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Honorable Nirav R. Shah, M.D., M.P.H.
Commissioner
New York State Department of Health
Corning Tower
Albany, NY 12237

Dear Dr. Shah,

In June you created our Brooklyn MRT Health Systems Redesign Work Group and charged us with assessing the strengths and weaknesses of Brooklyn hospitals and their future viability. You also charged us with making specific recommendations that will lead to a high quality, financially secure and sustainable health system. While your specific request was focused on Brooklyn you stated your hope that our proposals could be used as a template where appropriate throughout the state. The attached report, "At the Brink of Transformation: Restructuring the Healthcare Delivery System in Brooklyn," is our response to that mandate. It is the product of six months of information gathering, consultation with the Brooklyn community, analysis and deliberation.

Our report focuses not only on hospitals, but also on communities, their residents and the other providers that serve them. The data before us confirms that health status, health care utilization, and health care resources vary by neighborhood, with some neighborhoods exhibiting higher rates of chronic disease, avoidable emergency room visits and preventable hospitalizations, and fewer primary care providers and visits, than others. This report endorses the creation of integrated systems of care aligned with community needs as a means of improving individual health and community health, while reducing unnecessary health care spending.

As you have recognized, New York's healthcare delivery system is evolving in response to federal health care reforms, Governor Cuomo's Medicaid Redesign Team initiatives, and advances in medical practice and technology. Emerging value-based and performance-based payment mechanisms that emphasize prevention, quality, and outcomes demand greater collaboration among health care providers than ever before and create opportunities for integrated systems of care that can improve outcomes while reducing costs. At the same time, impending reductions in Medicare payments and New York's global cap on Medicaid spending will require providers to adapt rapidly.

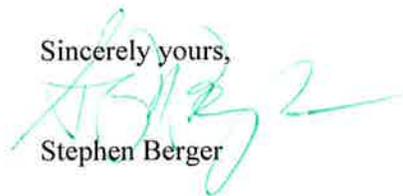
The recommendations in this report are intended to begin a process of reshaping the healthcare delivery system in Brooklyn and hopefully throughout the State. The report lays out principles, tools, and structural recommendations which should be seen as the framework and first stage of a multi-year process designed to strengthen primary care, improve care coordination and chronic disease management, and reduce wasteful health care utilization and provider inefficiency. Its primary focus is on six hospitals – Brookdale Hospital Medical Center, Brooklyn Hospital Center, Interfaith Medical Center, Kingsbrook Jewish Medical Center, Long Island College Hospital, and Wyckoff Heights Medical Center-- that are not currently positioned to seize the opportunities and manage the risks associated with the changes under way at the state and federal levels.

The monumental task in front of us, which can no longer be avoided, will demand redefining the roles and relationships among health care providers and between providers and patients. Primary care, acute care, behavioral health care and long-term care must all be linked in a patient-centered system, with the ultimate goal of achieving the CMS Three-Part Aim: better health care for individuals, better health for communities, and lower costs through improvement. To accomplish these ends, in an environment of necessary revenue neutrality, will require creativity, compromise and the willingness of many groups and institutions to work together in ways they never have before.

On a personal note, it has been an honor and a pleasure to serve with the other members of the Work Group: Ramon Rodriguez, Elizabeth Swain, William Toby, and Arthur Webb. I could not have asked for a more thoughtful, hard-working, and experienced team.

We hope this report will be a useful template for moving forward.

Sincerely yours,



Stephen Berger

Cc: Ramon Rodriguez
Elizabeth Swain
William Toby
Arthur Webb

Enclosure



At the Brink of Transformation: Restructuring the Healthcare Delivery System in Brooklyn



REPORT OF THE BROOKLYN HEALTH SYSTEMS REDESIGN WORK GROUP

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Executive Summary

Brooklyn's healthcare delivery system is at the brink of dramatic change – change that will be characterized either by a reconfiguration of services and organizations to improve health and health care, or by a major disruption in services as a result of financial crises at three hospitals. Today, Brooklyn is grappling with high rates of chronic disease and a healthcare delivery system that is, in many areas, ill-equipped to address them. High rates of preventable hospital admissions and avoidable emergency department visits indicate deficiencies in primary care and inefficient use of high-cost resources. Further, while there are several fine hospitals in Brooklyn that are well-managed and financially-stable, Interfaith Medical Center, Wyckoff Heights Medical Center and Brookdale Hospital Medical Center are experiencing financial crises. At the same time, great opportunity presents itself in new models of patient-centered care, focused on prevention, and supported by technology and appropriate reimbursement incentives. We must choose the affirmative path of opportunity and transformation.

Six months ago, Commissioner Nirav Shah of the New York State Department of Health appointed the Brooklyn Health System Redesign Work Group (“the Work Group”) to assess the strengths and weaknesses of Brooklyn's hospitals and healthcare system and evaluate the longer-term viability of the hospitals as providers of care to the borough's 2.5 million residents. The Work Group was convened in the context of growing financial distress at the three hospitals and concerns about the long-term stability of other providers given changes in Medicaid and Medicare funding and an evolving healthcare marketplace. With Brooklyn's high rates of obesity, high blood pressure and diabetes, and 1 million Medicaid beneficiaries among its residents, the state has a strong interest in the quality, accessibility, efficiency and viability of healthcare in the borough.

Over the past six months, the Work Group has convened three public meetings, visited all 15 hospitals in Brooklyn and a federally qualified health center, met with hospital executives, board members, medical staffs and healthcare experts, and reviewed reams of data. We have also considered the healthcare environment in New York and around the nation. The Medicaid and Medicare programs are undergoing ambitious and forward-looking reforms unprecedented in at least 30 years. These reforms include new models of care and payment that emphasize care coordination, prevention, and performance. They demand integration and collaboration among providers along the continuum of care, in order to improve the quality of care for individuals, improve the health of communities, and reduce costs through improvement. With or without federal reforms, clinical integration, clinical outcomes, expansion of primary care and contraction of inpatient beds must be priorities in order to improve health and healthcare, while reducing unnecessary costs.

In this context, the Work Group has developed a set of findings, principles and tools to guide the reconfiguration of Brooklyn's healthcare delivery system. We believe these principles and tools are applicable to delivery systems around the state. This report also sets forth recommendations pertinent to certain at-risk hospitals in Brooklyn, but does not direct the elimination of a specified number of beds or the relocation of specified services in Brooklyn. Instead, it creates a process through which restructuring plans can be developed, evaluated and implemented with community involvement and state oversight.

The findings, principles, and process set forth here are intended to transition healthcare in Brooklyn into integrated and comprehensive systems aligned with community needs. All of the following recommendations are based on the determination that the state has an interest that goes beyond saving any single institution and extends to ensuring the well-being of its citizens.

Workgroup Findings: Brooklyn Health Care

Based on its review of data, interviews of healthcare facility executives, board members, and medical staffs, public hearing testimony, discussions with experts, and site visits, the Work Group has made the following findings:

- Brooklyn faces daunting population health challenges. High rates of chronic disease are exacting a human and economic toll.
- Community health needs and health care resources vary widely by neighborhood. Disparities in health status are also associated with poverty, race and ethnicity.
- Brooklyn hospitals compete for market share amongst themselves and with academic medical centers in Manhattan. Brooklyn patients, particularly those with commercial insurance and those seeking high-end surgical services, are increasingly seeking care in Manhattan.
- More than 15 percent of adult, medical-surgical hospital admissions and 46 percent of all emergency department visits that do not result in a hospital admission in Brooklyn could be averted through high quality, accessible care in the community. High rates of primary care treatable and preventable emergency department use and preventable (PQI) hospitalizations suggest that many Brooklyn patients are not using appropriate, effective, and less costly primary care necessary to keep them healthy and out of the hospital.
- While nearly one-third of the residents of several Brooklyn neighborhoods report that they lack a primary care provider, there is also evidence that many Brooklyn patients seek care in the ED, not because they lack a primary care provider, nor because they believe their condition is emergent, but rather based on convenience or the nature of their primary care provider's practice.
- High rates of preventable hospitalizations and above-average lengths of stay suggest that a significant portion of inpatient care in Brooklyn hospitals would not be necessary, if primary and other outpatient care were improved and inpatient care were managed more efficiently.
- Almost 30 percent of Brooklyn's hospital beds are vacant on an average day. Given low occupancy levels, modest reductions in preventable hospitalizations and lengths of stay would permit the elimination of 1,235 beds, even after taking into account projected population growth.
- Heavy use of hospital services among people with mental illness and substance use disorders suggests that these conditions, and associated co-morbidities, could be managed better in the community.
- Six Brooklyn hospitals – Brookdale Hospital Medical Center (Brookdale), Brooklyn Hospital Center (Brooklyn Hospital), Interfaith Medical Center (Interfaith), Kingsbrook Jewish Medical Center (Kingsbrook Jewish), Long Island College Hospital (LICH), and Wyckoff Heights Medical Center (Wyckoff), collectively referred to as the "focus hospitals" -- do not have a business model and sufficient margins to remain viable and provide high quality care to their communities as currently structured. Three of these hospitals, Interfaith, Brookdale, and Wyckoff are experiencing financial crises and require aggressive action. The financial position of Long Island College Hospital (LICH) has also been grim, but it has recently been placed under the umbrella of SUNY

Downstate Medical Center and can be turned around with its support. Brooklyn Hospital and Kingsbrook Jewish have effected restructurings that have stabilized their positions, but will not remain viable in the long run, as stand-alone facilities under their current business models, given changes in Medicare, Medicaid and the healthcare market. These two institutions can play a leadership role in creating integrated systems to strengthen healthcare delivery in the communities served by all six hospitals.

- The boards of some of these hospitals have failed to satisfy fully their responsibilities to the organizations and their communities. They have not evaluated financial and clinical performance, set strategic goals to address them, and held management accountable for achieving them. Instead, they have adopted a strategy that seeks merely to be the last man standing in their communities. It is clear that this strategy is a failed one.
- Healthcare reforms at the federal and state levels demand a fundamental change in the clinical, organizational and financial paradigm for these institutions to permit them to participate effectively in new models of integrated care that emphasize prevention, care coordination, and performance and produce real value for individual patients and the community.
- In order to realize the promise of these reforms, it is necessary to engage patients, and other community stakeholders, at the local level, in data-driven planning processes to develop patient-centered systems of care that address community health needs, while reducing excess utilization and costs.

Recommended Restructuring Principles

The Work Group recommends that the following principles drive the restructuring of the delivery system:

- In order to improve the health status of Brooklyn residents and to succeed under emerging payment methodologies, health care providers must create integrated systems of care and service delivery models, comprised of physicians, federally-qualified health centers, hospitals, nursing homes, home care agencies, behavioral health providers, and hospice programs.
- New models of payment and delivery will require a rethinking of the hospital-based bricks and mortar pattern of health care.
- Patient-centered primary care services, strategically-located and linked to acute and long-term care providers, must be developed.
- Restructuring must reduce waste and improve the quality of care, the settings for care, the engagement of patients in care, the way clinicians deliver care, and ultimately community health.
- Strong institutional governance and experienced leadership are needed to stabilize Brooklyn's most troubled hospitals and to steer them into new integrated healthcare systems.
- Academic medical centers and other providers from outside Brooklyn that seek to establish affiliations or ambulatory care facilities in the borough must partner with local hospitals and other providers and strive to serve Brooklyn residents in Brooklyn.

- Restructuring support, whether in the form of debt relief, grants, loans or reimbursement adjustments, must be conditioned on the creation of a sound governance and management structure; the development of viable strategic, financial, and operational plans consistent with the principles outlined here; and the achievement of quality benchmarks and savings. Any support must be revenue neutral.
- The Brooklyn crisis and the state’s response highlight the need for more structured, collaborative health planning and oversight of troubled facilities.
- Innovative options for capital formation, including private investment, are needed to support capital and operational improvements in Brooklyn hospitals; but private investment must not be allowed to undermine a facility’s commitment to the community or its accountability for the quality of care.
- The cost structure of healthcare facilities in Brooklyn, including labor and medical education cost centers, must be rationalized.
- The state should support the participation of nursing homes in emerging systems of care.

Recommended Tools for Change

The Work Group recommends that the following tools be developed and deployed, where applicable, to support change not just in Brooklyn and not just for troubled hospitals, but across the state and along the continuum of care, among strong and fragile providers alike:

Expand the State Health Commissioner’s Powers over Healthcare Facility Operators

Effective governance of health care facilities and systems will be essential to the future of healthcare in Brooklyn. To ensure that the he or she has the necessary power to protect the public health, the Commissioner of the New York State Department of Health (henceforth “the Commissioner”) should be granted expanded authority over healthcare facility operators as follows:

- Legislation should be enacted to give the Commissioner authority, at his or her discretion, to appoint a temporary operator for health care facilities that present a danger to the health or safety of their patients; or have operators that have failed in their obligations; or are jeopardizing the viability of essential health care capacity, absent intervention by the state.
- Legislation should be enacted to give the Commissioner authority to replace healthcare facility board members who are not fulfilling their duties to the organizations they are charged with governing.

Appoint a Brooklyn Healthcare Improvement Board

The Commissioner should appoint a Brooklyn Healthcare Improvement Board (BHIB) to advise the Commissioner and, at his or her direction, oversee, initiate where necessary, manage and ensure the implementation of this report’s recommendations.

Provide Financial Support for Restructuring through an Application Process

This application process, as envisioned by the MRT Payment Reform Work Group, will provide a vehicle for supporting and overseeing implementation of the recommendations in this report as they apply to particular facilities. The application will require feasible and actionable plans for restructuring, as well as strong governance, long-term oversight, and cost savings.

To support this process, legislation should be enacted to provide these focus hospitals, and others that qualify, under the principles outlined in this report, with access to capital and/or the means of reducing debt burdens that substantially impair the hospitals' ability to restructure. In addition, the subsidiary legislation for the Dormitory Authority of the State of New York (DASNY) should be extended.

Rationalize the Distribution of DSH/Indigent Care Pool Funds

Brooklyn's hospitals serve significant numbers of uninsured and Medicaid patients and will be affected by pending changes in the distribution of federal disproportionate care (DSH) funds. The MRT Payment Reform Work Group's has articulated the following principles for reform of the allocation of these funds, which should be adopted:

- Develop a new allocation methodology consistent with CMS guidelines to ensure that New York State does not take more than its share of the nationwide reduction;
- Adopt a fair and equitable approach to allocate funds across hospitals, with a greater proportion of funds allocated to those hospitals that provide services to uninsured and underinsured patients;
- Simplify the allocation methodology and consolidate the Indigent Care pools.

Provide Funding for a Multi-Stakeholder Planning Collaborative in Brooklyn

To assure that the new healthcare systems under development address community health needs, a data-driven, multi-stakeholder health planning collaborative, like the Brooklyn Health Improvement Project, should be created or expanded with state and other support. It should include representatives of consumers, health plans, providers, business, labor, and New York City Department of Health and Mental Hygiene. This collaborative would provide input into the development of health systems and the deliberations of the Brooklyn Healthcare Improvement Board, and support interventions to improve health care utilization and health status in Brooklyn. It could also engage in activities to curb unnecessary health spending, such as such as the creation of a community advisory board for major investments in medical technology like the CTAAB in the Finger Lakes region.

Support Involvement of Private Physician Practices in Integrated Health Systems

The Work Group encourages the state to support the development of large physician practices in under-served areas and the involvement of physician practices in integrated systems of care. The state should consider working with Medicaid managed care plans, commercial payers and foundations to fund embedded care managers or social workers in physician practices, who can help to prevent hospitalizations and readmissions and assist in addressing health-related needs such as transportation to appointments and housing. Tax credits for physicians who provide significant charity care should also be considered. To the extent that physician practices receive enhanced support from the state, however, the funding should be tied to the satisfaction of quality standards, like patient-centered medical home accreditation, and to services to Medicaid beneficiaries and uninsured patients.

Develop new alternatives for capital support for primary care providers

Primary care providers are often undercapitalized and have difficulty securing affordable capital financing necessary to expand and build facilities. To expand primary care in the communities most in need, the state should explore new programs that use public support to leverage outside investment in high quality primary care projects.

Brooklyn Hospitals: Specific Recommendations

The Work Group focused its attention on the three most troubled hospitals in Brooklyn that require immediate intervention to avert financial collapse: **Brookdale Hospital Medical Center, Interfaith Medical Center, and Wyckoff Heights Medical Center**. The Work Group notes that **Long Island College Hospital (LICH)** also would also fall into this category, but for its recent affiliation with SUNY Downstate Medical Center which has created the potential for a turnaround. In addition, the Work Group considered the position of two other key hospitals, **Brooklyn Hospital Center and Kingsbrook Jewish Medical Center**, that do not exhibit the same level of financial distress as the others. However, they need to put in place plans for long-term for sustainability and can play a leadership role in creating integrated systems to strengthen healthcare delivery in the communities served by all six hospitals. Specific recommendations are made for these six hospitals:

Brookdale Hospital Medical Center and Kingsbrook Jewish Medical Center: The Work Group recommends that Kingsbrook Jewish take the lead in establishing an integrated system with Brookdale, either under a common active parent or other accountable governance structure. The Work Group recommends new executive leadership at Brookdale and a separation from MediSys. A viable plan would require the creation of a new governance structure and a new board of directors for the integrated system.

The restructuring of Brookdale's debt and other obligations is essential to the success of this proposal. Any reconfiguration would also require the implementation of a plan to strengthen primary care in the communities served by the two institutions and clinical integration among participating providers. The Kingsbrook/Brookdale system should also consider reducing its bed complement and investing in additional ambulatory care services. Development and implementation of this plan recommendation should take place under the guidance of the Brooklyn Healthcare Improvement Board, with input from the communities served.

Brooklyn Hospital Center, Interfaith Medical Center, and Wyckoff Heights Hospital: The Work Group recommends the integration of these three institutions into a single system under an active parent, or other accountable governance structure, led by Brooklyn Hospital Center. In light of the precarious financial positions of Interfaith and Wyckoff, the Work Group would like to ensure that Brooklyn Hospital, which has recently emerged from bankruptcy and is demonstrating sound financial practices, is not brought down by this plan. Indeed, we recommend that Brooklyn Hospital be given the support to lead the transformation and restructure the operations at Interfaith and Wyckoff.

This system should streamline inpatient and tertiary care in a manner that is sustainable and aligned with community needs. A critical element of the restructuring plan must be enhanced access to high quality primary care and outpatient services. Development and implementation of the plan should proceed under the guidance of the Brooklyn Healthcare Improvement Board, with input from the communities served.

SUNY Downstate Medical Center and Long Island College Hospital (LICH): In light of the recent acquisition of LICH, SUNY Downstate should consider consolidating inpatient services at

the LICH campus, thereby eliminating excess capacity and permitting the medical center to focus its inpatient resources and expertise on one location. With the new campus and the expansion of services at the neighboring Kings County Hospital, SUNY Downstate should reconsider any planned expansion of beds at the former Victory Hospital site and any development of an ambulatory facility in the vicinity of University Hospital or at the former Victory Hospital site. Any request by SUNY Downstate to open additional inpatient beds at the Victory Hospital site should be denied.

Kingsboro Psychiatric Center: The Office of Mental Health (OMH) should close the inpatient service of Kingsboro Psychiatric Center (KPC) and, working with the Department of Health, redirect resources to community-based behavioral health services that would function in collaboration with Brooklyn hospitals. Intermediate psychiatric hospital care for Brooklyn residents and court referrals should be provided primarily by South Beach Psychiatric Center, which currently serves a large section of Brooklyn. KPC's existing array of community-based services should remain within the community.

Conversion of a majority of the high cost KPC inpatient beds into intensive community treatment and support services would be well-timed with the implementation of the Medicaid Health Home initiative in the borough. Improved coordination, coupled with expanded service availability, will significantly reduce the burden on Brooklyn's emergency rooms and inpatient services.

Woodhull Hospital, Kings County Hospital and Coney Island Hospital:

These hospitals are operated by the New York City Health and Hospitals Corporation (HHC). Although they have been linked principally with the other institutions in the HHC system, rather than with local facilities, it is now essential that they become more active partners in the Brooklyn delivery system.

ACKNOWLEDGEMENTS

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INTRODUCTION

Brooklyn's 2.5 million residents need and deserve a high-quality, accessible, and financially-stable, health care delivery system that also serves as a safety net for Brooklyn residents who face barriers to health care. This report's focus is on communities and their residents, not on the needs of "safety net hospitals." Brooklyn residents have high rates of obesity, hypertension and diabetes; nearly a quarter live in poverty; many are uninsured; almost half are on Medicaid; and relatively few have commercial health insurance. Our analysis of data shows that Brooklyn residents too often find themselves in an emergency department or a hospital bed for conditions that are not emergent or that could have been prevented or treated in a doctor's office or community health center. More than 15 percent of adult, medical-surgical hospital stays in Brooklyn and 46 percent of all emergency department visits that do not result in a hospital admission could be averted through appropriate primary care in the community.

In the face of high rates of chronic disease and a heavy reliance on hospitals for care, financial crises at three Brooklyn hospitals – Brookdale Hospital Medical Center, Interfaith Medical Center, and Wyckoff Heights Medical Center -- are jeopardizing access to quality care for thousands of Brooklyn residents. Like most Brooklyn hospitals, these hospitals serve low-income communities where Medicaid is the predominant payer. After years of relying heavily on shrinking Medicaid dollars, along with excess borrowing, wasteful spending, and mismanagement, these three most troubled hospitals are no longer viable as stand-alone inpatient facilities. In addition to these three institutions, this report focuses on three other hospitals (Brooklyn Hospital Center, Long Island College Hospital, and Kingsbrook Jewish Medical Center) that are working to regain financial stability and restructure in the face of low inpatient occupancy rates and an unfavorable payer mix. Although all six hospitals provide substantial outpatient care, none has invested in developing a system of high-quality primary and community-based specialty care that could improve the health of its community and its own long-term financial viability. Meanwhile, Brooklyn residents are increasingly seeking hospital care outside of the borough, diverting precious inpatient revenues to other institutions.

The Work Group is acutely aware that we must find sound, feasible solutions to the health care crisis in Brooklyn. In Brooklyn, we confront the central issue of access to *appropriate* care. Our deliberations reveal that access to appropriate care does not necessarily equal proximity to hospital care. Brooklyn has 15 hospitals with nearly 6,400 licensed beds. But, almost 30 percent of those beds are vacant on an average day, and more than 15 percent of adult medical-surgical admissions could be prevented with appropriate primary care. Clearly, there is adequate inpatient capacity. High rates of avoidable emergency department use and preventable hospitalizations, moreover, suggest that Brooklyn residents are not accessing care in the most effective and efficient setting. Despite heavy use of hospital services, the health status of Brooklyn residents is no better, and in many respects is worse, than that of other New Yorkers. A hospital cannot, and should not, provide all of the health care that a community needs. Indeed, access to hospital care is not the benchmark against which to judge the health status of a community. Access to high quality primary care and community-based specialty care is a critical component of an effective system of care.

Decades ago, New York State built, funded and supported a "big box" health care system, dominated by hospitals, and fostered a regulatory and reimbursement environment to oversee and support it. The big box system's importance to the economy has strengthened its ability to resist desirable change and efforts to rein in costs. Until very recently, our big box system has been able to secure grants and other revenue enhancements from Albany and has forestalled the necessity to manage costs.

What we are now facing is a confluence of factors that force our hospitals, in Brooklyn and across the state, to confront economic reality. Federal and state resources continue to shrink, and new payment methodologies are demanding quality and efficiency. Further, due to advances in medicine, many health care services that were once the exclusive domain of hospitals can now be delivered as effectively and often more efficiently in an outpatient setting or at home. The roles and responsibilities of hospitals continue to change as modern medicine evolves through the discovery of new techniques, procedures and medications and the implementation of technology, including electronic health records.

Therefore, the Work Group would like to stress that, although much of our work has focused on the Brooklyn hospitals, hospitals are not the health care system. They are just a part of it, albeit an integral part. Medical care in the 21st century will not be centered within the bricks and mortar of a massive hospital. Instead, care should be centered on the patient, and will rely heavily on comprehensive primary care and other ambulatory services. Changes in medical practice, combined with both federal and state redesign of payment mechanisms and care models, are moving us away from episodic care focused on disconnected, big box solutions to comprehensive care in more integrated and distributed environments.

The federal Affordable Care Act (“ACA”) has introduced the most far-reaching changes in federal health care policy since the creation of the Medicare and Medicaid programs. In implementing the ACA, the Centers for Medicare and Medicaid Services (CMS) are working to strengthen the ability of the delivery system to achieve the “Three Part Aim” – better care for individuals, better health for populations, and lower costs through improvement. CMS has launched, and Governor Cuomo’s Medicaid Redesign Team (MRT) has embraced, new strategies for delivering and paying for care that emphasize care coordination, prevention, and performance, such as accountable care organizations, patient-centered medical homes and health homes. Fee-for-service payment mechanisms that incentivize volume are being phased out in favor of performance-based payments that incentivize value and efficiency, such as bundled payments and value-based purchasing. To participate effectively in these models, providers along the continuum of care must integrate or collaborate with each other to improve the health of Medicare and/or Medicaid beneficiaries and accept payment arrangements that reward positive outcomes and lower costs.

In the face of the Medicare cuts and the state’s global cap on Medicaid, health care providers in Brooklyn must change the way they operate so that they can remain financially viable. They must streamline operations and partner with other providers, so that they can reduce operating costs and unnecessary utilization, while improving outcomes. This is important not just to providers, but also to the people they serve. These new integrated models of care and performance-based reimbursement arrangements show promise in improving the health of individuals and communities. With or without federal reforms, clinical integration, a focus on clinical outcomes, expansion of primary care and contraction of inpatient beds must continue.

Transforming the “Big Box” into Integrated Systems Aligned with Community Needs

There are hospitals in Brooklyn that are well-managed, have maintained high quality in the face of financial pressure, and have shown flexibility in responding to their communities’ needs. However, there are others that are at the brink of failure -- the products of a failed system of health care financing and delivery, where a combination of inadequate payer mix, weak governance and management, and the inability to respond to changes in medicine and the marketplace jeopardize their ability to serve their communities.

There is an immediate need to deal with the problems of those troubled institutions, whether or not they will ultimately be or should be part of the next generation of health care delivery. To let

them fail in free-fall bankruptcies would threaten access to health care for large numbers of people. The way to a healthy tomorrow is to avoid chaos today, to approach Brooklyn's problems with both a short-term and a longer-term prospectus, and to come up with the changes that are necessary first to stabilize and then to revitalize the way health care is delivered in the borough.

While it is certain that there is excess inpatient bed capacity in Brooklyn, this report does not recommend the closure of any hospitals at this time. Nor does it recommend that the state use its limited dollars merely to extend the lives of institutions that cannot survive as they currently operate. Given that 15 percent of medical-surgical admissions could be avoided, it is likely that the development of integrated and more efficient networks of care will entail the elimination of acute care beds, consolidation of capacity, and the re-purposing of hospitals. And, with the resulting savings, there should be development of new primary care capacity in high-need communities. This reconfiguration must be developed through an active collaboration among healthcare providers, payers, consumers, and other stakeholders, in order to succeed in improving individual health care, improving the health of Brooklyn residents, and reducing health care costs through systemic improvement.

This report provides a set of findings, principles and tools to guide the reconfiguration of Brooklyn's healthcare delivery system and the delivery systems of other communities around the state. It also sets forth recommendations specific to certain, at-risk hospitals, but it does not direct the elimination of a specified number of beds or the relocation of specified services in Brooklyn. Instead, it creates a process through which restructuring plans can be developed, evaluated, and implemented, with community involvement and state oversight. The findings, principles and process set forth here are intended to transition healthcare in Brooklyn into integrated and comprehensive systems aligned with community needs.

All of these recommendations are based on the determination that the state has an interest that goes beyond saving any single institution and goes to ensuring the well-being of its citizens. The Medicaid and Medicare programs are undergoing ambitious and forward-looking reforms unprecedented in at least 30 years. These reforms must be leveraged to drive appropriate changes in the delivery system for all New Yorkers. They should be used to improve access to high quality care, and to promote better health outcomes and efficient practices, while living within state budget constraints. We believe effective care is cost-effective care.

This report endorses the creation of integrated systems of care as a means of improving health outcomes, quality and efficiency. Some may argue that integration will merely drive up costs by reducing competition. The Work Group has concluded that there will be ample competition in Brooklyn even after the reorganization of five independent facilities into two integrated systems. Moreover, the benefits to be derived from this reconfiguration far outweigh any negative effect on competition. By reducing fragmentation in the delivery system, rationalizing capacity and services, strengthening primary care, supporting performance-based payment mechanisms, and enhancing community engagement in health planning, these recommendations have the potential to improve the health of communities throughout New York and reduce unnecessary health care spending.

