

NewYork-Presbyterian Performing Provider System (PPS)

Community Needs Assessment

New York State Delivery System Reform Incentive Payment (DSRIP) Program

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Executive Summary

New York State has embarked on a pathway to achieving the Triple Aim. The State's Delivery System Reform Incentive Program (DSRIP) aims to transform the Medicaid delivery system to provide better care, better health and lower costs. NewYork-Presbyterian (NYP) has joined with the State and multiple regional collaborators to improve the health of the communities they serve. In 2008, recognizing that population health management provided opportunities for improving community health while reducing costs, NewYork-Presbyterian launched the Washington Heights-Inwood Health Initiative, which has blossomed into a Regional Health Collaborative model that has demonstrated measurable improvements in health while reducing emergency room and inpatient admissions for community residents suffering from Ambulatory Care Sensitive Conditions.

NYP's efforts in population health have been grounded in community needs assessments and healthcare gaps analyses that have informed multifaceted and coordinated interventions driven by regional collaborators in the spirit of collective impact and have been tracked closely with process and outcome indicators. This Community Needs Assessment represents the foundation of the next generation of population health management for NewYork-Presbyterian.

New York-Presbyterian Hospital serves patients from New York City and New York State, as well as individuals who travel from elsewhere in the United States and internationally. For this community needs assessment, we selected the core zip codes of Medicaid patients served by NewYork-Presbyterian Hospital's three New York City campuses: Lower Manhattan Hospital (LM), and Weill Cornell Medical Center (WCMC)

and Columbia University Medical Center (CUMC). Given the widely variable populations, socio-economic conditions, and clear identification with hospital campuses, the community needs assessment provides information in stratified fashion.

The key findings from each section of the document are summarized in this section.

Preliminary Attribution

Based on the preliminary attribution maps, NYPH serves Medicaid patients throughout Manhattan, Bronx, Brooklyn, and Queens. The CUMC campus serves a geographically well-defined community in Northern Manhattan and the Southwest Bronx. WCMC and LM serve geographically broader communities throughout these four boroughs. Each serves a local Manhattan community geographically close to the hospital (Upper East Side and East Harlem for WCMC; below 14th street for LM). In addition, WCMC draws patients from throughout Western Queens and the Bronx, and LM draws patients from throughout Brooklyn.

In this population, we found the following:

Pediatrics.

The most common five diseases in children were as follows:

- Persistent Asthma (3508 children; 16%)
- Developmental Delay (1905 children; 9%)
- Vision Problems (1257 children; 6%)
- ADD (976 children; 4%)
- Hearing Problems (551 children; 2%)

One in eight children potentially attributed to the NYP-PPS had chronic diseases with medical complexity (2796 of 22,124 in this cohort).

Utilization of health services was highest among young children, and among children with chronic disease and medical complexity.

Adults.

The five most common diseases in adults were as follows:

- Hypertension (16,622 adults; 37%)
- High Cholesterol (13,510 adults; 30%)
- Low Back Pain (9186 adults; 21%)
- Diabetes (8546 adults; 19%)
- Depression (8100 adults; 18%)

Ai and Aii. Health Care Resources and Community Based Resources

Residents of NYP PPS have access to a wide array of health services. However, some gaps in the services provided were noted in this analysis:

- The rates of unplanned readmissions were higher than the national average at all but two of the local hospitals
- No programs in the area focus solely on eating disorders
- There is only one program center in the LM region that focuses on autism spectrum diagnosis/intervention
- There are no safety net adult care facilities in the LM or CUMC regions
- There are no safety net assisted living facilities LM or CUMC regions
- East Harlem has no urgent care centers.
- Less than half of general physicians, pediatricians, and OB/GYN specialties in the WCMC region accept Medicaid.
- There are no federally qualified health centers in the Upper East Side.
- There are no safety net pharmacies located in the Upper East Side.
- Only one durable medical equipment location was found in the WCMC area.

Residents of NYP PPS have access to a wide array of community-based resources. Nonetheless, some gaps in the services provided were noted:

- There are no furniture banks in the area
- There is no National Alliance on Mental Illness office in the area
- There are no peer and family mental health advocacy organizations in the Upper East Side
- There are no alternatives to incarceration programs in the Upper East Side
- There are no specific Ryan White programs in Western Queens or in the Upper East Side, though there are several in East Harlem
- There is only one family support and training service located in the area
- There are no recovery coach services in the CUMC area
- There are no peer and family mental health advocacy organizations in the Upper East Side
- There is only one peer support service available in the LM area

Aiii. Domain 2: Preventable Hospitalizations

Pediatrics, Potentially Preventable Hospitalizations (PDIs)

- In pediatrics, the largest burden of preventable hospitalizations is for children with asthma.
- The largest potential gap in pediatric asthma care is in the Bronx, though there are also notable gaps in Manhattan and Queens.

Adults, Potentially Preventable Hospitalizations (PQIs)

- Among adults, the five conditions with the largest burden of potentially preventable hospitalizations are:
 - COPD / Asthma in older adults
 - Heart Failure
 - Diabetes (Long Term Complications)
 - Urinary Tract Infections
 - Bacterial Pneumonia
- Southwest Bronx and East Harlem have the largest potential gaps in care.
- Though many of the neighborhood rates of potentially preventable admissions are lower than the risk adjusted state average, there remain several opportunities to reduce rates to New York State's goal of a 25% reduction.

Potentially Preventable Readmissions

- NewYork-Presbyterian has fewer potentially preventable readmissions compared to the state average, but more than the state goal of a 25% reduction.

Potentially Preventable Emergency Department Visits

The largest number of potentially preventable emergency department visits are among residents of South West Bronx and Northern Manhattan.

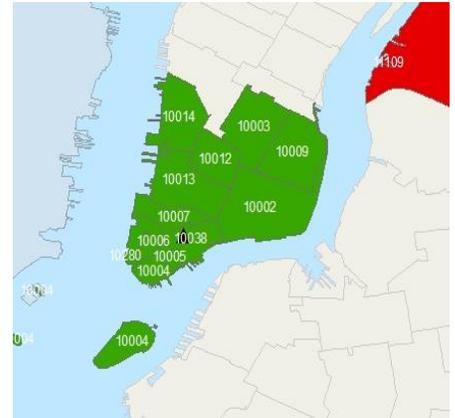
In six out of eight neighborhoods, the observed rate of preventable emergency room visits rate was larger than expected (South West Bronx, Lower East Side, Lower Manhattan, Greenwich Village and Soho, East Harlem, Upper East Side)

Bi. Description of Communities

Lower Manhattan Campus

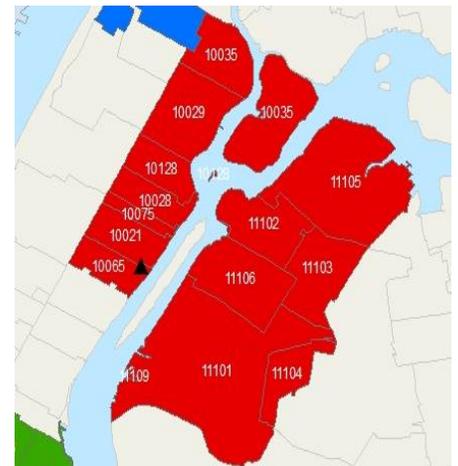
Based on the most recent U.S. Census Bureau data available, there are a total of 336,000 people who live in the Lower Manhattan region. The median household income for this community is between \$50,000 and \$74,999 per year.

Twenty-five percent of the LM region is of Asian descent, with the vast majority (75%) of Chinese origin. In addition, 30% of the total population in the LM region is foreign born. There are 86,522 patients with Medicaid who live in the LM area. Approximately 9% of the population does not have health insurance.



Weill Cornell Medical Center Campus

There are a total of 524,000 people who live in the Weill Cornell Medical Center campus region. This region includes the communities of the Upper East Side of Manhattan, East Harlem, and Northwest Queens. The median household income for this community is between \$50,000 and \$74,999 per year. Twenty-five percent of the WCMC region is of Hispanic descent, with an additional 11% African American and 11% Asian/Pacific

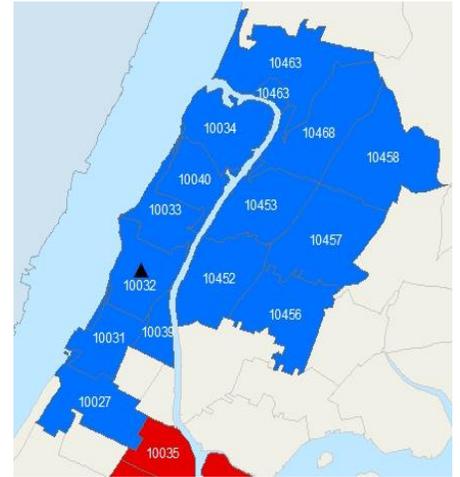


Islander. Thirty-one percent of the total population in the WCMC region is foreign born. English is the predominant language spoken in these communities; however, 22% of the population report Spanish as their primary language. There are 125,267 patients with

Medicaid who live in the WCMC area. Approximately 13% of the population does not have health insurance.

Columbia University Medical Center Campus

There are a total of 870,000 people who live in the Columbia University Medical Center campus region. This region includes the communities of the Washington Heights, Inwood, Harlem, and portions of the Southwest Bronx. The median household income



for this community is between \$25,000 and \$34,999 per year. Sixty-one percent of the CUMC region is of Hispanic descent, and 31% are African American. Forty percent of the total population in the CUMC region is foreign born. Spanish is the predominant language spoken in these communities (55%); however, 35% of the population report English as their primary language. There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. Approximately 18% of the population does not have health insurance.

Bii. Health Status of the Population

Leading causes of death

- Diseases of the heart and malignant neoplasms (cancer) are the leading causes of death in New York City, independent of gender, race/ethnicity, and borough.

Maternal and child health

- The infant mortality rate in New York City (4.7 deaths per 1,000 live births in 2012) is lower than the national average (6.15). However, the rate is still higher than rates in other large Western Democracies (France, 3.3; Germany, 3.5)

Health Risk Factors

- Obesity affects 30% of the population of the Bronx and Brooklyn.
- Obesity in NYC has increased from 17.8% of adults (18 and older) in 2002 to 24.1% in 2012
- 15.5% of the adult population self-reported as being current smokers
- The East and Central Harlem neighborhoods have the highest rate of heavy drinkers at 8.2%

Rates of selected diseases

- Five high prevalence diseases among adults potentially attributed to NYP PPS:
 1. Hypertension: 35%
 2. Abnormal Cholesterol: 27%
 3. Low Back Pain: 19%
 4. Diabetes: 18%
 5. Depression: 16%
- Five high prevalence diseases among children potentially attributed to NYP PPS:
 1. Asthma: 16%
 2. Developmental Delay: 8%
 3. Vision Problems: 4%
 4. ADD: 3%
 5. Hearing Problems: 2%

Leading chronic condition admissions and emergency room visits

The top chronic condition admissions and emergency room visit, by major category, for the NYP PPS are listed in the tables below:

Top Chronic Conditions Admission – by NYP PPS Campus

| Campus | Major Diagnostic Category | Beneficiaries with Condition | Beneficiaries with Admissions | % Beneficiaries with Admissions | Total Inpatient Admissions | Avg Admission per Beneficiary |
|-------------------------------------|---|------------------------------|-------------------------------|---------------------------------|----------------------------|-------------------------------|
| Lower Manhattan | Substance Abuse | 8910 | 6284 | 70.5% | 26368 | 4.2 |
| | Diseases And Disorders Of The Respiratory System | 9181 | 3140 | 34.2% | 6824 | 2.2 |
| | Mental Diseases And Disorders | 21727 | 7358 | 33.9% | 20191 | 2.7 |
| | Diseases And Disorders Of The Cardiovascular System | 34028 | 11510 | 33.8% | 23834 | 2.1 |
| | Diabetes Mellitus | 12106 | 3339 | 27.6% | 6279 | 1.9 |
| | HIV Infection | 2252 | 444 | 19.7% | 919 | 2.1 |
| Weill Cornell Medical College | Substance Abuse | 10354 | 7046 | 68.1% | 28251 | 4.0 |
| | Diseases And Disorders Of The Cardiovascular System | 23261 | 11404 | 49.0% | 25493 | 2.2 |
| | Diseases And Disorders Of The Respiratory System | 9621 | 3860 | 40.1% | 8646 | 2.2 |
| | Diabetes Mellitus | 9391 | 3765 | 40.1% | 8065 | 2.1 |
| | Mental Diseases And Disorders | 22114 | 8289 | 37.5% | 24195 | 2.9 |
| | HIV Infection | 1433 | 437 | 30.5% | 1065 | 2.4 |
| Columbia University Medical College | Substance Abuse | 11475 | 7613 | 66.3% | 27309 | 3.6 |
| | Diseases And Disorders Of The Cardiovascular System | 58522 | 22839 | 39.0% | 43845 | 1.9 |
| | Diseases And Disorders Of The Respiratory System | 17816 | 5935 | 33.3% | 12097 | 2.0 |
| | Diabetes Mellitus | 22842 | 7108 | 31.1% | 13024 | 1.8 |
| | Mental Diseases And Disorders | 40482 | 12287 | 30.4% | 28626 | 2.3 |
| | HIV Infection | 2512 | 642 | 25.6% | 1466 | 2.3 |

Source: CHCANYS: Medicaid Chronic Conditions-Inpatient Admissions & Emergency Room Visits by Zip Code (2012)

Top Chronic Conditions Emergency Room Visits – by NYP PPS Campus

| Campus | Major Diagnostic Category | Beneficiaries with Condition | Beneficiaries with ER Visits | % Beneficiaries with ER Visits | Total ER Visits | Avg ER Visit per Beneficiary |
|---|---|------------------------------|------------------------------|--------------------------------|-----------------|------------------------------|
| Lower Manhattan | Substance Abuse | 8910 | 5558 | 62.4% | 28434 | 5.1 |
| | Mental Diseases And Disorders | 21727 | 9339 | 43.0% | 31996 | 3.4 |
| | Diseases And Disorders Of The Respiratory System | 9181 | 3565 | 38.8% | 11330 | 3.2 |
| | HIV Infection | 2252 | 564 | 25.0% | 1429 | 2.5 |
| | Diabetes Mellitus | 12106 | 2831 | 23.4% | 7138 | 2.5 |
| | Diseases And Disorders Of The Cardiovascular System | 34028 | 7503 | 22.0% | 19771 | 2.6 |
| Weill Cornell Medical College | Substance Abuse | 10354 | 6334 | 61.2% | 30155 | 4.8 |
| | Diseases And Disorders Of The Respiratory System | 9621 | 5289 | 55.0% | 16567 | 3.1 |
| | Mental Diseases And Disorders | 22114 | 11319 | 51.2% | 38817 | 3.4 |
| | HIV Infection | 1433 | 589 | 41.1% | 1563 | 2.7 |
| | Diseases And Disorders Of The Cardiovascular System | 23261 | 9030 | 38.8% | 26447 | 2.9 |
| | Diabetes Mellitus | 9391 | 3570 | 38.0% | 10263 | 2.9 |
| | Columbia University Medical College | Substance Abuse | 11475 | 6939 | 60.5% | 30614 |
| Diseases And Disorders Of The Respiratory System | | 17816 | 8550 | 48.0% | 23358 | 2.7 |
| Mental Diseases And Disorders | | 40482 | 17641 | 43.6% | 50051 | 2.8 |
| HIV Infection | | 2512 | 945 | 37.6% | 2347 | 2.5 |
| Diseases And Disorders Of The Cardiovascular System | | 58522 | 18027 | 30.8% | 40903 | 2.3 |
| Diabetes Mellitus | | 22842 | 6936 | 30.4% | 15195 | 2.2 |

Source: CHCANYS: Medicaid Chronic Conditions-Inpatient Admissions & Emergency Room Visits by Zip Code (2012)

Domain 3: Clinical Improvement Metrics

This table summarizes quality of care metrics for the NYPH neighborhood, based on Medicaid claims, as calculated by New York State, compared to the New York State average. Metrics that are lower than the state average are highlighted in red.

Table. Summary of Clinical Improvement Metrics, by NYP Campus and Neighborhood.

| | CUMC | | WCMC | | | LM | STATE AVERAGE |
|---------------------------------|--------------------|----------|-------------|-----------------|-------------|-----------------|---------------|
| | Northern Manhattan | SW Bronx | East Harlem | Upper East Side | West Queens | Lower Manhattan | |
| Behavioral Health | | | | | | | |
| Antipsychotic Adherence | 58.5 | 56.8 | 54.0 | 65.4 | 63.5 | 66.1 | 61.4 |
| Antidepressant Initiation | 48.9 | 46.3 | 47.3 | 41.5 | 48.4 | 46.6 | 46.6 |
| Antidepressant Continuation | 39.2 | 37.7 | 37.8 | 41.5 | 39.1 | 40.2 | 38.3 |
| Diabetes and Mental Health 1 | 69.9 | 65.3 | 75.5 | - | - | 79.4 | 68.8 |
| Diabetes and Mental Health 2 | 78.2 | 77.5 | 79.6 | 76.9 | 73.2 | 75.0 | 75.5 |
| Heart Disease and Mental Health | - | 53.3 | - | - | - | - | 70.9 |
| Hospital Followup - 30 days | 52.5 | 57.5 | 48.0 | 46.4 | 55.3 | 50.0 | 54.2 |
| Hospital Followup - 7 days | 39.8 | 39.7 | 36.3 | 31.0 | 40.2 | 33.4 | 38.4 |
| Substance Abuse Treatment 1 | 83.7 | 81.8 | 83.3 | 77.1 | 78.7 | 80.7 | 79.5 |
| Substance Abuse Treatment 2 | 20.1 | 20.7 | 21.6 | 19.3 | 22.9 | 27.5 | 24.8 |
| Diabetes | | | | | | | |
| HbA1c Testing | 84.3 | 78.7 | 78.2 | 79.7 | 86.5 | 85.7 | 80.7 |
| Lipid Profile | 79.6 | 71.1 | 74.1 | 75.8 | 84.0 | 84.1 | 76.7 |
| HIV/AIDS | | | | | | | |
| Engagement in Care | 88.9 | 90.3 | 89.3 | 87.3 | 92.7 | 89.4 | 89.4 |
| Syphilis Screening | 70.5 | 70.6 | 66.8 | 69 | 74.30 | 68.7 | 71.3 |
| Vial Load Monitoring | 61.6 | 65.3 | 61.7 | 63.4 | 71.2 | 63.2 | 66.2 |
| Pediatric Care | | | | | | | |
| Lead Screening | 87.7 | 84.7 | 81.9 | 71.0 | 87.0 | 79.2 | 79.3 |
| Well Child Visits | 83.8 | 86.0 | 90.1 | 71.8 | 83.8 | 86.1 | 86.1 |
| ADHD Med Initiation | 68.8 | 63.6 | 65.7 | - | 67.2 | 62.5 | 55.2 |
| ADHD Med Continuation | - | 72.4 | - | - | - | - | 59.0 |
| Prevention Screening | | | | | | | |
| Cervical Cancer | 72.8 | 71.6 | 68.4 | 62.5 | 73.6 | 75.3 | 70.1 |
| Chlamydia | 79.3 | 74.4 | 76.0 | 66.2 | 73.1 | 73.3 | 68.4 |
| Colorectal Cancer | 57.8 | 55.7 | 48.7 | 48.9 | 49.1 | 61.7 | 50.2 |
| Asthma | | | | | | | |
| Medication Ratio | 62.1 | 61.6 | 54.8 | 55.8 | 64.2 | 60.3 | 62.0 |
| Med Management 50% | 63.4 | 59.6 | 60.3 | 61.3 | 60.1 | 58.0 | 57.2 |
| Med Management 75% | 39.1 | 34.8 | 37.4 | 45.2 | 40.0 | 36.5 | 33.7 |

Red boxes are lower than the state average.

“-” indicates data not available.

Source: HEDIS Measures, Medicaid Recipients, 2013

We identified the following opportunities for improvement:

Behavioral Health quality metrics were lower than the state average for 24 of the 53 metrics (with data) across the six areas.

The diabetes quality metrics for HbA1c testing and the lipid profile were lower than the state average in SW Bronx, East Harlem, and the Upper East Side.

HIV / AIDS measures were low in the neighborhoods served by Columbia University Medical Center and Weill Cornell Medical Center.

Of the pediatric care metrics, well-child visits needed the most improvement.

- Prevention screenings were low in neighborhoods served by WCMC.

Domain 4: The Prevention Agenda

- NYC's health statistics are **worse** than NY State's for the following indicator categories:
 - Improve Health Status and Reduce Health Disparities on all metrics
 - Prevent Chronic Diseases on 2/3 of metrics
 - Prevent HIV/STDs on all metrics
 - Racial Disparities in the Promotion of Health for Women, Infants, and Children
- NYC's health statistics are **better** than NY State's for the following indicator categories:
 - Promote Mental Health on all metrics
 - Prevent Substance Abuse on all metrics
- NYC's health statistics are **about the same** as NY State's for the following indicator category:
 - Percentage of preterm birth (Promote Healthy Women, Infants, and Children)
- Health care disparities are most prominent in the Bronx, though some are present in Manhattan.

C. Health and Health Service Challenges Facing the Community

Community health collaborators described multiple health and health service challenges preventing individuals from receiving high quality primary care. Gaps that repeatedly showed up across the different questions include:

Affordability. The costs of living, healthcare, and social services in New York City are high and can be especially burdensome for individuals who are elderly, disabled, and chronically ill. In addition respondents raised concern with the affordability of health and health-related goods and services such as prescription medication.

Access. There is limited availability of key services, such as appointments with specialty physicians, mental health services, education programs, day programs, and some social services.

Culture. Language barriers and cultural factors may prevent some individuals from seeking appropriate care. Culturally diverse providers of care (including community health workers) may understand the reservations of particular populations to seek care and target their needs.

Education. Several populations would benefit from education about (1) healthier living choices, (2) how to best use the US health care system, and (3) how to obtain sufficient health insurance. Such education would be particularly helpful for elderly patients, newcomers to the health system, and individuals with multiple appointments and complex care.

Accessibility. For people with disabilities, there is a need to improve accessibility to the transportation system, various support programs, and information technology (such as computers and smart phones).

Determination and Description of Service Area

New York-Presbyterian Hospital serves patients from New York City and New York State, as well as individuals who travel from elsewhere in the United States and internationally. For this community needs assessment, we selected the core zip codes of Medicaid patients served by the three New York City campuses: Columbia University Medical Center (CUMC), Lower Manhattan Hospital (LM), and Weill Cornell Medical Center (WCMC). This was accomplished through a multi-step process.

1. We applied an approximation of the patient attribution logic outlined in the DSRIP materials to the 2012 and 2013 Medicaid Claims files for New York State. This work is detailed in the four chapters on attribution (pages 19, 31, 37, and 41).
2. All individual and institutional National Provider Identifiers (NPIs) were aggregated to each hospital campus. This included NPIs associated with inpatient, emergency, and outpatient care.
3. The combination of zip codes that correspond to a majority of the potentially attributed Medicaid patients (75% for the Columbia Campus, 50% for the Weill Cornell and Lower Manhattan Campuses) served by each campus constituted the service area.
4. Individual campus service areas were presented to DSRIP project leaders, clinicians, and hospital leaders for comparison with their own experiences and other patient registries.

The selected service area is presented as Figure 1. The DSRIP service area aligns closely with the community NewYork-Presbyterian identifies as part of community benefit planning and interaction.

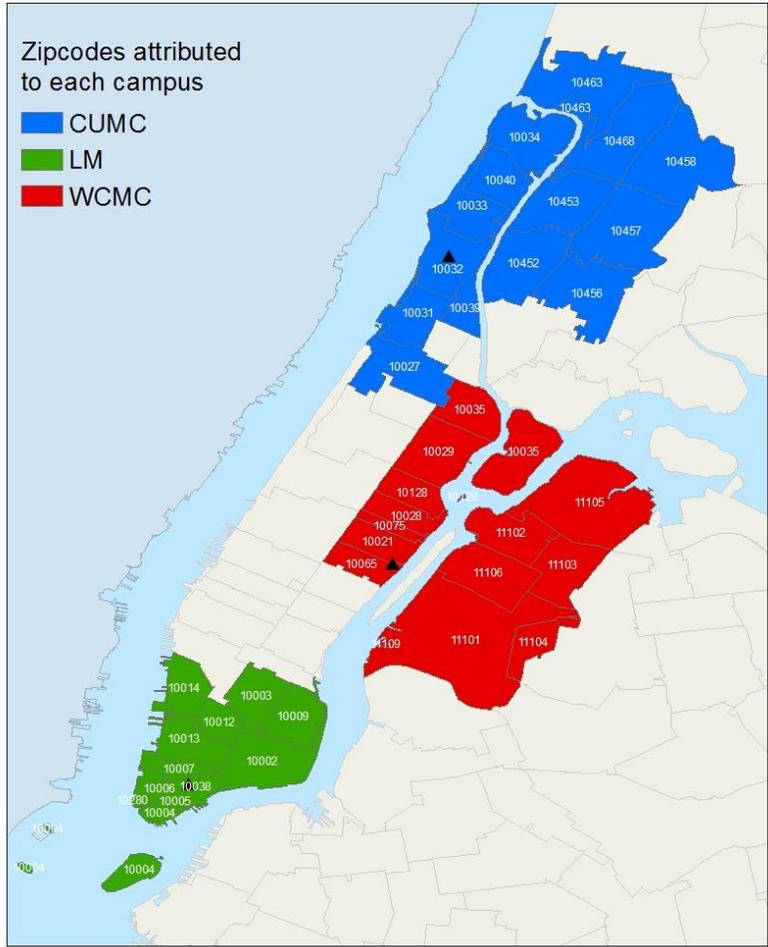


Figure 1. Service area by hospital campus.

NewYork-Presbyterian Hospital primarily serves Medicaid patients from Washington Heights, Inwood, East Harlem, the Southwest Bronx, the Upper East Side, Northwest Queens, and Downtown Manhattan. Given the widely variable populations, socio-economic conditions, and clear identification with hospital campuses, the community needs assessment provides information in stratified fashion: by hospital campus.

DSRIP Attribution Overview

Objective

This section describes the **geographic distribution of the patients who may be attributed to the NewYork-Presbyterian PPS.**

There are four subsections

- (1) **Preliminary Attribution.** Our initial work to approximate the attribution logic. We used these results to define the service areas by hospital campus.
- (2) **Pediatrics Attribution.** A supplemental report, focused on pediatrics only.
- (3) **Attribution Update.** A follow up report, with a revised approach to attribution.
- (4) **Profile of Attributed Patients.** A description of the comorbidity profile of the cohort identified in the “Attribution Update”.

Preliminary Attribution (August 2014)

Objective

This section describes the **geographic distribution of the patients who may be attributed to the New York Presbyterian PPS.**

Methods

New York State has developed an algorithm for assigning Medicaid patients to each PPS (i.e. attribution logic). Patients are assigned based on a plurality of visits with emphasis placed on health homes and outpatient care over emergency visits and inpatient stays. Patients are assigned based on the provider's NPI. The attribution logic details are in the Appendix. The statistics presented in this report are based on our implementation of the attribution logic. Note that the attribution logic has been revised by the State since the analyses for this report were undertaken.

We created a series of maps to illustrate the distribution of home zip codes for individuals that will be potentially attributed to the NYPH PPS. Each set of maps includes a "heat map" which highlights the zip codes with the largest number of the specified patients, and a "percentage map" which highlights the zip codes containing 50%, 75%, and 90% of the specified patients. We also provide the distribution of ages within the attributed populations, and the distribution of attribution to the main hospital NPIs, to generalists, and to specialists.

Note that the NYPH PPS, WCMC, CUMC, and Collaborators maps are based on preliminary attribution. However, the LM maps are not attribution maps. Instead, the LM maps display the home zip codes of all people who used the hospital for ED visits or inpatient admissions in 2011. LM does not have an outpatient department; therefore an attribution map would not necessarily reflect the community served by LM.

Results

Overall Attribution

There were 3,597,237 patients run through the attribution logic (everyone with a home zip code in New York City or Westchester). The majority (2,697,880 – 75%) were attributed according to outpatient visits. One in five could not be attributed (758,627 – 21%). The remainder were attributed by health home billing (20,289 – 0.5%), by ED visits (49,347 – 1.4%), or by inpatient admissions (71,094 – 1.9%).

Attribution to the NYP PPS

There were 105,423 individuals attributed to the NYP PPS. About half (52,153 – 49.5%) were attributed to CUMC, a third (38,440 – 36.4%) to the proposed collaborators, and the remainder to WCMC (13,137 – 12.5%) and to Lower Manhattan (1,693 – 1.6%). (Figure 1)

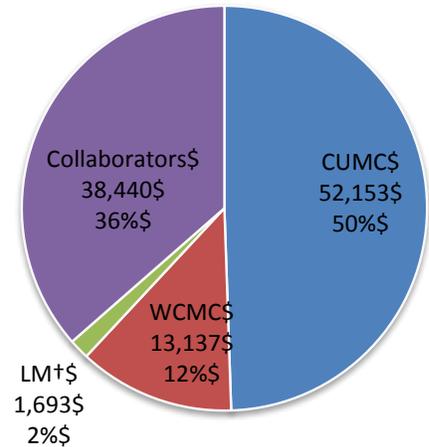


Figure 1. Preliminary Attribution of 105,423 patients to the NYP PPS, by Site
 † LM Attribution is based on the NPI associated with New York Downtown Hospital in 2012

Across the four groups of providers, half of the patients were adults 19-64 years old (59,094 – 56%), a third were children (35,753 – 34%), and the remainder were seniors (10,576 – 10%). (Table 1)

At CUMC and WCMC, the majority of patients (59,057 – 90%) were attributed to the hospital NPI, rather than to the NPI of a specific ACN physician. Among those who were attributed to specific physicians, 2,617 (4% of total) were attributed to primary care physicians, and 3,616 (6% of total) were attributed to specialists. (Table 2)

Table 1. Number of Patients Attributed to Each Group of Providers, by Age

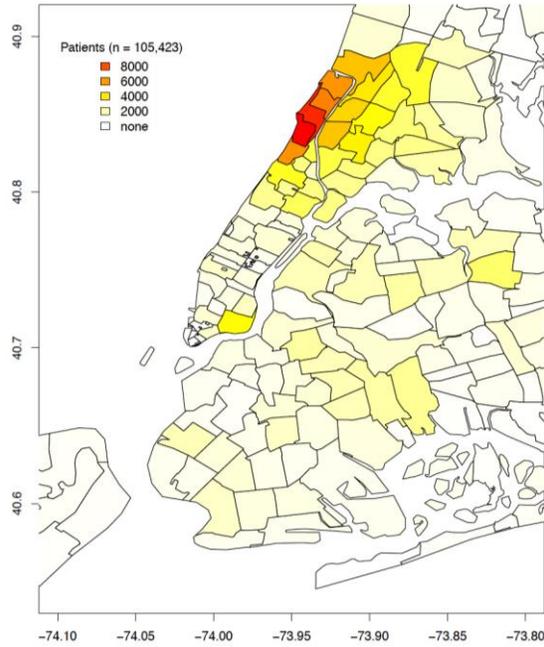
| Group | Number of Patients Attributed to Each Group of Providers, by Age | | |
|-----------------|--|---------------------------------|--------------------------------|
| | Pediatrics (≤18) N (% of site) | Adults (19-64) N (% of site) | Seniors (65+) N (% of site) |
| CUMC | 18,355 (35%) | 27,042 (52%) | 6,756 (13%) |
| WCMC | 4,129 (31%) | 7,636 (58%) | 1,372 (10%) |
| LM | 89 (5%) | 1,065 (63%) | 539 (32%) |
| Collaborators | 13,180 (34%) | 23,351 (61%) | 1,909 (5%) |
| Totals (by age) | 35,753 (34%) | 59,094 (56%) | 10,576 (10%) |

Table 2. Attribution by Type of NPI

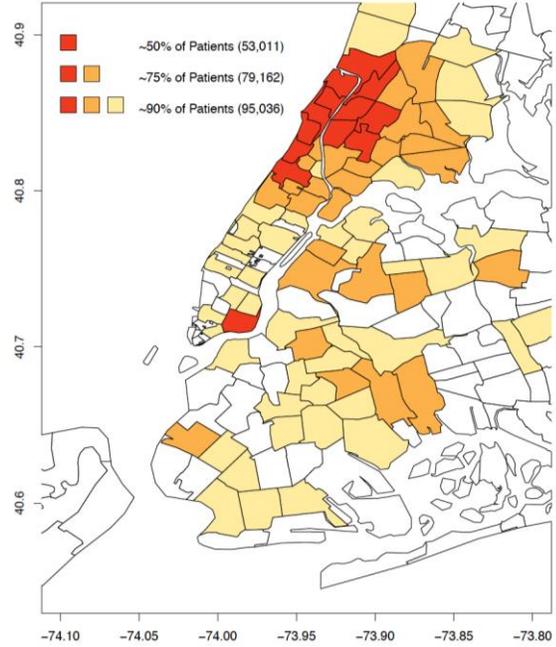
| Site | Number of Patients Attributed to NPI | | |
|--------|--------------------------------------|--------------------------|---------------------------------|
| | Hospital N (% of site) | ACN PCP N (% of site) | ACN Specialist N (% of site) |
| CUMC | 46,450 (89%) | 2,413 (5%) | 3,290 (6%) |
| WCMC | 12,607 (96%) | 204 (2%) | 326 (2%) |
| Totals | 59,057 (90%) | 2,617 (4%) | 3,616 (6%) |

Maps – NYPH PPS Attribution

Heat Map



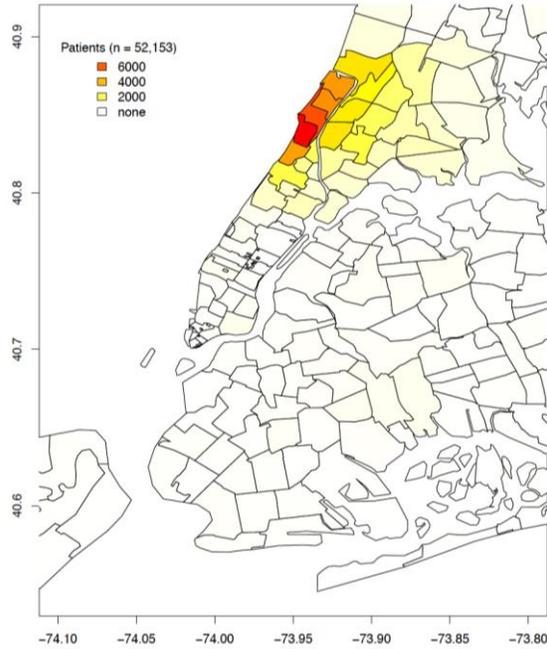
Percentile Map



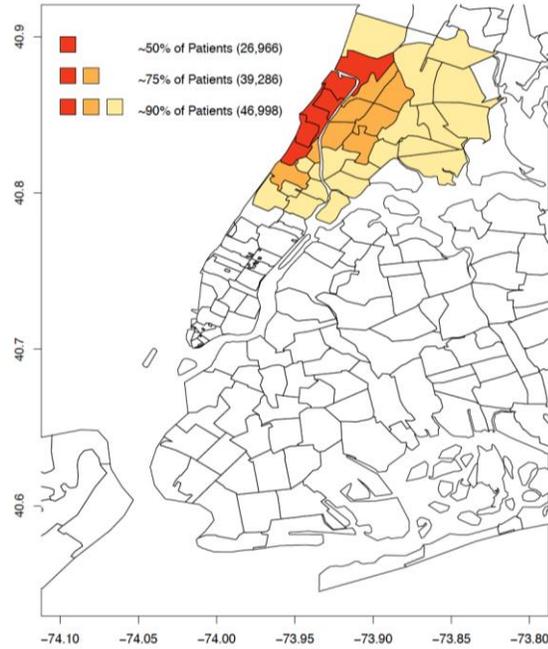
The proposed NYPH PPS includes patients from Bronx, Brooklyn, Manhattan, and Queens. The largest concentrations of patients live in Northern Manhattan and the Southwest Bronx along the Harlem River. There is also a population of patients in the Lower East Side, as well as in several neighborhoods in Brooklyn and Queens.

Maps – CUMC Attribution

Heat Map



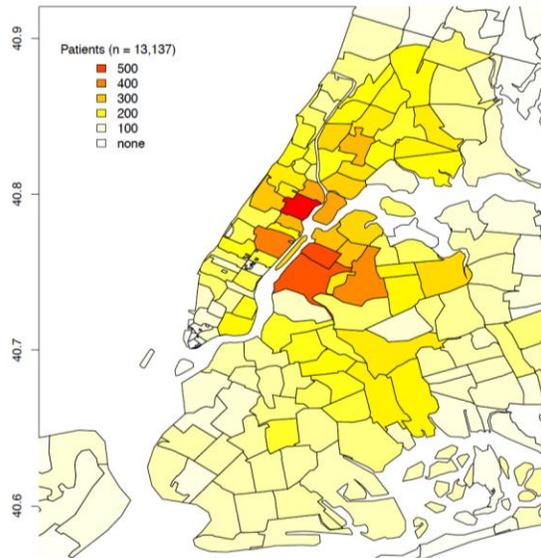
Percentile Map



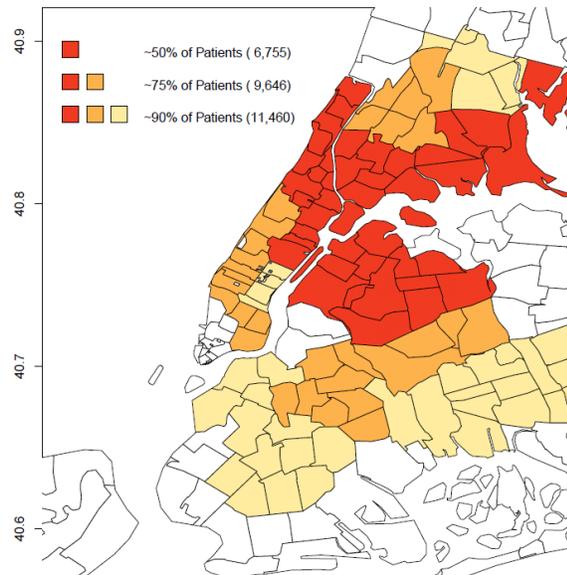
The 52,153 patients attributed to CUMC live predominantly in a well-defined geographic area in Northern Manhattan and Southwest Bronx. Half of the patients (26,966) live in six zip codes (10031, 10032, 10033, 10034, 10040, and 10463; red zip codes in Percentile Map). Three quarters (39,286) live in those six plus eight additional zip codes (10468, 10458, 10453, 10457, 10452, 10456, 10039, and 10027; red and orange zip codes in Percentile Map).

Maps – WCMC Attribution

Heat Map



Percentile Map



There were 13,137 patients attributed to WCMC. These patients live throughout Bronx, North and East Brooklyn, Manhattan, and Queens. The zip codes with the largest number of patients are primarily within three neighborhoods: the Upper East Side (866), Northwest Queens (1,574), and East Harlem (777). However, the 3,217 patients from these three neighborhoods only accounted for 24% of the patients attributed.

Half (6755) of patients attributed to WCMC live in nine neighborhoods (red zip codes in Percentile Map; Table 3). Three quarters (9646) live in 17 neighborhoods (red plus orange zip codes in Percentile Map; Table 4).

Table 3. Neighborhoods of ~50% (6,755) Patients Attributed to WCMC.

| Borough | Neighborhood | # Patients | % of Total |
|-----------|---------------------------|------------|------------|
| Manhattan | Upper East Side | 866 | 6.6% |
| | East Harlem | 777 | 5.9% |
| | Central Harlem | 573 | 4.4% |
| | Inwood/Washington Heights | 408 | 3.1% |
| | Upper West Side | 385 | 2.9% |
| | Lower East Side | 301 | 2.3% |
| | Chelsea/Clinton | 378 | 2.9% |

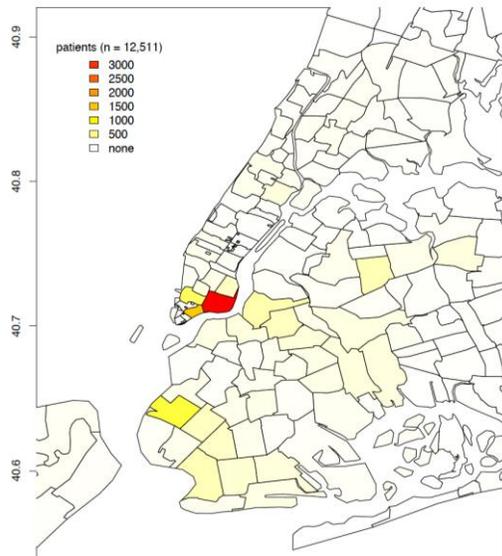
Table 4. Neighborhoods of half (6,755) Patients Attributed to WCMC.

| Borough | Neighborhood | # Patients | % of Total |
|-----------|---------------------------|------------|------------|
| Manhattan | Upper East Side | 866 | 6.6% |
| | East Harlem | 777 | 5.9% |
| | Central Harlem | 573 | 4.4% |
| | Inwood/Washington Heights | 408 | 3.1% |
| Bronx | High Bridge/Morrisania | 538 | 4.1% |
| | Hunts Point/Mott Haven | 509 | 3.9% |
| | Southeast Bronx | 506 | 3.9% |
| Queens | Northwest Queens | 1574 | 12% |
| | West Queens | 1004 | 7.6% |

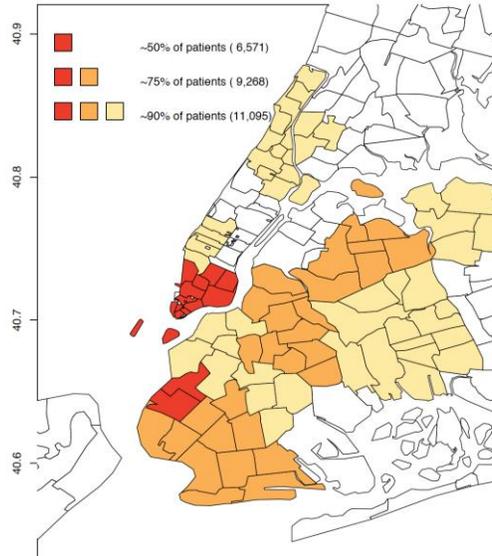
| | | | |
|----------|---------------------------|------|------|
| Bronx | High Bridge/Morrisania | 538 | 4.1% |
| | Hunts Point/Mott Haven | 509 | 3.9% |
| | Southeast Bronx | 506 | 3.9% |
| | Bronx Park/Fordham | 389 | 3% |
| | Central Bronx | 393 | 3% |
| Queens | Northwest Queens | 1574 | 12% |
| | West Queens | 1004 | 7.6% |
| | West Central Queens | 293 | 2.2% |
| Brooklyn | Bushwick and Williamsburg | 347 | 2.6% |
| | Central Brooklyn | 405 | 3.1% |

Maps – Lower Manhattan Geography of Use

Heat Map



Percentile Map



There were 12,511 people who visited New York Downtown Hospital in 2011, either for ED visits or inpatient admissions. They lived predominantly in Manhattan, Queens, and Brooklyn. Half (6571) lived in four neighborhoods (red zip codes in Percentile Map; Table 5). Three quarters (9646) lived in 11 neighborhoods (red plus orange zip codes in Percentile Map; Table 6).

Table 5. Neighborhoods of half (6,571) of patients who use L.M.

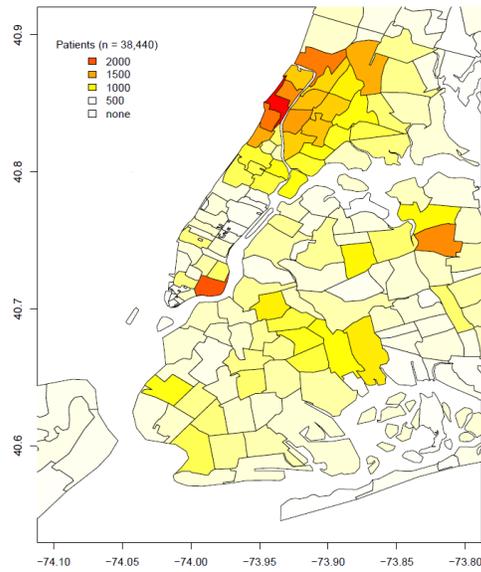
| Borough | Neighborhood | # of patients (% of total) |
|-----------|----------------------------|----------------------------|
| Manhattan | Lower East Side | 3676 (29.4%) |
| | Lower Manhattan | 1547 (12.4%) |
| | Greenwich Village and Soho | 638 (5.1%) |
| Brooklyn | Sunset Park | 710 (5.7%) |

Table 6. Neighborhoods of 75% (9,268) of patients who use L.M.

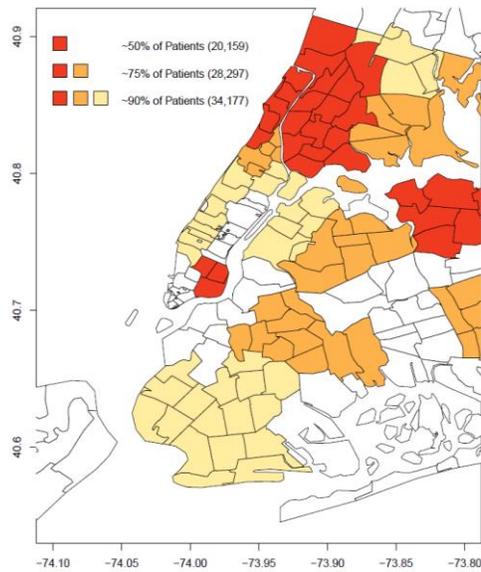
| Borough | Neighborhood | # of patients (% of total) |
|-----------|----------------------------|----------------------------|
| Manhattan | Lower East Side | 3676 (29.4%) |
| | Lower Manhattan | 1547 (12.4%) |
| | Greenwich Village and Soho | 638 (5.1%) |
| Brooklyn | Sunset Park | 710 (5.7%) |
| | Borough Park | 509 (4.1%) |
| | Southern Brooklyn | 401 (3.2%) |
| | Bushwick and Williamsburg | 397 (3.2%) |
| | Southwest Brooklyn | 338 (2.7%) |
| | Central Brooklyn | 305 (2.4%) |
| | Greenpoint | 296 (2.4%) |
| Queens | West Queens | 451 (3.6%) |

Maps – Collaborators Attribution

Heat Map



Percentile Map



There were 38,440 patients attributed to the proposed collaborating organizations. Half of these individuals (red zip codes in Percentile Map) lived in the Western and Southern neighborhoods of the Bronx (9923), Inwood and Washington Heights (6276), the Lower East Side (1973), and North Queens (i.e. Flushing; 1987).

Limitations

Several key limitations merit discussion.

First, this analysis was not performed with New York State's updated attribution logic. The new logic includes separate pathways for individuals who live in nursing homes, as well as for individuals with developmental delay, severe mental illness, or substance abuse (See technical appendix).

Second, health home billing was not robust in 2012, but was implemented more widely in 2013. Thus there are likely to be more patients attributed to a health home in 2013.

Third, we did not distinguish between patients enrolled in Medicaid for a full year vs. those enrolled in only part of the year. However, we are not aware of any indications that partial year enrollees will be treated differently than full year enrollees.

Fourth, the state has several variables that appear to capture the concepts of "ED visit", "inpatient visit", and "outpatient visit". However, it is not clear which variables most accurately capture the true visit history, nor is it clear which variables New York State will use in their own implementation of the attribution logic.

Fifth, the group of collaborators is likely to evolve in the months to come as community organizations decide which PPS to join. Furthermore, some organizations, such as the Charles B Wang Community Health Center, have indicated they will support multiple proposed PPSs. The implication for attribution is unclear.

Technical Appendix

Attribution Logic

We interpreted the attribution logic described in New York State’s preliminary documentation (bit.ly/1ps3XuU) to assign each patient to a unique NPI (Figure 1.) The attribution has subsequently been updated in early August 2014 (bit.ly/1Bess3Q). This updated is not reflected in the current analysis. Our attribution logic is as follows:

(1) Limit patients to those who live in New York City or Westchester County.

(2) Is the patient a health home patient? (any claim with rate code of 1386, 1387, or 1851 - 1899). If yes, attribute to health home with a plurality of visits. If no, go to (3)

(3) Does the patient have an outpatient physician (PCP or specialist)? (CPT code is any of 99201 - 5, 99211 - 5, 99241 - 5, 99381 - 7, 99391 - 7, 99401 - 12, 99420, 99429). If yes, attribute to the outpatient physician with a plurality of visits. If no, go to (4)

(4) Did the patient go to the ED? (rate code of 2879 or 1402). If yes, attribute to the ED with a plurality of visits. If no, go to (5)

(5) Has the patient been admitted to the hospital for an inpatient admission? If yes, attribute to the hospital with a plurality of admissions. If no, go to (6)

(6) The patient is “not attributed.”

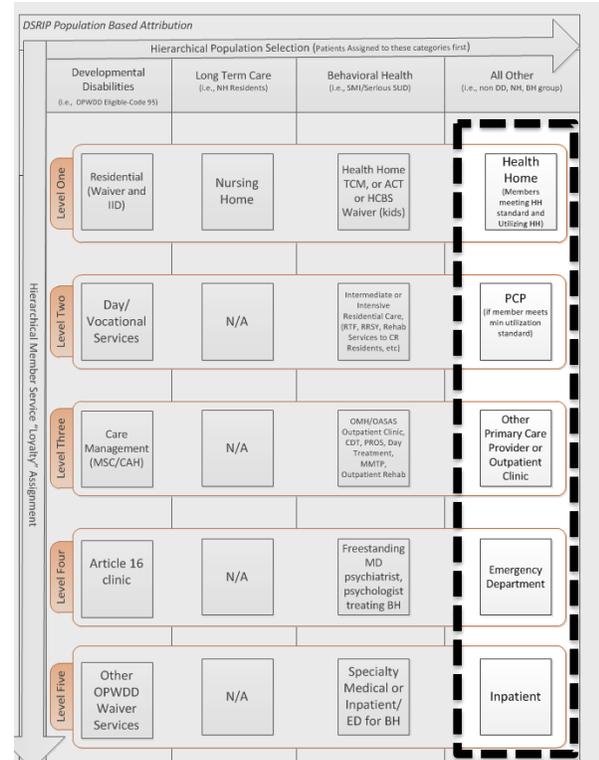


Figure 2. The current DSRIP attribution logic includes pathways for developmental disabilities, long term care, and serious mental illness. We used an older version of the attribution logic, which attributed patients based on (1) Health Home (2) Outpatient Visits (3) ED visits (4) Inpatient Visits, similar to the “All Other” pathway in the current attribution logic (within dashed line). We did not distinguish between PCPs and Specialists in this preliminary report. □

NPIs

We created the following sets of NPIs, in order to understand the geographic distribution of the population attributed to the entire NYPH PPS, as well as for those attributed to CUMC, WCMC, and the initial group of proposed collaborators.

- (1) **NYPH PPS** includes all the NPIs expected to be part of the NYHP PPS. This includes a list of collaborator organizations, physicians, and independent practice associations (IPA) listed in sections 2.1-2.3 of the Design Grant Application, physicians (primary care and specialty care) associated with the New York Presbyterian Hospital Ambulatory Care Network (ACN), health homes associated with the NYP Regional Health Collaborative, and additional collaborators. These NPIs were drawn from the following sources:
 - a. NYP Design Grant Application (bit.ly/1t33Ved)
 - b. “DSRIP_NYPnetwork_addl data_Community MDs_LR.xls”
 - c. “Health Home Provider Network Table 1.1_7_12_12.xls”
 - d. “Health Home Provider Network Table 1.2_7_12_12.xls”
 - e. “ACN Provider Master List.xls”
 - f. “ACN Specialist Listing 8-8-14.xls”
 - g. We also included the NPI of New York Downtown Hospital prior to its joining NYP (1053413989).
- (2) **CUMC** includes the NPIs for New York Presbyterian’s Columbia University Medical Center (CUMC) location, as well as the ACN physicians (primary and specialty care) affiliated with CUMC.
- (3) **WCMC** includes the NPIs for New York Presbyterian’s Weill Cornell Medical Center location (WCMC), as well as the ACN physicians (primary and specialty care) affiliated with WCMC.
- (4) **LM** includes only the NPI of New York Downtown Hospital prior to its joining NYP (1053413989).
- (5) **Collaborators** includes all the NPIs of collaborating organizations, physicians, IPAs, and health homes.

