



# PEOPLE-FOCUSED RESEARCH: PARTICIPATORY ACTION RESEARCH IN CANARSIE, FLATLANDS, AND FLATBUSH

SUMMER 2018





# TABLE OF CONTENTS

<b>About Us</b> . . . . .	4
<b>Introduction</b> . . . . .	8
<b>Overview of Research Findings and Recommendations</b> . . . . .	11
<b>Background</b> . . . . .	14
<b>Neighborhood Profiles</b> . . . . .	21
<b>Methodology</b> . . . . .	36
<b>Research Findings</b> . . . . .	42
<i>Demographic Characteristics</i> . . . . .	43
<i>Top Neighborhood Challenges</i> . . . . .	44
<i>Access to Healthcare Resources</i> . . . . .	45
<i>Health Outcomes and Stress</i> . . . . .	46
<i>Housing</i> . . . . .	47
<i>Public Housing</i> . . . . .	48
<i>Economic Well-Being</i> . . . . .	49
<i>Education and Youth Development</i> . . . . .	50
<i>Food Access</i> . . . . .	51
<i>Transportation</i> . . . . .	52
<i>Public Safety</i> . . . . .	53
<i>Sanitation</i> . . . . .	54
<i>Physical Environment</i> . . . . .	55
<i>Community Involvement</i> . . . . .	56
<b>Recommendations</b> . . . . .	57
<b>Conclusion</b> . . . . .	64
<b>References</b> . . . . .	67

# ABOUT US

## Project Sponsors

### Community Care of Brooklyn (CCB)

David I. Cohen, MD, MSc, Chair, Executive Committee

Karen Nelson, MD, MPH, Chief Medical Officer

Caroline Greene, Senior VP, Population Health and Chief Administrative and Financial Officer

Shari Suchoff, Vice President, Policy & Strategy

Okenfe Lebarty, Senior Community Engagement Specialist

Adetomiwa Owoseni, Program Associate

### Interfaith Medical Center

LaRay Brown, President & Chief Executive Officer

Gina Thompson, LCSW, AVP, Planning & Program Development

Benjamín González, Associate Director, Grants Management

Tajria Afrin, Intern, Ladders for Leaders

Dorcias Eng, MPH, Data Specialist, Grants Management

Alida Ortiz, MS.Ed, Associate, Grants Management

### CCB Community Action and Advocacy Workgroup (CAAW)

Anthony Andrews, Kingsborough Community College

Veronica Aveis, Office of State Senator Roxanne Persaud

Suzanne Beane, Healthfirst

Christine Beckner, Kingsborough Community College

LaRay Brown, Interfaith Medical Center

Randy Cameron, Brooklyn Sprout Social Enterprise LLC

Nora Chaves, Healthfirst

David Cohen, Maimonides CSO

Donna Colonna, Services for the Underserved

Lazetta Duncan-Moore, Brooklyn Plaza Medical Center

Torian Easterling, Department of Health and Mental Hygiene

Barbara Felker, Northwell Health

John Flateau, Medgar Evers College

Paulette Forbes, Worker Council

Benjamin Gonzalez, Interfaith Medical Center

Roger Green, CUNY Law

Caroline Greene, Maimonides CSO

Elizabeth Jean-Jacques, Healthfirst

Lesly Kernisant, Brooklyn Plaza Medical Center

Harvey Lawrence, BMS Family Health Center

Okenfe Lebarty, Maimonides CSO

# ABOUT US

Joyce Leiz, Kingsbrook Jewish Medical Center  
Debra Lesane, Caribbean Women's Health Association  
Mohamed Mohamed, Office of Congresswoman Yvette Clarke  
Kemmely Mondell, 1199 Funds  
Genese Morgan, BMS Family Health Center  
Renee Muir, BMS Family Health Center  
Karen Nelson, Maimonides CSO  
Nancy Nemorin, Kingsborough Community College  
Alida Ortiz, Interfaith Medical Center  
Adetomiwa Owoeni, Maimonides CSO  
Chris Pernell, Labor Management Project  
Cynthia Piard, Brooklyn Plaza Medical Center  
Selena Pitt, 1199 Funds  
Rosemary Polanco, BMS Family Health Center  
Maurice Reid, Alliance for Healthy Communities  
Bruce Richard, 1199  
Anne A. Richards, Office of Assemblymember Jaime Williams  
Branch Shatavia, Northwell Health  
Shari Suchoff, Maimonides CSO  
Gretchen Susi, MIT Community Innovators Lab  
Denise West, Brooklyn Perinatal Network  
Sarah Wolf, Bedford Stuyvesant Restoration Corporation  
Marilyn N. Worrell, Ifetayo Cultural Arts Academy

## Research Team

### **MIT Community Innovators Lab (CoLab)**

Dayna Cunningham, JD, MBA, Principal Investigator  
Gretchen Susi, Ph.D., Project Lead  
Alexis Harrison, MCP, Project Manager  
Jenai Jackson, MPH, Project Manager  
Nora Von Moltke-Simms, Project Intern

### **DuBois Bunche Center for Public Policy, Medgar Evers College, RF CUNY**

Prof. John Flateau, Ph.D., MPA, Principal Investigator  
Sidney Parker, GIS Manager  
Kei Yeung Chan, Research Assistant

### **Kingsborough Community College**

Nancy Nemorin, MS, Principal Investigator

# ABOUT US

## **Wellness Empowerment for Brooklyn (WEB) Research Team**

### ***Graduate Researchers***

Saradia Eugene, Long Island University (alumna)

Tynesia Fields, Brown University

Annastasia Harris, Metropolitan College of New York (alumna)

Catherine Vautor-Laplaceliere, Graduate Center of the City University of New York (alumna)

### ***Undergraduate Researchers***

Fritz Doyle, Medgar Evers College

Crystal Gilbert, Kingsborough Community College

Monique Hall, Kingsborough Community College

Khaalida Jones, Medgar Evers College

Nadine Khan, Medgar Evers College

Karin Mejia, Kingsborough Community College

Jeffannie O'Garro, Medgar Evers College

Allyssa Oyelade, Medgar Evers College

Reann Oyola, Medgar Evers College

Briana Nugent, Kingsborough Community College

Brianna Parker, Medgar Evers College

Anthony Taylor, Medgar Evers College

### ***High School Researchers***

#### ***Academy for Conservation & the Environment***

Catiouceca Jean-Louis

Rofiat Abodunrin

#### ***Academy of Hospitality and Tourism (Erasmus)***

Janell Morse

Cashmere Samuel

#### ***High School for Innovation in Advertising & Media***

Derek Murrain

Melky Saint Surin

#### ***High School for Medical Professions***

Tiron Chance

Carl Onel Lagradelle

Olayinka Ogunye

Samuel Ogunyemi

Cameron Singh

# ABOUT US

## ***High School for Youth and Community Development***

Remab Alexander

Horacio Cruz

Alvin Moe

Marc Andre Patrice Jean

## ***Victory Collegiate***

Rougui Diallo

## ***Urban Action Academy***

Jovenska Bernardin

Nicholas Fraser

Sharmaina Lumpkins

Kenyon Simon

## ***Science, Technology, & Research (STAR) Early College High School***

Zyann Archibald

Alianny Canela

Cierra Clarke

Gladwyn Gillis II

Jadhia Harper

Maimuna Islam

# INTRODUCTION

*During the summer of 2018, 42 students from Central Brooklyn high schools, colleges and universities came together under the banner of Wellness Empowerment for Brooklyn (WEB) as the Canarsie, Flatlands and Flatbush Participatory Action Research (CFF PAR) Team. The team was assembled to provide a youth- and community-generated understanding of how residents of Canarsie, Flatlands and Flatbush (CFF) perceive their own health, the health of their community, and what types of changes they believe will improve health and wellbeing in their neighborhoods.*

# INTRODUCTION

Canarsie, Flatlands and Flatbush are vibrant, ethnically diverse communities, proximate to the economic opportunities of the metropolitan region, and rich in community institutions, public works and natural resources. However, there are sections of these neighborhoods where residents face the challenges of high rates of poverty, infant mortality, heart disease, diabetes and obesity, as well as high housing costs that are consistently reported as a source of stress.

New York State and New York City have been investing billions of dollars to address these challenges, from the Delivery System Reform Incentive Payment (DSRIP) program and Governor Cuomo’s Vital Brooklyn, to the New York City Department of Health and Mental Hygiene’s Neighborhood Health Action Centers.

In Brooklyn, many of these investments have been made by Maimonides Medical Center, Brooklyn’s premier specialty care teaching hospital and the designated leader for a **Performing Provider System (PPS)** in the NYS DSRIP program. Known as Community Care of Brooklyn (CCB), the PPS is a network of health care providers and social service organizations working together to achieve targeted improvements in population health and the reduction in avoidable hospital use by Medicaid beneficiaries in Brooklyn. CCB integrates hospitals, Federally Qualified Health Centers, ambulatory care centers, Health Homes and their associated provider networks, long term care providers, as well as both hospital-based and community physicians. CCB has been the leading sponsor of WEB since its inception, convening community stakeholders, providing resources—both financial and human—to PAR community research efforts, and supporting the participatory implementation of the recommendations that have been derived from the PAR studies to date.

WEB is an important part of the continuum of investments being made in New York’s health system. By building the leadership, knowledge and civic infrastructure that are crucial to their success, efforts like WEB can reshape the health care system to address not just physical health more effectively, but the economic, social and cultural factors that so strongly influence the wellbeing of Brooklynites of all ages.

## Overview of the WEB PAR Process

To prepare for their roles as community researchers, the CFF WEB team studied the Community Health Profiles created by the NYC Department of Health and Mental Hygiene (King, L., et. al., 2015) for each of the three study neighborhoods (Canarsie, Flatlands and

### Participating High Schools and Colleges

#### High Schools

*Academy for Conservation and the Environment*

*Academy of Hospitality and Tourism*

*Early College High School*

*High School for Innovation in Advertising and Media*

*High School for Medical Professions*

*High School for Youth and Community Development, Science*

*Technology, and Research (STAR) Early College High School*

*Urban Action Academy High School*

*Victory Collegiate High School*

#### Higher Education

*Kingsborough Community College*

*Medgar Evers College*

### Performing Provider System (PPS)

Coalitions of health care providers led by large safety net hospitals; PPSs carry out DSRIP projects to create system transformation and address population-wide health issues.

Sachs Policy Group, 2018

# INTRODUCTION

Flatbush). They also brought their knowledge as residents and/or students in the neighborhoods as they took an inventory of assets, challenges and potential solutions. The team was trained in the social determinants of health (see page 19) and the fundamentals of participatory action research before they embarked upon the first phase of the research process: identifying key themes and developing research questions.

The WEB team developed a central research question to better understand how residents perceive the assets and challenges to health and wellbeing in their neighborhoods: “In what ways can residents collaborate to increase advocacy and develop initiatives and policies to improve health and wellness in Canarsie, Flatlands and Flatbush?” This question drove the construction of a survey that explored access to healthy food, the physical and social environments, awareness of community resources, and economic, cultural and social health.

Once the survey was developed and translated into Haitian Creole and Spanish, the team took to the streets and meeting places of Canarsie, Flatlands and Flatbush with the goal of surveying 1,000 residents. After two weeks, the team had conducted 1,063 community surveys, surpassing their goal. The team also conducted focus groups and interviews to document as many community voices and experiences as possible over the course of CFF PAR. The team entered the survey data collected, and engaged in reviewing and analyzing the results.

**“In what ways can residents collaborate to increase advocacy and develop initiatives and policies to improve health and wellness in Canarsie, Flatlands and Flatbush?”**

*This central research question drove CFF PAR’s survey development*

# OVERVIEW OF RESEARCH FINDINGS

*The overall findings from the CFF PAR study reveal that, although conditions vary by neighborhood, residents of the Canarsie, Flatlands and Flatbush neighborhoods share many of the same concerns about the health needs and resources of their communities. Following is a summary of some of the key findings. Please see the Findings Chapter for the complete review.*

---



## Neighborhood Assets and Challenges

We learned from our focus groups and interviews that Canarsie, Flatlands and Flatbush residents love the convenience, vibrancy and cultural diversity of their neighborhoods. Survey respondents identified the top four neighborhood challenges to be cost of living (including housing), access to healthy food, safety, and lack of access to places for youth.



## Community Resources

In the community resources section we asked respondents about whether they were aware of the kind of community resources known to support health and wellness existing in their neighborhood. We found relatively low rates of awareness of community resources like childcare, mental health services and job training, with most rates of awareness below 50% and some as low as 10%. In addition, the majority of respondents were not aware of the existence of the Community Board in their neighborhood. Looking forward at how to raise awareness, we found that flyers, word-of-mouth and social media are the top three ways that respondents do learn about community resources. We also learned that the majority of respondents believe that more supports are needed for formerly incarcerated people.



## Health & Health Resources

Our questions about health and health resources focused on access to care, healthy food and fitness options. We learned that the main source of healthy foods for our respondents was grocery stores (as opposed to farmers markets) but also that access to healthy foods was the second-most reported challenge in our questions about top challenges. The vast majority of respondents reported that there are a variety of fitness options in their neighborhood, with the most commonly selected being gyms, local parks and walking.



## Stress

When asked to indicate their stress level during an average week on a scale of 1-5, where 1 is the least and 5 is the most stressed, the majority of our respondents reported a “3.” Work and finances were the most commonly indicated sources of stress. More psychotherapy services and places to relax were the most commonly selected options for helping people to cope with stress.



## Safety & Eliminating Violence

Our two key questions regarding safety and eliminating

# OVERVIEW OF RESEARCH FINDINGS

violence focused on whether respondents think that violence affects their neighborhood and, if so, what type of violence.

Ninety-two percent of our respondents indicated that violence does affect their neighborhoods and reported that gang violence and domestic violence are the two main forms. The majority of those who responded that gang violence is the problem think that more job training and youth development and athletic programs can decrease it.

When asked to rate their level of comfort with police presence in their neighborhoods on a scale of 1-5 where 1 is least and 5 is most comfortable, the majority rated their comfort level at 3, while 28% of respondents indicated a level of 5. It is also important to note that ratings varied by neighborhood, with residents of East New York and Flatbush most likely to have rated their level of comfort at lower than 3.



## Economic Health

The majority of respondents indicated that their housing is affordable, though, at the same time, cost of living, which includes housing, is the top most commonly reported challenge among respondents. The majority of respondents also reported that they find it “somewhat hard” to “very hard” to cover their monthly expenses, with the most responding that it is “somewhat hard.” The majority also selected job opportunities and financial literacy as the most likely ways to improve economic health in the neighborhoods.



## Education

Our questions about education focused on perceptions of school safety and what respondents thought would

most improve schools. Thirty-eight percent of our respondents have children or family members in the neighborhood’s public schools. The majority of respondents believe that schools in the neighborhoods are “somewhat safe” to “very safe.” When asked what they think is most likely to improve neighborhood schools, the top three answers were: fix overcrowded conditions; improve student/teacher relationships; and provide healthier food options.



## Social & Cultural Health and Community & Civic Life

Most respondents indicated that they feel a sense of belonging in their neighborhood and that they do have access to food, clothing and places that are culturally important to them. In our section on community and civic life we asked whether respondents were active in their communities and whether they are aware of their community boards. We found that the two most commonly reported ways of being active in their communities were “talking to neighbors” and “volunteering.”

# OVERVIEW OF RECOMMENDATIONS

*Recommendations based on the study's findings fall into 13 categories:*

---

<b>Overarching Recommendations</b>	<ul style="list-style-type: none"><li>• Promote racial equity and addressing structural racism;</li><li>• Advocate for the financial health of community-based organizations; strengthen the civic infrastructure through joint planning</li><li>• Continue to include community members in ways exemplified in the WEB PAR projects.</li></ul>
<b>Physical and Mental Health</b>	Increase awareness, communication and services, especially for mother and infant health, diabetes care and prevention, and mental health.
<b>Housing</b>	Work with government and advocates to increase truly affordable options and to prevent evictions.
<b>Public Housing</b>	Increase communication and support to public housing residents to improve physical and social conditions.
<b>Economic Well-Being</b>	Increase awareness of existing and create additional opportunities for job training; advocate for family-supporting jobs.
<b>Education &amp; Youth Development</b>	Increase the number and support of youth development and youth athletic programs; reduce school crowding; improve relationships between students and school personnel.
<b>Immigrant Advocacy</b>	Increase awareness about and availability of language services, legal assistance and safe spaces for immigrants.
<b>Food Access</b>	Increase the number of green markets, green carts, gardening programs and healthy food options in schools.
<b>Transportation</b>	Explore innovative and green modes of transportation that can improve access, reduce air pollution and provide potential sources for community wealth generation
<b>Public Safety</b>	Provide more youth and anti-violence programming; increase the availability of programs to support those who have been incarcerated.
<b>Sanitation</b>	Increase the number of sanitation jobs, trash cans and trash pick-up days.
<b>Communication &amp; Community Involvement</b>	Working with Community Boards, CBOs, hospitals, schools and precincts to improve awareness of and access to community resources.
<b>Physical Environment</b>	Increase the number of green spaces and places to relax in those parts of the neighborhood where there are few existing options

# BACKGROUND

*CFF PAR is the third in a series of Wellness Empowerment for Brooklyn (WEB) PAR studies that grew out of the Coalition to Save Interfaith Medical Center. Wellness Empowerment for Brooklyn 2018 is a partnership between Community Care of Brooklyn at Maimonides Medical Center, The DuBois Bunche Center for Public Policy at Medgar Evers College, MIT Community Innovators Lab, and Kingsborough Community College, and supported financially by Community Care of Brooklyn, (CCB) the entity charged by New York State with leading Medicaid and health systems reform in Brooklyn.*

*WEB also benefits from the stewardship of the Community Action and Advocacy Workgroup (CAAW), a CCB committee established to coordinate an in-depth involvement of the local community in the DSRIP process. The CAAW is an alliance of labor, community based organizations, hospitals, elected officials, government agencies and Federally Qualified Health Centers (FQHC). The CAAW meets regularly, supporting day-to-day communication, cooperation and coordination in the interest of the health and wellbeing of Central Brooklyn communities.*

# BACKGROUND

## The Roots of Wellness Empowerment for Brooklyn and the Central Brooklyn PARs

The Coalition to Save Interfaith was catalyzed in 2013 by long-running underfunding, cuts to Medicaid and Medicare and changing market conditions (Berger, S., 2011), which together threatened to close Bedford Stuyvesant’s Interfaith Medical Center (IMC). The Coalition is an alliance of health care workers, labor and community leaders, educators, clergy, business leaders and elected officials working toward a new model of care for Central Brooklyn.

