Bronx Community Health Dashboard: HIV and AIDS

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See last slide for more information about this project.
Overview of HIV/AIDS in the Bronx

Disparities exist in early HIV/AIDS detection, but are declining

Bronx residents are being diagnosed with HIV at a lower rate and are living with HIV longer

Bronx residents with lower incomes and less education are more likely to have had an HIV/AIDS test

Bronx residents have the highest likelihood of ever having an HIV/AIDS screening compared to other boroughs

Newly diagnosed Bronx residents equally likely to initiate care, but somewhat less likely to have viral suppression, 2015

AIDS diagnoses are highest in the Bronx amongst non-Hispanic black and males
Fewer people are being newly diagnosed with HIV and AIDS in the Bronx


**HIV Diagnosis**: positive Western blot test in adults and positive PCR (polymerase chain reaction) test in infants <18 months

**AIDS Diagnosis**: HIV-infected and either 1+ AIDS-defining opportunistic illness or a lab test indicating suppressed CD4+ cell counts (<200 cells/µL)
The percent of Bronx residents living with HIV has been steadily increasing over the last 15 years.

New HIV and AIDS diagnoses rates are falling

3 fold decrease in new HIV diagnoses

5 fold decrease in new AIDS diagnoses

The rate of new HIV/AIDS cases is falling but the rate of people living with HIV/AIDS is increasing

HIV Testing
Bronx adult residents more likely to have ever had an HIV/AIDS test compared to other boroughs

Data source: Community Health Survey, 2015. Analysis by Montefiore OCPH. Age results not age-adjusted.
Residents with lower incomes and less education more likely to have ever had an HIV/AIDS test

Data source: Community Health Survey, 2015. Analysis by Montefiore OCPH.
Since 2004, the Bronx has had the highest percentage of people ever getting an HIV/AIDS test.

7 of 10 community districts with highest HIV testing are in the Bronx

HIV Testing

Percent of adults ever tested

- 42 - 56
- 57 - 64
- 65 - 71
- 72 - 83
- Unpopulated areas

Interpret with caution due to small sample size

Source: NYC DOHMH, Community Health Survey, 2011-2013

Data source: NYC Community Health Profiles.

Bronx 75

NYC 62
HIV Diagnoses in the Bronx
HIV diagnosis rate disparities amongst race/ethnicities in the Bronx have fallen 30% over last 14 years


Non-Hispanic black population’s HIV diagnosis rate has fallen 3 fold since 2001 but remains highest of all race/ethnicities in the Bronx
Males in the Bronx have higher rates of HIV diagnoses

Age results not age-adjusted.
3 of 10 community districts with highest rates of HIV diagnoses are in the Bronx

New HIV Diagnoses
Rate per 100,000 population

<table>
<thead>
<tr>
<th>District</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mott Haven &amp; Melrose</td>
<td>15.0</td>
</tr>
<tr>
<td>Hunts Point &amp; Longwood</td>
<td>15.0</td>
</tr>
<tr>
<td>Morrisania &amp; Crotona</td>
<td>15.0</td>
</tr>
<tr>
<td>Highbridge &amp; Concourse</td>
<td>15.0</td>
</tr>
<tr>
<td>Fordham &amp; University Heights</td>
<td>15.0</td>
</tr>
<tr>
<td>Belmont &amp; East Tremont</td>
<td>15.0</td>
</tr>
<tr>
<td>Kingsbridge Heights &amp; Bedford</td>
<td>15.0</td>
</tr>
<tr>
<td>Riverdale &amp; Fieldston</td>
<td>15.0</td>
</tr>
<tr>
<td>Parkchester &amp; Soundview</td>
<td>15.0</td>
</tr>
<tr>
<td>Throgs Neck &amp; Co-op City</td>
<td>15.0</td>
</tr>
<tr>
<td>Morris Park &amp; Bronxdale</td>
<td>15.0</td>
</tr>
<tr>
<td>Williamsbridge &amp; Baychester</td>
<td>15.0</td>
</tr>
</tbody>
</table>

HIV Diagnosis Rate Per 100,000

- Bronx: 39.8
- NYC: 30.4

Data source: NYC Community Health Profiles.