Data Sources

- (1) 2012 **Medicaid claims** from New York State.
- (2) Healthcare Cost and Utilization Project (**HCUP**). The 2011 HCUP New York State Inpatient File and 2011 HCUP New York State Emergency Department (ED) Files are comprehensive databases of all inpatient admissions and ED visits to hospitals in New York State (excluding the Veteran's Administration hospitals).
- (3) American Hospital Association (**AHA**). The 2011 American Hospital Association (AHA) survey is an annual survey of hospitals.

Ethics

This analysis was performed under existing data use agreements with HCUP, the AHA, and the New York State Medicaid Office.

Linkage

Hospital identifiers in the HCUP data were linked to data in the American Hospital Association survey in order to identify visits to New York Downtown Hospital.

Lower Manhattan (LM)

To determine the geography of the patients who use Lower Manhattan Hospital, we analyzed 2011 HCUP data. We included any patient who had visited Lower Manhattan at least once for either an inpatient visit or an ED visit.

Maps

The NYPH PPS, WCMC, CUMC, and Collaborators maps are based on preliminary attribution. However, the LM maps are not attribution maps. Instead, the LM maps display the home zip codes of all people who used the hospital for ED visits or inpatient admissions in 2011.

Software

All analysis was performed using the R software package (R-project.org), as well as the following add-on packages: data.table, ggplot2, maps, mapdata, maptools, sp, RColorBrewer, classInt, rgeos

Preliminary Attribution – Pediatrics (September 2014)

Objective

This section describes the **geographic distribution of the *pediatric* patients who may be attributed to the New York Presbyterian PPS.**

Methods

This is a supplemental report to our previous “DSRIP Preliminary Attribution” Report distributed in August 2014.

We generated a series of maps to illustrate the distribution of home zip codes for children (≤ 18 years old) that may be attributed to the NYPH PPS. Each set of maps includes a “heat map” which highlights the zip codes with the largest number of the specified patients, and a “percentage map” which highlights the zip codes containing 50%, 75%, and 90% of the specified patients.

In this report, we generated two sets of maps based on our preliminary 2012 attribution findings: one for the Columbia University Medical Center (CUMC, including all the CUMC ACN physicians) and one for the Weill Cornell Medical Center (WCMC, including all the WCMC ACN physicians).

We also generated a third map for Lower Manhattan, based on ED and Inpatient visits by children, using 2011 visit data provided by HCUP (Healthcare Cost and Utilization Project).

Note that we did not include a map for the proposed NYP PPS collaborators, which are still being finalized.

Results

Overall Attribution

There were 1,270,754 children (≤ 18 years old) patients run through the attribution logic (all children with a home zip code in New York City or Westchester). The majority (1,026,047; 81%) were attributed according to outpatient visits. One in five could not be attributed (227,685; 18%). The remainder was attributed by health home billing (53; <1%), by ED visits (7144; 1.4%), or by inpatient admissions (9824; <1%). A small percentage of children had serious mental health disorders or substance abuse disorders (18,132; 1.4%); a small percentage was served by the office of people with developmental disabilities (13,441; 1.1%); very few were in long term care (4; < 1%).

Attribution of Children to the NYP PPS

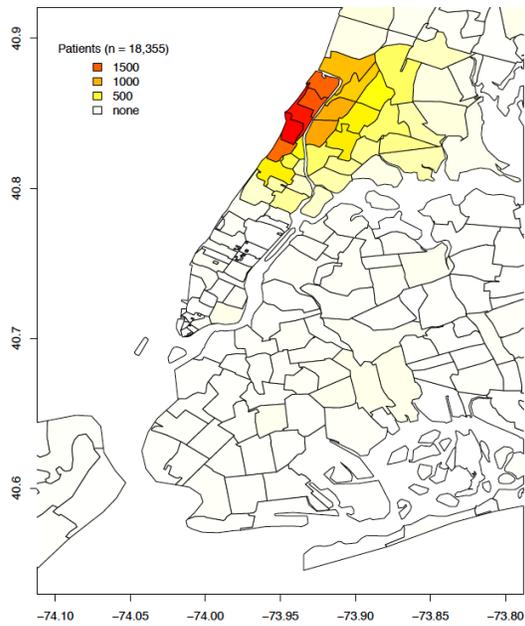
As demonstrated in the previous report, there were 35,753 children potentially attributed to the NYP PPS. Of these, 18,355 were attributed to CUMC and the CUMC ACN physicians, 4,129 to WCMC and the WCMC ACN physicians, and 89 attributed to LM. An additional 13,180 were attributed to potential collaborators, though this number is subject to change as the list of collaborators evolves. Table 1 from the previous report is reproduced here:

Table 1. Number of Patients Attributed to Each Group of Providers, by Age

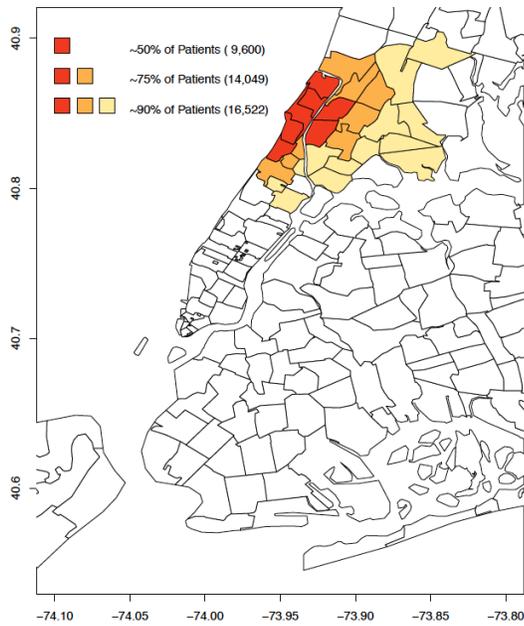
| Group | Pediatrics (≤ 18) N (%) of Site | Adults (19-64) N (%) of Site | Seniors (65+) N (%) of Site |
|-----------------|---|---------------------------------|--------------------------------|
| CUMC | 18,355 (35%) | 27,042 (52%) | 6,756 (13%) |
| WCMC | 4,129 (31%) | 7,636 (58%) | 1,372 (10%) |
| LM | 89 (5%) | 1,065 (63%) | 539 (32%) |
| Collaborators | 13,180 (34%) | 23,351 (61%) | 1,909 (5%) |
| Totals (by Age) | 35,753 (34%) | 59,094 (56%) | 10,576 (10%) |

Maps – Pediatrics, CUMC Attribution (2012)

Heat Map



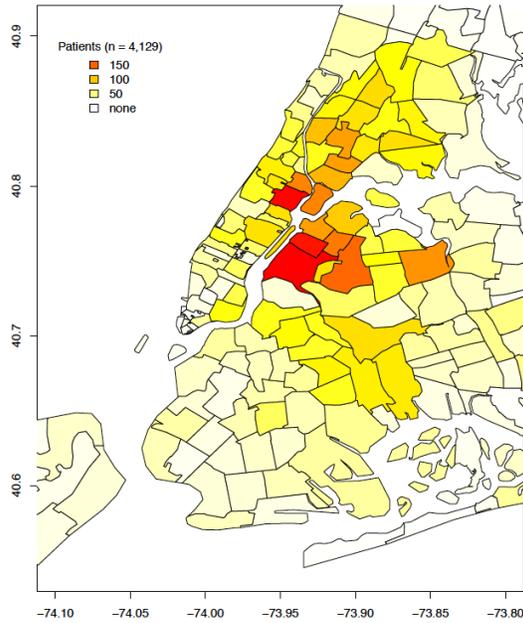
Percentile Map



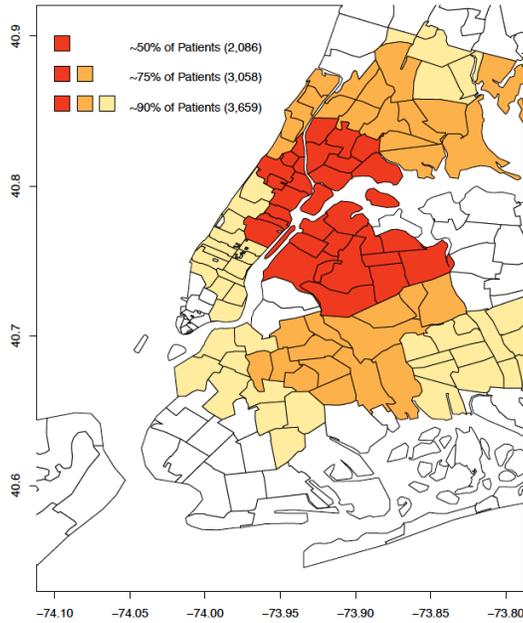
The 18,355 children attributed to CUMC live predominantly in a well-defined geographic area in Northern Manhattan and Southwest Bronx. Half of the patients (9600) live in seven zip codes (10034, 10040, 10033, 10032, 10031, 10453, and 10452; red zip codes in Percentile Map). Three quarters (14,049) live in those eight plus eight additional zip codes (10463, 10468, 10458, 10457, 10456, 10039, 10030 and 10027; red and orange zip codes in Percentile Map).

Maps – Pediatrics, WCMC Attribution (2012)

Heat Map



Percentile Map



The 4,129 children attributed to WCMC live throughout Bronx, North and East Brooklyn, Manhattan, and Queens. The three neighborhoods with the largest number of children are Northwest Queens (641), West Queens (372) and East Harlem (265). However, the children from these three neighborhoods only accounted for 31% of the children attributed. Half (2086) of children attributed to WCMC live in seven neighborhoods (red zip codes in Percentile Map; Table 2). Three quarters (3058) live in 15 neighborhoods (red plus orange zip codes in Percentile Map; Table 3).

Table 2. Neighborhoods of half (2086) children attributed to WCMC

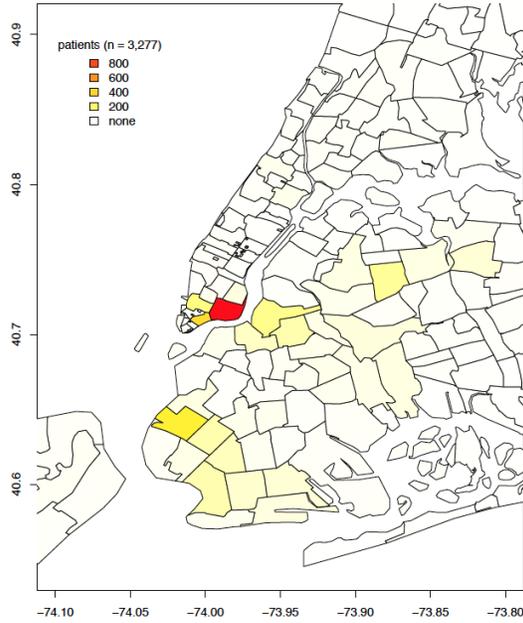
| Borough | Neighborhood | #patients (% of total) |
|-----------|------------------------|------------------------|
| Bronx | Hunts Point/Mott Haven | 227 (5.5%) |
| | High Bridge/Morrisania | 198 (4.8%) |
| Manhattan | East Harlem | 265 (6.4%) |
| | Upper East Side | 195 (4.7%) |
| | Central Harlem | 188 (4.6%) |
| Queens | Northwest Queens | 641 (15.5%) |
| | West Queens | 372 (9%) |

Table 3. Neighborhoods of 75% (3058) children attributed to WCMC

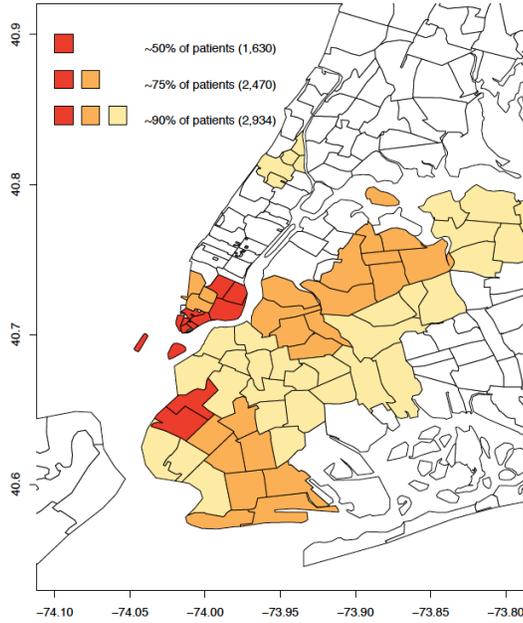
| Borough | Neighborhood | #patients (% of total) |
|-----------|---------------------------|------------------------|
| Bronx | Hunts Point/Mott Haven | 227 (5.5%) |
| | High Bridge/Morrisania | 198 (4.8%) |
| | Southeast Bronx | 163 (3.9%) |
| | Bronx Park/Fordam | 142 (3.4%) |
| | Central Bronx | 138 (3.3%) |
| Brooklyn | Central Brooklyn | 121 (2.9%) |
| | Bushwick/Williamsburg | 115 (2.8%) |
| | East New York/New Lots | 101 (2.4%) |
| Manhattan | East Harlem | 265 (6.4%) |
| | Upper East Side | 195 (4.7%) |
| | Central Harlem | 188 (4.6%) |
| | Inwood/Washington Heights | 101 (2.4%) |
| Queens | Northwest Queens | 641 (15.5%) |
| | West Queens | 372 (9%) |
| | West Central Queens | 91 (2.2%) |

Maps – Lower Manhattan Geography of Use

Heat Map



Percentile Map



There were 3277 children who used New York Downtown Hospital in 2011, either for ED visits or inpatient admissions. They lived predominantly in Manhattan, Queens, and Brooklyn. Half (1630) lived in 3 neighborhoods (red zip codes in Percentile Map; Table 4). Three quarters (2470) lived in 9 neighborhoods (red plus orange zip codes in Percentile Map; Table 5).

Table 4. Neighborhoods of half (1630) children who visited LM in 2011.

| Borough | Neighborhood | # patients (% of total) |
|-----------|-----------------|-------------------------|
| Brooklyn | Sunset Park | 292 (8.9%) |
| Manhattan | Lower East Side | 976 (29.8%) |
| | Lower Manhattan | 362 (11%) |

Table 5. Neighborhoods of 75% (2,934) who visited LM in 2011.

| Borough | Neighborhood | # patients (% of total) |
|-----------|------------------------|-------------------------|
| Brooklyn | Sunset Park | 292 (8.9%) |
| | Borough Park | 166 (5.1%) |
| | Southern Brooklyn | 129 (3.9%) |
| | Bushwick/Williamsburg | 119 (3.6%) |
| | Greenpoint | 118 (3.6%) |
| Manhattan | Lower East Side | 976 (29.8%) |
| | Lower Manhattan | 362 (11%) |
| | Greenwich Village/Soho | 137 (4.2%) |
| Queens | West Queens | 171 (5.2%) |

Limitations

Several key limitations merit discussion.

First, this analysis was not performed with New York State's updated attribution logic. The new logic includes separate pathways for individuals who live in nursing homes, as well as for individuals with developmental delay, severe mental illness, or substance abuse (See technical appendix). Of note we expect only a small proportion (< 2.5%) of children to fall into these categories.

Second, health home billing was not robust in 2012, but was implemented more widely in 2013. Thus there are likely to be more patients attributed to a health home in 2013. Of note, very few pediatric patients have been treated in Health Homes, which have been almost exclusively an intervention for adults.

Third, we did not distinguish between patients enrolled in Medicaid for a full year vs. those enrolled in only part of the year. However, we are not aware of any indications that partial year enrollees will be treated differently than full year enrollees.

Fourth, the state has several variables that appear to capture the concepts of "ED visit", "inpatient visit", and "outpatient visit". However, it is not clear which variables most accurately capture the true visit history, nor is it clear which variables New York State will use in their own implementation of the attribution logic.

Summary

Based on the above maps, NYPH serves children with Medicaid who live throughout Manhattan, Bronx, Brooklyn, and Queens. The CUMC campus serves a geographically well-defined community in Northern Manhattan and the Southwest Bronx. WCMC and LM serve geographically broader communities throughout these four boroughs. Each serves a local Manhattan community geographically close to the hospital (Upper East Side and East Harlem for WCMC; Manhattan below 14th street for LM). In addition, WCMC draws patients from throughout Western Queens and the Bronx, and LM draws patients from throughout Brooklyn.

Attribution Update (November 2014)

Objective

This report describes findings from our revision of the attribution logic. The purpose was to generate a cohort to approximate the prevalence of diseases in the attributed population.

Notes on Methods

We re-ran our analysis, using 2013 data, to try to reproduce the New York State's DSRIP attribution logic with more fidelity. However, after review of the latest information provided by New York State's Office of Health Insurance Programs,¹ we have made several important discoveries about the attribution process.

First, New York State's cutoff for "Low Utilizers" is much higher than we expected. In our initial review of the materials, we had imagined that low utilizers were patients who only filed non-physician-visit claims (i.e. pharmacy, DME, etc.). However, the current documentation now suggests these individuals are "members with low visits (3 or fewer now but may change)."

Second, we recognize that there are still several aspects of NYS's attribution logic that we have not replicated. For example,

- We cannot apply the "50% rule" without access to the NPI lists submitted by the other PPSs in New York State.
- The state has not provided details on how it defines "PCP" versus "Other Primary Care Provider or Outpatient Clinic."
- The definition of "Low Utilizer" is not sufficiently specific (does "low visits" mean ED, outpatient and inpatient, or just outpatient?), and appears subject to change ("3 or fewer but may change").
- We have not attempted to replicate the multiple levels of possible attribution within the mental health swim lane.
- We have used only 2013 data (whereas the state uses 2 years of data).

Third, it remains unclear why the State's preliminary attribution results contain patients limited almost entirely to Manhattan. When we include all home zip codes in our analyses, we consistently find a larger number of patients than the state's estimates (ours 115k versus theirs 80k). However, when we only include individuals living in Manhattan, our numbers are much lower (ours 55k versus theirs 80k).

We have thus taken the following approach. We have *included* patients from all boroughs of New York City, but we have *excluded* patients who are low utilizers (only one visit to the ED, inpatient, or outpatient setting in 2013). Removing individuals

¹ https://www.health.ny.gov/health_care/medicaid/redesign/docs/2014-10-27_attribution_webinar.pdf

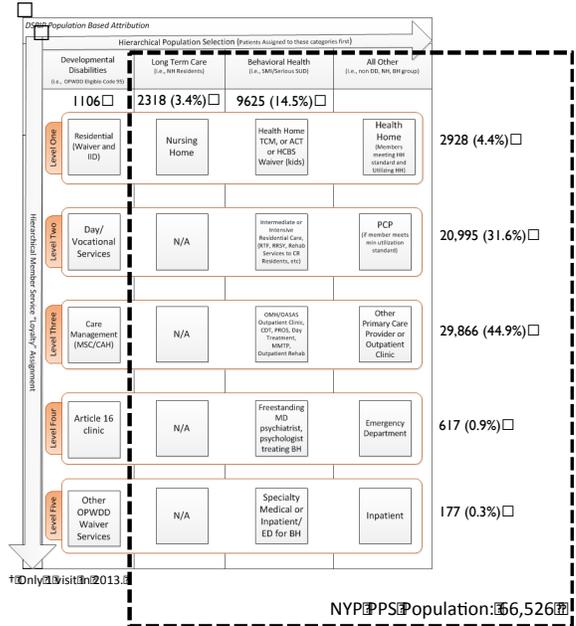
expected to be cared for by the Office for People with Developmental Disabilities (OPWDD) left us with 66,526 patients.

As we prepare this document, we are aware that the State is continuing to fine tune their attribution logic. Thus these findings should continue to be taken as gross estimates for planning purposes.

Results

In our implementation of the DSRIP Attribution Logic, we found 115,246 people attributed to the NewYork-Presbyterian PPS. We then removed 46,545 people who were “Low Utilizers”, and 1106 people who we believed would fall into the developmental disabilities swim lane. This left 66,526 people attributed to the NYP PPS. Of these, 2318 (3.4%) were attributed based on long term care, and 9625 (14.5%) had serious mental illness or substance abuse disorders. Of the remaining patients, 2928 were attributed by health home billing, 20,995 based on PCP visits, 29,866 by other outpatient visits, 617 by ED visits, and 177 by inpatient visits.

Gross Attribution to NYP PPS: 115,246
Remove 46,545 “Low Utilizers”



Geographic Distribution

Patients were attributed either to the Columbia University Medical Center (CUMC) campus, the Weill Cornell Medical Center (WCMC) campus, or the collaborator organizations.

CUMC. There were 22,420 individuals attributed to the CUMC campus. More than 90% of these individuals live in Northern Manhattan or in the Bronx. As shown in previous reports, the largest concentrations of individuals are in Washington Heights / Inwood and Southwest Bronx zip codes along the northern border of the Harlem River (Table 1).

Table 1. 90% of the 22,420 patients attributed to CUMC live in Northern Manhattan and the Bronx, based on internal analysis of Medicaid Claims data from 2013.

| Borough | Neighborhood | Individuals (1% of 22,420) |
|-----------|-------------------------------|----------------------------|
| Manhattan | Inwood and Washington Heights | 10,832 (48%) |
| | Central Harlem | 1719 (8%) |
| Bronx | High Bridge and Morrisania | 2049 (9%) |
| | Central Bronx | 1878 (8%) |
| | Bronx Park and Fordham | 1514 (7%) |
| | Kingsbridge and Riverdale | 1094 (5%) |
| | Southeast Bronx | 604 (3%) |
| | Hunts Point and Mott Haven | 564 (3%) |

WCMC. There were 5505 individuals attributed to the WCMC campus. More than 75% of these individuals live in 19 neighborhoods, spread across four boroughs (Table 2).

Table 2. 75% of the 5505 patients attributed to WCMC live in 19 neighborhoods in 4 boroughs, based on internal analysis of Medicaid Claims data from 2013.

| Borough | Neighborhood | Individuals (% of 5505) |
|----------------|-------------------------------|--------------------------------|
| Bronx | High Bridge and Morrisania | 195 (4%) |
| | Southeast Bronx | 180 (3%) |
| | Central Bronx | 176 (3%) |
| | Hunts Point and Mott Haven | 171 (3%) |
| Brooklyn | Borough Park | 165 (3%) |
| | Central Brooklyn | 161 (3%) |
| | Bushwick and Williamsburg | 159 (3%) |
| | Southern Brooklyn | 136 (2%) |
| | East New York and New Lots | 135 (2%) |
| | Southwest Brooklyn | 130 (2%) |
| Manhattan | Lower East Side | 320 (6%) |
| | Upper East Side | 293 (5%) |
| | East Harlem | 282 (5%) |
| | Inwood and Washington Heights | 211 (4%) |
| | Central Harlem | 208 (4%) |
| | Chelsea and Clinton | 176 (3%) |
| | Upper West Side | 174 (3%) |
| Queens | Northwest Queens | 470 (9%) |
| | West Queens | 396 (7%) |

Collaborators. There were 38,599 individuals attributed to the collaborator organizations. More than 75% of these individuals live in 17 neighborhoods, spread across four boroughs. The largest concentration of people lives in Washington Heights and Inwood, near the CUMC campus, and in the Lower East Side of Manhattan, near the new Lower Manhattan campus of New York-Presbyterian Hospital (Table 3).

Table 3. 75% of the 38,599 patients attributed to the Partner organizations live in 17 neighborhoods in 4 boroughs, based on internal analysis of Medicaid Claims data from 2013.

| Borough | Neighborhood | Individuals (% of 38,599) |
|----------------|-------------------------------|----------------------------------|
| Bronx | High Bridge and Morrisania | 2053 (5%) |
| | Central Bronx | 1799 (5%) |
| | Bronx Park and Fordham | 1403 (4%) |
| | Hunts Point and Mott Haven | 1337 (3%) |
| | Southeast Bronx | 868 (2%) |
| Brooklyn | Bushwick and Williamsburg | 1108 (3%) |
| | Borough Park | 1056 (3%) |
| | East New York and New Lots | 1023 (3%) |
| | Central Brooklyn | 919 (2%) |
| Manhattan | Inwood and Washington Heights | 6512 (17%) |
| | Lower East Side | 3010 (8%) |
| | Central Harlem | 1598 (4%) |
| | East Harlem | 1093 (3%) |
| Queens | West Queens | 1579 (4%) |
| | Northwest Queens | 1429 (4%) |
| | Jamaica | 1227 (3%) |
| | North Queens | 1207 (3%) |

Summary and Conclusion

We identified 66,526 people who may be attributed to the NYP-PPS. Current (as of November 2014) runs of attribution from New York State suggest that the vast majority of patients attributed to NYP-PPS will live in Manhattan – however, we were not able to reproduce this finding.

Nevertheless, these numbers may be useful for planning purposes. Although the group described in our analysis is unlikely to map directly to the group attributed to the NYP-PPS by New York State, these findings can be used to estimate disease prevalence and comorbidity profile of the attributed population. The next section describes these findings.

Profile of Attributed Patients (November 2014)

Objective

Describe the disease prevalence and comorbidity profile of a cohort of 66,526 individuals potentially attributed to the NYP-PPS.

Summary of Findings

Pediatrics.

The most common five diseases in children were as follows:

- Persistent Asthma (3508 children; 16%)
- Developmental Delay (1905 children; 9%)
- Vision Problems (1257 children; 6%)
- ADD (976 children; 4%)
- Hearing Problems (551 children; 2%)

One in eight children potentially attributed to the NYP-PPS had chronic diseases with medical complexity (2796 of 22,124 in this cohort).

Utilization of health services was highest among young children, and among children with chronic disease and medical complexity.

Adults.

The five most common diseases in adults were as follows:

- Hypertension (16,622 adults; 37%)
- High Cholesterol (13,510 adults; 30%)
- Low Back Pain (9186 adults; 21%)
- Diabetes (8546 adults; 19%)
- Depression (8100 adults; 18%)

Pediatrics Comorbidities. There were 22,124 children in the cohort of 66,526. Of this group, 7703 were attributed to CUMC, 1837 to WCMC, and 12,584 to the collaborator organizations. The most common five diseases were as follows:

1. Persistent Asthma (3508 children; 16%)
2. Developmental Delay (1905 children; 9%)
3. Vision Problems (1257 children; 6%)
4. ADD (976 children; 4%)
5. Hearing Problems (551 children; 2%)

Based on Simon's Medical Complexity Algorithm,² the majority of children did not have chronic diseases (13,883 children; 63%). A quarter of the children had chronic diseases that were not medically complex (5445 children; 25%). One in eight children had chronic diseases that were medically complex (2796 children; 13%).

Table 1. Estimated Number of Children with Specific Medical Conditions, among 22,124 Potentially Attributed to the NYPPS

| | | CUMC (n=7703) | WCMC (n=1837) | Partners (n=12,584) |
|---|----------------------|------------------|------------------|------------------------|
| Psychiatric Conditions | ADD | 334(4%) | 76(4%) | 566(4%) |
| | Anxiety | 225(3%) | 33(2%) | 226(2%) |
| | Conduct Disorder | 158(2%) | 23(1%) | 242(2%) |
| | PDD | 153(2%) | 23(1%) | 116(<1%) |
| | Developmental Delay | 908(12%) | 160(9%) | 837(7%) |
| | Mental Retardation | 24(<1%) | 9(<1%) | 18(<1%) |
| | Bipolar Disease | 21(<1%) | 5(<1%) | 57(<1%) |
| | Schizophrenia | 22(<1%) | 6(<1%) | 45(<1%) |
| | Depression | 226(3%) | 27(1%) | 249(2%) |
| Neurologic Conditions | Cerebral Palsy | 45(<1%) | 21(1%) | 17(<1%) |
| | Speech Problem | 41(<1%) | 11(<1%) | 49(<1%) |
| | Tourettes | 2(<1%) | 0(<1%) | 1(<1%) |
| | Hearing Problem | 180(2%) | 36(2%) | 335(3%) |
| | Vision Problem | 220(3%) | 72(4%) | 965(8%) |
| | TBI/Concussion | 30(<1%) | 5(<1%) | 33(<1%) |
| | Seizure Disorder | 141(2%) | 72(4%) | 136(1%) |
| Medical Conditions | HIV/AIDS | 18(<1%) | 9(<1%) | 11(<1%) |
| | Persistent Asthma | 1275(17%) | 410(22%) | 1823(14%) |
| | Sickle Cell | 4(<1%) | 11(<1%) | 11(<1%) |
| Simon's Pediatric Medical Complexity Algorithm† | None | 296(4%) | 84(5%) | 629(5%) |
| | Non-Chronic | 4512(59%) | 852(46%) | 7510(60%) |
| | Non-Complex, Chronic | 1977(26%) | 505(27%) | 2963(24%) |
| | Complex Chronic | 918(12%) | 396(22%) | 1482(12%) |

†Simon TD et al Pediatrics 2014

² † Simon TD et al Pediatrics 2014

Pediatrics Utilization Data. Utilization of health services was highest among young children, and among children with complex chronic diseases (Table 2).

Table 2. Utilization Data for Children by Age and Risk Strata, Among 22,124 Potentially Attributed Children

| Age | Risk Strata† | N | Count of Visits | | | Per Patient | | |
|------------------|----------------------|-------|-----------------|-------|------------|-------------|------|------------|
| | | | Admissions | ED† | Outpatient | Admissions | ED† | Outpatient |
| 1st Year of Life | Non-Chronic | 1649 | 1696 | 1502 | 8081 | 1.03 | 0.91 | 4.90 |
| | Non-Complex, Chronic | 281 | 313 | 342 | 1540 | 1.11 | 1.22 | 5.48 |
| | Complex Chronic | 148 | 238 | 188 | 790 | 1.61 | 1.27 | 5.34 |
| Age 1-5 | Non-Chronic | 5230 | 103 | 6542 | 21409 | 0.02 | 1.25 | 4.09 |
| | Non-Complex, Chronic | 1939 | 147 | 3485 | 9200 | 0.08 | 1.80 | 4.74 |
| | Complex Chronic | 876 | 316 | 1921 | 4214 | 0.36 | 2.19 | 4.81 |
| Age 6-12 | Non-Chronic | 3515 | 30 | 1811 | 10652 | 0.01 | 0.52 | 3.03 |
| | Non-Complex, Chronic | 1981 | 89 | 1605 | 7361 | 0.04 | 0.81 | 3.72 |
| | Complex Chronic | 1015 | 181 | 1328 | 4158 | 0.18 | 1.31 | 4.10 |
| Age 13-18 | None | 1009 | 74 | 633 | 3180 | 0.07 | 0.63 | 3.15 |
| | Non-Chronic | 2480 | 46 | 1123 | 7416 | 0.02 | 0.45 | 2.99 |
| | Non-Complex, Chronic | 1244 | 82 | 974 | 4375 | 0.07 | 0.78 | 3.52 |
| | Complex Chronic | 756 | 195 | 800 | 3090 | 0.26 | 1.06 | 4.09 |
| | TOTAL | 22123 | 3510 | 22254 | 85466 | | | |

†ED counts are somewhat uncertain. These visits are not reliably coded in the claims dataset.
 ‡Simon et al. Pediatrics 2014

Adult Comorbidities. There were 44,329 adults potentially attributed to the NYP-PPS. Of these, 14,677 were attributed to CUMC, 3,661 to WCMC, and 25,911 to the collaborator organizations. The most common diseases were

1. Hypertension (16,622 adults; 37%)
2. High Cholesterol (13,510 adults; 30%)
3. Low Back Pain (9186 adults; 21%)
4. Diabetes (8546 adults; 19%)
5. Depression (8100 adults; 18%)

Table 3. Disease Prevalence Among 44,329 Potentially Attributed Adults

| Category | Disease | CUMC (n=14,677) | WCMC (n=3,661) | Partners (n=25,991) |
|-----------------------|---------------------|--------------------|-------------------|------------------------|
| Cardiovascular | Hypertension | 5801 (40%) | 1676 (46%) | 9145 (35%) |
| | Heart Disease | 1271 (9%) | 648 (18%) | 1711 (7%) |
| | CHF | 890 (6%) | 306 (8%) | 643 (2%) |
| Highlighted Diseases | Diabetes | 2886 (20%) | 1027 (28%) | 4633 (18%) |
| | HIV/AIDS† | 661 (5%) | 530 (14%) | 5897 (23%) |
| | Renal Disease | 873 (6%) | 322 (9%) | 886 (3%) |
| | Sickle Cell Disease | 65 (<1%) | 9 (<1%) | 45 (<1%) |
| Neurologic | Epilepsy | 500 (3%) | 147 (4%) | 796 (3%) |
| | Dementia | 237 (2%) | 55 (2%) | 154 (<1%) |
| | TBI/Concussion | 70 (<1%) | 46 (1%) | 130 (<1%) |
| | Parkinsons | 126 (<1%) | 37 (1%) | 77 (<1%) |
| Other Common Diseases | High Cholesterol | 3909 (27%) | 1365 (37%) | 8236 (32%) |
| | Low Back Pain | 2600 (18%) | 985 (27%) | 5601 (22%) |
| | Glaucoma | 1067 (7%) | 460 (13%) | 2103 (8%) |
| | Hypothyroid | 849 (6%) | 338 (9%) | 1372 (5%) |
| Psychiatric | Depression | 2509 (17%) | 836 (23%) | 4755 (18%) |
| | Substance Abuse | 298 (2%) | 238 (7%) | 3371 (13%) |
| | Bipolar Disorder | 326 (2%) | 160 (4%) | 2241 (9%) |
| | Schizophrenia | 383 (3%) | 217 (6%) | 2120 (8%) |
| | Alcohol Abuse | 206 (1%) | 97 (3%) | 1817 (7%) |
| | Mental Retardation | 48 (<1%) | 12 (<1%) | 69 (<1%) |
| Respiratory | Asthma | 1544 (11%) | 631 (17%) | 3466 (13%) |
| | COPD | 524 (4%) | 267 (7%) | 1045 (4%) |

†Patients with HIV/AIDS were counted using ICD-9 codes, which is of unclear validity in this dataset.

Adult Comorbidities, Mutually Exclusive Categories. To assist planning, we categorized adults into mutually exclusive categories (Table 4). We chose eight diseases of interest (sickle cell, COPD, seizures/epilepsy, CHF, renal failure, diabetes, stroke, and asthma). We then counted the number of individuals with only one of these diseases, with and without serious mental illness or substance abuse. We looked also at individuals with exactly two of these diseases, and with three or more of these diseases. In addition, we examined patients with none of these eight, but with at least one “Major DRG” – i.e. one significant medical condition as defined by the Johns Hopkins ACG software.³ DRG stands for “Diagnosis Related Group”.

Table 4. Estimated Number of Adults with Specific Medical Conditions, among 4,329 potentially attributed patients, in mutually exclusive categories

| | | CUMC (n=14,677) | WCMC (n=3,661) | Partners (n=25,991) |
|---|---|--------------------|-------------------|------------------------|
| One disease only, no substance abuse, no serious mental illness | Sickle Cell | 30 | 0 | 14 |
| | COPD | 84 | 26 | 131 |
| | Seizure/epilepsy | 153 | 20 | 114 |
| | CHF | 142 | 23 | 58 |
| | Renal Failure | 143 | 46 | 153 |
| | Diabetes | 1325 | 327 | 1983 |
| | Stroke | 340 | 89 | 436 |
| | Asthma | 738 | 191 | 1092 |
| One disease only, with substance abuse or serious mental illness | Sickle Cell | 5 | 0 | 5 |
| | COPD | 29 | 12 | 116 |
| | Seizure | 41 | 14 | 137 |
| | CHF | 22 | 7 | 35 |
| | Renal Failure | 18 | 11 | 57 |
| | Diabetes | 201 | 78 | 701 |
| | Stroke | 49 | 25 | 203 |
| | Asthma | 153 | 68 | 857 |
| Multiple Diseases | Exactly two diseases, no substance abuse, no serious mental illness | 988 | 380 | 1029 |
| | Exactly two of these diseases, with substance abuse or serious mental illness | 221 | 120 | 839 |
| | Three or more of these diseases, no substance abuse, no serious mental illness | 625 | 267 | 487 |
| | Three or more of these diseases, with substance abuse or serious mental illness | 146 | 92 | 509 |
| Other patients with major health conditions | Other patients with one or more of Major DRG, not included above, without substance abuse or serious mental illness | 3504 | 890 | 5560 |
| | Other patients with one or more of Major DRG, not included above, with substance abuse or serious mental illness | 664 | 329 | 3530 |
| Substance Abuse or Serious Mental Illness Only | Substance abuse or serious mental illness, but none of the seven medical conditions, and no "Major DRGs" | 138 | 17 | 252 |
| Everybody Else | None of the seven diseases, no Major DRGs, no mental illness, no substance abuse | 4918 | 629 | 7693 |

³ <http://acg.jhsph.org/>

Table 2. Estimated Number of Adults with Specific Medical Conditions, Among 4,329 Potentially Attributed Patients, in Mutually Exclusive Categories

| | | CUMC (n=14,677) | WCMC (n=3,661) | Partners (n=25,991) |
|---|--|--------------------|-------------------|------------------------|
| One disease only, no substance abuse, no serious mental illness | Sickle Cell | 30 | 0 | 14 |
| | COPD | 84 | 26 | 131 |
| | Seizure/Epilepsy | 153 | 20 | 114 |
| | CHF | 142 | 23 | 58 |
| | Renal Failure | 143 | 46 | 153 |
| | Diabetes | 1325 | 327 | 1983 |
| | Stroke | 340 | 89 | 436 |
| | Asthma | 738 | 191 | 1092 |
| One disease only, with substance abuse or serious mental illness | Sickle Cell | 5 | 0 | 5 |
| | COPD | 29 | 12 | 116 |
| | Seizure | 41 | 14 | 137 |
| | CHF | 22 | 7 | 35 |
| | Renal Failure | 18 | 11 | 57 |
| | Diabetes | 201 | 78 | 701 |
| | Stroke | 49 | 25 | 203 |
| | Asthma | 153 | 68 | 857 |
| Multiple Diseases | Exactly two diseases, no substance abuse, no serious mental illness | 988 | 380 | 1029 |
| | Exactly two of these diseases, with substance | 221 | 120 | 839 |
| | Three or more of these diseases, no substance | 625 | 267 | 487 |
| | Three or more of these diseases, with substance | 146 | 92 | 509 |
| Other patients with major health conditions | Other patients with one or more "Major DRG", not included above, without substance abuse or serious mental illness | 3504 | 890 | 5560 |
| | Other patients with one or more "Major DRG", not included above, with substance abuse or | 664 | 329 | 3530 |
| Substance Abuse or Serious Mental Illness Only | Substance abuse or serious mental illness, but none of the seven medical conditions, and no "Major DRGs" | 138 | 17 | 252 |
| Everybody Else | None of the seven diseases, no "Major DRGs", no mental illness, no substance abuse | 4918 | 629 | 7693 |

A.i. Health Care Resources: Lower Manhattan

Objective

Outline the health care resources available to residents of Downtown Manhattan. This complete assessment of the health care and community-based resources within its service area includes three components:

- 1) Summary of health care resources
- 2) Summary of community resources
- 3) Detailed inventory of organizations and resources

Particular attention was paid to services available to Medicaid recipients. The detailed inventory is included as an appendix.

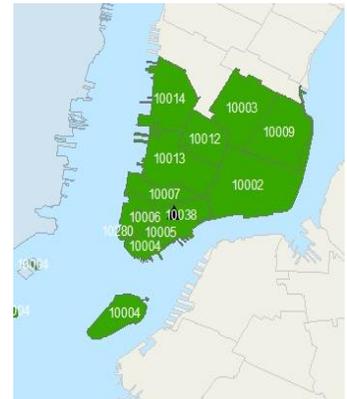


Figure 1. Area covered by Lower Manhattan

Key Findings

Residents of Lower Manhattan have access to a wide array of health services. Nonetheless, some gaps in the services provided were noted:

- The rate of unplanned readmissions is higher than the national average at four of the five local hospitals.
- There is only one program center that focuses on autism spectrum diagnosis/intervention.
- No programs in the area focus solely on eating disorders.
- There are no safety net adult care facilities.
- There are no safety net assisted living facilities.

Residents of Lower Manhattan have access to a wide array of community-based resources. Nonetheless, some gaps in the services provided were noted:

- There are no furniture banks in the area.
- There is only one family support and training service facility located in the area.
- There is only one peer support service available in the area.

Hospitals

Three hospitals are available within the specified region. Two additional hospitals are located less than a mile from the area. Four of the hospitals provide general medical care while the New York Eye and Ear Infirmary is a specialty hospital. The nearest level 1 trauma center is Bellevue Hospital, which is less than one mile north of the area. A total of 2,861 beds are available across the five hospitals. In 2012, there were 41,184 discharges among Medicaid recipients (Table 1). Four of these five hospitals have a higher rate of unplanned readmission after discharge from the hospital than the national average (Figure 2).

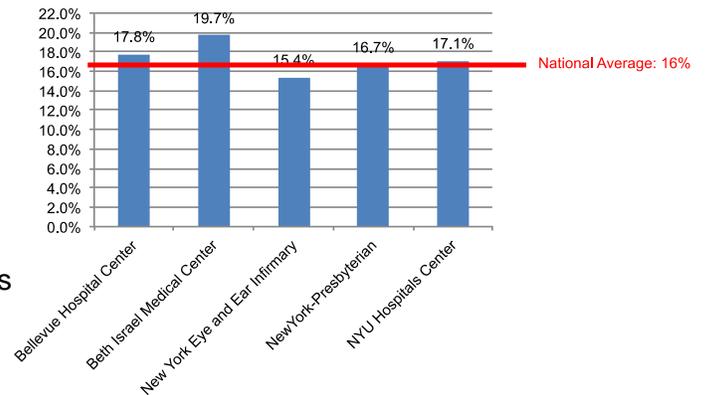


Figure 2. Rate of unplanned readmission after discharge from hospital

Source: Medicare Hospital Compare Quality of Care

Table 1. Description of hospitals in the Lower Manhattan service area.

| Name of Facility | Beds | Total Facility Admissions | Emergency Room Visits | Total facility Medicaid Discharges | Total facility Medicaid Days |
|---|------|---------------------------|-----------------------|------------------------------------|------------------------------|
| NewYork-Presbyterian/Lower Manhattan Hospital | 180 | 5,017 | 19,866 | 886 | 8,489 |
| Bellevue Hospital Center | 912 | 29,793 | 122,389 | 17,486 | 129,717 |
| Beth Israel Medical Center | 856 | 54,882 | 148,826 | 17,990 | 105,027 |
| NYU Hospitals Center | 844 | 38,045 | 50,096 | 4,512 | 30,170 |
| New York Eye and Ear Infirmary | 69 | 696 | 0 | 310 | 567 |

Source: NYS Health Profiles and American Hospital Association Annual Survey (2012)

Survey data from patient's experiences with the respective hospitals are displayed in figure 3. The questions ranged from asking patients how well nurses and doctors communicated with them, how quickly help was provided to them, how well information regarding their care was communicated, and how patients would rate the hospitals.

- NewYork-Presbyterian had the highest response for patients who would rate the hospital a 9 or higher out of a scale of 10.
- NewYork-Presbyterian did as well or better than the New York State average on 5 of the 7 questions.
- Patients at NYP did not feel that they received help as soon as they wanted with the response of "always" having a 57% rate compared to the state average of 61%.
- NYP patients reported that they were given information about what to do during their recovery at home with an 82% rate, slightly lower than the state average of 83%.

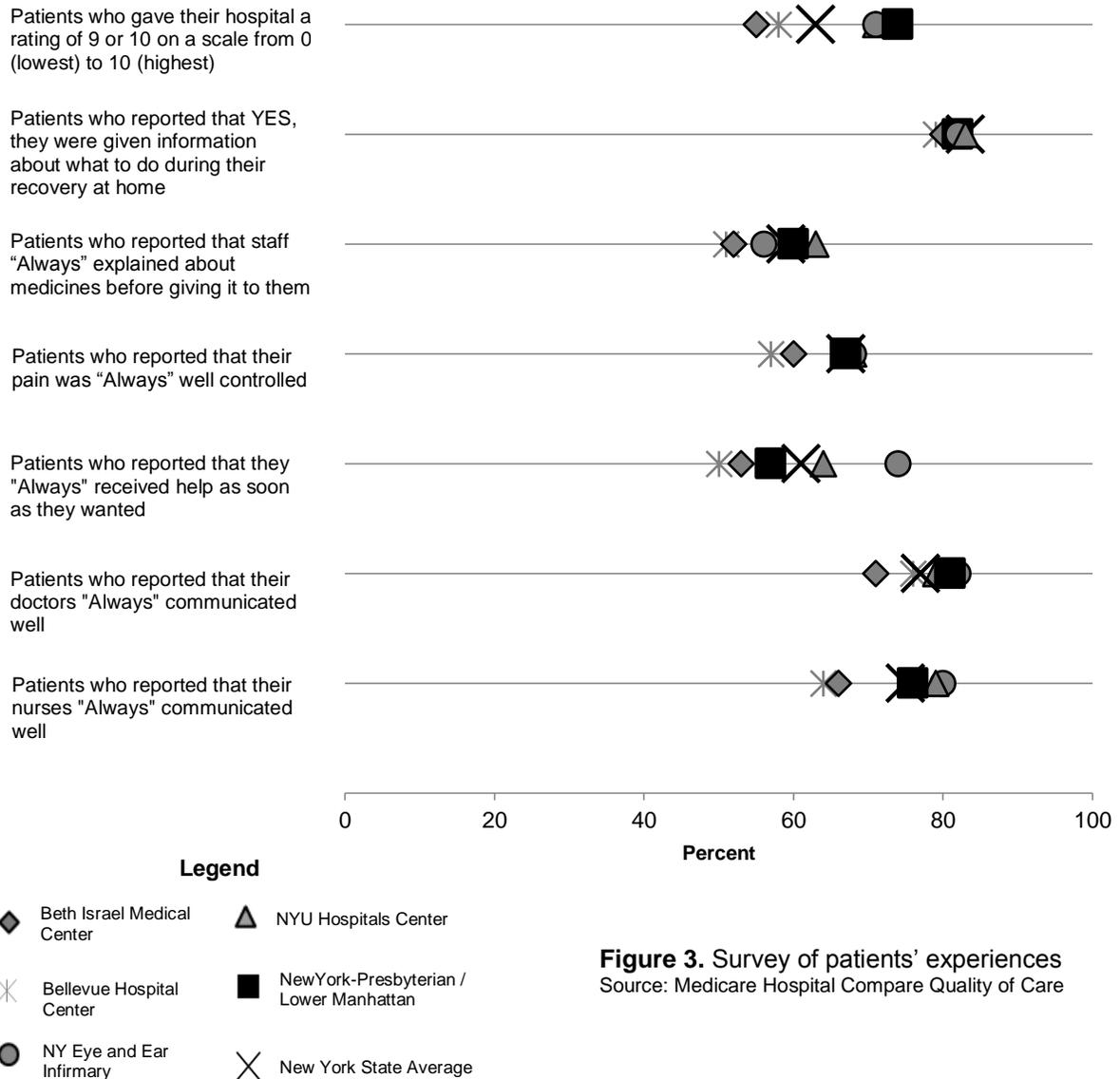


Figure 3. Survey of patients' experiences
Source: Medicare Hospital Compare Quality of Care

The New York State Department of Health has published counts of users for emergency room and inpatient services for patients with Medicaid insurance.⁴ There are 86,522 patients with Medicaid who live in the LM area. These individuals use the following resources for their health services (Tables 2 and 3). Four of the facilities that provide ER services (starred) are in the area. Four of the facilities with inpatient services (starred) are in the area.

Table 2. Emergency room visits of facilities that accepted Medicaid for the 2013 calendar year

| Provider | ER Visits | Unique Members with ER Visits |
|-------------------------------------|-----------|-------------------------------|
| Beth Israel Medical Center * | 14,803 | 7,838 |
| Bellevue Hospital Center * | 5,132 | 2,979 |
| NYU Downtown Hospital * | 3,075 | 2,087 |
| NY Hospital * | 2,305 | 1,637 |
| St Luke's Roosevelt Hospital Center | 1,325 | 697 |
| Mount Sinai Hospital | 750 | 456 |
| Presbyterian Hospital City of NY | 782 | 406 |
| Metropolitan Hospital Center | 650 | 399 |
| Harlem Hospital Center | 728 | 397 |
| Montefiore Medical Center | 587 | 367 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the LM region

Table 3. Inpatient admissions of facilities that accepted Medicaid for the 2013 calendar year

| Provider | Inpatient Admissions | Unique Members with Inpatient Admissions |
|-------------------------------------|----------------------|--|
| Beth Israel Medical Center * | 8,045 | 4,089 |
| Bellevue Hospital Center * | 2,090 | 1,595 |
| NY Hospital * | 1,643 | 1,256 |
| NYU Downtown Hospital * | 1,793 | 1,172 |
| Meds OOS Hospital | 537 | 421 |
| Metropolitan Hospital Center | 387 | 295 |
| St Luke's Roosevelt Hospital Center | 480 | 277 |
| Mount Sinai Hospital | 330 | 263 |
| Areba Casriel Institute | 404 | 229 |
| Harlem Hospital Center | 239 | 199 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the LM region

⁴ <http://dsripdashboards.health.ny.gov/>

Ambulatory surgical centers

There are seven ambulatory surgical centers located in the Lower Manhattan Region, with one center less than a mile from the region (Figure 4). Three of the centers are associated with hospitals: Mount Sinai Beth Israel – Phillips Ambulatory Care Center, NewYork-Presbyterian/Lower Manhattan Hospital Surgical Centers, and New York Eye and Ear Infirmary of Mount Sinai. Procedures at these facilities range from general surgical care to more specialty specific care such as endoscopic, orthopedic, and ENT surgeries.

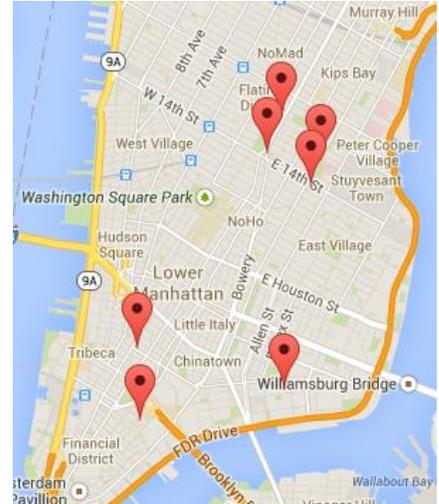


Figure 4. Location of ambulatory surgical centers in the Lower Manhattan region.

Urgent care centers

There are 3 urgent care centers located in the Lower Manhattan region. There are 13 centers less than a mile away from the region. One of the centers, Dr. Walk In, operates out of a Duane Reade pharmacy store. Two of the centers are affiliated with hospitals: Beth Israel Medical Group and the Bellevue Offsite Clinic. Three of the centers have multiple locations: City MD, MedRite, and New York Doctors Walk-In Urgent Care.

Behavioral health

There are nearly 50 behavioral health centers in Lower Manhattan and the surrounding region. Resources include individual therapy, group therapy, substance abuse treatment, crisis services, methadone treatment, and other forms of mental health services. Services are provided for all ages, offered in multiple languages, and are catered to the cultural needs of the community. Examples of resources that provide culturally sensitive counseling include the Charles B. Wang Community Health Center, Asian and Pacific Islander Coalition on HIV/AIDS, Hamilton-Madison House Behavioral/Recovery Services, University Settlement – Consultation Center, and Access Community Health Center.

There are 75 physicians in the region that practice psychiatry. Approximately 65% of these physicians accept Medicaid insurance. Only 32% of the physicians use an Electronic Medical Record (EHR) software.⁵

⁵ SK&A data

Physicians

There are 1,106 physicians located in the LM region, both generalists and specialists (Table 4). The average patient load is 78 patients per physician. There are an average 7 physicians per practice. Approximately 66% of these physicians accept Medicaid. 66% also use an Electronic Medical Record (EHR) software.