Although the Coalition was formed to save IMC in particular, its efforts were directly relevant to neighboring **safety net hospitals** like Brookdale University Hospital Medical Center (BUHMC) and Kingsbrook Jewish Medical Center (KJMC) that face the same realities and threats that threatened IMC. United against the obstacles that threaten them, these three hospitals have since begun the process of integrating as **One Brooklyn Health Systems**.

### *Preserving and Transforming Health and Hospitals in Central Brooklyn*

When a **safety net hospital** closes, it means a loss of access to healthcare, hospital jobs and anchor institutions in some of the poorest and most densely populated parts of the city and state. The Coalition and its partners aimed not only to preserve these assets and keep Interfaith open, but to transform it as both a hospital and as an actor and asset in the community, by leveraging the opportunities presented by state and local health care restructuring to develop the community wealth necessary for improving wellbeing and health outcomes. The Coalition’s community-driven, asset-based approach to saving and sustaining Interfaith (IMC) was developed through a three-year, highly participatory effort among an organized group of African-American community leaders, labor leaders, elected officials, businesses and academic institutions. The resultant model included:

- Strengthening coordination across systems
- Increasing the supply of family-supporting, wealth-creating jobs
- Building a robust community-owned entrepreneurial ecosystem
- Addressing multi-generational poverty
- Creating equitable development policies and practices, and
- Countering gentrification and related dynamics that displace longtime residents.

#### **Safety Net Hospitals**

Hospitals that serve low-income communities, “with high rates of chronic disease and poverty and low levels of commercial insurance.”

Berger, S., 2011

#### **One Brooklyn Health Systems**

A unified health care system in Central Brooklyn seeking to increase access to quality care and transform the health care system.

# BACKGROUND

In 2014, Governor Cuomo announced the DSRIP program—a multi-year \$6.42 billion reinvestment of Medicaid dollars in New York State with the “primary goal of reducing avoidable hospital use by 25% over 5 years.” DSRIP provided a multifaceted opportunity for the Coalition and its partners to work together in new ways.

CCB is one of the PPS responsible for leading Brooklyn’s DSRIP process. DSRIP funds are significant not just in the amount of funding allocated, but where it is allocated, with millions dedicated to collaborations between hospitals, health care providers, and community based organizations that are known to affect health but exist “beyond hospital walls,” in the neighborhoods of the residents they serve.

## *The Central Brooklyn PAR Projects*

In this context of the urgency of threatened hospital closure, overall health system restructuring, and increasing evidence that community involvement is crucial to improving community health outcomes, Brooklyn healthcare and community stakeholders decided to invest a portion of Brooklyn’s DSRIP dollars in a participatory action research approach designed to:

- Build knowledge about the neighborhoods at stake
- Develop neighborhood-based leadership and capacity
- Engage increased numbers of community members across generations to improve health outcomes and increase overall wellbeing in Central Brooklyn
- Facilitate cross-sector and cross-system collaboration, and
- Increasing the supply of family-supporting, wealth-creating jobs

This collaboration led to CFF PAR and to the PAR I and PAR II Projects.

PAR stands for **participatory action research**, a “framework for creating knowledge that is rooted in the belief that those most impacted by research should take the lead in framing the questions, design, methods and analysis and determining what products and actions might be the most useful in effecting change.” (Torre, M., 2009). PAR is a collaborative and dynamic approach to research that equitably involves community members, neighborhood stakeholders and researchers in all aspects of the research project—from generating the questions asked to analyzing and publishing the data.

## PAR I

---

**When:** 2016

**Where:** Brownsville, East New York

**Research Question:** *“How do we mobilize the Brownsville and East New York communities to address the social, physical and environmental inequalities that affect health?”*

**Focus of Recommendations:** Food justice; Nutrition; Physical activity

## PAR II

---

**When:** 2017

**Where:** Bedford Stuyvesant, Crown Heights, East Flatbush

**Research Question:** *“How can residents build power to pool existing assets and demand increased investment in a healthier, more supportive and more affordable Central Brooklyn now, and in the future?”*

**Focus of Recommendations:**

Housing affordability through equitable development strategies; Individual income and community wealth; Local organizing capacity; Hospitals as economic and community anchors; Health care workers’ in community leadership roles

# BACKGROUND

CCB and the CAAW are working to implement the recommendations from all three PAR studies, and undertaking a comprehensive planning process and developing plans to broaden the collaboration by exploring which types of campaigns and policy interventions will result in the most positive change. Thus far, CCB's implementation efforts have included:



*The Healthy Savings Program with the Mayor's Office of Food Policy and Federally Qualified Health Centers*



*A farm-to-institution initiative in partnership with the Bedford Stuyvesant Restoration Center*



*Building hydroponic farms in partnership with Brooklyn Sprout and Teens for Food Justice*



*The Fan 4 Kids year-round fitness and nutrition education program that services under-served elementary schools in Brownsville and East New York*



*Initiating a Food Justice workgroup to better understand the food system landscape of Central and East Brooklyn*

These efforts continue and are being expanded as the CCB WEB team undertakes a comprehensive planning process for implementing the recommendations that have been generated by all of the PAR studies to date.

## The Impact of the Central Brooklyn PARs to Date

In March 2017, Governor Cuomo announced **Vital Brooklyn**, a \$1.4 billion initiative, designed to be “a model for community development and wellness.”

The PAR projects were in a position to directly inform Vital Brooklyn's explicit focus on the social determinants of health, its participatory approach to stakeholder coordination, and its commitment to building a wellness based community-owned entrepreneurial ecosystem. The partners and sponsors of the Central Brooklyn PARs are proud to have contributed to Vital Brooklyn's necessary departure from approaches that seek to increase access and cut costs without addressing the contexts in which community members are living.

The Brooklyn PARs have also helped to catalyze important

### 2013

Interfaith Medical Center in danger of closing

Coalition to Save Interfaith formed

### 2014

DSRIP announced

CCB established

### 2015

CCB workgroup on drivers of cardiovascular health in Central Brooklyn formed

PAR 1 commissioned

### 2016

PAR I: Brownsville, East New York

### 2017

Vital Brooklyn announced

PAR II: Bedford-Stuyvesant, Crown Heights, East New York

### 2018

CFF PAR: Canarsie, Flatlands, Flatbush

# BACKGROUND

investments in Central Brooklyn, particularly by informing the eight areas of Vital Brooklyn’s investment. The Coalition to Save Interfaith and the research of the Brooklyn PARs have amplified the voices of Central Brooklyn community members, trained a growing cadre of high school and college students from Central Brooklyn in the social determinants of health and participatory action research, and developed young community health leaders.

Building on the track record of PAR I and PAR II, and recognizing the unprecedented opportunities presented by health care reform in New York, the Wellness Empowerment for Brooklyn 2018 team puts forth this report on CFF PAR with the intention that it, too, will catalyze the economic, community, institutional and leadership resources required to effect measurable change in health and wellbeing in Central Brooklyn.

## The Brooklyn PAR Approach: Health Equity and the Social Determinants of Health

The Central Brooklyn PARs have taken two complementary approaches to improving individual and community health: (1) **health equity** and (2) the **social determinants of health** (SDOH).

Research demonstrates that factors such as physical environment, food insecurity, housing instability, unemployment, poverty, and lack of wealth are associated with increased risk of poor health, more healthcare utilization, and higher healthcare costs. In New York City, this reality contributes to neighborhood-level differences in life expectancy by as much as ten years (Li, et al. 2017). Addressing non-medical needs (the social determinants of health) can significantly improve individual and population health, often more decisively than improvements in medical care (Weinstein et. al., 2017).

Biases and structural inequities also have significant effects on places, affecting health and driving disparities in outcomes. A person’s zip code affects access to quality education, housing options, rent levels, exposure to violence, crime and toxins, as well as levels of social capital—all of which are key determinants of health. Risks for smoking, low levels of physical activity, and obesity also have been shown to be associated with place, even after taking into account the individual characteristics of residents (Diez Roux, 2001).



For far too long, chronic disparities in healthcare have contributed to systemic poverty in Central Brooklyn, and **Vital Brooklyn** is a national model for tackling those challenges and addressing every facet of community wellness. This holistic investment creates a sustainable, unified health care system to empower historically underserved communities, support health and wellness and ensure a brighter future for the people of Brooklyn.”

<https://www.ny.gov/transforming-central-brooklyn/vital-brooklyn-initiative-0>

### Health Equity

The notion that “everyone has a just and fair opportunity to be healthier,” or “social justice in health,” meaning that no one is denied the possibility to be healthy for belonging to a group that has historically been economically or socially disadvantaged.

Braveman, 2006; Braveman & Gottlieb, 2014

# BACKGROUND

In sum, the **SDOH** approach is helpful in identifying the relationships between a) the underlying causes of poor health; b) the role of community-based interventions; and c) ways to promote health equity. Because of the dynamic relationship between all of these factors, there is a need to consider multi-scalar (e.g. individual, community, city, state, etc.) and multi-sector interventions for improving the social determinants of health in Brooklyn neighborhoods and produce wide-ranging health benefits.

## Social Determinants of Health Considered in CFF PAR

The following SDOHs were considered in CFF PAR, and are closely related to the indicators examined in the Neighborhood Profiles section of the report.

### *Income & Wealth*

“More income increases access to nutritious food and other health-promoting goods and services, and can reduce stress by making it easier to cope with daily challenges. More income can buy the ability to live in a safe neighborhood with good public schools or send children to private schools. This can affect a child’s ultimate educational attainment, which in turns shapes job prospects and thus income levels in adulthood.”

*(Braveman and Egerter, 2013)*

### *Housing*

Housing plays a key role in health, from its quality and condition to its cost. Poor quality housing can cause illnesses, for example respiratory illness caused by exposure to moldy housing. The cost of housing can also affect health, introducing additional stress when housing costs are unaffordable.

### *Early Life*

“A good start in life means supporting mothers and young children: the health impact of early development and education lasts a lifetime. The foundations of adult health are laid in early childhood and before birth.”

*(Wilkinson and Marmot, 2003)*

### *Stress*

“Neuroscientists have identified physiologic mechanisms that can explain how chronic stress—such as stress associated with long-term economic hardship or family trauma—can get into the body to impair health. Chronic stress during childhood appears to have particularly profound and enduring adverse effects on health throughout life.”

*(Braveman and Egerter, 2013)*

### *Unemployment*

“Job security increases health,

### **Social Determinants of Health (SDOH)**

The social, environmental, and economic conditions of the places in which we live, work, play and learn. These conditions largely determine opportunities for health and wellness.

Robert Wood Johnson Foundation, 2011

wellbeing and job satisfaction. Higher rates of unemployment cause more illness and premature death.”

*(Wilkinson and Marmot, 2003)*

### *Poverty*

“Poverty [has] a major impact on health and premature death, and the changes of living in poverty are loaded heaving against some social groups.”

*(Wilkinson and Marmot, 2003)*

### *Public Safety*

Safe neighborhoods increase the likelihood that residents will have a sense of security, spend time outdoors, and interact with each other. Neighborhoods that are perceived to be dangerous or overly-surveilled keep residents inside and discourage productive public life.

### *Racial or Ethnic Group*

Racial or ethnic differences in health can be explained in part by socioeconomic disadvantages

# BACKGROUND

that are the persistent legacy of discrimination. Chronic stress related to experiences of racial bias may also contribute to ill health—even without overt incidents of discrimination, and even among affluent and highly educated people of color.

*(Braveman and Egerter, 2013)*

## Social Inclusion/Exclusion

“Social exclusion results from racism, discrimination, stigmatization, hostility and unemployment. These processes prevent people from participating in education or training, and gaining access to services and citizenship activities. They are socially and psychologically damaging, materially costly, and harmful to health. People who live in, or have left, institutions, such as prisons, children’s homes and psychiatric hospitals, are particularly vulnerable.” *(Wilkinson and Marmot, 2003)*

## Food

“A good diet and adequate food supply are central for promoting health and wellbeing. A shortage of food and lack of variety cause malnutrition and deficiency diseases. Excess intake . . . contributes to cardiovascular diseases, diabetes, cancer, degenerative eye diseases, obesity and tooth decay.”

*(Wilkinson and Marmot, 2003)*

## Incarceration

“Incarceration has harmful effects for the incarcerated, and

mass incarceration contaminates the communities where it is geographically concentrated. Incarceration influences the health and health behaviors of the incarcerated and formerly incarcerated—including exposure to infectious diseases, stress, and violent victimization—and health service utilization both during and after incarceration.”

*(Nowotny and Kuptsevych-Timmer, 2017)*

## Education

“There are strong links between health and education, including longer life, lower rates of infant mortality, obesity rates, diabetes rates and heart disease.”

*(Braveman and Egerter, 2013)*

## Social Support

“Friendship, good social relations and strong supportive networks improve health at home, at work and in the community.”

*(Wilkinson and Marmot, 2003)*

## Neighborhood/ Physical Environment

“Health and health-related behaviors have been linked with a range of neighborhood features, including: the concentration of poverty; the density of convenience stores, liquor stores, and fast-food restaurants relative to grocery stores selling fresh foods; access to transportation; the condition of buildings; and the presence of sidewalks and places to play or exercise.”

*(Braveman and Egerter, 2013)*

## Immigration Status

Depending on country of origin and immigration status, residents born outside of the US are may face language barriers and social exclusion in the society at large. The current national anti-immigration climate and public policies that have been put in place may also affect many residents of the study neighborhoods, possibly discouraging their efforts to work, attend school, access healthcare and participate in civic life.

## Work

“Stress in the workplace increases the risk of disease. People who have more control over their work have better health.”

*(Wilkinson and Marmot, 2003)*

## Transportation

“Healthy transport means less driving and more walking and cycling, backed up by better public transport. Cycling, walking and the use of public transportation promote health in four ways. They provide exercise, reduce fatal accidents, increase social contact and reduce air pollution.”

*(Wilkinson and Marmot, 2003)*

## Addiction

“Individuals turn to alcohol, drugs and tobacco and suffer from their use, but use is influenced by the wider social setting. Drug use is both a response to social breakdown and an important factor in worsening the resulting inequalities in health.”

*(Wilkinson and Marmot, 2003)*

# | NEIGHBORHOOD PROFILES

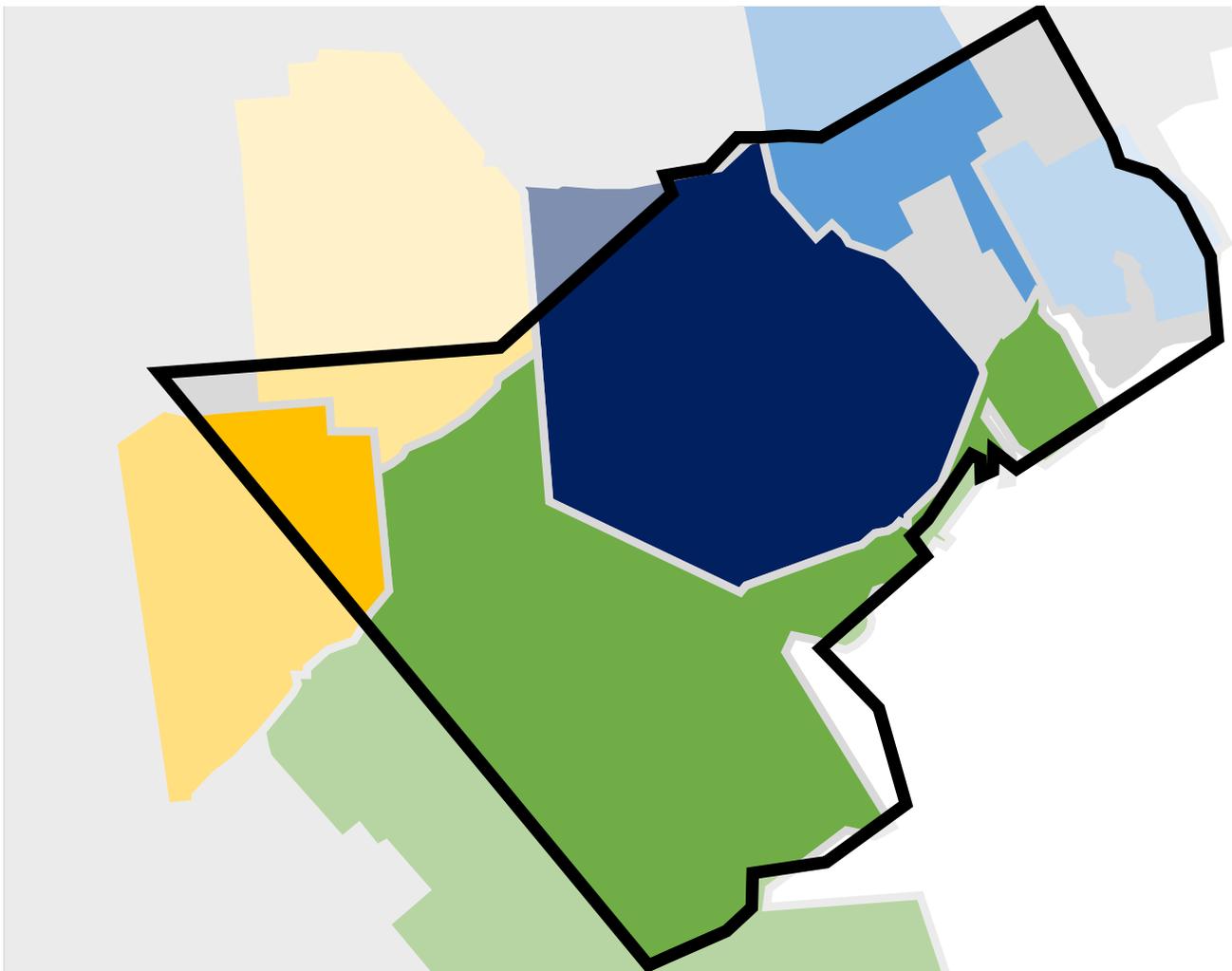
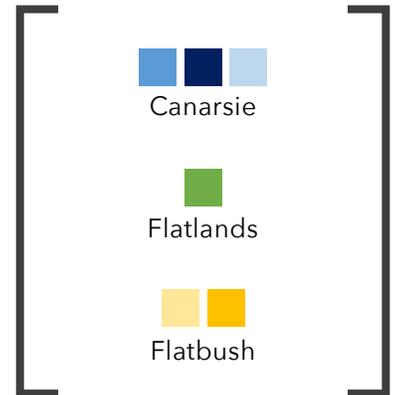
# NEIGHBORHOOD PROFILES

While the 2018 iteration of the Central Brooklyn PAR research has come to be known as Canarsie, Flatlands, and Flatbush (CFF PAR), the study area includes eight neighborhoods: Canarsie, East New York, Starrett City, Flatbush, East Flatbush, Flatlands, Marine Park and Mill Basin. For the purposes of this study, we have grouped these neighborhoods into three catchment areas:

What we refer to as the **Canarsie catchment area** (zip codes 11239, 11236, and 11207), also includes East New York (11207) and Starrett City (11239) in addition to Canarsie (11236)

The **Flatbush catchment area** (zip codes 11203 and 11210) also captures some of East Flatbush

The **Flatlands catchment area** (zip code 11234) includes Marine Park and Mill Basin



# NEIGHBORHOOD PROFILES

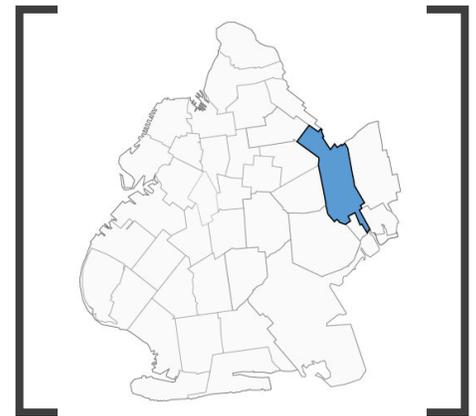
## Neighborhood Profiles: Historical Background

Although they are geographically adjacent, there are wide variations between the study neighborhoods. They were, for example, founded and developed in different eras; Flatbush and Flatlands were originally inhabited by Native Americans before Brooklyn was settled by the Dutch, and are two of the original “Five Towns” of Brooklyn. Canarsie, in contrast, was not developed in earnest until the 1950s (Jackson & Manbeck, 1998). Each of the neighborhoods has a distinct flavor and history, with different racial and ethnic populations, incomes, housing stocks, density, transportation options, levels of safety, and access to food, parks and other community assets.