I. THE CHARGE TO THE WORK GROUP AND ITS ACTIVITIES

As the state's most populous county, with approximately 1 million Medicaid beneficiaries among its residents, Brooklyn and its health care delivery system are pressing concerns for New York State. Recognizing the financial fragility of some of Brooklyn's hospitals and the potential for disruptions in care if one or more were to fail, Commissioner Nirav Shah, of the New York State Department of Health, established the Brooklyn Work Group (the Work Group) of the Medicaid Redesign Team (MRT), in June 2011, to: (1) assess the strengths and weaknesses of Brooklyn's hospitals and their future viability; and (2) make specific recommendations that will lead to a high quality, financially sustainable health system in Brooklyn (see Appendix M). This examination of Brooklyn's health care delivery system is part of the MRT's larger effort to reduce costs and improve quality, access, and efficiency throughout the state's health care delivery system.

While hospitals are a component of Brooklyn's healthcare delivery system, the Work Group would like to stress that they are not *the* healthcare delivery system. Due to their role in providing services to some of the borough's most vulnerable residents, their size, and their status as major employers, they tend to overshadow other elements of the health system. However, there is a wide variety of health care providers in Brooklyn, from private physician practices, to federally-qualified health centers, to behavioral health providers, to nursing homes, among many others. The Work Group has sought to develop recommendations that focus not on the needs of one health care sector or another, but rather on the needs of communities they serve and the people who live and work in them. Our recommendations are intended to create a framework for high-performing, integrated systems of care in Brooklyn that address community needs along the health care continuum.

Two components of the healthcare delivery system have, nevertheless, received heightened attention in this report: hospitals and primary care providers. The Work Group recognizes that access to high-quality hospital care is an important element of any health care delivery system. However, the vitality of Brooklyn's hospitals has for some years been uneven, with some hospitals in marginal financial condition or worse. Several carry heavy debt burdens with insufficient revenues to cover rising costs; three appear to be on the verge of financial collapse. Several have insufficient margins to make the investments necessary to upgrade their physical plants or keep pace with advances in medicine and models of care. Furthermore, many of these hospitals have been unable to address the very challenging health needs of their communities.

We also focus on primary care. Brooklyn's population health indicators and health care utilization data show high rates of chronic disease and suggest inadequate access to high quality primary care in several neighborhoods. Given that innovations in care models and reimbursement created by the Accountable Care Act (ACA) and Governor Cuomo's MRT require robust primary care integrated with acute, long-term and behavioral health care, we conclude that development of accessible, patient-centered primary care is fundamental to the strength of Brooklyn's delivery system as a whole and to the health of its residents.

Although nursing homes have not been a focus of the Work Group's activities, we recognize that nursing homes play a vital role in meeting the needs of some of our most vulnerable citizens, especially seniors. Nursing homes must be partners with the integrated systems that are recommended by this report, if these systems are to achieve the goals of improving the health of individuals and communities, while lowering costs through improvement.

The Work Group is well aware that any recommendations to improve and strengthen Brooklyn's hospitals and healthcare delivery system must be informed by the particular circumstances of the healthcare facilities and the communities they serve. To help ensure that its deliberations took

full account of community needs and full advantage of the experiences of consumers and providers, the Work Group held a series of public meetings and hearings in Brooklyn. At the first, on July 28, 2011, the Work Group received presentations from State Department of Health (“DOH” or “Department”) staff on demography and community health in Brooklyn, the utilization of hospital services, and opportunities for health system redesign. The Work Group also heard comments from approximately 65 members of the public about Brooklyn’s hospitals and the broader healthcare delivery system.¹

The second public meeting, on September 21st, was comprised of presentations and discussions by a series of experts on a variety of issues, including the financial condition of Brooklyn hospitals, preliminary research findings on Brooklyn’s primary care and emergency room use, different governance models for restructuring hospitals, prospects for private investment in hospital through public-private partnerships, and freestanding emergency rooms as a care setting.²

The third hearing on October 19th, afforded another opportunity for Brooklyn residents, providers and other stakeholders to comment on the information presented at the prior meetings and on their concerns related to potential restructuring. At that meeting, approximately 25 members of the public presented. In addition, members of the public were invited to submit comments via the DOH public website. The Department received over 25 comments through that medium. Members of the Work Group visited the Brownsville Multi-Service Family Health Center (a federally qualified health center) and each of the fifteen hospitals in Brooklyn. Facilities were reviewed and inspected, and a questionnaire was submitted to leadership at each hospital (the questionnaire is attached as Appendix A). The Work Group interviewed hospital executives, board members, medical staffs, and other experts. The Work Group also met with Primary Care Development Corporation and the Kings County Medical Society to discuss healthcare in Brooklyn.

The Work Group has strived to assure that its deliberations and recommendations are based on an objective and sound analysis of data, as well as the experiences of providers and consumers. To that end, through a grant from the New York State Health Foundation, the Department of Health and the Work Group has worked with Welsh Analytics, LLC to compile and analyze data on population, health status and health care utilization in Brooklyn and finances and trends at each of the facilities. The data sources include the NYS Statewide Planning and Research Cooperative System (SPARCS), institutional cost reports, census data, New York State Medicaid claims and enrollment data, and data developed by the New York City Department of Health and Mental Hygiene. We sought to use the most complete and current data available. Generally, the SPARCS data used in this report was 2010 data obtained in August 2011. However, for prevention quality indicator (PQI) inpatient discharges, we used 2009 SPARCS data.

These data and the comments of consumers, providers, technical experts and other stakeholders at the three public meetings have played a major role in informing the Work Group’s recommendations. The recommendations are intended to provide a process and a policy framework for Brooklyn’s health care providers in restructuring their operations toward a financially-stable, high-performing system of integrated inpatient, outpatient, primary, behavioral health, and long-term care aligned with community needs. We are confident that this report will benefit not only Brooklyn’s hospitals, but also Brooklyn’s communities. Moreover, as many of the issues confronting Brooklyn are also confronting communities around the state, we hope that our findings and recommendations will point the way for similar efforts in other areas of the state.

The Report addresses the Work Group’s charge as follows:

¹ Meeting materials are available at http://www.health.ny.gov/health_care/medicaid/redesign/brooklyn.htm.

² Meeting materials are available at http://www.health.ny.gov/health_care/medicaid/redesign/brooklyn.htm.

- Part II provides a demographic profile of Brooklyn and its neighborhoods;
- Part III describes Brooklyn’s health care delivery system;
- Part IV describes the health care emergency in Brooklyn;
- Part V lays out the financial position of the six focus hospitals;
- Part VI outlines the opportunities and challenges posed by reforms at the state and federal levels;
- Part VII offers principles and tools for change of the healthcare delivery system; and
- Part VIII provides specific recommendations for Brooklyn hospitals.

II. BROOKLYN AND ITS NEIGHBORHOODS: A DEMOGRAPHIC PROFILE

A comprehensive analysis of a health care delivery system requires assessment not only of its facilities, services and health care professionals, but also consideration of the people and communities it serves. Health status and factors that impact health care access and patient engagement, such as insurance, English proficiency, educational attainment, and poverty, are all important to the development of sound recommendations for the creation of a high quality, accessible and financially stable health care delivery system.

This report relies on available data to identify and map health status and demographic factors that affect health care access and utilization. However, the Work Group recognizes that a detailed picture of Brooklyn’s neighborhoods and their residents requires in-depth, on-the-ground study and more time than the Work Group was allowed. As noted in Part VII, the Work Group recommends funding for a multi-stakeholder collaborative to conduct that analysis among other activities.

To describe geographic variation in health and socioeconomic status and access to care in Brooklyn, this report uses the neighborhoods defined by the United Hospital Fund for the purpose of research and planning studies. UHF drew 42 neighborhoods across New York City based on boundaries consisting of adjoining zip code areas. These neighborhood designations provide clear and consistent boundaries for the unique demographic, economic, health and delivery system characteristics of small geographic areas. In Brooklyn, the UHF neighborhoods are: Greenpoint, Northwest Brooklyn, Central Brooklyn, East New York-New Lots, Sunset Park, Borough Park, Flatbush, Canarsie-Flatlands, Southwest Brooklyn, Southern Brooklyn, and Bushwick-Williamsburg.

Brooklyn Neighborhoods and Hospitals



A. Population, Age, Race and Ethnicity

Current and projected population and the racial and ethnic diversity of a community are important factors in developing plans to redesign its healthcare delivery system. Population growth and decline, as well as distribution of the population by age, affect both the types and amounts of health care capacity needed to serve a community. Race and ethnicity are associated with disparities in health status and health care utilization.³ Accordingly, any reconfiguration of the delivery system must take into consideration the racial and ethnic composition of the communities to be served in order to promote the development of plans that address health and health care disparities.

With 2.5 million residents, Brooklyn is New York City's most populous borough, comprising 31 percent of the City's population. Its population is, however, growing at a slower rate than the City as a whole – it increased by 1.6 percent between 2000 and 2010, in comparison with a growth rate of 2.1 percent citywide during the same period.⁴ Brooklyn's population is projected to grow to 2.59 million by 2030.⁵

Brooklyn's most populous neighborhoods are Southern Brooklyn, Borough Park, Flatbush, and Central Brooklyn with more than 300,000 residents in each. Its least populous neighborhoods are Canarsie-Flatlands, East New York-New Lots, Greenpoint, and Sunset Park.⁶

³ Institute of Medicine, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, Washington, D.C.: National Academy of Sciences, 2003; Mead, H, Cartwright-Smith, L, Jones, K, Ramos, C, Siegel, B, *Racial and Ethnic Disparities in U.S. Health Care: A Chartbook*, The Commonwealth Fund, 2008.

⁴ Source: Compilation of 2010 Census at http://www.nyc.gov/html/dcp/html/census/demo_tables_2010.shtml

⁵ Projection by Program on Applied Demographics, Cornell University, available at <http://pad.human.cornell.edu/counties/projections.cfm>

⁶ NYC DOHMH, Community Health Survey, 2009.

The median age of Brooklyn residents is 34.4 years, slightly lower than the citywide average of 35.5 years. Currently, residents age 65 and older comprise 11.5 percent of Brooklyn's population. By 2020, the percentage of elderly residents will rise to 13.1 percent.⁷ The percentage of the Brooklyn population under age 18 or over age 65, at 35.2 percent, is slightly higher than the citywide percentage.⁸

Nearly 20 percent of Brooklyn's population is Hispanic or Latino, 36 percent is Non-Hispanic White, 32 percent is Non-Hispanic African American, and more than 10 percent is non-Hispanic Asian.⁹ Brooklyn's neighborhoods vary based on the distribution of races and ethnicities among their residents. In Central Brooklyn, Bushwick-Williamsburg, Flatbush, and East New York-New Lots, for example, more than 85 percent of the residents are African-American or Hispanic. By comparison, in Greenpoint, Borough Park, and Southwest Brooklyn, more than 50 percent of the residents are White. Sunset Park has the highest percentage of Asian residents at 29 percent.¹⁰

B. Socioeconomic Indicators

Socioeconomic factors, such as income, health insurance, and education affect health needs and access. In 2010, 23 percent of Brooklyn residents had incomes below the federal poverty level (\$22,350 for a family of four, or \$11,100 for a single person). This compares to 20.1 percent citywide and 14.9 percent statewide.¹¹ Nearly 15 percent of Brooklyn residents had no health insurance in 2010, compared to nearly 12 percent statewide.¹² Almost 1 million Brooklyn residents, or forty percent of the total, are covered by Medicaid.¹³ This compares with 4.7 million and 24 percent statewide.¹⁴

The following are some additional key socioeconomic indicators for Brooklyn:

- Median household income for all of Brooklyn is \$42,143 in 2010.
- The 2010 unemployment rate for Brooklyn was 10.5 percent, compared to 9.3 percent statewide.
- Of the total population 25 years and older, 12 percent has less than a 9th grade education, 29 percent has attained a high school diploma or equivalent and 29 percent has a Bachelor's or higher degree.¹⁵

The neighborhoods in Brooklyn with the highest poverty rates are: Greenpoint, Bushwick-Williamsburg, Central Brooklyn, and East New York-New Lots, where more than 30 percent of households live below the federal poverty level. By comparison, the poverty rate in Canarsie-Flatlands is 14 percent, in Southwest Brooklyn 16 percent, and Northwest Brooklyn 20 percent.¹⁶

⁷ County population projections by the Program on Applied Demographics, Cornell University, downloaded from <http://pad.human.cornell.edu/counties/projections.cfm>

⁸ *Ibid.* This segment of the population is the basis for calculating a locality's "dependency ratio," which reflects the portion of the population not in the workforce and potentially dependent on working age- residents. It is a measure of potential demand for health and human services by vulnerable groups.

⁹ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

¹⁰ NYC DOHMH, Community Health Survey, 2009, <http://nyc.gov/health/epiquery>, accessed Oct. 21, 2011.

¹¹ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

¹² *Ibid.*

¹³ NYSDOH/OHIP Recipient Summary Database as of end of 2010.

¹⁴ *Ibid.*

¹⁵ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

¹⁶ NYC DOHMH, Community Health Profiles, 2006.

Those with the highest percentage of uninsured residents are: Bushwick-Williamsburg and Sunset Part, where more than 25 percent of residents are uninsured.¹⁷

C. Immigration and English Proficiency

Immigration status affects eligibility for Medicaid and Medicare, as well as other public benefit programs, and thereby can impede access to health care. Limited English proficiency presents communication challenges for the patient and provider which can affect quality of care and outcomes. From the provider's perspective, serving large numbers of uninsured patients generally means that services will be uncompensated, while serving patients with limited English proficiency requires the dedication of resources to interpreter services.

Fully 38 percent of all current Brooklyn residents are foreign-born. Of those foreign-born residents, 45 percent are not US citizens.¹⁸ The majority of immigrants residing in Brooklyn are of Latin-American origin, with 52 percent from South American countries. European and Asian immigrants make up 20 percent and 25 percent of the remaining immigrant population respectively.¹⁹

All of Brooklyn's neighborhoods have high percentages of foreign-born residents. More than one-third of the residents are foreign born in Borough Park, Canarsie-Flatlands, East New York-New Lots, Greenpoint, Flatbush, Southern Brooklyn, Southwest Brooklyn, and Sunset Park.²⁰

The large foreign-born population in Brooklyn naturally leads to a significant percentage of residents with limited English proficiency and a wide variety of spoken languages. Of the total population living in Brooklyn over 5 years old, 46 percent speak a language other than English at home and 25 percent state they speak English 'less than well.'²¹

D. Population Health, Disparities, and Brooklyn's Neighborhoods

Brooklyn faces daunting population health challenges. High rates of chronic disease and premature death exact human and economic costs. On all of the following indices, Brooklyn residents exhibited worse results on health status indicators than New York City residents as a whole:

- 26 percent of adults in Brooklyn were obese in 2009;
- 11 percent of adults had diabetes in 2009;
- 31 percent of adults had high blood pressure in 2009.²²

Likewise, rates of hospitalization and premature death were higher in Brooklyn than citywide. In Brooklyn, 47 percent of residents who died did so prematurely (before age 75) between 2007 and 2009, as compared to 45 percent citywide. In addition, Brooklyn residents experience a higher rate of:

¹⁷ NYC DOHMH, Community Health Profiles, 2006.

¹⁸ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

¹⁹ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

²⁰ NYC DOHMH, Community Health Profiles, 2006.

²¹ 2010 estimates from American Community Survey obtained from American Fact Finder website at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. The percentage of households characterized as "linguistically isolated" in 2009 (meaning no one in the household speaks English well) varied considerably by geographic area, with the highest rates in southern Brooklyn (32% to 42%), Sunset Park (34%) and Bushwick (33%). Welsh Analytics LLC compilation from American Community Survey data at www.census.gov/acs/www/data_documentation/data_via_ftp/.

²² NYC DOHMH, EpiQuery, available at: <https://a816-healthpsi.nyc.gov/epiquery/EpiQuery/CHS/index2009.html>.

- heart disease hospitalizations than the citywide average;
- heart disease deaths than the citywide average;
- diabetes hospitalizations than the citywide average;
- diabetes deaths than the citywide average.²³

Within Brooklyn, significant health disparities are associated with race and ethnicity. Specifically, Black non-Hispanic Brooklyn residents experience a disproportionately high rates of negative health outcomes, including:

- 62.3 percent of Black non-Hispanic residents who died did so prematurely (before age 75), between 2007 and 2009 -- double the rates for White non-Hispanic Brooklyn residents;
- Black non-Hispanic residents experienced the highest rates of obesity (31.8%) and high blood pressure (35.0%) and second highest rate of diabetes (13.2%) as compared to other race/ethnic groups in Brooklyn during 2009;
- Black non-Hispanic children in Brooklyn were hospitalized for asthma at a rate of 70.0 per 10,000 -- almost ten times the rate of their White non-Hispanic (7.6 per 10,000) counterparts.²⁴

Hispanics also experience a disproportionately poor health outcomes compared to other racial and ethnic groups residing in Brooklyn. Between 2007 and 2009, in comparison with other racial and ethnic groups residing in Brooklyn, Hispanic Brooklyn residents had the:

- Highest percentage of premature deaths (62.5%)
- Highest prevalence of diabetes (15.5%) and asthma (11.0%);
- Second highest rates of obesity (29.3%) and high blood pressure (31.3%).²⁵

Health status indicators among Asian Pacific Islanders and White non-Hispanics residing in Brooklyn are mostly better than the borough average. There are, however, several indicators for which White non-Hispanics had the highest rates, compared to other racial/ethnic groups, including rates of heart disease mortality (262.1 per 100,000), lung cancer incidence (53.2 per 100,000) and hospitalizations for falls (185.0 per 10,000) among persons aged 65 or older.²⁶

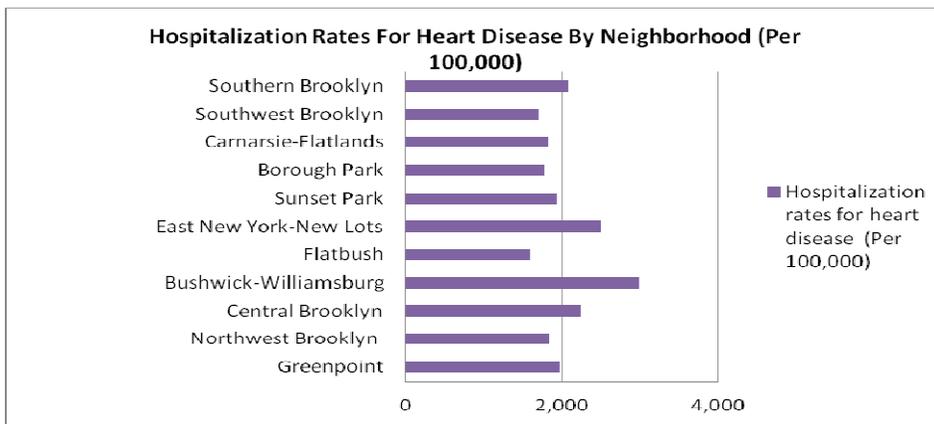
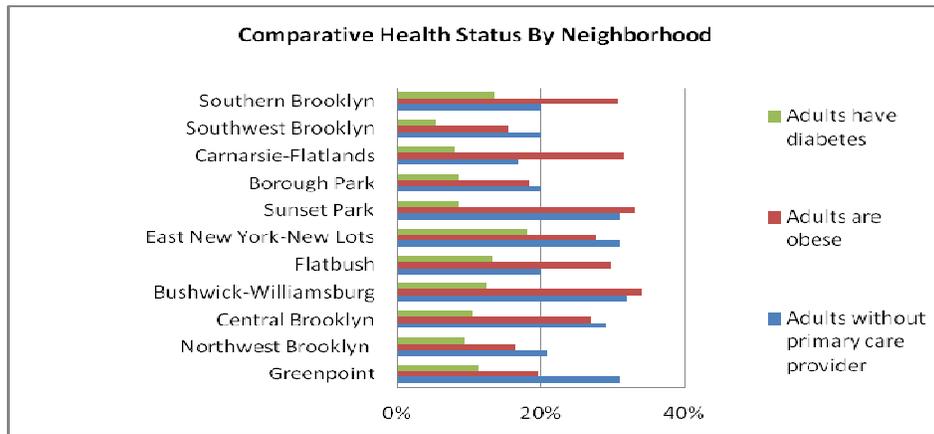
Brooklyn residents and their neighborhoods are socioeconomically, ethnically and racially diverse, and community health data document disparities in health status among neighborhoods. The graphs below show some of the variation in health status. For additional information about some of the key demographic, socioeconomic, and health status characteristics of Brooklyn's neighborhoods, see Appendix B.

²³ NYS Dept. of Health, Office of Public Health, based on NYS SPARCS and Vital Records and U.S. Census data, complete data will be available at <http://cchphig070001/statistics/community/minority/about.htm>.

²⁴ NYS Dept. of Health, Office of Public Health, based on NYS SPARCS and Vital Records and U.S. Census data, complete data will be available at <http://cchphig070001/statistics/community/minority/about.htm>

²⁵ *Ibid.*

²⁶ NYS Dept. of Health, Office of Public Health, based on NYS SPARCS, Vital Records and Cancer Registry data and U.S. Census data, complete data will be available at <http://cchphig070001/statistics/community/minority/about.htm>



Additional analysis of health status, health care needs, and existing capacity by neighborhood is needed to align health care resources with community health needs in Brooklyn and to identify hot spots for disease and sub-optimal utilization. With that information, providers and their communities can respond by developing appropriate health care resources and interventions.

III. HEALTHCARE DELIVERY SYSTEM PROFILE

A. Brooklyn’s Health Care Providers

An inventory of Brooklyn’s health care providers, along with an understanding of its residents and their health needs, is integral to an assessment of its delivery system and recommendations for improvement. There are fifteen general hospitals in Brooklyn which include eleven voluntary hospitals, three municipal hospitals, and one SUNY hospital. In addition, there is one Office of Mental Health certified psychiatric hospital and one Veteran’s Administration Hospital in Brooklyn. Descriptions of Brooklyn’s fifteen general hospitals, their neighborhood locations, licensed beds, and specialized services are set forth at Appendix C. There are also 42 nursing homes and 61 diagnostic and treatment centers (D&TCs) and 83 extension clinics.²⁷ In addition, there are 69 mental health clinics in Brooklyn with 73 satellites (a total of 142 clinic locations)²⁸ and 44 chemical dependence treatment outpatient programs in Brooklyn.²⁹

²⁷ NYS Dept. of Health, Health Facilities Information System, accessed October 2011.

²⁸ NYS Office of Mental Health, OPME OMH Concerts, May 2011; Bureau of Inspection and Certification as of Oct. 2011.

²⁹ NYS Office of Alcohol and Substance Abuse Services, Division of Outcome Management and System Investment, Oct. 2011; also Welsh Analytics, Mental Health Programs in Brooklyn, Sept. 2011, *citing* NYS Dept. of City Planning.

The D&TCs include 13 organizations that operate federally qualified health centers (FQHCs) in Brooklyn from more than 80 sites (including part-time, school-based, and mobile sites) across the borough.³⁰ FQHCs are not-for-profit, community-based providers of comprehensive, affordable primary and preventive care services. The foundational concept of the FQHC is to provide a primary care medical home, with enhanced care coordination and enabling services such as interpretation, social services and transportation that encourage patients to remain engaged in care. Financial and non-financial barriers to care are addressed by the comprehensive service model and a requirement that all patients have access to care at the FQHC, regardless of insurance status or ability to pay. FQHCs have been shown to lower significantly the costs associated with treating patients with chronic disease^{31 32} and to reduce the rates of avoidable and costly ED visits³³ and preventable hospitalizations.^{34 35} In addition, their federally-recognized status provides FQHCs with benefits, such as discounted drug pricing and federal malpractice coverage, that allow them to reduce the operational costs of delivering quality care.

In 2010, FQHCs served 203,000 patients living in Brooklyn, equal to nearly 20 percent of the borough's low-income population. The largest FQHC in Brooklyn is the Sunset Park Family Health Center, an affiliate of Lutheran Medical Center. As a result of federally-funded expansions which began in 2008, nearly all of Brooklyn's neighborhoods are experiencing growth in the number of FQHC patients among their residents, with growth ranging from 7.4 percent between 2008 and 2010 in Sunset Park to nearly 30 percent in Northwest Brooklyn.³⁶ For a map of Brooklyn's FQHC and D&TC sites, see Appendix D.

The 42 nursing homes in Brooklyn have close to 10,000 beds³⁷ with an occupancy rate of approximately 94 percent. Hospitals represent the largest source of nursing home referrals, comprising nearly 93 percent of all admissions to Brooklyn nursing homes. Brooklyn nursing homes provide 3.4 million days of care annually, of which 81 percent are reimbursed by Medicaid, which represents 74 percent of net patient revenues. On an average day, about 9,400 residents are living in Brooklyn's nursing homes. Eighty percent are over age 70.³⁸

B. Collaborative Health Improvement Activities in Brooklyn

Brooklyn's healthcare delivery system, while facing unprecedented challenges, is also engaged in a variety of innovative activities intended to improve the health of its communities. Three collaborations show promise for supporting integrated systems of care, improving quality, increasing access, and reducing costs.

The Brooklyn Health Improvement Project (BHIP), a HEAL-funded project created in 2009 and led by SUNY Downstate, is a multi-stakeholder collaborative engaged in developing a

³⁰ U.S. Department of Health and Human Services, Health Resources and Services Administration, Health Centers and Look-Alikes Data Download, available at http://datawarehouse.hrsa.gov/Download_HCC_LookALikes.aspx.

³¹ Costs associated with treating Medicaid beneficiaries in New York who are community health center patients were 24% less per case overall; 36% less for diabetics; and 20% less for asthmatics. Center for Health Policy Studies, "Health Services Utilization and Costs to Medicaid of AFDC Recipients in New York and California Served and Not Served by Community Health Centers," Final Report (November, 1994).

³² Ku, L., Richard, P., Dor, A., Tan, E., Shin, P. and Rosenbaum, S., "Strengthening Primary Care to Bend the Cost Curve: the Expansion of Community Health Centers Through Health Reform," Geiger Gibson/RCHN Community Health Foundation Research Collaboration, Policy Research Brief No. 19. (Washington, D.C.: The George Washington University School of Public Health and Health Services, June 30, 2010).

³³ Rust, G., Baltrus, P., Ye, J., Daniels, E., Quarshie, A., Boumbulian, P., Strothers, H., "Community Health Center and Uninsured Emergency Department Visit Rates in Rural Counties". *J Rural Health* 25(1):8-16 (2009).

³⁴ Epstein, A., "The role of public clinic in preventable hospitalizations among vulnerable populations" *Health Services Research* 32:2. 405-420 (2001).

³⁵ Rothkopf, J., Brookler, K., Wadhwa, S., Sajovetz, M., "Medicaid patients seen at federally qualified health centers use hospital services less than those seen by private providers," *Health Affairs* 30:7. 1335-1342 (July, 2011)

³⁶ Compilation by Community Healthcare Association of New York State from HRSA Uniform Data System ZIP code data available at www.udsmapper.org.

³⁷ NYS Dept. of Health, Health Facilities Information System, Oct. 2011.

³⁸ Continuing Care Leadership Coalition, Oct. 2011.

comprehensive community health planning process. The BHIP is governed by a broad-based coalition that includes representatives of community-based organizations, hospitals, FQHCs, health plans, business, and civic leaders. To ensure that its health planning work is data-driven, it is engaged in data development and analysis activities concerning primary care and emergency department utilization. It is also developing community engagement and primary care access strategies to improve community health.

The Brooklyn Health Information Exchange (BHIX) is a not-for-profit regional health information organization (RHIO) devoted to improving health care through the collection, exchange of and analysis of health information. Its members include 7 hospitals, 10 community health centers, 3 physician practices, 7 community-based and government-sponsored behavioral health providers, 7 nursing homes, 5 home care agencies, and 6 payers. BHIX works in tandem with statewide initiatives to develop common policies, technical standards and protocols for health information technology and exchange. Its information technology architecture enables interoperability through which providers are linked together within BHIX and, in turn, across the Statewide Health Information Network of New York (SHIN-NY). Using advanced decision support systems and patient notification, BHIX will play an active role in improving quality of care and reducing medical errors and oversight. BHIX has funding for various activities under the state's HEAL grant program, including two multi-stakeholder medical home initiatives.

A third initiative funded by a HEAL grant and led by Sunset Park Family Health Center, has enabled the adoption of interoperable electronic health records in 9 diagnostic and treatment centers, including 7 federally qualified health centers (FQHCs). The centers created a Community Health Information Technology Adoption Collaborative ("CHITA") to implement a community-wide electronic health record ("EHR") system, enable the creation of patient-centered medical homes, and support care coordination in Brooklyn. In addition, the CHITA has enabled the exchange of clinical data for quality improvement activities.

