with GW as Secretariat
  - Objectives:
    - Reduce New HIV Infections
    - Improve Care & Treatment Outcomes
    - Build Resiliency of the Response in DC
DC PFAP Pillars

- Identify populations at high-risk for HIV infection and develop interventions
- Augment city’s HIV-related subspecialty medical care and enhance access to research studies
- Conduct a pilot program to student voluntary test and treat concept to stem new HIV infections
- Establish a city-wide data analysis mechanism to identify and address health issues and outcomes for people receiving HIV care and treatment
HPTN065: TLC-Plus Study

Purpose:

To evaluate the feasibility of an enhanced community-level HIV test, link-to-care plus treat strategy in the U.S.

Five components:

I. Testing
II. Linkage to care
III. Viral suppression
IV. Positive prevention
V. Patient and provider survey
Participating TLC Plus Communities

- Intervention communities
  - Washington DC
  - Bronx, NY

- Comparison communities
  - Houston
  - Philadelphia
  - Chicago
  - Miami
DC Cohort

- Primary Goal: to contribute to improving the quality of care and treatment of HIV-infected patients at large clinics in the District of Columbia.
- 12 participating sites with 10-15,000 patients
- Prospective, multicenter longitudinal cohort with retrospective chart abstraction at enrollment
- Collect socio-demographics, risk factors, treatments, diagnoses, lab and procedures from EMR and data abstraction
Conclusions

• DC facing a very severe and generalized epidemic
  - High rates when compared nationally and internationally
  - Blacks
  - Older age groups
  - MSM and Heterosexuals

• Efforts are underway to use data to drive the development of innovative policies and programs

• Sustained response will hopefully lead to a reduction in incidence and disparities related to HIV disease
Acknowledgements

- **GWU:**
  - Dr. Alan Greenberg
  - Dr. Irene Kuo
  - Dr. Manya Magnus
  - Dr. James Peterson
  - Ms. Sarah Willis

- **DC Department of Health:**
  - Dr. Gregory Pappas
  - Dr. Nnemdi Kamanu-Elias
  - Ms. Tiffany West-Ojo
  - Ms. Angelique Griffin
  - Mr. Michael Kharfen
  - Ms. Rowena Samala
Number of Publically Funded HIV Tests

Start of routine testing expansion

Year

19,766

72,866
Number of New HIV/AIDS Diagnoses

<table>
<thead>
<tr>
<th>Year of Diagnosis</th>
<th>Number of HIV/AIDS Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,106</td>
</tr>
<tr>
<td>2005</td>
<td>933</td>
</tr>
<tr>
<td>2006</td>
<td>1,129</td>
</tr>
<tr>
<td>2007</td>
<td>1,296</td>
</tr>
<tr>
<td>2008</td>
<td>1,100</td>
</tr>
</tbody>
</table>

17% Increase
Time Interval to Entrance into Care Based on CD4 or Viral Load

Year of Diagnosis

Proportion of Cases

- >12 months
- 6-12 months
- 3-6 months
- <3 months

2004: 67%
2005: 
2006: 
2007: 
2008: 80%
Median CD4 Count at Time of HIV/AIDS Diagnosis

Year of Diagnosis:
- 2004: 216
- 2005: 275
- 2006: 296
- 2007: 336
- 2008: 343
Timing of Progression from HIV to AIDS

Year of Diagnosis

Proportion of Cases

- Non-progressors
- >= 12 months
- <12 months

2004: 47%
2005: 47%
2006: 47%
2007: 47%
2008: 47%

2004: 43%
2005: 43%
2006: 43%
2007: 43%
2008: 43%

2004: 28%
2005: 28%
2006: 28%
2007: 28%
2008: 28%