### *East New York (11207)*

A portion of East New York is also included in the Canarsie study area. East New York was initially settled by European immigrants in the 1800s and early 1900s as part of what was then called the town of New Lots. Growth accelerated once the subway reached the neighborhood in 1922 and continue through the end of WWII, attracting immigrants from across Europe. Many Black residents moved to East New York in the 1950s, displaced by the urban renewal in neighboring Brownsville. The population shifted “from 85% white in 1960 to 80% Black and Puerto Rican by 1966.” (Thabit, p. 1).

By the late 1960s, East New York had come to be considered one of the most dangerous parts of New York City, with high rates of unemployment, poverty and crime, systemic property neglect and minimal public services. In spite of these factors, which boiled over into unrest during the summer of 1966, conditions in East New York elicited little public concern. This chapter in the history of East New York continues to affect health outcomes in the neighborhood today: the community health profiles for East New York are consistently among the worst in the city. East New York also has a high concentration of public housing developments (Pink Houses, Cypress Hills Houses, Linden Houses, Linden Plaza Houses, and Boulevard Houses) that are home to largely poor households of color, where residents are subject to increasing neglect that has resulted in demoralizing and often dangerous conditions.



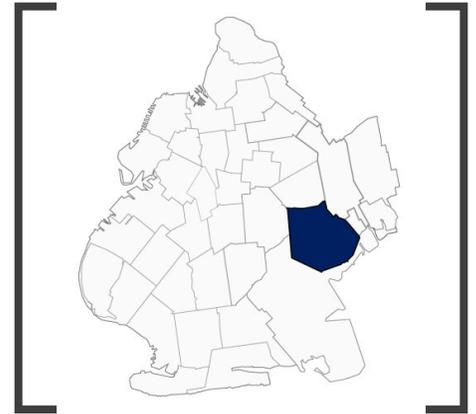
# NEIGHBORHOOD PROFILES

## ***Canarsie (11236)***

A one-time wetlands and beach resort, Canarsie remains in many ways a seaside neighborhood, with the Canarsie Pier an attraction for wildlife, residents and visitors alike. In their portrait of Brooklyn Neighborhoods, authors Jackson and Manbeck (1998) describe Canarsie as having a distinctively suburban spirit.

The neighborhood was developed later than other Brooklyn neighborhoods, which meant that subway lines did not reach most of Canarsie; this heightened its suburban flavor by promoting a reliance on cars. Today, these circumstances continue to influence transportation options in Canarsie—a key social determinant of health—where residents are four times more likely than the majority of New Yorkers to live more than half a mile from a subway station (Furman, 2016). As a result, there is greater reliance on cars instead of walking, using subways and buses, and other more active means of transportation.

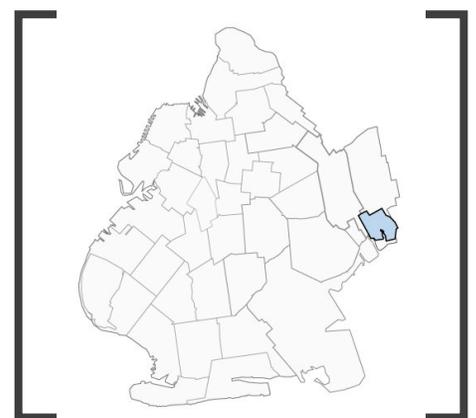
Renown for white, especially Italian and Jewish, backlash against school integration in the 1970s, Canarsie started to become a majority Black neighborhood in the 1980s (Jackson and Manbeck, p. 52). Canarsie is now home to almost four times the number of Black residents than the citywide average (82.5% Black, as opposed to 22.6% citywide), with more than 39% of residents being of Caribbean ancestry.



## ***Starrett City, aka Spring Creek Gardens (11239)***

Included as part of the Canarsie catchment area, Starrett City opened in 1974 as a model of large scale affordable housing for low and middle income families. Starrett City is the largest federally subsidized housing development in the country, with 60% of units covered by Section 8 rent subsidies for very low income residents (Mironova, 2014). With a towers-in-the-park layout, Starrett City has its own power plant, recreation and shopping centers, and its own security force. The complex supported its own security force from its opening as part of developers' plans to distinguish and protect it from the disinvestment and rates of crime in neighboring East New York.

Starrett City used quotas to achieve racial balance until 1988. In her article, "The Lessons of Starrett City," Oksana Mironova cited a 2011 profile of Starrett City in Urban Omnibus. The profile explained that, "to get the project approved, Starrett Housing Corporation promised the city's Board



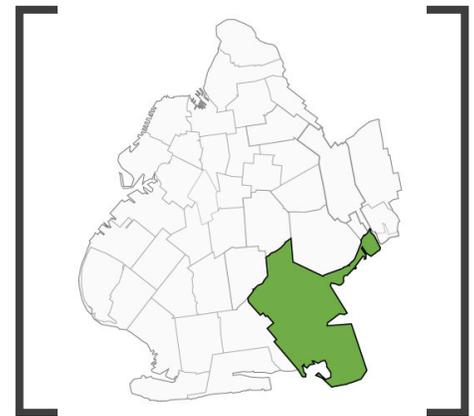
# NEIGHBORHOOD PROFILES

of Estimate that it would sustain a 70 percent white tenancy. The complex therefore maintained two separate waiting lists, reserving 70 percent of the units for white tenants and 30 percent for minority tenants” (Mironova, 2014). While the quotas were disallowed after an anti-affirmative action suit was brought, Starrett City remains significantly more diverse than the average subsidized housing development (Mironova, 2014).

## ***Flatlands (11234)***

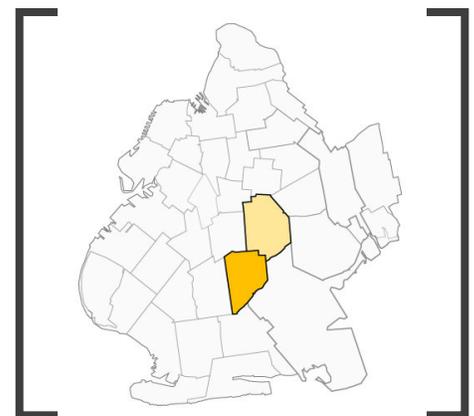
One of the original ‘six towns of Brooklyn’ settled by the Dutch in the 1600s, Flatlands is now sometimes considered to be part of Canarsie. Flatlands remained a largely agricultural area until the 1830s, but was burned to the ground in 1776 during the Revolutionary War (Jackson and Manbeck, 1998). Like Canarsie, Flatlands was developed later than many parts of Brooklyn, and is similarly not directly connected to subway lines, making it a largely car-oriented neighborhood. Flatlands remained mostly Jewish, Italian, and Irish until the 1980s when immigrants from Jamaica, Haiti, and Guyana began settling there (Jackson and Manbeck, 1998).

Within the same 11234 zip code are two other neighborhoods with distinct landscapes and socioeconomic profiles, Marine Park and Mill Basin, whose conditions have also been influenced by their lack of proximity to subway lines (Jackson and Manbeck, 1998). Marine Park and Mill Basin are whiter and more affluent than their surrounding areas, home to the suburban-style Kings Plaza Mall, million dollar homes with private docks and a golf course, and families that have resided there for generations (Jackson and Manbeck, 1998).



## ***Flatbush (11210) and East Flatbush (11203)***

Flatbush, like Flatlands, was one of the first six towns of Brooklyn, an old agricultural area whose name is derived from the Dutch word “vlackebos” meaning wooded plain (Jackson and Manbeck, 1998). Over the centuries the area transformed into a thriving neighborhood, aided in part by the opening of the Brooklyn, Flatbush and Coney Island Railroads in the late 1800s (Jackson and Manbeck, 1998). Unlike other neighborhoods in this study, the early presence of public transportation in Flatbush played an important role in neighborhood’s development as a convenient and vibrant area.



# NEIGHBORHOOD PROFILES

Like East New York, Flatbush experienced rapid demographic changes during the 1970s, as it transformed from 85% white to 80% non-white with an influx of Caribbean immigrants. Flatbush was spared much of the disinvestment and abandonment experienced by East New York, “in part because the landlords and homeowners remained throughout the changes and because the immigrants helped create a new community that included longtime residents” (Jackson and Manbeck, 1998).

Today, although the Flatbush and East Flatbush neighborhoods are bustling neighborhoods of culture, opportunity, with a vibrant commercial corridor and “dollar vans” driven by Caribbean immigrants supplementing the buses and subways along Flatbush Avenue, these neighborhoods face some of the highest eviction rates in New York City.

## Neighborhood Profiles: Demographic and Outcome Data

The study neighborhoods tell a familiar tale of the relationship between race, poverty and health outcomes. Shaped by policies and practices influencing transportation, housing and immigration, each of the study neighborhoods has been defined, in many ways, by how the economic and political history of race has played out in these areas. This section of the neighborhood profiles focuses on the demographic characteristics, health outcomes, social and economic conditions, housing and the built environment as it affects the everyday lives of neighborhood residents.

Outcomes and living conditions in Canarsie, Flatlands and Flatbush are, for the most part, on par with or better than the citywide averages. The same cannot be said for East New York or Starrett City where the conditions and outcomes are significantly worse than the citywide average. There are some important indicators, however, where data across neighborhoods stands out. These include: race, immigration status, diabetes, hypertension, mother and infant health, crowding, eviction and foreclosure.

Please see the full report for a complete overview of indicators examined for this study

# NEIGHBORHOOD PROFILES

## Demographic Characteristics

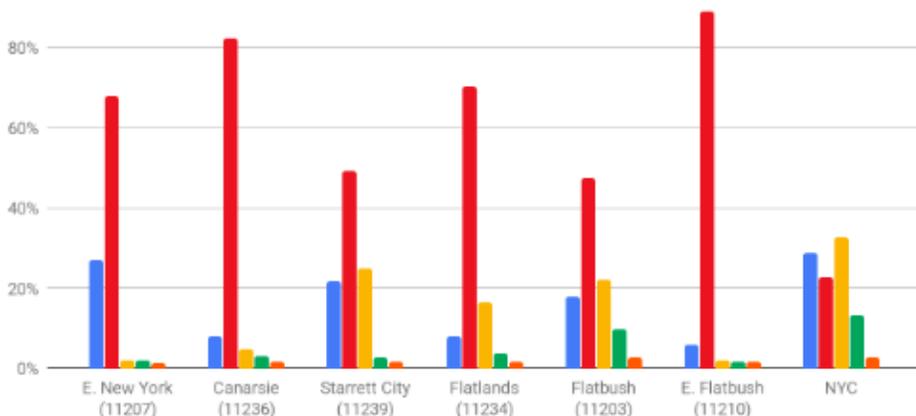
### Age

- 0-17** Each of the study neighborhoods are within 2.2 percentage points of the citywide average, with the exception of East New York where the population of children (ages 0-17) is 29%, more than seven points greater than the citywide average.
- 18-24** The number of youth in East New York between the ages of 18-24 is slightly higher than the citywide average.
- 25-44** The population of those between ages 25-44 in the study neighborhoods is lower than the citywide average across all of the study neighborhoods, with the exception of Flatbush which is on par with the average.
- 45-64** Canarsie, Flatbush and East Flatbush each have a slightly larger than average share of 45-64 year olds.
- 65+** Starrett City stands out with a population of senior citizens (24.4%) that is almost twice the citywide average (12.5%).

Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).

### Race

Each of the study neighborhoods is home to more than double the number of Black residents than the citywide average; Canarsie and East Flatbush are home to almost four times the number of Black residents than the city average. With the exception of East New York and Starrett City, the Latino population of the study neighborhoods is well below the city average, as are the Asian and white populations.



- Hispanic/Latino
- Black (Not Hispanic/Latino)
- White (Not Hispanic/Latino)
- Asian and Pacific Islander
- Other

Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).

# NEIGHBORHOOD PROFILES

Neighborhood data also shows the growth and decline in numbers of different racial groups, with populations increasing in some areas and decreasing in others, pointing to the need to account for dynamics of both gentrification and hyper-segregation.

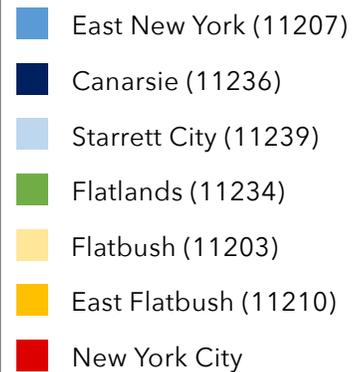
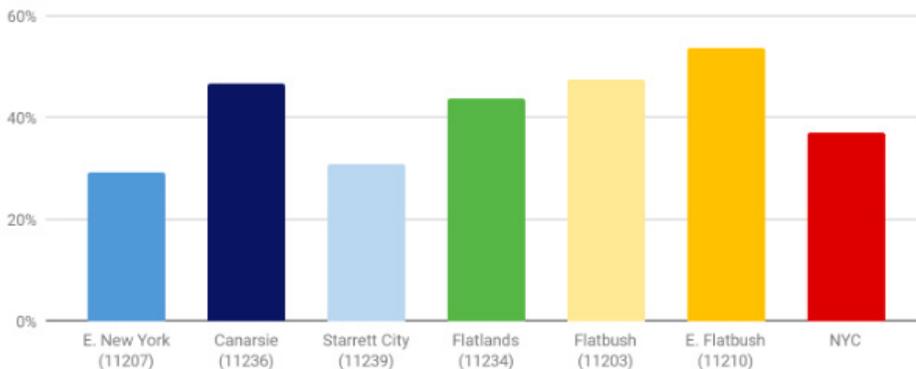
---

## Foreign Born Residents

Canarsie, Flatlands, Flatbush and East Flatbush have notably higher rates of foreign born residents than the NYC average of 37.1%.

- Canarsie, where 46.7% of residents are foreign-born, is almost 10 percentage points higher than the citywide average.
- Flatlands has a foreign born population 6.5% higher than the NYC average.
- Flatbush has a foreign born population that is 10.5% higher than the NYC average.
- East Flatbush has the highest percentage of foreign born residents of all of the study neighborhoods, 16% higher than the NYC average

In East New York and Starrett City, the population of foreign-born residents is lower than the NYC average.



Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

---

## Education

On average, 19.9% of NYC residents have less than a high school diploma. By comparison, the study neighborhoods are either notably below — leaving a greater percentage of residents who have achieved higher levels of education — or slightly higher than the citywide average.

Canarsie (16.3%), Flatlands (13.6%) and East Flatbush (12.5%) each have

# NEIGHBORHOOD PROFILES

a lower percentage of residents with less than a high school diploma, while Flatbush (20.3%), East New York (22.1%) and Starrett City (20.5%) are all slightly above the NYC average, with a larger percentage of residents not having completed their high school degree.

## Unemployment

Unemployment in the study neighborhoods is at or below the NYC average of 10.3%, with the exception of East New York and Starrett City where the unemployment rates are slightly higher than the NYC average (13.9% and 15.6%, respectively).

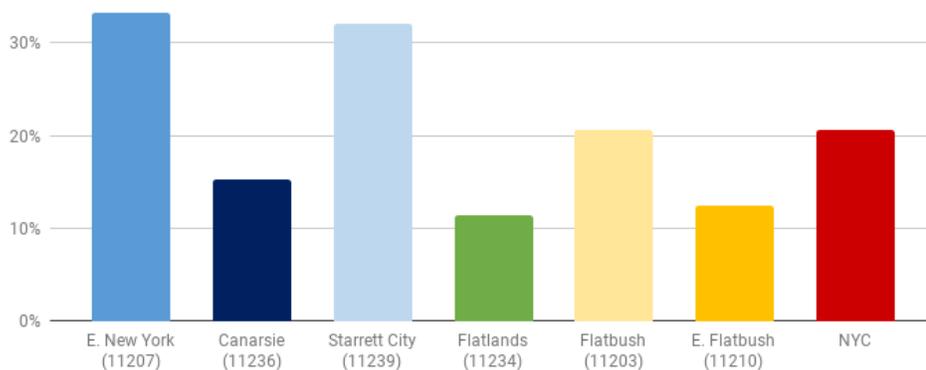
Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

## Poverty

On average, 20.6% of NYC residents live at or below the poverty line. Although the poverty rates in the study neighborhoods vary, they are far higher than those in more affluent neighborhoods, such as Park Slope-Gowanus where the poverty rate is 7.6%.

Canarsie (15.2%), Flatlands (11.4%) and Flatbush (20.6%) have poverty rates at or below the New York City average.

Starrett City (32%) and East New York (33.2%) have poverty rates more than ten percentage points higher than the NYC average.



- East New York (11207)
- Canarsie (11236)
- Starrett City (11239)
- Flatlands (11234)
- Flatbush (11203)
- East Flatbush (11210)
- New York City

Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

# NEIGHBORHOOD PROFILES

## Health Outcomes

This research examined key health outcomes in the study neighborhoods, including premature mortality, preventable hospitalizations, poorly controlled diabetes, hospitalization for preventable hypertension, asthma, late or no prenatal care, and severe maternal morbidity (see full report for all indicators.) With the exception of East New York and Starrett City, overall health outcomes in Canarsie, Flatlands and Flatbush (including East Flatbush) are generally either similar to or better than the citywide averages. However, across all study neighborhoods, there are certain health outcomes where this is markedly not the case, especially as it pertains to mother and infant health, poorly controlled diabetes, and hospitalization for preventable hypertension.