The facilities participating in the project, in addition to the Sunset Park Family Health Center, are:

- Association for the Help of Retarded Children (AHRC) (D&TC)
- Bedford Stuyvesant Family Health Center, Inc. (FQHC)
- Brooklyn Plaza Medical Center, Inc. (FQHC)
- Brownsville Multi-Service Family Health Center (FQHC)
- Callen-Lorde Community Health Center (FQHC)
- Community Healthcare Network (FQHC)
- ODA Primary Care Health Center, Inc. (FQHC)
- Planned Parenthood of NYC, Inc. (D&TC).

Each of these facilities has implemented an interoperable EHR with the capacity to share information electronically with other providers, including hospitals.

IV. THE BROOKLYN HEALTH EMERGENCY

Despite the variety of healthcare facilities and clinicians in Brooklyn, a combination of factors raises serious concerns regarding access to care, quality of care, and population health in Brooklyn. High rates of chronic disease are compounded by socioeconomic barriers to health care, such as lack of health insurance, limited English proficiency, and poverty. Large segments of the population in several neighborhoods live in extreme poverty, have low levels of

educational attainment, and are linguistically isolated.³⁹ Fully forty percent of Brooklyn residents are on Medicaid and 15 percent are uninsured.⁴⁰

At the same time, it appears to the Work Group, based on interviews, presentations and review of the data, that the delivery system is ill-equipped in some areas to address the complex health issues facing communities. It is dominated by hospitals that are dependent on public monies and, in many cases, weakened by cuts in government programs, intense competition for admissions from within the borough and without, an unfavorable reimbursement environment, and rising costs. Some are managing well on thin margins, while others are struggling to stay afloat and at least three are at risk of imminent financial collapse. Too many of the hospitals have failed to create, and are not organized to partner with, strong primary care and community-based specialty care networks in their communities. Even many well-managed hospitals that are doing good work lack the resources to make necessary investments in physical plant, staff, medical talent, information technology or new models of care.

Health care utilization and capacity data suggest that Brooklyn residents, in several neighborhoods, are not accessing or receiving the types of high-quality health care they need and deserve. Indeed, as discussed later in this report, primary care and outpatient behavioral health providers are unevenly distributed and insufficient in several high-need areas, emergency departments are used heavily for non-emergent or primary care treatable conditions, and too often Brooklyn residents are admitted to hospitals for conditions that could have been prevented through high-quality primary care, community-based specialty care, and care coordination.

An analysis of Brooklyn-related health care utilization data reveals some of the factors that are weakening Brooklyn's hospitals. It also shows in stark terms the failure of the delivery system to engage patients in care in primary care settings, resulting in preventable use of higher cost services and, in all likelihood, poor health outcomes.

A. Hospital Utilization

Hospital utilization data show a variety of trends and factors that are undermining the financial stability of Brooklyn's hospitals and that suggest inefficiency in the use of their services – declining admissions in several facilities, a low case mix index, high lengths of stay, low occupancy rates, migration of lucrative cases to Manhattan facilities, and high rates of preventable admissions and emergency department visits. In 2010, there were approximately 297,000 inpatient discharges from Brooklyn hospitals, down from approximately 301,000 in 2009.⁴¹ Discharges from Brooklyn hospitals, in 2010, were concentrated heavily in the medical service category:

- Medical: 38%
- Surgical: 26%
- Pediatric: 5%
- Obstetrical: 12%
- Healthy Newborn: 9%
- High Risk Neonate: 1.5%

³⁹ Compiled from American Community Survey data at: www.census.gov/acs/www/data_documentation/data_via_ftp/. In particular, approximately fifty percent of the residents of the neighborhoods of northeast Brooklyn (Greenpoint, Bushwick-Williamsburg, East New York, Central) have incomes below 200 percent of the federal poverty level. Similarly, close to fifty percent of the residents of Sunset Park and Borough Park also have incomes below 200 percent of the poverty level. There are also large pockets of linguistic isolation in Williamsburg-Bushwick, Coney Island-Sheepshead Bay, Sunset Park, and Borough Park. *Ibid.*

⁴⁰ Non-citizens are particularly prominent among the non-elderly uninsured. *Ibid.* This suggests that even after access to health insurance is expanded under the Affordable Care Act, a significant number of Brooklyn residents will remain uninsured.

⁴¹ Welsh Analytics, LLC, NYS DOH SPARCS Inpatient Deidentified File data, obtained Aug. 2011.

- Psychiatric: 5%
- Chemical Dependency: 3%⁴²

Although they represented only 8 percent of discharges, more than 15 percent of Brooklyn’s inpatient days in 2010 were attributable to patients with a *principal* diagnosis of “mental illness” (including alcohol- or substance-related disorders) – the largest percentage of inpatient days of all of the clinical categories.⁴³

The case mix index (a measure of the acuity of the patients served and resource intensity of their treatments) for medical-surgical patients in Brooklyn overall in 2010 was 1.41 compared with 1.54 in New York City and statewide.⁴⁴ Since reimbursement rises with resource intensity, a low case mix is associated with lower revenues.

Average length of stay (ALOS) is a measure of the efficiency of the care process in hospitals. It may also reflect the complexity of the patients treated and difficulties in implementing satisfactory discharge plans. The average length of hospital stays (ALOS) in Brooklyn is 6.12 days overall, and 6.03 days for medical-surgical patients. The 6.12 overall ALOS is also much higher than the national average of 4.8 days.⁴⁵ The medical-surgical ALOS is higher than that observed in three of the four other boroughs (the exception being Manhattan which has an ALOS of 6.21 days).⁴⁶

Despite the extended ALOS of Brooklyn hospitals, they are generally not fully occupied. In 2010, excluding healthy newborn admissions, 71 percent of the inpatient beds in Brooklyn, on average, were occupied daily.⁴⁷ This is below the medical-surgical planning standard of 85 percent occupancy.⁴⁸ However, as the table below illustrates, occupancy rates and ALOS varied by hospital, with some above and many well below the planning standard, but not one with an ALOS that comes close to the national average. Brookdale, Brooklyn Hospital, Interfaith, LICH, Wyckoff, and Kingsbrook Jewish each had an occupancy rate of less than 66 percent in 2010; LICH’s occupancy rate was 45.2 percent.

⁴² Welsh Analytics, NYS DOH SPARCS Inpatient Deidentified File data, obtained Aug. 2011.

⁴³ Welsh Analytics, NYS DOH, SPARCS Inpatient Deidentified File data, obtained in Aug. 2011. The ‘clinical categories’ refer to the Level-1 grouping of diagnostic codes under the Clinical Classification Software provided by the federal Agency for Healthcare Research and Quality (see www.ahrq.gov). One category covers behavioral health diagnoses (alcohol or substance abuse and mental disorders) under the term “mental illness.”

⁴⁴ *Ibid.*

⁴⁵ Derived from weighted national estimates from HCUP Nationwide Inpatient Sample (NIS), 2009, Agency for Healthcare Research and Quality (AHRQ), based on data collected by individual States and provided to AHRQ by the States (excludes healthy newborns).

⁴⁶ *Ibid.* The overall ALOS of 6.12 excludes healthy newborn discharges.

⁴⁷ Welsh Analytics, NYS DOH, SPARCS Inpatient Deidentified File data, obtained in Aug. 2011 and NYS DOH Health Facilities Information System.

⁴⁸ The planning standard is set forth in New York State regulations at 10 NYCRR 709.2(d)(14). This is the occupancy level deemed efficient for medical-surgical beds that also provides for additional capacity as a contingency against surges in bed need due to disease outbreaks, disasters, seasonal influxes of patients or population or other eventualities. Although there are lower standards for pediatric and obstetric beds, these represent a much smaller percentage of admissions.

2010 Occupancy Rates and ALOS at Brooklyn Hospitals

Hospital	Occupancy Rate	Average Length of Stay*
Beth Israel – Kings	89.5%	6.12
Brookdale	57.9%	6.22
Brooklyn Hospital Center	51.3%	5.51
Coney Island	83.7%	6.60
Interfaith	64.5%	7.13
Kings County	69.4%	7.82
Kingsbrook	63.5%	7.65
Long Island College	45.2%	5.36
Lutheran	78.4%	5.62
Maimonides	84.4%	5.68
New York Community	90.3%	6.19
New York Methodist	84.7%	5.60
University	74.8%	6.14
Woodhull	73.4%	7.12
Wyckoff	65.9%	4.77
Boroughwide	70.8%	6.12
National Average Length of Stay**		4.8

*Source: Compiled from NYS DoH SPARCS De-identified Inpatient File, obtained Aug. 2011 (ALOS figures exclude healthy newborns).

**Weighted national estimates from HCUP Nationwide Inpatient Sample (NIS), 2009, Agency for Healthcare Research and Quality (AHRQ), based on data collected by individual States and provided to AHRQ by the States.

The inpatient payer mix of Brooklyn hospitals is dominated by Medicaid, which paid for 42 percent of the discharges in 2010. Medicare covered 33 percent, and commercial insurance covered 17 percent.⁴⁹ The remaining 8 percent are considered “self-pay” patients, who typically include primarily uninsured and charity care patients. With high percentages of patients covered by Medicare and Medicaid (75 percent in 2010), Brooklyn hospitals are particularly vulnerable to the effects of the state and federal budgets.

⁴⁹ Welsh Analytics, Brooklyn Hospital Inpatient Discharges by Services and Payer Group, compiled from NYS DOH SPARCS De-Identified Inpatient File, extracted Aug. 2011

Brooklyn 2010 Hospital Discharges by Payer Group⁵⁰

	Total Discharges	Medicaid	Medicare	Others	Commercial
BI Kings	11,313	14.3%	64.7%	1.7%	19.3%
Bkl Downtown	17,789	50.5%	30.6%	0.2%	18.6%
Brookdale	19,083	53.4%	29.1%	4.7%	12.8%
Coney Island	18,323	36.8%	35.1%	22.8%	5.4%
Interfaith	9,482	52.8%	26.9%	13.7%	6.6%
Kings County	24,637	47.4%	17.0%	30.9%	4.7%
Kingsbrook	9,874	29.2%	57.2%	1.1%	12.5%
LICH	16,972	31.3%	34.1%	2.5%	32.1%
Lutheran	27,678	46.0%	31.6%	7.0%	15.4%
Maimonides	45,658	47.1%	33.5%	1.0%	18.4%
NY Community	7,142	16.4%	68.1%	1.6%	13.9%
NY Methodist	37,223	28.9%	35.5%	1.7%	33.9%
University	17,828	46.5%	33.5%	3.4%	16.6%
Woodhull	16,614	48.0%	9.4%	39.8%	2.7%
Wyckoff	17,627	55.5%	29.5%	1.3%	13.7%
All 15	297,243	41.9%	32.9%	8.5%	16.6%

i. Inpatient Trends and Patient Migration

While total inpatient discharges at Brooklyn hospitals rose slightly (by 1 percent) from 2006-07 to 2009-10, they have declined more recently -- by 2 percent between 2008 and 2010. Discharge trends vary widely by hospital. From 2006-07 to 2009-10, we find a 20 percent decline at Long Island College Hospital, and declines of 8 percent to 11 percent at Brookdale, Woodhull and Wyckoff. During the same period, discharges increased by 5 percent to 9 percent at University, Kings County, Methodist and Beth Israel (Kings), and 11 percent to 15 percent at Kingsbrook Jewish, New York Community and Maimonides.

Discharge trends also vary by payer. Across the 15 Brooklyn hospitals, discharges of Medicaid patients declined by 7 percent between 2008 and 2010, while Medicare and commercially-insured patient volume declined by 1 percent and 7 percent respectively. The sharpest declines in commercially-insured patients were seen at Lutheran (-18%), Coney Island Hospital (-15%), Kings County Hospital (-15%), LICH (-21%) and Woodhull Hospital (-30%).⁵¹ In addition, the number of commercially-insured patients at Brookdale dropped by 33 percent between 2006-07 and 2009-10. Although self-pay inpatients (typically uninsured patients who pay a modest amount or nothing at all for services) are a small percentage overall, the number of self-pay patients discharged from Brooklyn hospitals increased by 56 percent between 2008 and 2010.⁵²

Declining discharges are responsible in part for the financial instability of some of Brooklyn's hospitals. As the table below illustrates, rising discharges are associated with a positive operating margin, while reduced or flat discharge trends are correlated with break-even or negative margins.

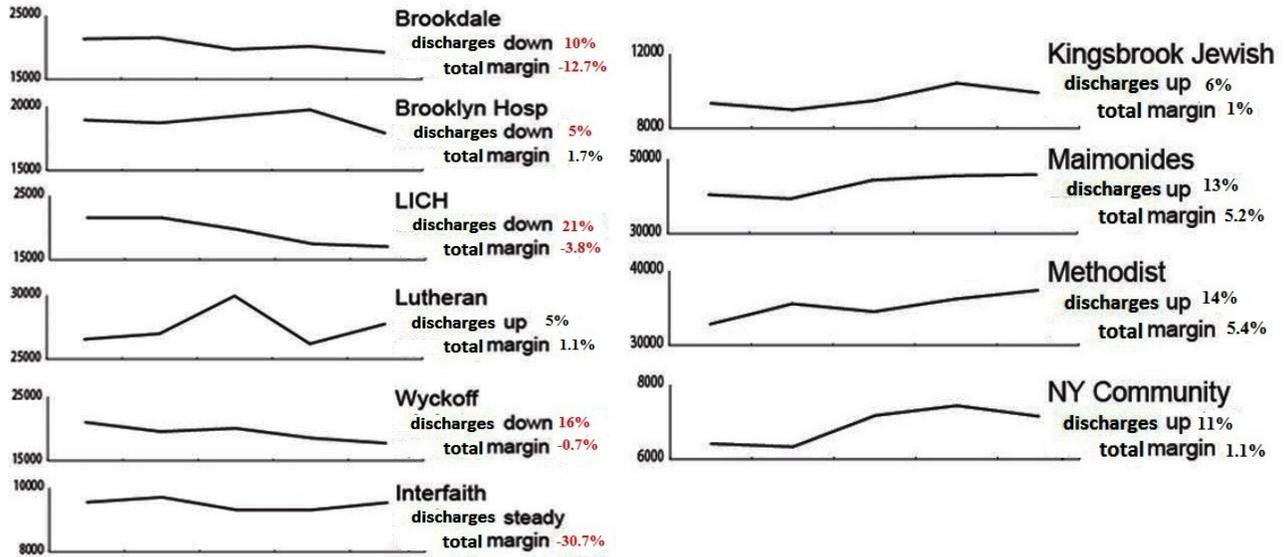
⁵⁰ *Ibid.*

⁵¹ Welsh Analytics, LLC, compiled from NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

⁵² Welsh Analytics, LLC, NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

Discharge Trends and Total Margin*⁵³ (Five-year discharge trend and 2010 total margin)

*Discharge trend is reflected year-to-year from 2006 through 2010, rather than by comparing the average of 2006-07 to 2009-10. 11.



With declining admissions at many hospitals and little growth overall, competition for patients among hospitals is fierce. Not one Brooklyn hospital commands 40 percent of the inpatient discharges in the zip codes that provide 50 percent or more of its inpatients – its “core market.” Only four hospitals attract more than 30 percent of the inpatient discharges from their core markets: Lutheran (37%), Maimonides (37%), Coney Island (32%), and Wyckoff (31%). In other words, more than 70 percent of the residents of the core market areas of the remaining 11 hospitals go to other hospitals for care. Kingsbrook Jewish and NY Community command the smallest shares of their markets (at 9% and 8%, respectively).⁵⁴

While in many cases the top competitors for Brooklyn patients are Manhattan hospitals (particularly for commercially-insured and surgical patients), Brooklyn hospitals are also competing with each other for patients. For example, Kingsbrook Jewish’s top competitors in its core market are Kings County, Brookdale and University Hospital.⁵⁵ Similarly, Brooklyn Hospital Center competes for market share with Woodhull and Methodist, and LICH competes with Brooklyn Hospital and Methodist.⁵⁶ (For more information about hospital market shares, see Appendix E)

Low growth in admissions is in part attributable to migration of patients from Brooklyn to other boroughs or counties for care. While more than 90 percent of Brooklyn hospital inpatients are Brooklyn residents, only slightly more than three-quarters (76%) of Brooklyn residents who were admitted to a hospital in 2010 used a Brooklyn hospital in 2010.⁵⁷ Nearly one in five (18.4%) went to Manhattan facilities, 2.7 percent to hospitals in Queens, 1.2 percent to Staten Island, 0.6 percent to the Bronx, and 1.4 percent elsewhere.⁵⁸ The migration to Manhattan for care has been rising from just over 60,000 patient discharges in 2006-2007 to over 65,000 in 2009-2010.⁵⁹ The strongest magnets for Brooklyn patients in 2010 were Beth Israel Medical Center,

⁵³ *Ibid.*; Heller K, GNYHA Presentation to Medicaid Redesign Team: Brooklyn Work Group, Sept. 21, 20

⁵⁴ Welsh Analytics, LLC, NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Welsh Analytics, LLC, NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

NYU Langone Medical Center, NY Presbyterian-Weill Cornell Medical Center, and Mt. Sinai Medical Center.⁶⁰ Thus, Brooklyn hospitals are not attracting patients from other boroughs, and they are losing a significant portion of their geographic market to Manhattan’s academic medical centers.

The migration of patients to Manhattan was greatest among commercially-insured patients and surgical patients. The number of commercially-insured Brooklyn patients going to Manhattan hospitals increased by 15 percent from 2006-07 to 2009-10. Overall, 35 percent of commercially-insured patients migrated to Manhattan for care, in 2010 whereas 13.5 percent of Medicaid patients did so.⁶¹ While the outflow of patients to Manhattan was highest for surgical patients (drawing 25.1 percent of Brooklyn inpatients) about one in five obstetric patients (21.7 percent) from Brooklyn also went to Manhattan hospitals.⁶² Manhattan’s stronger draw of surgical patients is seen both for Medicaid and for commercially-insured groups; its stronger draw for commercially-insured patients is seen for both medical and for surgical patients. By voting with their feet, particularly for services that are reimbursed relatively generously, Brooklyn patients are diverting needed inpatient revenue away from Brooklyn to Manhattan hospitals.

Out-of-Borough Migration of Brooklyn Hospital Inpatients, 2010⁶³

	Brooklyn Residents with Inpatient Admissions	Hospital Destination (%)		
		Brooklyn	Manhattan	Other*
All	356,021	75.8	18.4	5.9
Medical	123,255	83.9	11.3	4.7
Surgical	98,888	70.1	25.1	4.7
Medicaid	140,759	79.6	13.5	6.9
Medicare	112,834	81.5	14.7	3.8
Commercial	73,608	58.6	34.6	6.7

*This column includes hospital destinations in Queens, the Bronx, Staten Island, and other locations.

ii. *Emergency Department Use and Prevention Quality Indicator (PQI) Admissions*

Emergency department utilization and inpatient admissions for conditions that could be treated or prevented through ambulatory care are a starting point for evaluating the overall quality and accessibility of primary and preventive care in an area. In addition, high rates of preventable emergency department or inpatient use are indicators of waste in the health care delivery system – in both cases, the need for higher intensity and expensive health care services could have been averted through the use of lower level, less costly care.

Based on the algorithm developed by John Billings at N.Y.U., approximately 46 percent of all emergency department (ED) visits that do not result in a hospital admission in Brooklyn are either non-emergent or primary care treatable.⁶⁴ Similarly, the rate of inpatient admissions that could be avoided with appropriate preventive care or disease management in the community, known as the PQI rate, is also 20 percent higher in Brooklyn hospitals than the statewide average hospital rate (15.4 percent of adult medical-surgical admissions compared to 13.1 percent citywide and 12.9 percent statewide).⁶⁵

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² *Ibid.*

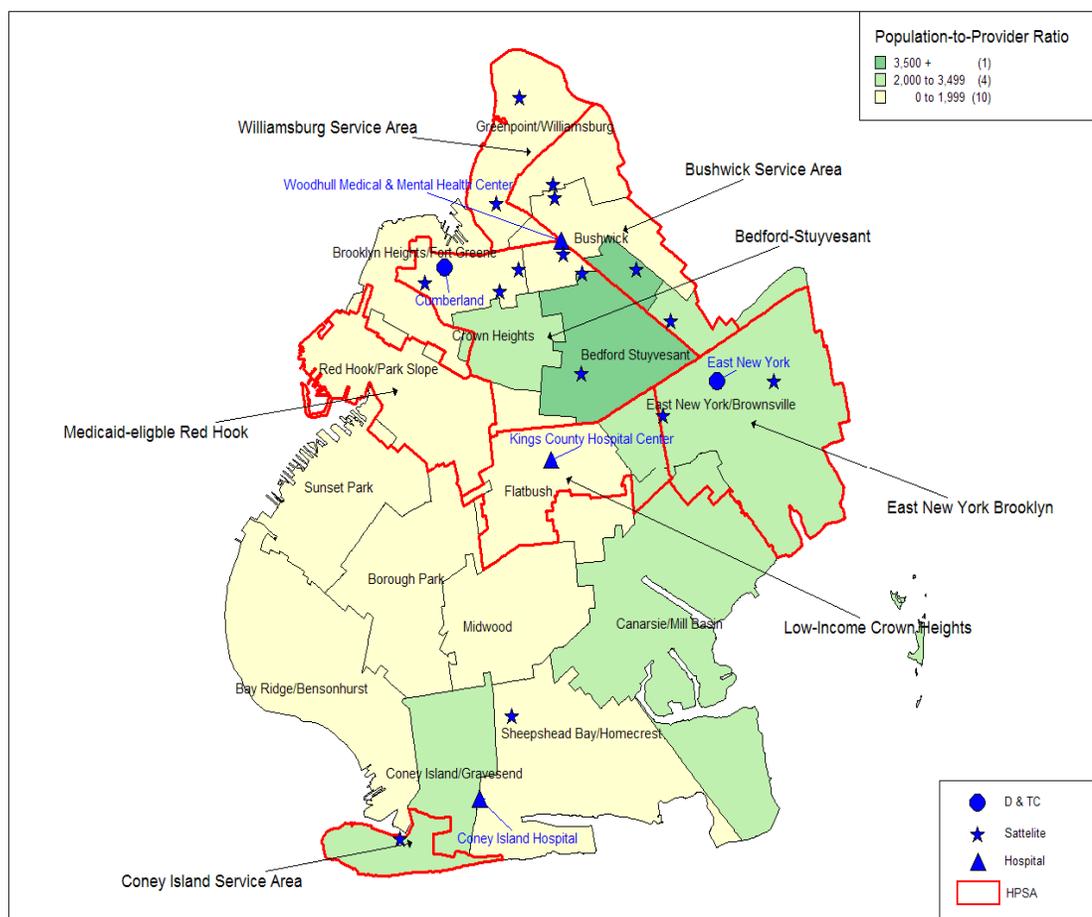
⁶³ *Ibid.*

⁶⁴ Welsh Analytics, LLC, Brooklyn 2010 ED Outpatient Visits as Evaluated by the NYU Algorithm, using NYS DOH SPARCS ED Outpatient File with NYU ED Algorithm, obtained Aug. 2011.

⁶⁵ NYS DOH coding of PQIs on 2009 SPARCS Deidentified Inpatient File, obtained Aug. 2011.

Sub-optimal inpatient and emergency department use in Brooklyn vary by neighborhood and correlate with health professional shortage area (HPSA) designations and with poverty. In 2008, East New York-New Lots, Central Brooklyn, and Bushwick-Williamsburg had the highest rates of emergency department visits that did not result in a hospital admission – at 50, 52, and 57 visits per 100 residents respectively.⁶⁶ The highest rates of PQI inpatient discharges as a percentage of medical-surgical admissions are found in the neighborhoods of Bushwick-Williamsburg, East New York-New Lots, Central Brooklyn, Northwest Brooklyn and Sunset Park.⁶⁷ (See Appendix F for a map of PQI discharges by neighborhood and Appendix G for a table describing Brooklyn HPSAs.) The highest PQI rates by hospital are found at Woodhull Medical Center (24%), Beth Israel-Kings Medical Center (21%), Brooklyn Hospital Center (19%), Brookdale, (19%), Interfaith (20%), and Kings County Hospital Center (19%). This compares to PQI rates of 13 percent at hospitals citywide and statewide.

Health Professional Shortage Areas in Brooklyn⁶⁸

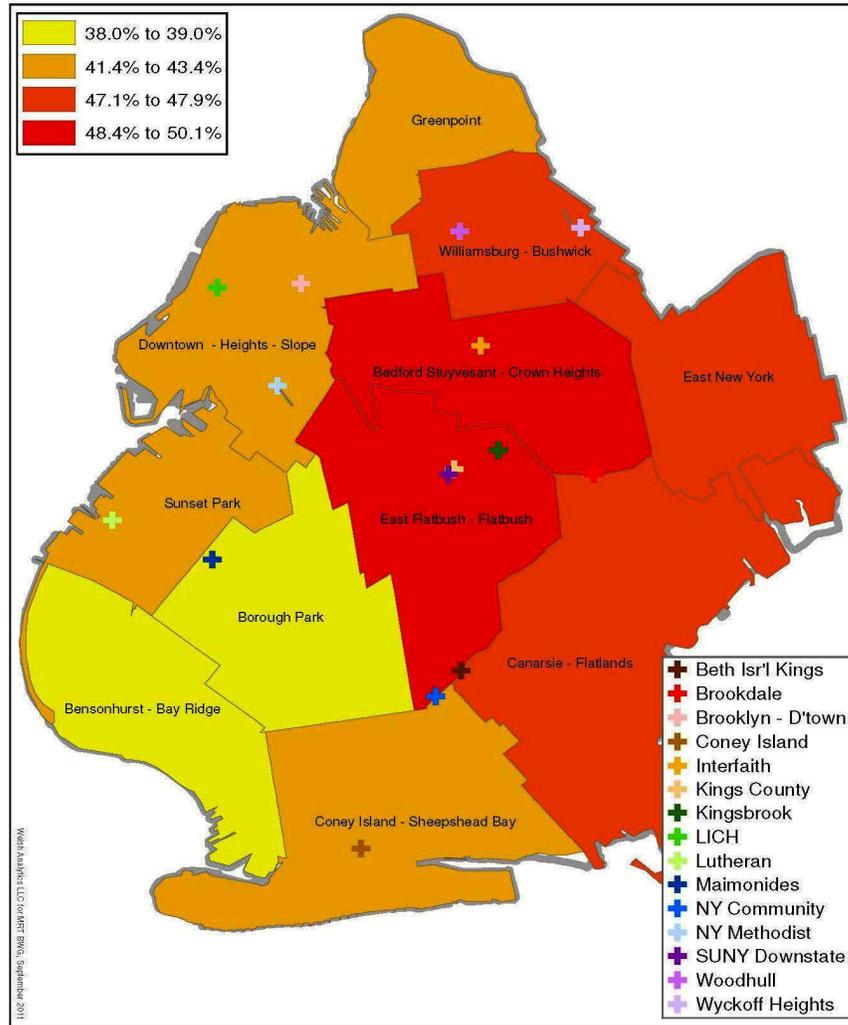


⁶⁶ Birnbaum, M, Emergency Department Use in Brooklyn by Neighborhood, United Hospital Fund, Presentation to the Brooklyn Work Group, Sept. 21, 2011, available at http://www.health.ny.gov/health_care/medicaid/redesign/docs/2011-09-21_brooklyn_mrt_final.ppt #387,1, MEDICAID REDESIGN TEAM: HEALTH SYSTEMS REDESIGN.

⁶⁷ Welsh Analytics, LLC, NYS DOH coding of PQIs on 2009 SPARCS Deidentified Inpatient File, obtained Aug. 2011.

⁶⁸ Center for Health Workforce Studies, Oct. 2011.

2010 ED Outpatient Visits by NYU ED Algorithm: UHF Neighborhoods
 PERCENTAGE OF VISITS FOUND NON-EMERGENCY OR PC-TREATABLE



High rates of primary care treatable ED use and PQI hospitalizations suggest that patients are not accessing appropriate or effective primary care necessary to keep them healthy and out of the hospital. Similarly, high rates of non-emergent ED use suggest that patients are not connected to a primary care provider who can see them when they are ill.

Since ED care is episodic and typically does not provide the same level of familiarity between the patient and clinician, nor the same level of follow-up care as primary care, it is not an appropriate substitute for primary care. It is also the most expensive alternative to primary care.

