Bronx Community Health Dashboard:
Asthma

Last Updated: 9/24/2019

See end of presentation for more information about this project and links to data sources.
Asthma is the 2nd leading cause of disability in the US among children 5-14y

Disability-Adjusted Life Years (DALYs) are calculated by adding the Years of Life Lost due to premature mortality in the population and the Years Lost due to disability for people living with the health condition or its consequences.
Child & adolescent asthma

Lifetime prevalence | Current asthma | Asthma severity | Asthma ED visits | Asthma hospitalizations
The Bronx has the highest percentage of children 0-12 years old who have ever been diagnosed with asthma; within the Bronx, asthma is more common among boys.

The Bronx has the second highest percentage of children 0-12 years old currently with asthma; within the Bronx, current asthma is higher among boys.
The Bronx has the highest percentage of teens who have ever been diagnosed with asthma; within the Bronx, asthma is higher among boys.

Data source: New York City Youth Risk Behavior Survey, 2017
Asthma rates among public school children aged 5-14 years old have increased in all 5 NYC boroughs and remain highest in the Bronx.


Rates are calculated by residence of the child. Use of a denominator consisting of all 5-14 year olds results in an underestimate of the true asthma prevalence, since the numerator represents only children enrolled in public schools that report to NYC DOHMH.
Persistent asthma rates among public school children aged 5-14 years old have increased in all 5 NYC boroughs and remain highest in the Bronx.

<table>
<thead>
<tr>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
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</thead>
<tbody>
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<td>Bronx</td>
<td>24.6</td>
<td>28.4</td>
<td>32.2</td>
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<tr>
<td>Brooklyn</td>
<td>15.1</td>
<td>16.8</td>
<td>18.1</td>
</tr>
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<td>Manhattan</td>
<td>13.5</td>
<td>14.7</td>
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<tr>
<td>Queens</td>
<td>12.3</td>
<td>15.1</td>
<td>17.4</td>
</tr>
<tr>
<td>Staten Island</td>
<td>13.8</td>
<td>16.1</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Rates are calculated by residence of the child. Use of a denominator consisting of all 5-14 year olds results in an underestimate of the true asthma prevalence, since the numerator represents only children enrolled in public schools that report to NYC DOHMH.

Data source: New York City Automated School Health Records (2010-2014), data from New York City DOHMH Environment & Health Data Portal
Asthma-related ED visit rates among children up to 4 years old have remained stable in the Bronx, but declined in all other NYC boroughs.

Data source: SPARCS Hospital Discharge Data (2005-2016), data from New York City DOHMH Environment & Health Data Portal
An ED visit is included if it has an ICD-9 principal diagnosis code of 493.
The asthma-related ED visit rate among children 5 to 17 years old has increased by 45% in the Bronx.

Data source: SPARCS Hospital Discharge Data (2005-2016), data from New York City DOHMH Environment & Health Data Portal

An ED visit is included if it has an ICD-9 principal diagnosis code of 493.
Asthma-related hospitalization rates among children up to 4 years old have declined in all 5 NYC boroughs; and remain highest in the Bronx.

Data source: SPARCS Hospital Discharge Data (2003-2016), data from New York City DOHMH Environment & Health Data Portal. A hospitalization is included if it has an ICD-9 principal diagnosis code of 493.
Asthma-related hospitalization rates among children 5 to 17 years old remain highest in the Bronx

Data source: SPARCS Hospital Discharge Data (2004-2016), data from New York City DOHMH Environment & Health Data Portal

A hospitalization is included if it has an ICD-9 principal diagnosis code of 493.
The Bronx has the highest child asthma hospitalization rates in NYC

Data source: SPARCS Hospital Discharge Data (2014), data from New York City Neighborhood Health Atlas

The highest rates are in these Bronx Neighborhoods
- Mott Haven-Port Morris
- Claremont-Bathgate
- East Tremont
- Bedford Park-Fordham North
- Hunts Point
- Bronxdale

The map shows the distribution of child (4-14y) asthma hospitalizations per 100,000. The rates are age-adjusted and include principal diagnosis of ICD-9 code 493. Grey areas are parks, cemeteries, airports, other low population areas, or neighborhoods with a small number of events.
Adult asthma

Lifetime prevalence | Current asthma | Asthma ED visits | Asthma hospitalizations
The percent of adults in the Bronx who have ever been diagnosed with asthma has remained relatively stable.