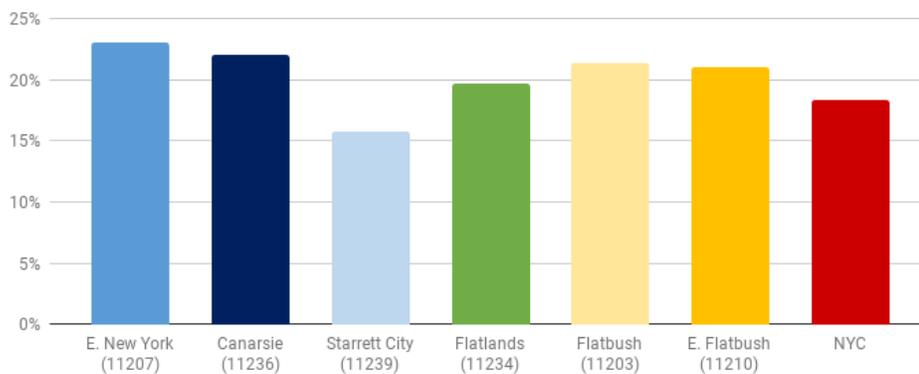
### Premature Mortality

Across the study neighborhoods, rates of premature mortality are below the city average (193.8 per 100,000), with the exception of East New York and Starrett City where rates of premature mortality are dramatically higher (31-33%) than the city average. And, although premature mortality rates in Canarsie, Flatlands, Flatbush and E. Flatbush are lower than the citywide average, they are still twice as high as other more affluent, and predominantly white, neighborhoods.

Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

### Poorly Controlled Diabetes

With the exception of Starrett City, all of the study neighborhoods have rates of poorly controlled diabetes that are above the NYC average of 18.3%.



- East New York (11207)
- Canarsie (11236)
- Starrett City (11239)
- Flatlands (11234)
- Flatbush (11203)
- East Flatbush (11210)
- New York City

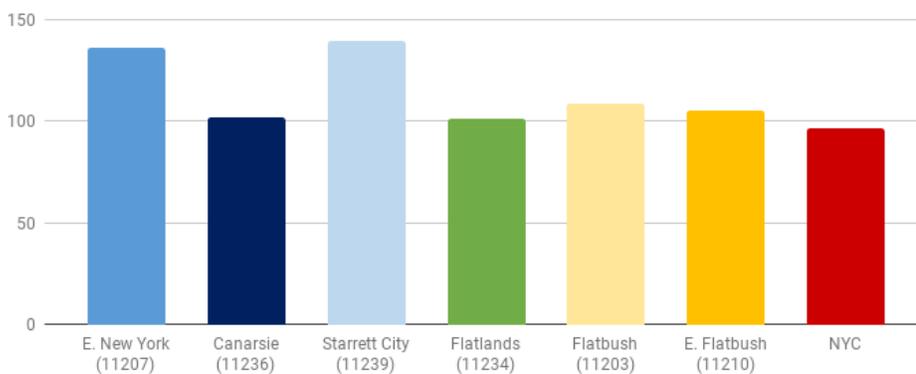
Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

# NEIGHBORHOOD PROFILES

## Hospitalization for Preventable Hypertension

Rates of hospitalization for preventable hypertension are higher than the citywide average (96.4 per 100,000 persons) across all of the study neighborhoods. In East New York (136) and Starrett City (139.5), the rates of hospitalization are almost one-and-a-half times greater than the NYC average.

Canarsie, Flatlands, Flatbush and East Flatbush rates of hospitalization are also higher than the NYC average by between 5.5%-11.3%.



- East New York (11207)
- Canarsie (11236)
- Starrett City (11239)
- Flatlands (11234)
- Flatbush (11203)
- East Flatbush (11210)
- New York City

Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).

## Health Insurance

With the exception of Flatbush, which has a slightly lower percentage of residents with health insurance, all of the neighborhoods in the study area have higher rates of insured residents than the NYC average of 86.5%.

Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).

## Jail Incarceration

All of the study neighborhoods are below or within one percentage point of the citywide average for incarceration, with the notable exception of East New York, where the rate of jail incarceration is more than three times the citywide average.

Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).

## Mother and Infant Health

As a result of pregnancy and/or childbirth, mothers and infants can be impacted by a wide range of physical and mental illnesses and disabilities.

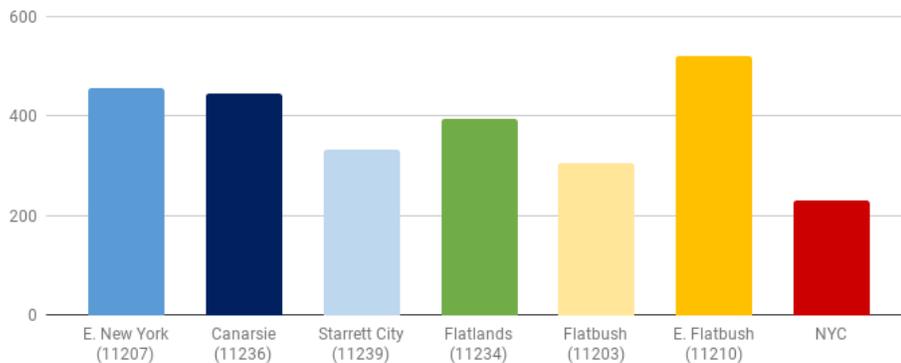
# NEIGHBORHOOD PROFILES

These conditions, broadly referred to as “maternal morbidity,” can have a significant impact on both the mother and/or infants’ quality of life, even when they are not life-threatening conditions.

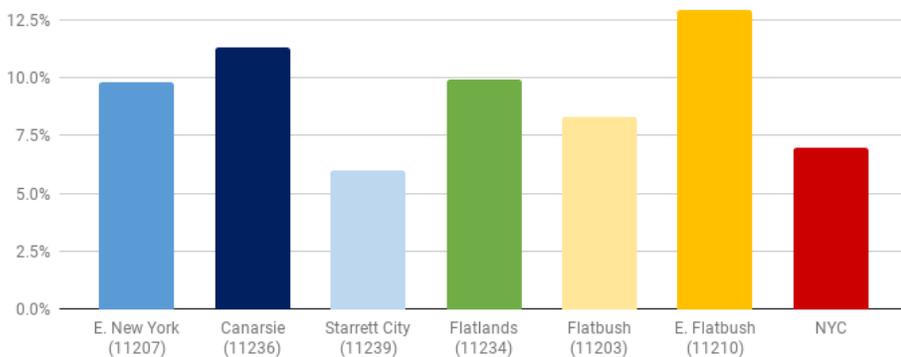
All study neighborhoods exhibit noticeably higher rates of severe maternal morbidity than the citywide average. In East Flatbush, the rate is 519.1 per 10,000 deliveries, more than double the NYC average. The rates in Canarsie (445.8) and East New York (455) are also nearly double the NYC average.

Across all study neighborhoods, with the exception of Starrett City, babies receive late or no prenatal care at higher rates than the citywide average (7%). Canarsie (11.3%) and East Flatbush (12.9%) are the furthest from the NYC average.

## Severe Maternal Morbidity



## Late or No Prenatal Care



- East New York (11207)
- Canarsie (11236)
- Starrett City (11239)
- Flatlands (11234)
- Flatbush (11203)
- East Flatbush (11210)
- New York City

*Source: New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. (September 29, 2018).*

# NEIGHBORHOOD PROFILES

## Housing

Given the multi-dimensional effects of housing on individual and community health, the following section presents a range of indicators, including rent burden greater than 30%, percent of residents living in public housing, crowded housing, evictions, homeownership rates, and rates of foreclosure. Housing quality and security are important in any location, but become especially pressing issues in the New York City market where the number of affordable and/or rent regulated units is decreasing and where supply is not keeping pace with population growth,

Source: Office of the NYC Comptroller, 2018

---

### ***Rent Burden Greater than 30%***

Across all the study neighborhoods, more than half of all residents bear rent burdens of more than 30% of their income. The percentage of residents with such rent burdens is slightly lower than the citywide average (54.2%) in Canarsie, Flatlands and Starrett City. In Flatbush (58%), East Flatbush (55.9%) and East New York (57.1%), residents pay more than 30% of their income at rates higher than the NYC average.

Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

---

### ***Crowded Housing***

Overcrowding, as defined by the City, is an average of more than one person per room. Half of the study neighborhoods—Flatlands, East Flatbush and Starrett City—have a lower percentage of residents living in crowded conditions than the citywide average of 8.9%. Canarsie (11.2%), Flatbush (15.6%) and East New York (13.6%) all exceed the citywide crowded housing average.

Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

---

### ***Residents Living in Public Housing***

Four of the six study neighborhoods have rates of residents living in public housing that are within two (2) percentage points of the citywide average of 4.7%.

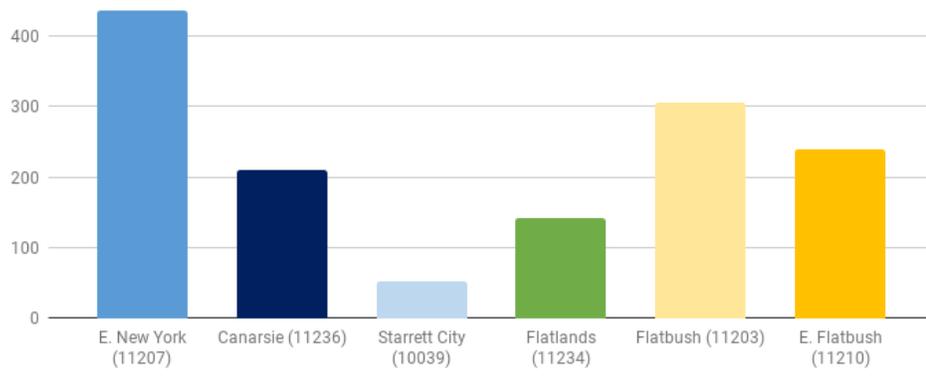
Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

The notable exceptions are Flatbush, where no public housing developments are located, and East New York, which has three times the rate of residents living in public housing (14.8%).

# NEIGHBORHOOD PROFILES

## Eviction Rates

According to a report on the eviction epidemic prepared by the Community Service Society of New York (CSSNY), evictions in Brooklyn “are clustered in central and eastern Brooklyn (northern Crown Heights, Bedford-Stuyvesant, Brownsville, Flatbush, East Flatbush, and East New York). As a point of comparison, the more affluent Park Slope neighborhood of Brooklyn (11215) had only 28 evictions in 2016; Flatlands, the study neighborhood with the fewest evictions, has an eviction rate 5 times greater than Park Slope. The rate in East New York is more than 15 times greater than that of Park Slope. (Source: Waters, Thomas J and Mironova, Oksana. *Addressing the Eviction Epidemic: The Right to Counsel in New York City*. September 28, 2017.)



- East New York (11207)
- Canarsie (11236)
- Starrett City (11239)
- Flatlands (11234)
- Flatbush (11203)
- East Flatbush (11210)

Source: New York City Department of Health and Mental Hygiene. *New York City Neighborhood Health Atlas*. (September 29, 2018).

## Homeownership

There is a notable difference in homeownership rates among the study neighborhoods; Canarsie homeownership rates (55.3%) are not only the highest among the study neighborhoods, but are more than twice that in Starrett City and Flatbush/Midwood and more than 23% higher than the citywide average (31.6%). East New York (11207), Starrett City (11239) and Flatbush (11203) have homeownership rates nearly ten percentage points lower than the citywide average.

Source: State of New York City's Housing and Neighborhoods in 2016. NYU Furman Center.

## Foreclosure

While rates in Flatbush/Midwood are the same as the NYC average of 13.4, foreclosure rates in Canarsie, Flatlands, East Flatbush, East New York and Starrett City are significantly higher, with rates in East Flatbush, East New York and Starrett City at more than twice the rate of the NYC average.

Source: State of New York City's Housing and Neighborhoods in 2016. NYU Furman Center.

# NEIGHBORHOOD PROFILES

## Section Summary

The Neighborhood Profiles section has laid out some of the history that has shaped the neighborhoods, as well as a closer look at key health, economic, social and environmental data in order to provide further context for understanding the study neighborhoods and the findings produced by the survey, focus groups and interviews that the team conducted. The neighborhood profiles paint a picture of areas that are, in some cases, very different from each other, but that still face common health and economic challenges like higher rates of diabetes, hypertension and maternal morbidity along with higher rates of crowding, eviction, and foreclosure. This context, along with the research team's experience and knowledge of the neighborhoods, informed the development of the study's research instruments and data collection. The profiles highlight indicators that will be important to return to as the CCB WEB effort continues to implement the health and wellness-based development strategies suggested by the research findings.

# METHODOLOGY

*Following the PAR framework, the Central Brooklyn PAR project in Canarsie, Flatlands and Flatbush (CFF PAR) aimed to gather insight into how the community understands its own health, to assess residents' priorities for transforming the health care system in their own neighborhoods, and to drive action towards community improvement. By training local community members on research, community engagement and the importance of community organizing, PAR helps build ongoing capacity for decision-making and informed action by residents, and directly invests in the professional and academic development of the high school and undergraduate student researchers.*

*The Canarsie, Flatlands, and Flatbush PAR (CFF PAR) project employed multiple methods of research, including asset mapping, community surveying, stakeholder interviews, and focus groups.*

# METHODOLOGY

## The Research Team

26  
students from neighborhood high schools

12  
college students

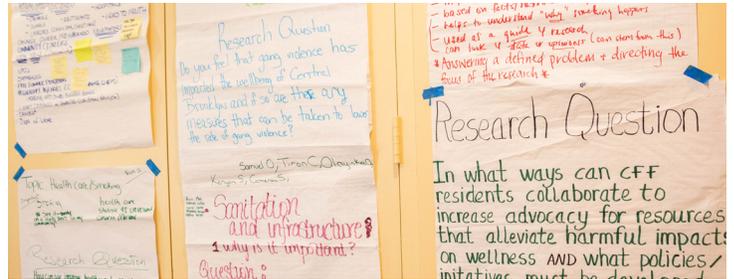
4  
public health and public policy graduate students

3  
Principal Investigators

Before the arrival of the high school students, four PAR ‘veterans’ and three graduate students developed the “Train-the-Trainer” curriculum for the incoming undergraduate training team. The following week, nine new team undergraduate members joined the veterans, completing the training team. This training team studied SDOH, PAR, collaborative research design, and community engagement strategies and developed a curriculum for the high school researchers; the training team also practiced facilitation and leadership techniques, and developed an asset map to familiarize themselves with the ‘assets’ and opportunities of the neighborhoods of study.

The high school researchers joined the research team in early July and were led through the curriculum developed by the trainers, becoming well-versed in SDOH, PAR and the principles of collaborative research design, and further developing their capacities as young leaders.

The now-complete research team began developing their research question: “In what ways can residents collaborate to increase advocacy and develop initiatives and policies to improve health and wellness in Canarsie, Flatlands and Flatbush?” The team designed the survey around eight sub-themes (education, violence, social health, physical environment, physical health, stress, economic health, and social exclusion), and asset mapped key locations for surveying and engaging with stakeholders.



# METHODOLOGY

## Sampling Plan and Survey Collection

*The research team surpassed their goal and surveyed 1,063 residents of Canarsie, Flatlands, and Flatbush.*

The team set a goal to collect 1,000 in order to achieve the most representative sample, and developed a sampling plan (Appendix B) to determine targets for each zip code (Figure X). The research team identified key locations for surveying within each neighborhood and began surveying in groups of 5-6, led by 2 graduate or undergraduate trainers. Survey locations ranged from public libraries, strip malls, storefronts, senior centers, parks, and bus stops (Figure X). The survey was available in English, Spanish, and Haitian-Creole and took approximately 15-20 minutes to complete. All participants were residents aged 18+ living within the six zip codes who could speak one of the survey languages. Participants verbally consented to participate in the study, and received \$8 in “Health Bucks” as a thank you for their participation, which they could use to purchase fresh fruits and vegetables at participating NYC farmers markets.

## Stakeholder Interviews & Focus Groups

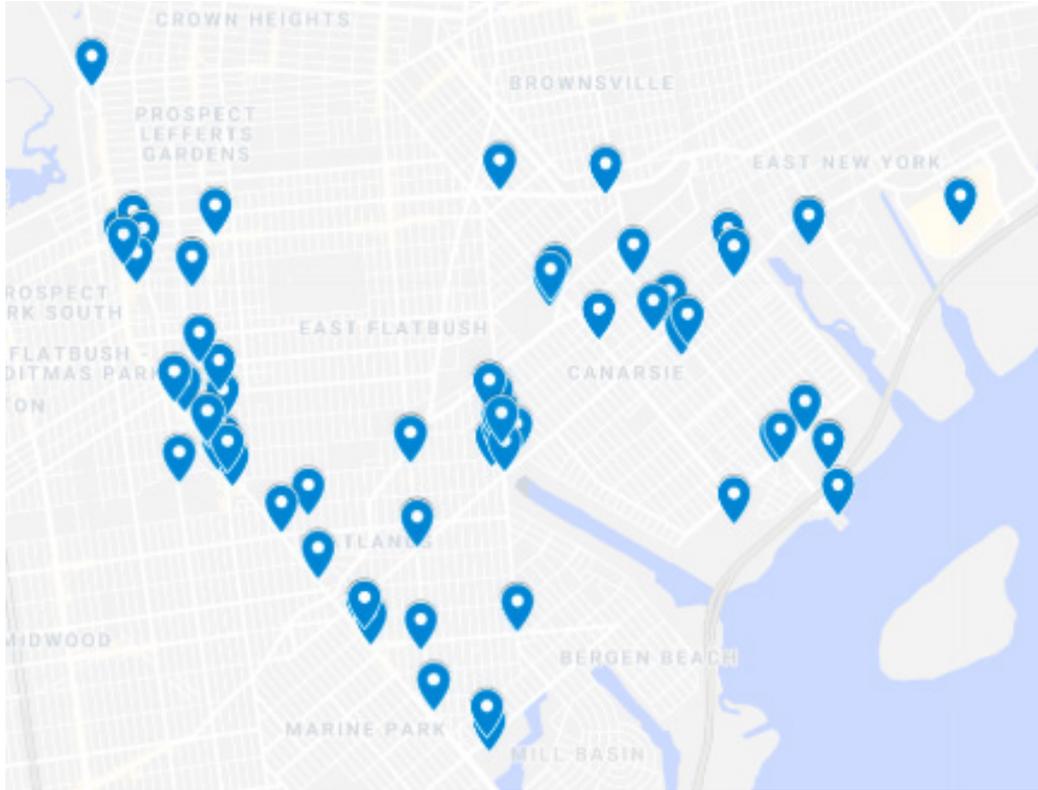
The research team identified and contacted 40 focus group and interview stakeholders — neighborhood leaders, leaders of medical institutions, local non-profits, labor unions, community based organizations, anchor institutions, and health care providers working to support health equity and improve the social determinants of health in Canarsie, Flatlands, and Flatbush — and ultimately interviewed 17, discussing some the best and most challenging health-related aspects of living and working in the survey neighborhoods.