These rates further suggest that a significant portion of the effort and resources of Brooklyn's hospitals lies in accommodating the effects of a fragmented healthcare system that both lacks adequate primary and preventive care and encourages patients and the providers themselves to rely inappropriately on emergency departments and hospital-based services.

iii. *Hospital Performance in Patient Satisfaction Surveys*

Further evidence of the weakened condition of some of Brooklyn's hospitals can be found in poor scores on patient satisfaction surveys. To assess patient satisfaction with a hospital, the Work Group used the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey conducted by CMS. Not one Brooklyn hospital reached or exceeded the statewide average score with respect to the percentage of patients who would 'definitely recommend' the facility. On this measure, Brookdale's performance was particularly poor, with less than 40 percent of its patients indicating that they would definitely recommend the hospital. Wyckoff Heights and Interfaith also scored poorly – less than 50 percent of their patients reported that 'they would definitely recommend the hospital.'⁶⁹

Patient satisfaction with the communication and symptom control is also less than ideal in Brooklyn hospitals. The percentage of patients who report that their doctor 'sometimes or always communicates well' with them falls below the state and city averages of approximately 94 and 92 percent respectively in every Brooklyn hospital, with the exception of Maimonides. Significant outliers on this measure are Wyckoff Heights, Brookdale and Interfaith -- each scoring well below the average at approximately 86 percent. This pattern continues for the percentage of patients who report that their pain 'is usually or always well-controlled by Brooklyn hospitals. No Brooklyn hospital reaches the statewide average of 90 percent. Brookdale again falls considerably lower than all other Brooklyn hospitals with a score of approximately 75 percent.⁷⁰ For a more complete review of how each Brooklyn hospital rated on these measures please see Appendix H.

iv. *Current and Projected Inpatient Bed Need*

As noted above, on average, only 71 percent of Brooklyn's 6,389 licensed hospital beds are occupied daily.⁷¹ Based on the current population and utilization patterns, Brooklyn needs fewer than 5,400 beds to reach, and not exceed, the optimal 85 percent occupancy medical-surgical planning standard at every Brooklyn hospital.⁷² In other words, Brooklyn could shed approximately one thousand beds and still be at or below the 85 percent occupancy standard.

In addition to the relatively low occupancy level of Brooklyn hospitals, flat or downward trends in Brooklyn admissions, high PQI rates, and above-average lengths of hospital stays (ALOS) suggest that inpatient capacity could be reduced even further in Brooklyn. In the context of a reconfigured, high-performing delivery system, in which patient-centered primary care is emphasized, PQI discharges, length of hospital stays, and preventable readmissions will all be reduced. These changes will, in turn, reduce the need for inpatient beds, even after taking into account projected population growth in Brooklyn.

Specifically, modest reductions in PQI discharges and ALOS would yield further reductions in bed need in Brooklyn. If ALOS were reduced by only one day, Brooklyn could reduce its inpatient beds by an additional 869 beds. Taking into account population growth through 2015, if PQI discharges were reduced by 25 percent and ALOS for medical-surgical patients over age 64 were reduced to the average for the other four boroughs, the number

⁶⁹ Hospital Care Quality Information from the Consumer Perspective, Centers for Medicare & Medicaid Services, Baltimore, MD, available at <http://www.hcahpsonline.org>, accessed Apr. 20, 2011

⁷⁰ *Ibid.*

⁷¹ See text accompanying note 47.

⁷² There are different planning standards for pediatric and obstetric beds, but they allow for even lower occupancy rates than the medical-surgical standard and drive even greater reductions in bed need.

of licensed hospital beds needed in 2015 to achieve (but not exceed) the 85 percent occupancy standard would be 1,235 less than the current number.⁷³

B. Primary Care Access and Utilization

Access to effective primary care has the potential to reduce inpatient admissions and emergency department use, while improving health status and reducing costs.⁷⁴ Yet, 23 percent of all Brooklyn residents, and nearly one-third of the residents in five Brooklyn neighborhoods, indicate that they lack a primary care provider (Greenpoint, Central Brooklyn, Bushwick-Williamsburg, East New York-New Lots, and Sunset Park).⁷⁵

Generally, in Brooklyn and statewide, there are three distinct settings for primary care – the physician or nurse practitioner office, the hospital-sponsored outpatient clinic, and the freestanding diagnostic and treatment center. As noted above, FQHCs are a type of diagnostic and treatment center that must provide comprehensive primary care and enabling services to patients regardless of their ability to pay.

A scarcity of FQHC sites or other outpatient health care facilities in a neighborhood is not necessarily indicative of insufficient primary care capacity, if physician or nurse practitioner practices are available and affordable to the residents of the community. However, unlike FQHCs and hospital-sponsored clinics, private medical practices rarely offer substantial free care to low-income, uninsured patients. Since 40 percent of Brooklyn residents are on Medicaid and 15 percent are uninsured, medical practices that do not routinely serve Medicaid and uninsured patients cannot satisfy primary care needs in Brooklyn’s economically-challenged communities.

It is difficult to develop a complete picture of primary care capacity and utilization in Brooklyn due to gaps in data – physician practices are not required to report visit data to the Department of Health, and reporting by D&TCs is uneven despite regulatory requirements. Hospital outpatient departments and extension clinics provided a total of approximately 4.2 million outpatient visits in 2010, of which approximately 2.2 million were “general clinic” visits.⁷⁶ FQHCs provided approximately 1.1 million visits to Brooklyn residents that year.⁷⁷ And, in 2010, Brooklyn’s Medicaid beneficiaries had an average of 6.7 outpatient visits per member per year in Brooklyn, in comparison with an average of 5.3 visits per member per year citywide or 5.2 visits statewide.⁷⁸

While the rate of primary care utilization by Medicaid beneficiaries in Brooklyn may be higher than average overall, rates vary dramatically by neighborhood with the fewest visits per member per year in the neighborhoods located in central and northeast Brooklyn. The availability of primary care also varies by neighborhood in Brooklyn. (See Appendix I for a map of Medicaid

⁷³ Welsh Analytics, LLC, based on SPARCS Deidentified Inpatient File, obtained Aug. 2011; Population Projections from Cornell University, Program in Applied Demographics.

⁷⁴ Starfield, B, L Shi, et al. Contribution of Primary care to Health Systems and Health. *Milbank Q* 2005; 83(3): 457-502. Christakis, DA, Mell, L, Koepsell, TD, Zimmerman, FJ, Connell, FA. Association of Lower Continuity of Care With Greater Risk of Emergency Department Use and Hospitalization in Children. *Pediatrics* 2001, 107(3): 524-29. Gill, JM, Mainous III, AG, Nsereko, M. The Effect of Continuity of Care on Emergency Department Use. *Arch Fam Med.* 2000;9:333-338

⁷⁵ NYC DOHMH, Community Health Profiles, 2006, available at <http://www.nyc.gov/html/doh/html/data/data.shtml#bk>; See Appendix B.

⁷⁶ NYS Dept. of Health, Institutional Cost Reports, 2010. “General clinic” visits are non-specialty clinic visits. They do not include ambulatory surgery, renal dialysis, mental health or rehabilitation therapy visits.

⁷⁷ Compiled from reports to Uniform Data System (UDS), Health Research and Services Administration (HRSA), US Department of Health and Human Services. 2010. These visits include visits by Brooklyn residents to FQHCs outside of Brooklyn, as well as FQHCs within Brooklyn, and include behavioral health, dental, and enabling service visits. Nearly one-third of these visits are also included in the hospital outpatient visit figures, as Lutheran Medical Center’s affiliated FQHC reports its visits on the hospital’s cost reports.

⁷⁸ Primary care visits, for this purpose, also include family planning and prenatal/postpartum and physician specialist visits. NYS Dept. of Health, Medicaid OHIP DataMart, updated thru September 2011.

outpatient visit rates by zip code). Although there are dozens of hospital outpatient clinics, diagnostic and treatment centers and extension sites in Brooklyn, and 13 FQHCs, with more than 80 sites, outpatient facilities are unevenly distributed among Brooklyn neighborhoods. Lutheran Hospital through its affiliated FQHC, Sunset Park Health Center, has developed an extensive network of ambulatory care facilities in Sunset Park, northwest Brooklyn and Flatbush. By contrast, there are far fewer FQHC sites in northeast and southeast Brooklyn and outpatient facilities generally appear to be more dispersed in these neighborhoods, leaving many densely populated areas without such facilities.

Similarly, the availability of primary care physicians also varies dramatically by neighborhood. There are 9 federally-designated primary care health professional shortage areas (HPSAs) in Brooklyn – Bedford-Stuyvesant, Bushwick, Coney Island, Crown Heights, East New York, Midwood, Red Hook, Sunset Park, and Williamsburg (see map on p. 30).⁷⁹ Overall, there are 85 full-time equivalent (FTE) physicians per population of 100,000 across the borough. Statewide, the rate is 82 per 100,000. However, in Canarsie-Flatlands, Central Brooklyn, Greenpoint and East New York-New Lots, the rate is less than 60 FTEs per 100,000, and in Bushwick-Williamsburg it is 66 per 100,000.⁸⁰ In Sunset Park, the rate is 93 per 100,000 and in Northwest, Southwest, and Southern Brooklyn, the rate is more than 115 FTE primary care physicians per 100,000 population.⁸¹

These statistics do not tell the whole story of primary care availability in Brooklyn. The Brooklyn Healthcare Improvement Project (BHIP) is working to develop a more complete picture. It conducted a block-by-block canvass of primary care sites in 15 contiguous zip codes in Brooklyn (within the UHF neighborhoods of Bushwick-Williamsburg, Flatbush, Central Brooklyn, East New York-New Lots, and parts of Northwest Brooklyn and Canarsie-Flatlands). Preliminary results revealed 307 private physician practice sites, of which 85 percent were accepting new patients regardless of insurance status and 91 percent would schedule an appointment for a new patient within one week. BHIP is still assessing this capacity to determine whether it is appropriate and accessible for this diverse and densely populated area.⁸²

BHIP's work has also identified behavioral factors – both on the part of patients and their primary care providers – that play a significant role in determining where patients receive care, not just the availability of a practitioner. Based on nearly 12,000 surveys of ED patients at 6 Brooklyn hospitals (Brookdale, Downstate, Interfaith, Kings County, Kingsbrook, and Woodhull) conducted by the Brooklyn Healthcare Improvement Project (BHIP), 64 percent of ED patients in those hospitals reported that they have a primary care practitioner (PCP), and 45 percent recognized that their reason for visiting the ED was not an emergency. Moreover, the majority of the ED patients surveyed had health insurance. However, of those who acknowledged that their condition was not emergent, 29 percent came to the ED for care because they could not reach their PCP, were instructed to come to the ED by their PCP, or did not want to wait to be seen by their PCP. The single most common reason cited for seeking care in the emergency department was convenience.⁸³

The higher than average rate of outpatient visits by Medicaid beneficiaries in Brooklyn, along with the findings of the BHIP, suggest that Brooklyn's high rates of preventable inpatient and emergency department use are products of not only insufficient primary care capacity, but also of the geographic distribution and nature of primary care resources and the patterns of health care

⁷⁹ There are also 5 mental health HPSAs (Kings County Hospital, Northwest Brooklyn, Southwest Brooklyn, Woodhull Hospital), and 2 dental HPSAs (Bedford-Stuyvesant and Coney Island).

⁸⁰ New York Physician Re-registration Survey. Center for Health Workforce Studies. University at Albany, State University of New York.

⁸¹ *Ibid.*

⁸² See Wong, G., Brooklyn Healthcare Improvement Project, Presentation to the Brooklyn MRT, Sept. 21, 2011.

⁸³ *Ibid.*

delivery and utilization of physicians and patients. It appears that patients may be making rational choices to use emergency departments, based on convenience and the availability of comprehensive services and free care.

Accordingly, as BHIP's work shows, mere development of additional capacity will not solve the problem of sub-optimal emergency department use or PQI admissions. Rather, a combination of new capacity and new models of patient-centered care must be developed. In order to change patient and physician patterns of relying on emergency departments for non-emergent care, we will have to create a delivery system that changes the cost-benefit analysis for patients and providers, where the benefits of a primary care provider are clearly understood and the disincentives to using primary care are minimized (e.g., cost, scheduling, and lack of one-stop shopping). This will require additional study to understand patient choices and to identify the shortcomings of existing primary care capacity – for example, to assess its availability on an urgent or walk-in basis, geographic accessibility, quality, affordability, and cultural competence.

C. Behavioral Health Care Capacity and Inpatient Utilization

Brooklyn residents use inpatient psychiatric services at a higher rate than the statewide average (5.8 per 10,000 compared to 5.0 per 10,000).⁸⁴ According to the NYS Office of Mental Health's Patient Characteristics Survey (NYS OMH PCS), almost 20,000 adults with serious mental illness and children with severe emotional disturbance were served in all Office of Mental Health licensed settings in the single week in which the survey was administered in Brooklyn in 2009. The NYS Office of Alcohol and Substance Abuse Services' 2011 Service Need Profile reports that over 206,000 Brooklyn residents age 12 and over have a substance use disorder.⁸⁵

Mental illness and substance use disorders are often associated with chronic medical conditions, such as diabetes, obesity, cardiovascular disease and asthma. In Brooklyn, according to the NYS OMH PCS, 50 percent of mental health clients report a chronic medical condition, compared with 44 percent statewide.⁸⁶ Managing these complex co-morbidities and medication regimens is difficult, and is further complicated by factors such as homelessness and poverty that disproportionately impact people with mental illness or addictions.

As a result, Brooklyn hospitals are seeing high levels of utilization among people with behavioral health diagnoses. Of all inpatient discharges from Brooklyn hospitals, fully 27 percent involve a patient with a current behavioral health diagnosis, either as the principal diagnosis or as a comorbidity.⁸⁷ The portion of discharges with behavioral health diagnoses rises to more than 60 percent at Interfaith Medical Center, with 43 percent of its inpatient days attributable to patients with a principal diagnosis of a behavioral health condition.⁸⁸ With the exception of Brookdale, Kingsbrook Jewish, Maimonides, and New York Methodist, 30-day readmission rates to a psychiatric inpatient setting from inpatient psychiatric care in Brooklyn are higher than the statewide average.⁸⁹

⁸⁴ NYS Office of Mental Health, Department of Mental Hygiene Information System; SPARCS; Private Psychiatric Hospital data represent Medicaid eligible residents. Data may be incomplete because Medicaid does not cover individuals from age 22–64; US Census - American Community Survey Estimates for Calendar Year 2008.

⁸⁵ NYS OASAS, Service Need Profile – Sept. 2011, Kings County, available at <http://cps.oasas.state.ny.us/cps/secured/countydata/index.cfm?filename=need%5Fkings%5F201109%2Epdf&doctype=necd&year=201109>.

⁸⁶ NYS Office of Mental Health, County Dashboard, Wellness and Community Integration, Profile for Kings, 2009, available at: <http://bi.omh.ny.gov/cmhp/dashboard>.

⁸⁷ Welsh Analytics, LLC, Diagnosed Behavioral Health Problems among Inpatient Groups at Brooklyn Hospitals, prepared for Brooklyn MRT, Sept. 2011.

⁸⁸ Welsh Analytics, Diagnosed Behavioral Health Problems among Inpatient Groups at Brooklyn Hospitals; *ibid.* Major Clinical Categories at Interfaith Medical Center.

⁸⁹ NYS Office of Mental Health, County Dashboard, Psychiatric Inpatient Readmissions, Profile for Kings, 2009, available at: <http://bi.omh.ny.gov/cmhp/dashboard>.

The heavy inpatient utilization among people with mental illness and substance use disorders suggests that the management of these conditions, and associated co-morbidities, in the community could be improved. According to the Office of Mental Health, the rate of Medicaid beneficiaries who receive outpatient treatment within 7 days of a psychiatric discharge from a hospital is lower in Brooklyn than statewide (27 percent of Brooklyn adults and 30 percent of Brooklyn children receive outpatient treatment within 7 days, compared to 33 percent and 40 percent respectively statewide).⁹⁰

Like primary care services, outpatient behavioral health services are unevenly distributed among Brooklyn neighborhoods. Brooklyn's 69 mental health clinics and satellites⁹¹ and 44 chemical dependence treatment outpatient programs⁹² are concentrated in the Central and Northwest Brooklyn neighborhoods. Although Southern Brooklyn and Bushwick-Williamsburg have higher numbers of residents discharged from the hospital with a behavioral health diagnosis than Northwest Brooklyn, and East New York-New Lots has comparable numbers to Northwest Brooklyn, those neighborhoods have far fewer behavioral health outpatient programs (see Appendix J for maps of OMH-licensed clinics and Appendix K for a map of OASAS-licensed outpatient programs).⁹³

Across the state, the health and behavioral health care systems currently in place do not adequately support effective management of behavioral health conditions in the community. There is a heavy reliance on inpatient and emergency department care, segregation of medical and behavioral health care, lack of coordination along the continuum of care, insufficient early intervention, and lack of resources for functional supports such as housing, employment and education. Reimbursement methodologies for providers pay for services, often without any regard for individual outcomes.

However, the state and NYC are involved in a number of initiatives to shift the focus to outpatient care and functional supports, to integrate services across the continuum, and to engage consumers, in Brooklyn and around the state. For example, the Brooklyn Care Monitoring Initiative focuses on high-need individuals with mental illness to ensure that they remain engaged in care. Utilizing managed care techniques and Medicaid claims data to track individuals' patterns of service use, unexpected interruptions in services are identified, and providers of services can then work to re-engage the individual.

In addition, under the leadership of Governor Cuomo's Medicaid Redesign Team, the state is moving to enroll all Medicaid beneficiaries in managed care plans in which mental health and substance use benefits will be managed. The state recently awarded the first phase of Behavioral Health Organization contracts in regions throughout the state (with the exception of Long Island, which will be awarded shortly) with the expectation that this new management capacity will become operational by January 1, 2012. These managed care entities will work with hospitals to review the appropriateness of admissions and the length of stay for mental health and substance use treatment, as well as to assist in identifying appropriate discharges in a timely manner. They will also develop quality outcome metrics and foster the use of data to improve services. This structure will help set the stage for further efforts to improve integration of mental and physical health care.

⁹⁰ NYS Office of Mental Health, Medicaid Data Warehouse,

⁹¹ NYS Office of Mental Health, OPME OMH Concerts, May 2011; also Welsh Analytics, Mental Health Programs in Brooklyn, Sept. 2011, *citing* NYS Dept. of City Planning; *see also* maps at Appendix J and K.

⁹² NYS Office of Alcohol and Substance Abuse Services, Division of Outcome Management and System Investment, Oct. 2011; also Welsh Analytics, Mental Health Programs in Brooklyn, Sept. 2011, *citing* NYS Dept. of City Planning, *see also* maps at Appendix J and K.

⁹³ Welsh Analytics, LLC, Diagnosed Behavioral Health Problems among Inpatient Groups at Brooklyn Hospitals, prepared for Brooklyn MRT, Sept. 2011. Notably, since outpatient behavioral health programs do not have a certified capacity, relative numbers of programs are indicative of geographic accessibility, but not the availability of treatment slots.

The state is also overseeing the creation of “health homes” for Medicaid beneficiaries with multiple chronic conditions. These multi-disciplinary collaborations of community-based services will link individuals with complex health care needs – including mental health and substance use disorders – with health care providers and the community and social supports. Through value-based and risk-based payment reforms, health plans, behavioral health organizations and providers will be held accountable for optimizing the beneficiary’s physical and mental health.

The development of these new models of coordinated and integrated care for Medicaid beneficiaries with behavioral health conditions, together with payment mechanisms that incentivize prevention and outpatient care may also reduce the need for inpatient beds in Brooklyn over the next five to ten years.

V. HIGH NEED COMMUNITIES AND LOW MARGINS: THE PRECARIOUS CONDITION OF CERTAIN BROOKLYN HOSPITALS

The Work Group is deeply troubled by the health status of Brooklyn residents and the accessibility, sustainability, and quality of medical care in parts of the borough. The borough’s hospitals are major providers of both inpatient and outpatient care, major employers, and engines of economic development. However, many are financially-fragile and, in the worst cases, are in the midst of a financial disaster. Fundamental and wide-ranging changes in governance, organization, clinical care, operations, cost structure, and physical plant are, in the case of many of the hospitals, essential both to their future survival and stability and to the health of the communities they serve.

The Work Group has focused its attention on the three most troubled hospitals in Brooklyn that require immediate intervention to avert financial collapse: **Brookdale Hospital Medical Center, Interfaith Medical Center, and Wyckoff Heights Medical Center**. All of these institutions are located in northern and central Brooklyn. All have unsustainable levels of debt and negative net assets. The Work Group notes that **Long Island College Hospital (LICH)** also falls into this dire category, but with its recent acquisition by SUNY Downstate Medical Center, is of less immediate concern.

Furthermore, the Work Group has also focused its attention on two other key hospitals, **Brooklyn Hospital Center and Kingsbrook Jewish Medical Center**, which do not exhibit the same level of financial distress, nor require the same level of urgent attention as the three most troubled institutions. Brooklyn Hospital Center and Kingsbrook Jewish have effected restructurings that have resulted in stabilization. However, they cannot not remain viable in the long run, as stand-alone facilities under their current business models. They can play a leadership role in creating integrated systems to strengthen health care delivery in the communities served by all six hospitals. This report will refer to these six institutions (Brookdale, Interfaith, Wyckoff, LICH, Brooklyn Hospital Center, and Kingsbrook Jewish) as the “focus hospitals.” The table below summarizes some key facts about the focus hospitals:

Focus Hospitals: Key Facts

Hospital	Core Market Neighborhoods ⁹⁴	Licensed Beds ⁹⁵	Specialized Services
Brookdale Hospital Medical Center	Central, East NY – New Lots	530	AIDS, Stroke Center, Level 3 Perinatal Center, and Regional Trauma Center
Brooklyn Hospital Center	Northwest, Central, Bushwick –Williamsburg, Flatbush	464	AIDS, Stroke Center, Inpatient Psychiatric
Interfaith Medical Center	Central, Bushwick – Williamsburg	287	AIDS, Inpatient Chemical Dependency (Detox and Rehabilitation), Inpatient Psychiatric
Kingsbrook Jewish Medical Center	Flatbush, Central, Canarsie – Flatlands	326	AIDS, Stroke Center, Traumatic Brain Injury Center, Inpatient Psychiatric
Long Island College Hospital	Northwest, Central, Bushwick – Williamsburg	506	Stroke Center, Level 3 Perinatal Center, Inpatient Psychiatric
Wyckoff Heights Medical Center	Bushwick – Williamsburg, parts of Queens	324	Stroke Center, Level 3 Perinatal Center

All of these hospitals serve large numbers of Medicaid beneficiaries, and all serve communities affected by poverty and poor health status. The neighborhoods of East New York-New Lots, Bushwick-Williamsburg, and Central Brooklyn have among the highest rates of poverty in Brooklyn. They also have among the highest rates of residents who lack a primary care provider, obesity, hospitalization for heart disease, PQI admissions, and avoidable emergency visits, and among the lowest rates of Medicaid outpatient visits. (See Parts II and IV and Appendices B, F, and I).

The chart below summarizes the performance of the focus hospitals on key financial indicators:

Key 2010 Financial Indicators for Focus Hospitals

Hospital	Total Hospital Margin	Current Ratio	Long Term Debt Per Bed	Capital Spending	Total Net Assets
Brookdale	-12.7%	0.42	\$210,000	45%	-285,000,000
Interfaith	-30.7%	0.81	\$517,000	66%	-126,000,000
Wyckoff	-0.7%	0.80	\$324,000	39%	-91,000,000
LICH	-3.8%	0.89	\$269,000	31%	-78,000,000
Brooklyn Hospital	1.7%	1.09	\$191,000	85%	59,000,000
Kingsbrook Jewish	1.0%	0.81	\$53,000	82%	16,000,000

Source: GNYHA and DASNY presentations to Brooklyn Redesign Work Group, September 21, 2011; data derived from most current NYS Institutional Cost Reports and audited financial statements. Audit data for Interfaith is draft. Interfaith has cut expenses in 2011 to raise its margin to -18%.

A. Factors Contributing to Financial Decline

The financial condition of the three most troubled institutions and LICH is, to a large extent, a product of a long history of weak governance and mismanagement, overwhelming liabilities accumulated on their balance sheets, including debt issued long ago for physical plant

⁹⁴ “Core market” refers to the smallest collections of zip codes from which 50 percent of the hospital’s patients are drawn. Welsh Analytics, LLC, analysis of NYS DOH SPARCS 2010 Deidentified Inpatient File, obtained Aug. 2011 (zip codes translated to neighborhoods based on NYC DOHMH Community Health Atlas, 2009).

⁹⁵ These figures reflect licensed, not staffed, beds. Many licensed beds are not staffed. The number of staffed beds varies based on occupancy and other factors.

improvements that are now in some cases obsolete, and pension and medical malpractice obligations. However, it is also attributable, in part, to a variety of other factors beyond their control or to which they have not responded effectively:

- Heavy reliance on Medicaid and Medicare and reductions in reimbursement under both programs;
- Intense competition for patients (particularly for commercial and surgical patients) from neighboring hospitals and academic medical centers outside of Brooklyn;
- Advances in medical care that have reduced length of stay and shifted a wide range of services from the inpatient setting to ambulatory settings;
- Managed care penetration (including significant Medicaid managed care growth);
- Prevailing payment methodologies that pay more generously for highly specialized, resource-intensive procedures and less for the core medical and surgical services of a community hospital; and
- Union contracts that require wage and benefit increases in excess of the institutions' revenue growth.

These factors are, in many cases, not unique to these Brooklyn hospitals. Vulnerability to Medicaid and Medicare budget cuts and generally unfavorable reimbursement for core services are facts of life for community hospitals that serve low-income communities nationwide. All of the focus hospitals serve high-need communities, with high rates of chronic disease and poverty and low levels of commercial insurance. These hospitals have been described as safety net hospitals. The term “safety net hospital” has been defined in various ways in different contexts.⁹⁶ For purposes of this report, we define a “safety net hospital” by reference to the community it serves, as well as its services and source of revenue. In this report, a safety net hospital:

- Is situated in and serve a high need community, often characterized by poverty, public health challenges, low levels of educational attainment, and other psychosocial demands, like drug and alcohol abuse and inadequate housing;
- Fulfills otherwise unmet health care needs in a community;
- Serves a high volume of Medicaid and medically-indigent patients;
- Serves comparatively few commercially-insured patients;
- Is typically located in a federally-designated Medically Underserved Area (MUA) or Health Professional Shortage Area (HPSA);
- Principally provides core medical and surgical services, such as obstetrics, pediatrics, and internal medicine, and behavioral health services.

More recently, Governor Cuomo's Payment Reform Work Group has coined the term, “vital access provider” to describe health care providers with similar characteristics. The Brooklyn Work Group would like to stress that it is the level of community need, the hospital's mission to address it, and its location that determine the hospital's safety net or “vital access” status -- not the hospital's need. Today's vital access hospital may play a less crucial role in the integrated health care delivery system of the future. In the long run, it may need to assume new roles within more compact facilities.

⁹⁶ In a 2000 Report, the Institute of Medicine defined the health care safety net as those providers that organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid and other vulnerable patients. *America's Health Care Safety Net* (2000).

The focus hospitals are not just safety net hospitals – they are also community hospitals.⁹⁷ They provide medical, surgical and emergency care to vulnerable residents. They are not, and should not try to be, quaternary care centers with a high volume of subspecialty care. Nor are they academic medical centers (although they sponsor medical training programs) engaged in substantial clinical research. As a result, they do not have the leverage to negotiate more lucrative managed care contracts, to attract sizeable philanthropic donations, or to cross-subsidize their core services and charity care with highly-specialized services provided to well-insured patients.

It is also important to note that, although safety net hospitals are often characterized as serving health care needs that would otherwise be unmet, this is not necessarily true for the focus hospitals. As the inpatient utilization and market share data in Part IV demonstrate, residents of the communities served by these hospitals are voting with their feet and choosing to use hospitals outside of their immediate neighborhoods and outside of Brooklyn.

Clearly, these hospitals are not, and should not be, the sole health care providers that serve their communities. Many of the services they provide could be offered in a cost-effective manner by other types of providers, such as freestanding ambulatory care facilities, physician practices, or even nursing homes and home care agencies. Restructuring will necessarily require new and changed relationships among all manner of providers to serve patients in the best and most cost-effective way possible. Unless we address the financial crisis for these hospitals by restructuring, we cannot hope to take advantage of the emerging care models and payment reforms that seek to improve quality of, and access to, care in their communities.

B. Financial Position of Selected Hospitals

Although all six of the hospitals under discussion provide important health care services to vulnerable patients in high need communities, they lack a business model that will allow them to survive in the long run, and in three cases, even short-term survival is in jeopardy. Common to the financial circumstances of these hospitals are insufficient operating revenue and an unsustainable cost structure. The three most troubled hospitals (Brookdale, Wyckoff, and Interfaith) are struggling week-to-week to make payroll and are working with vendors and creditors for forbearance. Most cannot access capital markets to make the necessary investments in physical plant, human resources or technology necessary to maintain an acceptable level of quality or access. As the discussion below illustrates, none of the three exhibits a favorable position on any of the key indicators of financial stability: operating margin, current ratio, debt-to-bed ratio, and net assets.