Table 4. Physicians in the Lower Manhattan area

| | Number: | % of Total: |
|-------------------------------|----------------|--------------------|
| General Medicine | 264 | 24% |
| Pediatrics | 70 | 6% |
| Psychiatry | 75 | 9% |
| Infectious Disease | 14 | 1.3% |
| OB/GYN | 94 | 9% |
| Pain | 6 | 0.5% |
| Other Specialties | 583 | 53% |
| Total | 1106 | 100% |
| | | |
| Avg. patient load / MD | 78 | |
| Avg. MDs / practice | 7 | |
| | | |
| Accept Medicaid | 733 | 66% |
| Use EHR Software | 728 | 66% |

Source: SK&A data

When broken down by specialty, the physicians that accept the highest percentage of Medicaid patients are OB/GYN, infectious disease, and pediatrics (Table 5). Pediatrics and infectious disease specialists also have the highest percentage of EHR usage. Psychiatry has the lowest percentage of use at 32%.

Table 5. Physicians that accept Medicaid or use an EHR software broken down by specialty

| Specialty | Accept Medicaid N (% of total) | Use an EHR N (% of total) |
|--------------------|---|--------------------------------------|
| General | 181 (69%) | 189 (72%) |
| Pediatrics | 49 (70%) | 59 (84%) |
| Psychiatry | 49 (65%) | 24 (32%) |
| Infectious Disease | 11 (79%) | 12 (86%) |
| OB/GYN | 47 (50%) | 64 (68%) |
| Pain | 5 (83%) | 3 (50%) |
| Other Specialties | 391 (67%) | 377 (65%) |

Source: SK&A data

Primary care providers including private practice, clinics, hospital-based, and residency programs

There are 21 primary care centers located in the Lower Manhattan region. One of the centers focuses on pediatric care, caring for patients until the age of 21. Another focuses on adolescents, aged 12 – 21. Two others focus on women’s health specifically.

There are 181 general physicians, 49 pediatricians, and 47 OB/GYN specialists in the region that accept Medicaid. These make up 69%, 70%, and 50% of the total number of physicians in the area respectively (Figure 5).

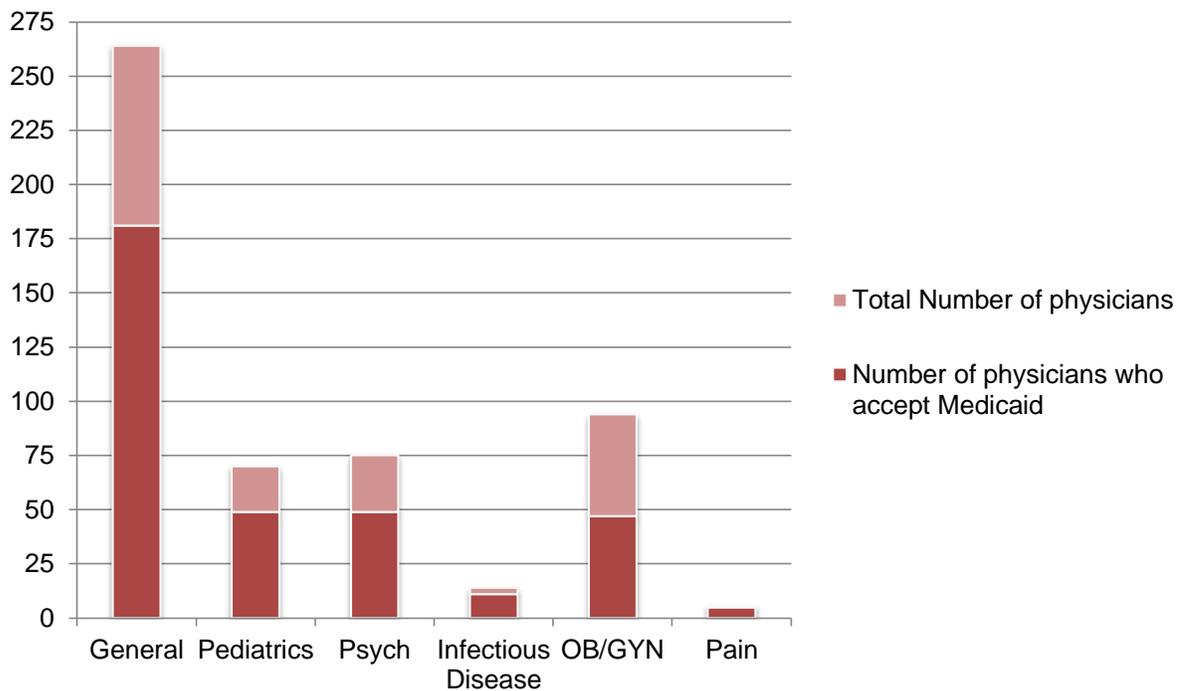


Figure 5. Physicians in the region that accept Medicaid broken down by specialty

Source: SK&A data

Several facilities offer comprehensive medical and behavioral health services. There is one Veteran’s Administration clinic located in the area that only provides care to eligible veterans. There are three Institute for Family Health facilities in the region and one associated AIDS service center. An outreach center affiliated with New York University is also located in the area providing free blood pressure, glucose, and cholesterol screenings. Two providers have multiple sites across the region: Charles B Wang Community Health Centers has two locations and Gouverneur Health has 4 associated clinics.

The New York State Department of Health has published counts of users for primary care services for patients with Medicaid insurance. There are 86,522 patients with

Medicaid who live in the LM area. These individuals use the following resources for their primary care services (Table 6). Seven of the facilities with outpatient services (starred) are in the area.

Table 6. Primary care visits of facilities that accepted Medicaid for the 2013 calendar year

| Provider | Primary Care Visits | Unique Members with Primary Care Visits |
|--|---------------------|---|
| Gouverneur Diagnostic and Treatment Center * | 25,832 | 6,345 |
| Beth Israel Medical Center * | 17,706 | 5,348 |
| Health First PHSP Inc | 17,031 | 3,924 |
| William F Ryan Community Health Center * | 12,635 | 3,423 |
| Charles B Wang Community Health Center * | 13,477 | 3,372 |
| Bellevue Hospital Center * | 9,893 | 2,972 |
| Betances Health Center * | 9,111 | 1,930 |
| He Yong Kang MD | 7,754 | 1,306 |
| Community Healthcare Network * | 3,957 | 1,224 |
| La Cheuk Wai MD | 5,173 | 992 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the LM region

Specialty medical providers including private practice, clinics, hospital-based, and residency programs

There are 12 specialty care providers located in the Lower Manhattan region and one less than a mile from the designated region. Several of the locations provide care for HIV/AIDS patients including treatment, prevention, and counseling services. Nutrition programs, social services, and diabetes care are also provided by some of the clinics. The New York Eye and Ear Infirmary of Mount Sinai focuses on disorders of the eyes, ears, nose, head, and neck.

There are 14 physicians in the region that practice in the field of infectious disease; most (79%) of these physicians accept Medicaid insurance. Additionally, 86% of the physicians use an EHR software.⁶

⁶ SK&A data

Dental providers

There are 12 dental providers located in the Lower Manhattan region and 4 in the surrounding area. Most clinics provide routine dental care while some focus on dental surgeries and emergent dental care. A few locations have specialized pediatric dentists on staff.

The New York State Department of Health has published counts of users for dental services for patients with Medicaid insurance. There are 86,522 patients with Medicaid who live in the LM area. These individuals use the following resources for their dental services (Table 7). Four of the private dentists (starred) are in the area. The last private dentist on the list was Desteno Cosmo, affiliated with NYU Dentistry, which is less than a mile away from the region. Three of the dental clinics (starred) are in the area. The fourth dental clinic on the list was New York University Dental Center, which is less than a mile away from the specified region.

Table 7. Private dentists and dental clinics that accepted Medicaid in the 2013 calendar year

| Private Dentists | | | Dental Clinics | | |
|---|-------------|------------------------------|--|-------------|------------------------------|
| Service Name | Claim Count | Unique Members with Services | Service Name | Claim Count | Unique Members with Services |
| Lai Mailin Mimi DDS * | 8,297 | 1,296 | William F Ryan Community Health Center * | 2,223 | 1,326 |
| Desteno Cosmo – NYU Dentistry | 5,428 | 972 | Charles B Wang Community Health Center * | 4,044 | 1,300 |
| Chan William K DMD * | 4,505 | 906 | Betances Health Center * | 1,580 | 618 |
| Young Healy – Modern Dental Center * | 5,434 | 843 | New York University Dental Center | 1,031 | 458 |
| Frist Allen DDS – Gouverneur Health Care Services * | 3,426 | 790 | Premier Healthcare Diagnostic and Treatment Center | 1,096 | 348 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Private dentists or dental clinics in the LM region

Rehabilitative services including physical therapy, occupational therapy, and speech therapy – inpatient and community-based

There are 7 rehabilitative service providers in Lower Manhattan and 3 in the surrounding area (Figure 6). Services at these locations include physical therapy, occupational therapy, and speech and language therapy. VillageCare Rehabilitation and Nursing Center is primarily a nursing home providing rehabilitation services to its patients. It has an associated day center less than a mile away from the specified region that offers its services to the general public. The Chatty Child Speech Therapy focuses primarily on children.

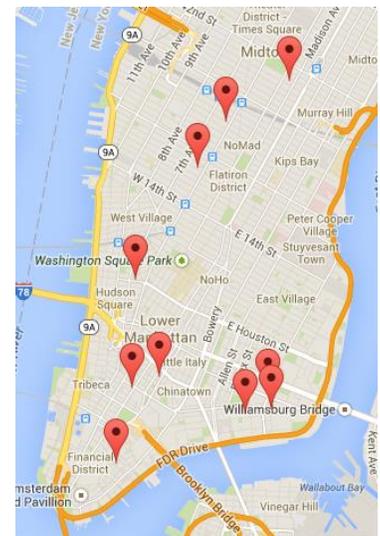


Figure 6. Location of rehabilitative services in the Lower Manhattan region.

Foster children agencies

There are two foster care agencies in Lower Manhattan and three in the surrounding area. General counseling services are available at these locations including social workers and behavioral specialists. The Door focuses on an adolescent population and also provides primary health care and dental services.

Pharmacies

There are at least 21 pharmacies in Lower Manhattan that server greater than 35% of Medicaid, Medicare/Medicaid, or uninsured population. There is a dense group of these pharmacies in the 10013 zip code -- 13 are in the area (Figure 7).

Home care services

There are five home care services in Lower Manhattan and two in the surrounding area. These locations offer services for children and adults with HIV/AIDS, developmental disabilities, and other medical conditions.

Health home

There are six health homes in Manhattan as listed on the New York State Department of Health site. These health homes might not be located in the service area but each care management center provides access to multiple services.

Area health education centers

The official area health education center in New York is not located within Lower Manhattan. However, similar education services and resources are offered at four locations found in Lower Manhattan. The Institute for Family Health has a residency outlet, which trains health care professionals to serve, underserved communities.

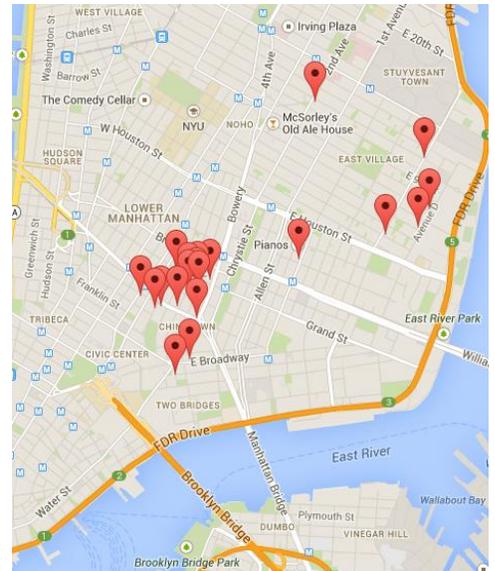


Figure 7. Location of pharmacies in the Lower Manhattan region.

Nursing home

There are 16 nursing homes located in the Lower Manhattan region. These generally serve the elderly or chronically ill. Services include primary medical care, rehabilitative services, and social / behavioral services. Two of the facilities, Rivington House: The Nicholas A. Rango Health Care Facility and The Robert Mapplethorpe Residential Treatment Facility, specifically provide care for patients with HIV/AIDS. Two of the facilities, Japanese America Social Services, Inc. and Chinese-American Planning Council Inc., provide services to specific ethnic populations. However, services are also provided to the general population. The Tanya Towers Treatment Apartments offer services for deaf and deaf-blind patients as well as for patients with mental health disorders.

Table 8 summarizes some statistics related to the care provided at selected facilities. All of the facilities have a lower percentage of patients who self-reported moderate to severe pain during a short stay as compared to the state average. Two facilities reported higher than the state's average of pressure sores that are new or worsened: Rivington House at 1.9% and New East Side Nursing Home at 33%. The Robert Mapplethorpe Residential Treatment Facility was the only location in which depressive symptoms were higher than the state average (13.4% vs. 11.6%).

Table 8. Nursing Home Quality Metrics

| Nursing Home | Self-report moderate to severe pain (short stay) | Have pressure sores that are new or worsened | Self-report moderate to severe pain (long stay) | Have pressure sores (long stay) | Have depressive symptoms (long stay) |
|--|--|--|---|---------------------------------|--------------------------------------|
| State Average | 14.4% | 1.3% | 5.7% | 7.6% | 11.6% |
| Rivington House – The Nicholas A Rango Health Care Facility | 8.7% | 1.9% | 4.5% | 15.3% | 2.3% |
| New Gouverneur Hospital Skilled Nursing Facility | 10.5% | 0.5% | 2.3% | 12.0% | 5.2% |
| Villagecare Rehabilitation and Nursing Center | 5.4% | 0.5% | 0.0% | Too few cases | 9.1% |
| The Robert Mapplethorpe Residential Treatment Facility | Too few cases | 0.0% | 24.1% | Too few cases | 13.4% |
| New East Side Nursing Home | 7.1% | 33.0% | 5.1% | 5.0% | 3.9% |

Source: Nursing Homes data from New York State Department of Health [July 2013 – March 2014]

The New York State Department of Health has published counts of users for nursing homes. There are 86,522 patients with Medicaid who live in the LM area. These individuals use the following resources for their nursing home care (Table 9). Three of the nursing homes (starred) are in the area.

Table 9. Nursing home facilities that accepted Medicaid for the 2013 calendar year

| Service Name | Claim Count | Unique Members with Services |
|--|-------------|------------------------------|
| Comprehensive Care Management Diagnostic and Treatment Center * | 31,321 | 379 |
| Meds OOS Physician and Other | 32,460 | 244 |
| New Gouverneur Hospital * | 1,308 | 208 |
| Rivington House – The Nicholas A Rango Health Care Facility * | 35,784 | 147 |
| Wellcare of NY MLTC | 16,331 | 118 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Nursing home facilities in the LM region

Specialty service providers such as vision care and durable medical equipment (DME)

There are 6 vision care providers in Lower Manhattan. Four of these locations are affiliated with larger health centers: Gouverneur Health, Ryan-Nena Community Health Center, and Charles B. Wang Community Health Center. The remaining centers are affiliated with Weill Cornell and New York Ear and Ear Infirmary of Mount Sinai.

The New York State Department of Health has published counts of users for eye care providers. There are 86,522 patients with Medicaid who live in the LM area. These individuals use the following resources for their nursing home care (Table 8). Four of the eye care providers (starred) are in the area.

Table 10. Eye care providers that accepted Medicaid for the 2013 calendar year

| Service Name | Claim Count | Unique Members with Services |
|---|-------------|------------------------------|
| Cohn Michael Robert * | 2,451 | 886 |
| Tsai Nancy MD – New York Eye and Ear Infirmary * | 1,315 | 759 |
| Law Albert Menhei | 1,588 | 579 |
| Chen Mary Yun-Ju * | 1,578 | 531 |
| Cheung Wing Kin – Pacific Optometry, P.C. * | 1,479 | 529 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Eye care providers in the LM region

There are two durable medical equipment locations in the region: Elite Surgical Supply Inc. and Confucius/Mannings Pharmacy.

Specialty medical programs for eating disorders and autism spectrum early diagnosis/intervention

There is one autism spectrum diagnosis/intervention service in Lower Manhattan and four services in close vicinity. No programs in the area focus solely on eating disorders, however, some of the behavioral health centers have counselors who specialize in eating disorders.

Specialty developmental disability services

There are 6 specialty developmental disability services found in Lower Manhattan. These centers provide care to children and adults with disabilities as well as their families. Services include medical, vocational, educational, residential, and social resources.

Laboratory and radiology services including home care and community access

There are four laboratory and five radiology services located in Lower Manhattan. Two of the laboratory locations are affiliated with the national company, Quest Diagnostics. One of the radiology centers is affiliated with NewYork-Presbyterian/Lower Manhattan Hospital.

Federally qualified health centers (FQHCs)

There are eight federally qualified health centers located in Lower Manhattan and one less than a mile away from the region. These centers are focused on providing care for the underserved populations. One center is affiliated with the Institute for Family Health.

Local health department

The New York City Department of Health and Mental Hygiene is located in Lower Manhattan. The Department has several divisions, each offering unique services. These Divisions are: Mental Hygiene, Disease Control, Environmental Health, Epidemiology, Health Care Access and Improvement, and Health Promotion and Disease Prevention. A breakdown of each division's services can be found in Figure 8.

In 2005, the New York City Department of Health and Mental Hygiene created the Primary Care Information Project as part of its "Take Care New York" initiative. This project offered support and assistance with the implementation and continued technical assistance to primary care providers that served a minimum of 10% Medicaid or uninsured patients in the city. "Since July 2007 more than 3,300 physicians in more than 600 practices have enrolled in the project, making it the largest community-based HER implementation and extension program in the United States. In 2011 it became one of the sixty regional extension centers established across the nation."⁷

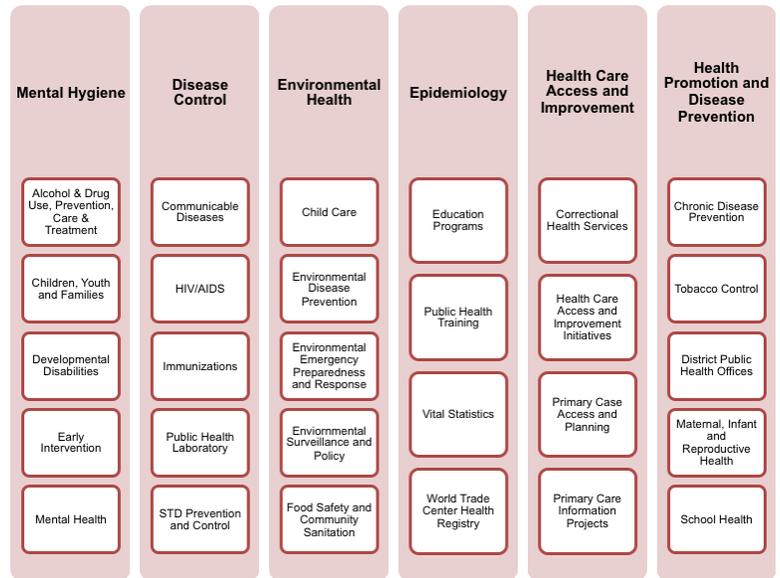


Figure 8. Organizational Chart of NYC Department of Health and Mental Hygiene

Source: nyc.gov

⁷ <http://content.healthaffairs.org/content/32/1/53.full.html>

Managed care

Thirteen managed care organizations exist for the counties of New York and Bronx: Affinity Health Plan, Amerigroup New York, Amida Care, Health Insurance Plan of Greater New York, HealthFirst PHSP, MetroPlus Health Plan, MetroPlus Health Plan Special Needs Plan, Neighborhood Health Providers, New York State Catholic Health Plan, The New York-Presbyterian Community Health Plan, UnitedHealthcare of New York, VNS Choice SNP, and WellCare of New York.

Safety net

Safety net facilities have a patient volume of greater than 35% associated with Medicaid, dual eligible, or the uninsured population. Facilities are further divided in this category based on the type of care or service they provide.

There are 21 safety net pharmacies located in Lower Manhattan.

There are no adult care facilities located in Lower Manhattan.

There are four additional safety net facilities in Lower Manhattan, which provide nursing care, HIV/AIDS patient services, mental health assistance, and palliative care.

There are no safety net assisted living facilities in the Lower Manhattan region.

There are 10 licensed home care service agencies that provide care to the Lower Manhattan region -- 5 of these are physically located in Lower Manhattan.

There are 3 safety net hospitals located in Lower Manhattan: Beth Israel Medical Center, NY Eye and Ear Infirmary, and NYU Hospitals Center.

There are 19 diagnostic and treatment centers located in the Lower Manhattan region. Services provided by these facilities range from medical care, women's health, rehabilitation services, counseling, addiction services, senior care, housing assistance, HIV/AIDS treatment and counseling, and assistance to patients with developmental disabilities. One center, the NY League for Hard of Hearing, specifically focuses on people of all ages with hearing loss.

There are 4 safety net nursing homes found in the Lower Manhattan region.

There is only one safety net long term health home that provides service to the region: The Health and Home Care, a division of New York City Health & Hospitals Corporation.

There are 3 safety net certified home health agencies in the Lower Manhattan region. Americare CSS – Manhattan Community Outreach Center, CenterLight Healthcare, and Premier Home Health Care Services, Inc.

There are 18 safety net outpatient mental health facilities in the Lower Manhattan region. These facilities provide both care and support services for children and adults with mental illnesses.

There are 13 facilities listed by the Office of Alcoholism and Substance Abuse Services in the Lower Manhattan region. Services range from counseling to treatment, either in individual or group settings.

There are 9 facilities listed by the Office of Persons with Developmental Disabilities in the Lower Manhattan region. Services are generally provided for both children and adults.

NewYork-Presbyterian network

There are 13 facilities listed in the NewYork-Presbyterian network. Services provided at these facilities include: nursing care, primary health services, substance abuse treatment, assistance to HIV/AIDS patients, case management, hospice and palliative care, mental illness care, and services to the homeless population.

A.ii. Community Based Resources: Lower Manhattan

Lower Manhattan is home to multiple organizations that provide a variety of services for the area's in-need populations. Most of the resources listed here accept Medicaid or Medicare and provide free services or sliding fee scales.

Many of the locations provide services in numerous domains and are thus listed for each category they provide services for.

Housing services for the homeless population including advocacy groups as well as housing providers

There are 10 housing service providers in the Lower Manhattan region and three more less than a mile away. Three of the services focus specifically on people with HIV/AIDS, two focus primarily on women and women with children, and one focuses on people that are dealing with mental illnesses or have other special needs. Two of the services are operated by the city of New York: NYC Department of Homeless Services and NYC Housing Preservation and Development. All of the locations provide some sort of housing, even if it is for emergency purposes.

Food banks, community gardens, farmers market

There are nine food banks, three farmers markets, and three community gardens in the Lower Manhattan area. A majority of the food banks are associated with local churches that distribute pantry bags at least once a week. The farmer's markets offer fresh fruits and vegetables grown by regional farmers. The community gardens offer open space that nearby residents can use for recreation or for meetings. All of the services listed here also provide some form of education and community outreach.

Clothing and furniture banks

There are six clothing banks in the Lower Manhattan region (Figure 1). Both professional and casual clothing are available for men, women, and children. Two locations provide clothing specifically for men. One location focuses on providing clothes to the Native American population. The times the clothes are distributed vary based on the location of the clothing bank. One service, the Bowery Mission, requires a referral for use of its services.

There are no furniture banks in the area.

Specialty educational programs for special needs children

There are five specialty educational programs in Lower Manhattan and two less than a mile away. All of the programs focus on providing services to school age children with special needs. The Epilepsy Foundation of Metropolitan New York focuses specifically on children diagnosed with epilepsy. Detailed information about services is available through the New York City Department of Education's Special Education Office, which is housed less than a mile away from the region.

Community outreach agencies

There are eight community outreach agencies in Lower Manhattan and three less than a mile away from the region (Figure 2). Services provided at the agencies include general education, wellness information, and case management. The Lower East Side Harm Reduction Center focuses specifically on the HIV/AIDS population. Harry and Jeanette Weinberg Outreach to Elders provides services specifically to the Jewish population. The New York City Free Clinic provides not only outreach services but also free health screenings for its population.

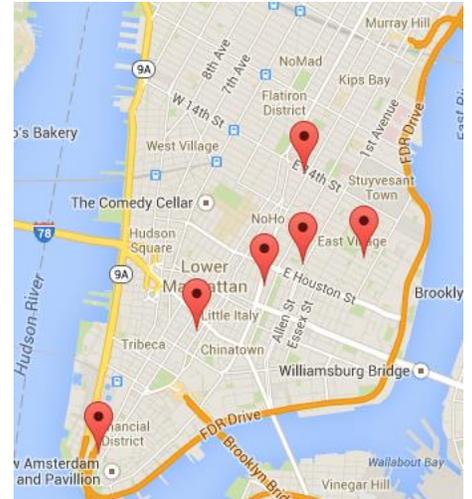


Figure 1. Location of clothing banks in the Lower Manhattan region.



Figure 2. Location of community outreach agencies in the Lower Manhattan region.

Transportation services

There are two transportation services in the Lower Manhattan region. Access-A-Ride provides services to populations for whom public transportation is not a feasible option, such as for those on wheel chairs. This service is operated through the MTA of New York City. The New York Foundation for Senior Citizens has a transportation service for the elderly members of the community with travel available from Battery Park to 96th street on the East side and 110th street on the West side.

Although not located in the region, LogistiCare New York offers transportation services specifically to Medicaid patients for non-emergency uses. The service does provide transportation to areas in Manhattan.

Religious service organizations

There are 10 religious service organizations in the Lower Manhattan region. These organizations not only provide religious services, but some also offer community outreach and help. Two organizations, the Chinese Conservative Baptist Church and the Chinese Evangel Mission Church, primarily provide their services to the Chinese community.

Not-for-profit health and welfare agencies

There are six not-for-profit health and welfare agencies in the Lower Manhattan region (Figure 3). They provide services such as health education, primary health services, medical referrals, and education on general well-being. One center focuses specifically on adolescents while another on senior citizens. The New York City Free Clinic provides free healthcare services for all individuals.

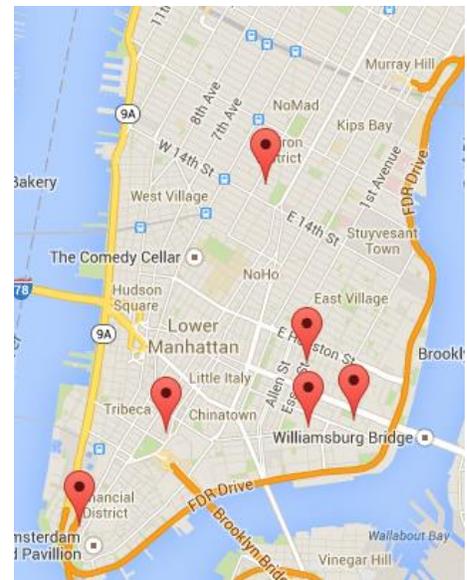


Figure 3. Location of not for profit health and welfare agencies in the Lower Manhattan region.

Specialty community-based and clinical services for individuals with intellectual or developmental disabilities

There are three special community-based and clinical services for individuals with developmental disabilities centers located in the Lower Manhattan Region. AHRC Health Care Inc. provides services to individuals with intellectual and development disabilities throughout New York City. The Contemporary Guidance Services provides services through community-based work experience. The Harry and Jeanette Weinberg Outreach to Elders focuses specifically on the elderly population.

Peer and family mental health advocacy organizations

There are three peer and family mental health advocacy organizations in the Lower Manhattan region. The Community Access is a recovery program for individuals that have psychiatric disabilities, offering services not only to the individual but also to the family. The FEGS Health and Human Services offers a variety of services related to health, disabilities, home care, housing, and employment. The New York City Department of Health and Mental Hygiene provides advocacy services to individuals over the age of 18.

Self-advocacy and family support organizations and programs for individuals with disabilities

There are two self-advocacy and family support organizations for individuals with disabilities in the Lower Manhattan region and one additional organization less than a mile away from the region. The Cerebral Palsy Association of New York State provides services and programs to over 10,000 individuals that have cerebral palsy and developmental disabilities. These services also provide support for families to gain referral services and educational presentations about the disease. The Community Assistance Resources and Extended Services lends support to children with developmental disabilities and their parents so they can identify and maintain necessary resources.

Youth development programs

There are seven youth development programs in the Lower Manhattan region. Two of these programs operate out of local schools: PS 140 Youth Development Program and PS 64 Youth Development Program. Services these programs provide include college preparation, classes on various topics such as nutrition and art, sports activities, and discussion groups providing general advice. The Phoenix House: Project YES focuses specifically on youth between the ages of 13 – 20 who are dealing with early experimental stages of substance use. Safe Horizon makes contacts with 19,000 homeless youth every year providing medical services and syringe exchanges.

Libraries with open access computers

There are seven libraries with open access to computers in the Lower Manhattan region (Figure 4). All of these libraries are part of the New York Public Library system. A valid library card is required to access the computers. All locations offer free wireless access (Wi-Fi) in public areas at all times that the library is open.

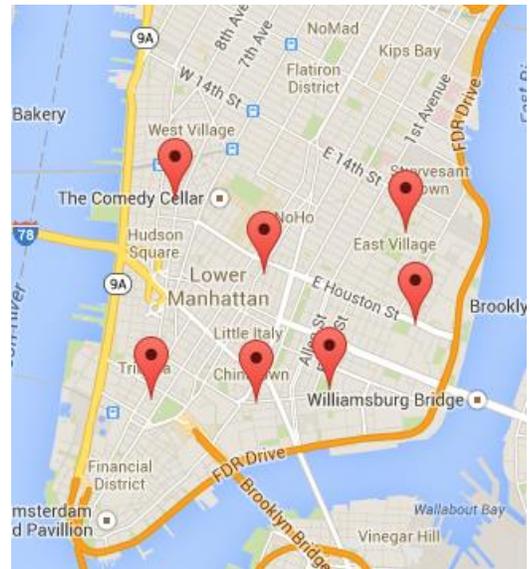


Figure 4. Location of libraries in the Lower Manhattan region.

Community service organizations

There are five community service organizations in Lower Manhattan region and one mobile unit that serves the area. Services at these organizations include free meals, HIV/AIDS testing, family planning services, and educational opportunities. Two of the organizations are health centers that provide free health services for all ages: Ryan NENA Community Health Center and the Sidney Hillman and Phillips Family Practice.

Education

There are numerous public and nonpublic schools located in the Lower Manhattan region. Details regarding each school can be found on the New York City Department of Education website.

There is one education program found in the region named The Educational Alliance, which offers programs on exercise and wellness.

Local governmental social service programs

There are four main governmental social service programs that provide services to the region, even if the headquarters are not physically located in the region. The New York City Department of Homeless Services moves individuals from the streets into housing. The Department also offers emergency housing for individuals. The New York City Department of Youth and Community Development provides youth and community development programs. The New York City Department of Health and Mental Hygiene provides care to the city. Its Take Care New York initiative encourages New Yorkers to live healthier and longer lives. The New York City Department of Education serves 1.1 million students in 1,800 schools across the city. The department offers special programs such as adult and continuing education, career and technical education, other ways to graduate, and summer schools. The New York City Department for the Aging encourages seniors to follow a healthier lifestyle.

Community-based health education programs including for health professionals/students

There are four community-based health education programs in the Lower Manhattan region. One program is associated with the Institute for Family Health: The Beth Israel Residency in Urban Family Practice, which provides education and training to allied health professionals. The Educational Alliance: Addiction Prevention Service provides educational workshops on substance abuse prevention. The remaining two facilities provide general health and wellness to the public.

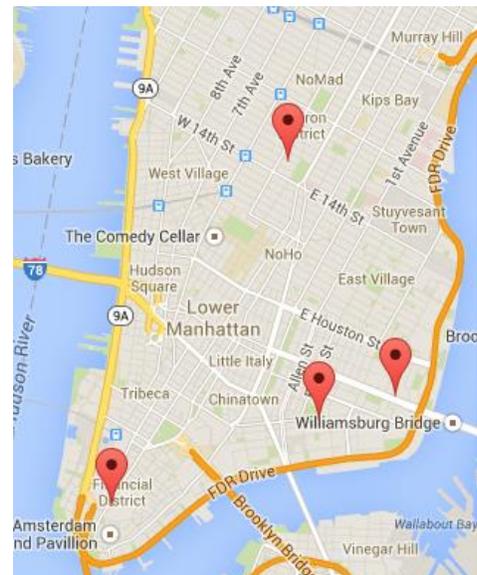


Figure 5. Location of community based health education programs in the Lower Manhattan region.

Family support and training

There is one family support and training organization in the Lower Manhattan region. Homes for the Homeless provides its services particularly to families to help them move out of shelters and help them transition to independent living. The Birch Family Services is located less than a mile away from the region. The focus of this organization is on people with autism and other developmental disabilities, however, training and education is also provided to the affected families.

NAMI (National Alliance on Mental Illness)

While the headquarters of the National Alliance on Mental Illness (NAMI) for New York State is in Albany, there is a satellite office located in the Lower Manhattan region. NAMI advocates for access to services, treatment, support, and research for people dealing with mental illness. The affiliated locations raise awareness and provide free education, advocacy, and support group programs.

Individual employment support services

There are three individual employment support services located in the Lower Manhattan region. These organizations provide educational resources and counseling to assist those seeking employment. The Epilepsy Foundation of Metropolitan New York focuses specifically on persons with epilepsy population. The remaining two organizations provide generalized services.

Peer supports (Recovery coaches)

There is one recovery coach service available in the Lower Manhattan region called Exponents, Inc., which focuses on helping those suffering from substance abuse.

Alternatives to Incarceration

There are three alternatives to incarceration services located in the Lower Manhattan region. Services are provided to youth and adults, assisting them with topics such as lack of education, unemployment, homelessness, substance abuse, and untreated mental health disorders. The START Daytime Custody is a program in collaborates with the New York City Department of Correction.

Ryan White Programs

Ryan White programs resulted from the Ryan White CARE Act, which sought to make care available for low income and uninsured people with AIDS and their families. There are seven such programs in the Lower Manhattan region. The Peter Krueger Center for Immunological Disorders is affiliated with Beth Israel Medical Center and Mount Sinai.

HIV prevention and Outreach and social service programs

There are 10 HIV prevention and outreach and social service programs in the Lower Manhattan region. Three of these locations are nursing homes: The Robert Mapplethorpe Residential Treatment Facility, Rivington House, and VillageCare. The East 13th Street family Practice is affiliated with the Institute for Family Health. The organizations provide education regarding prevention, health services, and social services.

A.i. Health Care Resources: Weill Cornell Medical Center

Objective

Outline the health care resources available to residents of the Upper East Side, East Harlem, and Northwest Queens.

This complete assessment of the health care and community-based resources within its service area includes three components:

- 1) Summary of health care resources
- 2) Summary of community resources
- 3) Detailed inventory of organizations and resources

Particular attention was paid to services available to Medicaid recipients. The detailed inventory is included as an appendix.

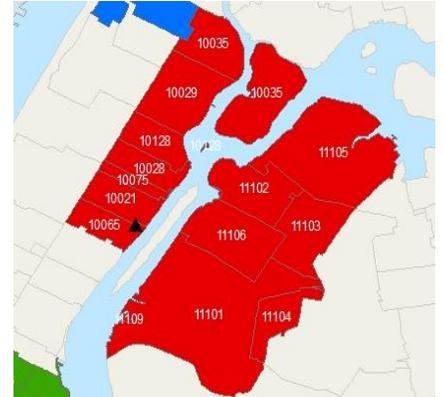


Figure 1. Area covered by Weill Cornell Medical Center

Key Findings

Residents of the WCMC service area have access to a wide array of health services and community based resources. Some gaps in available health services were noted:

- The rate of unplanned readmission is higher than the US national average at four of the five local hospitals.
- Less than half of general physicians, pediatricians, and OB/GYN specialties in the region accept Medicaid.
- Few of the ambulatory surgical centers accept Medicaid.
- East Harlem has no urgent care centers.
- There are no federally qualified health centers in the Upper East Side.
- Only one durable medical equipment location was found in the area.
- There are no safety net pharmacies located in the Upper East Side.

In addition, some gaps in community-based resources were noted:

- There are few clothing banks in the area, though there are several thrift stores.
- There are no furniture banks in the area.
- There are no peer and family mental health advocacy organizations in the Upper East Side.
- There is only one self-advocacy and family support organization for individuals with disabilities.
- There is no National Alliance on Mental Illness office in the area.
- There are no recovery coaches available in the area.
- There are no alternatives to incarceration programs in the Upper East Side.
- There are no specific Ryan White programs in Western Queens or in the Upper East Side, though there are several in East Harlem.

Hospitals

A total of 4,007 hospital beds are available within the service area spread across seven hospitals. In 2012, there were 63,421 discharges among Medicaid recipients (Table 1). NewYork-Presbyterian (NYP) is the only hospital designated as a level one trauma center.⁸ Mount Sinai has its main campus in East Harlem with the Queens division located in Long Island City. Out of the seven, two are specialty hospitals: Memorial Hospital focuses on treating patients with cancer and the Hospital for Special Surgery focuses on orthopedic care. In four of the five hospitals for which data was available, the rate of unplanned admission is higher than the US National average (Figure2).

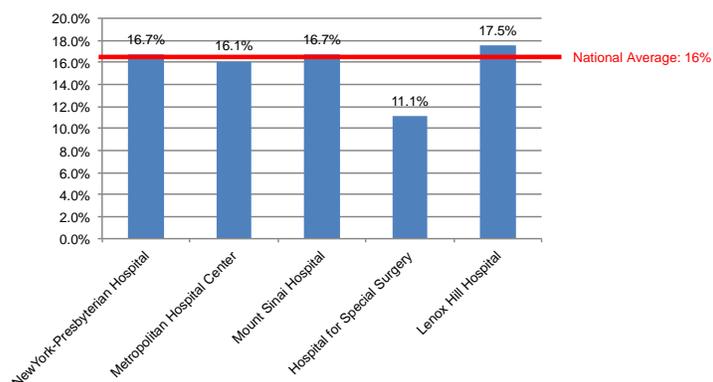


Figure 2. Rate of unplanned readmission after discharge from hospital

Source: Medicare Hospital Compare Quality of Care

Table 1. Description of hospitals in the WCMC service area.

| Name of Facility | Beds | Total Facility Admissions | Emergency Room Visits | Total Facility Medicaid Discharges | Total Facility Medicaid Days |
|--|-------|---------------------------|-----------------------|------------------------------------|------------------------------|
| Hospital for Special Surgery | 205 | 13,945 | 0 | 252 | 1,106 |
| Lenox Hill Hospital | 632 | 29,441 | 57,430 | 4,177 | 17,258 |
| Memorial Hospital | 514 | 24,597 | 0 | 1,065 | 7,918 |
| Metropolitan Hospital Center | 338 | 13,819 | 57,290 | 9,558 | 58,115 |
| Mount Sinai Hospital | 1,221 | 53,673 | 102,267 | 13,601 | 88,126 |
| Mount Sinai Queens | 235 | 9,860 | 51,370 | 2,691 | 13,845 |
| NewYork-Presbyterian Hospital/Weill Cornell Medical Center | 862 | 104,600 | 1,576,097 | 32,077 | 209,026 |

Source: NYS Health Profiles and American Hospital Association Annual Survey (2012)

⁸ <http://EHR.health.ny.gov/professionals/ems/trauma2.htm>

Figure 3 displays survey data from patient's experiences with the respective hospitals. The questions asked patients how well nurses and doctors communicated with them, how quickly help was provided to them, how well information regarding their care was communicated, and how patients would rate the hospitals.

- The lowest percentage for all of the categories listed was for Lenox Hill Hospital.
- The highest percentage for all of the categories was the Hospital for Special Surgery.
- NYP hospital did as well or better than the New York State average on 5 of the 7 questions. Patients at NYP did not feel that they received help as soon as they wanted with the response of "always" having a 57% rate compared to the state average of 61%.
- 82% of NYP hospital patients reported that they were given information about what to do during their recovery at home, which is slightly lower than the state average of 83%.

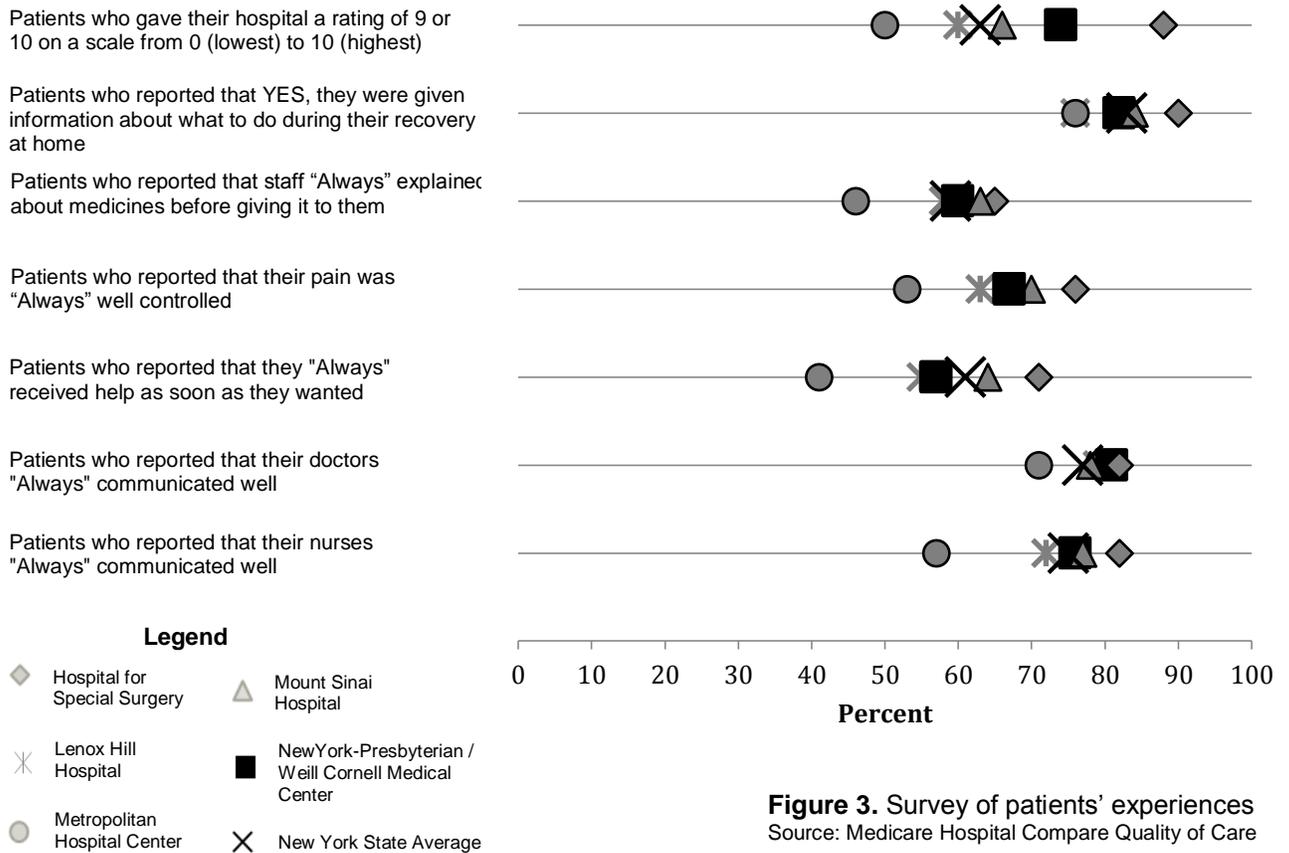


Figure 3. Survey of patients' experiences
Source: Medicare Hospital Compare Quality of Care

The New York State Department of Health has published counts of users of emergency room and inpatient services for patients with Medicaid insurance. ⁹ There are 125,267 patients with Medicaid who live in the WCMC area. These individuals use the following resources for their health services. Four of the facilities that provide ER services (starred) are in the area (Table 2). Four of the facilities with inpatient services (starred) are in the area (Table 3).

Table 2. Emergency room visits to facilities that accepted Medicaid in the 2013 calendar year

| Provider Entity | ER Visits | Unique Members with ER Visits |
|-------------------------------------|-----------|-------------------------------|
| Mount Sinai Hospital * | 28,336 | 16,956 |
| Metropolitan Hospital Center * | 12,111 | 6,530 |
| NY Hospital * | 6,214 | 3,877 |
| Elmhurst Hospital Center | 5,348 | 3,464 |
| St Luke's Roosevelt Hospital Center | 3,191 | 1,908 |
| Lenox Hill Hospital * | 2,705 | 1,632 |
| Harlem Hospital Center | 2,950 | 1,525 |
| Bellevue Hospital Center | 2,051 | 1,248 |
| Beth Israel Medical Center | 1,537 | 882 |
| New York Hospital Medical Queens | 1,192 | 834 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the WCMC region

Table 3. Inpatient admissions to facilities that accepted Medicaid in the 2013 calendar year

| Provider Entity | Inpatient Admissions | Unique Members with Inpatient Admissions |
|------------------------------------|----------------------|--|
| Mount Sinai Hospital * | 8,562 | 5,557 |
| Metropolitan Hospital Center * | 4,060 | 3,049 |
| NY Hospital * | 2,608 | 1,930 |
| Elmhurst Hospital Center | 1,788 | 1,491 |
| Lenox Hill Hospital * | 1,246 | 935 |
| Bellevue Hospital Center | 1,049 | 828 |
| St Lukes Roosevelt Hospital Center | 1,306 | 789 |
| Beth Israel Medical Center | 1,315 | 691 |
| Harlem Hospital Center | 836 | 653 |
| Flushing Hospital Medical Center | 460 | 395 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Inpatient facilities in the WCMC region

⁹ <http://dsripdashboards.health.ny.gov/>

Ambulatory surgical centers

There are five ambulatory surgical centers located in the WCMC region. Two of the five centers provide general surgical care. The remaining three centers are specialty specific providing gastroenterology, eye, and foot and ankle surgical care. One center is located in East Harlem, one in the Upper East Side, and the remaining three in Northwest Queens.

Urgent care centers

There are 10 different urgent care centers located in the WCMC region (Figure 4). None are in East Harlem. However, urgent care centers affiliated with hospitals (Mount Sinai Urgent Care and Urgicare Center – NewYork-Presbyterian), are available less than a mile from East Harlem.

There is a specialty specific urgent care center in the region affiliated with Memorial Sloan Kettering. One urgent care center operates out of a general practice office (Yaffe Ruden & Associates) in which physician assistants will see a patient.

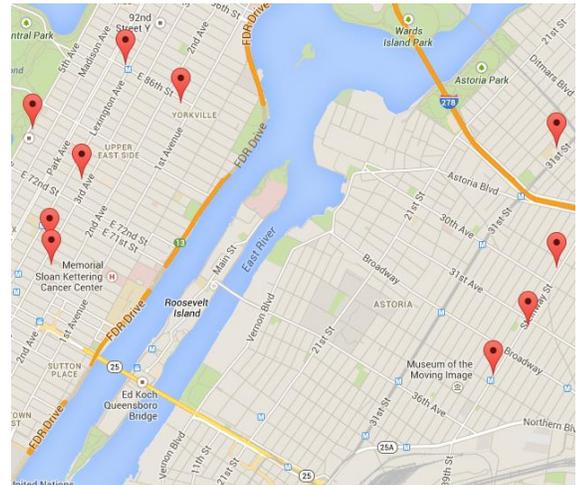


Figure 4. Location of urgent care centers in the WCMC region.

Behavioral health

There are at least 25 behavioral health facilities located in the WCMC area. Services include addiction recovery, substance abuse aid, mental illness and behavioral health services, and HIV/AIDS counseling. Most facilities offer a mix of the services listed. The Kennedy Child Study Center is targeted specifically for children with behavioral health issues, while the Mount Sinai Adolescent Health Center offers its services to patients aged 10 to 22. Some facilities are affiliated with health care organizations such as the Institute for Family Health, NewYork-Presbyterian Hospital, and Weill Cornell Physicians. Gracie Square Hospital is a 157 bed inpatient facility specifically meant for adult and geriatric psychiatry.

There are 281 physicians in the region that practice psychiatry, and 26% of these physicians accept Medicaid insurance. Only 18% of the physicians use an Electronic Medical Record (EHR) software.¹⁰

¹⁰ SK&A data

Physicians

There are 3,347 physicians in the WCMC, including generalists and specialists (Table 4). The average patient load is about 61 patients per physician and there are on average 22 physicians per practice. Approximately 48% of these physicians accept Medicaid. 63% use an EHR software.

Table 4. Physicians in the Weill Cornell Medical Center area

| | Number: | % of Total: |
|-------------------------------|----------------|--------------------|
| General | 413 | 12% |
| Pediatrics | 112 | 3% |
| Psychiatry | 281 | 8% |
| Infectious Disease | 33 | 1% |
| OB/GYN | 195 | 6% |
| Pain | 14 | 0.5% |
| Other Specialties | 2299 | 69% |
| Total | 3347 | 100% |
| | | |
| Avg. patient load / MD | 61 | |
| Avg. MDs / practice | 22 | |
| | | |
| Accept Medicaid | 1594 | 48% |
| Use EHR Software | 2112 | 63% |

Source: SK&A data

When broken down by specialty, the physicians that accept the highest percentage of Medicaid patients are infectious disease, pain, and other specialties (Table 5). General physicians and pediatricians have less than 50% of patients with Medicaid. Infectious disease, pain, and pediatrics have the highest percentage of EHR usage. Psychiatry has the lowest percentage of use at 18%.

Table 5. Physicians that accept Medicaid or use an EHR software by specialty

| Specialty | Accept Medicaid N (% of total) | Use an EHR N (% of total) |
|--------------------|---|--------------------------------------|
| General | 196 (47%) | 272 (66%) |
| Pediatrics | 48 (43%) | 92 (82%) |
| Psychiatry | 74 (26%) | 50 (18%) |
| Infectious Disease | 26 (79%) | 27 (82%) |
| OB/GYN | 43 (22%) | 108 (55%) |
| Pain | 9 (64%) | 10 (71%) |
| Other Specialties | 1198 (52%) | 1553 (68%) |

Source: SK&A data

Primary care providers including private practice, clinics, hospital-based, and residency programs

There are 36 primary care providers located in the WCMC region. Six of the facilities provide pediatric care services, one is focused on adolescent health (aged 10-22), and four are focused on women's health.

There are at least 196 general physicians, 48 pediatricians, and 43 OB/GYN specialists in the region that accept Medicaid. These make up 47%, 43%, and 22% of the total number of physicians in the area respectively.

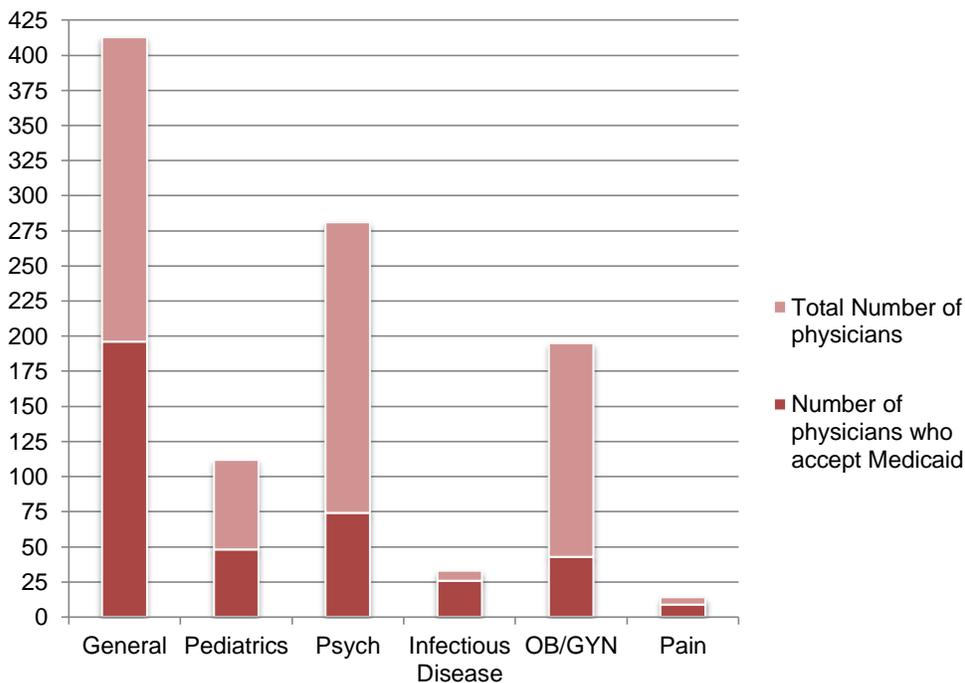


Figure 5. Physicians in the region that accept Medicaid broken down by specialty

Source: SK&A data

Most outpatient facilities provide care for all ages. Services include treating symptoms, providing preventative care, and counseling services. Numerous clinics are affiliated with academic institutions such as New York University, Weill Cornell Medical Center, and Mount Sinai. The Weill Cornell Community Clinic is run by medical students under the supervision of Weill Cornell physicians and offers free care to its patients. Four of the facilities are designated federally qualified health centers (FQHCs), all of which are located in East Harlem (more information in the FQHC section below).