All focus group and interview sessions were transcribed, coded and analyzed using a combination of thematic content and narrative analysis methods. This allowed for the identification of information and insights contained within and across each interview and focus group, revealing major themes and their recurrence.

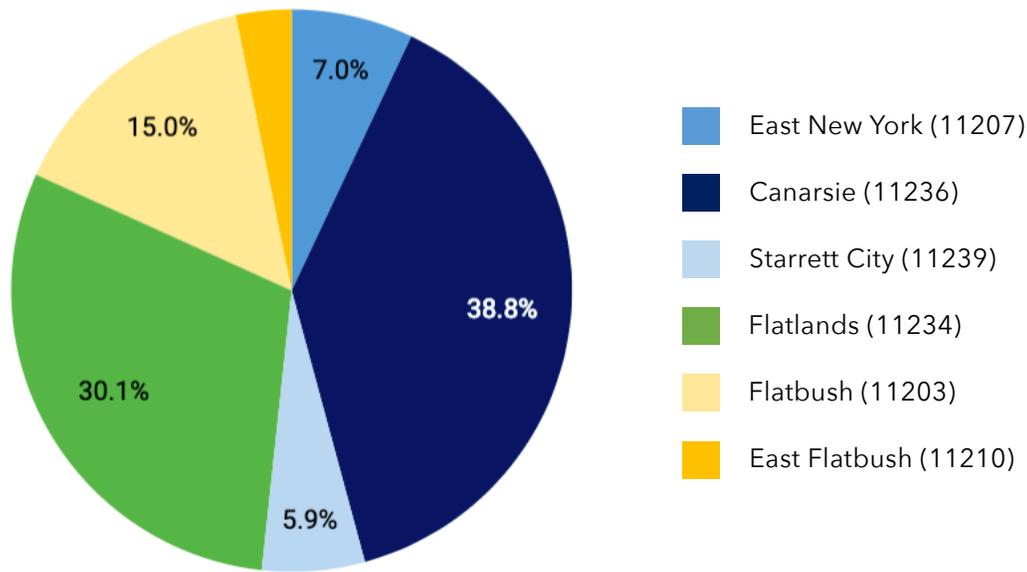
## Data Analysis

The WEB research team undertook a collaborative data analysis during the final week of the research program, examining the preliminary data and identifying specific areas of interest. The CoLab project management team further cleaned and analyzed the data, computing descriptive (summary) statistics using R software. The findings in this report are organized around the following areas of data analysis: Health (Physical & Mental); Housing and Public Housing; Economic Well-Being; Education and Youth Development; Food Access; Transportation; Public Safety; Sanitation; Communication and Community Involvement; Green Spaces and overarching recommendations.

# METHODOLOGY



Map of surveying locations in Canarsie, Flatlands and Flatbush



Target sample share by neighborhood, proportionate to population



The CFF PAR research team spent two weeks surveying in Canarsie, Flatlands and Flatbush (1, 4) and doing interactive trainings (3). The team presented their research findings at an August report out (2, 5, 6, 8) with CCB leadership, CoLab and Kingsborough Community College staff and elected officials (Assemblymember Jaime R. Williams, pictured at right, 7).





Former Assemblymember Roger L. Green and US Congresswoman Yvette Clarke at the December 2018 report-back to the community at the Erasmus Campus in Flatbush (1). Trainers spent time exploring the study neighborhoods (2) to better prepare for surveying (3, 5). The full 2018 WEB PAR team and sponsors (4).



# RESEARCH FINDINGS

*The following analysis is based on the 1,063 completed surveys collected over two weeks of data collection in the study neighborhoods, as well as focus groups and interviews with service providers, neighborhood residents, senior citizens, and union members who were residents of and/or worked in at least one of the study neighborhoods.*

*The study's findings are organized into the following categories: Demographic Characteristics; Top Neighborhood Challenges; Health (Physical & Mental); Housing and Public Housing; Economic Well-Being; Education and Youth Development; Food Access; Transportation; Public Safety; Sanitation; Communication and Community Involvement and Green Spaces.*

# RESEARCH FINDINGS

## Demographic Characteristics

Across zip codes, respondents primarily identified as Black. Respondents' ages were similar to ACS data with the exception of 11239, where oversampling in senior service facilities led to a majority of respondents aged 65 years and older. Most respondents indicated having attained a high school diploma, GED, or equivalent although respondents in 11207 had higher reported education levels, with 30% respondents having reported attaining "some college." In 11236, 10.5% of respondents reported having attained graduate or professional degrees. Between 5-9% of respondents indicated having less than a high school diploma, with the exception of 11239, where zero percent (0%) of respondents in the Canarsie zip code 11239 reported having less than a high school diploma.

Though responses across zip codes varied, half of all survey respondents reported an income of \$38,000 or less, and in 11207 (Canarsie), 11210 (Flatbush), and 11234 (Flatlands), the second most selected response was a reported household income under \$12,000. Across all zip codes, the majority of respondents indicated "I do not know" for 2017 household income.

Between 45% and 58% of respondents reported being employed, with the exception of 11239 (Canarsie) which reported lower employment (32.5%). The highest reported rate of unemployment was in 11210 (Flatbush), at 9.5%. 11239 (Canarsie) had the highest reported retirement rate at 45%, due to oversampling at senior services facilities.



The majority of our respondents were black



The largest group of respondents were between 18-34 years old



The majority identified as female, followed by male. The remaining 2% identified as transgender, non-binary or 'other'



The majority were employed. 12% were either retired or reported 'other'

# RESEARCH FINDINGS

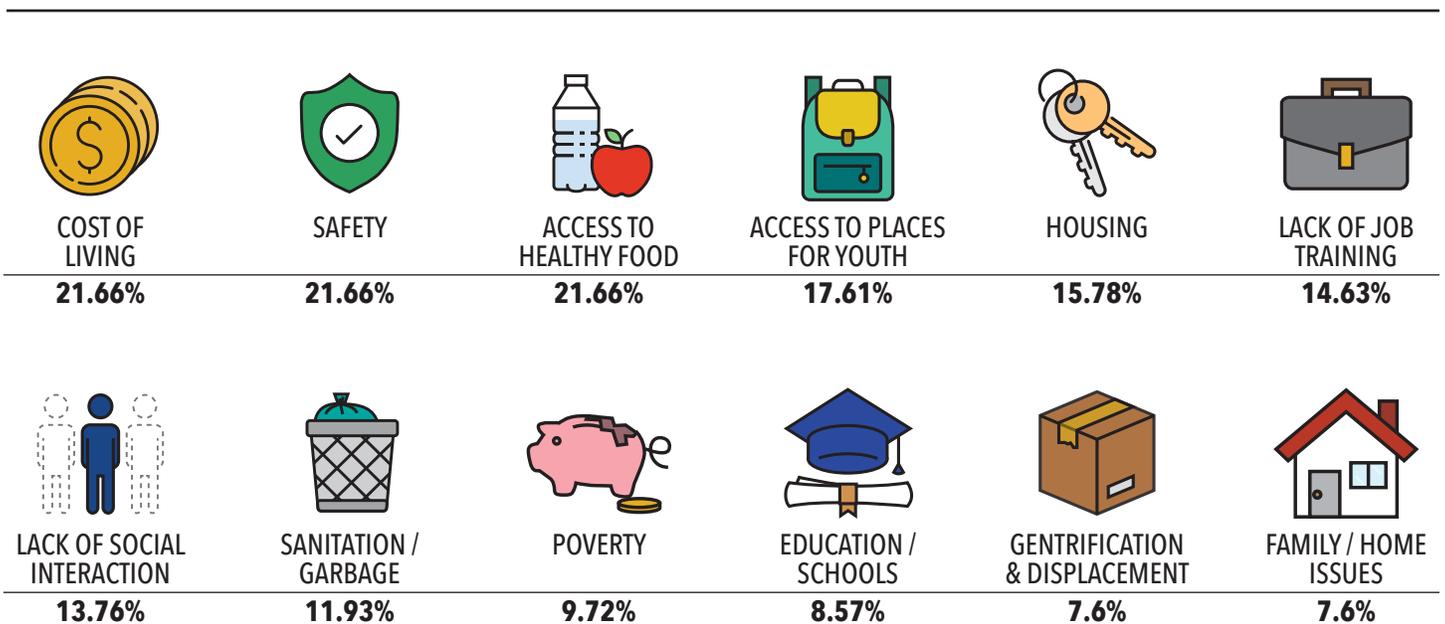
## Top Neighborhood Challenges

While there was some variation amongst the neighborhood challenges identified by respondents, there was consistency among the top neighborhood challenges: **cost of living** was the most commonly identified challenge across all zip codes, ages and educational levels, followed by **safety**, **healthy food access**, **access to places for youth/young adults**, and **housing**.

Although there was consistency in the top challenges, neighborhood challenges did vary by zip code: Canarsie (11239) residents identified **transportation options** as a top challenge; **lack of social interaction in the neighborhood** was identified by 11234 respondents (Flatlands); and **lack of job training opportunities** was identified by 11203 respondents (Flatbush).

Neighborhood challenges also varied by respondents' age: 25-34 years olds listed **poverty**; 75+ year olds listed **transportation options**; and 65-74 year olds listed **lack of social interaction in the neighborhood**. There was also some commonality across age groups: **lack of job training opportunities** was listed by 18-24 year olds, 55-64 year olds, and 75+ year olds; **sanitation/garbage** was listed by both 25-34 year olds and 75+ year old.

Participants and interviewees identified culture, convenience and parks as the best aspects of living in their neighborhoods, but described an overall context of unaffordability in which residents must work many hours, leaving too little time to take care of their health--physical and mental--or participate in community affairs. Interviewees consistently noted the barriers posed by structural racism as well as chronic underfunding of services for immigrants, youth and women. Although focus group respondents sometimes had to be prompted to name the best aspects of living and/or working in their neighborhood, there was consistent willingness to discuss examples of the more challenging aspects.



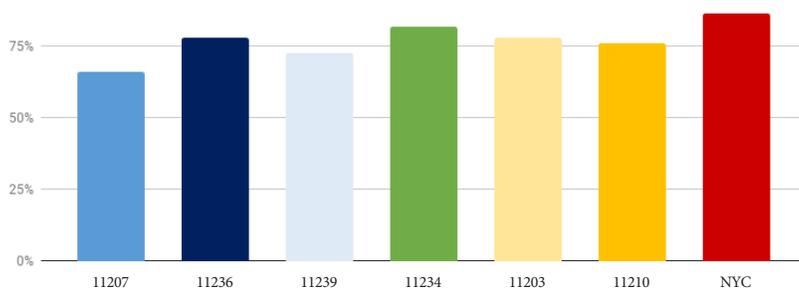
# RESEARCH FINDINGS



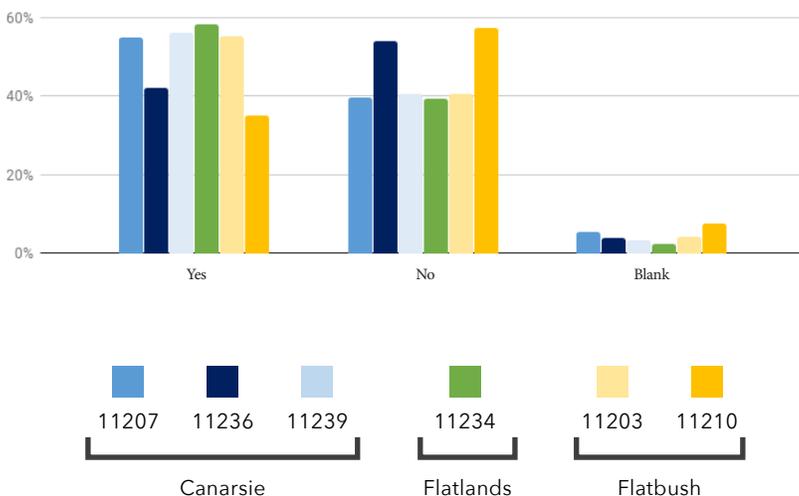
## Access to Healthcare Resources

Although more than two-thirds of survey respondents identified themselves as having medical coverage, respondents across all study neighborhoods indicated rates of health insurance coverage lower than the citywide average (86.5%), with East New York having the lowest rates of coverage. Significantly, more than 45% of respondents also indicated that they *do not visit medical facilities in their neighborhoods*; when asked to clarify their reasons for not visiting these facilities, the overwhelming majority of respondents (n=440) indicated that they *found better care elsewhere*.

**Rates of health insurance coverage among CFF PAR respondents**



**“Do you visit medical facilities in your neighborhood?”**



*There are a lot of health care resources in this community: three hospitals, multiple clinics, an academic medical center. But the system is not open and inviting to the people of this community. So yes, we do have a lot of hospitals and health resources, but then why is the health status so poor? —Service Provider*

Canarsie-based respondents talked about the relative lack of healthcare facilities—hospitals, clinics, urgent care—in the neighborhood, and the varying quality of in-home care that they experienced. Flatbush participants described their neighborhood as being rich in healthcare resources in spite of the neighborhood’s poor health outcomes, but described the conditions in some healthcare facilities as unclean, chaotic environments.

Service providers discussed the challenge presented by inadequate funding for mental and emotional health programs, noting the high number of people with mental illness on the streets of the neighborhood, and raised effective communication as a hindrance, in that they found residents were not taking advantage of existing resources. According to the service providers, this is sometimes a result of residents lacking an understanding of the healthcare system, and sometimes—especially for immigrants—due to the fear of accessing resources, or believing that they may not be eligible.

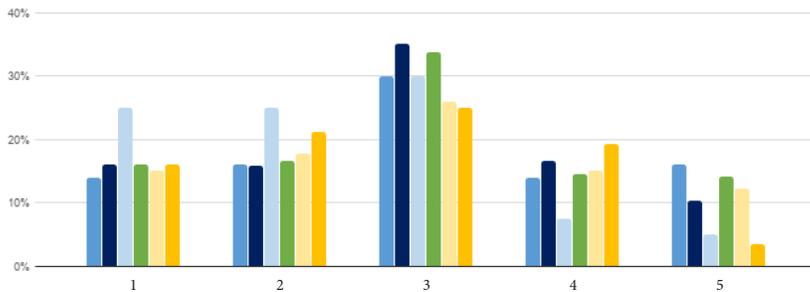
# RESEARCH FINDINGS



## Health Outcomes and Stress

Respondents consistently reported moderate stress levels on the survey, ranked as ‘3’ on a scale from 1 to 5 (where ‘1’ represented being least stressed and ‘5’ the most stressed). Across all zip codes, residents said *work*, *finances* and *family* contributed most to their level of stress, and said that *more psychological/therapy services* and *more places to relax* would be needed to support the community in coping with stress.

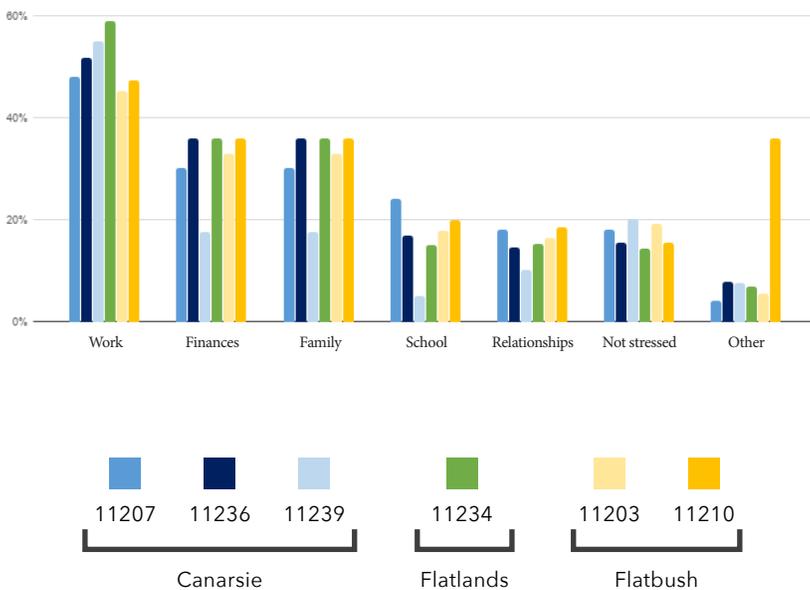
### Reported Stress Levels of survey respondents, by zip code



*It's chronic!*

Interviewees noted that residents in the study neighborhoods generally have high stress levels, particularly teens and young adults, for which they cited a host of causes: poverty, crime, gang activity, housing costs, lack of or intermittent employment, lack of available jobs, mental health issues resulting from employment constraints, police presence, low-paying jobs, and a lack of respect.

### Contributors to respondents' stress levels



The challenges of mother and infant health, often discussed as infant mortality or severe maternal morbidity, was noted by many interviewees as a top challenge across study neighborhoods. The relationship between mother/infant health and immigration status was also discussed, as were statistics showing that Haitian women are at greater risk for complications during childbirth.

High rates of diabetes among seniors was listed as one of the more challenging aspects for the study neighborhoods, as was insufficient support for those with mental illnesses, with particular concern for the relationship between mental illness and involvement with the criminal justice system.

# RESEARCH FINDINGS



## Housing

Across all zip codes, ages and educational levels, **cost of living** was the most commonly identified challenge of living in the neighborhood. In Canarsie zip codes 11239 and 11207, 85% and 70% of respondents were renters, the highest among the study neighborhoods.



*Residents have crazy mortgages. Taxes are high. Water bills are high. They're asking themselves if they can pay their bills. They're not taking time to walk in the park."* —Elected official

The high cost of living, and the financial stress that results from it, were consistent themes across focus groups and interviews. According to respondents, housing costs and the persistent lack of affordable housing are the main contributors to the financial stress residents experience. Interviewees noted the difficulty that many homeowners face in paying their mortgages and property taxes, often working multiple jobs to be able to afford the monthly costs. As one interviewee explained, these financial demands often left residents little time or energy to benefit from or participate in their neighborhoods.