According to national hospital industry standards, a margin of operating revenues over expenses of at least 3 percent is necessary to assure financial stability and the capacity for reinvestment.⁹⁸ However, four of the institutions under discussion (Brookdale, Wyckoff, Interfaith and LICH) have a negative margin, and only two (Kingsbrook Jewish and Brooklyn Hospital Center) have slightly positive margins. None has a margin approaching 3 percent. While few hospitals in New York State meet this standard, the margins of Brookdale and Interfaith are outliers.⁹⁹ Interfaith lost approximately \$57 million in 2010, and Brookdale lost nearly \$43 million.¹⁰⁰ While insufficient operating margins may be ameliorated through improvements in services, management and operational efficiency, rarely can such measures compensate for a lack of reliable, predictable revenue corresponding to the costs of delivering care.

⁹⁷ Not all safety net hospitals are also community hospitals. Some safety net hospitals may also be academic medical centers providing quaternary care.

⁹⁸ Heller, K, Greater New York Hospital Assoc., Medicaid Redesign Team: Health Systems Redesign, Presentation to the Brooklyn Work Group, Sept. 21, 2011.

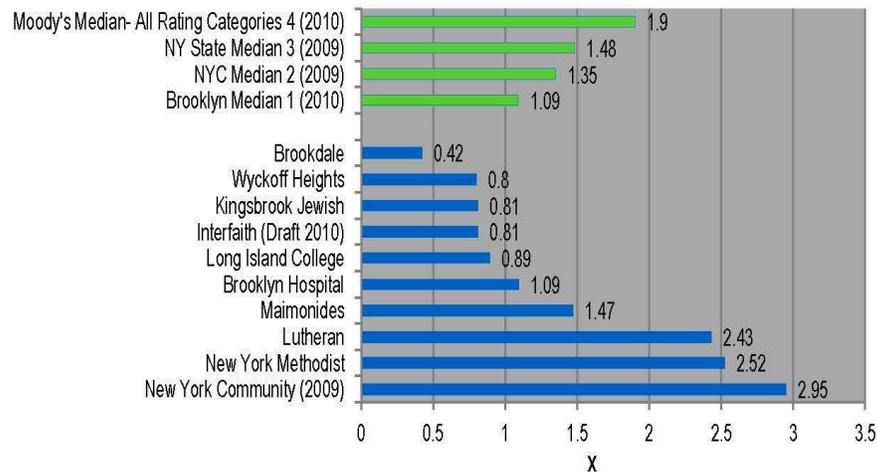
⁹⁹ The average total margin for New York State hospitals is 2.2 percent. *Ibid.*

¹⁰⁰ Selected audit data from 2010 DASNY supplemental form. Interfaith report is preliminary.

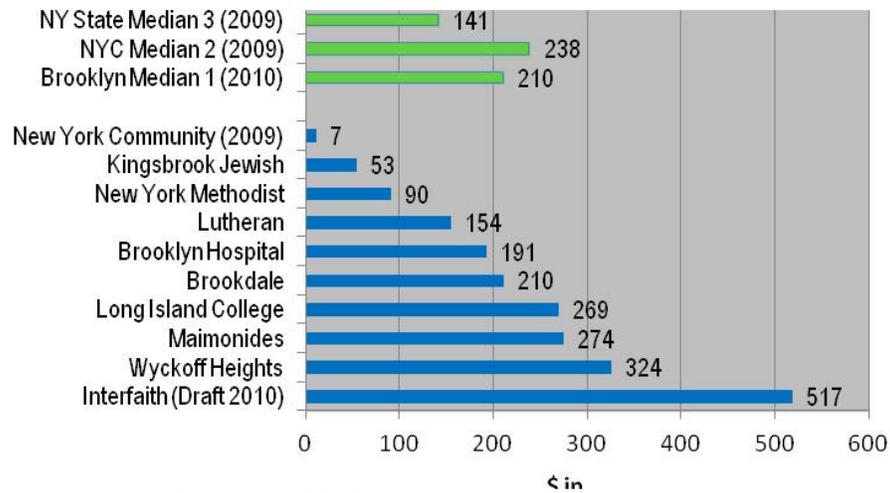
The absence of revenues sufficient to support day-to-day operations forces facilities to consider reliance on managing cash flow or borrowing to help cover expenses. This may be the only practical course when a facility's current ratio of current assets to current liabilities is 1.0 or lower. All of the hospitals under discussion, except Brooklyn Hospital Center, have current ratios of less than 1.0.

With the exception of Brooklyn Hospital Center, the ratios for the focus hospitals do not compare favorably to the other hospitals in Brooklyn, all of which have current ratios above 1.0.

Current Ratio*



Long-Term Debt / Bed*



Sources: Hospital Audited financial statements and DASNY supplemental survey.

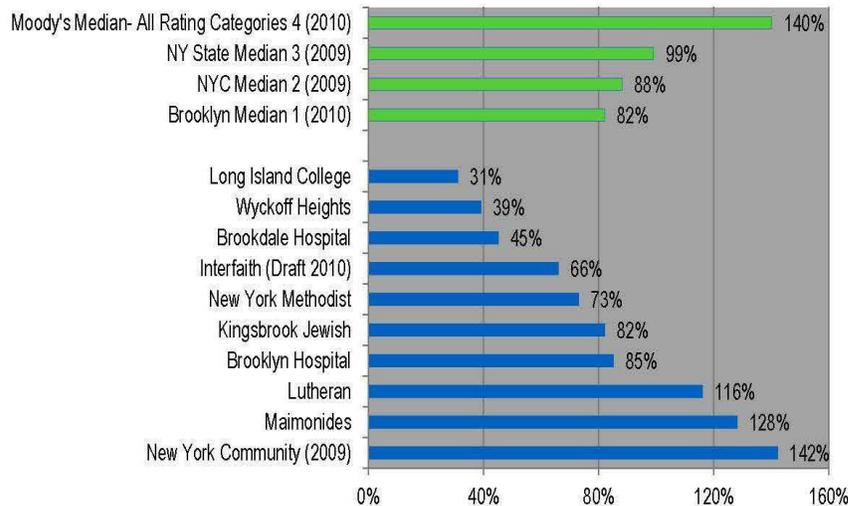
- 1 Median includes 11 Article 28 hospitals in Brooklyn; excludes the three public Health and Hospitals Corporation hospitals and State hospital. 2010 Audit data unless otherwise noted. Audit data for BI-Kings Highway is from consolidated audit for system. Audit data for Interfaith is DRAFT. Audit data for Kingsbrook Jewish Medical Center only; excludes Rutland Nursing Home. Excludes the three public Health and Hospitals Corporation hospitals and the State hospital.
- 2 2009 Audit data. Includes 31 Article 28 hospitals/hospital systems located in the five boroughs and excludes major publics and specialty hospitals.
- 3 2009 Audit data. Includes 148 Article 28 hospitals/hospital systems in the State and excludes major publics and specialty hospitals.
- 4 Moody's Fiscal Year 2010 Not-for-Profit Hospital Medians, August 2011. Includes 401 freestanding hospitals & single state systems that have an underlying rating from Moody's across all rating categories.

* Excludes Beth Israel – Kings Highway because its data are reported in a Consolidated Audit for the system. LTD / BED is defined as the current and long-term portion of debt from the audit balance sheet divided by licensed beds.

The facilities' low current ratios are compounded by high levels of long-term debt. A hospital's ratio of long-term debt per bed is an indicator of the facility's capacity to leverage. As the chart above indicates, with the exception of Kingsbrook Jewish, all of the selected hospitals have levels of long-term debt to bed ratios above the median (\$141,000 per bed) for hospitals statewide. At Interfaith, this ratio reaches an extreme of \$517,000 per bed, more than double the median for all Brooklyn hospitals and more than three times the statewide median.

Low operating margins at the selected hospitals, combined with high levels of long term debt and low levels of current assets relative to current liabilities, preclude the formation of adequate capital for investment in physical plant and depreciable medical and nonmedical equipment. This is reflected in the individual capital spending ratios (ratio of annual purchases of property, plant and equipment to current year depreciation expense) of the facilities. All of the focus facilities have capital spending ratios below 100 percent. This indicates that the hospitals are disinvesting — spending less in new capital than is being incurred in the depreciation of old capital. Over time, this will make it difficult for these facilities to maintain quality of care and keep abreast of advances in the organization and delivery of inpatient and outpatient services.

Capital Spending – 5 year averages



Sources: Hospital Audited financial statements and DASNY supplemental survey

- 1 Includes 11 Article 28 hospitals in Brooklyn; excludes the three public Health and Hospital Corporation hospitals and State hospital. 2010 Audit data unless otherwise noted. Audit data for Beth Israel Medical Center is from the Consolidated Audit which includes the Kings Highway division in Brooklyn. 2010 Audit data for Interfaith is DRAFT. Audit data for Kingsbrook Jewish Medical Center only; excludes Rutland Nursing Home. Excludes the three public Health and Hospitals Corporation hospitals and the State hospital; excludes Beth Israel – Kings Highway because its data are reported in a Consolidated Audit for the system.
- 2 2009 Audit data. Includes 31 Article 28 hospitals/hospital systems located in the five boroughs and excludes major public and specialty hospitals.
- 3 2009 Audit data. Includes 148 Article 28 hospitals/hospital systems in the State and excludes major publics and specialty hospitals. Moody's Fiscal Year 2010 Not-for-Profit Hospital Medians, August 2011. Includes 401 freestanding hospitals & single state systems that have an underlying rating from Moody's across all rating categories.

Finally, the difficult financial position of the selected hospitals is illustrated by their net asset positions. The net asset position of a hospital is the difference between its total assets and total liabilities. It is a measure of equity and the ability of lenders to recover in the event of a default. Four of the hospitals have negative net asset positions, ranging from minus \$91 million at Wyckoff Heights to minus \$285 million at Brookdale.

Net Assets

Hospital	Total Net Assets (\$ millions)	Total Assets (\$ millions)	Total Long-Term Debt ² (\$ millions)	Total Other Liabilities (\$ millions)
Brookdale	-285	184	112	357
Long Island College	-78	308	136	250
Interfaith (Draft 2010)	-126	184	148	162
Wyckoff Heights	-91	140	114	117
Kingsbrook Jewish	16	115	17	82
New York Community (2009)	27	60	1	32
Brooklyn Hospital	59	255	89	107
Lutheran	69	289	72	148
New York Methodist	135	491	53	303
Maimonides	185	759	195	379

Sources: Hospital Audited financial statements and DASNY supplemental survey

1 Excludes the three public Health and Hospitals Corporation hospitals and the State hospital; excludes Beth Israel – Kings Highway because assets are reported in a Consolidated Audit for the system. 2010 Audit data unless otherwise noted. 2010 Audit data for Interfaith Medical Center is DRAFT. Audit data for Kingsbrook Jewish Medical Center only; excludes Rutland Nursing Home.

2 Total long-term debt includes the current and long-term portions of all debt including bond/mortgages, capital leases, notes and other loans.

The negative net assets of these facilities would make it difficult for them to initiate the restructuring of services and physical plant that would be necessary for any significant improvement in efficiency or increases in revenues necessary for their longer term viability and for the delivery of quality care appropriate to the identified health care needs of their communities.

VI. OPPORTUNITIES AND CHALLENGES IN A CHANGING HEALTHCARE ENVIRONMENT

To create a financially viable health care delivery system in the communities served by the focus hospitals, the clinical, organizational and financial paradigm for these institutions must change. As discussed above, Brooklyn hospitals are heavily reliant on Medicaid and Medicare. Reforms in Medicaid and Medicare at the state and national levels create opportunities to achieve fundamental change. While these may also impose additional stresses on Brooklyn's hospitals, they also create a call for immediate action so these hospitals can take advantage of new delivery models and payment structures.

Federal health care reform promises to reduce dramatically the numbers of uninsured people and to provide support for health information technology adoption and new models of care that emphasize care coordination and improved outcomes. On the other hand, Medicare and Medicaid reimbursement are in flux. Longstanding sources of Medicare revenue will be reduced under the Affordable Care Act (ACA). Federal Medicare disproportionate share (DSH) payments will be

cut substantially beginning in 2014,¹⁰¹ which will have a particularly significant impact on hospitals, like those in Brooklyn, that serve large numbers of low-income Medicare and Medicaid beneficiaries. In addition, Medicare inpatient rates will be reduced by 3.9 percent to offset case-mix growth. To close the federal budget deficit, the Congressional Deficit Reduction Committee is reviewing additional cuts, with a default outcome of a 2 percent set-aside of all Medicare payments.¹⁰²

At the same time, Governor Cuomo's Medicaid Redesign Team (MRT) is working to make the health care delivery system more affordable and efficient, while improving health outcomes. Under its guidance, the state has implemented a global cap on Medicaid spending, which will limit Medicaid spending growth to the inflation rate. According to the MRT global cap report, the reforms are on track to save money. In addition, through the work of the MRT, the state is shifting all Medicaid beneficiaries, including individuals with disabilities, mental illness, and long-term care needs, into managed care plans. This will virtually eliminate Medicaid fee-for-service payments for hospitals, and require them to rely almost entirely on their ability to leverage adequate reimbursement from managed care plans and to manage their costs.

We have not calculated the cumulative effects of these changes on the bottom lines of the six focus hospitals, but acknowledge that, under their current configurations and cost structures, significant reductions in Medicare and Medicaid revenue would be devastating, absent changes in organization, services and costs. With their heavy reliance on Medicaid and Medicare, these hospitals cannot expect commercial payers to fill in the gaps.

Given the pending reductions in Medicare and possible reductions in Medicaid revenue, the prospects for financial success for any hospital depend in large part on its ability to participate effectively in reforms introduced by the federal ACA and Governor Cuomo's MRT. The federal ACA has launched, and the MRT embraced, new strategies for delivering and paying for care that emphasize care coordination, prevention, and performance, such as accountable care organizations, patient-centered medical homes and health homes. Under these models, providers along the continuum of care must integrate or collaborate with each other to improve the health of Medicare and/or Medicaid beneficiaries and accept payment arrangements that reward positive outcomes and efficiency and/or penalize negative outcomes and inefficiency. Similarly, both the ACA and the state's Medicaid Redesign Team seek to promote improvements in care coordination and outcomes through reimbursement penalties for potentially preventable readmissions related to certain conditions. In New York, these initiatives will be supported by recently approved funding under the state's Medicaid waiver -- the Hospital Medical Home Demonstration which will provide up to \$345 million over 3 years to teaching hospitals that become accredited patient-centered medical homes and \$20 million in grants to hospitals to develop strategies to reduce potentially preventable readmissions.

Safety net, community hospitals can play an important role in this new world of coordinated care and performance-based reimbursement, but must be proactive in adapting to it. Because these new models emphasize prevention and deploy performance- and risk-based payment mechanisms, they demand a fundamental reconfiguration of Brooklyn's health care delivery system from a strategic, organizational, physical, and financial perspective.

Accordingly, in the long run, the institutions under consideration are not viable with their current bed complement, in their current configuration. Most are experiencing declining admissions, and all are experiencing a low average daily census. In the short run, their revenues cannot support

¹⁰¹ Medicare disproportionate share payments are reimbursement adjustments to hospitals based on their services to low-income Medicare and Medicaid beneficiaries.

¹⁰² Heller, K., Greater New York Hospital Assoc., Medicaid Redesign Team: Health Systems Redesign, Presentation to the Brooklyn Work Group, Sept. 21, 2011.

expenses, much less provide needed capital investments. In the long run, under Medicare and Medicaid reforms, length of stay, PQI admissions, emergency department use, and readmissions are expected to decline, further reducing revenue from inpatient services. While the Work Group is committed to striking the right balance of inpatient and primary care to ensure access to needed services along the continuum in Brooklyn, these reforms will drive a reduction in the need for inpatient beds and conversely incentivize the development of integrated systems of care with comprehensive, high quality primary care services.

VII. BUILDING HIGH-PERFORMING SYSTEMS OF CARE ALIGNED WITH COMMUNITY HEALTH NEEDS

The Work Group observes, based on interviews and presentations, that since the inception of the Medicaid program, which is more than four decades ago, the service delivery model in Brooklyn has not changed dramatically. Although there have been isolated efforts to enhance primary care (most notably by Lutheran and its associated FQHC) and develop health systems, health care delivery in Brooklyn remains heavily-invested in inpatient and emergency care. The predominant care model in Brooklyn is built around the four walls of the hospital and perpetuates the use of medical services that tend to be fragmented, uncoordinated, and often accessed in the most expensive setting at the point when health care problems are acute or emergent. As the state and the nation implement health care reforms that incentivize coordination and prevention, integrated systems of patient-centered care comprised of providers along the continuum must be created.

To support the development of a high-performing, high-quality health care delivery system in Brooklyn that is responsive to community needs, this report describes a set findings¹⁰³ and a series of principles for restructuring derived from those findings. Restructuring guided by these principles will not only stabilize Brooklyn's health care delivery system, it will also advance CMS's "Three Part Aim" – better care for individuals, better health for populations, and lower costs through improvement. We believe that these principles are applicable to health systems in other communities as well. In addition to identifying sound principles to drive restructuring, the report also recommends a set of tools that can be used to carry out those principles in particular communities. Finally, it explains how the principles and tools should be applied to some of the more troubled hospitals in Brooklyn.

A. Restructuring Principles:

The Work Group recommends that the following principles drive the restructuring of the delivery system:

- **In order to improve the health status of Brooklyn residents and to succeed under emerging payment methodologies, health care providers must create integrated systems of care and service delivery models, comprised of hospitals, physicians, federally qualified health centers, nursing homes, home care agencies, behavioral health providers, and hospice programs.**

To confront Brooklyn's health and health care challenges, we need to reduce the fragmentation of the delivery system, eliminate waste, support coordination, and reduce inappropriate utilization of services, while building access to efficient and effective community-based systems of care. These integrated systems may or may not necessarily unite providers under the auspice of a single entity, but they must be comprised of providers linked by formal relationships (operational and perhaps financial) that are able to coordinate patient care, have the capacity to transmit patient information electronically, and jointly engage in quality, performance, and population health

¹⁰³ The Work Groups findings can be found at pp. 3-4.

improvement activities. At the core of these systems, there must be accessible, high-quality primary care services.

- **New models of delivery will require a rethinking of the hospital-based bricks and mortar pattern of health care.**

Reliance on the “big box” institution as the place to access all health care is rapidly becoming obsolete. Hospital services should be rationalized within integrated systems to create regional centers of excellence and to respond to community needs. Some hospitals should be closed, and some may need to be replaced by more compact inpatient hubs surrounded by primary care, urgent care, and other ambulatory care sites.

- **Patient-centered primary care services, strategically-located and linked to acute and long-term care providers, must be developed.**

For patients in Brooklyn and elsewhere, primary care is where patients begin their first encounter with the health care system, and where they form supportive relationships that guide them throughout their interaction with the health care system. But over the past three decades, primary care has failed to thrive, due to the payment incentives, especially in Medicare and Medicaid, increased specialization; under-funding; and inattention in medical training and practice. In particular, the high cost of medical education together with the lower salaries paid to primary care physicians have discouraged medical students from pursuing careers in primary care.

Primary care and urgent care facilities should be established with hours and availability that match emergency departments and with walk-in capacity. In order to strengthen patient engagement and effectively address community health needs, development of new primary care capacity, either in clinics or physician practices, must be strategically planned, based on health status, utilization, and demographic data. Development of new capacity must be based on intimate knowledge of the communities to be served, including cultural, language, transportation, education and lifestyle issues that affect health care access and utilization. They must be designed in conjunction with reconfigured systems to support care coordination and participation in emerging risk-based and performance-based reimbursement.

The Work Group recognizes that hospitals are rarely the best operators of primary care services. Primary care tends to be a low priority for many hospitals and often does not receive strong leadership or substantial investment under their management. To assure that effective primary care capacity is developed and integrated with other hospital services, hospitals should affiliate with FQHCs and/or networks of physicians. In all cases, hospital management must be reconfigured to include a senior executive, reporting to the board, who is responsible for outpatient development and partnerships with community-based physicians and facilities. The focus of these activities must be clinical integration, prevention and care coordination, not maximizing inpatient market share.

- **Restructuring must reduce waste and improve the quality of care, the settings for care, the engagement of patients in care, the way clinicians deliver care, and ultimately community health.**

This entails changing the model of care to promote prevention, patient engagement and self-management. It means making hospitals, health centers, and physician practices more responsive to patient needs, so that sub-optimal ED and inpatient use is reduced. It also involves actions to reduce waste generated by excessive lengths of stay, by failures in care processes that cause delays and complications for patients, by ineffective care coordination particularly at care transitions, and by administrative excesses. And, it means working with community-based

organizations, the local health department, faith-based organizations, and local business to encourage more optimal patient engagement and to improve community health.

- **Strong institutional governance and experienced leadership are needed to stabilize Brooklyn’s most troubled hospitals and to steer them into new integrated healthcare systems.**

Hospitals must be led by engaged boards composed of dedicated and objective members with the skills and expertise needed to govern effectively. Boards must also be representative of, responsive to, and responsible for, the health needs of the community served by the hospital. Boards must be able to assess key indicators of financial and clinical performance, and to evaluate management’s plans to address those indicators. Boards must establish strategic goals and hold management accountable for implementation of those goals. This responsibility includes assuring that the institution builds productive relationships with other providers. In those situations in which building collaborations, merging or affiliating with other institutions is in the best interests of the community, it is incumbent upon the boards to assume an active leadership role in achieving those ends.

- **Academic medical centers from outside Brooklyn that seek to establish affiliations or ambulatory care facilities in the borough must partner with local hospitals and other providers and strive to serve Brooklyn residents in Brooklyn.**

Utilization data show that nearly 20 percent of Brooklyn inpatients choose to travel to Manhattan for hospital care – principally to academic medical centers. The most lucrative (surgical and commercially-insured) patients tend to migrate at a higher rate than others. The effect of this migration is to weaken Brooklyn hospitals financially and operationally.

The Work Group is also aware of efforts by academic medical centers to affiliate with Brooklyn hospitals and, in some cases, their desire to construct free-standing ambulatory care facilities in Brooklyn. Such efforts by academic medical centers to establish a presence in Brooklyn may stimulate further patient migration outside the borough and weaken Brooklyn providers. In order to ensure that the entrance of new providers, including academic medical centers, is a positive step for Brooklyn communities, the state should require providers that apply for Certificate of Need (CON) approval to:

- Propose a program consistent with the principles set forth in this report;
- Invest in clinical and executive leadership and direct care staffing for any facility it seeks to establish; create opportunities to attract and retain new physicians committed to primary care to the community; and provide active oversight of the training, recruitment and retention of staff.
- Partner with Brooklyn hospitals and other Brooklyn-based providers to offer comprehensive care, including a range of specialists, and foster integrated delivery models consistent with medical homes, in order to provide as much patient care in the borough as possible and minimizing the need to refer patients to facilities outside of Brooklyn for care.
- Commit financial and human resources to promoting quality through health information technology and implementing evidence-based practices and clinical protocols.
- Implement an electronic health record system that facilitates sharing of information in a seamless manner with Brooklyn hospitals and other health care providers in the borough.

- Promote credentialing and privileging of its primary care providers and specialists at Brooklyn hospitals to facilitate continuity of care and retention of admissions in Brooklyn.
- Participate in strengthening Brooklyn hospitals and other Brooklyn providers through joint healthcare programs, including new lines of services offering new revenue sources. It is expected that a financial model would include an advantageous payer mix to sustain and support these programs and practices.
- **Restructuring support, whether in the form of debt relief or restructuring, grants, loans or reimbursement adjustments, must be conditioned on the creation of a sound governance and management structure, and the development of viable strategic, financial, and operational plans consistent with the principles set forth in this report, and the achievement of quality benchmarks and savings. Any support must be revenue neutral.**

Support offered by the state to troubled facilities can no longer be provided in the form of unrestricted bail-outs. Public dollars cannot be squandered on one-time infusions that do not fundamentally drive restructuring and integration. The state cannot be a passive payer, allowing poorly managed institutions to slip into deeper levels of dysfunction.

State support must be based upon a viable plan for long-term sustainability, subject to enforceable conditions and ongoing monitoring. In addition, the plan must demonstrate long-term savings, and any support must be revenue neutral.

To qualify for support, the Brooklyn hospitals' restructuring plans must be consistent with the principles outlined in this report. The state must not accept or support any plan in which a facility attempts to "go it alone." Restructuring plans should also leverage the hospitals' unique strengths. In the course of our public hearings, we have been impressed by the strengths of these institutions in many areas, including:

- Ties to the community, CBOs, and faith-based institutions;
- Loyalty of businesses, consumers, workers;
- Ample health care workforce;
- Proximity to academic medical centers, FQHCs, community behavioral health providers;
- Active and engaged civic organizations and academic institutions;
- Existing EHR penetration;
- Opportunities to benefit from Medicaid and Medicare reforms.

All of these factors can help to shape a successful vision for a high-performing health care delivery system.

- **The Brooklyn crisis and the state's response highlight the need for more oversight of troubled facilities and structured collaborative health planning.**

To ensure the success of restructuring plans, DOH, either directly or working with the Brooklyn Healthcare Improvement Board described below, must provide active oversight of their approval and implementation over the long term

In addition to this financial and operational oversight by DOH, broad and structured input from the communities is needed to ensure that community needs are addressed. Effective health planning is needed to tackle both supply of, and demand for, health care services. Careful study at a neighborhood level of needs and resources is needed to develop plans to align resources with needs and to work with the community to promote the best uses of health care resources. This

requires the engagement of a variety of community stakeholders, including consumers, health care providers, health plans, business, government, civic organizations and others. A community-based, multi-stakeholder collaborative, like BHIP, should be engaged actively in ongoing efforts to assure that the health system is aligned with needs. The New York City Department of Health and Mental Hygiene can be a valuable partner in this effort.

- **Innovative options for capital formation, including private investment, are needed to support capital and operational improvements in Brooklyn hospitals; but private investment must not be allowed to undermine a facility’s commitment to the community or its accountability for the quality of care.**

As a general matter, healthcare facilities in New York State must be owned by not-for-profit corporations or entities owned by “natural persons.” In other words, healthcare facility operators may be for-profit companies, but they cannot be publicly-traded or owned by a private, multi-investor entity. The exception to this rule is dialysis facilities, which may be owned by publicly-traded or similar entities. This exception was created several years ago in face of rapidly shrinking dialysis capacity, when only the large chains were able to survive with the prevailing Medicare payments. While dialysis facilities are the only health care facilities that may be owned by a publicly-traded corporation in New York, other health care industry actors may also be publicly-traded, such as health insurers and home care agencies.

Today, given extremely limited state and federal resources, opportunities to encourage private investment in Brooklyn’s hospitals must be explored. However, such investments should be allowed only under a governance and regulatory structure that would assure accountability for quality, community involvement in governance, and an enforceable commitment to addressing community needs.

- **The cost structure of healthcare facilities in Brooklyn must be rationalized.**

The Work Group has focused this report on revenue limits and opportunities affecting community hospitals in Brooklyn. However, we are acutely aware that there is a need to examine carefully and change cost structures in all areas. In particular, the real financial impact of medical education programs must be examined. In addition, the largest cost center for all of the facilities is labor, including executive and physician compensation and workforce costs. A particularly large component of this cost center is fringe benefits, which are disproportionately high. The need for this level of fringe benefit expense should be examined and proposals should be developed to reduce it.

- **The state should support the participation of nursing homes in emerging systems of care.**

Nursing homes play a vital role in meeting the needs of some of Brooklyn’s most vulnerable citizens, especially its seniors. While the Work Group did not conduct an in-depth review of nursing homes, as it did of some of the most troubled hospitals, the Work Group recognizes that there are signs of financial stress at some Brooklyn nursing homes. With major health reforms at the federal and state levels, the combined impact on hospitals and nursing homes will be significant, especially in nursing homes with over 90 percent of admissions coming from hospitals.

Care coordination among hospitals, nursing homes, and community-based primary and specialty care providers is essential to improving the health status of nursing home residents and avoiding costly hospitalizations. In particular, the financial penalties attached to hospital readmissions will directly impact nursing homes, which will be pressured to retain residents who might in prior years have been transferred to hospitals. Avoiding readmission penalties will demand stronger

collaboration between hospitals and nursing homes and will require an enhanced capability to provide medical care in the nursing homes. Similarly, participation in emerging risk-based payment mechanisms will also require collaboration between hospitals and nursing homes. The Work Group recommends further analysis by the Department of Health of nursing home finances and consideration of mechanisms to support the participation of nursing homes in emerging systems of care.