Data missing for 2005 and 2015.
In the Bronx, the percent of adults ever diagnosed with asthma is highest amongst those who are 45-64y, female, or Hispanic.

Age-adjusted percent (%) of adults who have ever been told by a doctor, nurse or other health professional that they had asthma:

- 18-24: 18.2%
- 25-44: 13.0%
- 45-64: 21.9%
- 65+: 17.0%
- Male: 13.9%
- Female: 19.4%
- Hispanic: 19.7%
- Non-Hispanic black: 15.6%
- Non-Hispanic white: 13.1%

Data source: New York City Community Health Survey, 2017.

Age group data are not age-adjusted.

There were no clear trends by education or income among adults.
The percent of adults currently with asthma has generally been highest in the Bronx, only surpassed by Staten Island in 2014.

In the Bronx, the percent of adults currently with asthma is highest among those who are 45-64y, female, or Hispanic.

Data source: New York City Community Health Survey, 2017.

For 18-24 age group, data are suppressed due to imprecise and unreliable estimates.

*Unreliable estimate due to small sample size, interpret with caution.
Asthma-related ED visit rates among adults are almost two-times greater than the rest of NYC.


An ED visit is included if it has an ICD-9 principal diagnosis code of 493.
Asthma-related hospitalization rates among adults are also considerably higher in the Bronx

Data source: SPARCS Hospital Discharge Data (2003-2014), data from New York City DOHMH Environment & Health Data Portal

A hospitalization is included if it has an ICD-9 principal diagnosis code of 493.
The Bronx and Harlem have the highest rates of preventable asthma hospitalizations among NYC adults.

Data source: SPARCS Hospital Discharge Data (2014), data from New York City Neighborhood Health Atlas

The highest rates are in these Bronx Neighborhoods:
- Mott Haven-Port Morris
- Claremont-Bathgate
- Melrose South-Mott Haven North
- Longwood
- Hunts Point
Risk factors

Obesity | Housing quality | Smoking | Air quality
The Bronx has the highest percentage of obese youth compared to all NYC boroughs

The Bronx has the highest percentage of obese adults of all NYC boroughs


Body Mass Index (BMI) is calculated based on respondents self-reported weight and height.

A BMI of $\geq 30$ is classified as obese.
The percent of homes with mice or rats remains highest in the Bronx.

Data source: New York City Housing and Vacancy Survey (1999-2014), data from New York City DOHMH Environment & Health Data Portal
The Bronx neighborhood with the highest percentage of homes with mice or rats in the building is University Heights/Fordham.

Data source: New York City Housing and Vacancy Survey (2014), data from New York City DOHMH Environment & Health Data Portal
The percent of homes with cockroaches has decreased in all 5 NYC boroughs since 2008, yet remains highest in the Bronx.

The Bronx neighborhood with the highest percentage of homes with cockroaches is University Heights/Fordham.

Data source: New York City Housing and Vacancy Survey (2014), data from New York City DOHMH Environment & Health Data Portal
The Bronx has the highest percentage of adults reporting mold in the home

Data source: New York City Community Health Survey (2012), data from New York City DOHMH Environment & Health Data Portal
The Bronx neighborhood with the highest percentage of adults reporting mold in the home is Fordham – Bronx Park.

Data source: New York City Community Health Survey (2012), data from New York City DOHMH Environment & Health Data Portal.
The percent of current adult smokers across New York City has fallen since 2002, but remains highest for Staten Island.

Staten Island 2010 data is likely an underestimate of the true prevalence of smoking due to random sampling variation.
Despite having middle of the road smoking rates, the percent of adults reporting second-hand smoke is highest in the Bronx.

Data source: New York City Community Health Survey (2004-2012), data from New York City DOHMH Environment & Health Data Portal
The Bronx neighborhood with the highest percentage of adults reporting second-hand smoke in the home is South Bronx.
Fine particulate concentrations are, on average, second highest in the Bronx, although they have improved across NYC.

Potential risk factors for which there is evidence of an association with asthma, but no data available for the Bronx

- Pets (exposure to pet dander exacerbates asthma)
- Pollen (exposure to pollen exacerbates asthma)
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 us at OCPHDept@montefiore.org
Links to data sources

- Global Burden of Disease Project: https://vizhub.healthdata.org/gbd-compare/
- New York City Community Health Survey: https://a816-healthpsi.nyc.gov/epiquery/CHS/CHSXIndex.html
- New York City Youth Risk Behavior Survey: https://a816-healthpsi.nyc.gov/epiquery/YRBS/yrbsIndex.html