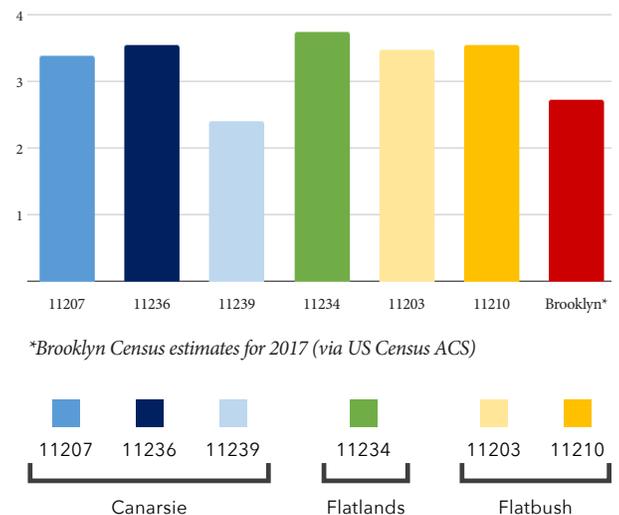


*Even if someone has a place, they don't know how long they'll have it."*

Respondents living in Flatbush were the most likely to talk about the lack of affordable housing. Service providers in Flatbush also described a sense of housing insecurity, where residents—especially young mothers—found themselves having to move frequently. Although Flatbush is currently experiencing high levels of residential construction, they are mostly new apartment buildings that residents perceive are “not for them,” and are instead felt to be a sign of increasing gentrification. In one focus group, participants talked about the effect of high rents on small business and the retail environment, noting the challenges shop owners face when they do not own the buildings where their stores are located, and lack other rent protections.

### Average household sizes

*Including you, how many people are in your household?"*



Participants from Canarsie highlighted overcrowding as one of the most challenging aspects of living in their neighborhood (11.2% of Canarsie housing is considered overcrowded, which the City defines as the percent of occupied housing units with more than one occupant per room). One interviewee talked about how many residents of the neighborhood are immigrants who have already suffered through natural disasters, and are now enduring overcrowded living conditions and its related stresses and health effects. Others in Canarsie mentioned the frustrations of trying to find parking as a result of overcrowding, an example of the ways in which infrastructure developments have not kept pace with the increase in population.

# RESEARCH FINDINGS



## Public Housing

In 11207 and 11236, also both in the Canarsie catchment area, 18% and 12% of respondents reported living in New York City Housing Authority (NYCHA) developments. In 11203 (Flatbush), 0% of respondents reported living in NYCHA developments.



*It's very stressful living there."*

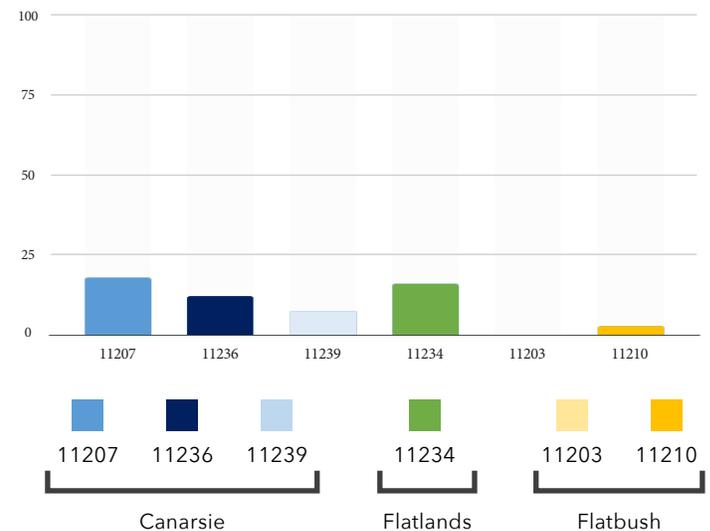
Some of CFF PAR's interviewees were service providers whose area of responsibilities included public housing developments. Issues related to public housing were also raised in one of the focus groups as places to be avoided because of fear of crime; as previously mentioned, although overall crime rates in the city have been steadily declining, crime rates in public housing developments citywide have stayed the same or increased (Dimon and Smith, 2017). Those familiar with the three public housing developments in Canarsie described the buildings themselves as damp and moldy, and the apartments in need of repair and updated appliances. One interviewee elaborated, noting, "some throw their trash and dirty diapers out the window, urinate in the stairways, and write on the walls."

Public housing development grounds were described as dimly lit and without trash cans.

Interviewees also expressed that residents in public housing feel that they have little control over their everyday affairs and that there are too few opportunities for leadership development or collective problem-solving.

Although there is a community center and a senior center at Glenwood Houses, interviewees noted that they are largely unused, despite the need for the types of programming that might be offered there.

### Percent of respondents living in NYCHA housing developments



*They search your whole life story. They check out your friends. They check out every aspect of your life."*

—Focus group participant

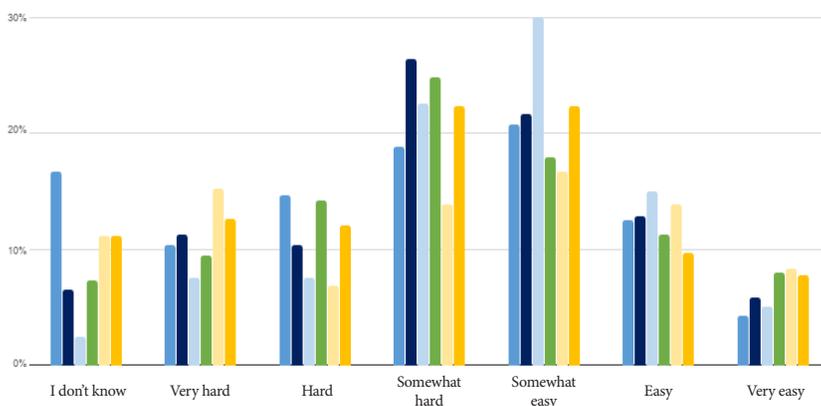
More than half of the participants in one focus group were older women living in homeless shelters, some due to recent evictions by landlords seeking higher-paying tenants. The participants clearly emphasized the stress of life in the shelter, describing the homeless shelters as dehumanizing and dangerous. Other participants in this group, whether living in shelters or not, talked about the invasive level of scrutiny that they undergo when applying for support, especially housing programs.

# RESEARCH FINDINGS

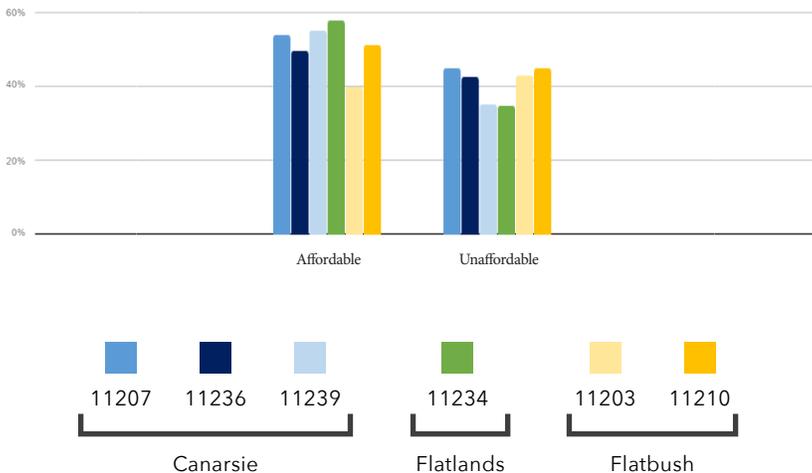
## Economic Well-Being

Half of all survey respondents reported an income of \$38,000 or less, and (with the exception of 11239) all zip codes reported average household sizes higher than the overall Brooklyn average. Nearly half of respondents in each zip code reported their cost of housing *unaffordable*, with the exception of zip codes 11239 and 11234, where just over a third of respondents indicated the same. Although these factors would seem to indicate economic hardships for many respondents, responses were split on how difficult it is to cover monthly bills; in each zip code, the top two reported answers were *somewhat easy* and *somewhat hard* to cover monthly expenses. Senior-aged respondents reported less difficulty covering monthly costs.

### Ease or Difficulty of Paying Household Expenses



### Percent of respondents who find their costs of housing affordable/unaffordable



*The biggest barrier to healthy lifestyle change is economics.* -- Elected Official

### Which of the following would improve the economic health of your neighborhood?

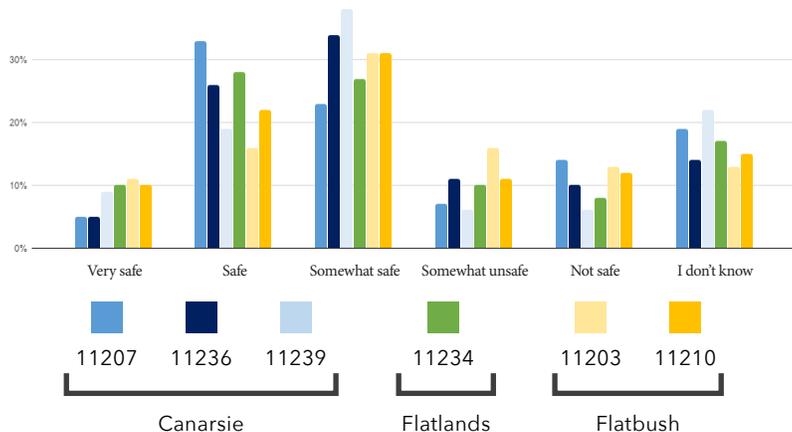


# RESEARCH FINDINGS

## Education & Youth Development

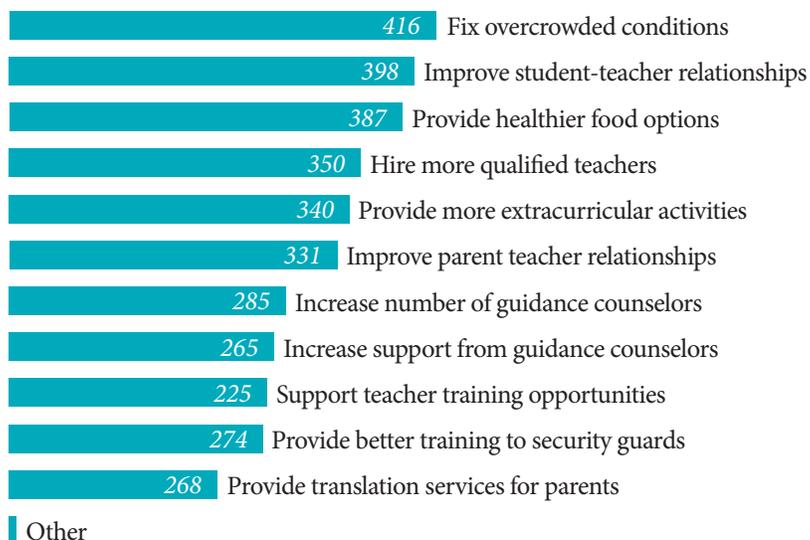
Respondents were asked whether they considered the schools in their neighborhood to be safe. In this survey, ‘safe’ was defined as free of bullying, gang violence, physical altercations/assaults, intruders and similar threats. Respondents could select their perceived level of the neighborhood schools’ safety on a scale from **Not Safe** to **Very Safe**, primarily indicating that they felt neighborhood schools were either **safe** or **somewhat safe**; a smaller proportion of respondents indicated that they felt neighborhood schools were **very safe**. Respondents were also asked to identify strategies for improving neighborhood schools from a provided list of strategies. While responses varied by zip code, the most popular response was **fix overcrowded conditions**.

### Perceived level of neighborhood school safety



*I think that in terms of health and wellness the primary issue is that we live in a society that labels and devalues young people, people of color, immigrants and undocumented populations. This flood of negativity is so detrimental. And it is compounded if you are young woman, if you are LGBTQ, and if you are court-affiliated.” – Youth Development Advocate*

### In what ways can schools in your neighborhood be improved?



After school programs in Flatbush were described as “safe havens” by interviewees, and residents expressed that many more are needed. They reported that funding shortfalls lead to a scarcity of nurturing and supportive places for youth to be; one interviewee further elaborated, by noting that there are “not enough places for youth to go without being harassed by police.”

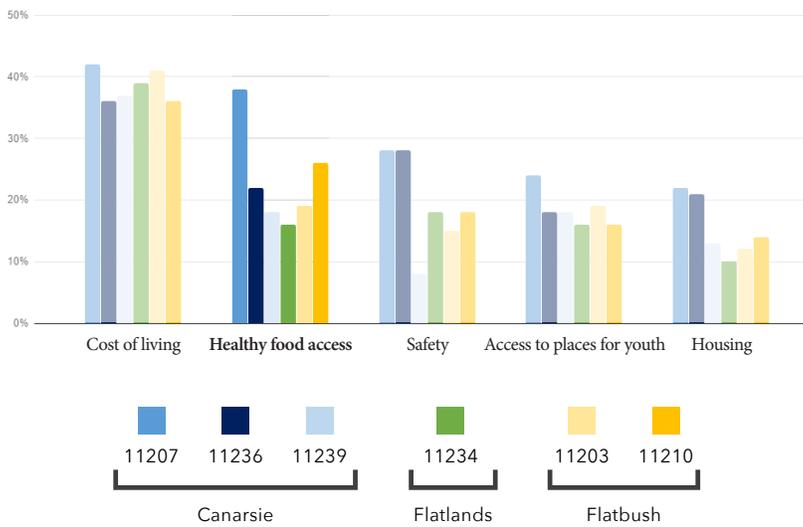
During an interview with a youth-serving organization, one interviewee noted that young people often feel unsupported in their schools, especially in Flatbush. This interviewee further explained that students often feel mistreated by school safety agents, and do not feel that their teachers care about them or think the students are intelligent.

# RESEARCH FINDINGS

## Food Access

When asked to choose the top challenge in their neighborhood from a provided list of challenges, **healthy food access** was consistently identified as among the top challenges by respondents. High carbohydrate diets among Jews and Haitians in the study communities were noted as a challenge in relation to diabetes rates.

### Top challenges by neighborhood



*In certain neighborhoods, the line for free food stretches around the corner.”*

In both focus groups and interviews, a recurring theme was insufficient access to healthy food across the study neighborhoods. Food insecurity was a topic of discussion for focus groups with women in Flatbush. During a focus group with a support group for breastfeeding women, participants shared that they could have used more help and options for food during pregnancy.

Respondents in all neighborhoods emphasized that there are not enough greengrocers, and that existing greengrocers often sell low-quality and/or old produce that “in a day, is not good,” according to one participant. The high number of fast food restaurants in the neighborhoods, especially Canarsie, was also raised as a challenging aspect of life in the neighborhoods.

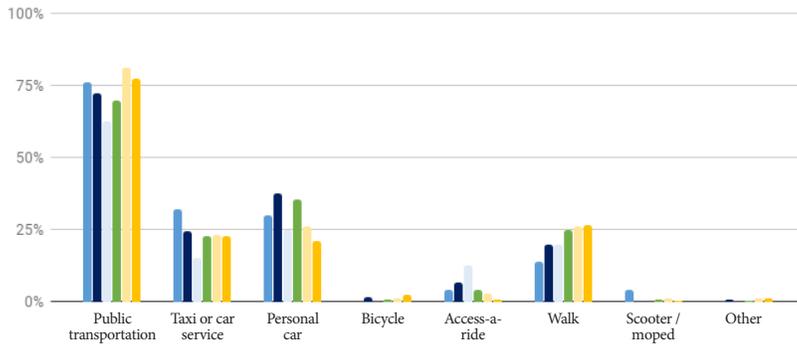
# RESEARCH FINDINGS



## Transportation

Survey respondents were asked to identify the two modes of transportation most used to go to work, run errands, or other activities. Across all zip codes, **public transportation** was the top answer. In 11234 (Flatlands), 11236 (Canarsie), and 11239 (Canarsie), the second most used mode of transportation was **personal car**. In 11234 and 11236 in particular, over a third of the respondents reported using their personal cars as a mode of transportation.

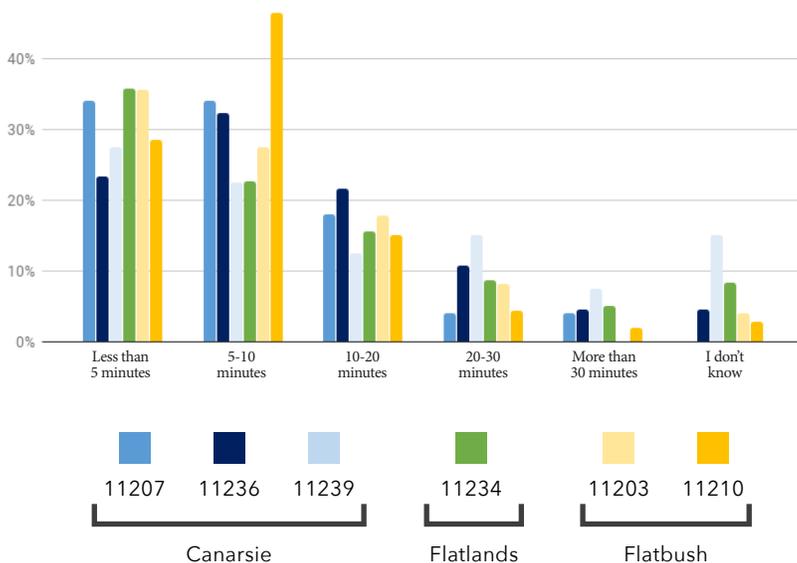
### Main modes of transportation for work, errands and other activities



*It's a transportation desert" – Elected official*

Participants in all focus groups discussed transportation as a challenging aspect of living in the neighborhoods, especially in Canarsie. They discussed how common it is for residents to have to take a bus to a subway, and about the general unreliability of public transportation. Both of these factors, participants emphasized, result in many residents relying on cars and contributing to noise and poor air quality. Respondents noted that transportation challenges also cause delays in getting to work on time, another source of stress.