The New York State Department of Health has published counts of users for primary care services for patients with Medicaid insurance. There are 125,267 patients with Medicaid who live in the WCMC area. These individuals use the following resources for

their primary care services. Seven of the facilities with outpatient services (starred) are in the area (Table 6).

Table 6. Primary care visits to facilities that accepted Medicaid in the 2013 calendar year

| Provider Entity | Primary Care Visits | Unique Members with Primary Care Visits |
|---|---------------------|---|
| Metropolitan Hospital Center * | 24,719 | 6,961 |
| Mount Sinai Hospital * | 19,394 | 6,755 |
| Mount Sinai Treatment and Diagnostic Center * | 13,975 | 5,579 |
| Settlement Health * | 13,677 | 4,399 |
| NY Hospital * | 10,957 | 3,870 |
| Community Healthcare Network * | 9,965 | 3,289 |
| Elmhurst Hospital Center | 10,247 | 2,756 |
| East Harlem Council Human Services * | 9,089 | 2,586 |
| Health First PHSP, Inc | 6,448 | 2,124 |
| Frousios Costas Anthony MD | 5,813 | 1,826 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Primary care facilities in the WCMC region

Specialty medical providers including private practice, clinics, hospital-based, and residency programs

There are 25 specialty medical providers located in the WCMC region. Nine of the clinics specialize in providing care and counseling services to HIV/AIDS patients. The Jack Martin Fund Clinic, affiliated with Mount Sinai Hospital, is the New York State Department of Health's designated AIDS center.

The remaining specialty services include: cardiology, urology, otolaryngology, gastroenterology, geriatrics, cancer care, diabetes care, dialysis centers, and orthopedics.

There are 33 physicians in the region that practice in the field of infectious disease. Approximately 79% of these physicians accept Medicaid insurance. Additionally, 86% of the physicians use an EHR software.¹¹

¹¹ SK&A data

Dental Providers

There are 17 dental providers located in the WCMC region. Thirteen of these locations focus solely on dental care, while four locations provide general care including dental. The Smile Dental Center of NJ, PA also provides pediatric dental care. Two of the locations are in the Upper East Side, 10 are in Northwest Queens, and 5 are in East Harlem.

The New York State Department of Health has published counts of users of dental services for patients with Medicaid insurance. There are 125,267 patients with Medicaid who live in the WCMC area. These individuals use the following resources for their dental services. Three of the private dentists (starred) are in the area. Two of the dental clinics (starred) are in the area (Table 7).

Table 7. Private dentists and dental clinics that accepted Medicaid in the 2013 calendar year

| Private Dentists | | | Dental Clinics | | |
|---------------------------|-------------|------------------------------|---|-------------|------------------------------|
| Service Name | Claim Count | Unique Members with Services | Service Name | Claim Count | Unique Members with Services |
| Attaie Ali DDS | 13,173 | 1,882 | Institute for Family Health * | 2,250 | 968 |
| George Rita Makhijani * | 11,534 | 1,543 | New York University Dental Center | 625 | 303 |
| Gelfand James R DDS * | 10,519 | 1,506 | William F Ryan Community Health Center | 450 | 285 |
| Metroplus Health Plan Inc | 8,165 | 1,486 | Mount Sinai Diagnostic and Treatment Center * | 427 | 233 |
| Soleymani Shahab * | 4,572 | 1,052 | Columbia University Health Care | 377 | 177 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Private dentists or dental clinics in the WCMC region

Rehabilitative services including physical therapy, occupational therapy, and speech therapy – inpatient and community-based

There are 21 locations for rehabilitative services in the WCMC region. A majority of these, 18 out of 21, offer physical therapy services. Two of the companies, Triumph Physical Therapy and Premier Physical Therapy & Wellness, have multiple locations within the region. One location, Leaps and Bounds – PT and OT, PLLC, offers its services specifically for children. There is one location for a speech therapist in the area for both adult and children. The Kennedy Child Study Center focuses on children with learning difficulties through services such as speech therapy.

Foster children agencies

There are eight different foster care agencies located in the WCMC area. The work of these agencies range from raising awareness and funds for foster children, assisting in the placement of foster children in permanent homes, and housing foster children until they are adopted. Only one location is in Northwest Queens.

Pharmacies

There are 20 pharmacies located in the WCMC area. All listed pharmacies serviced greater than 35% of Medicaid, Medicare/Medicaid, or uninsured populations. Seven are located in East Harlem and 13 in Northwest Queens. Additionally, six pharmacies are less than a mile away from the border of East Harlem and are generally accessible to that population.

Home care services

It is difficult to definitively define the location of home care services, since the nature of such services is to provide care at a patient's home. There were numerous services with addresses outside of the specified zip codes; however, these companies do serve Manhattan and Queens populations. In light of this, 19 home care services were found for the WCMC region. There was one affiliated with NewYork-Presbyterian hospital: NewYork-Presbyterian Home Health Care Services.

Health homes

A list of the health homes was compiled directly from the data available on the New York State Department of Health website, for the Manhattan and Queens region.¹² There were five health homes serving the WCMC region.

¹² bit.ly/1Dale0l and bit.ly/1p9XMII

Area health education centers

There are eight health education centers located in the WCMC region. Two of the centers are located in the Upper East Side, two in Northwest Queens, and four in East Harlem (Figure 6). These centers provide information on wellness education and how to improve and maintain health. Classes are either offered on a one-on-one basis or in a group setting, depending on the center and the program chosen. Two of the centers focus specifically on educating children, with one following children from kindergarten through 12th grade. One center, the Odyssey House, is partnered with the New York City Department of Education. New York-Presbyterian has an outreach program to promote health and disease prevention and ensure that people in the community have a reliable source of medical information.

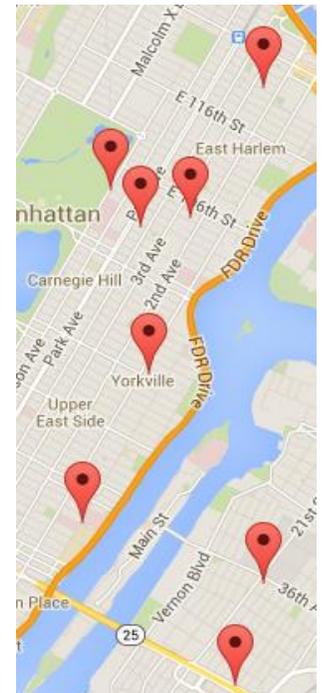


Figure 6: Location of area health education centers in the WCMC region.

Skilled nursing homes, assisted living facilities

There are 13 nursing homes or assisted living facilities located in the WCMC region. These generally serve the elderly, disabled, or chronically ill. The 80th Street Residence is focused on providing care to people suffering from dementia, Alzheimer’s disease, or cognitive impairments. The Institute for the Puerto Rican/Hispanic Elderly serves the Hispanic and other ethical/racial minority seniors.

Table 8 summarizes some statistics related to the care provided at a select number of these facilities. For the self-reported moderate to severe pain for short stay metric, The DeWitt Rehabilitation and Nursing Center and the Northern Manhattan Rehabilitation and Nursing Center have a better average than the state. For long stays, most of the facilities have a percentage better than the state average. However, the Mary Manning Walsh Home and the Northern Manhattan Rehabilitation and Nursing Center have a percentage worse than the state’s average on depressive symptoms.

Table 8. Nursing Home Quality Metrics

| Nursing Home | Self-report moderate to severe pain (short stay) | Have pressure sores that are new or worsened | Self-report moderate to severe pain (long stay) | Have pressure sores (long stay) | Have depressive symptoms (long stay) |
|---|--|--|---|---------------------------------|--------------------------------------|
| State Average | 14.6% | 1.2% | 5.9% | 7.7% | 11.6% |
| Terence Cardinal Cooke - Medical and Nursing Care | 19% | 1% | 3% | 8% | 1% |
| Archcare at Mary Manning Walsh Home | 17% | 1% | 2% | 8% | 12% |
| DeWitt Rehabilitation & Nursing Center | 5% | 1% | 1% | 15% | 2% |
| Northern Manhattan Rehabilitation and Nursing Center | 8% | 3% | 1% | 18% | 25% |

Source: Nursing Homes data from New York State Department of Health [July 2013 – March 2014]

The New York State Department of Health has published counts of users for nursing homes. There are 125,267 patients with Medicaid who live in the WCMC area. These individuals use the following resources for their nursing home care. Four of the nursing homes (starred) are in the area (Table 9).

Table 9. Nursing home facilities that accepted Medicaid in the 2013 calendar year

| Provider Entity | Claim Count | Unique Members with Services |
|--|-------------|------------------------------|
| Terence Cardinal Cooke HCC * | 22,251 | 580 |
| DeWitt Rehabilitation and Nursing Center * | 17,222 | 456 |
| Northern Manhattan Rehab and Nursing Center * | 14,008 | 320 |
| New York Center Rehab Care SNF | 11,437 | 303 |
| Mary Manning Walsh Nursing Home * | 12,686 | 275 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Nursing home facilities in the WCMC region

Specialty services providers such as vision care and durable medical equipment (DME)

There are 12 vision care providers located in the WCMC area. The centers are well distributed across the area with six centers in the Upper East Side, five in Northwest Queens, and one in East Harlem. Two of the centers are affiliated with hospitals: Manhattan Eye, Ear, and Throat Hospital of Lenox Hill Hospital and The Department of Ophthalmology of Weill Cornell Medical Center.

There is only one durable medical equipment location found in the region: Madison Avenue Pharmacy Inc. in East Harlem.

Specialty medical programs for eating disorders and autism spectrum early diagnosis/intervention

There are 12 specialty medical programs located in the WCMC region. Ten of the centers provide care and services to people with autism, 7 of which focus specifically on children. Two of the centers are focused on eating disorders. Two centers are affiliated with medical schools: the Early Childhood Direction Center of NewYork-Presbyterian and the Mount Sinai Eating and Weight Disorders Program.

Specialty developmental disability services

There are eight specialty developmental disability service centers in the WCMC region. Most of the centers offer day programs; however, Gracie Square Hospital, provides inpatient care for geriatric psychiatry. Geographically there is one center in the Upper East Side, one in Northwest Queens, and the remaining six are in East Harlem (Figure 7). Of the eight centers, one focuses on pediatric services, four on adult services, and the remaining three on both pediatric and adult services.

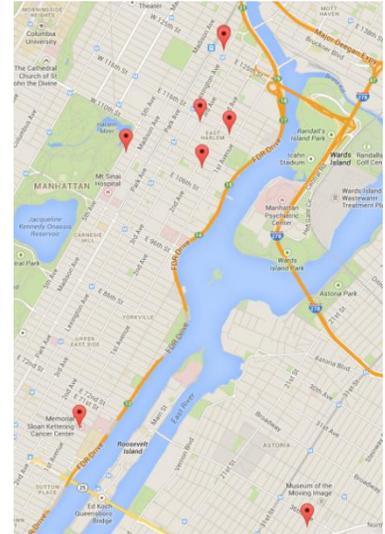


Figure 7: Location of developmental disability services in the WCMC region

Laboratory and radiology services including home care and community access

There are 10 laboratory service providers in the WCMC area. Two, Quest Diagnostics and LabCorp, are chains with multiple locations. Four of the lab services are offered through the pathology departments of the following hospitals: NewYork-Presbyterian/Weill Cornell Medical Center, Lenox Hill Hospital, Mount Sinai, and New York Hospital Queens.

There are 12 radiology service locations in the WCMC area. Various imaging tests are offered including X-rays, CT, and MRI scans. Five are offered through the radiology departments of the following hospitals: NewYork-Presbyterian, Lenox Hill Hospital, Mount Sinai, Hospital for Special Surgery, and Metropolitan Hospital.

There are more radiology service locations in the Upper East Side and East Harlem area than in Northwest Queens. Eight of the 12 laboratory services are in Manhattan while the remaining four are in Queens. Ten of the 13 radiology services are in Manhattan while the remaining three are in Queens.

Federally qualified health centers (FQHCs)

There are five federally qualified health centers in the WCMC region. Two of these belong to the Institute for Family Health: Family Health Center of Harlem and P.S. 57 James Weldon School-Based Health Center. Four of the five FQHCs are located in East Harlem; the fifth is in Northwest Queens. There are no FQHCs in the Upper East Side (Figure 8). This follows the requirements of FQHCs, which must serve an underserved area or population.¹³

¹³ <http://EHR.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html>

Local health department

The New York City Department of Health and Mental Hygiene is located in Lower Manhattan. The Department is broken down into multiple divisions, each offering unique services. These Divisions are: Mental Hygiene, Disease Control, Environmental Health, Epidemiology, Health Care Access and Improvement, and Health Promotion and Disease Prevention. A breakdown of each division's services can be found in Figure 8.

In 2005, the New York City Department of Health and Mental Hygiene created the Primary Care Information Project as part of its "Take Care New York" initiative. This project offered support and assistance with the implementation and continued technical assistance to primary care providers that served a minimum of 10% Medicaid or uninsured patients in the city. "Since July 2007 more than 3,300 physicians in more than 600 practices have enrolled in the project, making it the largest community-based HER implementation and extension program in the United States. In 2011 it became one of the sixty regional extension centers established across the nation."¹⁴

NYC Department of Health and Mental Hygiene

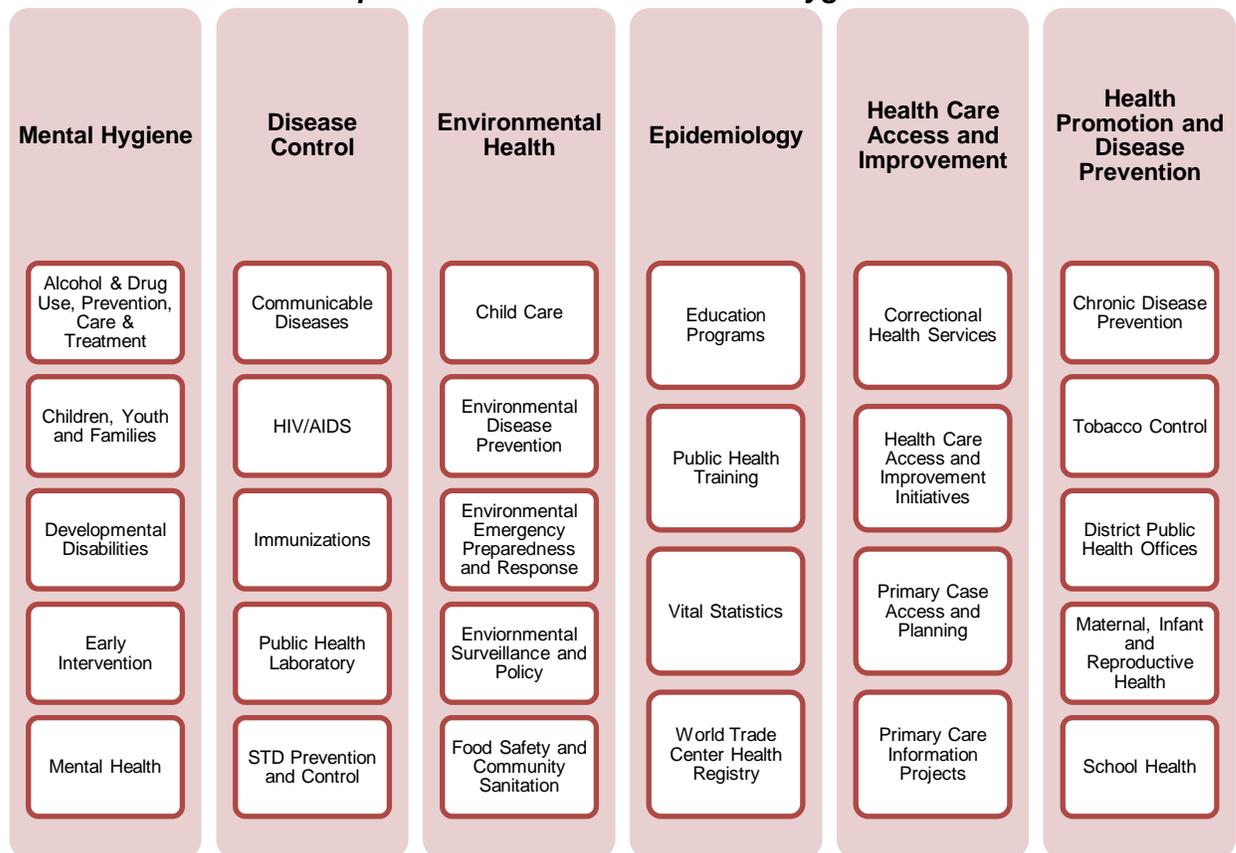


Figure 8: Organizational Chart of NYC Department of Health and Mental Hygiene
Source: nyc.gov

¹⁴ <http://content.healthaffairs.org/content/32/1/53.full.html>

and addiction treatment, mental illness services, and social services. One facility is associated with Mount Sinai and operates out of the hospital in East Harlem. One facility is the city's Department of Health and Mental Hygiene. The Terence Cardinal Cooke Health Care Center is the only long term residential care facility on the list. Three of the facilities focus on specialized care: Newtown Dialysis Center, Inc., The Ralph Lauren Center for Cancer Care and Prevention, and The Rogosin Institute (kidney disease).

There are five safety net nursing homes located in the WCMC region. Two are located in the Upper East Side, one in Northwest Queens, and two in East Harlem.

There is only one safety net long term health home that provides service to the region. The Health and Home Care is a division of New York City Health & Hospitals Corporation and is the official health home agency of New York City.¹⁶

There are two certified home health agencies in the WCMC region, both located in East Harlem.

There are 17 safety net outpatient mental health facilities in the WCMC region: one in the Upper East Side, four in Northwest Queens, and 12 in East Harlem. These facilities provide both care and support services for children and adults with mental illnesses.

There are 19 facilities listed by the Office of Alcoholism and Substance Abuse Services in the WCMC region. Four of these facilities are in the Upper East Side, six in Northwest Queens, and nine in East Harlem. The services provided range from counseling to treatment, either in individual or group settings. Two of the facilities listed are hospitals: NewYork-Presbyterian Hospital and Metropolitan Hospital.

There are nine facilities listed by the Office of Persons with Developmental Disabilities in the WCMC region. One facility is in the Upper East Side, three are in Northwest Queens, and five are in East Harlem. Services are generally provided for both children and adults. However, The Kennedy Child Study Center focuses only on children.

NewYork-Presbyterian Network

There are two facilities in the NewYork-Presbyterian network. Narco Freedom, Inc. offers both drug addiction treatment and health related services. The Union Settlement Association provides health and social services specifically to the population of East Harlem.

¹⁶ http://EHR.homecarenyc.org/About_Us.html

A.ii. Community Based Resources: Weill Cornell Medical Center

The area described as Weill Cornell Medical Center (WCMC) is home to multiple organizations that provide a variety of services for the area's in-need populations. Most of the resources listed here accept Medicaid or Medicare and provide free services or sliding fee scales.

Many of the locations provide services in numerous domains and are thus listed for each category they provide services for.

Housing services for the homeless population including advocacy groups as well as housing providers

There are 15 housing services in the WCMC region. Five of these services are in the Upper East Side, eight in East Harlem, and two in Western Queens (Figure 1). These locations offer a variety of services including immediate and long term housing, affordable housing, supportive services, and advocacy. Some centers are specific to certain populations: women, the elderly, those with psychiatric illness or physical disabilities, those with HIV/AIDS, low income individuals, and the homeless population. For example, the Church of the Holy Trinity offers nightly housing to the homeless population, for up to 15 individuals.

Though not located in the area, the New York City Department of Homeless Services provides emergency housing to homeless individuals and operates a comprehensive street outreach program.

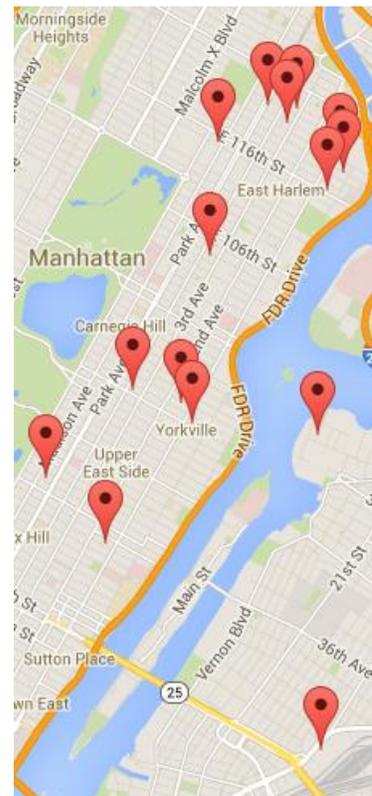


Figure 1. Location of housing services in the WCMC region.

Food banks, community gardens, farmer's market

There are 44 food banks or pantries located in the WCMC region. Seven of these locations are in the Upper East Side, 23 in East Harlem, and 14 in Western Queens. These organizations provide either hot meals or pantry bags. Each location provides its services on different days of the week and at different times. Several locations require a referral. Most of the food pantries are operated out of local churches.

There are three community gardens in the WCMC region, two in East Harlem and one in Western Queens. These parks are open to the public. The El Sitio Feliz at Union Settlement also has a playground and amphitheater. While not given the official title of a "community garden" there are numerous gardens in the region, some associated with the location of the food banks and churches discussed previously. Locations of these can be found on the American Community Gardening Association website or the Grow NYC website.

There are eight farmers market locations in the WCMC region, two in the Upper East Side, three in East Harlem, and three in Western Queens. All locations offer fresh produce brought in from local farms of the region. The Grow NYC and Harvest Home associated markets accept EBT or food stamps.

Clothing and furniture banks

There are three clothing banks located in the WCMC region, all in the Upper East Side that provide free clothing to the population. Additionally, there are three thrift stores also in the region and also all in the Upper East Side. Two of the thrift stores, Arthritis Foundation Thrift Shop and Cancer Care Thrift Shop, donate their proceedings to their respective research and care categories.

There are no furniture banks in the WCMC region.

Specialty educational programs for special needs children

There are eight specialty educational programs in the WCMC region for children with intellectual or developmental disabilities or behavioral challenges. Two of these locations are in the Upper East Side, four in East Harlem, and two in Western Queens (Figure 2). These programs offer services to students with disabilities. Two of the programs, Quality Services for the Autism Community and New York Center for Autism Charter School, focus specifically on children with autism. The Union Settlement Association has an Early Childhood Education program for children aged two to five. Two of the programs are offered through New York State's public school system, offering services such as physical therapy, occupational therapy, speech therapy, and vision and hearing services. As part of the AHRC, the Astoria Blue Feather Head Start program has classes with special education teachers, a child development associate, and an assistant teacher to assist students with specific needs.

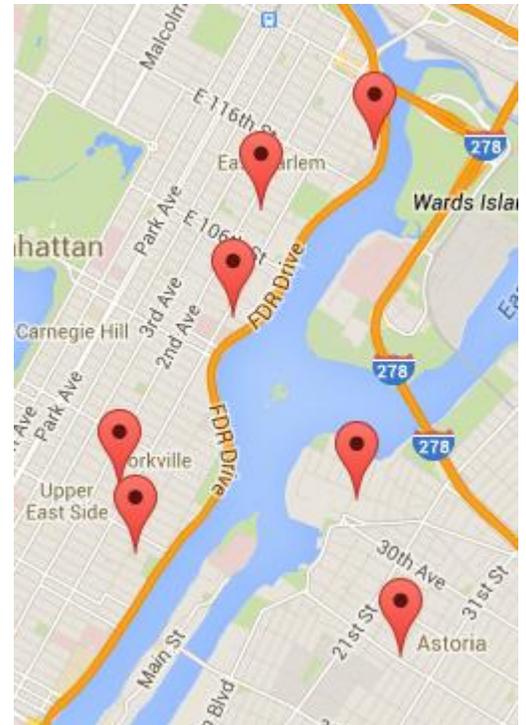


Figure 2. Location of specialty educational programs for special needs children in the WCMC region.

Community outreach agencies

There are nine community outreach agencies in the WCMC region. Two are located in the Upper East Side, four are in East Harlem, and three are in Western Queens (Figure 3). These agencies focus on bringing awareness to topics such as homelessness, quality healthcare, domestic violence, and sexually transmitted infections. The Center for Urban Community Services Street Outreach program specifically looks for individuals sleeping outside and determines if they would be eligible for services. Two of the agencies are affiliated with Mount Sinai Hospital: East Harlem Health Outreach Partnership and Disaster Psychiatry Outreach. The latter of which provides a unique service, offering psychiatric services to help alleviate suffering to those suffering in the aftermath of a disaster. One outreach agency works through the New York Public Library in Astoria offering free information, referral services, and community employment services to those in need.

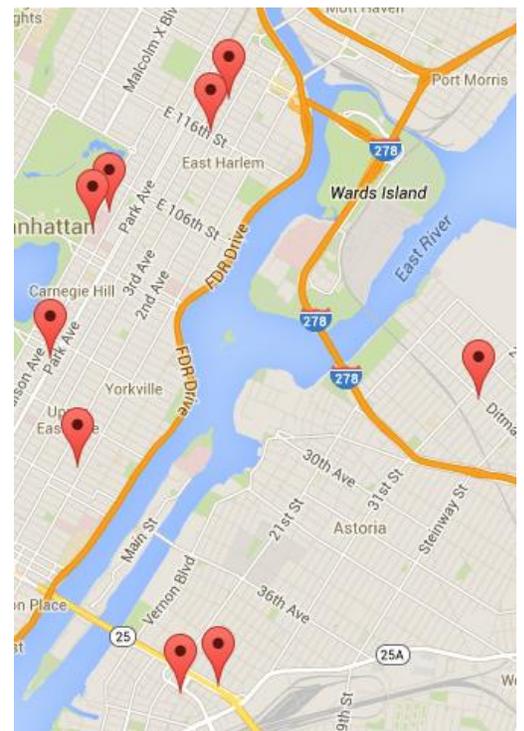


Figure 3. Location of community outreach agencies in the WCMC region.

Transportation services

There are seven transportation services located in the WCMC region offering rides to Manhattan and to areas in Western Queens. LogistiCare New York offers transportation services specifically to Medicaid patients for non-emergency uses. Three of the services operate from nursing homes and are available specifically to the elderly population: East Side Transportation Program of Lenox Hill Neighborhood House, Senior Services Transportation of Union Settlement Association, and RIIS Settlement. The Floating Hospital provides its transportation services to homeless families and families living in domestic violence safe houses, offering rides to healthcare facilities. The Office of Pupil Transportation offers school transportation to New York City students attending both public and non-public schools. Qualified students will receive rides for free to and from school.

Religious service organizations

There are nine religious service organizations in the WCMC region. Three of these are located in the Upper East Side, four in East Harlem, and two in Western Queens. All of these organizations provide some sort of community support such as volunteering in the community, food pantries, and advocacy for the homeless and affordable housing. The Catholic Migration Services specifically focuses on providing resources to underserved immigrant communities, regardless of religion or ethnicity. The Life Experience and Faith Sharing Program specifically offers a drug recovery residence, a HIV/AIDS residence, and two drop in centers.

Not-for-profit health and welfare agencies

There are 21 not-for-profit health and welfare agencies in the WCMC region. Three of these agencies are located in the Upper East Side, ten in East Harlem, and eight in Western Queens (Figure 4). Services provided by these agencies include: substance abuse treatments, homelessness aid, mental health care, trauma care, domestic violence assistance, wellness education, general counseling, and social services. Two of the agencies are part of the Institute for Family Health. Harlem United specifically offers its services to the HIV/AIDS population providing access to healthcare, HIV prevention and education, housing, and support services. The Quality Services for the Autism Community provides care to the autism population, regardless of age. Reality House, Inc. is certified by the Office of Alcoholism and Substance Abuse Services and provides medically supervised outpatient treatments for substance abuse and HIV.

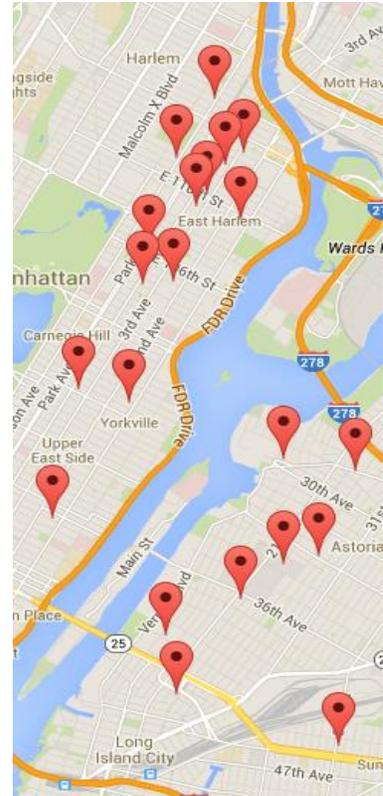


Figure 4. Location of not for profit health and welfare agencies in the WCMC region.

Specialty community-based and clinical services for individuals with intellectual or developmental disabilities

There are nine special community-based and clinical services for individual with developmental disabilities located in the WCMC region. There is an equal distribution of these services across the Upper East Side, East Harlem, and Western Queens. Three of the centers offer services to both children and adults dealing with developmental disabilities. Four services focus specifically on children, while the remaining three offer adult day programs. The Neshet Program for Children with Developmental Disabilities through the 92Y offers after school programs for children with various developmental disabilities or neurological impairment. The Rhinelander's Saturday Program offers free, recreational weekend program for the Deaf and Hard of Hearing children and teens.

Peer and family mental health advocacy organizations

There are three peer and family mental health advocacy organizations in the WCMC region. Two of these organizations are in East Harlem and the other one is in Western Queens (Figure 4). Union Settlement Association and Child Welfare Organizing Project advocate for mental health and the welfare system. The New York City Department of Health and Mental Hygiene provides advocacy services to individuals over the age of 18. Although The Coalition of Behavioral Health Agencies, Inc. and Mental Health Association of New York City are not located in the designated region, they routinely advocate for mental health needs not only in New York City but also the state and even the nation.

Self-advocacy and family support organizations and programs for individuals with disabilities

There is only one self-advocacy and family support organizations for individuals with disabilities in the WCMC region, located in East Harlem. The Paula and M Anthony Fisher Adult Day Center supports individuals with disabilities, helping them live a self-determined and meaningful life in the community.

Youth development programs

There are 12 youth development programs in the WCMC region. Two of these programs are located in the Upper East Side, four in East Harlem, and six in Western Queens. Services offered by these programs include: educational services or homework help centers, career preparation, college readiness, and recreation services. The Stanley M Isaacs Neighborhood Center, Inc. is designed for out of school youth aged 17 – 24 providing them with skills to become self-sufficient. Two of the centers are affiliated with the Salvation Army providing youth camps and recreation services. The College Readiness Program at Sunnyside Community Services helps high school students or recent high school graduates, aged 14 – 21, prepare for the college admission process.

Libraries with open access computers

There are 14 libraries with open access computers in the WCMC region. Six of these libraries are located in the Upper East Side, three in East Harlem, and six in Western Queens (Figure 5). Six of the libraries in Manhattan are part of the New York Public Library system. A valid library card is required to access the computers. The six libraries in Western Queens are part of the Queens Library system. These libraries also have public access to library computer workstations. For these libraries, a log on is needed which would be done by applying for a library card after proving residency in the respective area.

In addition to the public libraries, two more libraries stand in Manhattan. The New York Academy of Medicine Library requires a scheduled appointment and does have computers available for use but a specific reason must be specified. The services offered at this library are meant for people who otherwise would have difficulty finding the information they are looking for. The Myra Mahon Patient Resource Center is operated under Weill Cornell. Computers and wireless access are available at this location and are open to the public.

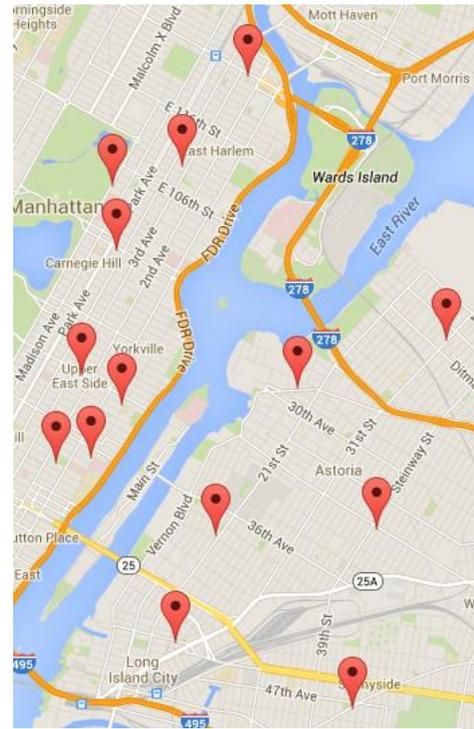


Figure 5. Location of libraries in the WCMC region.

Community service organizations

There are seven community service organizations in the WCMC region. Two of these are located in the Upper East Side, three in East Harlem, and two in Western Queens. Services at these organizations include: employment services, financial counseling, youth development, and homelessness aid. Three of the centers focus specifically on assisting children and the youth: The Association to Benefit Children, Harlem Children's Zone, and Harlem RBI. Legal Outreach provides unique services by using intensive legal and education programs as tools for developing skills and confidence for the urban youth from underserved communities. From the 8th through 12th grades, students work after school, on weekends, and during summers to build the skills and confidence they need to achieve their goals.

Education

There are numerous public and nonpublic schools located in the WCMC region. Details regarding each school can be found on the New York City Department of Education website.

Less than a mile from the region, OnTrackNY provides educational services to youth and young adults who are dealing with psychiatric issues.

Local governmental social service programs

There are four main governmental social service programs that provide services to the region, even if the headquarters are not physically located in the region. The New York City Department of Homeless Services focuses on moving individuals from the streets into housing. The Department also offers emergency housing for individuals. The New York City Department of Youth and Community Development has youth and community development programs. The New York City Department of Health and Mental Hygiene provides care to the city. Its Take Care New York initiative encourages New Yorkers to live healthier and longer lives. The New York City Department of Education serves 1.1 million students in 1,800 schools across the city. The department offers special programs such as adult and continuing education, career and technical education, other ways to graduate, and summer schools.

Community-based health education programs including for health professionals/students

There are four community-based health education programs in the WCMC region. Two are located in the Upper East Side, one in East Harlem, and one in Western Queens (Figure 6). The Mount Sinai Adolescent Health Center provides preventive education to young people aged 10 to 22. The 92Y offers health and wellness talks with topics ranging from Alzheimer's disease, to cancer, to autism spectrum disorder. A detailed list of the talks can be found on the website. The remaining two health centers provide either one-on-one counseling or group workshops on a variety of health topics.

There is one program located less than a mile from the region. The MSI AHEC Director increases diversity by recruiting and training people of all races and ethnicities for careers in health care.

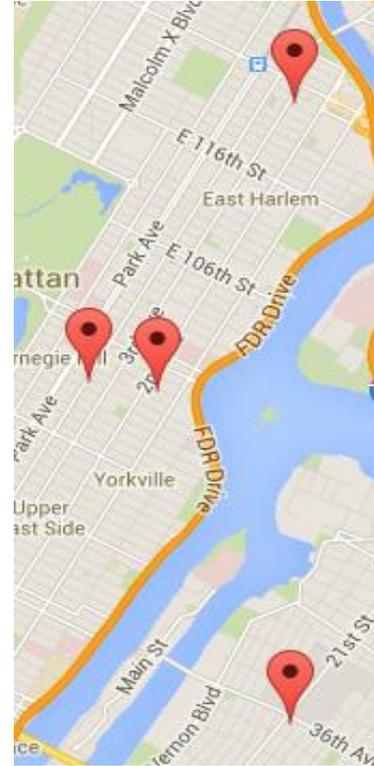


Figure 6. Location of community based health education programs in the WCMC region.

Family support and training

There are four family support and training services in the WCMC region. Two of these are located in the Upper East Side and two in East Harlem. Services offered by these programs include: parenting skills classes, support groups, workshops, and community networking. The Edwin Gould Services for Children and Families specializes in foster care. In wood House offers unique services through its PIN Video Interaction Guidance Program, providing parenting skills and training to parents of teens, aged 13 – 25.

NAMI (National Alliance on Mental Illness)

While the headquarters of the National Alliance on Mental Illness (NAMI) for New York State is in Albany, there is a satellite office located in the Harlem. This location is not part of the designated WCMC area nor is it less than a mile away from the region. Nonetheless, it is the closest center to the region. NAMI advocates for access to services, treatment, support, and research for people dealing with mental illness. The affiliate locations are used to raise awareness and provide free education, advocacy, and support group programs.

Individual employment support services

There are two individual employment support services in the WCMC region. Exodus Transitional Community, Inc. is located in East Harlem and focuses on formerly incarcerated men and women to place them in various employment opportunities. Stanley M Issacs Neighborhood Center, Inc. is located in the Upper East Side and focuses specifically on out-of-school youth, aged 17 – 24. The program teaches skills that will be needed to be a member of the workforce.

Peer supports (Recovery coaches)

There were no peer supports or recovery coaches found in the region. There is one recovery coach located less than a mile from the region, in Harlem. The main services provided by this organization include addiction recovery, housing, employment, and professional support, and inclusion in social and community activities.

Alternatives to Incarceration

There are six alternatives to incarceration services in the WCMC region. Four of these organizations are located in East Harlem and two in Western Queens (Figure 7). The main services provided by all the locations is helping transition incarcerated individuals back into the community by providing housing, employment, and educational opportunities. The Bailey House focuses specifically on HIV/AIDS-infected men and women recently released from prison. Greenhope and Hour Children focuses on women and children. Additionally, Greenhope provides its services to predominantly poor African American and Latina populations.

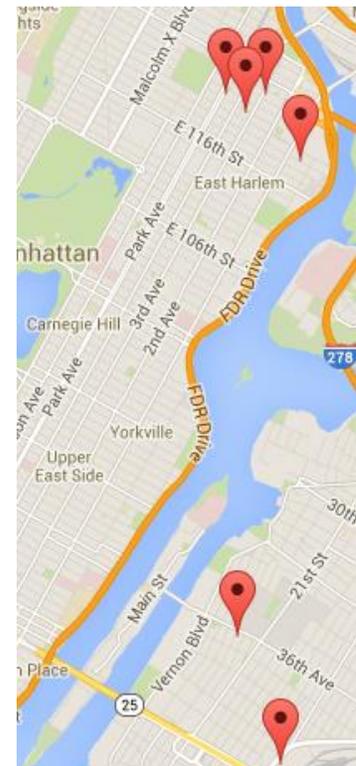


Figure 7. Location of alternatives to incarceration programs in the WCMC region.

Ryan White Programs

Ryan White programs resulted from the Ryan White CARE Act, which sought to make care available for low income and uninsured victims of AIDS and their families. There are 16 such programs located in the WCMC region. Five of these programs have numerous locations across the region: AIDS Service Center of Lower Manhattan, Inc., Exponents, Inc., Health Research, Inc. – NY Harm Reduction Educators, Services for the UnderServed, and Project Renewal. The remaining 11 services are all located in East Harlem. Services provided by these organizations include providing access to healthcare, social services, counseling, and in some cases assistance with finding housing. Two of the centers are affiliated with hospitals: Jack Martin Fund Clinic of Mount Sinai, which is the New York State Department of Health Designated AIDS Center, and Metropolitan Hospital Center. The Family Center of Harlem is associated with the Institute for Family Health. Iris House provides its services specifically to women. The Legal Aid Society provides legal services to low income new Yorkers and works on an HIV/AIDS project.

HIV prevention, outreach, and social service programs

There are 13 HIV prevention / outreach and social service programs in the WCMC region. One service is located in the Upper East Side, eight in East Harlem, and four in Western Queens (Figure 8). Services provided by these organizations include testing, prevention, education, social support, counseling, and treatment. Three of the services are affiliated with hospitals: Jack Martin Fund Clinic of Mount Sinai Hospital, Metropolitan Hospital Center, and the Center for Special Studies (HIV/AIDS), part of Weill Cornell Physicians. All of these facilities are certified by the New York State Department of Health as designated AIDS care facilities. The Family Health Center of Harlem is affiliated with the Institute for Family Health. Iris House provides its services to women and their families.

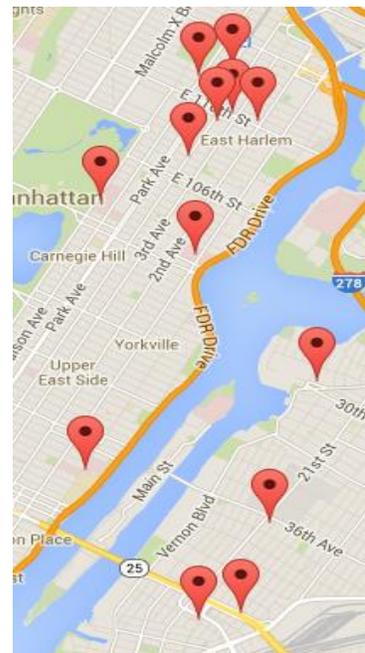


Figure 8. Location of HIV prevention and social service programs in the WCMC region.

A.i. Health Care Resources: Columbia University Medical Center Service Area

Objective

Outline the health care resources available to residents of Northern Manhattan & the Southwest Bronx.

Particular attention was paid to services available to Medicaid recipients. The detailed inventory is included as an appendix.

Key Findings

Residents of Northern Manhattan & the Southwest Bronx have access to a wide array of health services. Nonetheless, some gaps in the services provided were noted:

- The rate of unplanned readmissions is higher than the national average at all local hospitals.
- No programs in the area focus solely on eating disorders
- There are no safety net adult care facilities
- There are no safety net assisted living facilities

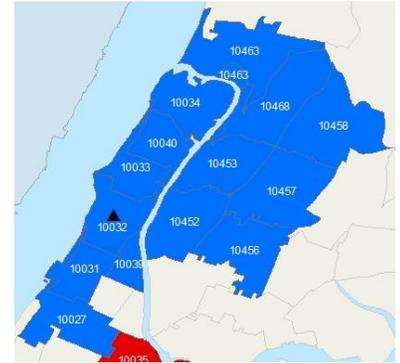


Figure 1: Area covered by Columbia University Medical Center

Hospitals

Five hospitals are available within the specified region. Two additional hospitals are located less than two miles from the area. A total of 3,922 beds are available across the seven hospitals. In 2012, there were 128,798 discharges among Medicaid recipients (Table 1). All the hospitals have a higher rate of unplanned readmission after discharge from the hospital than the national average. (Figure 2)

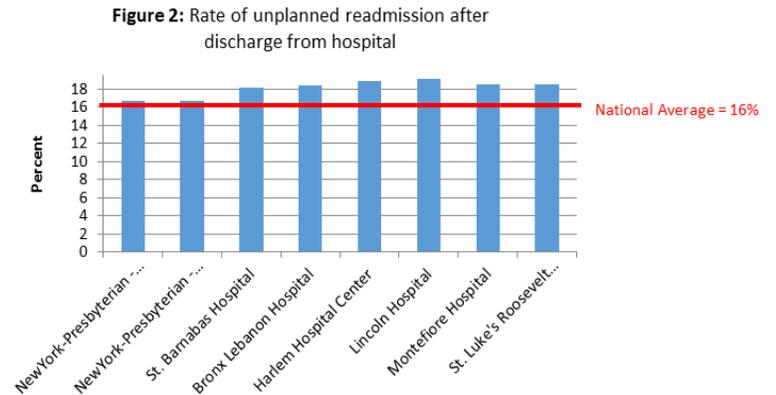


Table 1. Description of hospitals in the Northern Manhattan & Southwest Bronx service area.

| Name of Facility | Beds | Total Facility Admissions | Emergency Room Visits | Total facility Medicaid Discharges | Total facility Medicaid Days |
|--|------|---------------------------|-----------------------|------------------------------------|------------------------------|
| NewYork-Presbyterian – Columbia University Medical Center* | 995 | 104,600 | 275,592 | 32,077 | 209,026 |
| NewYork-Presbyterian – Allen Hospital* | 201 | 104,600 | 275,592 | 32,077 | 209,026 |
| St. Barnabas Hospital | 422 | 19,798 | 95,782 | 12,474 | 117,727 |
| Bronx Lebanon Hospital | 415 | 29,825 | 135,929 | 20,796 | 222,056 |
| Harlem Hospital Center | 282 | 11,861 | 70,961 | 2,829 | 21,856 |
| Lincoln Hospital | 362 | 21,590 | 158,751 | 14,109 | 55,926 |
| Montefiore Hospital | 767 | 81,596 | 296,614 | 33,070 | 192,290 |
| St. Luke Roosevelt Hospital | 478 | 43,525 | 204,786 | 13,443 | 79,141 |

Source: NYS Health Profiles and American Hospital Association Annual Survey (2012)

*Data is only available for NewYork-Presbyterian as a whole entity. Data is not broken down by campus.

Survey data from patient's experiences with the respective hospitals are displayed in figure 3. The questions ranged from asking patients how well nurses and doctors communicated with them, how quickly help was provided to them, how well information regarding their care was communicated, and how patients would rate the hospitals.

- NewYork-Presbyterian had the highest response for patients who would rate the hospital a 9 or higher out of a scale of 10.
- NewYork-Presbyterian did as well or better than the New York State average on 5 of the 7 questions.
- Patients at NYP did not feel that they received help as soon as they wanted with the response of “always” having a 57% rate compared to the state average of 61%.
- NYP patients reported that they were given information about what to do during their recovery at home with an 82% rate, slightly lower than the state average of 83%.

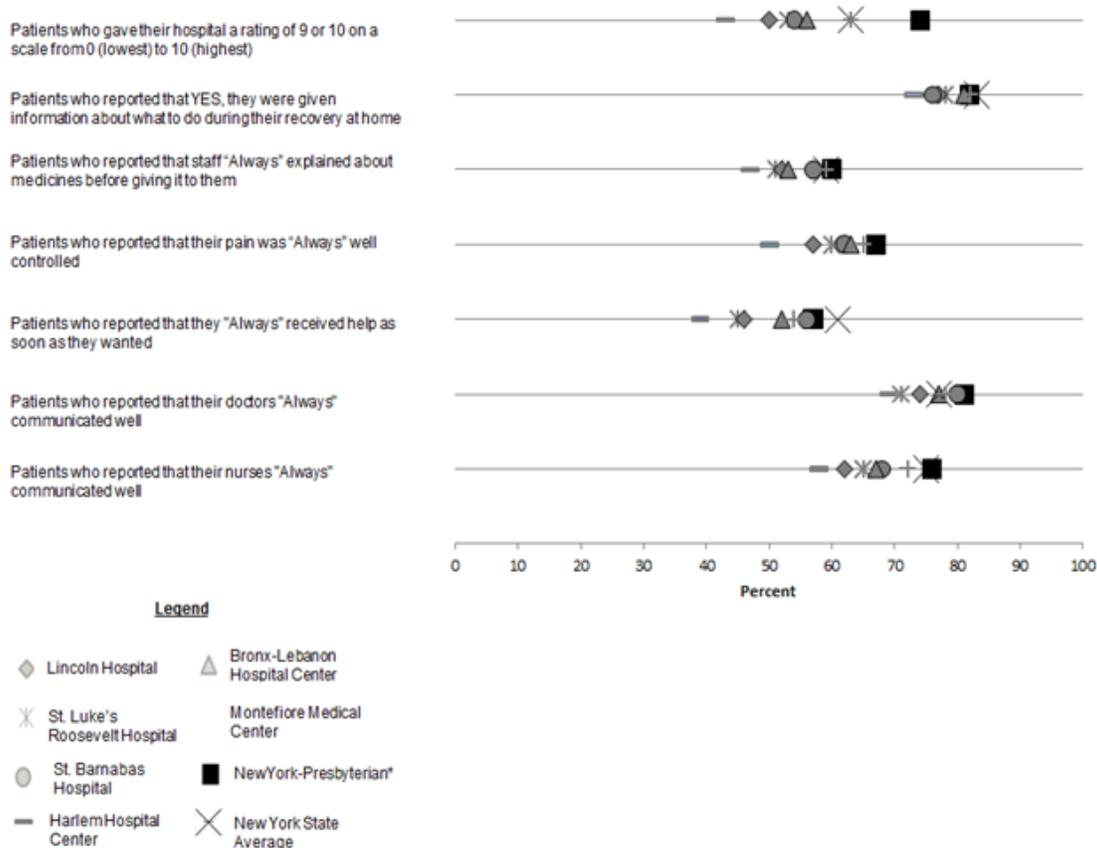


Figure 3: Survey of patients' experiences
Source: Medicare Hospital Compare Quality of Care

The New York State Department of Health has published counts of users for emergency room and inpatient services for patients with Medicaid insurance.¹⁷ There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. These individuals use the following resources for their health services (Tables 2 and 3). Three of the facilities that provide ER services (starred) are in the area. Three of the facilities with inpatient services (starred) are in the area.

Table 2: Emergency room visits of facilities that accepted Medicaid for the 2013 calendar year

| Provider | ER Visits | Unique Members with ER Visits |
|--------------------------------|-----------|-------------------------------|
| Presbyterian HSP City of NY* | 61,911 | 39,467 |
| Bronx Lebanon Hospital Center* | 47,138 | 30,381 |
| Montefiore Medical Center | 37,106 | 23,884 |
| St Luke's Roosevelt HSP CTR | 25,956 | 16,151 |
| St Barnabas Hospital* | 26,309 | 16,138 |
| Lincoln Medical/Mental HLTH | 23,802 | 14,643 |
| North Central Bronx | 11,978 | 7,337 |
| Harlem Hospital Center | 12,552 | 7,327 |
| Jacobi Medical Center | 7,301 | 4,724 |
| Mount Sinai Hospital | 5,688 | 3,570 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the Northern Manhattan & Southwest Bronx region

Table 3: Inpatient admissions of facilities that accepted Medicaid for the 2013 calendar year

| Provider | Inpatient Admissions | Unique Members with Inpatient Admissions |
|--------------------------------|----------------------|--|
| Presbyterian HSP City of NY* | 17,455 | 14,017 |
| Montefiore Medical Center | 24,607 | 11,721 |
| Bronx Lebanon Hospital Center* | 22,460 | 10,829 |
| St Barnabas Hospital* | 7,790 | 5,901 |
| Lincoln Medical/Mental HLTH | 6,290 | 5,084 |
| St Luke's Roosevelt HSP CTR | 7,424 | 4,405 |
| Harlem Hospital Center | 3,516 | 2,813 |
| Jacobi Medical Center | 2,999 | 2,568 |
| Mount Sinai Hospital | 2,545 | 2,010 |
| North Central Bronx | 2,343 | 1,978 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the Northern Manhattan & Southwest Bronx region

¹⁷ <http://dsripdashboards.health.ny.gov/>

Ambulatory surgical centers

There are nine ambulatory surgical centers located in the Northern Manhattan & Southwest Bronx Region. Three of the centers are associated with hospitals: NewYork-Presbyterian Hospital – Morgan Stanley Children’s Hospital and Urgicare Center, Montefiore Medical Group, and St. Barnabas Hospital – Outpatient Department. Others include BronxCare – Surgery Clinic, Barbee Family Health Center, Audubon Practice, Morris Heights Health Center – Burnside, and Urban Health Plan – Adolescent Health and wellness Center/Club TIA. Procedures at these facilities range from general surgical care to more specialty specific care such as endoscopic, orthopedic, and ENT surgeries.