HIV Diagnoses rate in the Bronx is highest and increasing for men who have sex with men

HIV diagnosis rate is highest for females with heterosexual contact in the Bronx


Data values falling below 10 are not displayed on chart.
AIDS Diagnoses in the Bronx

AIDS Diagnosis is defined as:
1). Those diagnosed concurrent with HIV
2). Those who transitioned from HIV to AIDS
The proportion of new HIV-only diagnoses that progressed to AIDS within 2 years decreased 50% in the Bronx between 2006 and 2013.

People are classified as having AIDS if they either have one or more AIDS-defining opportunistic illnesses (based on 1993 CDC case definition) or a laboratory test indicating suppressed CD4+ cell counts (<200 cells/µL).

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
AIDS diagnoses rates are highest amongst non-Hispanic blacks in the Bronx


AIDS Diagnosis: HIV-infected and either 1+ AIDS-defining opportunistic illness or a lab test indicating suppressed CD4+ cell counts (<200 cells/µL)
Males in the Bronx have higher rates of AIDS diagnoses


HIV diagnosis rates pre-2006 are unavailable
In the Bronx, AIDS diagnoses are highest for men who have sex with men

Data source: New York City HIV/AIDS Annual Surveillance Statistics, 2001-2015. Analysis by Montefiore OCPH. MSM-IDU category was not created until 2009; 2002 values for Transgender are not statistically significant.
In the Bronx, AIDS diagnoses are highest for females with heterosexual contact

Data source: New York City HIV/AIDS Annual Surveillance Statistics, 2001-2015. Analysis by Montefiore OCPH. MSM-IDU category was not created until 2009; 2002 values for Transgender are not statistically significant.
HIV/AIDS Related Care in the Bronx
Timely initiation of care among newly diagnosed people with HIV remained steady in the Bronx between 2011 and 2015.

Timely initiation of care is defined as first CD4 or VL drawn within 3 months (91 days) of HIV diagnosis, following a 7-day lag.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Among Bronx residents newly diagnosed with HIV in 2015, Whites were most likely to have timely initiation of care.

**Timely initiation of care is defined as first CD4 or VL drawn within 3 months (91 days) of HIV diagnosis, following a 7-day lag.**
Among Bronx residents newly diagnosed with HIV in 2015, MSM were most likely to have timely initiation of care.

Timely initiation of care is defined as first CD4 or VL drawn within 3 months (91 days) of HIV diagnosis, following a 7-day lag.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Newly diagnosed Bronx residents equally likely to initiate care, but somewhat less likely to have viral suppression, 2015

HIV/AIDS related care by risk category for all of New York City, 2015

Timely Initiation of Care Among Newly Diagnosed, 2015

Viral Suppression* within 12 Months of HIV Diagnosis, 2015

Viral Suppression* Among PLWHA, 2015

%  

MSM | 76  | 65  | 77  | 82  
IDU | 65  | 65  | 76  | 76  
MSM+IDU | 55  | 55  | 61  | 71  
Heterosexual | 74  | 63  | 73  | 75  
TG-SC | 63  | 61  | 66  | 77  

Timely initiating: First CD4 or viral load drawn within 91 days of diagnosis, following a 7-day lag

Viral suppression: Viral load ≤200 copies/mL; PLWHA: People Living with HIV/AIDS

Data source: Care and Clinical Status of People Newly Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. New York City Department of Health & Mental Hygiene, 2016. MSM = men who have sex with men, IDU = injection drug users, TG-SC = transgender-sexual contact.
Among those newly diagnosed with HIV in the Bronx in 2015, 58% achieved viral suppression within 6 months and 69% within 12 months of diagnosis.

Viral suppression is defined as viral load \( \leq 200 \text{ copies/mL} \).

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Among people newly diagnosed with HIV in the Bronx in 2015, Whites were the least likely to have achieved viral suppression within 12 months of diagnosis.