### How long does it take you to walk to the nearest subway or bus station from your home?



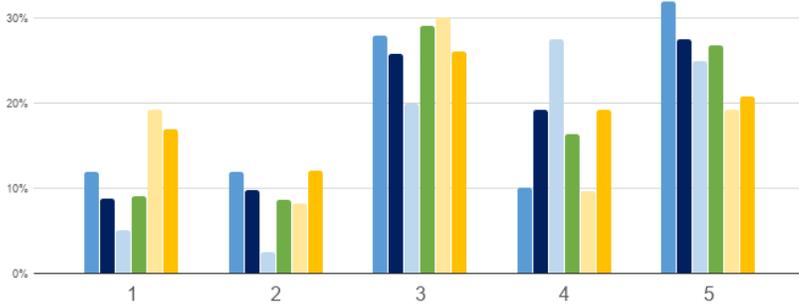
# RESEARCH FINDINGS



## Public Safety

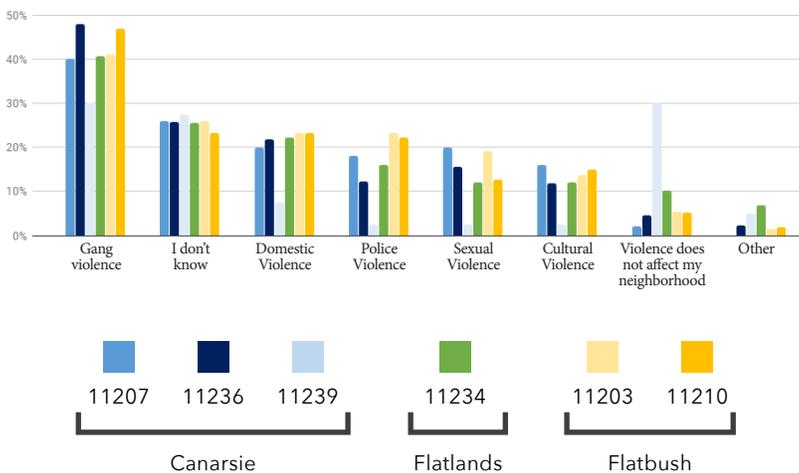
The survey asked respondents to identify types of violence they experience in their neighborhood as well as potential solutions to reduce or eliminate violence (*for more on school safety in particular, see findings on Education*). Across all zip codes, respondents reported **gang violence** as the most commonly experienced type of violence in neighborhoods, and identified **job training, youth development/leadership programs, and sports/athletics** as the top three possible solutions to decrease gang violence. Overall, 20.9% of respondents reported that police violence affected their community. The majority of residents across all zip codes indicated moderate levels of comfort with the police presence in their neighborhood (‘3,’ on a scale of 1-5), although there was significant variation among the rankings overall. The majority of respondents across zip codes indicated that they are not prevented from safely navigating their neighborhoods, nor do they avoid particular areas due to safety concerns. Those who did report being prevented from safely navigating their neighborhoods identified race as the main barrier.

### Comfort with police presence in the neighborhood on a scale of 1-5



*Where we live, everyone looks out for each other.” – Focus Group Participant*

### Type(s) of violence affecting each zip code



Police presence was mentioned in both focus groups and interviews as a challenge of living in the study neighborhoods. Some East New York and Flatbush residents found the presence of police in their neighborhoods to be hostile, but this description was not apparent in other study neighborhoods, with the exception of discussions about public housing developments. One respondent from East New York described kids ‘getting jumped by police’ while trying to play basketball and another respondent, referring to Flatbush and to public housing in Canarsie, said that police show “total disrespect for our youth and communities.”

Interviewees also noted as challenges the incarceration rates, particularly among young people, the number of Black males with criminal records and the number of shootings. Service providers who were interviewed also highlighted the lack of both anti-violence programs and programs to support victims.

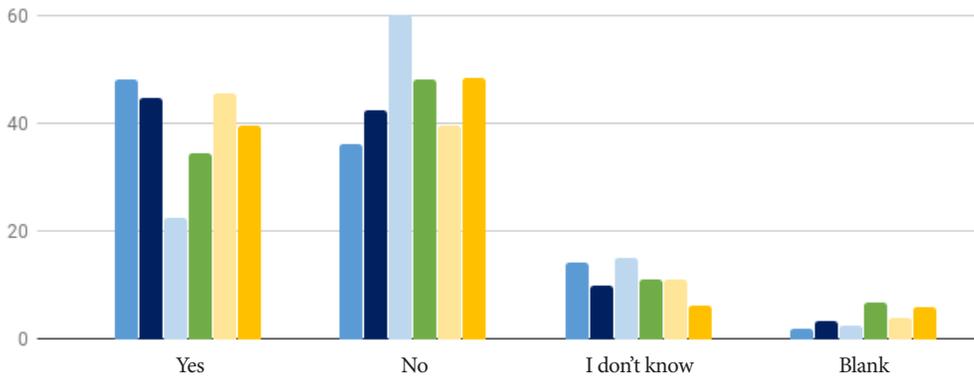
# RESEARCH FINDINGS



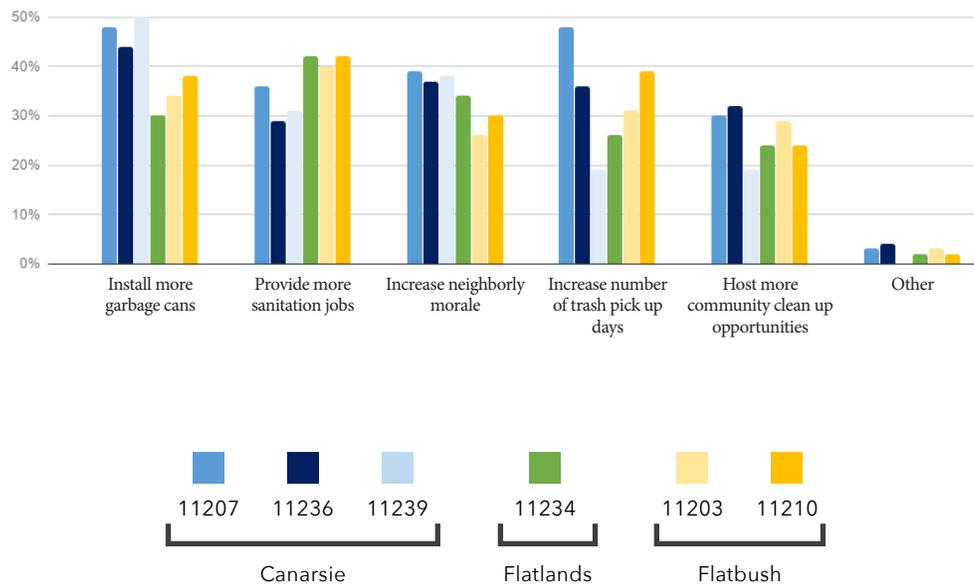
## Sanitation

Sanitation was identified as one of the ‘top neighborhood challenges’ by respondents; respondents were also explicitly asked if they believed sanitation to be a problem in their neighborhood. Interestingly, the highest proportion of residents who responded **Yes** (48% in 11207) was in the same Canarsie catchment area as the highest proportion of residents who responded **No** (60% of residents in 11239) which highlights the incongruence of experience across neighboring zip codes. Respondents further identified the two most pressing sanitation problems from a provided list of issues, as well as the most efficient ways to improve cleanliness in their neighborhoods.

### Are there sanitation problems in your neighborhood?



### Top methods for improving neighborhood cleanliness



### Top sanitation issues:



CIGARETTE BUTTS  
38.6%



FOOD ITEMS  
27.1%



PLASTIC BAGS  
28.4%



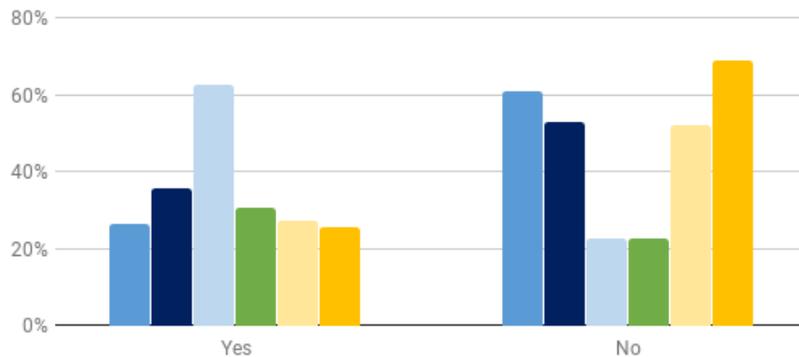
RODENTS  
21.4%

# RESEARCH FINDINGS

## Community Involvement

Fewer than half—and in many instances, fewer than a quarter—of respondents were aware of many neighborhood resources, including their neighborhood’s community board. Respondents were least aware of *child-birth classes*, *parenting classes*, and *doula services*, which is of particular note, given the high rates of maternal morbidity and infant mortality in the neighborhoods (see pages 30 and 31 of the neighborhood profiles section). Survey respondents indicated, however, that they participate in a variety of community-based activities, such as *volunteering*, *attending community board meetings*, *playing sports*, *attending block parties* and more.

### Are you aware of your Community Board?



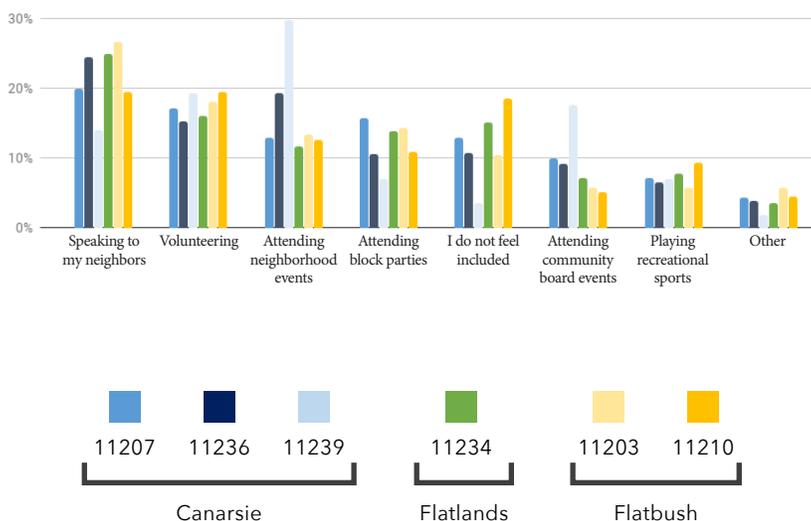
*Keeping the community’s trust and attention is a challenge, especially when they do not see progress.” – CBO Leader*

Service providers and elected officials named effective communication and community involvement (informal and formal, like the census) as a challenge.

Respondents were quick to identify the vibrancy, cultural diversity and cultural richness of the neighborhoods. Some noted the markets, churches and other venues that serve a range of different cultures. One focus group participant discussed how the Caribbean community finally has an increasing presence and sense of belonging in Brooklyn as signified in streets named after Caribbean cultural and political figures. While Canarsie was characterized as having issues surrounding homophobia, possibly due to conservative religious beliefs, the neighborhood was also described as welcoming to immigrants.

The wellbeing of immigrants, especially undocumented immigrants, proved to be of particular interest for service providers and elected officials in interviews. Their concerns focused on language barriers and the current federal anti-immigration climate and policies, which have stirred fear and are believed to be reducing the likelihood that immigrants will access health care. “Do they know where to go?” one interviewee noted rhetorically. “Do they feel safe?”

### Do you participate in any of the following as ways to feel included in your neighborhood?



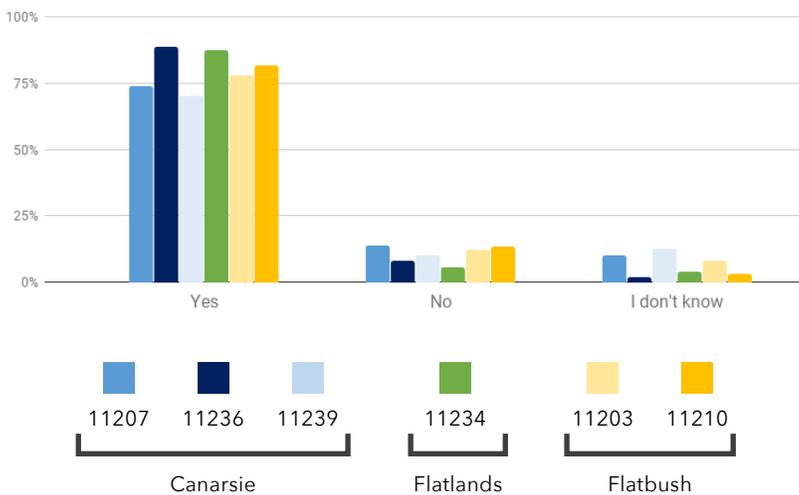
# RESEARCH FINDINGS



## Physical Environment

Survey respondents were asked whether they had parks in their neighborhoods, to measure both accessibility and proximity to public spaces. Across zip codes, the overwhelming majority of respondents reported having a park in their neighborhood, and further indicated that they considered their neighborhood parks to be safe. Respondents who did not consider their neighborhood park to be safe identified three items that would make them feel safer in their local parks: having more police, increasing maintenance of park structures, and providing better lighting.

### Question: Do you have a park in your neighborhood?



*Whether woman or man, whatever you need, it is in reach.* —Focus Group Participant

Across neighborhoods, participants appreciated convenience, especially the accessibility of stores and transportation.

In Canarsie, residents named Terminal Market, the Canarsie Pier and its general proximity to the water as some of the neighborhood's best aspects. Across neighborhoods, parks in general were seen as assets, and some noted that more parks or other green spaces are yet needed in these neighborhoods. However, youth development providers noted that parks tend to be underutilized and that one in particular, Fox Playground, lacks greenery and shade.

The relatively quiet, residential nature of Canarsie was identified as an asset to health and wellbeing. Canarsie and Flatlands focus group participants also talked about safety and neighborliness as strengths. During a focus group with 1199 delegates at Brookdale Hospital, participants noted the high number, more than 27,000, of 1199 members living in the study neighborhoods, as well as the high number of retired police and corrections workers living there.

# RECOMMENDATIONS

*Recommendations, many of which are interrelated, are derived from the community research team's review of survey data as well as staff analysis of the survey results, focus groups, interviews, and the community profiles. They fall into the following categories:*

*Physical and Mental Health*

*Housing*

*Public Housing*

*Economic Well-Being*

*Education and Youth Development*

*Immigrant Advocacy*

*Food Access*

*Transportation*

*Public Safety*

*Sanitation*

*Communication and Community Involvement*

*Physical Environment*

*Each includes actionable recommendations and the data and/or rationale to support them. Secondary data is from the New York City Department of Health and Mental Hygiene's Neighborhood Health Atlas unless otherwise noted.*

# RECOMMENDATIONS



## Health: Physical and Mental

### **a) Increase awareness, communication, services and other supports for mothers and infants to address the disproportionately high levels of severe maternal morbidity in the neighborhoods.**

There are disproportionately high levels of severe maternal morbidity in the neighborhoods per community health profile data.  
Focus group and interview data brought attention to issues faced by expecting and new mothers.  
Community research team members drew attention to issues faced by expecting and new mothers.

### **b) Increase access to ambulatory care options. (Need differs by neighborhood.)**

With the exception of SUNY Downstate in E. Flatbush (11203) and Mount Sinai Brooklyn in Flatlands (11234), no other hospitals serve the catchment area. There are also relatively low rates of primary care physicians, clinics, community health centers and school-based school facilities in the study neighborhoods.  
Too few ambulatory care options was named in a key informant interview in Canarsie/Flatlands.

### **c) Address the higher rates of diabetes and heart disease through awareness raising, programming and community planning.**

With the exception of Starrett City (11239), all of the study neighborhoods have higher rates of poorly controlled diabetes than the NYC average of 18.3%.  
Interviews and focus groups also drew attention to high rates of diabetes due to high carbohydrate diets and to low rates of access to healthy foods. The survey also found that “lack of access to healthy foods” was the second most commonly reported challenge.  
Rates of hospitalization for preventable hypertension are higher than the NYC average of 96.4 per 100,000 across all study neighborhoods; rates in East New York (136 per 100,000) and Starrett City (139.5) are almost one-and-a-half times greater than the NYC average.

### **d) Increase awareness, communication, services and other supports to address mental health and to reduce the likelihood that those with mental illness will come in contact with the criminal justice system.**

More than 40% of survey respondents across neighborhoods indicated that “more psychological/therapy services” would be a solution to coping with stress (see figure 21).  
Interviews with service providers indicated that stress levels among residents in the study neighborhoods are chronically high and that those with mental illness are more likely to become involved with the criminal justice system.



## Housing

### **a) Work with government, housing advocates, researchers and others to increase the number of truly affordable housing options and to improve housing affordability overall.**

Survey data indicated that cost of living was the top challenge to respondents across neighborhoods (see figure 14).  
Interview and focus group data also indicated that housing costs and fear of displacement are significant sources of stress.  
More than 50% of all residents in the study neighborhoods bear rent burdens of more than 30% of their incomes.  
Flatbush (58%), East Flatbush (55.9%) and East New York (57.1%) each have more residents paying more than 30% of income than the NYC average of 54.2%.  
Neighborhood change data in Flatbush and E. Flatbush show it to be at risk for gentrification and the rent increases and displacement that are likely to accompany it.

# RECOMMENDATIONS

## ***b) Support organizations that work to reduce the number of evictions in the study neighborhoods, especially in East New York and Flatbush.***

Central Brooklyn has among the highest rates of eviction in New York City. According to a report on the eviction epidemic prepared by the Community Service Society of New York (CSSNY), evictions in Brooklyn “are clustered in central and eastern Brooklyn (Northern Crown Heights, Bedford-Stuyvesant, Brownsville, Flatbush, East Flatbush, and East New York.” (Waters and Mironova, 2017).

As a point of comparison, the Park Slope neighborhood of Brooklyn (11215) where residents are more affluent, had an eviction rate of 28. Flatlands, the study neighborhood with the fewest evictions, has an eviction rate 5 times greater than Park Slope. The rate in East New York is more than 15 times greater than that of Park Slope. (Waters and Mironova, 2017)

Focus group participants, some of whom have been evicted from their apartments after decades, described the traumatic experience of eviction as well as that of dwelling in homeless shelters.



## **Public Housing**

### ***a) Increase efforts to support public housing residents in health-promotion and economic self-determination.***

Public housing developments suffer from decades of deferred maintenance and its consequences (mold, leaks, lack of heat and hot water, etc.)

Four of the six study neighborhoods have rates of residents living in public housing that are within two percentage points of the NYC average of 4.7%. East New York (11207), has three times the average rate of residents living in public housing, at 14.8%.

Survey data indicated that public housing developments and the areas surrounding them are among the places that respondents report wanting to avoid.

Interview and focus group data indicated that public housing residents have little agency in addressing the issues that they face in their developments and that conditions in these developments are both stressful and demoralizing.

### ***b) Support residents, government, advocates, researchers and others in advocating for improved maintenance and governance in New York City Housing Authority developments in the study neighborhoods.***

See above



## **Economic Well-Being**

### ***a) Increase awareness of existing, and create additional, job training opportunities. (Action in this area is also likely to contribute to reducing reported gang violence in the study neighborhoods.)***

Lack of job training opportunities was the fifth most-commonly reported “top challenge,” with 15% of respondents indicating that it is a problem.

Survey data (between 34-42% depending on neighborhood) also indicates that residents feel job training is one of the most important strategies for improving economic health in the study neighborhoods.

### ***b) Advocate for living wages/family-supporting jobs.***

See above

# RECOMMENDATIONS



## Education & Youth Development

- a) Increase the number of youth development and athletic programs and locations, as well as funding to these programs so that they can reach more youth, provide deeper levels of supports and keep youth out of harm's way.**

Athletic, youth development and youth leadership programs were selected most often as a solution to gang violence across neighborhoods.

Interviews with service providers also indicated that more youth programming is needed.