B. Tools for Restructuring:

The Work Group recommends that following tools be developed and deployed, where applicable, to support change in Brooklyn:

Expand the State Health Commissioner's Powers over Healthcare Facility Operators

Effective governance of healthcare facilities and systems will be essential to the future of health care in Brooklyn. To ensure that the commissioner has the necessary power to protect the public health, the Commissioner should be granted expanded authority over healthcare facility operators as follows:

- Legislation should be enacted to give the Commissioner authority, at his or her discretion, to appoint a temporary operator for health care facilities that present a danger to the health or safety of their patients; or have operators that have failed in their obligations; or are jeopardizing the viability of essential health care capacity, absent intervention by the state.
- Legislation should be enacted to give the Commissioner authority, at his or her discretion, to replace health care facility board members who are not fulfilling their duties to the organizations they are charged with governing.

Appoint a Brooklyn Healthcare Improvement Board

The Commissioner should appoint a Brooklyn Healthcare Improvement Board (BHIB) to advise the Commissioner and, under his or her direction, oversee, initiate where necessary, manage and ensure the implementation of this report's recommendations. The Board may include the Department of Health, DASNY, Office of Mental Health, Office of Alcohol and Substance Abuse Services, members of the Brooklyn Redesign Work Group, community leaders, and other experts. Its functions should include:

- Assistance with Department of Health evaluation of applications for restructuring support (see below);
- Assessment of healthcare facility and system governance and management;
- Coordination of debt restructuring activities with DASNY or a DASNY subsidiary;
- Quarterly reviews of restructuring plan development and implementation with providers and stakeholders;
- Consideration of data and recommendations of the multi-stakeholder collaborative health planning entity (see below);
- Recommendation of actions to be taken by DOH and DASNY concerning the continuation or termination of restructuring support based on performance;
- Coordination with the Public Health and Health Planning Council concerning restructuring activities in Brooklyn.

Provide Financial Support for Restructuring through an Application Process

This application process, as envisioned by the MRT Proposal 67 and the MRT Payment Reform Work Group, will provide a vehicle for supporting and overseeing implementation of the recommendations in this report as they apply to particular facilities or collaborations. The application will require feasible and actionable plans for restructuring, as well as strong governance, and long-term oversight.

To qualify for support, plans must include integration and collaboration with other providers for the purpose of rationalizing services, improving quality, coordinating care, improving access, increasing efficiency, and reducing unnecessary health care costs. The plan must be based on community need and be developed in consultation with community stakeholders. Plans may include, but not be limited to, closure, merger or redesign of providers, and appropriate alternate uses of facilities and identification of sources of capital to facilitate such reuse. Plans must demonstrate substantial, long-term cost savings to the delivery system that can be reinvested in the community, so that any support will be revenue neutral.

In exchange for the benefits awarded under the program, successful applicants will be subject to oversight by the Brooklyn Healthcare Improvement Board to monitor governance, performance, administrative and operational efficiencies, provision of essential services, responsiveness to community need, cost savings, and collaboration with other entities. The facilities will be further evaluated according to a core set of performance measures for quality, including those being applied in New York in Medicaid managed care and additional measures currently being developed by the MRT for application to all sectors of health care (e. g., managed care, ACOs, BHOs, health homes).

Approved applications for support will be subject to contractual conditions that may require replacement of provider boards and management. Any request for temporary or long-term rate enhancements will be subject to the recommendation of the Brooklyn Healthcare Improvement Board. And, any rate enhancements will be financed through savings derived from the restructuring and through implementation of new care models. Successful applicants would be eligible for:

Transitional and Long-Term Payment Adjustments

The needed restructuring of these hospitals will require adjustments in Medicaid reimbursement and Medicare payments that enable facilities to reconfigure and operate their buildings and services in a manner that will reduce unneeded inpatient capacity and strengthen primary and preventive care and disease management services appropriate to identified community health needs. Consistent with the “Vital Access Provider” (VAP) principles outlined by the MRT Payment Reform Work Group, short-term operational payment adjustments will be needed to support the transition to integrated systems of care and reconfiguration of services, including adjustments that will achieve:

- Expanded and effective primary care;
- Reduced use of emergency department services for non-emergent and primary care treatable conditions;
- Clinical integration with non-hospital providers (primary care and community-based specialty care providers, skilled nursing facilities and others) to improve quality, outcomes and efficiency; and
- Capital improvements to modernize and downsize outdated physical plants and expand EHR implementation.

In the longer term, innovative payment methodologies that incentivize care coordination, prevention, and optimal outcomes, including bundled and performance-based payments, and that recognize the special circumstances of safety net providers and the complexity of the patients they serve may be appropriate. All of these adjustments will be revenue neutral and financed through substantial, long-term health care savings.

Debt Restructuring

The financial rehabilitation of these institutions will also require the refinancing and restructuring of mortgages and other borrowings, as well as the reduction or forgiveness of other obligations, including pension and medical malpractice liabilities. Successful applicants would be supported in negotiating agreements to restructure debt, which may or may not involve the use of bankruptcy protection. In addition, DASNY, in its capacity as secured creditor, may, subject to its obligations to bondholders, be able to facilitate appropriate restructuring efforts and, in appropriate instances, utilize its ability to create a subsidiary to assist in the implementation of such a restructuring plan. This legislation sunsets in July of 2012 and should be extended so that work outs can be effectuated without exposing DASNY to liability. The law should also be expanded to allow the subsidiary to issue new debt, if is justified by the plan.

To support this process, legislation should be enacted to provide these focus hospitals and others that qualify, under the principles outlined in this report, with access to capital and/or the means of reducing existing debt burdens that substantially impair the hospitals' ability to restructure.

Capital Formation

For the longer term, payment reform measures should be accompanied by mechanisms that grant better access to capital for the selected facilities and other essential providers. Sources could include private lending by commercial banks or other private interests and tax-exempt bonds issued by DASNY and other lenders, such as the Primary Care Development Corporation and models that use public funds to leverage private sector capital, particularly in patient-centered primary care facilities.

It is appropriate for the state to undertake a broad review of restrictions on private investment in health care facilities, and it should consider a pilot or demonstration project to relax such restrictions. A possible model for such investment could be the structure created by a proton beam facility recently approved by the Department of Health and Public Health Council. That facility will be operated by a not-for-profit clinical consortium and managed by a for-profit entity jointly owned by five academic medical centers and a national investor-owned company with a minority stake.

A further source of capital may be available through the Healthcare Efficiency and Affordability Law for New Yorkers (HEAL). As with the HEAL and F-SHRP programs, these funds may be viewed as a reinvestment of savings to be generated from reforms and downsizing in Brooklyn and elsewhere throughout the State.

Rationalize Distribution of DSH/Indigent Care Pool Funds

Brooklyn's hospitals serve significant numbers of uninsured and Medicaid patients and will be affected by pending changes in the distribution of federal Medicaid disproportionate care (DSH) funds. The MRT Payment Reform Work Group's has articulated the following principles for reform of the allocation of these funds, which should be adopted:

- Develop a new allocation methodology consistent with CMS guidelines to ensure that New York State does not take more than its share of the nationwide reduction;
- Adopt a fair and equitable approach to allocate funds across hospitals, with a greater proportion of funds allocated to those hospitals that provide services to uninsured and underinsured;
- Simplify the allocation methodology and consolidate the Indigent Care pools.

Support Involvement of Private Physician Practices in Integrated Health Systems

The Work Group encourages the state to support the development of physician practices in under-served areas and the involvement of physician practices in integrated systems of care, particularly through electronic health records and payment arrangements. We acknowledge that steps have already been taken in this regard through enhanced Medicaid payments for physician practices that have received patient-centered medical home accreditation and Doctor Across New York practice support and loan repayment assistance grants. The expansion of Medicaid managed care has also driven additional physician participation in the Medicaid program and promoted primary care for Medicaid beneficiaries. Nevertheless, more can be done to support physicians seeking to practice in under-served areas.

The state should also consider working with Medicaid managed care plans, commercial payers and foundations to fund embedded care managers or social workers in physician practices, who can help to prevent hospitalizations and readmissions and assist in addressing health-related needs such as transportation to appointments and housing. Tax credits for physicians who provide significant charity care should also be considered. To the extent that physician practices receive enhanced support from the state, however, the funding should be tied to the satisfaction of quality standards, like patient-centered medical home accreditation, and to services to Medicaid beneficiaries and uninsured patients. Physicians who receive enhanced support and do not serve a specified percentage of uninsured patients should be subject to an assessment to subsidize services to the uninsured by other providers.

Develop New Alternatives for Capital Support of Primary Care Providers

Primary care providers are often undercapitalized and have difficulty securing affordable capital financing necessary to expand and build facilities. To expand primary care in the communities most in need, the state should explore new programs that use public support to leverage outside investment in high quality primary care projects.

Provide Funding for a Multi-Stakeholder Planning Collaborative in Brooklyn

To assure that the restructured hospitals and the new systems under development address community health needs, a data-driven, multi-stakeholder health planning collaborative, like BHIP, should be created or expanded with state and other support. The collaborative would include a diverse array of community stakeholders, including consumers, providers, payers, labor, and business. The New York City Department of Health and Mental Hygiene should be a partner in this effort. This collaborative would provide input into the hospitals' restructuring plans and make recommendations to the Brooklyn Healthcare Improvement Board concerning the alignment of healthcare resources with community needs and develop a primary care plan for Brooklyn. It would also develop and support the implementation of data-driven interventions, developed with the input and consensus of the community, to improve care coordination, primary care utilization, and community health. It could also engage in activities to curb unnecessary health care spending, such as the creation of a community advisory board for major investments in medical technology, like the CTAAB in the Finger Lakes Region.

VIII. PROPOSALS TO RESTRUCTURE THE DELIVERY SYSTEM

The Work Group firmly believes that where there are home-grown restructuring plans, developed by the affected institutions, they should be given highest priority. As the Work Group has proceeded with its reviews, several of the institutions that are the focus of this report have begun to develop their own restructuring plans.

A. Brookdale Hospital Medical Center and Kingsbrook Jewish Medical Center

Actions:

The Work Group recommends that Kingsbrook Jewish take the lead in establishing an integrated system with Brookdale, either under a common active parent or other accountable governance structure. The Work Group recommends new executive leadership at Brookdale and a separation from MediSys. A viable plan would require the creation of a new governance structure and a new board of directors for the integrated system.

Discussion:

Any assessment of Brookdale's future must begin with an acknowledgment that Brookdale cannot continue to survive with its current clinical services, physical plant, revenue stream, and cost structure. It experienced approximately \$42 million in operating losses in 2010, and has unsupportable debt, pension, and medical malpractice liabilities. To compound the problem, patient volume has declined significantly in recent years. In 2006, Brookdale discharged an estimated 21,000 patients, while in 2010 it discharged 19,000 patients — a 10% decline.¹⁰⁴ If dramatic action is not taken soon, the inevitable result will be financial collapse and, in all likelihood, the closure of the facility. A substantial, unrestricted state bail-out of the facility in its current configuration, under current leadership, is neither feasible, nor rational. It does not make sense to invest large sums of public money or heavily subsidize an institution that should change dramatically in the context of the new delivery system and reimbursement paradigm.

The Work Group is seeking to identify a solution that will avoid a precipitous slide into financial collapse and will allow the hospital to remain open, while a long-term restructuring plan is implemented. We have been informed that Brookdale and Kingsbrook Jewish have begun discussions to create an integrated system that provides the most promising response to the health needs of the community and the long-term viability of its hospital services. By combining the resources, clinical expertise, physical assets and market shares of the two facilities, there is potential to improve quality, while reducing costs. We believe that these discussions should be accelerated, under the guidance of the Brooklyn Healthcare Improvement Board, with input from the communities served.

This arrangement should benefit not only Brookdale, but also Kingsbrook Jewish. While strong leadership has stabilized Kingsbrook Jewish for the moment, in the long run it must expand its reach in order to generate efficiencies, increase volume, and develop the capability to participate in new models of care and payment mechanisms.

Short-term survival will require the restructuring of Brookdale's debt and other obligations. It will also require the elimination of unnecessary expenses and sources of operating losses, such as its various teaching programs. In the longer term, the Kingsbrook/Brookdale system should consider further reducing its bed complement and investing in additional ambulatory care services.

¹⁰⁴ Welsh Analytics, LLC, NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

Any restructuring would require the implementation of a plan to strengthen primary care in the communities served by the two institutions. This could be achieved most easily through a partnership with an existing FQHC and/or physician practice groups. Regardless of the organizational structure adopted, primary care and community-based specialty services must be integrated clinically with the hospitals' inpatient and other ambulatory care services.

The new system should pursue collaborations with other providers in addition to FQHCs and physician practices (e.g., nursing homes, behavioral health providers, home care agencies, and hospice programs) to position itself to benefit from impending health system reforms like ACOs, health homes, and risk-based payment methodologies. Kingsbrook Jewish's existing relationship with its affiliated nursing facility will serve as a platform for expanded clinical relationships with long-term care providers.

Any restructuring plan would have to be reviewed by the Brooklyn Healthcare Improvement Board, and approved by the Department of Health. To improve the health of the community, and to maximize its revenues under performance-based payment reforms and new models of care, the new system must also consult with the multi-stakeholder health planning collaborative about community needs and effective ways to engage patients in care.

B. Brooklyn Hospital Center, Interfaith Medical Center, and Wyckoff Heights Hospital

Action:

The Work Group recommends the integration of these three institutions into a single system under an active parent, or other accountable governance structure, led by Brooklyn Hospital Center. In light of the precarious financial positions of Interfaith and Wyckoff, the Work Group would like to ensure that Brooklyn Hospital, which has recently emerged from bankruptcy and is demonstrating sound financial practices, is not brought down by this plan. Indeed, we recommend that Brooklyn Hospital be given the support to lead the transformation to restructure the operations at Interfaith and Wyckoff.

Discussion:

Wyckoff Heights Medical Center and Interfaith Medical Center are in weak financial positions. It is clear that, absent a dramatic change in its operations, Interfaith cannot continue to survive even in the short run. It lost in excess of \$57 million in 2010, has a negative net asset position of \$126 million and \$148 million in long-term debt.¹⁰⁵ Wyckoff, while marginally more stable than Interfaith, is also in jeopardy of failure. Its discharges have declined by almost 19 percent since 2005.¹⁰⁶ It has a negative net asset position of \$91 million and \$114 million in long-term debt.¹⁰⁷ Brooklyn Hospital Center is the strongest of the three, with a positive margin and a positive net asset position. However, it bears a heavy long-term debt burden of \$89 million and is not seeing growth in discharges.¹⁰⁸ In the long run, it cannot survive as a stand-alone facility.

The three facilities have brought to the Work Group a proposal to combine the hospitals into a single hospital system. When fully developed and implemented, this proposal should streamline inpatient and tertiary care in a manner that is both sustainable and aligned with the community's health needs. Restructuring the existing liabilities of the three institutions is also necessary and can be supported by enhanced operating margin projections. Enhanced margins will also provide capital for reinvestment in programs and infrastructure.

¹⁰⁵ Draft 2010 audit data.

¹⁰⁶ Welsh Analytics, LLC, NYS DOH SPARCS Deidentified Inpatient File, obtained Aug. 2011.

¹⁰⁷ 2010 audit data.

¹⁰⁸ 2010 audit data

A critical element of their restructuring plan must be enhanced access to high quality primary care and outpatient services. The plan must include the development of strong and integrated primary care services or a close partnership with one or more strong primary care providers. A partnership with an existing FQHC and/or physician practice groups would facilitate this effort. Regardless of the organizational structure adopted, primary care and community-based specialty services must be integrated clinically with the hospitals' inpatient and other ambulatory care services in order to promote quality and efficiency.

Development, approval and implementation of the plan should proceed under the guidance of the Healthcare Improvement Board with input from the communities served.

In order to support improvements in community health and to maximize its ability to benefit from performance-based payment reforms and new models of care, the new system must also consult with the multi-stakeholder health planning collaborative about community needs and effective ways to engage patients in care.

C. SUNY Downstate Medical Center and Long Island College Hospital

Action:

In light of the recent acquisition of LICH, SUNY Downstate should consider consolidating inpatient services at the LICH campus, thereby eliminating excess capacity and permitting the medical center to focus its inpatient resources and expertise on one location.

Discussion:

Downstate Medical Center and Long Island College Hospital (LICH) completed a consolidation earlier this year in which SUNY created subsidiary corporations to hold LICH's assets and employ its staff. The physical plant is leased back to LICH and the staff is provided to LICH through a contract. The SUNY trustees serve as the governing body for LICH. Downstate Medical Center also operates services (primary care and ambulatory care) at the former Victory Memorial Hospital site.

Although LICH is located in a comparatively affluent area of Brooklyn, it continues to struggle with a negative margin, a current ratio of less than 1, substantial long-term debt, and low occupancy and low market share. More than half of its beds are vacant on an average day. University Hospital's physical plant is small and outdated. It relies heavily on Kings County Hospital for clinical space. With the availability of the new LICH campus and the pending expansion of services at the neighboring Kings County Hospital, SUNY Downstate should reconsider any planned expansion of beds at the site formerly occupied by Victory Hospital and any development of an ambulatory facility in the vicinity of University Hospital. Any request by SUNY Downstate to open additional inpatient beds at the Victory Hospital site should be denied.

D. Kingsboro Psychiatric Center

Action:

The Office of Mental Health (OMH) should close the inpatient service of KPC and, working with the Department of Health, redirect resources to community-based behavioral health services that would function in collaboration with Brooklyn hospitals. Intermediate psychiatric hospital care for Brooklyn residents and court referrals would be provided primarily by South Beach Psychiatric Center, which currently serves a large section of Brooklyn. KPC's existing array of community-based services should remain within the community. These include two clinics, two transitional residences, a crisis residence in partnership with Kings County Hospital, intensive case management and a family care program.

Discussion:

Kingsboro Psychiatric Center (KPC) provides intermediate psychiatric hospital care for fewer than 240 admissions each year. The length of treatment for patients at KPC is the longest in the state for this level of care. The median LOS for KPC is 183 days, versus the statewide adult median LOS of 79 days.¹⁰⁹ Conversion of a majority of the high cost KPC inpatient beds into intensive community treatment and support services would be well-timed with the implementation of the Medicaid health home initiative in the borough. Improved coordination, coupled with expanded service availability, will significantly reduce the burden on Brooklyn's emergency rooms and inpatient services.

E. Woodhull Hospital, Kings County Hospital and Coney Island Hospital**Action:**

These hospitals are operated by the New York City Health and Hospitals Corporation (HHC). The Work Group has had discussions with NYC leaders and visited the three sites.

Discussion:

Historically, HHC hospitals have been linked principally with the other institutions in the HHC system, rather than with local facilities. It is now essential that they add a new dimension to their approach by working with other providers in their geographic vicinity and becoming integral parts of emerging regional healthcare delivery systems. Initial discussions have begun, and while there are a variety of complex issues, it is obvious to all parties that HHC will have to become a more active partner in developing regional healthcare solutions for Brooklyn.

IX. CONCLUSION

The financial crises facing Brookdale, Interfaith and Wyckoff require immediate intervention and concerted action by stakeholders and the state. Brooklyn Hospital, Kingsbrook Jewish, and LICH may be stable at the moment, but will need to reconfigure their organizations and services, based on sound strategic plans, in order to survive in the long run. Given the high rates of chronic disease and the heavy reliance on hospital services in the communities served by all six hospitals, steps must be taken to assure access to high-quality primary care in those communities.

The recommendations in this report are intended to begin a process of reshaping the healthcare delivery system in Brooklyn. In addition to specific recommendations dealing with hospitals in financial crisis, the principles, tools, and structural recommendations of this report should be seen as the framework and first stages of a multi-year process designed to strengthen primary care, improve care coordination and chronic disease management, and reduce wasteful utilization and provider inefficiency. The shape of our healthcare delivery system is changing partly as a result of new federal legislation, as well as the efforts of the state's MRT. With these changes in mind, we have focused on promoting integrated systems of care that, in order to succeed, must involve collaborations with providers all along the health care continuum.

The monumental task in front of us will require redefining the roles and relationships among health care providers and between providers and patients. Primary care, acute care, behavioral health care and long-term care must all be linked in a patient-centered system, with the ultimate goal of better health care for individuals, better health for communities, and lower costs through improvement. To accomplish these ends, in an environment of necessary revenue neutrality, will require creativity, compromise and the willingness of many groups and institutions to work together in ways they never have before. For Brooklyn, managing these changes in the years

¹⁰⁹ NYS Office of Mental Health, Management Indicator Reports, Nov. 2011.

ahead is essential, if we are to improve access and quality, particularly for the large number of people facing barriers to care in communities throughout the borough.

While the mandate set by the commissioner for this Work Group was Brooklyn, it is clear that the issues of health care access, quality and cost affect many other communities throughout New York State. In fact, for most communities, whether urban, suburban, rural, affluent or low-income, truly coordinated, accessible and affordable care remains more theory than reality. We therefore believe that the recommendations we have made have applications far beyond the borders of Kings County.

APPENDIX A

Brooklyn Healthcare Redesign Workgroup Site Visit Questions

Governance and Management

- Describe your corporate governance and management structure.
- How do you select members of the board, define the work of the board and how they are working to improve the quality and performance of the organization through their governance process?
- What are your hospital's greatest strengths/weaknesses?

Business Model

- Does your Board have a Strategic plan?
- How does it deal with proposed federal actions on DSH and GME reductions?
- How do you define your market?
- Has it changed over the past 5 to 10 years?
- Who are your key competitors?
- Description or even a copy of community service report Are there unique problems in patient mix that we would not pick up from analyzing the data?
- How do you define "safety net" and what role do you play in the ongoing evolution of the safety net?
- What strategies do you have to generate capital for reinvestment? What would be your top capital reinvestment priority?

Physicians

- What is the arrangement and organization of physicians that practice at your hospital? How many physicians on staff? Do you use hospitalists? Do you know whether and where physicians' have admitting privileges at other institutions?
- Do you have medical education in the facility? Clerkships, residencies, etc.

Provider Relationships

- Do you have a network of services and what is included and how are they connected? Is it fully integrated in terms of quality measures, coordinated care, referrals, etc.
- What is your relationship with other providers in the community, including hospitals, clinics and FQHCs, nursing homes?
- Do you have relationships with behavioral health providers?

Health Information Technology

- Are you electronically linked with other providers?
- How far along are you on internal electronic records progress?

Quality Initiatives

- What initiatives have you put in place to control preventable admissions and manage people with chronic conditions?
- Have you instituted protocols to deal with hospital acquired infections?

APPENDIX B
Brooklyn Neighborhoods – Key Socioeconomic and Health Status Factors

	Population*	Poverty ¹ (% below FPL)	Race/ Ethnicity*	Education ¹ (HS Diploma or Equivalent)	Immigration ¹	Uninsured ¹	Health Status ¹
Greenpoint	140,099	34%	63.43% White 29.84% Hispanic 2.60% African-American 3.29% Asian 0.84% Other – Non-Hispanic	26%	34%	20%	<ul style="list-style-type: none"> • 31% adults w/o primary care provider • 19.8% adults are obese* • 11.4% adults have diabetes* • 1,983 per 100,000 – hospitalization rates for heart disease • 33% mothers receive late or no prenatal care • 8% residents suffer from SPD (serious psychological distress)
Northwest Brooklyn	236,982	20%	49.09% White 23.05% Hispanic 20.43% African-American 5.41% Asian 2.02% Other – Non-Hispanic	15%	17%	13%	<ul style="list-style-type: none"> • 21% adults w/o primary care provider • 16.5% adults are obese* • 9.4% adults have diabetes* • 1,840 per 100,000 – hospitalization rates for heart disease • 19% mothers receive late or no prenatal care • 5% residents suffer from SPD
Central Brooklyn	314,013	31%	5.98% White 11.44% Hispanic 79.46% African-American 1.45% Asian 1.67% Other – Non-Hispanic	29%	29%	21%	<ul style="list-style-type: none"> • 29% residents w/o primary care provider • 26.9% adults are obese* • 10.6% adults have diabetes* • 2,256 per 100,000 – hospitalization rates for heart disease • 35% mothers receive late or no prenatal care • More than twice the HIV-related death rate in NYC overall • Elevated rates of other STDs, such as chlamydia and gonorrhea

	Population*	Poverty ¹ (% below FPL)	Race/ Ethnicity*	Education ¹ (HS Diploma or Equivalent)	Immigration ¹	Uninsured ¹	Health Status ¹
Bushwick-Williamsburg	202,549	38%	5.24% White 52.97% Hispanic 36.22% African-American 4.37% Asian 1.19% Other – Non-Hispanic	25%	27%	27%	<ul style="list-style-type: none"> • 32% adults w/o primary care provider • 34% adults are obese* • 12.5% adults have diabetes* • 2,991 per 100,000 – hospitalization rates for heart disease • 34% mothers receive late or no prenatal care • 10% residents suffer from SPD • High HIV-related death rate than in Brooklyn and NYC overall
Flatbush	307,274	21%	10.02% White 9.51% Hispanic 76.38% African-American 2.65% Asian 1.44% Other – Non-Hispanic	29%	51%	21%	<ul style="list-style-type: none"> • 20% adults w/o primary care provider • 29.8% adults are obese* • 13.3% adults have diabetes* • 1,605 per 100,000 – hospitalization rates for heart disease • 33% mothers receive late or no prenatal care • 6% residents suffer from SPD
East New York-New Lots	177,819	34%	2.88% White 40.17% Hispanic 50.31% African-American 4.70% Asian 1.94% Other – Non-Hispanic	29%	33%	21%	<ul style="list-style-type: none"> • 31% adults w/o primary care provider • 27.6% adults are obese* • 18.1% adults have diabetes* • 2,505 per 100,000 – hospitalization rates for heart disease • 39% mothers receive late or no prenatal care • 7% residents suffer from SPD • 21% residents currently smoke; 62% of smokers trying to quit
Sunset Park	128,725	28%	20.45% White 46.90% Hispanic 2.43% African-American 29.09% Asian	25%	49%	26%	<ul style="list-style-type: none"> • 31% adults w/o primary care provider • 32.9% adults are obese* • 8.5% adults are

	Population*	Poverty ¹ (% below FPL)	Race/ Ethnicity*	Education ¹ (HS Diploma or Equivalent)	Immigration ¹	Uninsured ¹	Health Status ¹
			1.13% Other – Non-Hispanic				diabetes* <ul style="list-style-type: none"> • 1,940 per 100,000 – hospitalizations rates for heart disease • 16% mothers receive late or no prenatal care • 7% residents suffer from SPD • Foreign-born residents (27%) less likely to be insured than US-born residents (13%)
Borough Park	347,062	25%	64.93% White 10.80% Hispanic 4.75% African-American 18.33% Asian 1.19% Other – Non-Hispanic	28%	45%	15%	<ul style="list-style-type: none"> • 20% adults w/o primary care provider • 18.5% adults are obese* • 8.5% adults have diabetes* • 1,782 per 100,000 – hospitalization rates for heart disease • 23% mothers receive late or no prenatal care • 6% residents suffer from SPD • 30% hospitalizations for hip fractures among older adults
Canarsie-Flatlands	197,108	14%	35.92% White 8.79% Hispanic 49.19% African-American 4.73% Asian 1.38% Other – Non-Hispanic	29%	37%	14%	<ul style="list-style-type: none"> • 17% adults w/o primary care provider • 31.5% adults are obese* • 7.9% adults have diabetes* • 1,826 per 100,000 – hospitalization rates for heart disease • 28% mothers receive late or no prenatal care • 5% residents suffer from SPD • 25% women not getting timely mammograms
Southwest Brooklyn	210,906	16%	72.02% White 8.27% Hispanic .65% African-American 17.89% Asian 1.16% Other – Non-Hispanic	28%	40%	13%	<ul style="list-style-type: none"> • 20% adults w/o primary care provider • 15.5% adults are obese* • 5.5% adults have diabetes* • 1,705 per 100,000 –

	Population*	Poverty ¹ (% below FPL)	Race/ Ethnicity*	Education ¹ (HS Diploma or Equivalent)	Immigration ¹	Uninsured ¹	Health Status ¹
							hospitalization rates for heart disease <ul style="list-style-type: none"> • 15% mothers receive late or no prenatal care • 5% residents suffer from SPD • 21% residents smoke; 52% trying to quit • 33% foreign-born women less likely to get Pap test
Southern Brooklyn	304,561	22%	67.58% White 9.74% Hispanic 6.82% African-American 14.78% Asian 1.08% Other – Non-Hispanic	28%	47%	14%	<ul style="list-style-type: none"> • 20% adults w/o primary care provider • 30.8% adults are obese* • 13.5% adults have diabetes* • 2,074 per 100,000 – hospitalization rates for heart disease • 20% mothers receive late or no prenatal care • 6% residents suffer from SPD • 23% residents smoke; 62% trying to quit • Women less likely to get timely Pap tests than in NYC overall • 37% hospitalizations for hip fractures among older adults

Source: * New York City Department of Health and Mental Hygiene (NYC DOHMH). Epiquery: NYC Interactive Health Data System - Community Health Survey 2009. Accessed October 21, 2011; <http://nyc.gov/health/epiquery>.