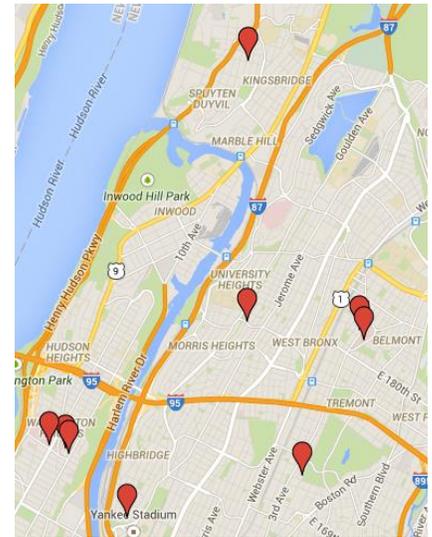


Figure 4: Location of ambulatory surgical centers in the Northern Manhattan & Southwest Bronx region

Urgent care centers

There are 4 urgent care centers located in the Northern Manhattan & Southwest Bronx region. Three of the centers are affiliated with hospitals: NewYork-Presbyterian and Montefiore Medical Center, and St. Barnabas Hospital.

Behavioral health

Despite a roster of 62 BH centers listed in Northern Manhattan/ Southern Bronx, the number who have access to care for Medicaid patients in a timely fashion is below 20 among these. Palladia Inc., Inwood Community Services and Morris Heights Center continue to provide reasonably timely availability, but are unable to meet crisis management and psychopharmacological care most urgently needed in the ambulatory setting.

Although 80 Medicaid credentialed physicians residing in the same area attest they prescribe basic psychiatry medications, only Board Certified Psychiatrists are able to prescribe for complex seriously and persistently mentally ill (SMI) patients. Accepting a new SMI patient is understandably infrequent among these physicians, and they do not represent adequate community providers to serve a high utilizing population with a primary psychiatric diagnosis.¹⁸

¹⁸ SK&A data

Physicians

There are 1,498 physicians located in the Northern Manhattan & Southwest Bronx region, both generalists and specialists (Table 4). The average patient load is 77 patients per physician. There are an average 9 physicians per practice. Approximately 83% of these physicians accept Medicaid. 73% also use Electronic Medical Record (EHR) software.

Table 4: Physicians in the Columbia University Medical Center area

| | Number: | % of Total: |
|-------------------------------|----------------|--------------------|
| General Medicine | 350 | 24% |
| Pediatrics | 152 | 10% |
| Psych | 80 | 6% |
| Infectious Disease | 30 | 2% |
| OB/GYN | 84 | 6% |
| Pain | 4 | 0.3% |
| Other Specialties | 750 | 52% |
| Total | 1450 | 100% |
| | | |
| Avg. patient load / MD | 77 | |
| Avg. MDs / practice | 9 | |
| | | |
| Accept Medicaid | 1242 | 83% |
| Use EHR Software | 1100 | 73% |

Source: SK&A data

When broken down by specialty, the physicians that accept the highest percentage of Medicaid patients are pain, general, pediatrics and OB/GYN (Table 5). Pediatrics and OB/GYN specialists also have the highest percentage of EHR usage. Psychiatry has the lowest percentage of use at 49%.

Table 5: Physicians that accept Medicaid or use an EHR software broken down by specialty

| Specialty | Accept Medicaid N (% of total) | Use an EHR N (% of total) |
|--------------------|---|--------------------------------------|
| General | 310 (89%) | 277 (79%) |
| Pediatrics | 136 (89%) | 124 (82%) |
| Psychiatry | 68 (85%) | 32 (40%) |
| Infectious Disease | 26 (87%) | 18 (60%) |
| OB/GYN | 74 (88%) | 76 (90%) |
| Pain | 4 (100%) | 2 (50%) |
| Other Specialties | 596 (79%) | 540 (72%) |

Source: SK&A data

Primary care providers

There are 52 primary care centers located in the Northern Manhattan & Southwest Bronx region. There are 310 general physicians, 136 pediatricians, and 74 OB/GYN specialists in the region that accept Medicaid. These make up 88%, 89%, and 88% of the total number of physicians in the area respectively (Figure 5).

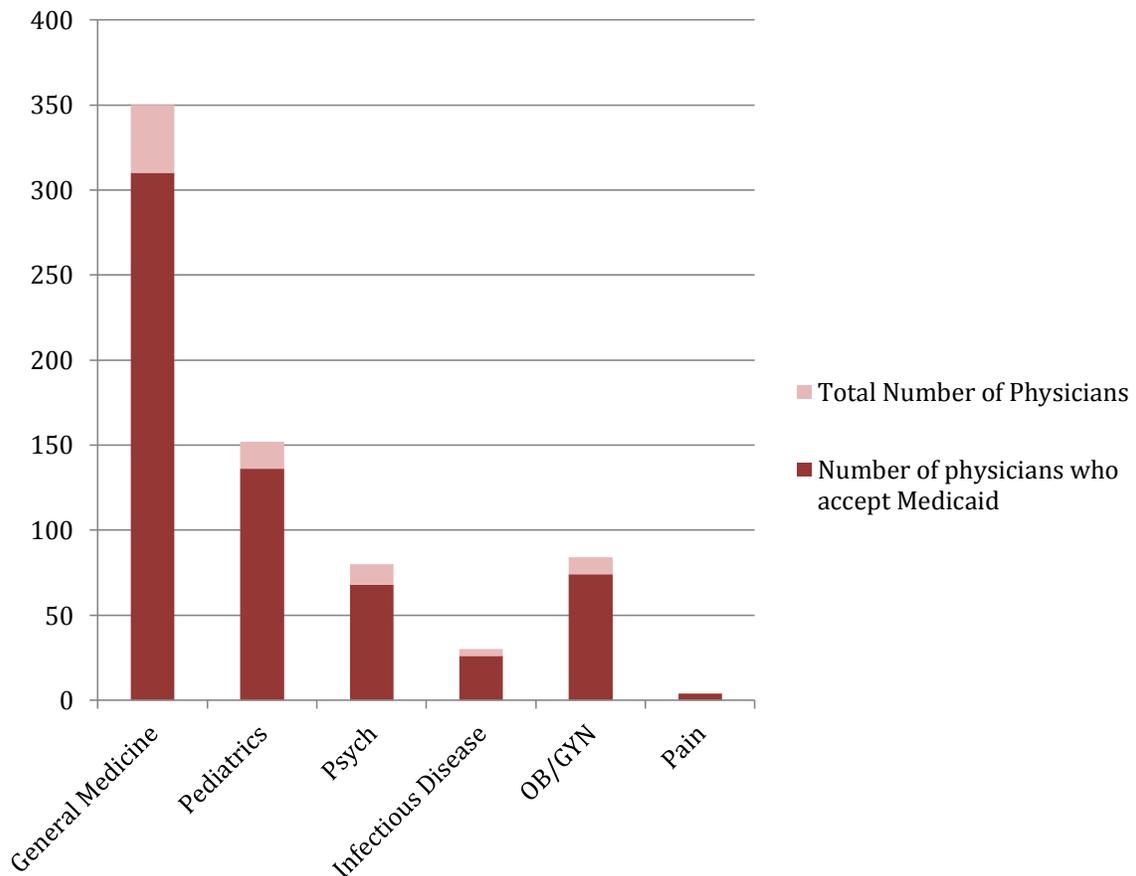


Figure 5: Physicians in the region that accept Medicaid broken down by specialty

Source: SK&A data

The New York State Department of Health has published counts of users for primary care services for patients with Medicaid insurance. There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. These individuals use the following resources for their primary care services (Table 6). Six of the facilities with outpatient services (starred) are in the area.

There are 30 physicians in the region that practice in the field of infectious disease; most (87%) of these physicians accept Medicaid insurance. Additionally, 60% of the physicians use an EHR software.¹⁹

Table 6: Primary care visits of facilities that accepted Medicaid for the 2013 calendar year

| Provider | Primary Care Visits | Unique Members with Primary Care Visits |
|--------------------------------|---------------------|---|
| Presbyterian HSP City of NY* | 91,135 | 31,381 |
| Montefiore Medical Center | 102,151 | 29,315 |
| Bronx Lebanon Hospital Center* | 77,264 | 19,638 |
| Morris Heights Health Center* | 64,485 | 18,700 |
| Montefiore Prof Billing Group | 44,585 | 15,078 |
| Union Comm Health CTR INC* | 44,660 | 11,346 |
| Health First PHSP INC | 28,336 | 11,113 |
| St Barnabas Hospital* | 36,589 | 10,367 |
| Lincoln Medical/Mental HLTH | 28,734 | 10,183 |
| Martin Luther King HLTH CTR* | 28,869 | 9,025 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Hospitals in the Northern Manhattan & Southwest Bronx region

¹⁹ SK&A data

Dental providers

There are 18 dental providers located in the region and 11 in the surrounding area. Most clinics provide routine dental care while some focus on dental surgeries and emergent dental care.

The New York State Department of Health has published counts of users for dental services for patients with Medicaid insurance. There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. These individuals use the following resources for their dental services (Table 7). Four of the private dentists (starred) are in the area. Four of the dental clinics (starred) are in the area.

Table 7: Private dentists and dental clinics that accepted Medicaid in the 2013 calendar year

| Private Dentists | | | Dental Clinics | | |
|-------------------------|-------------|------------------------------|---------------------------------|-------------|------------------------------|
| Service Name | Claim Count | Unique Members with Services | Service Name | Claim Count | Unique Members with Services |
| Rosenberg Dara* | 25,776 | 5,189 | Morris Heights Health Center* | 9,770 | 5,659 |
| Kipnes Marina DDS | 15,571 | 3,650 | Union Comm Health CTR INC* | 11,022 | 4,643 |
| Sanchez Zayda DMD* | 12,193 | 3,585 | Dr Martin Luther King HLTH CTR* | 6,759 | 3,751 |
| Williams Alejandro DDS* | 24,109 | 3,222 | Columbia Univ HLTH Care* | 8,554 | 3,418 |
| Salyk Ronald DDS* | 13,772 | 3,020 | Montefiore Med CNTR MMC Dental | 5,561 | 2,672 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Private dentists or dental clinics in the Northern Manhattan & Southwest Bronx region

Rehabilitative services

There are 20 rehabilitative service providers in Northern Manhattan & the Southwest Bronx and 2 in the surrounding area (Figure 6). Services at these locations include physical therapy, occupational therapy, and speech and language therapy.



Figure 6: Location of rehabilitative service providers in the Northern Manhattan & Southwest Bronx region

Foster children agencies

There are 2 foster care agencies in Northern Manhattan & Southwest Bronx and the surrounding area. General counseling services are available at these locations including social workers and behavioral specialists. The Foundling is a New York-based charity that empowers thousands of children and families to live independent, stable and fulfilling lives.

Pharmacies

There is a dense distribution of pharmacies in Northern Manhattan & Southwest Bronx region that server greater than 35% of Medicaid, Medicare/Medicaid, or uninsured population. The majority of these pharmacies are affiliated with large chains such as: RiteAide, CVS and Duane Reade to name a few.



Figure 7: Location of pharmacies in the Northern Manhattan & Southwest Bronx region

Home care services

There are 41 home care services in Northern Manhattan & Southwest Bronx area. These locations offer services for children and adults with HIV/AIDS, developmental disabilities, and other medical conditions.

Health home

There are two health homes in Northern Manhattan and two in the Bronx as listed on the New York State Department of Health site. These health homes might not be located in the service area but each care management center provides access to multiple services.

Nursing home

There are 19 nursing homes located in the Northern Manhattan & Southwest Bronx region. These generally serve the elderly or chronically ill. Services include primary medical care, rehabilitative services, and social / behavioral services.

Some statistics related to the care provided at selected facilities is summarized in table 8. All but one of the facilities had a lower percentage of patients who self-reported moderate to severe pain during a short stay as compared to the state average. One facility reported higher than the state's average of pressure sores that are new or worsened: Isabell Geriatric Center at 1.9%. All facilities reported depressive symptoms were lower than the state average (11.6%).

Table 8: Nursing Home Quality Metrics

| Nursing Home | Self-report moderate to severe pain (short stay) | Have pressure sores that are new or worsened | Self-report moderate to severe pain (long stay) | Have pressure sores (long stay) | Have depressive symptoms (long stay) |
|--|--|--|---|---------------------------------|--------------------------------------|
| State Average | 14.4% | 1.3% | 5.7% | 7.6% | 11.6% |
| Jewish Home & Hosp Bronx DIV | 3.7 | 0.3 | 3.9 | 9.5 | 8.4 |
| Isabella Geriatric CTR INC | 12.9 | 1.9 | 2.1 | 9.6 | 2.1 |
| Kingsbridge HGHTS Rehab & CC | 7.0 | 0.6 | 1.7 | 10.0 | 1.8 |
| Ft. Tryon Center for Rehabilitation and Nursing | 13.1 | 0.9 | 4.7 | 7.2 | 10.8 |
| Casa Promesa | 20.6 | 0.0 | 11.4 | 0.0 | 1.2 |

Source: Nursing Homes data from New York State Department of Health [July 2013 – March 2014]

The New York State Department of Health has published counts of users for nursing homes. There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. These individuals use the following resources for their nursing home care (Table 9). Three of the nursing homes (starred) are in the area.

Table 9: Nursing home facilities that accepted Medicaid for the 2013 calendar year

| Service Name | Claim Count | Unique Members with Services |
|-------------------------------|-------------|------------------------------|
| Jewish Home & Hosp Bronx DIV | 35,678 | 922 |
| Isabella Geriatric CTR INC | 40,182 | 820 |
| DOJ Operations Associates INC | 18,289 | 477 |
| Kingsbridge HGHTS Rehab & CC | 18,451 | 394 |
| United Healthcare of NY INC | 2,019 | 375 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Nursing home facilities in the Northern Manhattan & Southwest Bronx region

Specialty service providers such as vision care and DME (durable medical equipment)

There are 9 vision care providers in Northern Manhattan & Southwest Bronx. Many of these locations are affiliated with larger health centers including: Morrisania, Dr. Martin Luther King Health Center, NewYork-Presbyterian Hospital, and Union Community Health.

The New York State Department of Health has published counts of users for eye care providers. There are 477,212 patients with Medicaid who live in the Northern Manhattan & Southwest Bronx area. These individuals use the following resources for their nursing home care (Table 10). Four of the eye care providers (starred) are in the area.

Table 10: Eye care providers that accepted Medicaid for the 2013 calendar year

| Service Name | Claim Count | Unique Members with Services |
|---------------------|-------------|------------------------------|
| Bae Peter Sangdo | 13,209 | 4,286 |
| Tabachnick Wayne OD | 12,685 | 4,151 |
| Burnside Optical | 7,460 | 2,473 |
| Langlais Roy A | 5,744 | 2,313 |
| Altman Thomas T | 5,614 | 2,207 |

Source: NYS Medicaid DSRIP Dashboards (2013)

* Eye care providers in the Northern Manhattan & Southwest Bronx region

There are two durable medical equipment locations in the region: Elite Surgical Supply Inc and Confucius/Mannings Pharmacy.

Specialty developmental disability services

There are 6 specialty developmental disability services found in Northern Manhattan & Southwest Bronx. These centers provide care children and adults with disabilities as well as their families. Services include medical, vocational, educational, residential, and social resources.

Laboratory and radiology services including home care and community access

There are nine laboratory and nine radiology services located in Northern Manhattan & Southwest Bronx. Three of the laboratory locations are affiliated with the national company, Quest Diagnostics.

Federally Qualified Health Centers (FQHCs)

There are eight federally qualified health centers located in Northern Manhattan & Southwest Bronx and one less than a mile away from the region. These centers are focused on providing care for the underserved populations. One center is affiliated with the Institute for Family Health.

Local Health Department

The New York City Department of Health and Mental Hygiene is located in Lower Manhattan. The Department has several divisions, each offering services in its own domain. These Divisions are: Mental Hygiene, Disease Control, Environmental Health, Epidemiology, Health Care Access and Improvement, Health Promotion and Disease Prevention. A breakdown of each division's services can be found in Figure 8.

In 2005, the New York City Department of Health and Mental Hygiene created the Primary Care Information Project as part of its "Take Care New York" initiative. This project offered support and assistance with the implementation and continued technical assistance to primary care providers that served a minimum of 10% Medicaid or uninsured patients in the city. "Since July 2007 more than 3,300 physicians in more than 600 practices have enrolled in the project, making it the largest community-based HER implementation and extension program in the United States. In 2011 it became one of the sixty regional extension centers established across the nation."²⁰

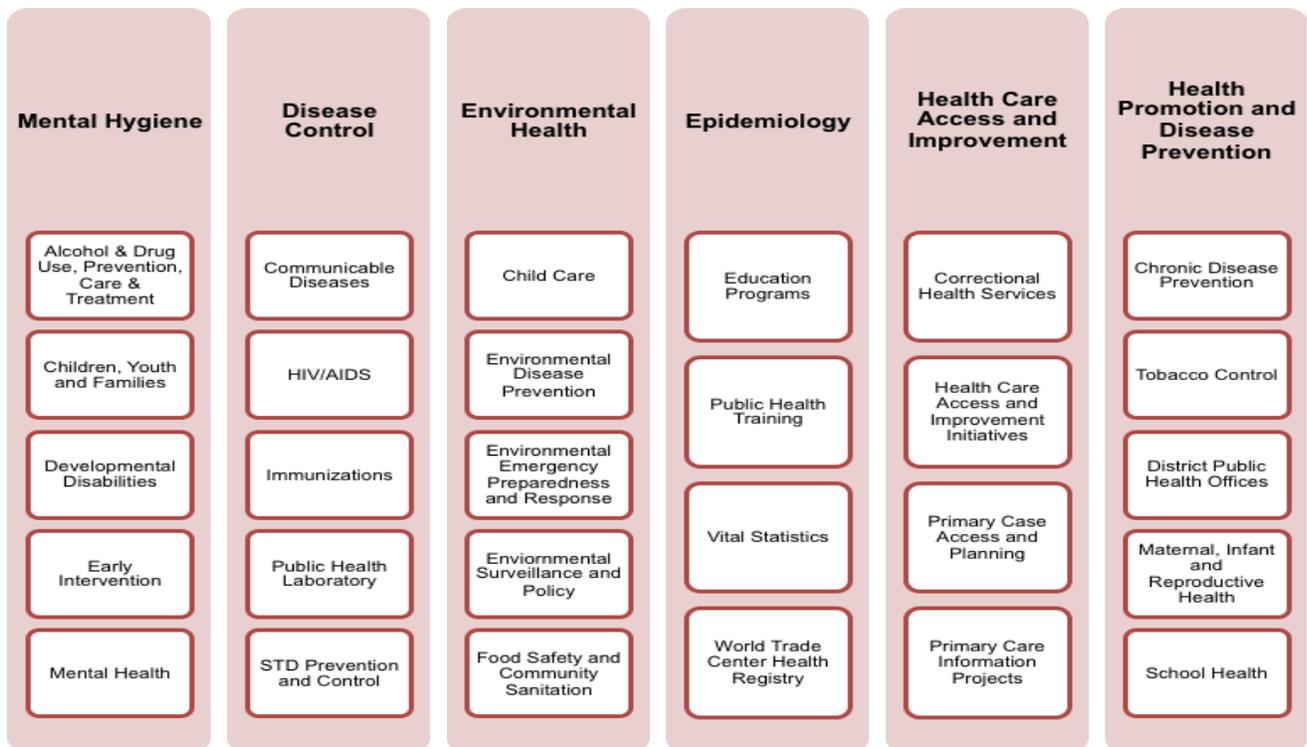


Figure 8: Organizational Chart of NYC Department of Health and Mental Hygiene
Source: nyc.gov

²⁰ <http://content.healthaffairs.org/content/32/1/53.full.html>

Managed care

Twelve managed care organizations exist for the county of New York and the Bronx: Affinity Health Plan, Amerigroup New York, Amida Care, Health Insurance Plan of Greater New York, HealthFirst PHSP, MetroPlus Health Plan, MetroPlus Health Plan Special Needs Plan, Neighborhood Health Providers, New York State Catholic Health Plan, UnitedHealthcare of New York, VNS Choice SNP, and WellCare of New York.

Safety net

Safety net facilities have a patient volume of greater than 35% associated with Medicaid, dual eligible, or the uninsured population. Facilities are further divided in this category based on the type of care or service they provide.

There are 21 safety net pharmacies located in Northern Manhattan & Southwest Bronx.

There are no adult care facilities located in Northern Manhattan & Southwest Bronx.

There are four additional safety net facilities in Northern Manhattan & Southwest Bronx, which provide nursing care, HIV/AIDS patient services, mental health assistance, and palliative care.

There are no safety net assisted living facilities in the Northern Manhattan & Southwest Bronx region.

There are 3 safety net hospitals located in Northern Manhattan & Southwest Bronx: Bronx-Lebanon Hospital Center, NewYork-Presbyterian, and St. Barnabas Hospital.

There are 12 safety net nursing homes found in the Northern Manhattan & Southwest Bronx region.

There are five safety net long term health homes that provides service to the Northern Manhattan & Southwest Bronx region.

There is one safety net certified home health agencies in the Northern Manhattan & Southwest Bronx region. Isabella Care at Home, Inc.

NewYork-Presbyterian network

There are 13 facilities listed as being in the NewYork-Presbyterian network. Services provided at these facilities include: nursing care, primary health services, substance abuse treatment, assistance to HIV/AIDS patients, case management, hospice and palliative care, mental illness care, and services to the homeless population.

A.ii. Community Based Resources: Columbia University Medical Center Service Area

Objective

Outline the community based resources available to residents of Northern Manhattan & the Southwest Bronx.

Particular attention was paid to services available to Medicaid recipients. The detailed inventory is included as an appendix

Key Findings

Residents of Northern Manhattan & the Southwest Bronx have access to a wide array of community-based resources. Nonetheless, some gaps in the services provided were noted:

- There are no furniture banks in the area
- There is only one family support and training service located in the area
- There are no recovery coach services in the area
- There is only one peer support service available in the area

Northern Manhattan & Southwest Bronx is home to multiple organizations that provide a variety of services for the area's in-need populations. Most of the resources listed here accept Medicaid/Medicare and provide free services or sliding fee scales.

Many of the locations provide services in numerous domains and are thus listed for each category they provide services for.

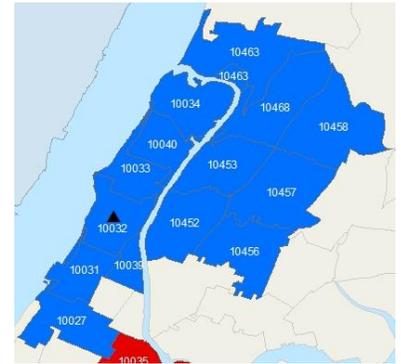


Figure 1: Area covered by Columbia University Medical Center

Housing services for the homeless population including advocacy groups as well as housing providers

There are 66 housing service providers in the Northern Manhattan & Southwest Bronx region. Some of the services focus primarily on people with HIV/AIDS, women and women with young children, and people that are dealing with mental illnesses, substance abuse, and/or have any other special needs. Some of the services are operated by the city of New York: New York State Technical and Education Assistance Center for Homeless Students (NYS – TEACHS), U.S. Department of Housing and Urban Development (HUD), New York City Housing Authority (NYCHA) – Public Housing, NYC Department of Housing Preservation and Development (HPD), and NYC Department of Homeless Services. All of the locations provide some sort of housing, even if it is for emergency purposes.

Food banks, community gardens, farmers market

There are 24 food banks, 6 farmers' markets, and 5 community gardens in the Northern Manhattan & Southwest Bronx area. A majority of the food banks are associated with local churches that distribute pantry bags at least once a week. The farmer's markets offer fresh fruits and vegetables that are grown by regional farmers. The community gardens offer open space to nearby residents to either use the space casually or set up meetings for specific purposes, such as science learning or theatre. All of the services listed here also provide some form of education and community outreach.



Figure 2: Location of food banks, farmers markets, and community gardens in the Northern Manhattan & Southwest Bronx region

Clothing and furniture banks

There are ten clothing banks in the Northern Manhattan & Southwest Bronx region (Figure 2). Both professional and casual clothing are available for men, women, and children. Two locations provide clothing specifically for men.

There are no furniture banks in the area.

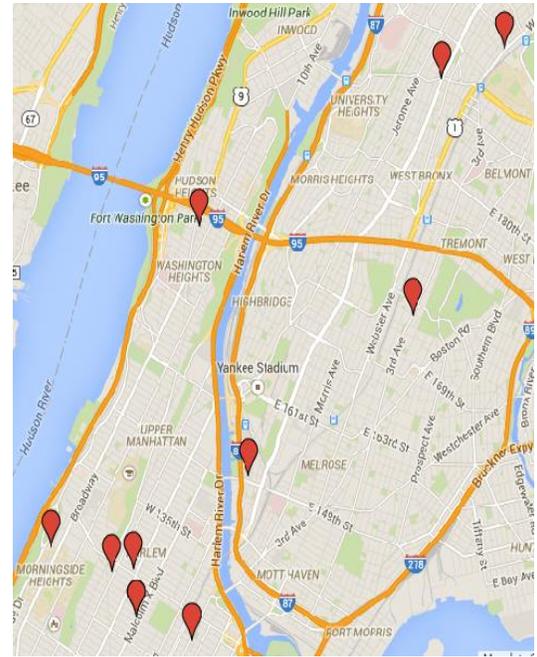


Figure 3: Location of clothing banks in the Northern Manhattan & Southwest Bronx region

Community outreach agencies

There are a variety of community outreach agencies in the Northern Manhattan & Southwest Bronx region that provide general social services. Services provided at the agencies range from general education, wellness information, and case management. In addition there are 2 LGBTQ that serve these communities.

Transportation services

There are two transportation services in the Northern Manhattan & Southwest Bronx region. Access-A-Ride provides services to populations for whom public transportation is not a feasible option, such as for those on wheel chairs. This service is operated through the MTA of New York City.

While not located in the region, LogistiCare New York offers transportation services specifically to Medicaid patients for non-emergency uses. The service does provide transportation to areas in Manhattan.

Religious service organizations

There are 15 religious service organizations in the Northern Manhattan & Southwest Bronx region. These locations not only provide religious services but some locations offer community outreach and help.

Specialty community-based and clinical services for individuals with intellectual or developmental disabilities

There are three special community-based and clinical services for individual with developmental disabilities centers located in the Northern Manhattan & Southwest Bronx region. AHRC Health Care Inc provides services to individuals with intellectual and development disabilities throughout New York City. The Contemporary Guidance Services provides services through community-based work experience. “The Harry and Jeanette Weinberg Outreach to Elders” focuses specifically on the elderly population.

Peer and family mental health advocacy organizations

There are three peer and family mental health advocacy organizations in the Northern Manhattan & Southwest Bronx region. The Community Access is a recovery program for individuals that have psychiatric disabilities, offering services not only to the individual but also offers treatment services to the family. The FEGS Health and Human Services offers a variety of services related to health, disabilities, home care, housing, and employment. The New York City Department of Health and Mental Hygiene provides advocacy services to individuals over the age of 18.

Libraries with open access computers

There are 19 libraries with open access computer in the Northern Manhattan & Southwest Bronx region. All of these libraries are part of the New York Public Library system. A valid library card is required to access the computers. All locations offer free wireless access (Wi-Fi) in public areas at all times that the library is open.

Community service organizations

There are 17 community service organizations in the Northern Manhattan & Southwest Bronx region. Services at these organizations range from free meals, HIV/AIDS testing, family planning services, and educational opportunities.

Education

There are numerous public and nonpublic schools located in the Northern Manhattan & Southwest Bronx region. Details regarding each school can be found on the New York City Department of Education website.

There is one education program found in the region. The Educational Alliance offers programs on exercise to wellness to its population.

Local governmental social service programs

There are four main governmental social service programs that provide services to the region, even if the headquarters are not physically located in the region. The New York City Department of Homeless Services focuses on moving individuals from the streets into housing. The Department also offers emergency housing for individuals. The New York City Department of Youth and Community Development provides youth and community development programs. The New York City Department of Health and Mental Hygiene focuses on providing care to the city. Its Take Care New York initiative is focused on encouraging New Yorkers to live healthier and longer lives. The New York City Department of Education serves 1.1 million students in 1,800 schools across the city. The department offers special programs such as adult and continuing education, career and technical education, other ways to graduate, and summer schools. The New York City Department for the Aging encourages seniors to follow a healthier lifestyle.

Family support and training

There are 54 organizations in this community that provide maternal/child health and family planning services. In addition there are 19 WIC providers that provide family support and to the resident of Northern Manhattan & Southwest Bronx region. Homes for the Homeless provides its services particularly to families to help them in moving out of

shelters and help them transition to independent living and is located with one mile of this services area.

NAMI (National Alliance on Mental Illness)

While the headquarters of the National Alliance on Mental Illness (NAMI) for New York State is in Albany, there is a satellite office located in the Harlem region less than a mile away from Northern Manhattan. NAMI advocates for access to services, treatment, support, and research for people dealing with mental illness. The affiliate locations are used to raise awareness and provide free education, advocacy, and support group programs.

Individual employment support services

There are 43 individual employment support and vocational services organizations located in the Northern Manhattan & Southwest Bronx region. These organizations provide educational resources and counseling to assist those seeking employment.

Peer supports (Recovery coaches)

There is no recovery coach service available in the Northern Manhattan & Southwest Bronx region. However, there are approximately 29 organizations in this community that provide help for those suffering from substance abuse (figure 3).

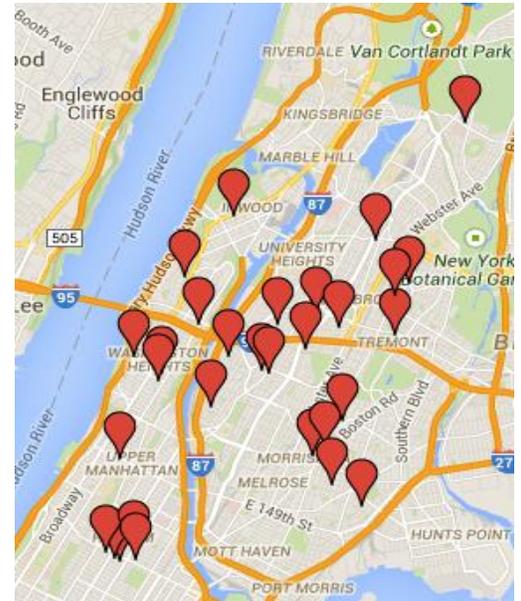


Figure 4: Location of substance abuse recovery support organizations in the Northern Manhattan & Southwest Bronx region

Ryan White Programs

Ryan White programs resulted from the Ryan White CARE Act, which sought to make care available for low income and uninsured people with AIDS and their families. There are two such programs in the Northern Manhattan & Southwest Bronx region. The Thelma C. Davidson Adair/William F. Ryan Community Health Center and the Cancer Services Program of Manhattan affiliated with NewYork-Presbyterian Hospital.

HIV prevention/Outreach and social service programs

There are 47 HIV prevention/outreach and social service programs in the Northern Manhattan & Southwest Bronx region. These organizations provide education regarding prevention, health services, and social services.

A.iii. Domain 2: Preventable Hospitalizations

Objective

Describe the preventable admissions and emergency room visits among people who may be attributed to the NYPH PPS.

Key Findings

Pediatrics, Potentially Preventable Hospitalizations (PDIs)

- In pediatrics, the largest burden of preventable hospitalizations is for children with asthma.
- The largest potential gap in pediatric asthma care is in the Bronx, though there are also notable gaps in Manhattan and Queens.

Adults, Potentially Preventable Hospitalizations (PQIs)

- Among adults, the five conditions with the largest burden of potentially preventable hospitalizations are:
 - COPD / Asthma in older adults
 - Heart Failure
 - Diabetes (Long Term Complications)
 - Urinary Tract Infections
 - Bacterial Pneumonia
- Southwest Bronx and East Harlem have the largest potential gaps in care.
- Though many of the neighborhood rates of potentially preventable admissions are lower than the risk adjusted state average, there remain several opportunities to reduce rates to New York State's goal of a 25% reduction.

Potentially Preventable Readmissions

- NewYork-Presbyterian has fewer potentially preventable readmissions compared to the state average, but more than the state goal of a 25% reduction.

Potentially Preventable Emergency Department Visits

- The largest number of potentially preventable emergency department visits are among residents of South West Bronx and Northern Manhattan.
- In six out of eight neighborhoods, the observed rate of preventable emergency room visits rate was larger than expected (South West Bronx, Lower East Side, Lower Manhattan, Greenwich Village and Soho, East Harlem, Upper East Side)

Methods

New York State has proposed four metrics to evaluate reduction in unnecessary hospital use. Two are publically available measures designed by the Agency for Healthcare Research and Quality.²¹

- (1) **PQI.** Prevention quality indicators.
- (2) **PDI.** Pediatric prevention quality indicators.

Two are proprietary measures by 3M. These are:

- (3) **PPR.** Potentially preventable readmissions.
- (4) **PPV.** Potentially preventable emergency department visits.

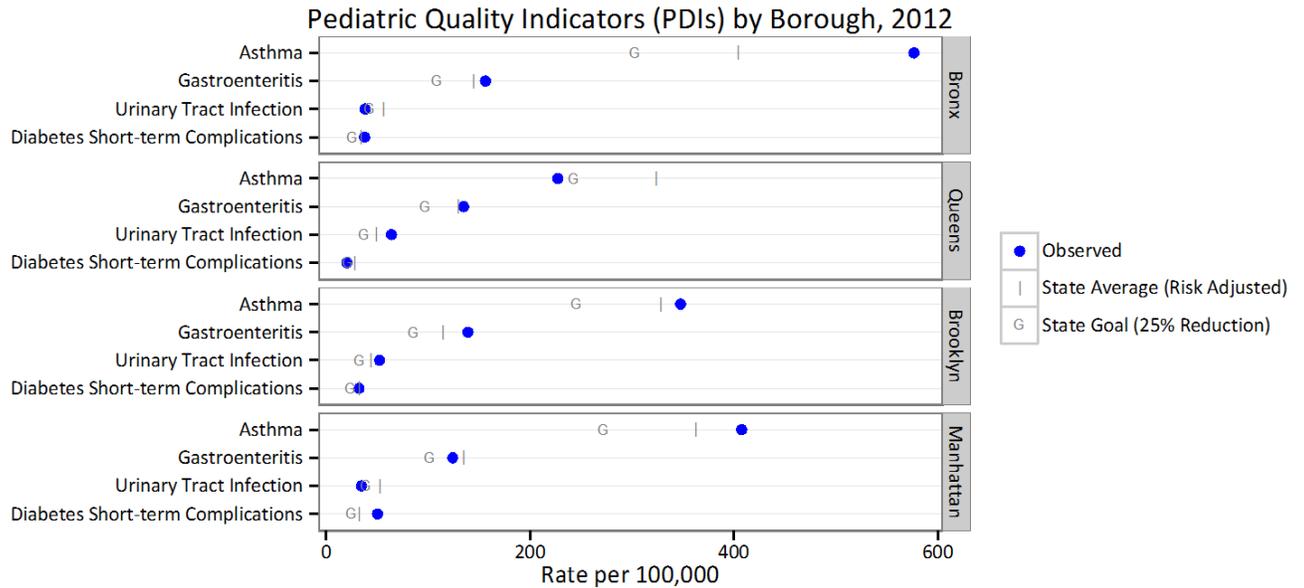
New York State published county, hospital, and zip code level results for each of these measurements, based on Medicaid claims data from 2012. We've graphed the following measurements:

- (1) **Observed.** This is the number of events (or rate of events) in the given geography.
- (2) **Expected.** This is the expected number of events, based on the state average, risk adjusted for the comorbidity profile of the given geography.
- (3) **Goal.** This is 25% less than expected – to illustrate the State's goal of 25% reduction in unnecessary hospital use in 5 years.

We have included appendices with detailed tables of these measures.

²¹ EHR.qualityindicators.ahrq.gov/modules/pdi_resources.aspx

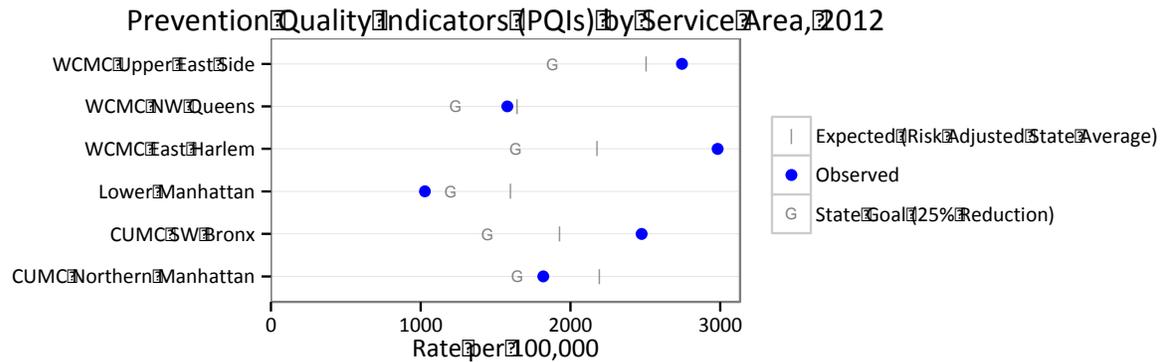
Pediatric Prevention Quality Indicators (PDIs)



- New York State has provided data on four pediatric quality indicators: asthma, gastroenteritis, urinary tract infections, and short-term complications of diabetes.
- Asthma is the most prevalent of these disorders.
- The potential gap in care is largest in Bronx County, where the rate of potentially avoidable admissions is 42% higher than the state average, even after adjusting for patient risk factors (576 admissions per 100,000 population in the Bronx versus the risk adjusted state average of 404 admissions per 100,000 population).
- There are also potential gaps in care in Brooklyn (348 admission per 100,000 population in Brooklyn vs. 328 admissions per 100,000, state average) and in Manhattan (407 admissions per 100,000 population in Manhattan vs. 363 admissions per 100,000, state average).

Potentially Preventable Admissions (PQIs), by Service Area

AHRQ's "Prevention Quality Indicators" identify potentially preventable admissions. In this graph, the overall rate of potentially preventable admissions per 100,000 Medicaid recipients is plotted for each of six neighborhoods served by NYP.

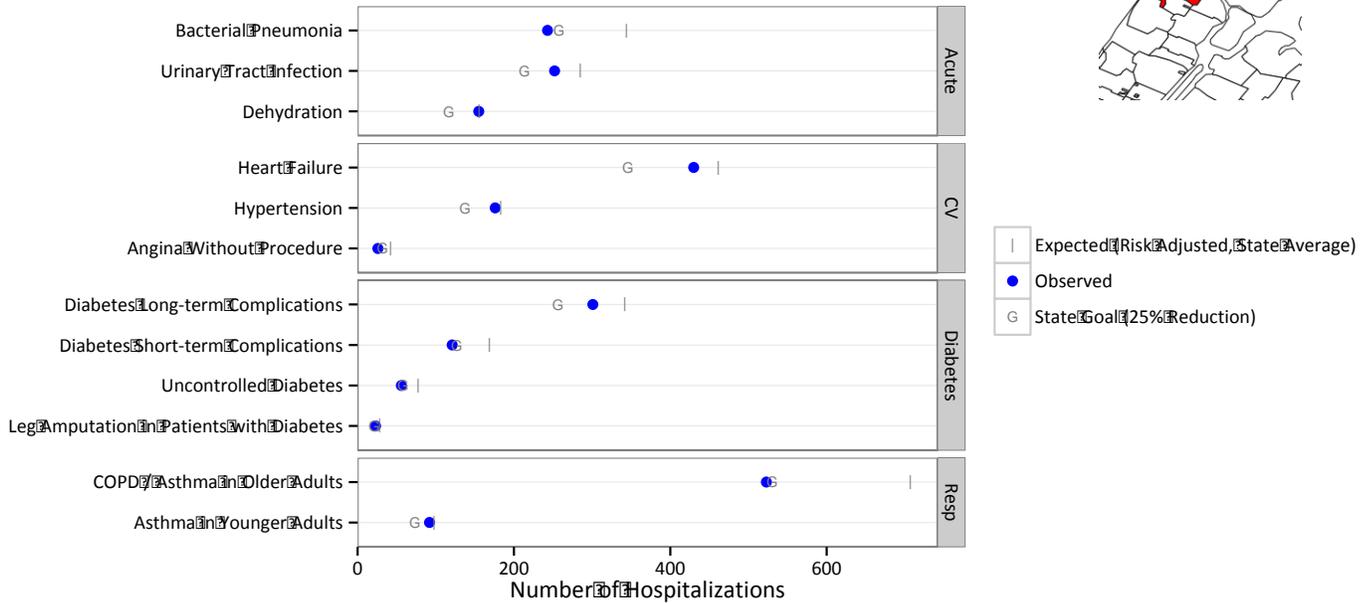


- In three neighborhoods, there are *more* than the expected number of potentially preventable admissions:
 - WCMC Upper East Side
 - WCMC East Harlem
 - CUMC South West Bronx
- In two neighborhoods, there are *fewer* than the expected number of potentially preventable admissions, however they are more than the state goal:
 - WCMC North West Queens
 - CUMC Northern Manhattan
- In one neighborhood, there are *fewer* potentially preventable admissions than the state goal:
 - Lower Manhattan
- Details of the specific types of potentially preventable admissions appear in the following six pages.

*Note: These values are **rates** of hospitalizations per 100,000 people.

CUMC Northern Manhattan - PQIs

2012 Prevention Quality Indicators (PQIs) for CUMC Northern Manhattan
 Zip Codes: 10027, 10031, 10032, 10033, 10034, 10039, 10040

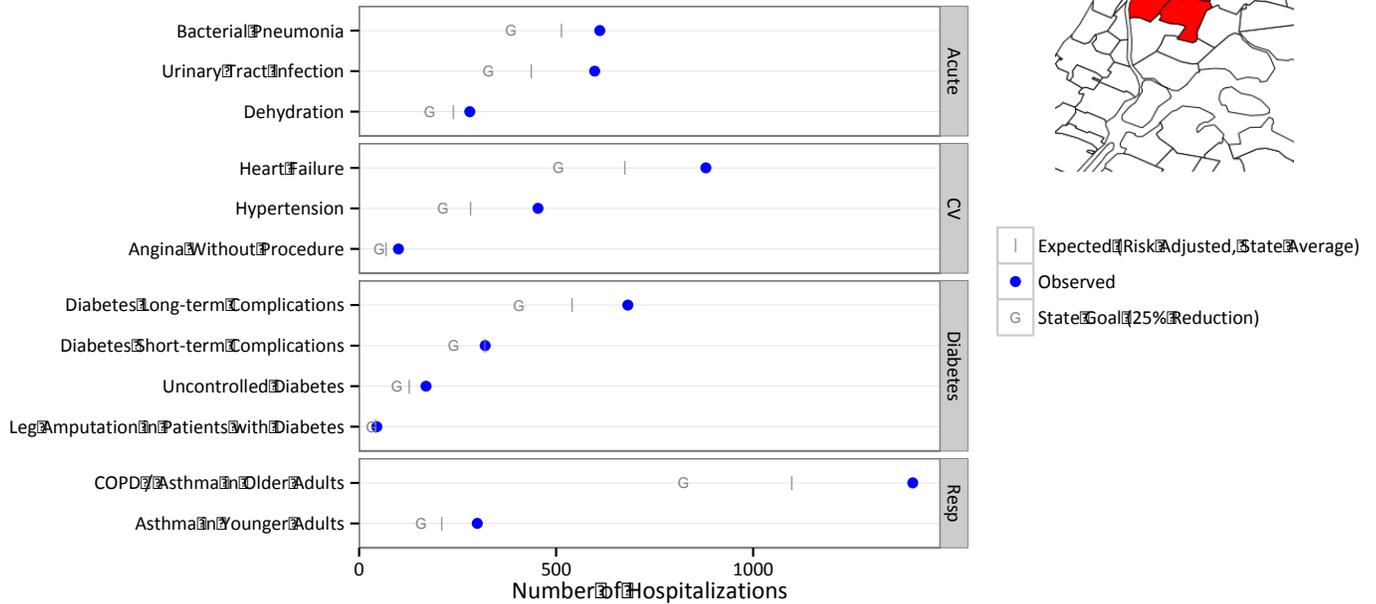
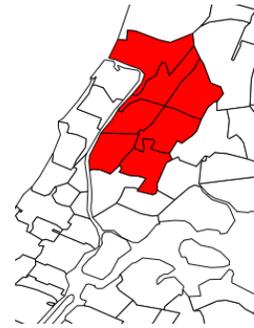


- In CUMC Northern Manhattan, the greatest number of potentially preventable hospitalizations are for COPD (523 potentially preventable hospitalizations) and heart failure (430).
- Preventable hospitalization in this region are less than expected (risk adjusted state average) for all measures.
- Six of the 12 indicators have an observed number of hospitalization higher than the risk adjusted State goal:
 - Urinary Tract Infections (252 observed vs. 214 expected)
 - Dehydration (155 vs. 117)
 - Heart Failure (430 vs. 346)
 - Hypertension (176 vs. 137)
 - Diabetes Long-term Complication (301 vs. 256)
 - Asthma in younger adults (92 vs. 73)

*Note: These values are **numbers** of hospitalizations, rather than rates.

CUMC South West Bronx - PQIs

2012 Prevention Quality Indicators (PQIs) for CUMC SW Bronx
 Zip Codes: 10452, 10453, 10456, 10457, 10458, 10463, 10468



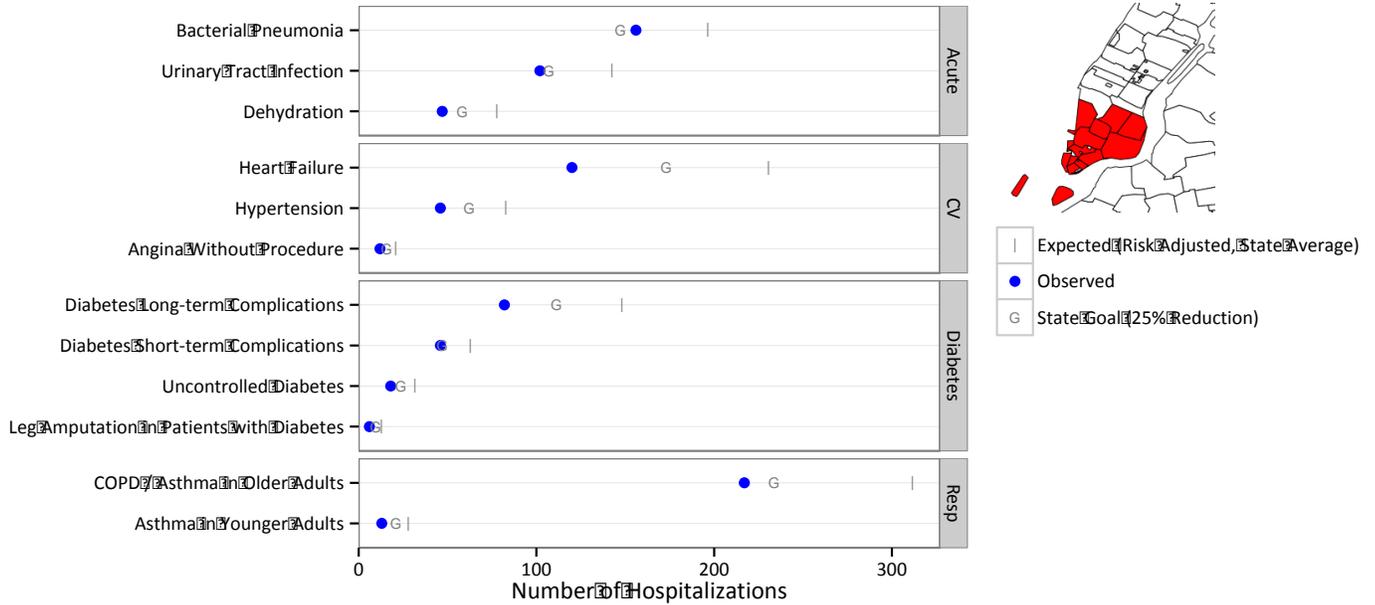
- In CUMC South West Bronx, the greatest number of potentially preventable hospitalizations are for COPD (1405 potentially preventable hospitalizations) and heart failure (880).
- The overall number of potentially preventable hospitalizations in CUMC South West Bronx is greater than any other community for all indicators.
- The observed number of potentially preventable hospitalizations is larger (i.e. worse) than expected (risk adjusted state average) and larger than the state goal for every indicator.

*Note: These values are **numbers** of hospitalizations, rather than rates.

Lower Manhattan - PQIs

2012 Prevention Quality Indicators (PQIs) for Lower Manhattan

Zip Codes: 10002, 10003, 10004, 10005, 10006, 10007, 10009, 10012, 10013, 10014, 10038, 10280, 10282

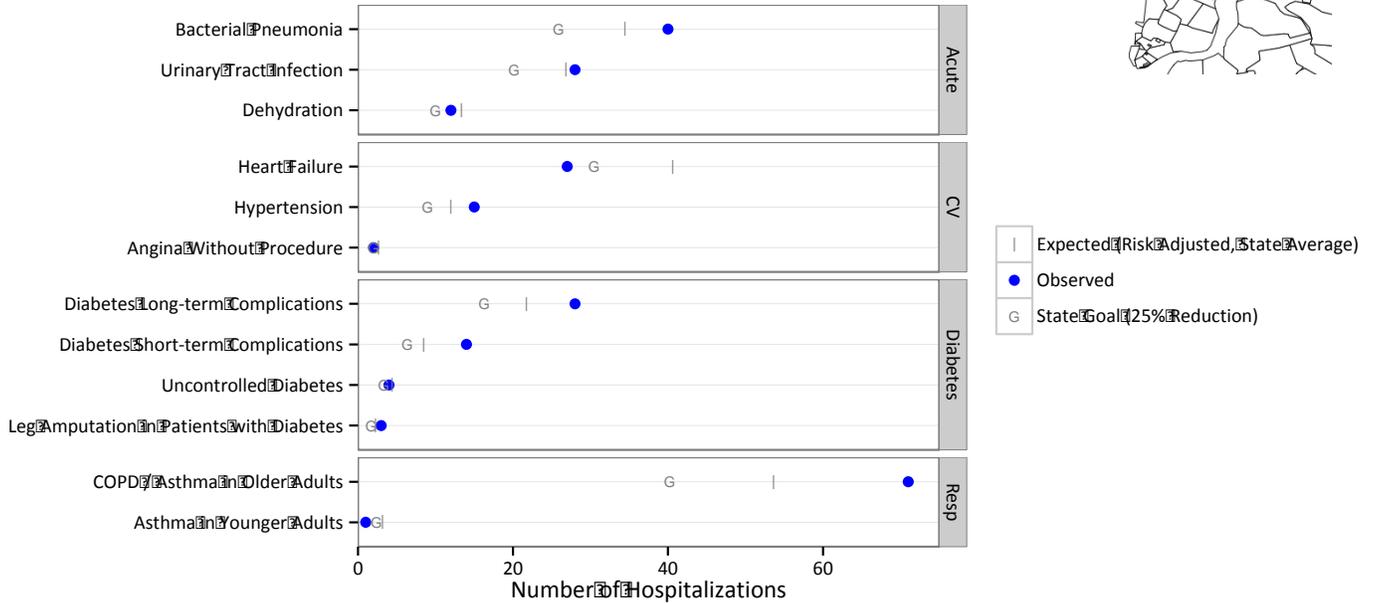


- In Lower Manhattan, the greatest number of potentially preventable hospitalizations are for COPD (217 potentially preventable hospitalizations) and bacterial pneumonia (156).
- The number of potentially preventable hospitalizations is lower (i.e. better) than the state goal for 11 of 12 indicators. The exception is admissions for bacterial pneumonia, which is higher than the State Goal; though lower than the expected value based on the Risk Adjusted State Average (156 vs. 147).