Viral suppression is defined as viral load $\leq 200$ copies/mL.
Among people newly diagnosed with HIV in the Bronx in 2015, MSM were most likely to have achieved viral suppression within 12 months of diagnosis.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Among diagnosed PLWHA in the Bronx, Whites had the highest viral suppression proportion among all racial/ethnic groups.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Among diagnosed PLWHA in NYC, MSM had the highest viral suppression proportion, and people with perinatal transmission risk had the lowest.

Viral suppression is defined as viral load ≤200 copies/mL.

TG-SC = Transgender people with sexual contact.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015. As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
Of approximately 24,100 PLWHA in the Bronx in 2015, 71% had a suppressed viral load.

Data source: Care and Clinical Status of People Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015.
As reported to the New York City Department of Health and Mental Hygiene by June 30, 2016.
HIV/AIDS Mortality in the Bronx
HIV Mortality rates have fallen nearly 4-fold since 2000

Bronx -- 2000: 3rd leading cause of death | 2014: 9th leading cause of death

Data source: Underlying Cause of Death 2000-2015. Analysis by Montefiore OCPH.
Males and 45-64 year olds have highest rates of HIV mortality in the Bronx

Data source: Underlying Cause of Death, 2000-2015. Analysis by Montefiore OCPH. Age-specific rates are not age-adjusted. 25-34 year data unstable after 2006. 65+ data unstable for all years.
Bronx 45-54 year old male and females with HIV have the highest mortality rates

Bronx males 45-54 had highest HIV mortality rates until 2010 when the 55-64 age group surpassed.

Bronx females 45-54 have the highest mortality rates until 2010.

Data source: Underlying Cause of Death, 2000-2015. Analysis by Montefiore OCPH. Age-specific rates are not age-adjusted. 25-34 and 65+ year data for male and female unstable for all years.
HIV/AIDS mortality rates are highest for non-Hispanic blacks in the Bronx

Morrisania has had the highest rate of HIV/AIDS Mortality but in 2014, East Tremont surpassed Morrisania

Hunts Point, Riverdale, Throgs Neck, Pelham Parkway are statistically unstable.
There are dramatic disparities in all-cause mortality among people living HIV/AIDS in the Bronx.

Note: Different analysis approach from previous slides.


MSM = men who have sex with men, IDU = injection drug users. Not age-adjusted.
Technical notes – NYC HIV Care Continuum

“HIV-infected”: calculated as “HIV-diagnosed” divided by the estimated proportion of people living with HIV/AIDS (PLWHA) who had been diagnosed (94.2%), based on a back-calculation method.


“HIV-diagnosed”: calculated as PLWHA “retained in care” plus the estimated number of PLWHA who were out of care, based on a statistical weighting method. This estimated number aims to account for out-migration from NYC, and therefore is different from the number of PLWHA published elsewhere.


“Retained in care”: PLWHA with ≥1 VL or CD4 count or CD4 percent drawn in 2015, and reported to NYC HIV surveillance.

Source: NYC HIV Surveillance Registry.

“Prescribed ART”: calculated as PLWHA “retained in care” multiplied by the estimated proportion of PLWHA prescribed ART in the previous 12 months (95.5%), based on the weighted proportion of NYC Medical Monitoring Project participants whose medical record included documentation of ART prescription.


“Virally suppressed”: calculated as PLWHA in care with a most recent viral load measurement in 2015 of ≤200 copies/mL, plus the estimated number of out-of-care 2015 PLWHA with a viral load ≤200 copies/mL, based on a statistical weighting method.

About the Community Health Dashboard Project

- The goal of the project is to provide Bronx-specific data on risk factors and health outcomes with an emphasis on presenting data on trends, socio-demographic differences (e.g., by age, sex, race/ethnicity, etc.) and sub-county/neighborhood level data.

- Data will be periodically updated as new data becomes available.

- Produced by Montefiore’s Office of Community & Population Health using publicly-available data sources.

- For more information please contact Colin Rehm, PhD, Manager of Research & Evaluation (crehm@montefiore.org).