Population data: NYC DOHMH. Epiquery: NYC Interactive Health Data System - NYCDOHMH neighborhood population estimates, modified from the US Census Bureau vintage population estimates, 2009. Accessed October 21, 2011; <http://nyc.gov/health/epiquery>.

¹ Data from the NYC DOHMH, Community Health Profiles, 2006 (except where indicated by *)

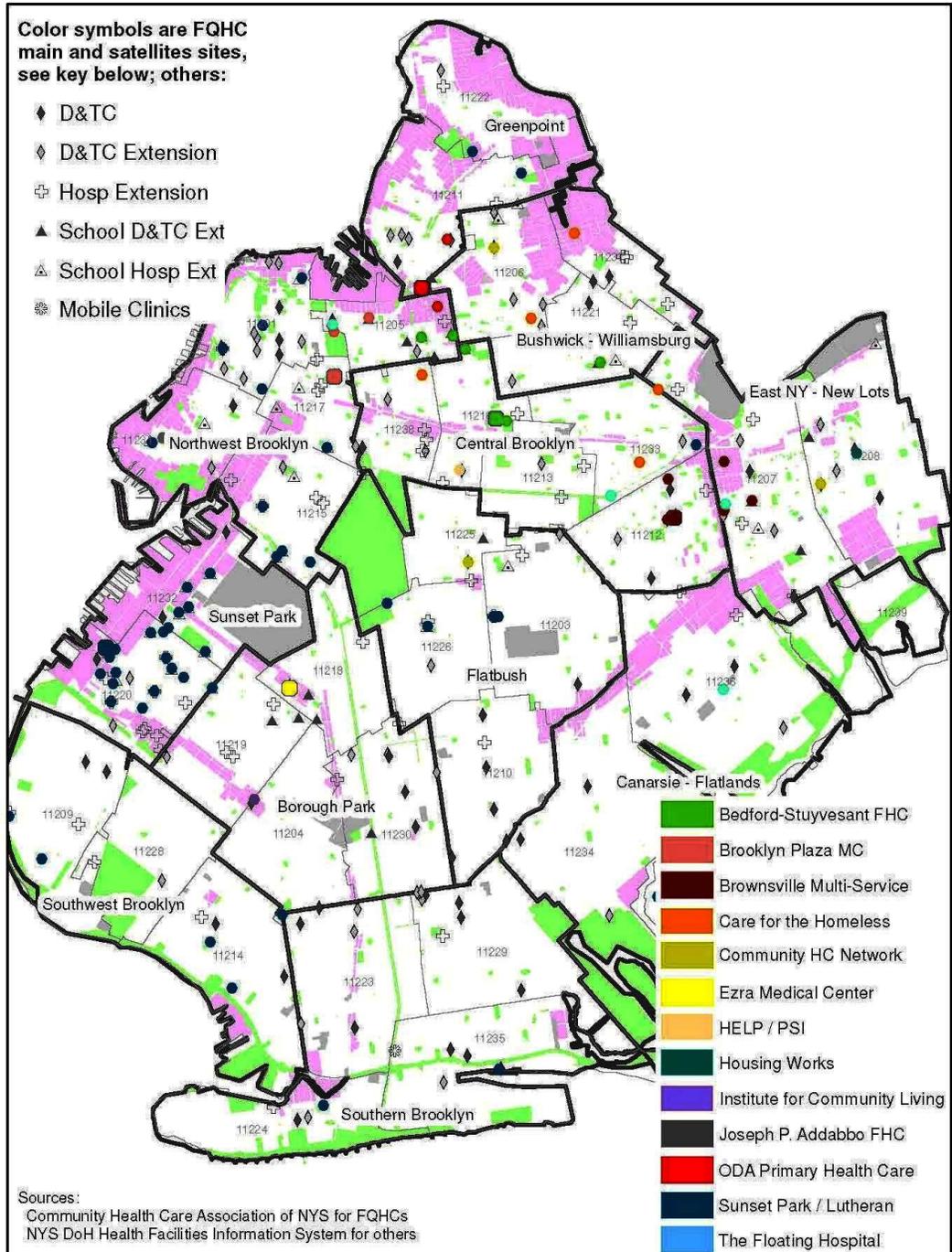
APPENDIX C
Hospitals in Brooklyn: Key Facts

Hospital	Neighborhood	# of Licensed Beds¹¹⁰	Specialized Services
Beth Israel-Kings Highway	Canarsie-Flatlands	212	Stroke Center
Brookdale Hospital Medical Center	Canarsie-Flatlands	530	AIDS, Stroke Center, Level 3 Perinatal Center, and Regional Trauma Center
Brooklyn Hospital Center	Northwest	464	AIDS, Stroke Center, and Inpatient Psychiatric
Coney Island Hospital	Southern	371	AIDS, Stroke Center, SAFE, Level 2 Perinatal Center, Inpatient Chemical Dependency (Detox and Psychiatric)
Interfaith Medical Center	Central	287	AIDS, Inpatient Chemical Dependency (Detox and Rehabilitation), Psychiatric
Kings County Hospital	Flatbush	695	AIDS, Stroke Center, Regional Trauma, SAFE, Level 3 Perinatal Center, Inpatient Chemical Dependency (Detox and Psychiatric)
Kingsbrook Jewish Medical Center	Flatbush	284	AIDS, Stroke Center, Traumatic Brain Injury Center, Inpatient Psychiatric
Long Island College Hospital	Northwest	506	Stroke Center, Level 3 Perinatal Center, Inpatient Psychiatric
Lutheran Medical Center	Sunset Park	468	AIDS, Stroke Center, Regional Trauma Center, Level 2 Perinatal Center, Inpatient Chemical Dependency (Detox and Psychiatric)
Maimonides Medical Center	Borough Park	705	Stroke Center, Regional Perinatal Center, Inpatient Psychiatric
New York Methodist Hospital	Northwest	591	Stroke Center, Level 3 Perinatal Center
New York Community Hospital of Brooklyn	Canarsie-Flatlands	134	Stroke Center
University Hospital of Brooklyn	Flatbush	376	AIDS, Stroke Center, Regional Trauma Center, Level 3 Perinatal Center, Inpatient Psychiatric
Woodhull Medical Center	Bushwick-Williamsburg	394	AIDS, Stroke Center, SAFE, Level 3 Perinatal Center, Inpatient Chemical Dependency (Detox)
Wyckoff Heights Medical Center	Bushwick-Williamsburg	324	Stroke Center, Level 3 Perinatal Center

¹¹⁰ These figures reflect licensed, not staffed, beds. Many licensed beds are not staffed. The number of beds that is staffed varies based on occupancy and other factors. However, the overhead costs associated with a bed are the same, whether or not it is staffed.

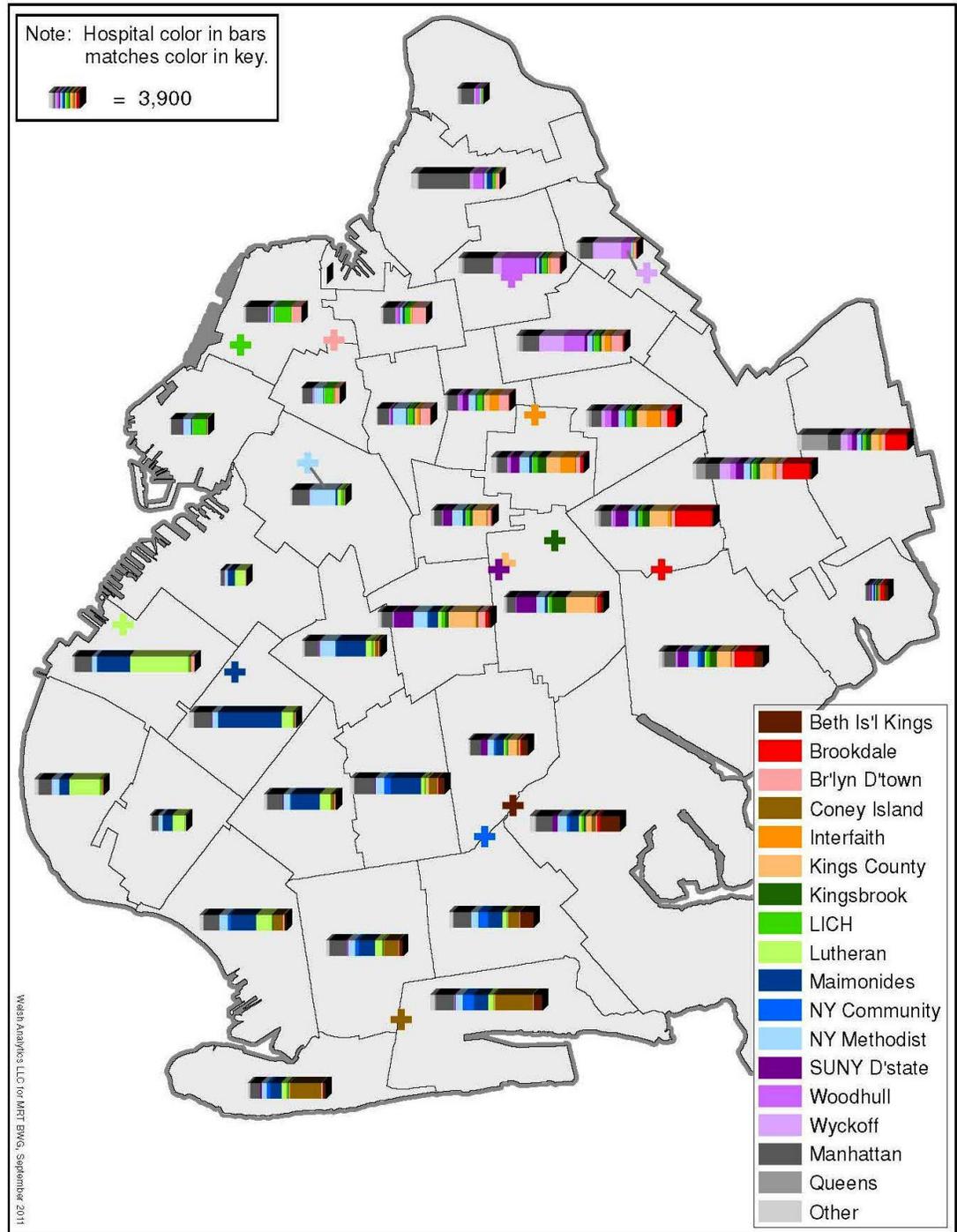
APPENDIX D

FQHCs and Other Clinic Sites in Brooklyn (with UHF Neighborhood Boundaries)



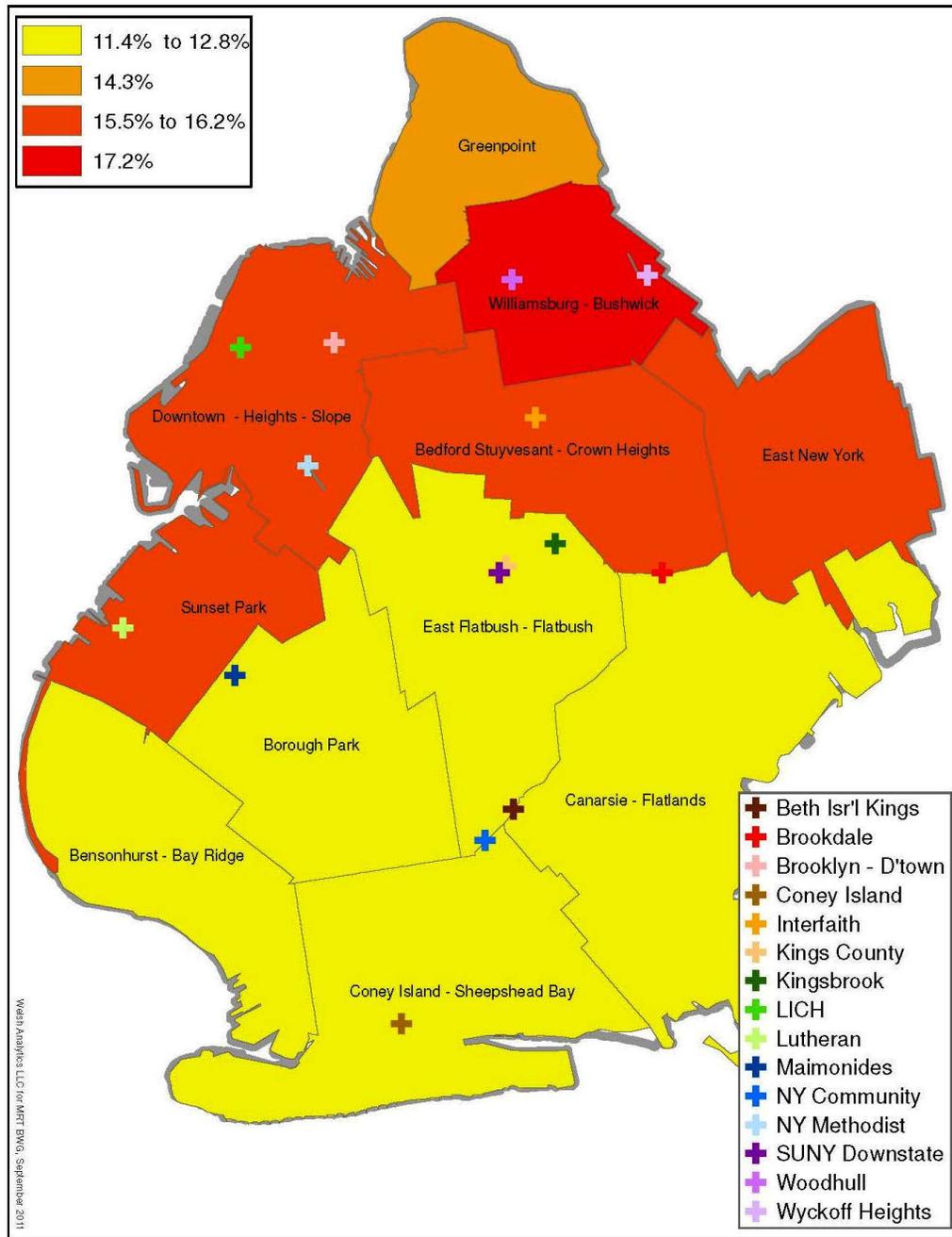
APPENDIX E

Hospital Shares of 2010 Patient Discharges by ZIP Code of Residence



APPENDIX F

2009 PQI Hospitalizations as Percentage of Adult Medical-Surgical Hospitalizations Among Residents of UHF Neighborhoods



¹¹¹ Some neighborhood names have changed since this map was produced. Downtown-Heights-Slope is known as Northwest Brooklyn; Bedford Stuyvesant-Crown Heights is known as Central Brooklyn; East New York is known as East New York-New Lots; East Flatbush-Flatbush is known as Flatbush; Bensonhurst-Bay Ridge is known as Southwest Brooklyn; and Coney Island-Sheepshead Bay is known as Southern Brooklyn.

APPENDIX G

Brooklyn Health Professional Shortage Areas

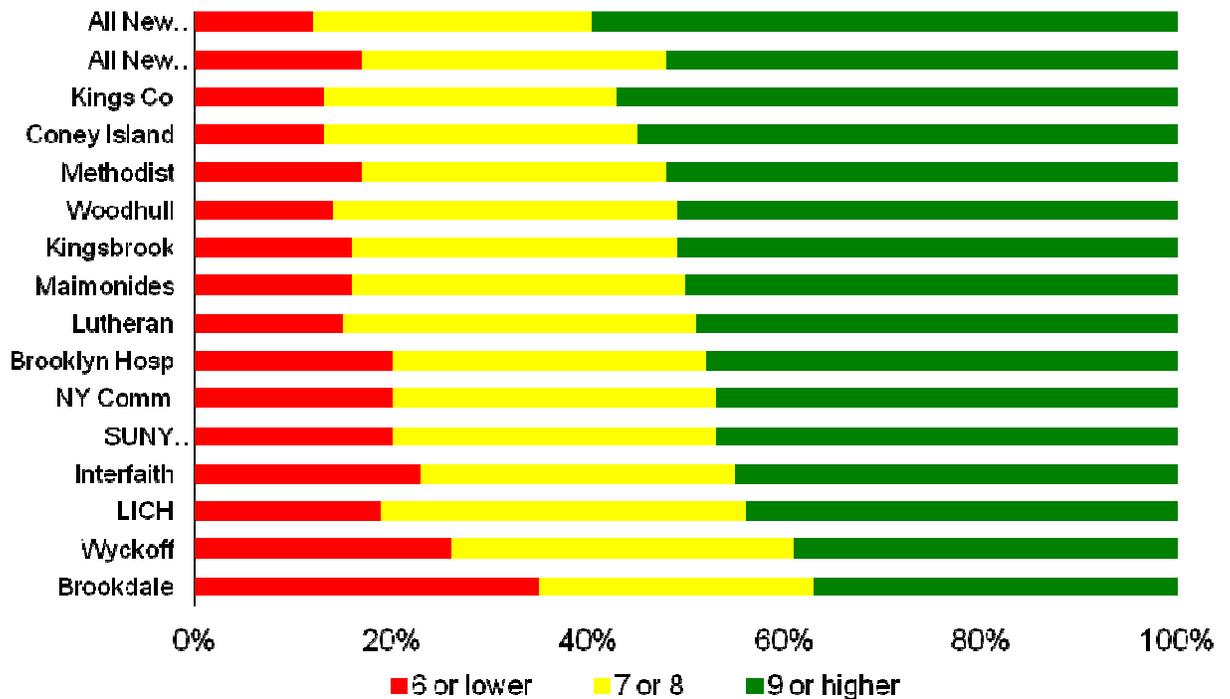
Discipline	Name	Type
Primary Care	Bedford-Stuyvesant	Geographic
	Bushwick	Geographic
	Coney Island	Geographic
	Crown Heights	Pop – Low Income
	East New York	Geographic
	Midwood	Pop – Medicaid Eligible
	Red Hook	Pop – Medicaid Eligible
	Sunset Park	Pop – Medicaid Eligible
	Williamsburg	Geographic
	Mental Health	Coney Island/Gravesend
Kings County Hospital		Facility
Northwest Brooklyn		Pop – Homeless
Southwest Brooklyn		Geographic
Woodhull Hospital		Facility
Dental	Bedford-Stuyvesant	Pop – Medicaid Eligible
	Coney Island	Pop – Medicaid Eligible

Source: Center for Health Workforce Studies, Oct. 2011.

APPENDIX H

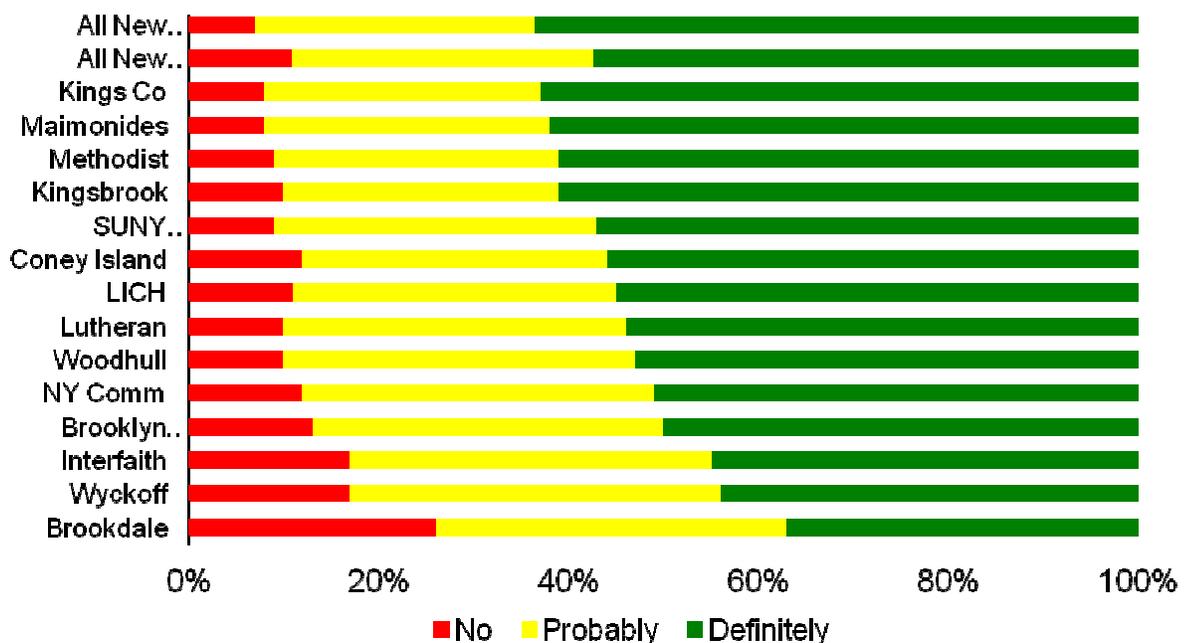
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Overall hospital rating on a scale from 0 (lowest) to 10 (highest)



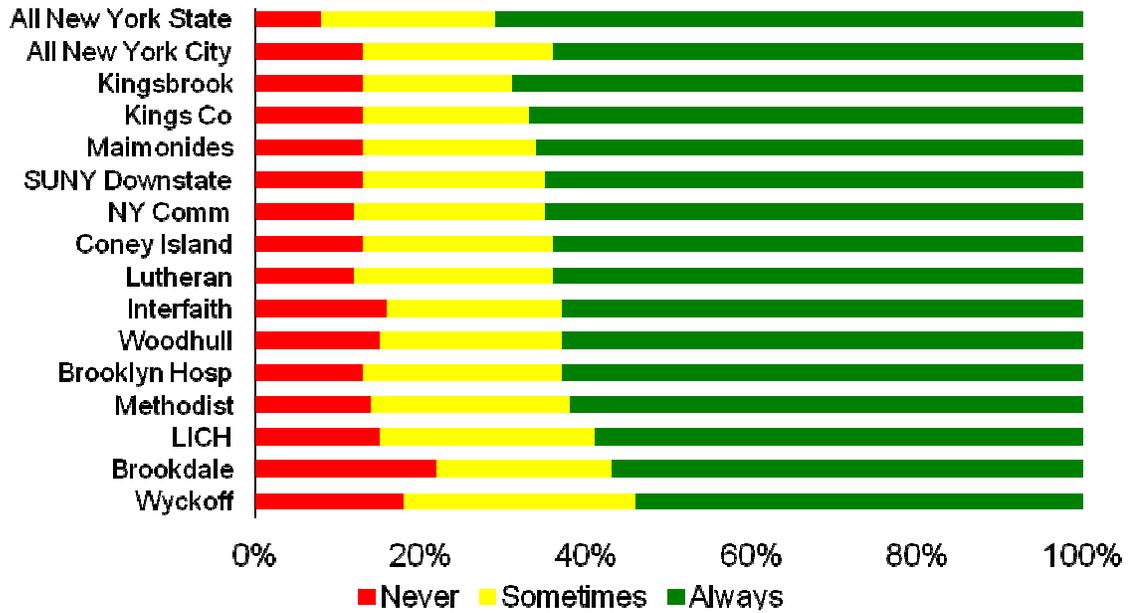
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported they would recommend the hospital



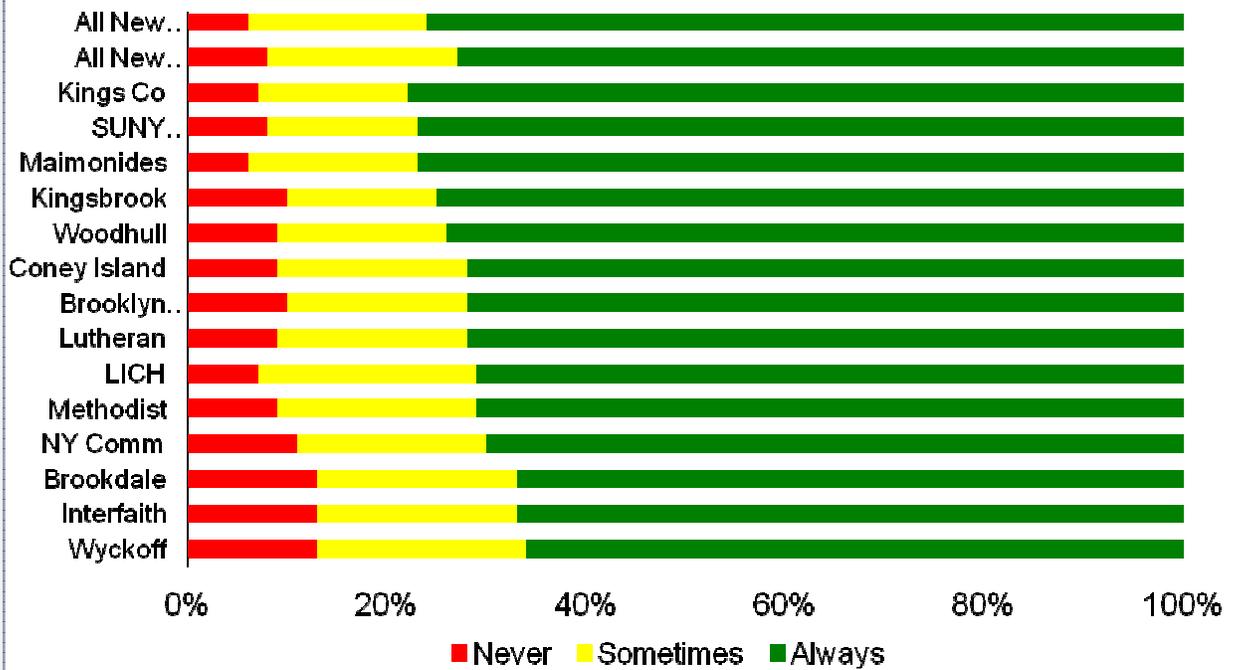
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that their nurses communicated well



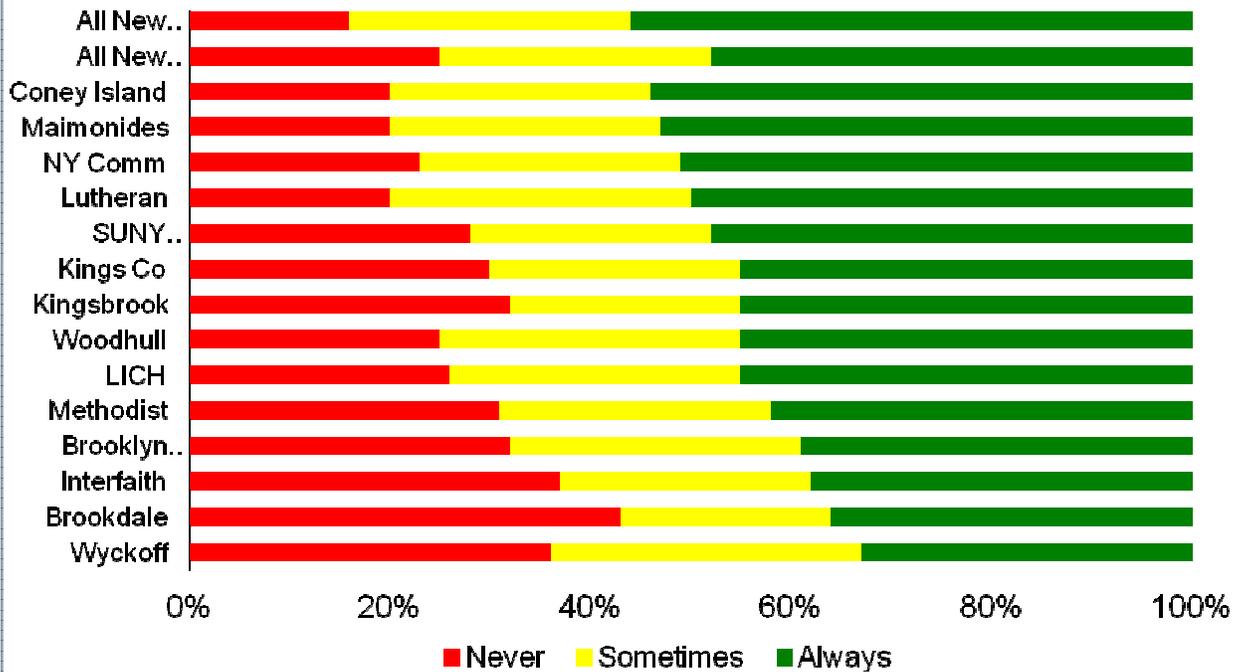
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that their doctors communicated well