*Note: These values are **numbers** of hospitalizations, rather than rates.

WCMC Upper East Side - PQIs

2012 Prevention Quality Indicators (PQIs) for WCMC Upper East Side
 Zip Codes: 10021, 10028, 10065, 10075, 10128, 10162

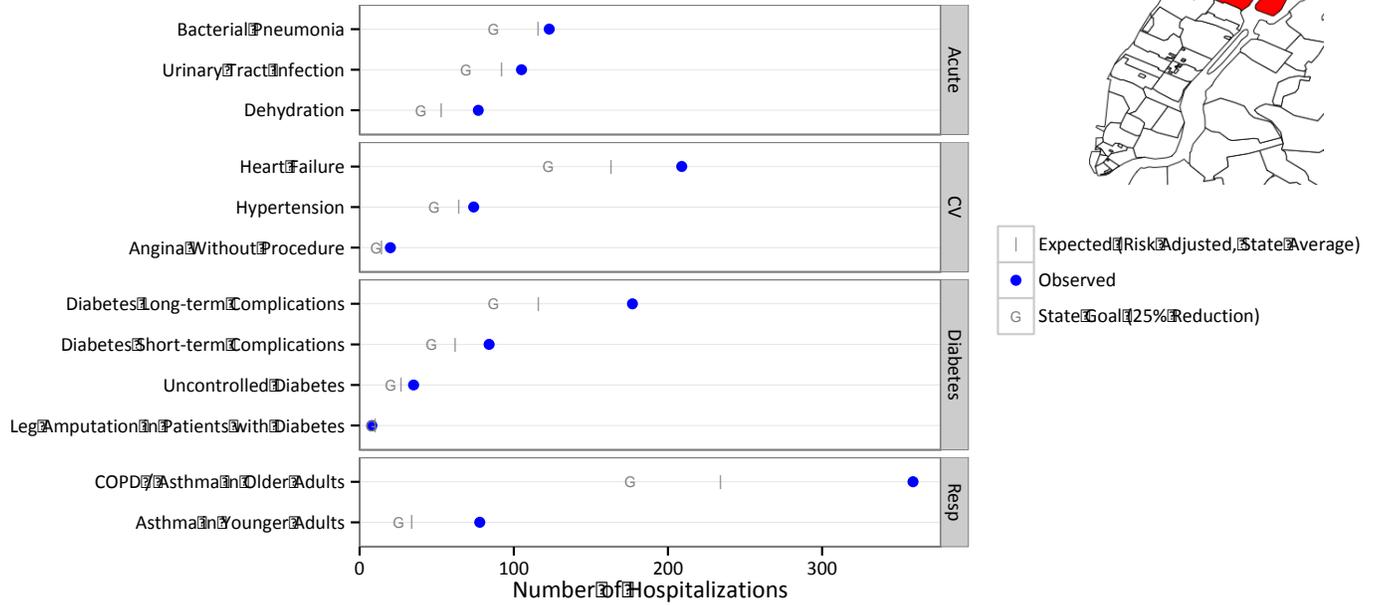


- In WCMC Upper East Side, the greatest number of potentially preventable hospitalizations are for COPD (71 potentially preventable hospitalizations) and bacterial pneumonia (40).
- The observed number of hospitalizations is greater than the Risk Adjusted State Average for seven of the twelve conditions:
 - Bacterial Pneumonia (40 observed vs. 34 risk adjusted state average)
 - Urinary Tract Infection (28 vs. 27)
 - Hypertension (15 vs. 12)
 - Diabetes Long-term complications (28 vs. 22)
 - Diabetes Short-term Complications (14 vs. 8)
 - Leg amputation in patients with diabetes (3 vs. 2)
 - COPD/Asthma in older adults (71 vs. 54)
- The observed number of hospitalizations is lower than the Risk Adjusted State Average, but still greater than the State Goal for two of the indicators:
 - Dehydration (12 observed vs. 10 goal)
 - Uncontrolled diabetes (4 vs. 3)

*Note: These values are **numbers** of hospitalizations, rather than rates.

WCMC East Harlem - PQIs

2012 Prevention Quality Indicators (PQIs) for WCMC East Harlem
 Zip Codes: 10029, 10035

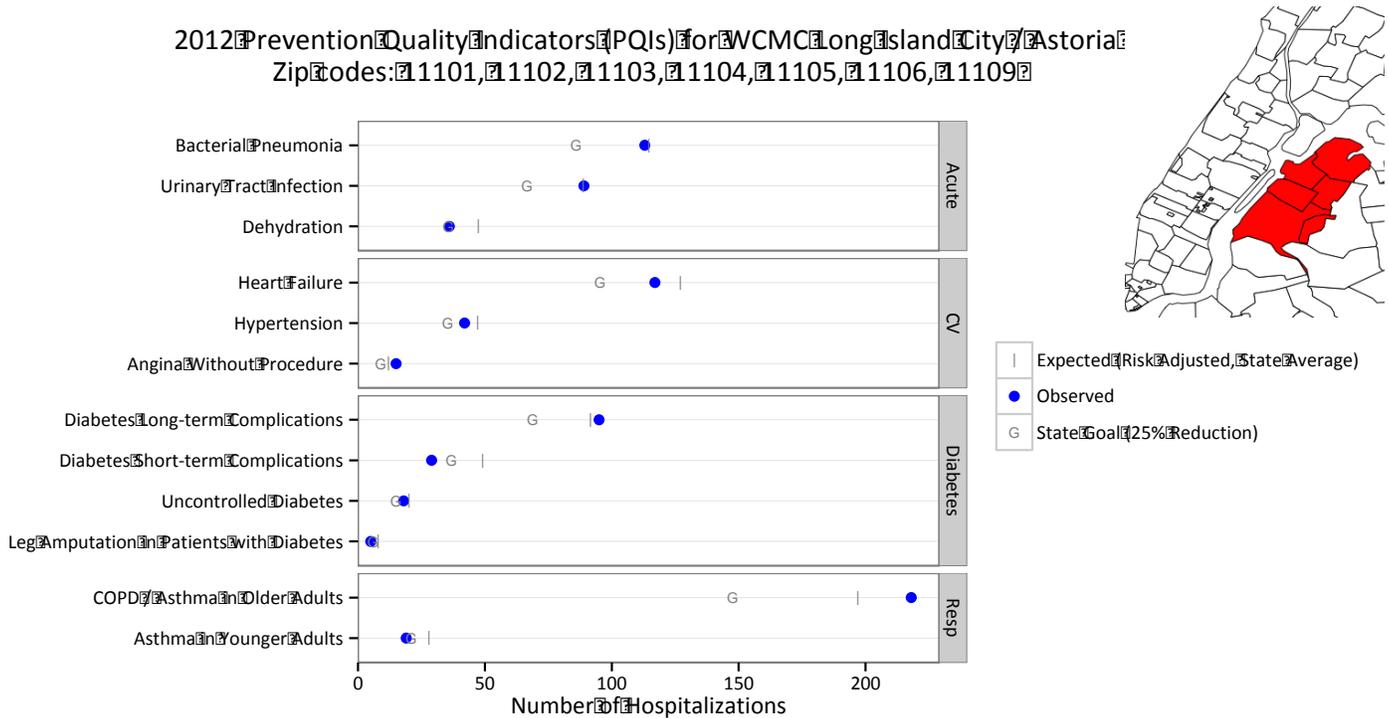


- In WCMC East Harlem, the greatest number of potentially preventable hospitalizations are for COPD (359 potentially preventable admissions), Heart Failure (209), and Diabetes Long-term complications (177).
- The greatest gaps in care appear across 11 out of 12 indicators, where the observed number of hospitalizations is greater than the state average and state goal. The exception is the number of hospitalizations for leg amputations in patients with diabetes (8 observed vs. 10 state average vs. 8 goal).

*Note: These values are **numbers** of hospitalizations, rather than rates.

WCMC Long Island City / Astoria - PQIs

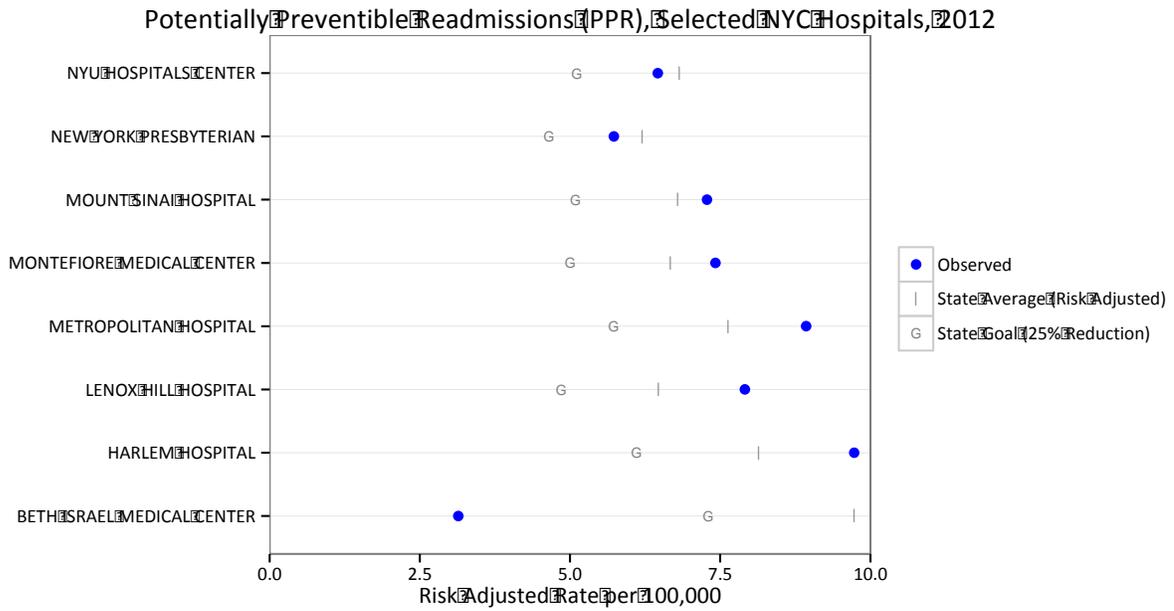
2012 Prevention Quality Indicators (PQIs) for WCMC Long Island City / Astoria
 Zip Codes: 11101, 11102, 11103, 11104, 11105, 11106, 11109



- In WCMC Long Island City / Astoria, the greatest number of potentially preventable hospitalizations are for COPD (218 potentially preventable hospitalizations), heart failure (117), and bacterial pneumonia (113).
- The observed number of hospitalizations are the same or greater than the number expected (Risk Adjusted State Average) for four indicators:
 - Urinary tract infection (89 observed vs. 89 expected)
 - Angina without procedure (15 vs. 12)
 - Diabetes long-term complications (95 vs. 92)
 - COPD/asthma in older adults (218 vs. 197)
- The observed number of hospitalizations are lower than expected, but the same or greater than the State Goal for five indicators:
 - Bacterial Pneumonia (113 vs. 86 state goal)
 - Dehydration (36 vs. 36)
 - Heart failure (117 vs. 95)
 - Hypertension (42 vs. 35)
 - Uncontrolled diabetes (18 vs. 15)

*Note: These values are **numbers** of hospitalizations, rather than rates.

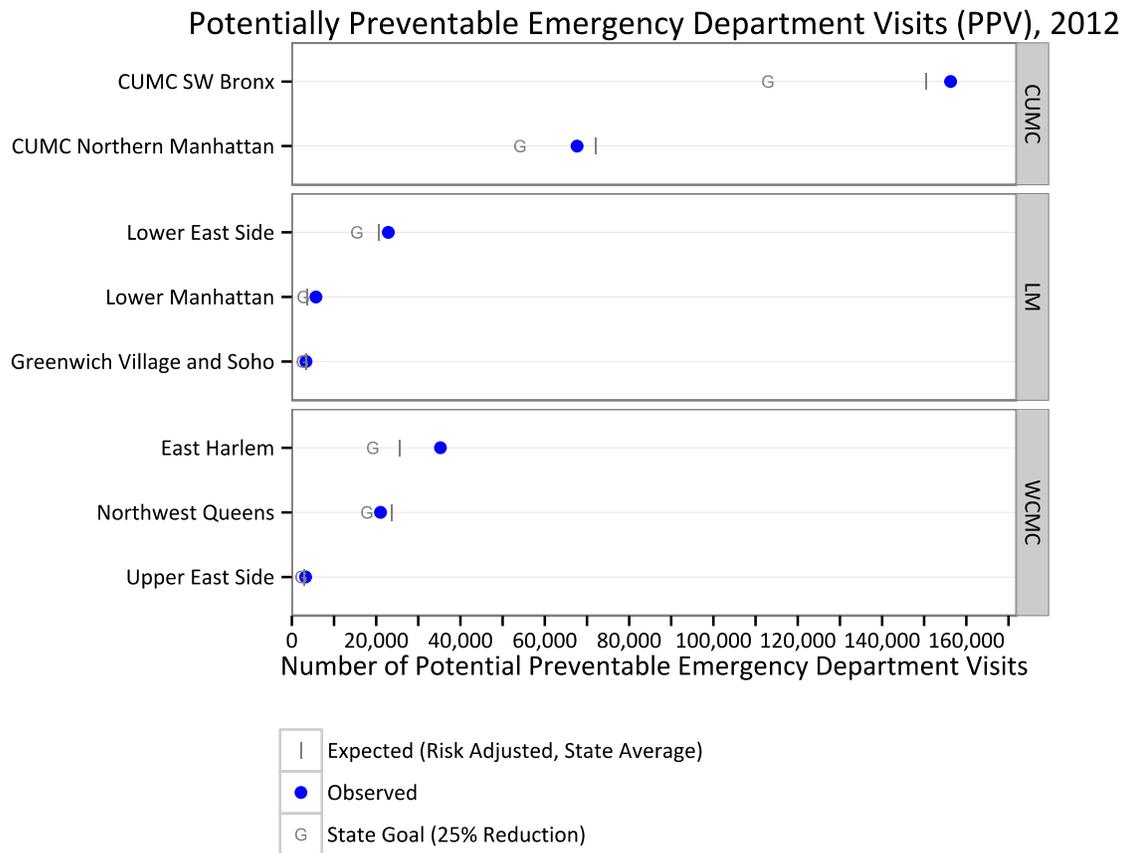
Potentially Preventable Readmissions (PPR)



- New York-Presbyterian has fewer potentially preventable readmissions compared to the state average, but more than the state goal of a 25% reduction.
- Among other large hospitals in Manhattan, there is a marked excess of potentially preventable hospitalizations at Metropolitan Hospital, Lenox Hill Hospital, and Harlem Hospital.
- None of the selected hospitals have PPR rates lower than the State Goals except Beth Israel Medical Center.

*Note: These values are **rates** per 100,000 population.

Potentially Preventable Emergency Department Visits



- The largest numbers of PPVs are in CUMC South West Bronx (156,274) and in CUMC Northern Manhattan (67,645).
- In six out of eight communities, the observed PPV rate was larger than the expected number (based on the risk adjusted state average):
 - CUMC South West Bronx (156,274 observed vs. 150,561 expected)
 - Lower East Side (22,872 vs. 20,549)
 - Lower Manhattan (5,705 vs. 3,615)
 - Greenwich Village and Soho (3,334 vs. 3,306)
 - East Harlem (35,244 vs. 25,568)
 - Upper East Side (3,264 vs. 2,894)

*Note: These values are **numbers** of hospitalizations, rather than rates.

Appendix

Table 1. Pediatric Quality Indicators (PDIs) by Borough, 2012. Rate per 100,000.

| | Observed | Expected (Risk Adjusted State Average) | State Goal |
|-----------------------------------|----------|--|------------|
| Bronx | | | |
| Asthma | 576 | 404 | 303 |
| Gastroenteritis | 156 | 145 | 109 |
| Urinary Tract Infection | 38 | 57 | 42 |
| Diabetes Short-term Complications | 38 | 35 | 26 |
| Brooklyn | | | |
| Asthma | 348 | 328 | 246 |
| Gastroenteritis | 139 | 115 | 86 |
| Urinary Tract Infection | 52 | 44 | 33 |
| Diabetes Short-term Complications | 32 | 32 | 24 |
| Manhattan | | | |
| Asthma | 407 | 363 | 272 |
| Gastroenteritis | 124 | 135 | 101 |
| Urinary Tract Infection | 35 | 53 | 40 |
| Diabetes Short-term Complications | 50 | 33 | 25 |
| Queens | | | |
| Asthma | 227 | 324 | 243 |
| Gastroenteritis | 135 | 130 | 97 |
| Urinary Tract Infection | 64 | 50 | 37 |
| Diabetes Short-term Complications | 20 | 28 | 21 |

Table 2. 2012 Prevention Quality Indicators (PQIs) for CUMC Northern Manhattan. Number of Hospitalizations for Zip codes: 10027, 10031, 10032, 10033, 10034, 10039, and 10040

| | Observed | Expected (Risk Adjusted State Average) | State Goal |
|--|----------|--|------------|
| Bacterial Pneumonia | 243 | 344 | 258 |
| Urinary Tract Infection | 252 | 285 | 214 |
| Dehydration | 155 | 156 | 117 |
| Heart Failure | 430 | 462 | 346 |
| Hypertension | 176 | 183 | 137 |
| Angina Without Procedure | 26 | 42 | 32 |
| Diabetes Long-term Complications | 301 | 342 | 256 |
| Diabetes Short-term Complications | 121 | 169 | 127 |
| Uncontrolled Diabetes | 56 | 77 | 58 |
| Leg Amputation in Patients with Diabetes | 23 | 28 | 21 |
| COPD/Asthma in Older Adults | 523 | 707 | 530 |
| Asthma in Younger Adults | 92 | 98 | 73 |

Table 3. 2012 Prevention Quality Indicators (PQIs) for CUMC SW Bronx. Number of Hospitalizations for Zip codes: 10452, 10453, 10456, 10457, 10458, 10463, and 10468

| | Observed | Expected (Risk Adjusted State Average) | State Goal |
|--|----------|--|------------|
| Bacterial Pneumonia | 611 | 514 | 385 |
| Urinary Tract Infection | 598 | 438 | 328 |
| Dehydration | 281 | 239 | 179 |
| Heart Failure | 880 | 675 | 506 |
| Hypertension | 454 | 284 | 213 |
| Angina Without Procedure | 100 | 69 | 51 |
| Diabetes Long-term Complications | 682 | 541 | 406 |
| Diabetes Short-term Complications | 320 | 319 | 240 |
| Uncontrolled Diabetes | 170 | 128 | 86 |
| Leg Amputation in Patients with Diabetes | 45 | 43 | 32 |
| COPD/Asthma in Older Adults | 1405 | 1098 | 823 |
| Asthma in Younger Adults | 300 | 210 | 158 |

Table 4. 2012 Prevention Quality Indicators (PQIs) for Lower Manhattan. Number of Hospitalizations for Zip codes: 10002, 10003, 10004, 10005, 10006, 10007, 10009, 10012, 10013, 10014, 10038, 10280, and 10282

| | Observed | Expected (Risk Adjusted State Average) | State Goal |
|--|----------|--|------------|
| Bacterial Pneumonia | 156 | 196 | 147 |
| Urinary Tract Infection | 102 | 143 | 107 |
| Dehydration | 47 | 78 | 58 |
| Heart Failure | 120 | 231 | 173 |
| Hypertension | 46 | 83 | 62 |
| Angina Without Procedure | 12 | 21 | 16 |
| Diabetes Long-term Complications | 82 | 148 | 111 |
| Diabetes Short-term Complications | 46 | 63 | 47 |
| Uncontrolled Diabetes | 18 | 32 | 24 |
| Leg Amputation in Patients with Diabetes | 6 | 13 | 10 |
| COPD/Asthma in Older Adults | 217 | 312 | 234 |
| Asthma in Younger Adults | 13 | 28 | 21 |

Table 5. 2012 Prevention Quality Indicators (PQIs) for WCMC Upper East Side. Number of Hospitalizations for Zip codes: 10021, 10028, 10065, 10075, 10128, and 10162

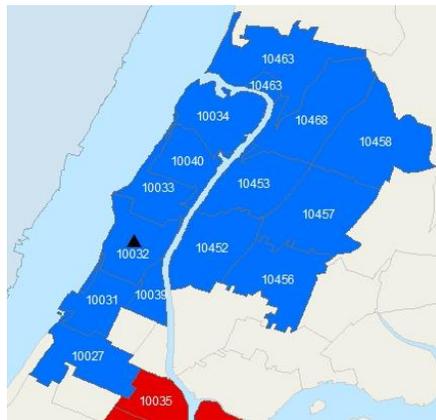
| | Observed | Expected (Risk Adjusted State Average) | State Goal |
|--|-----------------|---|-------------------|
| Bacterial Pneumonia | 40 | 34 | 26 |
| Urinary Tract Infection | 28 | 27 | 20 |
| Dehydration | 12 | 13 | 10 |
| Heart Failure | 27 | 41 | 30 |
| Hypertension | 15 | 12 | 9 |
| Angina Without Procedure | 2 | 3 | 2 |
| Diabetes Long-term Complications | 28 | 22 | 16 |
| Diabetes Short-term Complications | 14 | 8 | 6 |
| Uncontrolled Diabetes | 4 | 4 | 3 |
| Leg Amputation in Patients with Diabetes | 3 | 2 | 2 |
| COPD/Asthma in Older Adults | 71 | 54 | 40 |
| Asthma in Younger Adults | 1 | 3 | 2 |

B.i. Description of Community: Columbia University Medical Center

Objective

Describe the demographics of the population to be served by the Columbia University Medical Center portion of the NYPH PPS.

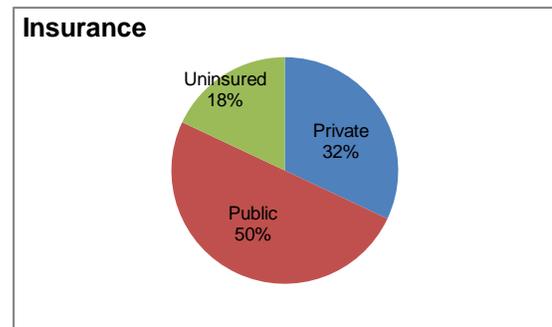
The portion of the NewYork-Presbyterian PPS service area primarily attributed to the Columbia University Medical Center covers the Washington Heights, Inwood, areas of Harlem, and portions of the Southwest Bronx.



Demographics Overview

The service area includes a large Hispanic community with nearly a million individuals. Medicaid serves a large percentage of the population. All areas have access to public transportation, much of which provides direct access to the NewYork-Presbyterian campus. Across the 14 zip codes:

- Total population is 870,000
- 18% of the population is uninsured
- Median household income is between \$25,000 and \$34,999 / year
- 31% are African American
- 61% are Hispanic
- 466,805 people have Medicaid insurance
 - 92,000 people on Medicaid have chronic hypertension
 - 49,000 people on Medicaid have diabetes
 - 18,000 people on Medicaid have heart disease
 - 36,000 people on Medicaid are considered frail

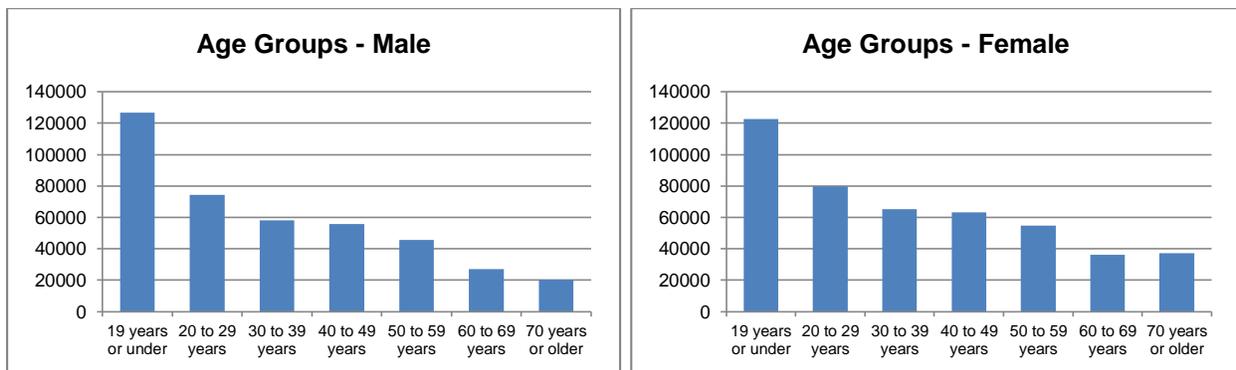


Source: Census Bureau

Age and Gender

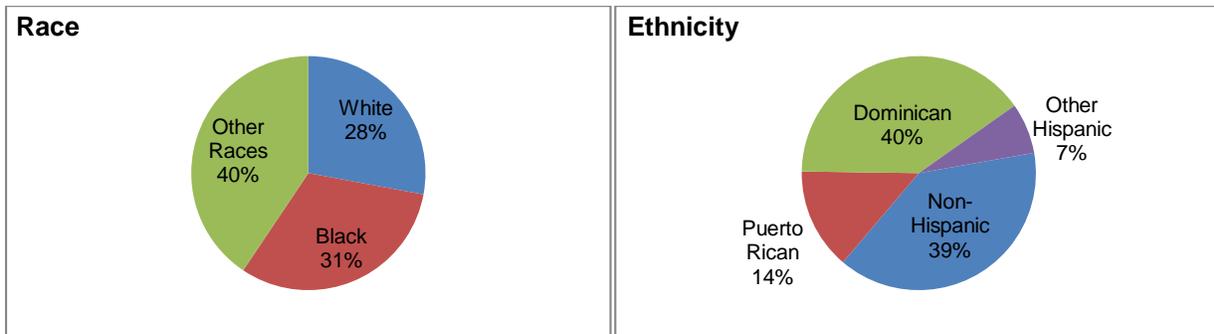
This population is 47% male and 53% female. The age groups of the population are broken down as follows:

- 250,000 people are 19 years of age or younger (29% of the population)
- 150,000 people are between 20 and 29 years old (18% of the population)
- 125,000 people are between 30 and 39 years old (14% of the population)
- 119,000 people are between 40 and 49 years old (14% of the population)
- 100,000 people are between 50 and 59 years old (12% of the population)
- 63,000 people are between 60 and 69 years old (7% of the population)
- 57,000 people are 70 years of age or older (7% of the population)



Race and Ethnicity

The population is 28% white, 31% black, and 40% other races.²² The population is 61% Hispanic or Latino. Within the Hispanic community, 66% are Dominican (40% of the total population), and 23% are Puerto Rican (14% of the total population). In the total Hispanic/Latino population of 525,000 people, 17% of people consider themselves to be white, 7% black, and 31% another race or races.²³ There are 26,000 people of Asian origin (3% of the total population), 13,000 people of American Indian and Alaskan origin (1.5% of the population).

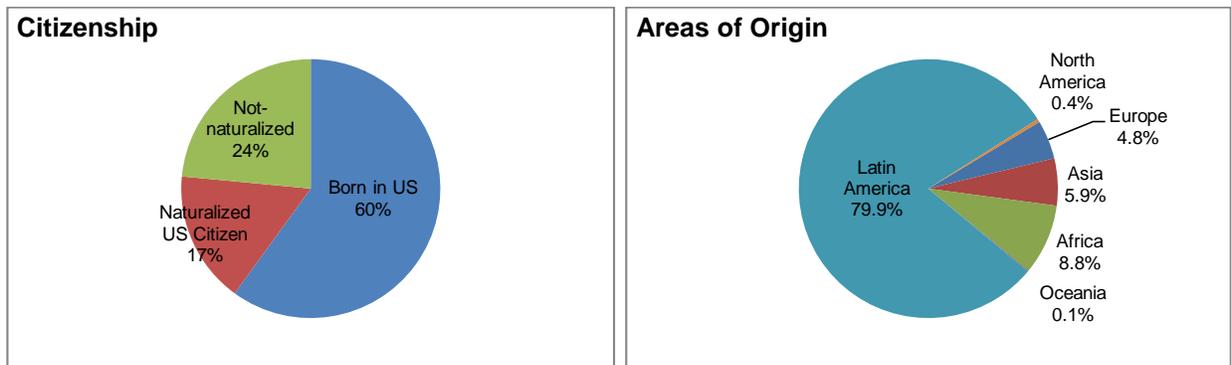


²² As defined by the 2010 United States Census

²³ As defined by the 2010 United States Census

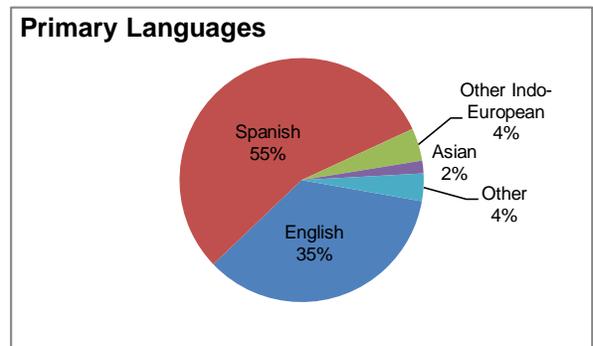
Citizenship / Foreign Born

There are 343,000 people (40% of the population) who are foreign born (and were not born as US citizens by virtue of having a citizen parent). Of the foreign born population, 141,000 people (41% of the group, 16% of the total population) are naturalized citizens. Of the foreign born population, 275,000 (80% of this group, 31% of the total population) are originally from Latin American countries. The next largest group is originally from Africa, with 30,000 people (9% of foreign born, 3.4% of the total population).



Language

The area's population over the age of 5 (capable of advanced language) is 816,000 people. English is the primary language at home for 286,000 people (35% of population over the age of 5), and Spanish for 450,000 people (55% of population over the age of 5). Half of the Spanish speaking population (227,000 people) speaks English less than "very well" according to the 2012 American Community Survey.



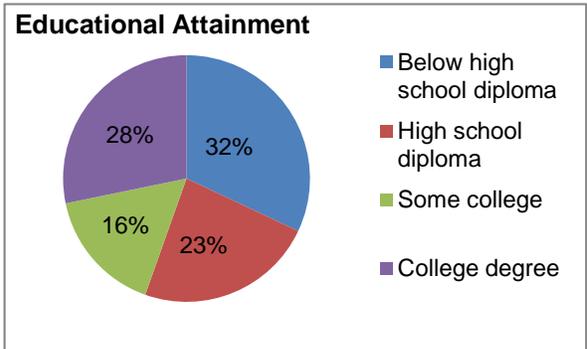
The remainder of the population (565,500 people, 65% of the total population), speaks a language other than English at home. Half speak English less than "very well" according to the 2012 American Community Survey.

Education

There are 252,000 people who are currently enrolled in a school. This includes 121,000 nursery school, kindergarten, or elementary school students (grade levels 1-8), 55,000 high school students (grade levels 9-12), and 76,000 college or graduate students.

Among the 550,000 people aged 25 years old older:

- 96,000 people (17.5% of this group) have attained less than a 9th grade education
- 80,000 people (15% of this group) completed some high school but received no diploma
- 129,000 people (24% of this group) completed high school and received a diploma
- 245,000 people (44.5% of this group) have at least attended some college, if not received a degree

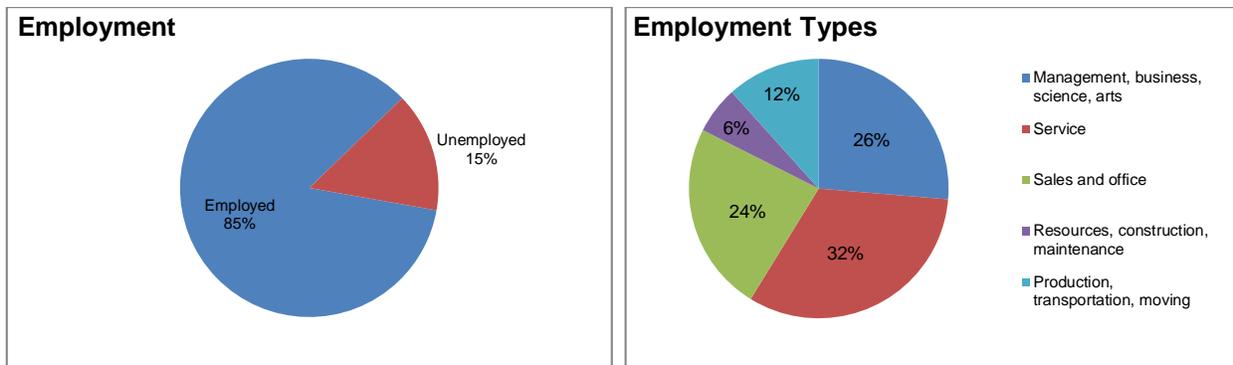


Employment

The population of people 16 years of age or older is 689,000 people. Of this group, 426,000 people are in the potential labor force, including 362,000 (85%) who work as civilians, 500 who work for the US Armed Forces, and 63,000 (15%) who are unemployed.

Of the 362,000 members of the population who are employed as civilians:

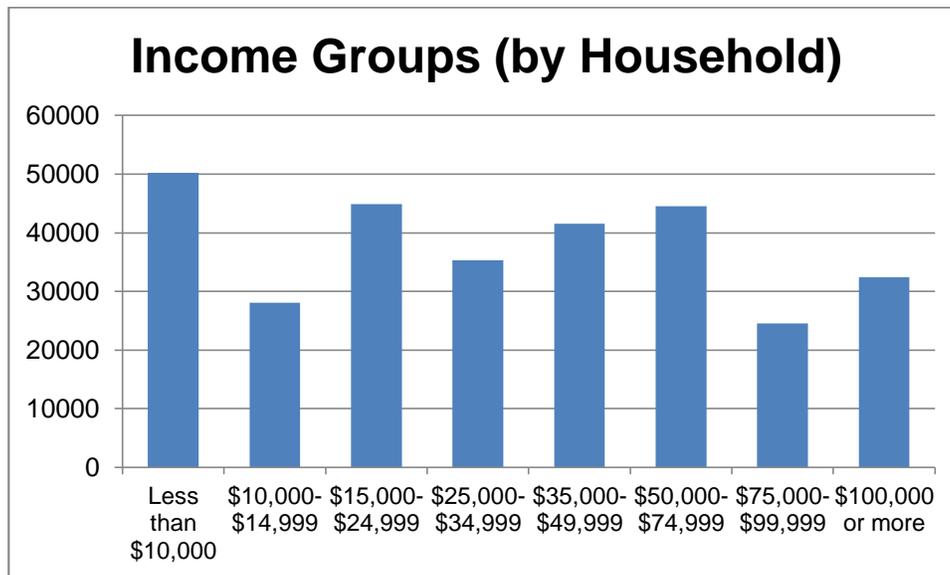
- 33% work in service occupations
- 26% work in management, business, science, and arts occupations
- 24% work in sales and office occupations
- 17% of workers are employed in a range of areas including production, transportation, construction, and maintenance



Income

The 2012 American Community Survey describes 302,000 households in the area. Of these:

- 50,000 households (17%) have an annual income of under \$10,000
 - 28,000 households (9.5%) have an annual income between \$10,000 and \$14,999
 - 45,000 households (15%) have an annual income between \$15,000 and \$24,999
 - 35,000 households (12%) have an annual income between \$25,000 and \$34,999
 - 42,000 households (14%) have an annual income between \$35,000 and \$49,999
 - 44,500 households (15%) have an annual income between \$50,000 and \$74,999
 - 24,500 households (8%) have an annual income between \$75,000 and \$99,999
 - 32,500 households (11%) have an annual income of \$100,000 or more
-
- 66,500 (22%) of these households reach their listed earnings at least partially using social security income
 - 24,000 households (8%) do so using cash public assistance income
 - 110,500 households (nearly 37%) reach their listed incomes after including food stamp benefits over the 12 months prior to data collection



Disabilities

There are 115,000 people (13% of the total population) with a disability, including 11,000 people under the age of 18 (10% of the disabled population), 68,000 people between the ages of 18 and 64 (59% of the disabled population), and 36,000 people aged 65 years or older (31% of the disabled population).

Housing

There are 327,000 potential housing units in this area. Of these:

- 302,000 (92%) are occupied
 - 272,000 (90%) are renter-occupied
 - 30,000 (10%) are owner-occupied
- 25,000 units (8%) are vacant

- 258,000 (79%) of these households/housing units are in structures containing 20 or more units
- 20% of households live in housing units in structures ranging from a single unit to 19 units
- About 0.5% of households in this area reside in a mobile home, boat, RV, or other type of non-fixed/non-permanent structure

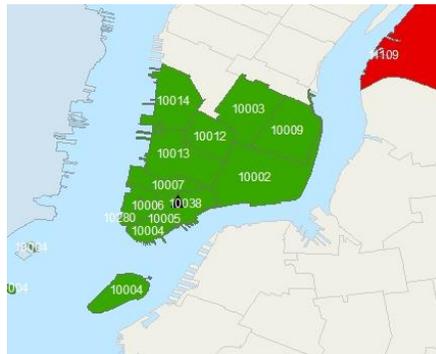
- 125,000 (41%) moved into their current housing units prior to the year 2000
- 150,000 households (almost 50%) moved in between 2000 and 2009
- 9% of households moved in during 2010 or later

B.i. Description of Community: Lower Manhattan

Objective

Describe the demographics of the population to be served by the Lower Manhattan portion of the NYPH PPS.

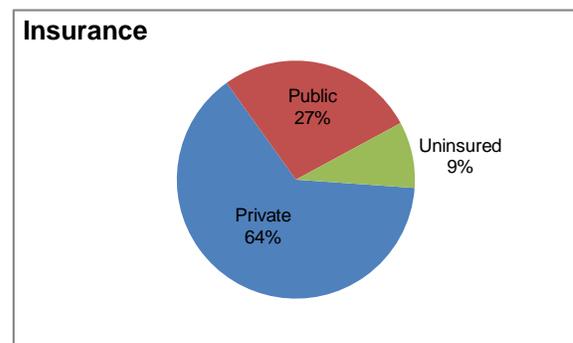
The portion of the NewYork-Presbyterian PPS service area primarily attributed to the Lower Manhattan Hospital covers downtown Manhattan.



Demographics Overview

The service area includes a very diverse community with more than 300,000 individuals. Medicaid serves a large percentage of the population. While an urban population, there are substantial differences across the area. All areas have access to public transportation, much of which provides direct access to the NewYork-Presbyterian campus. Across the 13 zip codes:

- Total population is 336,000
- 9% of the population is uninsured
- Median household income is between \$50,000 and \$74,999 / year
- 6% are African American
- 16% are Hispanic
- 25% are Asian / Pacific Islander
- 99,731 people have Medicaid insurance
 - 22,500 people on Medicaid have chronic hypertension
 - 12,000 people on Medicaid have diabetes
 - 7,000 people on Medicaid have heart disease
 - 9,000 people on Medicaid are considered frail

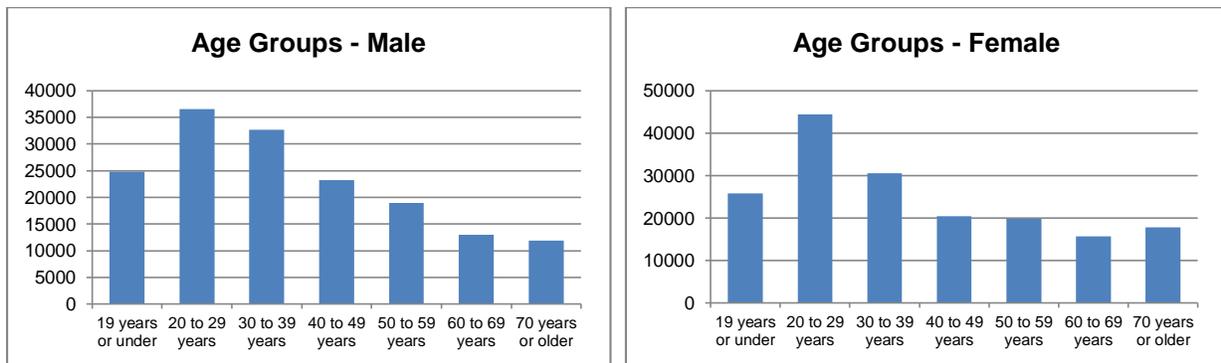


Source: Census Bureau

Age and Gender

This population is about 48% male and 52% female. The age groups of the population are broken down as follows:

- 50,500 people are 19 years of age or younger (15% of the total population)
- 81,000 people are between 20 and 29 years old (24% of the total population)
- 63,000 people are between 30 and 39 years old (19% of the total population)
- 44,000 people are between 40 and 49 years old (13% of the total population)
- 39,000 people are between 50 and 59 years old (12% of the total population)
- 29,000 people are between 60 and 69 years old (8% of the total population)
- 30,000 people are 70 years of age or older (9% of the total population)



Race and Ethnicity

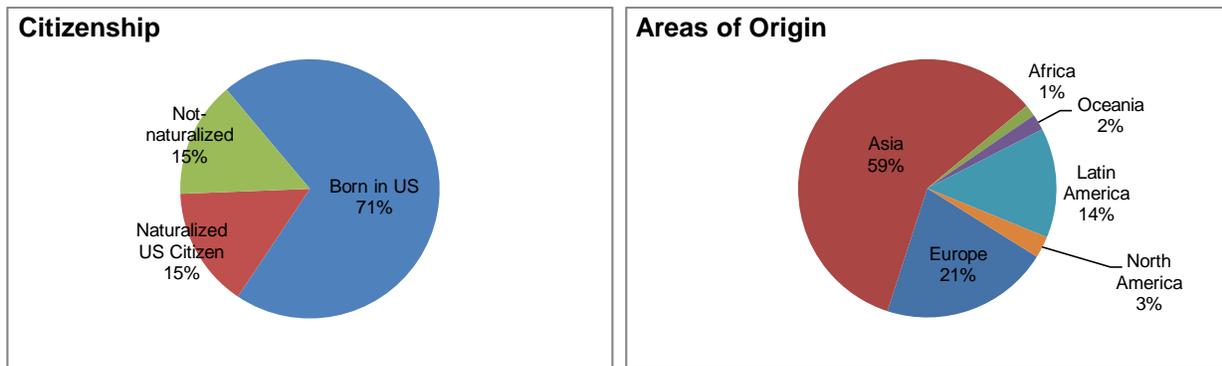
The population is 60% white, 24.5% Asian, 6% black, and 5.5% other races.²⁴ The majority of Asian people in the area are of Chinese origin (75% of the Asian population, 18% of the total population of the area).



²⁴ As defined by the 2010 United States Census

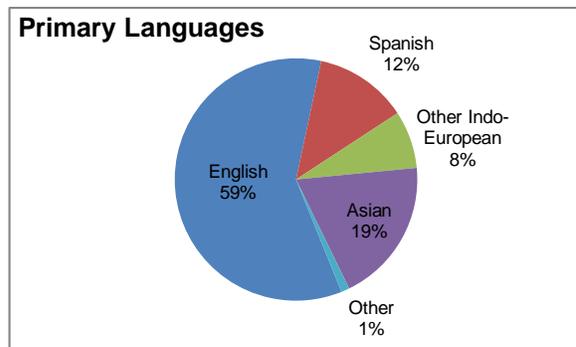
Citizenship / Foreign Born

There are 98,000 people (30% of the total population) who are foreign born (and were not born as US citizens by virtue of having a citizen parent). Of the foreign born population, 50,000 people (51% of the group, 15% of the total population) are naturalized citizens. Of the foreign born population, nearly 58,000 (59% of this group, 17.5% of the total population) are originally from Asian countries. The next largest group is those originally from Europe, with 21,000 people (21% of this group, 6% of the total population), followed by Latin America, with 13,500 people (14% of this group, 4% of the total population).



Language

The area's population over the age of 5 (capable of advanced language) is 319,000 people. There are 190,000 people (60% of the population over the age of 5) who speak English as their primary language at home, and 62,000 people (20%) who speak an Asian or Pacific Islander language as their primary language at home. In the Asian / Pacific Islander language community, 40,000 people (64.5%) speak English less than "very well" according to the 2012 American Community Survey.

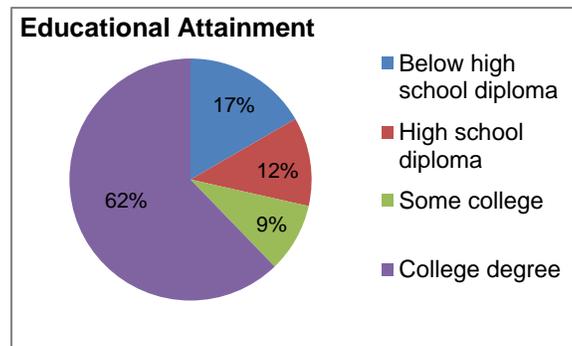


Education

There are 68,700 people who are currently enrolled in a school. This includes 22,600 nursery school, kindergarten, or elementary school (grade levels 1-8) students, 8,000 high school students (grade levels 9-12), and 38,000 college or graduate students.

Among the 250,000 people aged 25 years or over:

- 27,000 people (11% of this group) have attained less than a 9th grade education
- 14,500 people (6% of the group) completed some high school but received no diploma
- 30,000 people (12% of this group) completed high school and received a diploma
- 23,000 people (9% of this group) have at least attended some college
- 155,500 people (62% of this group) have received some type of college or graduate degree

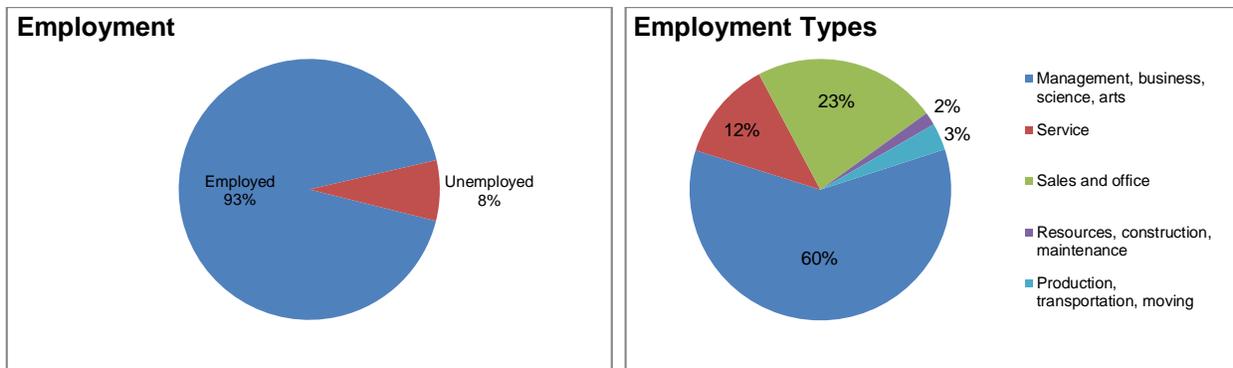


Employment

The population of people 16 years or older is 297,000 people. Of this group, 199,000 people are in the potential labor force, including 184,500 (93%) who work as civilians, 100 (<1%) who work for the US Armed Forces, and 14,500 (7.5%) who are unemployed.

Of the 184,500 members of the population who are employed as civilians:

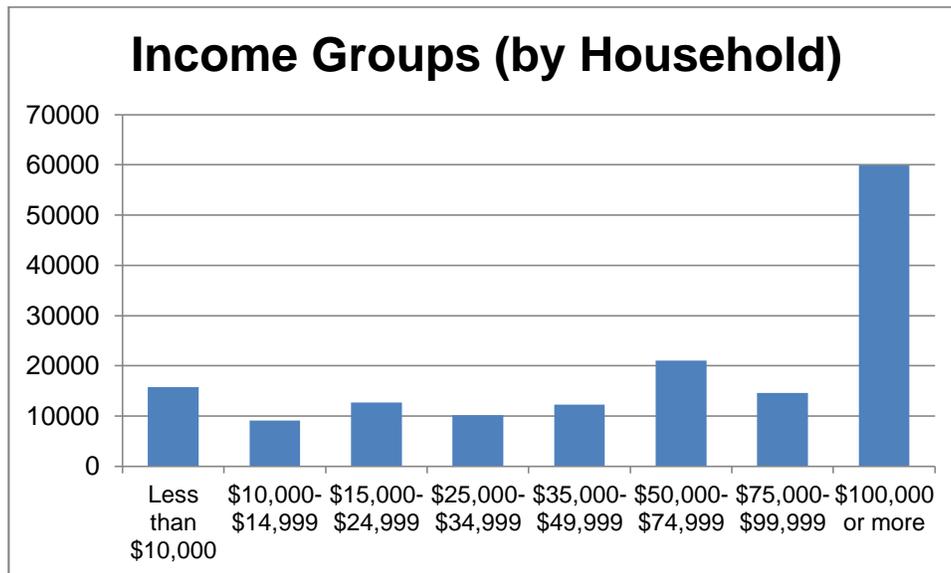
- 60% work in management, business, science, and arts occupations
- 23% work in sales and office occupations
- 12.5% work in service occupations
- 4.5% are employed in a range of areas including production, transportation, construction, and maintenance



Income

The 2012 American Community Survey describes 156,000 households in the area. Of these:

- 15,800 households (10%) have an annual income of less than \$10,000
 - 9,000 households (6%) have an annual income between \$10,000 and \$14,999
 - 12,700 households (8%) have an annual income between \$15,000 and \$24,999
 - 10,000 households (6.5%) have an annual income between \$25,000 and \$34,999
 - 12,300 households (8%) have an annual income between \$35,000 and \$49,999
 - 21,000 households (13.5%) have an annual income between \$50,000 and \$74,999
 - 14,600 households (9.5%) have an annual income between \$75,000 and \$99,999
 - 60,000 households (38.5%) have an annual income of \$100,000 or more
-
- The largest single group in the area according to the 2012 American Community Survey was those earning \$200,000 a year or more, a group of about 26,700 households (17%)
 - 32,600 (21%) of these households reach their listed earnings at least partially using social security income
 - 3,700 households (2.5%) do so using cash public assistance income
 - 18,000 households (11.5%) reach their listed incomes after including food stamp benefits over the 12 months prior to data collection



Disabilities

There are 30,700 people (9% of the total population) with a disability, including 1,200 people under the age of 18 (4% of the disabled population), 13,700 people between the ages of 18 and 64 (44% of the disabled population), and 15,800 people 65 years of age or older (51% of the disabled population).

Housing

There are 175,500 potential housing units in this area. Of these:

- 156,000 (89%) are occupied
 - 125,500 (80%) are renter-occupied
 - 30,500 (20%) are owner-occupied
- 19,500 units (11%) are vacant

- 127,500 (73%) are in structures containing 20 or more units
- 0.6% of households in this area reside in a mobile home, boat, RV, or other type of non-fixed/non-permanent structure

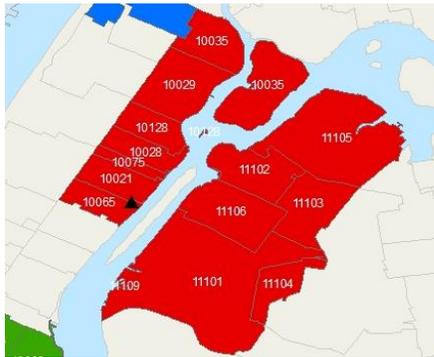
- 62,300 (40%) moved into their current housing units prior to the year 2000
- 72,100 households (46%) moved in between 2000 and 2009
- 14% of households moved in during 2010 or later

B.i. Description of Community: Weill Cornell Medical Center

Objective

Describe the demographics of the population to be served by the Weill Cornell Medical Center portion of the NYPH PPS.

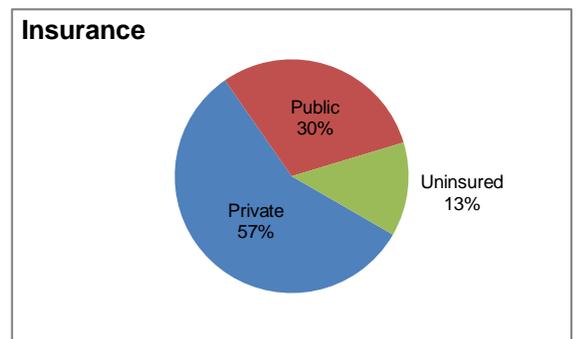
The portion of the NewYork-Presbyterian PPS service area primarily attributed to the Weill Cornell Medical Center covers the Upper East Side of Manhattan, East Harlem, and Northwest Queens.