- b) Work with local schools and the Department of Education to address crowded conditions in schools.**

When asked "In what ways can schools in your neighborhood be improved?" the majority of respondents indicated "fix overcrowded conditions."

- c) Support efforts to improve relationships between students and educators, as well as students and school safety officers.**

Improve student/teacher relationships was the third most commonly selected by respondents when asked "In what ways can schools in your neighborhood be improved?"

Interviews with service providers indicated that the students that they serve feel that they are disrespected by many of their teachers and school safety officers.

- d) Explore how to increase healthy food options in NYC public schools, including how such efforts can be part of educational programming and community wealth generation.**

"Provide healthier food options" was the second most commonly selected by respondents when asked "In what ways can schools in your neighborhood be improved?"



## Immigrant Advocacy

- a) Increase the availability of language support services for non-English speakers in healthcare facilities, schools, and community services in general.**

Canarsie, Flatlands and Flatbush have notably higher rates of foreign born residents than the NYC average of 37.1%.

Canarsie, with 46.7% of its residents being foreign born, is almost 10% higher than the NYC average; Flatlands has a foreign born population 6.5% higher than the NYC average; Flatbush has a foreign born population that is 10.5% higher than the NYC average; East Flatbush has the highest percentage of foreign born residents of all of the study neighborhoods, 16% higher than the NYC average

Service providers interviewed for the study consistently drew attention to the vulnerability of the immigrant populations that they serve.

- b) Increase information access and legal assistance for immigrants, especially those who are undocumented, so that they are more likely to access services during this period of increased scrutiny of immigrant communities.**

See above

# RECOMMENDATIONS

- c) Support service providers in communicating effectively and in providing safe spaces for immigrants to be informed about available resources and current policies.**

See above

## Food Access

- a) Explore ways for increasing access to healthy foods, especially fruits and vegetables, including green markets, GrowNYC Green Carts, and gardening.**

Food insecurity in the study neighborhoods is the highest in Brooklyn; research estimates that the ‘Meal Gap’ in the Canarsie and Flatlands neighborhoods, or the “number of missing meals that result from insufficient household resources to purchase food,” is 7.2 million (Stampas et al. 2016).

Survey respondents indicated ‘lack of access to healthy food’ as the second most commonly selected neighborhood challenge (see figure 14).

Focus group participants indicated the lack and/or low quality of existing options for buying fresh fruit and vegetables.



## Transportation

- a) Explore innovative and green modes of transportation that can improve access, provide sources of community wealth generation, improve air quality, and address parking shortages, especially in Canarsie.**

In Canarsie, 54% of residents have a car-free commute, compared to the NYC average of 71% (NYU Furman Center).

Also in Canarsie, 19% of residents are within ½ mile of a subway station, compared to the NYC average of 81.6%. The Canarsie rate is also much lower than the averages in the other study neighborhoods (NYU Furman Center).

Focus groups participants in Canarsie indicated that transportation, including parking, are key challenges there.



## Public Safety

- a) Address gang violence by increasing awareness, involvement and instances of youth development opportunities, including job training.**

Gang violence was initially raised as a top challenge and area of further study interest by the community research team.

Survey respondents who indicated that violence is a problem in their neighborhood also indicated that gang violence is the most common type of violence.

Safety was the second most commonly selected challenge as indicated by the survey data.

# RECOMMENDATIONS

**b) Increase awareness of existing anti-violence programs and support the creation of new programs to address gang and domestic violence.**

Service providers indicated in interviews that there are no or too few violence prevention programs.

**c) Increase the availability of programs to support those who have been incarcerated and reduce recidivism.**

More than 60% of respondents indicated that they believe that there is a need for more support programs for formerly incarcerated individuals in their neighborhoods.

**d) Increase efforts to improve police-community relations in those neighborhoods where tension between police and residents is reported.**

Interview and focus group participants, as well as members of the community research team, indicated that police-community relations are problematic, but only in some of the study neighborhoods (East New York, Flatbush and East Flatbush).

Survey data indicated that the majority of respondents are comfortable with the police presence in their neighborhoods, though respondents in East New York, Flatbush and East Flatbush were most likely to report having low levels of comfort with police presence in their neighborhoods.



## Sanitation

**a) Improve sanitation in the study neighborhoods by providing more sanitation jobs, installing more garbage cans and increasing the number of trash pick-up days.**

44.2% of survey respondents indicated that there are NOT sanitation problems in their neighborhoods.

41.7% indicated that there ARE sanitation problems in their neighborhoods.

Providing more sanitation jobs, installing more garbage cans and increasing the number of trash pick-up days were the three most common responses when survey respondents were asked “What do you think is the most efficient way to improve cleanliness in your neighborhood?”

Service providers to public housing developments indicated the lack of garbage cans in developments and subsequent unsanitary conditions.



## Communication and Community Involvement

**a) Work with Community Boards, CBOs, hospitals, schools, precincts and others to improve awareness of and access to community resources. Increase opportunities for civic engagement and leadership development.**

Survey respondents indicated low levels of awareness of the existence of their neighborhood’s Community Board—36% and below across study neighborhoods. Starrett City was the exception.

Survey respondents indicated low levels of awareness of resources like small business services, job training, housing supports, parenting classes, childcare programs, childbirth classes in their communities.

# RECOMMENDATIONS

**b) Increase utilization of local community spaces and houses of worship to host health expos and provide information on existing resources.**

Interviewees indicated that, in general, community centers and houses of worship should be used more frequently for community education and community-building purposes.

**c) Account for hard-to-reach populations like youth living in shelters and seniors when developing communication and community involvement strategies.**

In interviews, service providers indicated the difficulty of communicating effectively with these vulnerable populations and recommended increased intentionality in order to address the challenge.

## Physical Environment: Green Spaces, Places to Relax

**a) In order to address stress and encourage increased exercise, increase the number of green spaces and places to relax in those parts of the neighborhoods where there are few existing options.**

“More places to relax” was the second most common response (after “more psychological/therapy services”) to the survey question about what respondents believe will help residents to cope with stress.

While some neighborhoods like Canarsie and Starrett City have park access only slightly lower than the NYC average of 73%, fewer residences in Flatbush (42.3%) and East Flatbush (39.6) access to parks within ¼ of a mile of a park (NYU Furman Center).

In interviews, service providers indicated that they believe that more green spaces are necessary to improving health and wellbeing.

## Overarching Recommendations

There are also overarching recommendations—actions that should be taken in relation to each recommendation. These include:

*Account for structural barriers faced by people of color, especially given the high Black population and relatively low racial diversity index in the study neighborhoods*

*Support robust financial health for CBOs so that they can be consistent in their service provision, build trust, exhibit cultural sensitivity and competence, and be responsive and respectful of the needs of the community.*

*Continue to include local stakeholders and voices of community members as exemplified by the Brooklyn PAR studies.*

*Support joint planning for the implementation of recommendations from the CFF PAR study, as well as other efforts that require community buy-in for long term success.*

# | CONCLUSION

# CONCLUSION

It has been a great honor to prepare this report for the communities of Canarsie, Flatlands, Flatbush, East Flatbush, East New York and Starrett City. The report has served a number of purposes: It is a snapshot of neighborhood health status and resources; a set of insights into how community stakeholders experience their neighborhoods in relation to overall health and wellbeing; and a map of where they believe extra attention is most needed. Perhaps most importantly for the purpose of effecting change, it is a tool for starting conversations, sparking increased action, and encouraging more collaboration across sectors.

The report's recommendations for achieving maximum health and wellbeing in the neighborhoods focus on three main areas: **1) increasing awareness, communication and programming;** **2) enhancing existing systems, institutions, and organizations,** and **3) relationship-building among community stakeholders**—residents of all ages, educators, medical professionals, elected officials, businesspeople, cultural leaders, police, and others. The recommendations also call for increasing opportunities for productive stakeholder engagement, and for special attention to vulnerable populations like immigrants, those with mental illness, public housing residents and formerly incarcerated people.

Effectively addressing these issues will require innovation within institutions, as well as in political life and public policy. It will also require innovation in economic arrangements to support residents and to generate shared and sustainable wealth. The report is therefore an invitation to community stakeholders to take this research to its logical next steps, block-by-block, in Central Brooklyn neighborhoods and around the borough. The report can serve as a foundation for the collective learning and action required to make neighborhoods places where people thrive in all ways—from physical and mental health to social, cultural and economic wealth.

Echoing the conclusion from the 2017 PAR report on the neighborhoods

## Recommendation focus areas

---

1. *Increasing awareness, communication and programming*
2. *Enhancing existing systems, institutions, and organizations*
3. *Relationship-building among community stakeholders*

# CONCLUSION

of Bedford-Stuyvesant, Crown Heights and East Flatbush, no single set of stakeholders can realize the vision of community health and wealth on their own. Improving the social determinants of health in Brooklyn will require a more robust civic infrastructure—connections, relationships, collective learning and common understanding among stakeholders—than what currently exists. PAR methodology can continue to be a valuable tool in building this civic infrastructure. Experiential learning related to social determinants of health provides a platform for residents to build their capacity to act intentionally, realize their own choices, and increase their confidence in coming together to make positive changes for themselves and their communities. PAR also models the dynamic and iterative process of learning and building community needed for comprehensive change.

The CCB Wellness Empowerment for Brooklyn PAR projects have already helped to convene multi-sector partners, spark investments, construct hydroponic farms, to name just a few outcomes. With health and wellbeing as its North Star, the WEB coalition holds the promise of generating further connections and opportunities for deeper and even more productive engagement between health systems and the communities they serve.



The report is therefore an invitation to community stakeholders to take this research to its logical next steps, **block-by-block, in Central Brooklyn neighborhoods and around the borough.**

# REFERENCES

- Berger, Stephen, Rodriguez, Ramon Jesus, Swain, Elizabeth, Toby, William, Webb, Arthur Y. 2011. *At the Brink of Transformation: Restructuring the Healthcare Delivery System in Brooklyn—Report of the Brooklyn Health Systems Redesign Work Group*. Albany: New York State Department of Health. [https://www.health.ny.gov/health\\_care/medicaid/redesign/docs/brooklyn\\_mrt\\_final\\_report](https://www.health.ny.gov/health_care/medicaid/redesign/docs/brooklyn_mrt_final_report)
- Benjamin, Georges C. 2015. “Health Equity and Social Justice: A Health Improvement Tool.” *Views From the Field*. Grantmakers for Health.
- Braveman, Paula. 2006. “Health Disparities and Health Equity: Concepts and Measurement.” *Annual Review of Public Health*. 27: 167-194.
- Braveman, Paula and Egerter, Susan. 2013. *Overcoming Obstacles to Health in 2013 and Beyond*. Princeton: The Robert Wood Johnson Foundation.
- Braveman, Paula and Gottlieb, Laura. 2014. “The Social Determinants of Health: It’s Time to Consider the Causes of the Causes.” *Nursing in 3D: Workforce Diversity, Health Disparities, and Social Determinants of Health*, *Public Health Reports* 129, Supplement 2, pp. 19-31.
- Diez Roux, A.V. “Investigating neighborhood and area effects on health.” *American Journal of Public Health*. 2001 Nov; 91(11): 1783-9.
- Dimon, Laura and Smith, Greg B. (2017). “NYCHA residents suffered increase in major crime last year as city enjoyed 4% dip.” *New York Daily News*, January 4, 2017. <https://www.nydailynews.com/news/crime/nycha-residents-rise-major-crime-2016-article-1.2934944>
- Jackson, Kenneth T. and Manbeck, John B., consulting editor. 1998. *The Neighborhoods of Brooklyn*. New Haven & London: Yale University Press.
- King L, Hinterland K, Dragan KL, Driver CR, Harris TG, Gwynn RC, Linos N, Barbot O, Bassett MT. Community Health Profiles 2015, Brooklyn Community District 18: Flatlands and Canarsie; 2015; 42(59):1-16. <https://www1.nyc.gov/assets/doh/downloads/pdf/data/2015chp-bk18.pdf>
- King L, Hinterland K, Dragan KL, Driver CR, Harris TG, Gwynn RC, Linos N, Barbot O, Bassett MT. Community Health Profiles 2015, Brooklyn Community District 14: Flatbush and Midwood; 2015; 38(59):1-16. <https://www1.nyc.gov/assets/doh/downloads/pdf/data/2015chp-bk14.pdf>
- Koblinsky, Marge, Chowdhury, Mahub Elahi, Moran, Allisyn, and Ronsmans, Carine. 2012. “Maternal Morbidity and Disability and Their Consequences: Neglected Agenda in Maternal Health.” *Journal of Health, Population and Nutrition*. 30:2, 124-130. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397324/>
- Li, W., Sebek, K., Castro, A., Gurr, D., Kelly, D., Kennedy, J., Maduro, G., Lee, E., Sun, Y., Zheng, P., Van Wye, G. 2017. *Summary of Vital Statistics 2015*. New York, NY: New York City Department of Health and Mental Hygiene. <https://www1.nyc.gov/assets/doh/downloads/pdf/vs/2015sum.pdf>
- Martin, Nina, and Montagne, Renee. 2017. “Nothing Protects Black Women from Dying in Pregnancy and Childbirth.” *ProPublica*. <https://www.propublica.org/article/nothing-protects-black-women-from-dying-in-pregnancy-and-childbirth>
- Mettey, A., Garcia, A., Isaac, L., Linos, N., Barbot, O., Bassett, M.T. 2015. *Take Care New York 2020: Every Neighborhood, Every New Yorker, Everyone’s Health Counts*. New York, NY: New York City Department of Health and Mental Hygiene. <https://www1.nyc.gov/assets/doh/downloads/pdf/tcny/tcny-2020.pdf>
- Mironova, Oksana. 2014. “The Lesson of Starrett City.” *Bklynr*. Issue 20. <https://www.bklynr.com/the-lesson-of-starrett-city/>
- Moy, Ernest, Chang, Eva, and Barrett, Marguerite. 2013. “Potentially Preventable Hospitalization—United States, 2001-2001.” *Morbidity and Mortality Weekly Report*. Atlanta, GA: Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a23.htm>
- National Academies of Sciences, Engineering, and Medicine. 2017. *Communities in Action: Pathways to Health Equity*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24624>

# REFERENCES

- New York City Department of Health and Mental Hygiene. New York City Neighborhood Health Atlas. Accessed September 29, 2018. <https://public.tableau.com/profile/nyc.health#!/vizhome/NewYorkCityNeighborhoodHealthAtlas/Home>
- New York City Department of Health and Mental Hygiene. 2016. *Severe Maternal Morbidity in New York City, 2008-2012*. New York, NY: New York City Department of Health and Mental Hygiene. <https://www1.nyc.gov/assets/doh/downloads/pdf/data/maternal-morbidity-report-08-12.pdf>
- New York City Mayor's Office of Immigrant Affairs. Fact Sheet: ICE Enforcement in New York City, May 2018. <https://www1.nyc.gov/assets/immigrants/downloads/pdf/enforcementmay2018.pdf>
- New York State Department of Health. 2014. *DSRIP Overview*. [https://www.health.ny.gov/health\\_care/medicaid/redesign/dsrp/overview.htm](https://www.health.ny.gov/health_care/medicaid/redesign/dsrp/overview.htm)
- Nowotny, Kathryn M. and Anastasiia Kuptsevych-Timmer. 2018. "Health and Justice: Framing incarceration as a Social Determinant of Health for Black Men in the United States." *Sociology Compass*, 12:e12566. <https://doi.org/10.1111/soc4.12566>
- NYU Furman Center. 2016. *State of New York City's Housing and Neighborhoods in 2016*. New York, NY: School of Law, Wagner School of Public Service, New York University. [http://furmancenter.org/files/sotc/SOC\\_2016\\_Full.pdf](http://furmancenter.org/files/sotc/SOC_2016_Full.pdf)
- Office of the Governor of New York State. 2018. *Governor Cuomo Announces Transformation of the Health Care System in Brooklyn*. <https://www.governor.ny.gov/news/governor-cuomo-announces-transformation-health-care-system-brooklyn>
- Office of the New York City Comptroller. 2018. *The Gap Is Still Growing: New York City's Continuing Housing Affordability Challenge*. <https://comptroller.nyc.gov/reports/the-gap-is-still-growing-new-york-citys-continuing-housing-affordability-challenge/>
- Rieder, Jonathan. 1985. *Canarsie: The Jews and Italians of Brooklyn against Liberalism*. Cambridge, MA: Harvard University Press.
- Robert Wood Johnson Foundation. 2011. *Health Policy Snapshot Series: How Does Where We Live, Work and Play Affect Our Health?* Princeton, NJ: Robert Wood Johnson Foundation. <https://www.rwjf.org/en/library/research/2011/09/how-does-where-we-live--work--learn-and-play-affect-our-health-.html>
- Stampas, Triada and Koible, William Guillaume. *New York City's Meal Gap: 2016 Trends Report*. New York, NY: Food Bank of New York City. <http://1giqgs400j4830k22r3m4wqg-wpengine.netdna-ssl.com/wp-content/uploads/Meal-Gap-Trends-Report-2016.pdf>
- Thabit, Walter. 2003. *How East New York Became a Ghetto*. New York: New York University Press.
- Torre, Maria Elena. 2009. *Participatory Action Research Map*. New York, NY: The Public Science Project. <http://www.publicscienceproject.org/files/2013/04/PAR-Map.pdf>
- "The Vital Brooklyn Initiative" <https://www.ny.gov/transforming-central-brooklyn/vital-brooklyn-initiative-0>
- Waters, Thomas J and Mironova, Oksana. 2017. *Addressing the Eviction Epidemic: The Right to Counsel in New York City*. New York, NY: The Community Service Society of New York. <http://www.cssny.org/news/entry/evictions-and-the-right-to-counsel>
- Wellness Empowerment for Brooklyn. 2016. *Healthy Brooklyn: Community Centered Study—Proposed Health and Wellness Interventions in Brownsville and East New York*. Brooklyn, NY: Community Care of Brooklyn. [https://www.ccbrooklyn.org/media/file/FINAL\\_CCB\\_PAR\\_REPORT.PDF](https://www.ccbrooklyn.org/media/file/FINAL_CCB_PAR_REPORT.PDF)
- Wellness Empowerment for Brooklyn Research Team. 2017. *People Focused Research: Creating Health In Brooklyn--Participatory Action Research in Bedford Stuyvesant, Crown Heights, and East Flatbush*. Brooklyn, NY: Community Care of Brooklyn. <https://static1.squarespace.com/static/58334e5f8419c209d6bf3438/t/5af30a3a562fa79d0f18255e/1525877308094/PAR+2+Report+and+Appendix.pdf>
- Wilkinson, Richard and Marmot, Michael (eds.). 2003. *Social Determinants of Health: The Solid Facts, 2nd Edition*. Denmark: The World Health Organization.