Community Health Assessment at the New York City Department of Health and Mental Hygiene

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Division of Epidemiology
Background – Public Health Surveillance

“Ongoing and systematic collection, analysis, and interpretation of outcome-specific data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know”
Background -- Community Health Assessment

- Community-specific
- Across outcomes
- Integral part of planning/evaluation
- Expanded definition of “Those who need to know”
“Community”
Geography of New York City

• Census-based

• Zip-code based

• Other . . .
NYC geography – census-based

- Blocks (~30,000)
- Block groups (~6,000)
- Tracts (~2,200)
  - Pop ~4,000
- Community Districts (59)
  - Pop ~125,000
NYC geography – zip based

• Zip codes (~185)
  – Pop ~45,000

• United Hospital Fund neighborhoods
  – Pop ~200,000
Census Tracts
(n~2,200)
Zip codes (n~185)
UHF neighborhoods (n=42)
Community Districts (n=59)
Geography of health in New York City
Small-number issues

- Estimates of disease or mortality rates based on small numerators are “unstable”
- Great year-to-year or neighborhood-to-neighborhood variability
- Difficult or impossible to interpret
Example: infant mortality

Infant mortality

per 1,000 live births

1998 (n=6) 1999 (n=11) 2000 (n=5) 2001 (n=10)

- Brooklyn CD#2
- NYC
Strategies for small-numerator analyses

• Don’t do them
• Group by time or space
• Estimate small areas based on larger areas or based on demographic characteristics (“synthetic estimation”)
• Smoothing
Current asthma among adults, NYC Community Health Survey 2002

Percent

Borough Park
407 SW Queens
307/309 Upper East Side-Gramercy
101 NE Bronx
205/206 Sunset Park
303 East Harlem
501/502 Northern SI

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407 SW Queens
307/309 Upper East Side-Gramercy
101 NE Bronx
205/206 Sunset Park
303 East Harlem
501/502 Northern SI
Risk factors for HIV

1–5%  
5–10%  
10–13%

Chelsea-Greenwich Village
Lower Manhattan
Western Queens-Long Island City
South Bronx
Data Sources – NYC DOHMH

- Registries – all individuals meeting certain characteristics
  - Vital Records (births and deaths)
    - Age, Race/ethnicity, geography, cause of death
    - ~100,000 births / 60,000 deaths per year
  - Immunization
  - Lead poisoning
Data Sources – NYC DOHMH

- Surveillance – individuals meeting case definition for reportable conditions
  - HIV/AIDS, West Nile virus, STDs, Salmonella
- Variable quality of demographic data
Data Sources – non-DOHMH

• U.S. Census
• New York State hospitalization database
• National databases (BRFSS, NHANES, NHIS)
New York City Community Health Survey

- Telephone survey
- Modeled on the national BRFSS
- 10,000 respondents, May-June 2002
- 33 areas
- Wide range of health conditions and behaviors
- Languages: English, Spanish, Russian, Cantonese, Mandarin, Korean, Creole, Yiddish, Greek
Results from the 2002 NYC Community Health Survey
Sex in the City:
More HIV Testing and Condom Use Needed!

Sexually transmitted infections, including HIV, are among the most common, serious, and preventable infections affecting New Yorkers. More than 100,000 New Yorkers are living with HIV. More than 80,000 new cases of other sexually transmitted infections were reported in 2002. Many sexually transmitted infections remain undiagnosed, as these infections are often without symptoms. Infections caused by chlamydia, gonorrhea, human papillomavirus, syphilis, and genital herpes put New Yorkers at risk for infertility, cervical cancer, and other serious health problems. Having any sexually transmitted infection increases the risk for acquiring or transmitting HIV during unprotected sex.

According to a recent Department of Health and Mental Hygiene survey, most New Yorkers had only one sex partner in the past 12 months. But those with multiple (2 or more) sex partners reported inconsistent condom use and relatively low levels of HIV testing. Knowing your HIV status is fundamental to preventing the spread of HIV. For sexually active persons, the best way to prevent sexual transmission of infection is through consistent use of latex condoms during vaginal, anal, and oral sex.

Data presented in this report are based on the 2002 New York City Community Health Survey, a telephone survey of 10,000 New Yorkers age 18 years and older representing every community in New York City.