Demographics Overview

The service area includes a diverse urban community with more than half a million individuals. Medicaid serves a large percentage of the population. The Upper East Side is largely residential, multi-family housing with a large number of businesses. The areas in Queens are much more residential and include single-family homes. East Harlem is almost entirely multi-family housing and includes a high volume of public housing. All areas have access to public transportation, much of which provides direct access to the NewYork-Presbyterian campus. Across the 14 zip codes:

- Total population is 524,000
- 13% of the population is uninsured
- Median household income is between \$50,000 and \$74,999 / year
- 11% are African American
- 25% are Hispanic
- 11% are Asian / Pacific Islander
- 139,837 people use Medicaid
 - 29,000 people on Medicaid have chronic hypertension
 - 17,000 people on Medicaid have diabetes
 - 7,000 people on Medicaid have heart disease
 - 12,000 people on Medicaid are considered frail

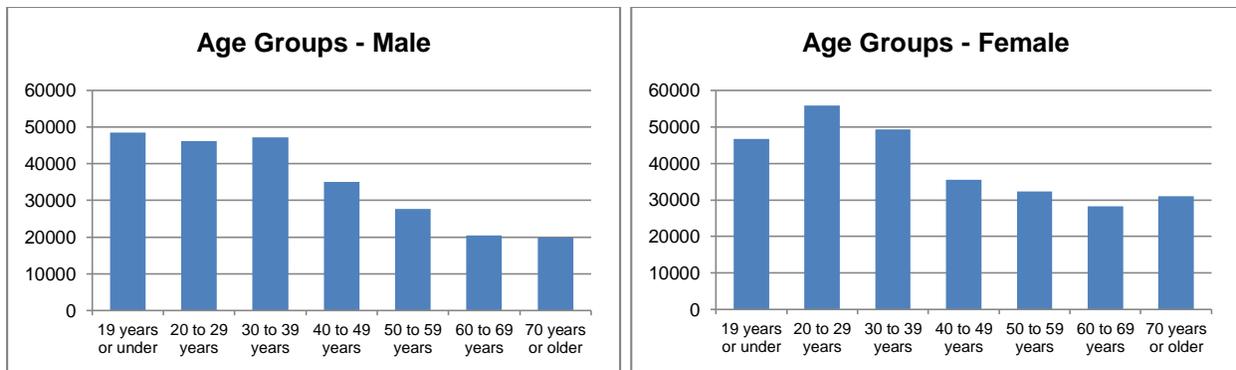


Source: Census Bureau

Age and Gender

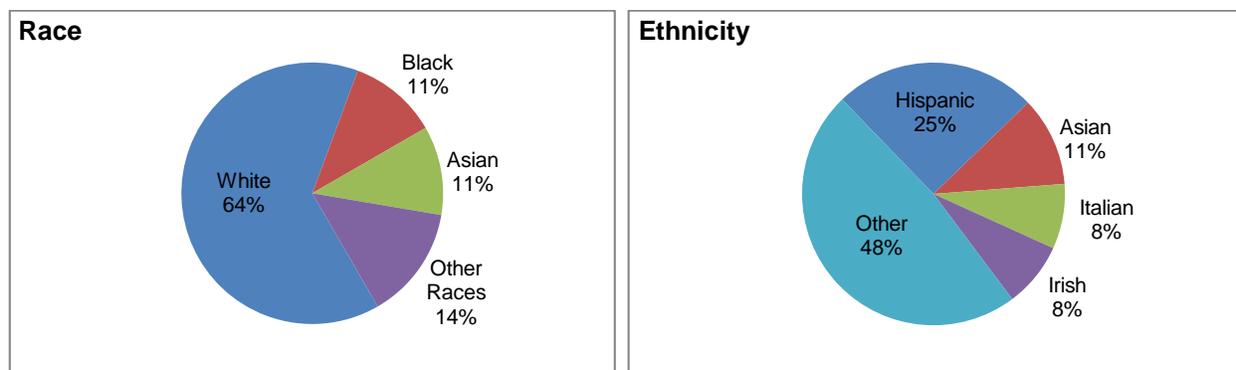
This population is 47% male and 53% female. The age groups of the population are broken down as follows:

- 95,000 people are 19 years of age or younger (18% of the population)
- 102,000 people are between 20 and 29 years old (19.5% of the population)
- 96,500 people are between 30 and 39 years old (18.5% of the population)
- 70,500 people are between 40 and 49 years old (13.5% of the population)
- 60,000 people are between 50 and 59 years old (11.5% of the population)
- 49,000 people are between 60 and 69 years old (9% of the population)
- 51,000 people are 70 years of age or older (10% of the population)



Race and Ethnicity

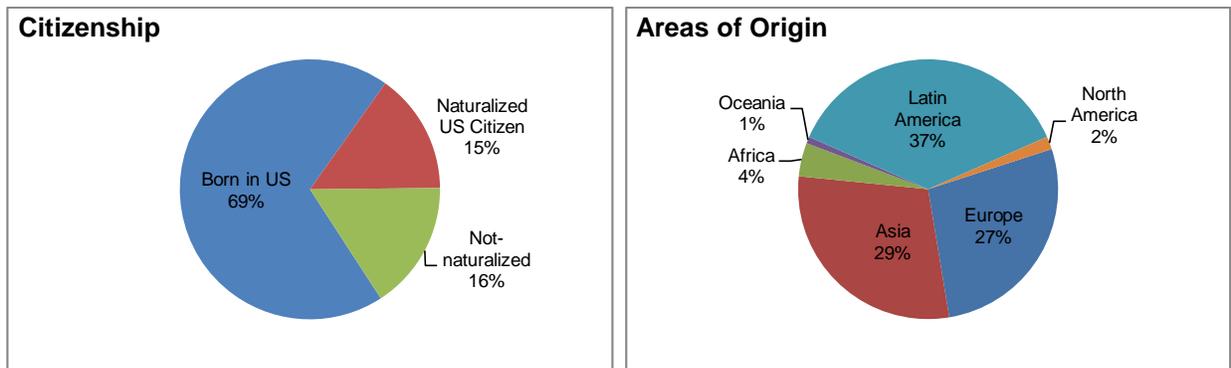
The population is 64% white, 11% black, 11% Asian, and 10% other races.²⁵ The population is 25% Hispanic or Latino. A third of the Hispanic population identifies as Puerto Rican, 16% as Mexican. People of Italian or Irish decent each make up 8% of the general population.



²⁵ As defined by the 2010 United States Census

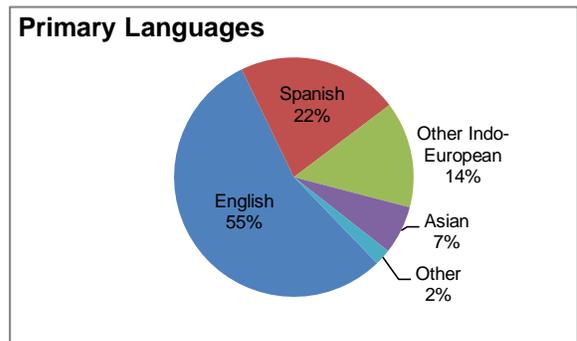
Citizenship / Foreign Born

There are 160,000 people (31% of the population) who are foreign born (and were not born as US citizens by virtue of having a citizen parent). Of the foreign born population, 77,000 people (48% of the group, 15% of the total population) are naturalized citizens. Of the foreign born population, nearly 59,000 (37% of this group, 11% of the total population) are originally from Latin American countries. The next largest group is originally from Asian countries (46,500 people, 9% of the total population), followed by European countries (43,500 people, 8% of the total population).



Language

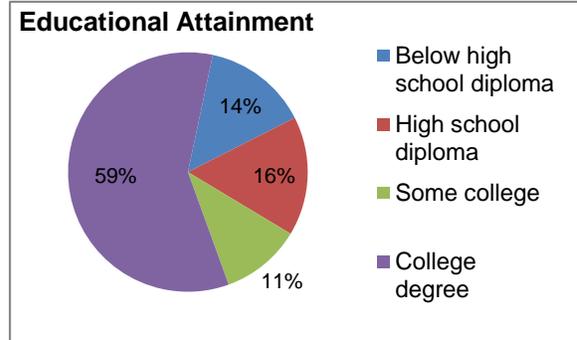
The area's population over the age of 5 (capable of advanced language) is 491,000 people. English is the primary language at home for 270,000 people (55% of the population over the age of 5) and Spanish for 108,000 people (22%). Nearly half of the Spanish speaking population speak English less than "very well" according to the 2012 American Community Survey.



The remainder of the population, 45% of the people, speak a language other than English at home. A third speak English less than "very well" according to the 2012 American Community Survey.

Education

There are 104,500 people who are currently enrolled in school. This includes 46,500 nursery school, kindergarten, or elementary school students (grade levels 1-8), 19,000 high school students (grade levels 9-12), and 39,000 college or graduate students.



Among 389,000 people aged 25 years or older:

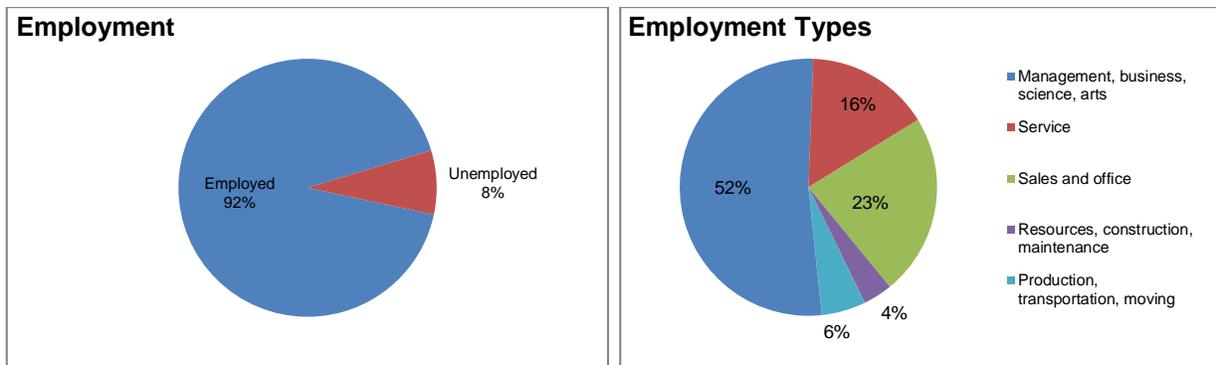
- 29,000 people (7% of this group) have attained less than a 9th grade education
- 26,000 people (7% of the group) completed some high school but received no diploma
- 62,500 people (16% of this group) completed high school and received a diploma
- 42,000 people (11% of this group) have at least attended some college
- 229,000 people (59% of this group) have received some type of college or graduate degree

Employment

The population of people 16 years of age or older is 443,000 people. Of this group, 301,000 people are in the potential labor force, including 276,500 (92%) who work as civilians, 130 (<1%) who work for the US Armed Forces, and 24,500 (8%) who are unemployed.

Of the 276,500 members of the population who are employed as civilians:

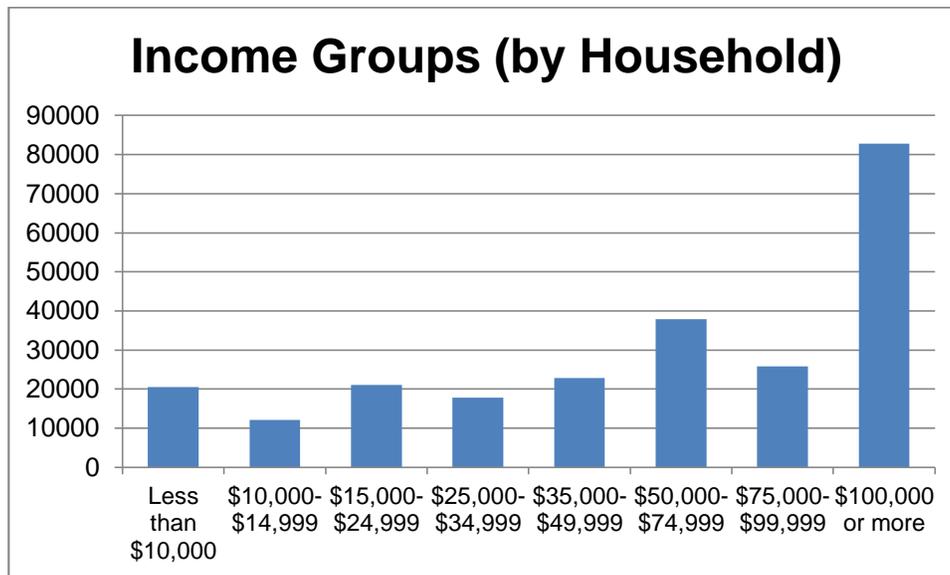
- 52% work in management, business, science, and arts occupations
- 23% work in sales and office occupations
- 15% work in service occupations
- 10% of workers are employed in a range of areas including production, transportation, construction, and maintenance



Income

The 2012 American Community Survey describes 241,000 households in the area. Of these:

- 20,500 households (8.5%) have an annual income of less than \$10,000
 - 12,000 households (5%) have an annual income between \$10,000 and \$14,999
 - 21,000 households (8.75%) have an annual income between \$15,000 and \$24,999
 - 18,000 households (7.5%) have an annual income between \$25,000 and \$34,999
 - 22,700 households (9.5%) have an annual income between \$35,000 and \$49,999
 - 38,000 households (15.75%) have an annual income between \$50,000 and \$74,999
 - 25,800 households (10.5%) have an annual income between \$75,000 and \$99,999
 - 83,000 households (34.5%) have an annual income of \$100,000 or more
-
- 56,400 (23.5%) of these households reach their listed earnings at least partially using social security income
 - 6,800 households (2.8%) do so using cash public assistance income
 - 25,400 households (10.6%) reach their listed incomes after including food stamp benefits over the 12 months prior to data collection



Disabilities

There are 47,800 people (9% of the total population) with a disability, including 2,200 people under the age of 18 (5% of the disabled population), 24,000 people between the ages of 18 and 64 (50% of the disabled population), and 21,600 people aged 65 years or older (45% of the disabled population).

Housing

There are some 274,000 potential housing units in this area. Of these:

- 241,000 (88%) are occupied
 - 183,000 (76%) are renter-occupied
 - 58,000 (24%) are owner-occupied
- 33,000 units (12%) are vacant

- 178,500 (65%) of these households/housing units are in structures containing 20 or more units
- 0.2% of households in this area reside in a mobile home, boat, RV, or other type of non-fixed/non-permanent structure

- 94,500 (40%) moved into their current housing units prior to the year 2000
- 116,500 households (49%) moved in between 2000 and 2009
- 11% of households moved in during 2010 or later

B.i. Additional Neighborhood Information: East Harlem

East Harlem includes zip codes 10029 and 10035.

Demographics Overview

The service area includes a diverse urban community with over one hundred thousand individuals. Medicaid serves a large percentage of the population. East Harlem is almost entirely multi-family housing and includes a high volume of public housing. The area has access to public transportation, much of which provides direct access to the New York-Presbyterian campus. Across the 2 zip codes:

- Total population is 110,000
- 18% of the population is uninsured
- Median household income is between \$25,000 and \$34,999 / year
- 35% are African American
- 52% are Hispanic
- 6% are Asian / Pacific Islander
- 61,909 people have Medicaid Insurance
 - 13,036 people on Medicaid have chronic hypertension
 - 7,421 people have diabetes
 - 2,945 people have heart disease
 - 6,380 of these people are considered frail

Age and Gender

This population is 47% male and 53% female. The age groups of the population are broken down as follows:

- 28,500 people are 19 years of age or younger (26% of the population)
- 20,000 people are between 20 and 29 years old (18% of the population)
- 16,000 people are between 30 and 39 years old (14.5% of the population)
- 15,000 people are between 40 and 49 years old (13.5% of the population)
- 12,500 people are between 50 and 59 years old (11.5% of the population)
- 8,500 people are between 60 and 69 years old (8% of the population)
- 9,500 people are 70 years of age or older (8.5% of the population)

Race and Ethnicity

The population is 30% white, 35% black, 6% Asian, and at least 20% other races (as defined by the 2010 United States Census). 52% of the population is Hispanic or Latino, and about half of that population identifies as Puerto Rican. The next largest Hispanic or Latino population is Mexican, who make up about 20% of that population. Hispanics or Latinos of other origins make up some 29% of the Hispanic population in the area.

Citizenship / Foreign Born

There are 30,000 people (26% of the population) who were foreign born (and were not born as US citizens by virtue of having a citizen parent). Of the foreign born population, 11,000 people (38% of the group, 10% of the total population) are naturalized citizens. Of the foreign born population, 19,000 (62% of this group, 17% of the total population) are originally from Latin American countries. The next largest group is originally from Asian countries, with 6,100 people (21% of this group, 5% of the total population), followed by European countries, with 2,800 people (9% of this group, 2.5% of the total population).

Language

The area's population over the age of 5 (capable of advanced language) is 107,000 people. English is the primary language at home for 47,500 people (45% of the population over the age of 5), and Spanish for 47,000 people (44% of the population over the age of 5). 20,000 people of the Spanish speaking population speak English less than "very well" according to the 2012 American Community Survey.

The remainder of the population (60,000 people, 55% of the population over the age of 5), speak a language other than English at home. 43% speak English less than "very well" according to the 2012 American Community Survey.

Education

There are 30,000 people who are currently enrolled in a school. About 14,000 are enrolled either in a nursery school, kindergarten, or elementary school (grade levels 1 – 8). There are 7,200 high school students (grade levels 9 – 12) and 8,600 college or graduate students.

There are 73,700 people in the area aged 25 years or older:

- 11,500 people (15.5% of this group) have attained less than a 9th grade education
- 12,200 people (16.5% of this group) have completed some high school but received no diploma
- 18,300 people (25% of this group) have completed high school and received a diploma
- 9,000 people (12% of this group) have attended some college
- 22,600 people (31% of this group) have received some type of college or graduate degree

Employment

The population of people 16 years of age or older is 91,000. Of these, 50,800 people are considered to be in the potential labor force. There are 44,400 people employed as civilians (87% of this group). The remaining 6,400 people are unemployed (13% of the group).

Of the 44,400 members of the population who are employed as civilians:

- 35% work in management, business, science, and arts occupations
- 30% work in service occupations
- 24% work in sales and office occupations
- 11% of workers are employed in a range of areas including production, transportation, construction, and maintenance

Income

The 2012 American Community Survey describes 41,500 households in the area. Of these:

- 7,500 households (18%) have an annual income of less than \$10,000
- 4,800 households (11.5%) have an annual income between \$10,000 and \$14,999
- 5,900 households (14%) have an annual income between \$15,000 and \$24,999
- 4,800 households (11.5%) have an annual income between \$25,000 and \$34,999
- 4,500 households (11%) have an annual income between \$35,000 and \$49,999
- 5,400 households (13%) have an annual income between \$50,000 and \$74,999
- 2,900 households (7%) have an annual income between \$75,000 and \$99,999
- 5,600 households (13.5%) have an annual income of \$100,000 or more
- 10,600 (25.5%) of these households reach their listed earnings at least partially using social security income
- 3,600 households (8.5%) do so using cash public assistance income
- 11,600 households (28%) reach their listed incomes after including food stamp benefits over the 12 months prior to data collection

Disabilities

There are 16,000 people (14% of the total population) with a disability, including 1,300 people under the age of 18 (5% of the disabled population), 9,500 people between the ages of 18 and 64 (13% of the disabled population), and 5,300 people aged 65 years or older (42% of the disabled population).

Housing

There are 45,500 potential housing units in this area. Of those:

- 41,500 (91%) are occupied (each occupied unit being a single household)
 - 38,700 (93%) are renter-occupied
 - 2,800 (7%) are owner-occupied
- 4,000 units (9%) are listed as vacant
- 33,700 (74%) of these households/housing units are in structures containing 20 or more units
- 25.5% of households live in housing units in structures ranging from a single unit to 19 units
- 0.5% of households in this area reside in a mobile home, boat, RV, or other type of non-fixed/non-permanent structure
- 17,700 (42.5%) moved into their current housing units prior to the year 2000
- 19,500 households (47%) moved in between 2000 and 2009
- 10% of households moved in during 2010 or later

B.i. Additional Neighborhood Information: West Queens

West Queens includes zip codes 11101, 11102, 11103, 11104, 11105, 11106, and 11109.

Demographics Overview

The service area includes a diverse urban community with more than two hundred thousand individuals. Medicaid serves a large percentage of the population. This area of Queens is fairly residential and includes single-family homes. All areas have access to public transportation, much of which provides direct access to the NewYork-Presbyterian campus. Across the 7 zip codes:

- Total population is 204,715
- 18.5% of the population is uninsured
- Median household income is between \$50,000 and \$74,999 / year
- 27% are Hispanic
- 17% are Asian / Pacific Islander
- 7% are African American
- 68,216 people use Medicaid
 - 13,256 people on Medicaid have chronic hypertension
 - 8,194 have diabetes
 - 3,634 have heart disease
 - 4,417 of these people are considered frail

Age and Gender

This population is 49% male and 51% female. The age groups of the population are broken down as follows:

- 36,000 people are 19 years of age or younger (17.5% of the population)
- 44,500 people are between 20 and 29 years old (22% of the population)
- 42,000 people are between 30 and 39 years old (20.5% of the population)
- 28,000 people are between 40 and 49 years old (13.5% of the population)
- 22,500 people are between 50 and 59 years old (11% of the population)
- 15,000 people are between 60 and 69 years old (7.5% of the population)
- 16,500 people are 70 years of age or older (8% of the population)

Race and Ethnicity

The population is 60% white, 7% black, 17% Asian, and at least 12% other races (as defined by the 2010 United States Census). 27% of the population is Hispanic or Latino, and about 23% of that population identifies as Mexican. The next largest Hispanic or Latino population is Puerto Ricans, who make up about 16% of that population. The next largest ancestral groups identified in this area were people of Italian descent, making up 9.5% of the general population, followed by Irish at 8% and Greek at 7%.

Citizenship / Foreign Born

There are 87,000 people (43% of the population) who were foreign born (and were not born as US citizens by virtue of having a citizen parent). Of the foreign population, 44,000 people (51% of the group, 22% of the total population) are naturalized citizens. Of the foreign born population, 33,000 people (38% of this group, 16.5% of the total population) are originally from Latin American countries. The next largest group is originally from Asian countries, with 26,000 people (30% of this group, 13% of the total population), followed by European countries with 24,000 people (27.5% of this group, 12% of the total population).

Language

The area's population over the age of 5 (capable of advanced language) is 190,000 people. English is the primary language at home for 75,000 people (40% of the population over the age of 5), and Spanish for 48,000 people (25% of the population over the age of 5). 23,000 people of the Spanish speaking population speak English less than "very well" according to the 2012 American Community Survey.

60% of the population over the age of 5 speaks a language other than English at home. 45% of this population speaks English less than "very well" according to the 2012 American Community Survey.

43,500 people (23% of the population over the age of 5) speak an Indo-European language as their primary language at home. 41% of this population speaks English less than "very well" according to the 2012 American Community Survey.

Education

There are 41,500 people who are currently enrolled in a school. About 15,500 are enrolled either in a nursery school, kindergarten, or elementary school (grade levels 1 – 8). There are 8,000 high school students (grade levels 9 – 12) and 18,000 college or graduate students.

There are 149,000 people in the area aged 25 years or older:

15,000 people (10% of this group) have attained less than a 9th grade education

11,000 people (7.5% of this group) have completed some high school but received no diploma

33,000 people (22% of this group) have completed high school and received a diploma

19,500 people (13% of this group) have attended some college

70,000 people (47% of this group) have received some type of college or graduate degree

Employment

The population of people 16 years of age or older is 172,000. Of these, 121,000 people are considered to be in the potential labor force, including 110,000 people (91%) who work as civilians, 94 people (<1%) who work for the US Armed Forces, and 11,000 people (9%) who are unemployed.

Of the 110,000 members of the population who are employed as civilians:

- 40% work in management, business, science, and arts occupations
- 23% work in sales and office occupations
- 21.5% work in service occupations
- 15.5% of workers are employed in a range of areas including production, transportation, construction, and maintenance

Income

The 2012 American Community Survey describes 87,000 households in the area. Of these:

- 7,600 households (9%) have an annual income of less than \$10,000
- 4,600 households (5%) have an annual income between \$10,000 and \$14,999
- 9,300 households (10.5%) have an annual income between \$15,000 and \$24,999
- 8,300 households (9.5%) have an annual income between \$25,000 and \$34,999
- 11,000 households (12.75%) have an annual income between \$35,000 and \$49,999
- 16,400 households (18.75%) have an annual income between \$50,000 and \$74,999
- 10,700 households (12.25%) have an annual income between \$75,000 and \$99,999
- 19,100 households (22%) have an annual income of \$100,000 or more
- 18,400 (21%) of these households reach their listed earnings at least partially using social security income
- 2,400 households (2.75%) do so using cash public assistance income
- 10,500 households (12%) reach their listed incomes after including food stamp benefits over the 12 months prior to data collection

Disabilities

There are 18,300 people (9% of the total population) with a disability, including 600 people under the age of 18 (2% of the disabled population), 9,400 people between the ages of 18 and 64 (6.5% of the disabled population), and 8,400 people 65 years of age or older (36% of the disabled population).

Housing

There are 94,500 potential housing units in this area. Of those:

- 87,000 (92%) are occupied
 - 71,000 (82%) are renter-occupied
 - 16,000 (18%) are owner-occupied
- 7,500 units (8%) are vacant
- 36,300 (38.4%) of these households/housing units are in structures containing 20 or more units
- 61.5% of households live in housing units in structures ranging from a single unit to 19 units
- About 0.1% of households in this area reside in a mobile home, boat, RV, or other type of non-fixed/non-permanent structure
- 33,300 (38.25%) moved into their current housing units prior to the year 2000
- 43,100 households (almost 50%) moved in between 2000 and 2009
- 12% of households moved in during 2010 or later

B.ii. Health Status of the Population

Objective

Describe the health status of the population to be served by the NewYork-Presbyterian Hospital PPS.

Key Findings

Leading causes of death

- Diseases of the heart and malignant neoplasms (cancer) are the leading causes of death in New York City, independent of gender, race/ethnicity, and borough.

Maternal and child health

- The infant mortality rate in New York City (4.7 deaths per 1,000 live births in 2012) is lower than the national average (6.15).²⁶ However, the rate is still higher than rates in other large Western Democracies (France, 3.3; Germany, 3.5)²⁷

Health Risk Factors

- Obesity affects 30% of the population of the Bronx and Brooklyn.
- Obesity in NYC has increased from 17.8% of adults (18 and older) in 2002 to 24.1% in 2012
- 15.5% of the adult population self-reported as being current smokers
- The East and Central Harlem neighborhoods have the highest rate of heavy drinkers at 8.2%

Refer to other sections for

- Comorbidity profile of potentially attributed patients (page 41)
- Leading causes of preventable hospitalizations (page 124)
- Access to healthcare (pages 47, 72, and 190)
- Quality of care (page 184)

²⁶ Mortality data – Centers for Disease Control and Prevention

²⁷ Country Comparison: Infant Mortality rate. Central Intelligence Agency, The World Factbook

Leading causes of death

The top 10 leading causes of mortality in New York City are listed in table 1. The most common deaths were diseases of the heart (rate of 200.7 per 100,000 population) and malignant neoplasms (rate of 160.7 per 100,000 population). Overall since 2003, the number of deaths has decreased 35.4%.²⁸

Table 1. Top 10 leading causes of mortality – New York City

| Top 10 leading causes of mortality | Total Reported | Rate per 100,000 population | Age-adjusted rate per 100,000 population |
|--|----------------|-----------------------------|--|
| Diseases of Heart | 16,730 | 200.7 | 188.2 |
| Malignant Neoplasms | 13,399 | 160.7 | 155.1 |
| Influenza (Flu) and Pneumonia | 2,244 | 26.9 | 25.2 |
| Diabetes Mellitus | 1,813 | 21.7 | 20.8 |
| Chronic Lower Respiratory Diseases | 1,651 | 19.8 | 19 |
| Cerebrovascular Disease | 1,646 | 19.7 | 18.6 |
| Accidents Except Drug Poisoning | 1,032 | 12.4 | 12 |
| Essential Hypertension and Renal Diseases | 980 | 11.8 | 11.1 |
| Mental and Behavioral Disorders due to Accidental Poisoning and Other Psychoactive Substance Use | 812 | 9.7 | 9.2 |
| Alzheimer's Disease | 696 | 8.3 | 7.6 |

Source: EpiQuery, Vital Statistics, NYC Department of Health and Mental Hygiene - 2012

Heart disease includes conditions such as hypertensive heart disease, ischemic heart disease, acute myocardial infarction (heart attack), cardiomyopathy, or heart failure. Of these, chronic ischemic heart disease is the leading cause of heart disease deaths, though the rate has declined from 190.5 deaths per 100,000 population in 2009 to 131.5 deaths per 100,000 in 2012.

HIV / AIDS is no longer one of the 10 leading causes of death in NYC. It has a crude rate of 7.3 deaths per 100,000 population in 2012, which has declined about 64% since 2003 and 22% since 2011.²⁹

The top 5 causes of mortality are the same for men and women (Table 2). However, different diseases appear on men and women's list of top 10. For men, mental and behavioral disorders due to accidental poisoning and other psychoactive substance use

²⁸ Summary of Vital Statistics 2012 - Mortality, The City of New York

²⁹ Ibid.

and Human Immunodeficiency Virus diseases appear in their top 10 list. For women, septicemia and Alzheimer's disease appear on the list.

Table 2. Leading causes of mortality by Gender – New York City

| Top 10 Leading Causes of Mortality | | | | | | |
|---|----------------|-----------------------------|--|----------------|-----------------------------|--|
| | Male | | | Female | | |
| | Total reported | Rate per 100,000 population | Age-adjusted rate per 100,000 population | Total reported | Rate per 100,000 population | Age-adjusted rate per 100,000 population |
| Diseases of Heart | 7,954 | 200.2 | 231.7 | 8,776 | 201.1 | 155.6 |
| Malignant Neoplasms | 6,578 | 165.6 | 184.8 | 6,821 | 156.3 | 135.6 |
| Influenza (Flu) and Pneumonia | 1,078 | 27.1 | 32.4 | 1,166 | 26.7 | 20.7 |
| Diabetes Mellitus | 883 | 22.2 | 24.7 | 930 | 21.3 | 17.8 |
| Chronic Lower Respiratory Diseases | 734 | 18.5 | 21.5 | 917 | 21 | 17.3 |
| Accidents Except Drug Poisoning | 699 | 17.6 | 18.4 | 333 | 7.6 | 6.7 |
| Cerebrovascular Disease | 671 | 16.9 | 19.2 | 975 | 22.3 | 17.8 |
| Mental and Behavioral Disorders due to Accidental Poisoning and Other Psychoactive Substance Use | 592 | 14.9 | 14.1 | 220 | 5.0 | 4.7 |
| Essential Hypertension and Renal Diseases | 418 | 10.5 | 12.2 | 562 | 12.9 | 10.2 |
| Human Immunodeficiency Virus Disease | 402 | 10.1 | 9.8 | 207 | 4.7 | 4.4 |
| Alzheimer's Disease | 208 | 5.2 | 6.6 | 488 | 11.2 | 8.1 |
| Septicemia | 209 | 5.3 | 6.0 | 242 | 5.5 | 4.5 |

Source: EpiQuery, Vital Statistics, NYC Department of Health and Mental Hygiene – 2012

Disease of the heart is the top cause of mortality of 3 race/ethnicity groups: Hispanic, White Non-Hispanic, and Black Non-Hispanic (Figure 3). For Asian and Pacific Islanders, the top cause of mortality is malignant neoplasms.

Table 3. Leading causes of mortality by Race/Ethnicity – New York City (Rate per 100,000 population)

| | Hispanic | White Non-Hispanic | Black Non-Hispanic | Asian and Pacific Islander | Other Race/Ethnicity |
|---|----------|--------------------|--------------------|----------------------------|----------------------|
| Diseases of Heart | 105 | 322 | 222 | 76 | 62 |
| Malignant Neoplasms | 94 | 234 | 183 | 97 | 43 |
| Influenza (Flu) and Pneumonia | 17 | 41 | 28 | 13 | 7 |
| Diabetes Mellitus | 16 | 19 | 38 | 12 | 13 |
| Chronic Lower Respiratory Diseases | 12 | 31 | 20 | 8 | 1 |
| Cerebrovascular Disease | 12 | 25 | 23 | 15 | 11 |
| Accidents Except Drug Poisoning | 10 | 17 | 11 | 8 | NA |
| Essential Hypertension and Renal Diseases | 8 | 13 | 19 | 7 | 3 |
| Mental and Behavioral Disorders due to Accidental Poisoning and Other Psychoactive Substance Use | 9 | 13 | 11 | 1 | 3 |
| Alzheimer's Disease | 7 | 12 | 8 | 3 | 3 |
| Chronic Liver Disease and Cirrhosis | 8 | 7 | 6 | 2 | 2 |
| Human Immunodeficiency Virus Disease | 6 | 3 | 19 | 0.5 | 1 |
| Assault | 5 | 2 | 14 | 1 | 1 |
| Intentional Self-Harm (Suicide) | 5 | 10 | 3 | 7 | 2 |
| Nephritis, Nephrotic Syndrome and Nephrosis | 3 | 7 | 8 | 4 | NA |

Source: EpiQuery, Vital Statistics, NYC Department of Health and Mental Hygiene – 2012
 NA – statistic not available

The top two leading causes of mortality, diseases of the heart and malignant neoplasms, are the same across all boroughs (Table 4). For non-residents, malignant neoplasms are the leading cause with diseases of the heart following in second. Queens did not have mental and behavioral disorders causes of mortality in its top 10. Similarly, Bronx and Brooklyn residents did not have Alzheimer's disease in their top 10 lists. Human Immunodeficiency Virus Disease was in the top 10 list for both Bronx (173 reported count) and Brooklyn (213 reported count). Intentional self-harm (suicide) was in the top 10 list for Queens with an associated count of 143.

Table 4. Leading causes of mortality, by borough (Total Reported)

| | Manhattan | Bronx | Brooklyn | Queens | Staten Island | Non-Residents |
|---|-----------|-------|----------|--------|---------------|---------------|
| Diseases of Heart | 2,674 | 2,650 | 5,024 | 4,192 | 1,255 | 899 |
| Malignant Neoplasms | 2,409 | 2,028 | 3,720 | 2,963 | 777 | 1,487 |
| Influenza (Flu) and Pneumonia | 353 | 405 | 734 | 534 | 128 | 89 |
| Diabetes Mellitus | 265 | 321 | 639 | 399 | 98 | 88 |
| Chronic Lower Respiratory Diseases | 320 | 281 | 447 | 389 | 145 | 68 |
| Cerebrovascular Disease | 307 | 242 | 445 | 449 | 90 | 112 |
| Accidents Except Drug Poisoning | 159 | 156 | 262 | 236 | 101 | 107 |
| Essential Hypertension and Renal Diseases | 206 | 165 | 310 | 203 | 38 | 57 |
| Mental and Behavioral Disorders due to Accidental Poisoning and Other Psychoactive Substance Use | 149 | 192 | 200 | 115 | 79 | 67 |
| Alzheimer's Disease | 200 | 135 | 140 | 161 | 37 | NA |
| Human Immunodeficiency Virus | 108 | 173 | 213 | 62 | 19 | NA |
| Intentional Self-Harm (Suicide) | 131 | 78 | 118 | 143 | 33 | 51 |

Source: EpiQuery, Vital Statistics, NYC Department of Health and Mental Hygiene – 2012
 NA – statistic not available

Maternal and child health

Infant mortality rate in New York City has been declining. In 2003, the infant mortality rate was 6.5 per 1,000 live births. By 2012, the infant mortality rate had dropped 28% to 4.7 per 1,000 live births (Figure 1). The leading causes of infant death in 2012 were birth defects, prematurity, and cardiovascular disease deaths originating in the perinatal period.

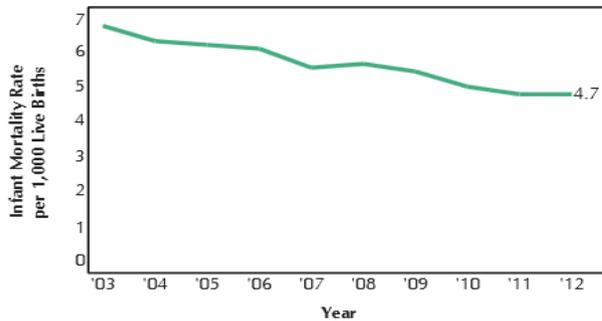


Figure 1. Infant mortality rate, New York City, 2003-2012
Source: Summary of Vital Statistics 2012 - Mortality, The City of New York

The number of live births with low birth weight (less than 2500 grams) in the city of New York in 2012 was 10,336 (8% of all live births). Bronx County had the highest percentage of mothers on Medicaid for live births at 80%.³⁰

Of the live births in New York City in 2012, very few (0.7%) had no prenatal care. Of all mothers with no prenatal care, 77% were Medicaid beneficiaries. Prenatal care that began in the first trimester was provided to 54% of mothers who were on Medicaid. Prenatal care in the second trimester was provided to 72% of mothers who were on Medicaid. Prenatal care in the third trimester was provided to 82% who were on Medicaid (Figure 2).

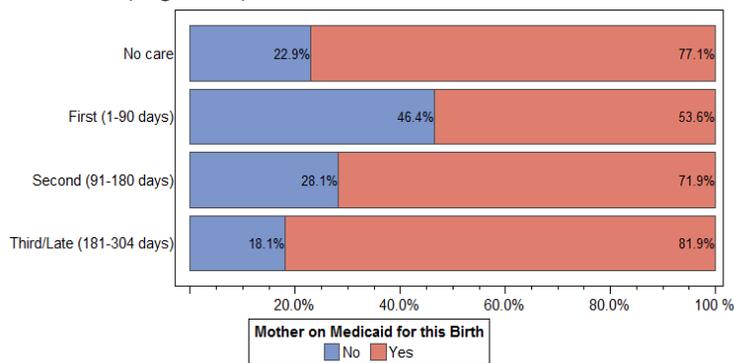


Figure 2. Percent of live births by mother's prenatal care and mother on Medicaid for this birth
Source: EpiQuery, Birth Data, NYC Department of Health and Mental Hygiene - 2012

³⁰ EpiQuery, Birth Data, NYC Department of Health and Mental Hygiene - 2012

Health Risk Factors

Obesity is calculated using the height and weight of a person and determining the body mass index (BMI). A BMI between 25.0 and 29.9 is classified as overweight and a BMI of 30 or greater is classified as obese.³¹ The percentage of obese people in NYC has increased from 17.8% in 2002 to 24.1% in 2012. Furthermore, in 2012, 31.8% of people were overweight but not obese (Figure 3).

The following are rates of obesity by borough:³²

- Bronx: 32%
- Brooklyn: 27%
- Manhattan: 15%
- Queens: 22%

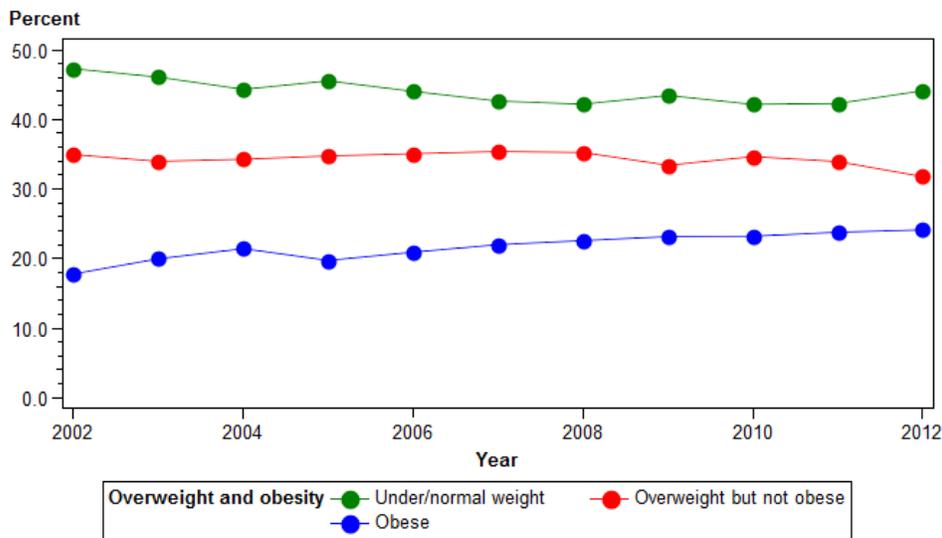


Figure 3. Overweight and obesity, trends (unadjusted for age)

Source: EpiQuery, Survey Trends, Overweight and obesity - 2012

³¹ Overweight and obesity trends, 2012

³² NYC Community Health Survey, 2012

Smoking status is defined as being a current or former smoker or having smoked less than 100 cigarettes ever (never smoker).³³ In 2012, 65.4% of people never smoked, an improvement from 58.1% in 2002. In 2012, 19% of people reported that they were a former smoker and 15.5% reported that they were a current smoker (Figure 4).

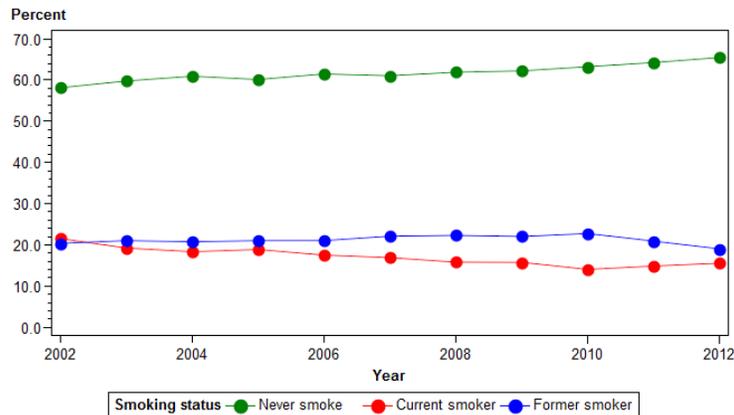


Figure 4. Smoking status, trends (Age-adjusted)
Source: EpiQuery, Survey Trends, Overweight and obesity - 2012

Heavy drinking is defined as an average of more than 2 drinks per day for men and more than 1 drink per day for women. In New York City, the percentage of adults that self-reported as heavy drinkers was 5.9%, which has been stable since 2002 (Figure 5). The rates of heavy drinking in high-risk neighborhoods (highest rate of morbidity and mortality in NYC) are as follows:³⁴

- South Bronx – 5.1% are heavy drinkers
- North and Central Brooklyn – 4.8% are heavy drinkers
- East and Central Harlem – 8.2% are heavy drinkers

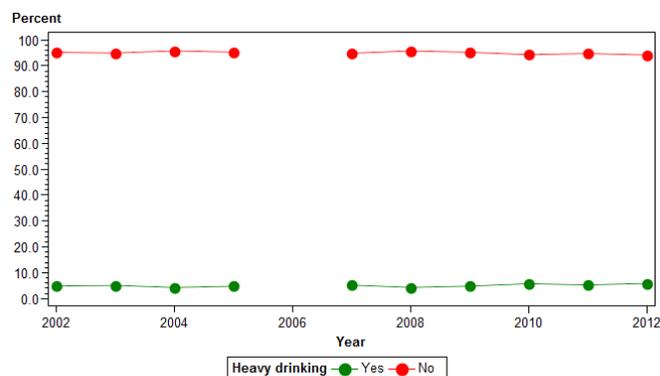


Figure 5. Heavy drinking
*This indicator was not asked in every consecutive year (represented by missing data point in the plot)
Source: EpiQuery, Survey Trends, Heavy Drinking – 2012

³³ EpiQuery, Survey Trends, Smoking status - 2012

³⁴ NYC Community Health Survey, 2012

Rates of selected diseases

We describe the comorbidity profile of a cohort of 66,526 individuals potentially attributed to the NYP-PPS in an earlier chapter (p 41).

B.ii. Additional Information on HIV, Behavioral Health, Pediatrics, Palliative Care

HIV / AIDS

To supplement the HIV/AIDS HEDIS Quality Measures described elsewhere (p 184), we have provided additional information on HIV/AIDS in New York City.

New York City continues to be the epicenter of the HIV/AIDS epidemic in the United States. In 2012, there were an estimated 114,000 persons living with HIV/AIDS (PLWHA) in New York City, accounting for nearly 10% of national HIV/AIDS cases.³⁵ Furthermore, HIV incidence remains high in New York City, with a reported rate of 38.4 cases per 100,000 person years, compared with an incidence of 18.0 per 100,000 person years nationally (Figure 1).³⁶

The NYP PPS will serve many of the neighborhoods with the highest rates of HIV in New York City, including Northern Manhattan, Harlem, and the Southwest Bronx. In these areas, risk of HIV transmission, disease progression, and death from AIDS are nearly double those of the New York City average (Table 1). In addition, several clinics affiliated with the NYP PPS serve Chelsea and nearby neighborhoods, which represent another area of high concentration of PLWHA.

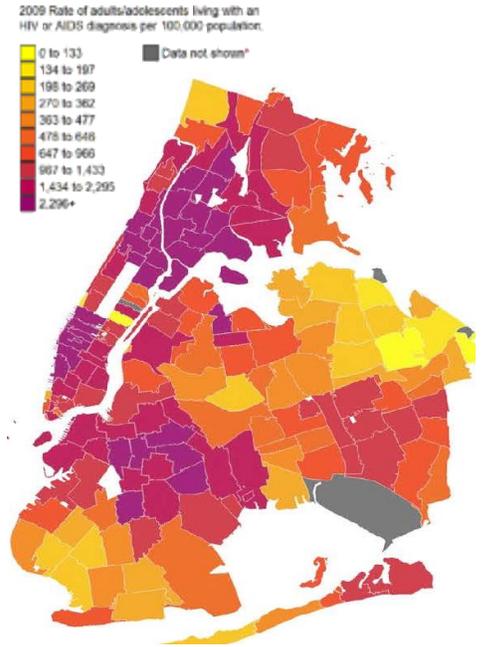


Figure 1. Rate of Adults/Adolescents Living with HIV/AIDS per 100,000 Population in NYC. □

Table 1. Incidence, Prevalence, and Death Rate of People Living with HIV/AIDS, by Select Geographies

| Neighborhood | | HIV Diagnoses per 100,000 population | Prevalence (% of Population) | Death Rate of PLWHA (per 1000 per year) |
|--------------|------------------------------------|--------------------------------------|------------------------------|---|
| All of NYC | | 38.4 | 1.4% | 13.5 |
| Manhattan | Borough-Wide | 51.2 | 2.0% | 10 |
| | Washington Heights-Inwood | 65.2 | 1.7% | 9.3 |
| | Central Harlem-Morningside Heights | 89.8 | 2.8% | 15.4 |
| | East Harlem | 68.2 | 2.7% | 13.1 |
| | Upper West Side | 24.5 | 1.4% | 14.7 |
| Bronx | Borough-Wide | 42.2 | 2.0% | 17.8 |
| | Kingsbridge – Riverdale | 20.9 | 0.7% | 16 |
| | Highbridge-Morrisania | 57.8 | 2.7% | 19.7 |
| | Crotona-Tremont | 48 | 2.5% | 18.2 |
| | Fordham-Bronx Park | 40.8 | 2.0% | 15.3 |
| | Hunts Point-Mott Haven | 56.4 | 2.5% | 19.7 |

³⁵ NYC DOHMH HIV Epidemiology and Field Services Program Semiannual Report, 2014. Available at <http://www.nyc.gov/html/doh/downloads/pdf/ah/surveillance2012-table-all.pdf>. Accessed on February 20, 2014.

³⁶ Centers for Disease Control and Prevention, NCHHSTP Atlas. Available at <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>. Accessed on February 20, 2014.

Also of importance, PLWHA in New York have high rates of hospital readmissions, particularly those living in the NYP PPS service area. Nearly 4 in 5 of New York State's readmissions by PLWHA occur in New York City. Of these, the largest concentration of hospital readmissions by PLWHA occurs in areas served by the NYP PPS, including Harlem, Northern Manhattan, and Southwest Bronx (Figure 2).

As detailed in the 2012 New York State Department of Health AIDS Institute Ryan White Care Act Statewide Coordinated Statement of Need, the Northern Manhattan/South Bronx service area experiences shortages in clinical and care coordination services for people with an at risk of HIV.³⁷ Gaps in services include delayed HIV diagnosis and entry to care, homelessness and housing instability, and insufficient drug treatment services

Large gaps in care remain for this population statewide. Only 86% (132,000) of the estimated 154,000 New Yorkers living with HIV have been diagnosed with the infection. Of these 132,000, only 56% (86,000) received any HIV care, and only 48% (75,000) receive continuous care in 2012. Most importantly only 44% of people living with HIV (PLWH) in New York State have undetectable HIV viral loads and thus are not fully benefiting from lifesaving antiretroviral therapy (ART). This startling reality is the single largest barrier to realizing the End of the Epidemic recently articulated by NYS leaders (Figure 3).³⁸

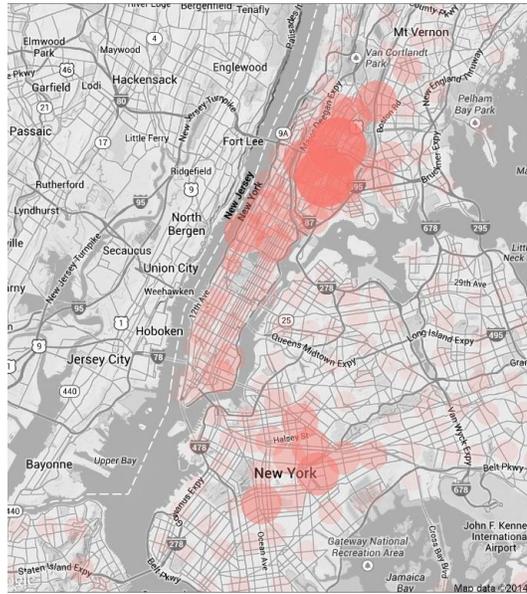
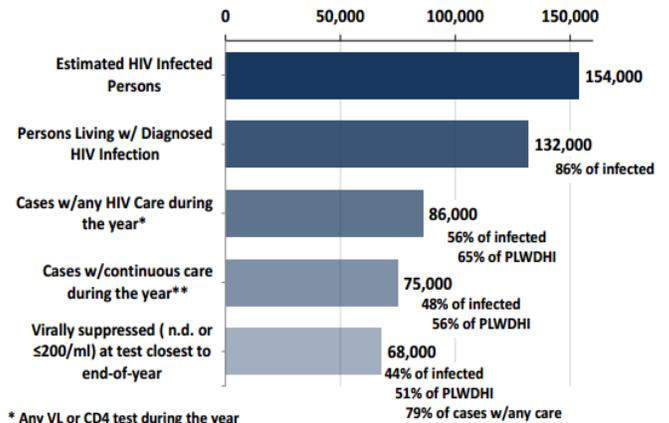


Figure 2. Hospital Readmissions by People Living with HIV/AIDS (PLWHA). The size of the dot scales with the number of readmissions by PLWHA who live in the zip code. (Unpublished data presented at NYS HIV Quality of Care Meeting) □



* Any VL or CD4 test during the year
 ** At least 2 tests, at least 3 months apart

Figure 3. Cascade of HIV Care, New York State, 2012. Source: NYS DOH AIDS Institute □

³⁷ New York State Department of Health, AIDS Institute. Ryan White Statewide Coordinated Statement of Need and Comprehensive Plan, 2012. Available at <http://www.health.ny.gov/diseases/aids/reports/scsn/docs/scsn.pdf>. Accessed February 27, 2014.

³⁸ NYS DOH AIDS Institute

Behavioral Health

Several important obstacles prevent people with mental illness from receiving adequate primary care.