For full survey details, see: nyc.gov/health/survey.

Most adult New Yorkers reported only one sex partner* in the past year
Number of sexual partners in past year

![Bar chart showing the number of sexual partners in the past year for New Yorkers, divided by gender and number of partners.](image)

- Men:
  - 13 partners (0)
  - 65 partners (1)
  - 14 partners (≥ 3)

- Women:
  - 23 partners (0)
  - 69 partners (1)
  - 6 partners (2)

Legend:
- Red: ≥ 3
- Pink: 2
- Light pink: 1
- Blue: 0
More HIV testing is needed among those with multiple sex partners

Percent of adults recently tested* for HIV by number of sex partners

Percent recently tested for HIV

Number of sex partners in the past year

- 0: 17%
- 1: 27%
- 2: 30%
- ≥3: 34%
<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Those with ≥3 sex partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (% of adults)</td>
<td>36</td>
<td>58</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men (MSM)</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>Men (non-MSM)</td>
<td>38</td>
<td>61</td>
</tr>
<tr>
<td>Women</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24</td>
<td>61</td>
<td>73</td>
</tr>
<tr>
<td>25–44</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>45–64</td>
<td>24</td>
<td>40</td>
</tr>
</tbody>
</table>
### New Yorkers with risk factors* for HIV

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>344,000</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men (MSM)</td>
<td>21</td>
<td>41,000</td>
</tr>
<tr>
<td>Men (non-MSM)</td>
<td>9</td>
<td>146,000</td>
</tr>
<tr>
<td>Women</td>
<td>6</td>
<td>143,000</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>6</td>
<td>67,000</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>8</td>
<td>139,000</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8</td>
<td>111,000</td>
</tr>
<tr>
<td>Asian/Other</td>
<td>4</td>
<td>26,000</td>
</tr>
<tr>
<td><strong>Age (in years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24</td>
<td>10</td>
<td>80,000</td>
</tr>
<tr>
<td>25–44</td>
<td>7</td>
<td>184,000</td>
</tr>
<tr>
<td>45–64</td>
<td>5</td>
<td>80,000</td>
</tr>
</tbody>
</table>
HIV testing is low in neighborhoods where more persons report HIV risk factors.
NYC DOHMH Community Health Profiles
Goals

• Provide community-level health information
• Compile health information from many sources into a clear, concise format
• Focus on preventable causes of illness and death
• Bring data to communities
Compilation of the Profiles

• 42 neighborhoods, based on previously used aggregations of zip codes (from the United Hospital Fund)

• Data on:
  – Causes of death and hospitalization
  – Prevalence of certain health conditions
  – Healthy and unhealthy behaviors
Data sources

- NYC Community Health Survey (NYC DOHMH)
- Vital Records (NYC DOHMH)
  - Births
  - Deaths
- Hospitalizations (NYSDOH SPARCS)
- Surveillance (NYC DOHMH)
  - HIV/AIDS
  - Lead poisoning
- U.S. Census (NYC Dept of City Planning)
Uses of the Profiles

- Understanding health issues
- Prioritizing health issues
- Putting numbers to impressions
- Grant-writing
- Advocacy
- Education
Community Health Profiles

The Health of Northeast Queens

(Including Bayside, Douglaston, Little Neck, and Oakland Gardens)

The Health of Highbridge and Morrisania

Bronx
Highbridge/Morrisania:
- Hispanic: 57%
- African-American: 38%
- White: 1%
- Other race: 1%
- 2 or more races: 1%

Northeast Queens:
- White: 60%
- Asian: 27%
- African-American: 2%
- Hispanic: 9%
- Other race: <1%

3 in 10 residents of Highbridge and Morrisania were born outside the U.S.
(Top 3 countries of origin: Dominican Republic, Honduras, Jamaica)

Highbridge and Morrisania: 30% foreign-born
New York City: 36% foreign-born

More than one third of Northeast Queens residents were born outside the U.S.
(Top 3 countries of origin: Korea, China, Taiwan)

Northeast Queens: 35% foreign-born
New York City: 36% foreign-born
## Leading Causes of Death in Highbridge and Morrisania, 2001

<table>
<thead>
<tr>
<th></th>
<th>Highbridge and Morrisania</th>
<th>New York City</th>
<th>Highbridge/Morrisania compared to NYC as a whole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of deaths</td>
<td>Death rate (per 100,000 people)*</td>
<td>Death rate (per 100,000 people)*</td>
</tr>
<tr>
<td>All causes</td>
<td>1,334</td>
<td>1,119</td>
<td>736</td>
</tr>
<tr>
<td>Heart disease</td>
<td>316</td>
<td>307</td>
<td>304</td>
</tr>
<tr>
<td>Cancer</td>
<td>291</td>
<td>249</td>
<td>167</td>
</tr>
<tr>
<td>AIDS</td>
<td>118</td>
<td>74</td>
<td>22</td>
</tr>
<tr>
<td>Pneumonia and influenza</td>
<td>67</td>
<td>65</td>
<td>32</td>
</tr>
<tr>
<td>Diabetes</td>
<td>57</td>
<td>50</td>
<td>22</td>
</tr>
<tr>
<td>Accidents and injuries</td>
<td>44</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>Homicide</td>
<td>42</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>Chronic lung disease</td>
<td>41</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>Stroke</td>
<td>41</td>
<td>35</td>
<td>24</td>
</tr>
<tr>
<td>Drug-related</td>
<td>41</td>
<td>25</td>
<td>10</td>
</tr>
</tbody>
</table>

*Age-adjusted
# Leading Causes of Death in Northeast Queens, 2001

<table>
<thead>
<tr>
<th></th>
<th>Northeast Queens</th>
<th>New York City</th>
<th>Northeast Queens compared to NYC as a whole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of deaths</td>
<td>Death rate (per 100,000 people)*</td>
<td>Death rate (per 100,000 people)*</td>
</tr>
<tr>
<td>All causes</td>
<td>571</td>
<td>480</td>
<td>736</td>
</tr>
<tr>
<td>Heart disease</td>
<td>312</td>
<td>255</td>
<td>304</td>
</tr>
<tr>
<td>Cancer</td>
<td>127</td>
<td>109</td>
<td>167</td>
</tr>
<tr>
<td>Chronic lung disease</td>
<td>19</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Pneumonia and influenza</td>
<td>18</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>Diabetes</td>
<td>12</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Neurologic disease and dementia</td>
<td>12</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

*Age-adjusted
More than 2,500 years of potential life were lost before age 75 in Northeast Queens in 2001

Heart disease and stroke: 29%
777 years lost

Cancer: 28%
734 years lost

Other causes of death: 43%
1,142 years lost

More than 19,000 years of potential life were lost before age 75 in Highbridge and Morrisania in 2001

AIDS: 17%
3,393 years lost

Cancer: 16%
3,188 years lost

Heart disease and stroke: 13%
2,539 years lost

Other causes: 40%
7,934 years lost

Violence: 14%
2,879 years lost
### Leading Causes of Hospitalization in Adults in Highbridge and Morrisania, 2001

<table>
<thead>
<tr>
<th></th>
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<tr>
<td></td>
<td>No. of admissions</td>
<td>Admission rate (per 100,000 people)*</td>
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</tr>
<tr>
<td>All causes</td>
<td>26,223</td>
<td>23,331</td>
<td>14,140</td>
</tr>
<tr>
<td>Heart disease</td>
<td>2,203</td>
<td>2,413</td>
<td>1,744</td>
</tr>
<tr>
<td>Drug-related</td>
<td>2,118</td>
<td>1,544</td>
<td>492</td>
</tr>
<tr>
<td>Accidents and injuries</td>
<td>1,849</td>
<td>1,661</td>
<td>1,209</td>
</tr>
<tr>
<td>Mental Illness</td>
<td>1,294</td>
<td>1,005</td>
<td>671</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>947</td>
<td>744</td>
<td>167</td>
</tr>
<tr>
<td>Alcohol-related</td>
<td>892</td>
<td>713</td>
<td>387</td>
</tr>
<tr>
<td>Asthma</td>
<td>804</td>
<td>708</td>
<td>262</td>
</tr>
<tr>
<td>Cancer</td>
<td>774</td>
<td>815</td>
<td>654</td>
</tr>
<tr>
<td>Diabetes</td>
<td>746</td>
<td>719</td>
<td>328</td>
</tr>
<tr>
<td>Pneumonia and influenza</td>
<td>689</td>
<td>707</td>
<td>433</td>
</tr>
</tbody>
</table>