Mental Health Patients Frequently have Medical Co-morbidities.

People with chronic mental illnesses lose 10 to 25 years of life expectancy due to medical illnesses.³⁹ This is particularly true for ethnic minorities, where there is documented poorer health care for major medical illnesses such as hypertension, diabetes, and dyslipidemias.⁴⁰ For example, in two state-operated clinics specializing in chronic mental illness

- 65% of the patients have a medical condition
- 80% are overweight (BMI > 35)⁴¹

Mental Health Patients Frequently Use Health Services.

One in nine (11%) of safety net patients (about 5,400) who received behavioral health services at NewYork-Presbyterian have had three or more behavioral health emergency room or psychiatric inpatient admissions in the last year.⁴² This is close to double the regional average. The 30-day readmission rate for all behavioral health patients at NYP is 34%, compared to 25% regionally. In two of NewYork-Presbyterian's clinics, 18% had three or more inpatient or emergency room visits in the last year.⁴³

Mental Health Patients Do Not Receive Adequate Primary Care.

Yet, in these same two clinics, 25% of the patients have not visited a primary care doctor. Focus groups conducted with Hispanics with Serious Mental Illness in Northern Manhattan by the Center for Cultural Competence at the New York State Psychiatric Institute indicate they will not go to primary care clinics due to perceived stigma and discrimination, lack of culturally adapted care (such as *personalismo*) and language barriers.⁴⁴ They are more likely to visit a primary care physician in a familiar setting such as their mental health clinic.

³⁹ Newcomer J, Hennekens C. Severe mental illness and risk of cardiovascular disease. JAMA, vol 258 (15). pp1794-1796. 2007

⁴⁰ Nasrallah HA, Meyer JM, Goff DC, et al. Low rates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline. *Schizophr Res*. 2006;86(1-3):15-22.

⁴¹ PSYCKES

⁴² PSYCKES

⁴³ internal chart review at two community mental health clinics, and the Office of Mental Health PSYCKES database

⁴⁴ Cabassa, Gomes, Meyreles, Capitelli, Younge, Dragatsi, Alvarez, Nicasio, Druss, Lewis-Fernandez. Primary Health Care Experiences of Hispanics with Serious Mental Illness: A Mixed-Methods Study. *Adm Policy Mental Health*. Published online Oct. 2013

Pediatrics

Children with Special Health Care Needs (CSHCN) are defined as “any child who has or is at increased risk of having a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”⁴⁵ This includes diseases or conditions that require co-management by multiple subspecialists and primary care, include multi-organ system involvement, or patients who are technology dependent.

Children with Special Health Care Needs (CSHCN) comprise 15-18% of all children in the United States; yet these individuals are the drivers of nearly 80% of all pediatric health care expenses. The population accounts for >2.5 times the number of school absences, two-times as many unmet health needs, and more than five times as many hospital days per 1,000 children.⁴⁶

Hispanic English-speaking families and Hispanic non-English speaking individuals have significantly lower outcome scores for the six core Maternal and Child Health Bureau outcomes for CSHCN - meaning they perceive receiving less coordinated care, less participation in decision-making processes related to health, and less linkage with community resources, screenings, and support services necessary for the transition to adulthood. The latter group, non-English speaking Hispanic families, experiences the greatest disparity in the outcomes.

Data from the Data Resource Center indicates that 35.5% of CSHCN Hispanic families where Spanish is the predominant language report that daily activities are often affected a great deal compared to only 25.9% of non-Hispanic CSHCN.⁴⁷

⁴⁵ McPherson M, Arango P, Fox HB, A new definition of children with special health care needs. *Pediatrics*. 1998;102:137-140

⁴⁶ Newacheck PW, Kim SE. A National Profile of Health Care Utilization and Expenditures for Children With Special Health Care Needs. *Arch Pediatr Adolesc Med*. 2005;159(1):10-17

⁴⁷ Data Resource Center. <http://www.childhealthdata.org/learn/NS-CSHCN> as accessed on August 5, 2013.

Palliative Care

Palliative care is increasingly recognized as an area of critical need in the American Health Care System.

- Almost a third of Americans see 10 or more physicians in the last six months of their life.⁴⁸
- Only 20 to 30 percent of Americans report having an advance directive such as a living will.⁴⁹
- Even when patients have an advance directive, physicians are often unaware of their patients' preferences. One large-scale study found that only 25 percent of physicians knew that their patients had advance directives on file.⁵⁰

Below, we have excerpted sections of a recent review highlighting disparities in access to palliative care.⁵¹ Of important note:

- (1) Minority patients often have poor access to adequate pain care in the U.S.
- (2) Pharmacies in minority neighborhoods often have inadequate opioid stocks, limiting minority patients' access to sufficient care for pain.
- (3) Poorly aligned culture, religion, and ethnicity may prevent physicians from offering palliative care.
- (4) Palliative care referrals are infrequent and delayed.
- (5) Increased palliative care consultations can improve completion rates of advanced directives among ethnic and racial minorities.
- (6) Effective policies would support longitudinal, community-based, palliative care

Access to Care

Minority patients do not have equal access to pain care in the U.S. This spans across all health care settings, including emergency rooms, inpatient services, outpatient clinics, and nursing homes. This observed disparity is often attributed to system-related factors such as reduced access to specialty care and lack of adequate health insurance. As a result, racial/ethnic minority patients are less likely to report finding pain specialists available to them compared to non-Hispanic white patients.

Even when socioeconomic status is the same, minority patients remain at risk for disparities in treatment for pain. Decreased availability of analgesic medications is a

⁴⁸ Dartmouth Atlas of Health Care 2005

⁴⁹ Associated Press 2010

⁵⁰ Critical Care Journal 2010

⁵¹ <http://healthaffairs.org/blog/2014/07/30/disparities-in-access-to-palliative-care/>

potential barrier to pain management. Pharmacies located in minority neighborhoods are much more likely to have inadequate opioid stocks.

Receipt of Care

Health care providers' culture, religion, and ethnicity play an active role in their decision to explain palliative care to patients and to participate in decision-making about palliative care. When providers and patients differ in culture, religion, and ethnicity, the providers are less likely to explain palliative care.

Furthermore, physicians are often the primary source of education and referrals for their patients, but they too often lack knowledge of the range of services provided by palliative care. Referral of patients with serious illness for palliative care is often infrequent and delayed until after discontinuation of disease-directed treatment despite evidence that early use of palliative care improves patient outcomes.

Quality of Care

The Institute of Medicine defines superior quality care as care that is effective, safe, timely, patient-centered, efficient, and equitable. There is little known about the impact of specialty palliative care consultation on outcomes of minority patients. However, inpatient palliative care consultation was associated with higher rates of advance directive completion and DNR orders among African-American and Hispanic patients.

The National Healthcare Quality Report (NHQR) and the National Healthcare Disparities Report (NHDR) are published annually by the Agency for Healthcare Research and Quality. These reports track five measures of palliative care delivered by home health agencies, nursing homes, and hospices: dyspnea among home health care patients; pressure sores in nursing home residents; help with emotional and spiritual needs provided to hospice patients; effective communication about what to expect among hospice family caregivers; and provision of care consistent with patients' wishes among those enrolled in hospice.

These reports have identified racial and ethnic disparities across all measures with minority patients consistently receiving poorer quality care. With the exception of the measures focusing on the care of hospice patients, the influence of specialty palliative care physicians and other important metrics in palliative care are not currently measured.

Policy Changes

Provide Primary Palliative Care Education. A renewed focus on teaching basic primary palliative care skills to practitioners in each medical specialty is paramount to ensuring that minority patients receive the core aspects of palliative care. Core palliative care

competencies should be mandated in undergraduate and postgraduate education as a condition of accreditation. This teaching must include content on cultural traditions, values, beliefs, and attitudes of a number of commonly encountered races and ethnicities so that service providers will better understand, acknowledge, and act to overcome the effects of racism, discrimination, and bias on patient participation in and response to beneficial interventions.

Create Novel Models of Care Delivery. Providing longitudinal, community-based, palliative care to patients living with serious illness who are well enough to be in home-like settings, yet who experience the very real burdens of advanced and progressive illness is critically important.

B.iii. Domain 3: Clinical Improvement Metrics

Objective

Describe the **percent of Medicaid patients who received recommended care for various clinical improvement metrics.**

Key Findings

Table. Summary of Clinical Improvement Metrics, by NYP Campus and Neighborhood.

| | CUMC | | WCMC | | | LM | STATE AVERAGE |
|---------------------------------|--------------------|----------|-------------|-----------------|-------------|-----------------|---------------|
| | Northern Manhattan | SW Bronx | East Harlem | Upper East Side | West Queens | Lower Manhattan | |
| Behavioral Health | | | | | | | |
| Antipsychotic Adherence | 58.5 | 56.8 | 54.0 | 65.4 | 63.5 | 66.1 | 61.4 |
| Antidepressant Initiation | 48.9 | 46.3 | 47.3 | 41.5 | 48.4 | 46.6 | 46.6 |
| Antidepressant Continuation | 39.2 | 37.7 | 37.8 | 41.5 | 39.1 | 40.2 | 38.3 |
| Diabetes and Mental Health 1 | 69.9 | 65.3 | 75.5 | - | - | 79.4 | 68.8 |
| Diabetes and Mental Health 2 | 78.2 | 77.5 | 79.6 | 76.9 | 73.2 | 75.0 | 75.5 |
| Heart Disease and Mental Health | - | 53.3 | - | - | - | - | 70.9 |
| Hospital Followup - 30 days | 52.5 | 57.5 | 48.0 | 46.4 | 55.3 | 50.0 | 54.2 |
| Hospital Followup - 7 days | 39.8 | 39.7 | 36.3 | 31.0 | 40.2 | 33.4 | 38.4 |
| Substance Abuse Treatment 1 | 83.7 | 81.8 | 83.3 | 77.1 | 78.7 | 80.7 | 79.5 |
| Substance Abuse Treatment 2 | 20.1 | 20.7 | 21.6 | 19.3 | 22.9 | 27.5 | 24.8 |
| Diabetes | | | | | | | |
| HbA1c Testing | 84.3 | 78.7 | 78.2 | 79.7 | 86.5 | 85.7 | 80.7 |
| Lipid Profile | 79.6 | 71.1 | 74.1 | 75.8 | 84.0 | 84.1 | 76.7 |
| HIV/ AIDS | | | | | | | |
| Engagement in Care | 88.9 | 90.3 | 89.3 | 87.3 | 92.7 | 89.4 | 89.4 |
| Syphilis Screening | 70.5 | 70.6 | 66.8 | 69 | 74.30 | 68.7 | 71.3 |
| Vial Load Monitoring | 61.6 | 65.3 | 61.7 | 63.4 | 71.2 | 63.2 | 66.2 |
| Pediatric Care | | | | | | | |
| Lead Screening | 87.7 | 84.7 | 81.9 | 71.0 | 87.0 | 79.2 | 79.3 |
| Well Child Visits | 83.8 | 86.0 | 90.1 | 71.8 | 83.8 | 86.1 | 86.1 |
| ADHD Med Initiation | 68.8 | 63.6 | 65.7 | - | 67.2 | 62.5 | 55.2 |
| ADHD Med Continuation | - | 72.4 | - | - | - | - | 59.0 |
| Prevention Screening | | | | | | | |
| Cervical Cancer | 72.8 | 71.6 | 68.4 | 62.5 | 73.6 | 75.3 | 70.1 |
| Chlamydia | 79.3 | 74.4 | 76.0 | 66.2 | 73.1 | 73.3 | 68.4 |
| Colorectal Cancer | 57.8 | 55.7 | 48.7 | 48.9 | 49.1 | 61.7 | 50.2 |
| Asthma | | | | | | | |
| Medication Ratio | 62.1 | 61.6 | 54.8 | 55.8 | 64.2 | 60.3 | 62.0 |
| Med Management 50% | 63.4 | 59.6 | 60.3 | 61.3 | 60.1 | 58.0 | 57.2 |
| Med Management 75% | 39.1 | 34.8 | 37.4 | 45.2 | 40.0 | 36.5 | 33.7 |

Red boxes are lower than the state average.

*.- indicates data not available

Source: HEDIS Measures, Medicaid Recipients, 2013

We identified the following opportunities for improvement:

- Behavioral Health quality metrics were lower than the state average for 24 of the 53 metrics (with data) across the six areas.
- The diabetes quality metrics for HbA1c testing and the lipid profile were lower than the state average in SW Bronx, East Harlem, and the Upper East Side.
- HIV / AIDS measures were low in the neighborhoods served by Columbia University Medical Center and Weill Cornell Medical Center.
- Of the pediatric care metrics, well-child visits needed the most improvement.
- Prevention screenings were low in neighborhoods served by WCMC.

Note on Methods

The following data was obtained from New York State's Dashboard specific to Domain 3 Clinical Metrics. The dashboard provided data for the state and had the option of filtering results by zip code. We present the state average of all the metrics as well as each region's value. A value higher than the average is considered to be better, while a value lower than the average is considered to be worse. All three regions that fall under the New York-Presbyterian PPS service area are included: Columbia University Medical Center (CUMC), Weill Cornell Medical Center (WCMC), and Lower Manhattan (LM).

Behavioral Health

There are ten quality metrics for behavioral health.

First, a **schizophrenia and antipsychotics** metric measured the percentage of recipients living with schizophrenia, ages 19 to 64 years, during the measurement year, who were given and remained on an antipsychotic medication for at least 80% of their treatment period. The region of CUMC and East Harlem of WCMC performed lower than the New York State Average.

Second, an **antidepressant** adherence metric measured the percentage of recipients who remained on antidepressant medication during the entire 12-week acute treatment phase. South West Bronx of CUMC and the Upper East Side of WCMC performed lower than the state average. Lower Manhattan performed on par with the state average.

Third, an **antidepressant** adherence metric measured the percentage of recipients remained on antidepressant medication for at least six months. South West Bronx of CUMC and East Harlem of WCMC performed lower than the state average of 38.3%. Northern Manhattan of CUMC, the Upper East Side and Western Queens of WCMC, and LM all performed higher than the state average.

Fourth, a **schizophrenia and diabetes** metric measured the percentage of recipients living with schizophrenia and diabetes, ages 18 to 64 years, who had both an LDL-C test and an HbA1c test during the measurement year. South West Bronx of CUMC performed lower than the state average. The Upper East Side and Western Queens have sample sizes too small for a reasonable report to be generated.

Fifth, a **schizophrenia and cardiovascular disease care** metric measured the percentage of recipients living with schizophrenia and cardiovascular disease, ages 18 to 64 years, who had both an LDL-C test during the measurement year. Data was only available for South West Bronx which performed much lower than the state average.

Sixth, a **serious mental illness and diabetes screening** metric measured the percentage of recipients living with schizophrenia or bipolar disorder, ages 18 to 64 years, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year. The areas of Western Queens of WCMC and LM performed lower than the state average. The remaining areas of CUMC and East Harlem and the Upper East Side of WCMC performed higher than the state average.

Seventh, a **mental health discharge follow-up** metric measured the percentage of recipients who were seen on an ambulatory basis or who were in intermediate treatment with a mental health provider within *30 days* of discharge following a mental health related admission. Northern Manhattan of CUMC, East Harlem and the Upper East Side of WCMC all performed lower than the state average on this metric. South West Bronx of CUMC, Western Queens of WCMC, and LM performed better than the state average.

Eighth, a **mental health discharge follow-up** metric measured the percentage of recipients who were seen on an ambulatory basis or who were in intermediate treatment with a mental health provider within *7 days* of discharge following a mental health related admission. East Harlem and the Upper East Side of WCMC and LM performed lower than the state average. CUMC and Western Queens of WCMC performed better than the state average.

Ninth, a **substance abuse** metric measured the percentage of recipients who initiated treatment within 14 days of the diagnosis after the first new episode of alcohol or drug dependence. The Upper East Side and Western Queens of WCMC performed lower than the state average. CUMC, East Harlem of WCMC, and LM all performed better than the state average.

Tenth, a **substance abuse** metric measured the percentage of recipients who engaged in treatment within 30 days after initiation. The only area to have performed better than the state average was LM. CUMC and WCMC both performed lower than the state average.

Diabetes

There are two quality metrics related to Diabetes.

First, an **HbA1c** metric that measured the percentage of recipients living with diabetes who received at least one Hemoglobin A1c (HbA1c) test within the past year. South West Bronx of CUMC, East Harlem and the Upper East Side of WCMC all performed lower than the state average on this metric. Northern Manhattan of CUMC, Western Queens of WCMC, and LM performed better than the state average.

Second, a **lipid Profile** metric that measured the percentage of recipients living with diabetes who had at least one cholesterol screening test done during the past year. South West Bronx of CUMC, East Harlem and the Upper East Side of WCMC all performed lower than the state average on this metric. Northern Manhattan of CUMC, Western Queens of WCMC, and LM performed better than the state average.

HIV / AIDS

There are three quality metrics related to HIV / AIDS.

First, an **engagement in care** metric measured the percentage of recipients living with HIV/AIDS, ages 2 years and older, who had two visits for primary care or HIV-related care with at least one visit during each half of the past year. Northern Manhattan of CUMC and East Harlem and the Upper East Side of WCMC performed lower than the state average on this metric. South West Bronx of CUCM and Western Queens of WCMC performed better than the state average. LM performed on par with the average.

Second, a **syphilis screening** metric measured the percentage of recipients living with HIV/AIDS, ages 19 years and older, who were screened for syphilis in the past year. The only region to have performed better than the state average was Western Queens of WCMC. CUMC, East Harlem and the Upper East Side of WCMC, and LM all performed lower than the state average.

Third, a **viral load monitoring** metric measured the percentage of recipients living with HIV/AIDS, ages 2 years and older, who had two viral load tests performed with at least one test during each half of the past year. The only region to have performed better than the state average was Western Queens of WCMC. CUMC, East Harlem and the Upper East Side of WCMC, and LM all performed lower than the state average.

Pediatric Care

There were four quality metrics related to pediatric care.

First, a **lead screening** metric measured the percentage of children who had a lead screening test done. The Upper East Side of WCMC and LM performed lower than the state average. CUMC, East Harlem and Western Queens of WCMC performed higher than the state average.

Second, a **well-child care** metric measured the percentage of children who had five or more well-child visits with a primary care provider in their first 15 months of life. CUMC, the Upper East Side and Western Queens of WCMC performed lower than the state average of 86.1%. East Harlem of WCMC performed higher than this average. LM performed on par with the state average.

Third, an **ADHD medication** metric measured the percentage of children with a new prescription for ADHD medication and who had one follow-up visit with a practitioner within the 30 days after starting the medication. All regions performed better than the state average.

Fourth, an **ADHD medication** metric measured the percentage of children with a new prescription for ADHD medication who remained on the medication for 7 months and who, in addition to the visit in the Initiation Phase, had at least 2 follow-up visits in the 9-month period after the initiation phase ended. Data was only available for South West Bronx of CUMC which performed better than the state average.

Prevention Screening

There were three quality metrics for prevention screenings.

First, a **cervical cancer screening** metric measured the percentage of women, ages 24 to 64 years, who had had cervical cytology performed every 3 years or women, ages 30 to 64 years, who had cervical cytology/human papillomavirus. East Harlem and the Upper East Side of WCMC performed lower than the state average.

Second, a **chlamydia screening** metric measured the percentage of sexually active young women ages 16 to 24 that had at least one test for Chlamydia during the measurement year. The Upper East Side of WCMC was the only region that performed lower than the state average. CUMC, East Harlem and Western Queens of WCMC, and LM all performed higher than the state average.

Third, a **colorectal cancer screening** metric measured the percentage of adults, ages 50 to 75, who had appropriate screening for colorectal cancer. All of WCMC performed lower than the state average. CUMC and LM performed higher than the state average.

Asthma

There were three quality metrics for asthma.

First, an **asthma medication ratio** metric measured percentage of members 5 to 64 years of age who were identified as having persistent asthma and had a ratio of controller medication to total asthma medication of 0.50 or greater during the measurement year.⁵² South West Bronx of CUMC, East Harlem and the Upper East Side of WCMC, and LM all performed lower than the state average on this metric. Northern Manhattan of CUMC and Western Queens of WCMC performed higher than the state average.

Second, a **medication management** metric measured the number of people with asthma who had *50% days* covered. All regions performed better than the state average.

Third, a **medication management** metric measured the number of people with asthma who had *75% days* covered. All regions did better than the state average.

⁵²<http://www.qualitymeasures.ahrq.gov/content.aspx?id=47174>

B.iii. Domain 4: The Prevention Agenda

Objective

Describe the baseline domain 4 metrics (Improve Health Status and Reduce Health Disparities) for the region served by the NYPH PPS. The indicators below, drawn from New York State's Prevention Agenda Dashboard⁵³, reflect the four New York City Boroughs included in the empirically determined service area. We have provided US statistics in a few illustrative cases.

Key findings

- NYC's health statistics are **worse** than NY State's for the following indicator categories:
 - Improve Health Status and Reduce Health Disparities on all metrics
 - Prevent Chronic Diseases on 2/3 of metrics
 - Prevent HIV/STDs on all metrics
 - Racial Disparities in the Promotion of Health for Women, Infants, and Children
- NYC's health statistics are **better** than NY State's for the following indicator categories:
 - Promote Mental Health on all metrics
 - Prevent Substance Abuse on all metrics
- NYC's health statistics are **about the same** as NY State's for the following indicator category:
 - Percentage of preterm birth (Promote Healthy Women, Infants, and Children)
- Health care disparities are most prominent in the Bronx, though some are present in Manhattan.

⁵³ https://apps.health.ny.gov/doh2/applinks/ebi/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard

Improve Health Status and Reduce Health Disparities

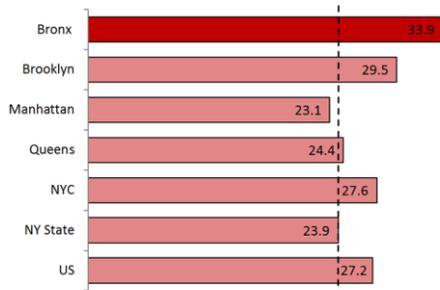


Figure 1. Percentage of premature death (before age 65 years). Note that Bronx County is 10 percentage points higher than NY State.

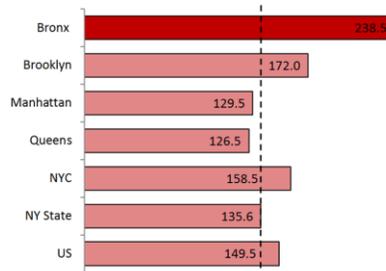


Figure 2. Age-adjusted preventable hospitalizations rate per 10,000 for 18+ years. Note that Bronx County is markedly higher than the rest of New York State.

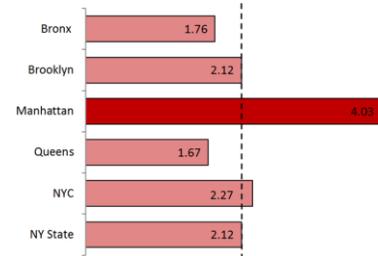


Figure 3. Ratio of Black non-Hispanics to White non-Hispanics for age-adjusted preventable hospitalization rate per 10,000 for 18+ years. Note that the racial disparity in Manhattan is almost double the rate in NY State.

Residents of NYC perform worse than residents of NY State in all health statistics for this category.

- NYC residents have a higher percentage of premature death (27.6% NYC vs. 23.9% NY State, 27.2% US).
- NYC residents have a higher number of age-adjusted preventable hospitalizations per 10,000 people for people 18 years or older (158.5 NYC vs. 135.6 NY State, 149.5 US) (Figure 1).
- Bronx County's preventable hospitalization rate (238.5) is much higher than any of the other counties, NYC, NY State, and the US (Figure 2). For this metric, the largest racial disparity lies in Manhattan, with the ratio of Black non-Hispanics to White non-Hispanics being 4.03 (Figure 3).

Promote Mental Health and Prevention Substance Abuse

Residents of NYC perform better on all three quality metrics regarding mental health and substance abuse than residents of NY State.

- NYC residents have a lower age-adjusted percentage with poor mental health for 14 or more days in the last month
- NYC residents have a lower age-adjusted percentage of adult binge drinking during the past month and a lower age-adjusted suicide death rate per 100.
- Mental health is the worst in the Bronx and Manhattan (Table 2).
- Manhattan has a higher percentage of binge drinking than the rest of NYC and the US, and Manhattan has the highest suicide rate out of the rest of the boroughs (Table 2).

Prevent Chronic Diseases

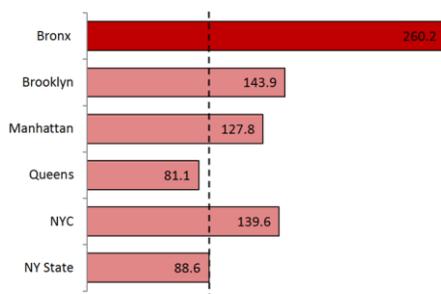


Figure 4. Asthma emergency department visit rate per 10,000. Bronx County's rate is nearly three times that of NY State.

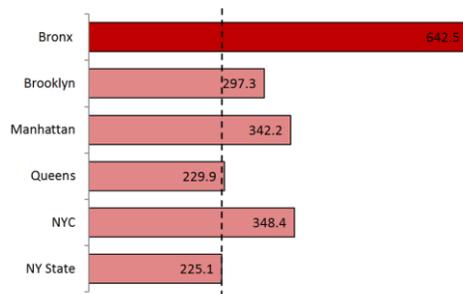


Figure 5. Asthma emergency department visit rate per 10,000 for ages 0-4 years. Note that Bronx County's rate is nearly three times that of NY State.

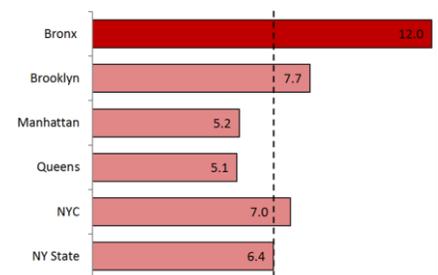


Figure 6. Rate of hospitalizations for short-term complications of diabetes per 10,000 for ages 18+ years. Note that Bronx County's rate is nearly double that of NY State.

Residents of NYC have lower scores than residents of NY State on five out of nine health statistics for this category.

- The percentage of children and adolescents who are obese in NYC is larger than the percentage in NY State and the US (20.7% vs. 17.6% NY State, 17.0% US).
- The asthma emergency department visit rate per 10,000 is much greater for NYC residents than for NY State (139.6 vs. 88.6). Similarly, this statistic for residents ages 0-4 years is greater for NYC residents than for NY state (348.4 vs. 225.1).
 - The greatest disparity is in Bronx County, where the asthma emergency department visit rate per 10,000 is 260.2, and this rate for 0 – 4 year olds is 642.5 (Figures 4, 5).
- The greatest disparity for rate of hospitalizations for short-term complications of diabetes per 10,000 is in Bronx County: for 6 – 17 year olds, the hospitalization rate is 5.0 and for adults, 18 years and older, the rate is 12.0 (Figure 6, Table 3).

Prevent HIV/STDs

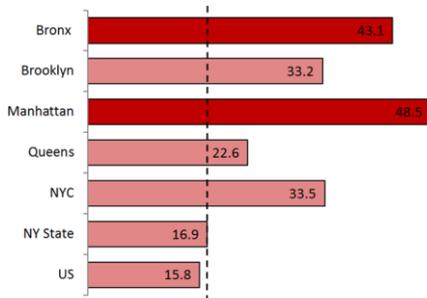


Figure 7. Newly diagnosed HIV case rate per 100,000. Note that this rate is markedly higher in Bronx County and Manhattan than NY State.

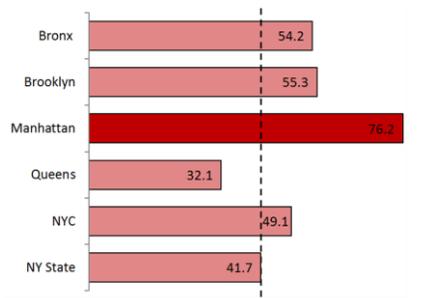


Figure 8. Difference in rates (Black and White) of new HIV diagnoses. Manhattan shows the greatest racial disparity.

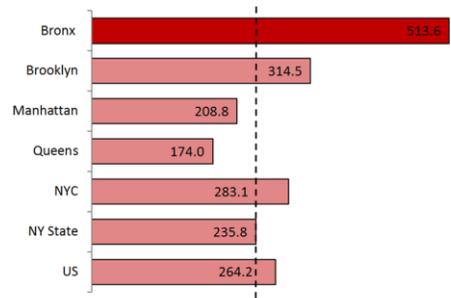


Figure 9. Gonorrhea case rate per 100,000 women ages 15-44 years. Note that in Bronx County the rate is more than twice that of NY State.

NYC performs worse than NY State on all sexual health statistics for this category.

- NYC has a much higher rate of new HIV diagnoses per 100,000 than NY State and the US (33.5 vs. 16.9 NY State, 15.8 US).
 - The disparities are in Bronx County and Manhattan, which have much higher HIV diagnoses rates than NYC, NY State and the US (43.1 Bronx, 48.5 Manhattan) (Figure 7).
 - The racial disparity is largest in Manhattan, where the difference in rates between Black and White new HIV diagnoses is 76.2 (Figure 8).
- The Gonorrhea case rate per 100,000 for 15 – 44 year old men and women is higher in NYC than NY State and the US.
 - For women, it is the highest in Bronx County, at 513.6 per 100,000 women (Figure 9).
 - The case rates of Gonorrhea in men in Manhattan and Bronx County are much higher than NYC, NY State, and the US (673.3 Manhattan, 584.7 Bronx) (Figure 10).
- The Chlamydia case rate for 100,000 women aged 15-44 years is much higher in NYC than NY State (2047.6 vs. 1625.1) (Figure 11).
 - The disparity is in Bronx, where the Chlamydia case rate for women is 3508.2 per 100,000 women, which is more than double the rate in NY State.
- The primary and secondary syphilis case rate per 100,000 males is higher in NYC than NY State and the US. For males it is much higher in Manhattan at 49.1 cases per 100,000 males (Figure 12).

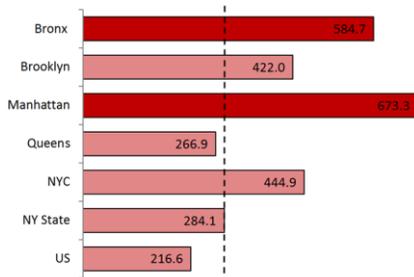


Figure 10. Gonorrhea case rate per 100,000 men ages 15 – 44 years. Note that this rate is markedly higher in Bronx County and Manhattan than in the rest of NY State.

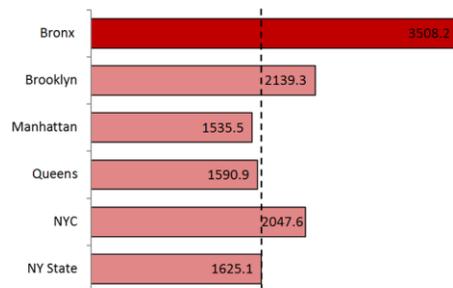


Figure 11. Chlamydia case rate per 100,000 women ages 15 – 44 years. The rate in Bronx County is more than double the rate in NY State.



Figure 12. Primary and secondary syphilis case rate per 100,000 males. Note that the rate in Manhattan is almost four times that in NY State.

Promote Healthy Women, Infants, and Children

NYC performs the same as NY State and better than the US in the percentage of preterm births. However, NYC shows greater racial disparities than NY State and the US in this metric.

- The percentage of preterm births was 10.8% in NYC and NY State, which is lower than in the US (11.6%).
 - The disparities are marked in Brooklyn, where the ratio of Black non-Hispanics to White non-Hispanics is 2.12 (Table 5).

Lessons Learned from Health Care Resource Assessment

- NYC performs worse than NY State in the majority of indicator categories:
 - Improve Health Status and Reduce Health Disparities on all metrics
 - Prevent Chronic Diseases on 2/3 of metrics
 - Prevent HIV/STDs on all metrics
 - Promote Health Women, Infants, and Children on racial disparities
- The disparities most commonly occur in the Bronx and some are present in Manhattan. Both these areas are included in the proposed PPS service area.
 - In the Bronx, the disparities are most notably:
 - Percentage of premature death (before age 65 years)
 - Age-adjusted preventable hospitalizations rate per 10,000 for adults, 18 years of age and older
 - Asthma emergency department visit rate per 10,000
 - Asthma emergency department visit rate per 10,000 for 0 – 4 year olds
 - Rate of hospitalizations for short-term complications of diabetes per 10,000 for adults, 18 years of age and older
 - Newly diagnosed HIV case rate per 100,000
 - Gonorrhea case rate per 100,000 for 15 – 44 year old women
 - Gonorrhea case rate per 100,000 for 15 – 44 year old men
 - Chlamydia case rate per 100,000 for 15 – 44 year old men
 - In Manhattan, the disparities are most notably:
 - Ratio of Black non-Hispanics to White non-Hispanics for age-adjusted preventable hospitalization rate per 10,000 for adults, 18 years of age and older
 - Newly diagnosed HIV case rate per 100,000
 - Differences in rates (Black and White) of new HIV diagnoses
 - Gonorrhea case rate per 100,000 men ages 15 – 44 years
 - Primary and secondary syphilis case rate per 100,000 males

Table 1. Improve Health Status and Reduce Health Disparities

| | | Data Years | US | NY State | NYC | Bronx | Brooklyn | Manhattan | Queens |
|---|---|--------------------------------------|-------------------|----------|-------|-------|----------|-----------|--------|
| 1 | Percentage of premature death (before age 65 years) | US: 2011 NY: 2012 NYC: 2012 | 27.2 | 23.9 | 27.6 | 33.9 | 29.5 | 23.1 | 24.4 |
| 2 | Ratio of Black non-Hispanics to White non-Hispanics | US: 2011 NY: 2012 NYC: 2010-12 | 1.85 | 1.99 | 2.10 | 2.52 | 2.08 | 1.85 | 2.10 |
| 3 | Ratio of Hispanics to White non-Hispanics | US: 2011 NY: 2012 NYC: 2010-12 | 1.78 | 1.97 | 2.04 | 2.43 | 2.01 | 1.69 | 2.27 |
| 4 | Age-adjusted preventable hospitalizations rate per 10,000 - Aged 18+ years | US: 2010 NY: 2012 NYC: 2012 | 149.5 | 135.6 | 158.5 | 238.5 | 172.0 | 129.5 | 126.5 |
| 5 | Ratio of Black non-Hispanics to White non-Hispanics | US: n/a NY: 2012 NYC: 2010-12 | - | 2.12 | 2.27 | 1.76 | 2.12 | 4.03 | 1.67 |
| 6 | Ratio of Hispanics to White non-Hispanics | US: n/a NY: 2012 NYC: 2010-12 | - | 1.62 | 1.58 | 1.40 | 1.63 | 2.55 | 0.95 |
| 7 | Percentage of adults with health insurance - Aged 18-64 years | US: 2012 NY: 2011 NYC: 2011 | 79.6 [†] | 83.7 | - | 78.4 | 80.1 | 85.9 | 75.1 |
| 8 | Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years | US: n/a NY: 2012 NYC 2008-09 | - | 81.5 | 77.5 | 81.6 | 83.9 | 83.5 | 85.9 |

Key

† : The measure is “percentage of adults who have any kind of healthcare coverage ages 18-65”

Sources: 1) New York State Prevention Agenda Dashboard – State Level. New York State Department of Health, 2014

2) Prevalence and Trends Data. Behavioral Risk Factor Surveillance System (BRFSS), 2012

3) Deaths: Final Data for 2011. National Vital Statistics Report (NVSR). Centers for Disease Control and Prevention (CDC), 2011

4) Prevention Quality Indicator v4.5 Benchmark Data Tables. Agency for Healthcare Research and Quality (AHRQ), 2013

Table 2. Promote Mental Health and Prevention Substance Abuse

| | | Data Years | US | NY State | NYC | Bronx | Brooklyn | Manhattan | Queens |
|---|---|--------------------------------------|------|----------|------|-------|----------|-----------|--------|
| 1 | Age-adjusted percentage of adults with poor mental health for 14 or more days in the last month | US: n/a NY: 2012 NYC: 2008-09 | - | 12.2 | 9.2 | 9.1 | 7.4 | 8.9 | 7.2 |
| 2 | Age-adjusted percentage of adult binge drinking during the past month | US: 2012 NY: 2012 NYC: 2008-09 | 16.9 | 17.7 | 15.9 | 11.4 | 11.5 | 17.3 | 11.5 |
| 3 | Age-adjusted suicide death rate per 100,000 | US: n/a NY: 2012 NYC: 2010-12 | - | 8.0 | 5.7 | 5.4 | 4.6 | 6.9 | 6.1 |

Key

Sources: 1) New York State Prevention Agenda Dashboard – State Level. New York State Department of Health, 2014
2) Prevalence and Trends Data. Behavioral Risk Factor Surveillance System (BRFSS), 2012

Table 3. Prevent Chronic Diseases

| | | Data Years | US | NY State | NYC | Bronx | Brooklyn | Manhattan | Queens |
|---|---|--|------|----------|-------|-------|----------|-----------|--------|
| 1 | Percentage of adults who are obese | US:2011 NY: 2012 NYC: 2009* | 27.8 | 23.6 | 22.1 | 29.3 | 25.6 | 16.1 | 22.6 |
| 2 | Percentage of children and adolescents who are obese | US: 2011-12 NY: 2010-12 NYC: 2009-10** | 17.0 | 17.6# | 20.7 | 23.5 | 21.7 | 20.1 | 21.1 |
| 3 | Percentage of cigarette smoking among adults | US: 2012 NY: 2012 NYC: 2009 | 18.1 | 16.2 | - | 18.1 | 16.1 | 15.0 | 14.6 |
| 4 | Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines - Aged 50-75 years | US: 2010 NY: 2012 NYC: n/a | 59.2 | 67.3 | - | - | - | - | - |
| 5 | Asthma emergency department visit rate per 10,000 | US: n/a NY: 2012 NYC: 2012 | - | 88.6 | 139.6 | 260.2 | 143.9 | 127.8 | 81.1 |
| 6 | Asthma emergency department visit rate per 10,000 - Aged 0-4 years | US: n/a NY: 2012 NYC: 2012 | - | 225.1 | 348.4 | 642.5 | 297.3 | 342.2 | 229.9 |
| 7 | Age-adjusted heart attack hospitalization rate per 10,000 | US: n/a NY: 2012 NYC: 2012 | - | 15.1 | 13.5 | 14.6 | 15.9 | 10.1 | 13.3 |
| 8 | Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 6-17 years | US: n/a NY: 2012 NYC: 2010-12 | - | 3.1 | 3.4 | 5.0 | 3.7 | 3.0 | 2.3 |
| 9 | Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 18+ years | US: n/a NY: 2012 NYC: 2010-12 | - | 6.4 | 7.0 | 12.0 | 7.7 | 5.2 | 5.1 |

Key

: New York State (excluding NYC)

* : NYC data comes from 2011

** : NYC data comes from 2010-2011

Sources: 1) New York State Prevention Agenda Dashboard – State Level. New York State Department of Health, 2014

2) Childhood Obesity Facts. Centers for Disease Control and Prevention (CDC), 2014

3) Current Cigarette Smoking Among Adults – United States, 2005 – 2012. Centers for Disease Control and Prevention (CDC), 2014

4) Overweight and Obesity. New York State Department of Health, 2011

5) Colorectal cancer screening: persons 50-75 years. Health Indicators Warehouse.

Table 4. Prevent HIV/STDs

| | | Data Years | US | NY State | NYC | Bronx | Brooklyn | Manhattan | Queens |
|---|--|--------------------------------------|--------|----------|--------|--------|----------|-----------|--------|
| 1 | Newly diagnosed HIV case rate per 100,000 | US: 2011 NY: 2012 NYC: 2010-12 | 15.8 | 16.9 | 33.5 | 43.1 | 33.2 | 48.5 | 22.6 |
| 2 | Difference in rates (Black and White) of new HIV diagnoses | US: n/a NY: 2012 NYC: 2010-12 | - | 41.7 | 49.1 | 54.2 | 55.3 | 76.2 | 32.1 |
| 3 | Difference in rates (Hispanic and White) of new HIV diagnoses | US: n/a NY: 2012 NYC: 2010-12 | - | 22.6 | 21.6 | 23.8 | 22.9 | 26.4 | 21.0 |
| 4 | Gonorrhea case rate per 100,000 women - Aged 15-44 years | US: 2011 NY: 2012 NYC: 2012 | 264.2 | 235.8 | 283.1 | 513.6 | 314.5 | 208.8 | 174.0 |
| 5 | Gonorrhea case rate per 100,000 men - Aged 15-44 years | US: 2011 NY: 2012 NYC: 2012 | 216.6 | 284.1 | 444.9 | 584.7 | 422.0 | 673.3 | 266.9 |
| 6 | Chlamydia case rate per 100,000 women - Aged 15-44 years | US: 2010 NY: 2012 NYC: 2012 | 610.6† | 1625.1 | 2047.6 | 3508.2 | 2139.3 | 1535.5 | 1590.9 |
| 7 | Primary and secondary syphilis case rate per 100,000 males | US: 2010 NY: 2012 NYC: 2012 | 7.9 | 12.4 | 24.3 | 25.8 | 21.2 | 49.1 | 14.0 |
| 8 | Primary and secondary syphilis case rate per 100,000 females | US: 2010 NY: 2012 NYC: 2012 | 1.1 | 0.5 | 0.7 | 0.9 | 0.7 | 0.6 | 0.7 |

Key

† : This statistic is for all ages, not solely 15-44 years

Sources: 1) New York State Prevention Agenda Dashboard – State Level. New York State Department of Health, 2014

2) Gonorrhea: females 15-44 years (per 100,000). Health Indicators Warehouse.

3) Gonorrhea: males 15-44 years (per 100,000). Health Indicators Warehouse.

4) Sexually Transmitted Disease Surveillance 2010. Centers for Disease Control and Prevention (CDC), 2011.

5) Diagnoses of HIV Infection in the United States and Dependent Areas, 2011. Centers for Disease Control and Prevention (CDC), 2013.

Table 5. Promote Healthy Women, Infants, and Children

| | | Data Years | US | NY State | NYC | Bronx | Brooklyn | Manhattan | Queens |
|---|--|--------------------------------------|-----------|-----------------|------------|--------------|-----------------|------------------|---------------|
| 1 | Percentage of preterm births | US: 2012 NY: 2012 NYC: 2012 | 11.6 | 10.8 | 10.8 | 12.2 | 10.9 | 9.9 | 10.4 |
| 2 | Ratio of Black non-Hispanics to White non-Hispanics | US: 2012 NY: 2012 NYC: 2010-12 | 1.61 | 1.64 | 1.80 | 1.41 | 2.12 | 1.65 | 1.71 |
| 3 | Ratio of Hispanics to White non-Hispanics | US: 2012 NY: 2012 NYC: 2010-12 | 1.13 | 1.27 | 1.39 | 1.21 | 1.60 | 1.27 | 1.37 |

Sources: 1) New York State Prevention Agenda Dashboard – State Level. New York State Department of Health, 2014
2) Births: Final Data for 2012. Centers for Disease Control and Prevention (CDC), 2013

C. Health and Health Service Challenges Facing the Community

We asked community leaders to identify health and health service challenges facing their respective populations via a survey. There were 33 respondents representing 24 community organizations. The respondents were generally leaders within their organizations, including 5 CEO / President level individuals, and 7 vice-president level individuals.

The types of organizations that participated in the survey included private healthcare organizations, community outreach organizations, community board members, and a number of community physicians. The populations served by these organizations include: elderly individuals, people with a chronic condition or multiple chronic conditions, the homeless, people with a mental illness, people with disabilities, people of low socioeconomic status, and the uninsured.

All the organizations provide services to individuals served by the proposed NewYork-Presbyterian PPS. Half (57%) were most closely connected with Columbia University Medical Center (including the Allen Campus), a quarter (24%) were most closely associated with the Lower Manhattan Hospital, and a quarter (19%) with Weill Cornell Medical Center.

A thematic analysis of the free-text responses was conducted to determine similarities in challenges facing the community. We first provide a summary of the universal concerns that appeared throughout the survey responses. We then review the responses by category, with further details.

Overarching Themes

Community health collaborators described multiple health and health service challenges preventing individuals from receiving high quality primary care. Gaps that repeatedly showed up across the different questions include:

Affordability. The costs of living, healthcare, and social services in New York City are high and can be especially burdensome for individuals who are elderly, disabled, and chronically ill. In addition respondents raised concern with the affordability of health and health-related goods and services such as prescription medication.

Access. There is limited availability of key services, such as appointments with specialty physicians, mental health services, education programs, day programs, and some social services.

Culture. Language barriers and cultural factors may prevent some individuals from seeking appropriate care. Culturally diverse providers of care (including community health workers) may understand the reservations of particular populations to seek care and target their needs.

Education. Several populations would benefit from education about (1) healthier living choices, (2) how to best use the US health care system, and (3) how to obtain sufficient health insurance. Such education would be particularly helpful for elderly patients, newcomers to the health system, and individuals with multiple appointments and complex care.

Accessibility. For people with disabilities, there is a need to improve accessibility to the transportation system, various support programs, and information technology (such as computers and smart phones).

Behavioral risk factors

“[T]he population we serve is mostly recently arrived immigrants. [M]any are undocumented and do not qualify for Medicaid for regular care. So many wait until their health becomes emergencies and then qualify for emergency Medicaid.”

Behavioral risk factors included issues that related to healthcare use, life style choices, and cultural factors.

Inappropriate healthcare use. Many individuals wait until an emergency arises before seeking care, leading to an increased burden on emergency departments. Poor compliance with treatment regimens can also worsen health outcomes. Lack of education about healthy lifestyles, and poor knowledge of how to appropriately use the healthcare system were mentioned as contributing factors.

Cultural factors and language barriers. These may lead to low utilization of healthcare resources. For example, one respondent wrote, “[S]ome people do not like to express their feelings leading to depression or suicidal thoughts.”

High-risk behaviors. Tobacco use, substance abuse, high risk sexual encounters, and poor nutritional choices may negatively affect health, and are common in many New York City populations.

Environmental risk factors

“Lack of repairs in apartments that effect asthma and other chronic health conditions.”

Environmental risk factors included issues related to housing, the built environment, and toxic exposures.

Housing factors included poor or unsanitary living conditions. Additional problems included overcrowding of housing, and low availability of apartments in the city.

Built environment factors included concerns about poor safety around construction zones, and lack of green space for recreation.

Toxic exposures factors included concerns about pollution around construction areas, poor air quality, and lead paint.

Socioeconomic factors

“Low income clients may not realize they can access health insurance or other low cost medical care and will therefore not go to the doctor until an emergency arises.”

Socioeconomic factors included low socioeconomic status and barrier to economic opportunities.

Low socioeconomic status may persist because of unemployment, lack of employment opportunities, and limited education. Individuals may find it difficult to keep up with the high cost of living and high cost of healthcare.

Language barriers and *cultural differences* may prevent individuals from effectively communicating with potential employers, limiting economic opportunities.

Basic Necessity Resources

“There are vacuums of culturally and linguistically sensitive information in immigrant communities. It is imperative for larger and well established organizations to partner with smaller organizations to jointly produce co-branded material that is more digestible in communities where immigrants live and work.”

Basic necessity resource challenges included housing, access to healthy food, education, day care, and healthcare.

Housing concerns included high cost of housing, overcrowding issues, and poor availability of spaces.

Healthy food options are limited, especially affordable healthy foods.

Education resources are not readily available to the population.

Day Care options for children are either not available or not affordable.

Healthcare access and quality is limited.

People with disabilities

“They [people with disabilities] do not have computers or access to cell phones with the capacity for self-directed care.”

Challenges facing people with disabilities included inadequate infrastructure accommodation, barriers to care, insufficient education, and stigma.

Infrastructure for accommodation. There are problems with existing infrastructure in the built environment and in the availability of assistive devices. For example, curbs or uneven sidewalks may impede individuals with physical disabilities. Housing may lack elevators, limiting housing options for people with disabilities. In addition, poor access to information technology was also seen as a barrier.

Barriers to Care. People with disabilities may be unable to afford needed services. Individuals often find the complexity of the system to be overwhelming. Many find it difficult, for example, to coordinate multiple clinician appointments at different locations.

Education. One respondent explained that those with insurance do not know their benefits or what to access. There are also insufficient numbers of trained staff that specialize in caring for the disabled population.

Stigma. Biases against disabilities may prevent individuals from seeking care when needed.

State and City Policies

“An incentive policy for people who can demonstrate regular relationship and connection to primary care, such as a rebate or tax credit.”

Several suggestions were made for state and city policies to support improvements to the physical environment, healthier living, and access to educational and community programs.

Physical environment. Respondents suggested creating smoke and/or drug free parks, designation of “safe spaces” for the community, and improving maintenance sidewalks. Many respondents suggested improved access to affordable resources such as housing. Others suggested improved transportation.

Healthier living. Policy suggestions included improving availability of healthy foods and better labeling of food items. Some recommended awareness campaigns to encourage reduction in illegal drug use, and to encourage safe sex practices.

Access to educational and community programs. Educational services in schools and communities could include topics such as general wellbeing, or specific chronic conditions like diabetes and hypertension. Day programs may particularly engage the elderly community.

Gaps in access to primary or specialty medical care

“Patients have unpleasant experiences visiting large medical groups with extremely long wait times, seeing a different doctor every time they go.”

Gaps in access to primary or specialty medical care included insufficient primary and specialty care, insufficient mental health care services, problems with insurance, and cultural/educational barriers.

Insufficient Primary Care. Poor care continuity leads people to wait until emergencies to seek care. The general cost and cost related to health insurances was also seen as a potential gap. There was also concern about limited availability of specialty care.

Health Insurance. One respondent stated that it becomes hard for particular people to find physicians that accept their form of insurance. Another stated that there is a lack of “good physicians who accept Medicaid.”

Cultural / Educational Barriers. People prefer visiting physicians with common language, ethnic, and/or religious backgrounds. However, such physicians are often in short supply. When individuals are not culturally, linguistically, or religiously aligned with their physicians, they may not understand the advice provided by physicians, or may opt not to seek needed care.

Gaps in access to health insurance

“Understanding insurance options and being able to afford coverage. One-on-one counseling helps but assistance is not always available. There is great need for such assistance in the community as well as a need for funding to counsel clients on how to use their insurance to access the care they need.”

Challenges related to access to health insurance included:

Lack of education or knowledge about insurance plans, such as what their coverage offers and what it doesn't.

Poor access to IT resources such as computers or smart phones

High cost of both healthcare and insurance plans

System complexity as explained by one respondent as the “inability of community residents to navigate the healthcare system.”

Lengthy forms causing people to be less motivated about completing the process.

Gaps in access to transportation

“Undocumented communities often fear getting into subways and/or buses where they think some authority could ‘catch’ them and deport them. Also, for some, it will take a long time to learn to navigate the NYC public system. Many immigrants come from places where there is no public transportation system or very limited public transportation.”

Challenges related to transportation included availability, affordability, reliability, and handicap accessibility. In addition, *cultural differences, language barriers, and lack of knowledge* make it difficult for this population to appropriately communicate their transportation needs.

Other comments

“Many immigrants come from foreign communities where health systems were weak or inaccessible. Many come predisposed to illnesses that could be preventable but don’t know their family medical history. For some men, it is culturally acceptable to not seek medical attention. For some women, it is offensive to have male doctors examine them.”

Respondents had other comments that they shared that did not fit into any of the categories previously described. The general categories these comments fell into included life style and healthcare delivery.

Life style issues included cultural differences. Respondents emphasized this by stating that they serve a diverse population with various needs. Thus, care needs to be focused by community to properly address their needs.

Healthcare delivery suggestions were related to cultural differences with one respondent stating that there is a need for community health workers who are familiar with the population they are serving. Many wanted there to be a method to lower the stigma associated with various health issues. They made suggestions for there to be concordance with healthcare work to decrease system complexity and make it easier to access quality care when it is needed. Several respondents highlighted the need for better access and better coordination with mental health care.

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