*Age-adjusted
### Leading Causes of Hospitalizations in Adults in Northeast Queens, 2001

<table>
<thead>
<tr>
<th>Cause</th>
<th>Northeast Queens</th>
<th>New York City</th>
<th>Northeast Queens compared to NYC as a whole</th>
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<tr>
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<tr>
<td>All causes</td>
<td>4,645</td>
<td>6,006</td>
<td>14,140</td>
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<td>578</td>
<td>672</td>
<td>1,744</td>
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<tr>
<td>Accidents and injuries</td>
<td>511</td>
<td>649</td>
<td>1,209</td>
</tr>
<tr>
<td>Cancer</td>
<td>329</td>
<td>406</td>
<td>654</td>
</tr>
<tr>
<td>Mental Illness</td>
<td>175</td>
<td>246</td>
<td>671</td>
</tr>
<tr>
<td>Stroke</td>
<td>134</td>
<td>153</td>
<td>379</td>
</tr>
<tr>
<td>Pneumonia and influenza</td>
<td>131</td>
<td>149</td>
<td>433</td>
</tr>
<tr>
<td>Drug-related</td>
<td>81</td>
<td>126</td>
<td>492</td>
</tr>
<tr>
<td>Diabetes</td>
<td>78</td>
<td>94</td>
<td>328</td>
</tr>
<tr>
<td>Chronic lung disease</td>
<td>70</td>
<td>82</td>
<td>193</td>
</tr>
<tr>
<td>Alcohol-related</td>
<td>62</td>
<td>92</td>
<td>387</td>
</tr>
</tbody>
</table>

*Age-adjusted
HIV/AIDS in Highbridge and Morrisania, 2001

Number of people newly diagnosed with HIV  389
Number of people living with HIV/AIDS  3,233

HIV/AIDS in Northeast Queens, 2001

Number of people newly diagnosed with HIV  less than 10
Number of people living with HIV/AIDS  92
Women receiving late or no prenatal care, 2001

- Highbridge and Morrisania: 35%
- New York City: 30%
- National goal: Less than 10%

Women receiving late or no prenatal care, 2001

- Northeast Queens: 22%
- New York City: 50%
- National goal: Less than 10%

Babies born with low birthweight, 2001
(<2,500 grams/5.5 lbs)

- Highbridge and Morrisania: 10%
- New York City: 8%
- National goal: Less than 5%

Babies born with low birthweight, 2001
(<2,500 grams/5.5 lbs)

- Northeast Queens: 5%
- New York City: 8%
- National goal: Less than 5%

Infant mortality, 1999-2001

- Highbridge and Morrisania: 7.0
- New York City: 6.2
- National goal: Less than 4.5

Infant mortality, 1999-2001

- Northeast Queens: 5.1
- New York City: 6.2
- National goal: Less than 4.5
Nearly one third of adults in Highbridge and Morrisania smoke . . .

- Highbridge and Morrisania: 29%
- New York City: 22%

Most are trying to quit:

- Highbridge and Morrisania: 62%
- New York City: 57%

One fifth of adults in Northeast Queens smoke . . .

- Northeast Queens: 20%
- New York City: 22%

Most are trying to quit:

- Northeast Queens: 56%
- New York City: 57%
Access to medical care in Highbridge and Morrisania

- No health coverage: 9 (Highbridge and Morrisania), 12 (New York City)
- Needed care but did not receive it: 9 (Highbridge and Morrisania), 10 (New York City)
- No personal doctor: 33 (Highbridge and Morrisania), 25 (New York City)

Access to medical care in Northeast Queens

- No health coverage: 14 (Northeast Queens), 12 (New York City)
- Needed care but did not receive it: 6 (Northeast Queens), 10 (New York City)
- No personal doctor: 19 (Northeast Queens), 25 (New York City)
Addressing Health Disparities in New York City

• District Public Health Offices
  – Brooklyn (Bedford-Stuyvesant and Bushwick)
  – East and Central Harlem
  – South Bronx