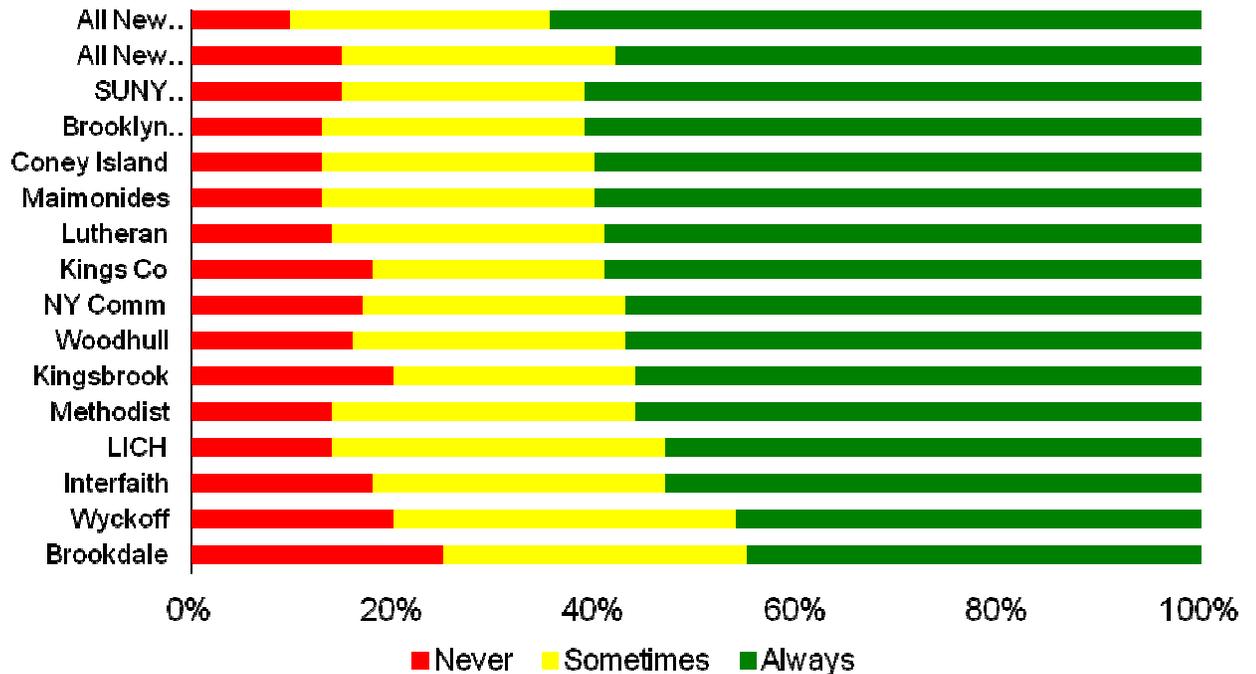
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that received help as soon as they wanted



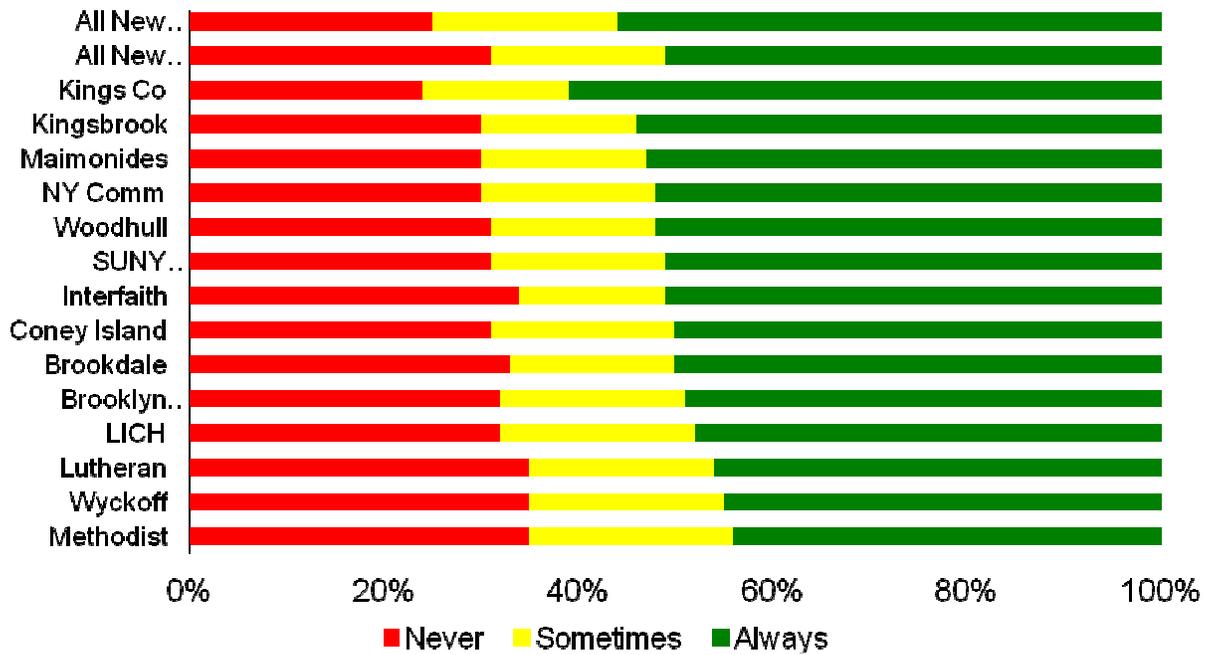
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that their pain was well controlled



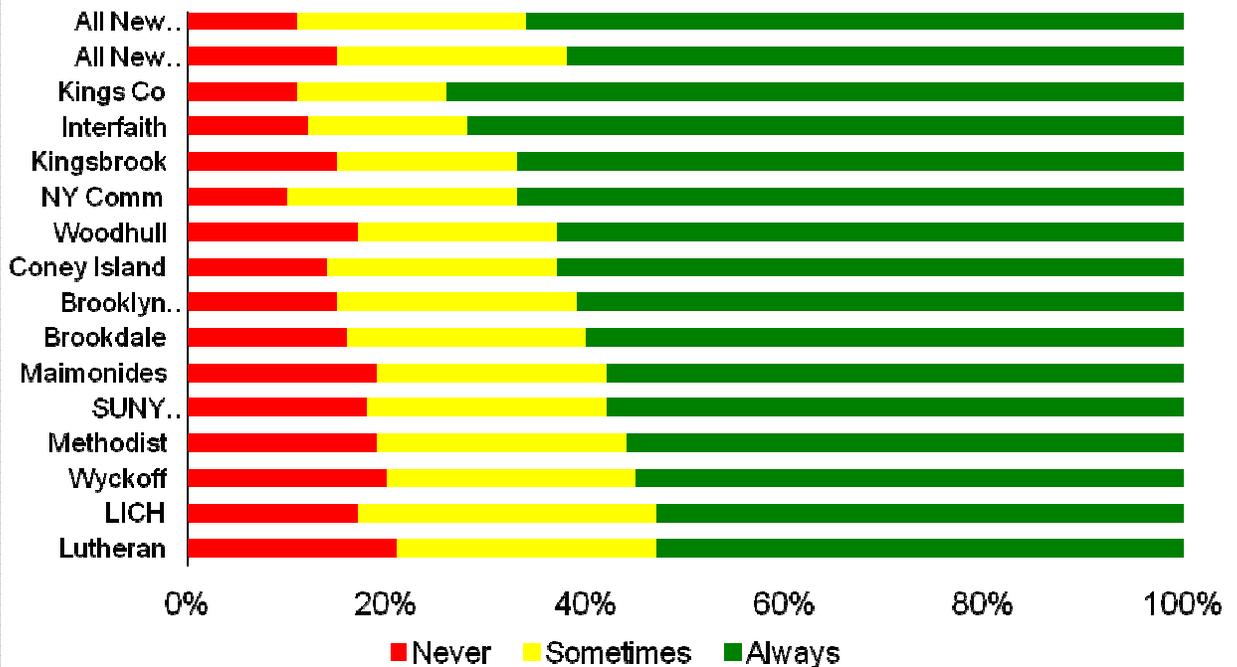
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that staff explained about medicines before giving it to them



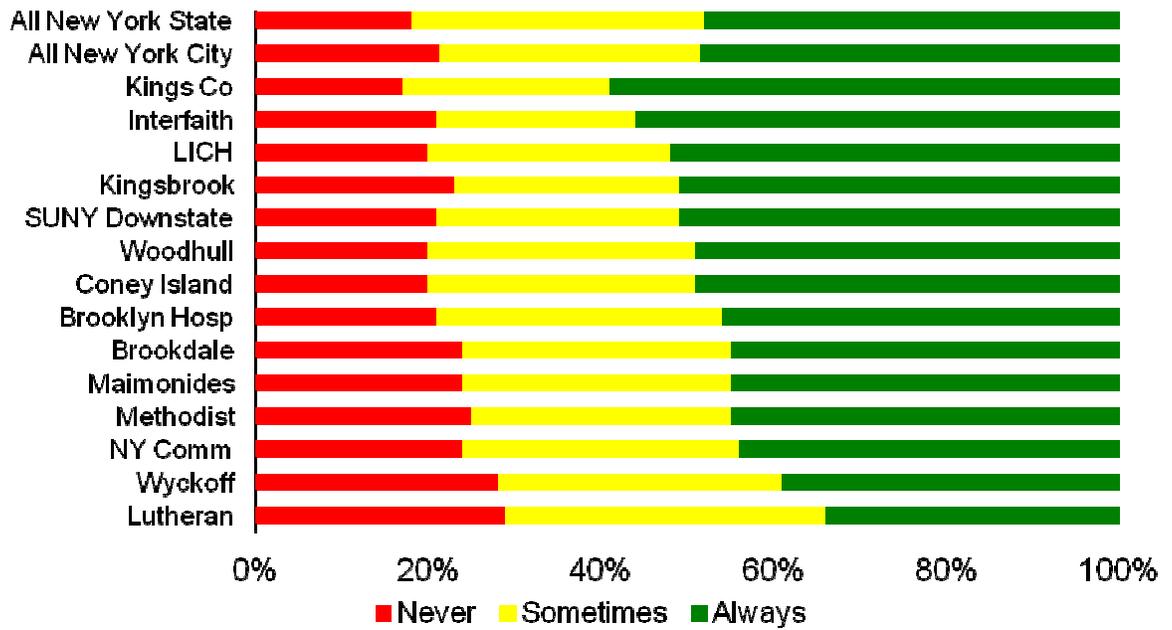
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that their room and bathroom were clean



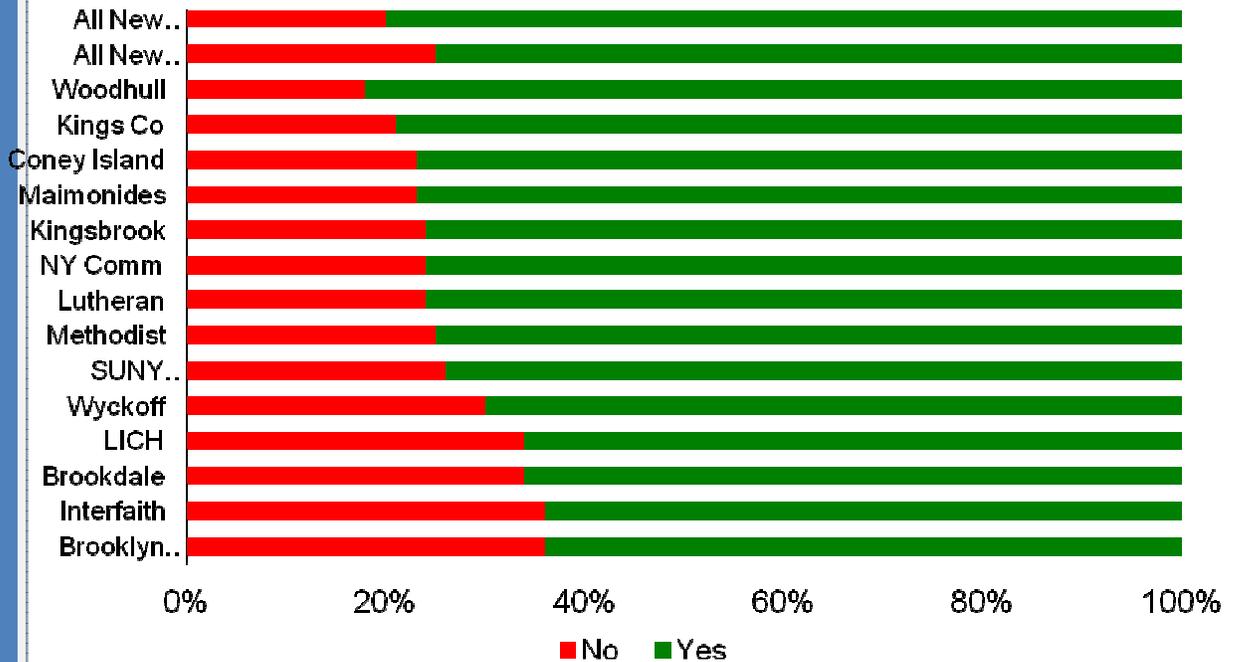
Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities

Percent of patients who reported that the area around their room was quiet at night



Hospital Care Quality Information from the Consumer Perspective (HCAHPS), 7/2009-6/2010
Brooklyn Facilities¹¹²

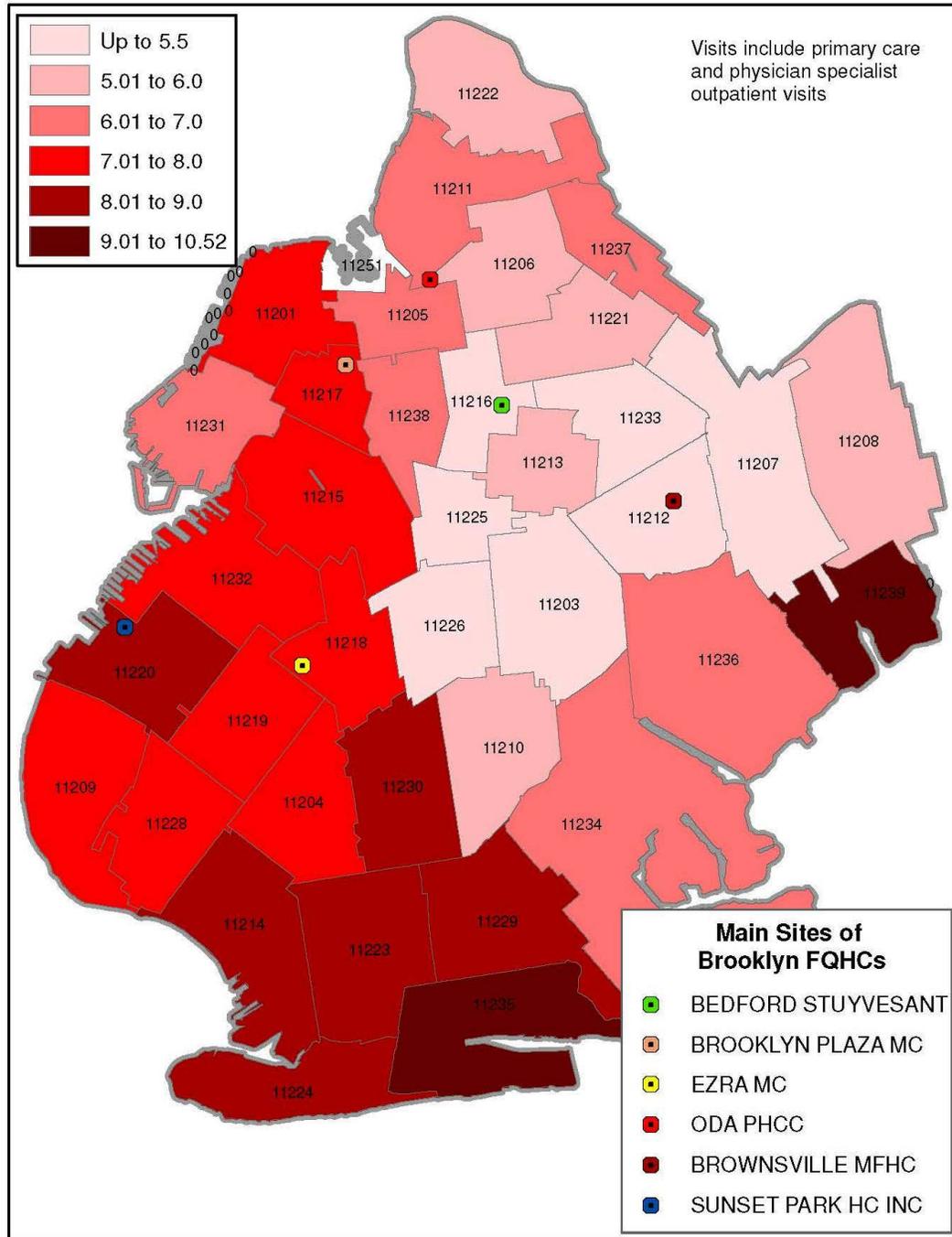
Percent of patients who reported they were given information about what to do during recovery



¹¹² Hospital Care Quality Information from the Consumer Perspective, Centers for Medicare & Medicaid Services, Baltimore, MD, available at <http://www.hcahpsonline.org>, accessed Apr. 20, 2011

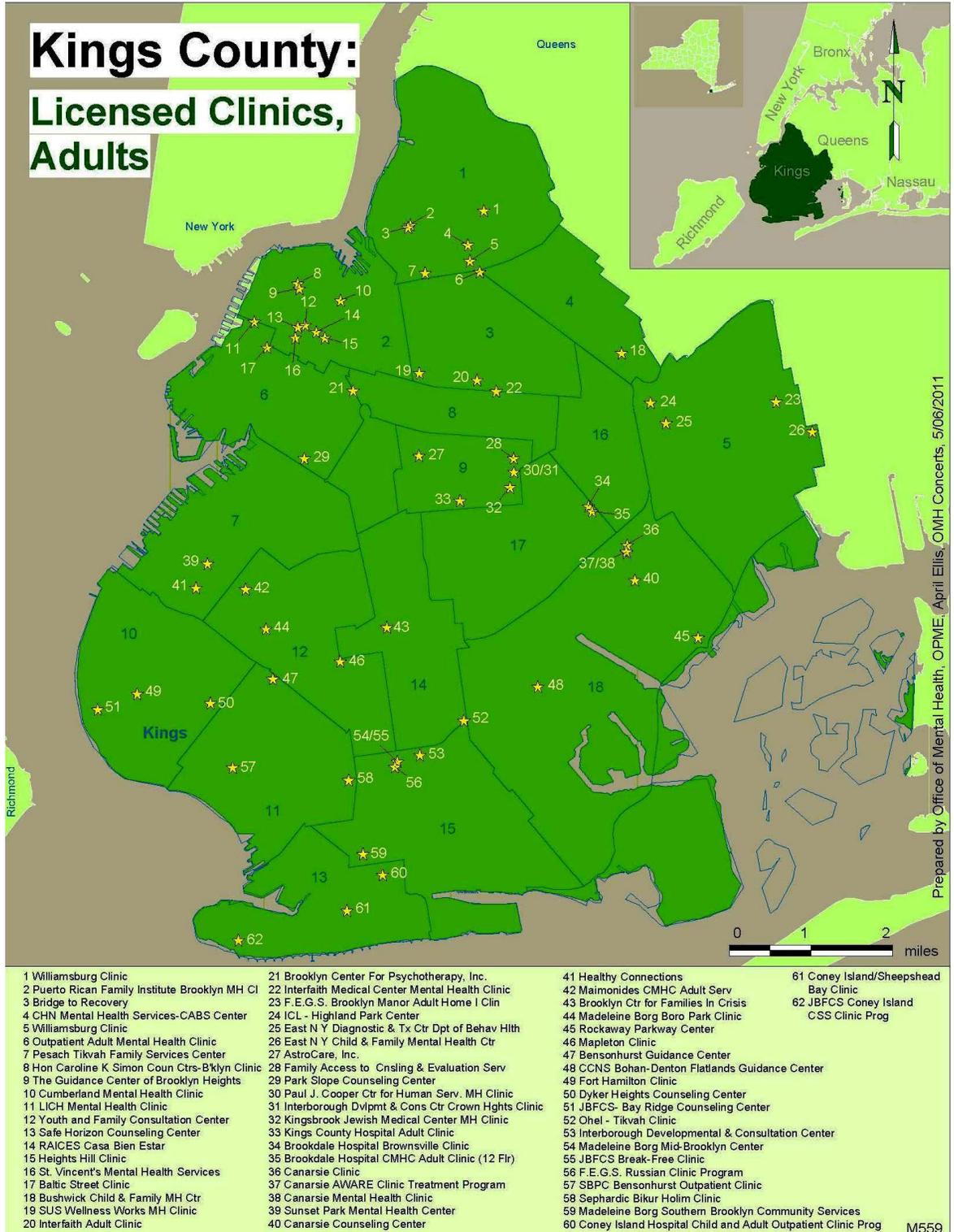
APPENDIX I

Outpatient Visits per Member per Year by Medicaid Fee-for-Service and Managed Care Enrollees in 2009

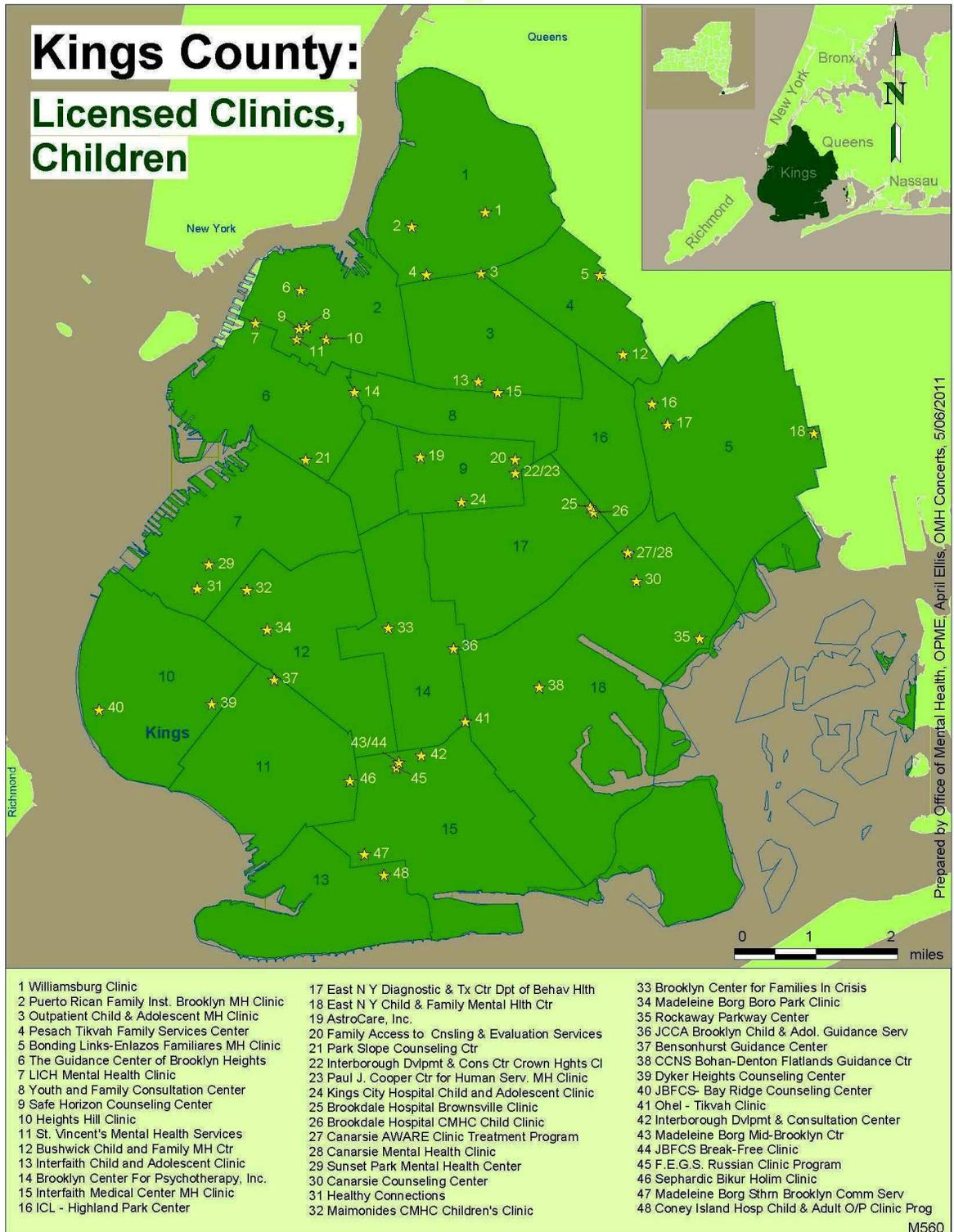


APPENDIX J

Office of Mental Health (OMH) Licensed Clinics - Adults



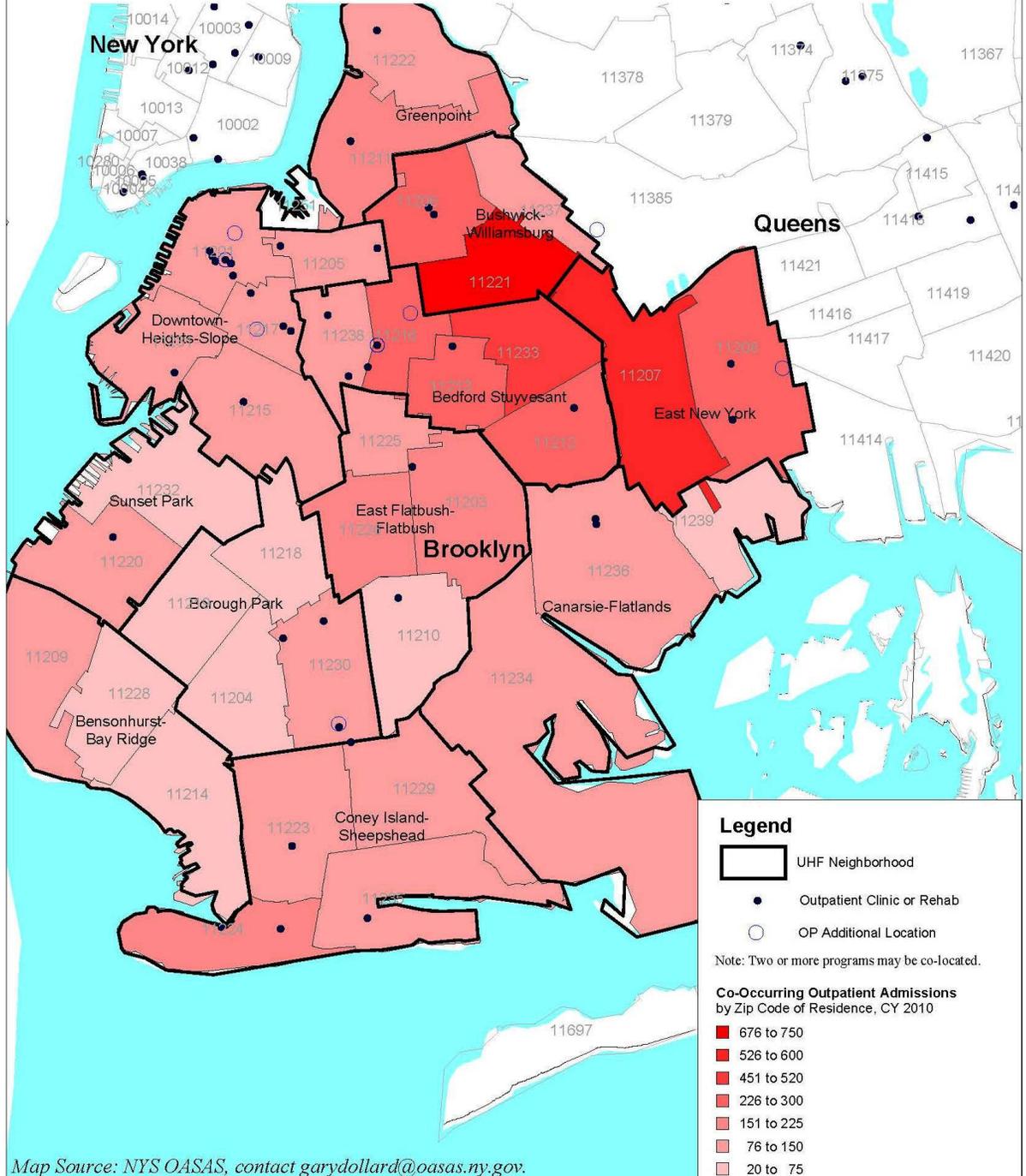
Office of Mental Health (OMH) Licensed Clinics - Children



APPENDIX K

NYS OASAS Part 822 Outpatient Programs and Additional Locations in Kings County by United Hospital Fund Neighborhood

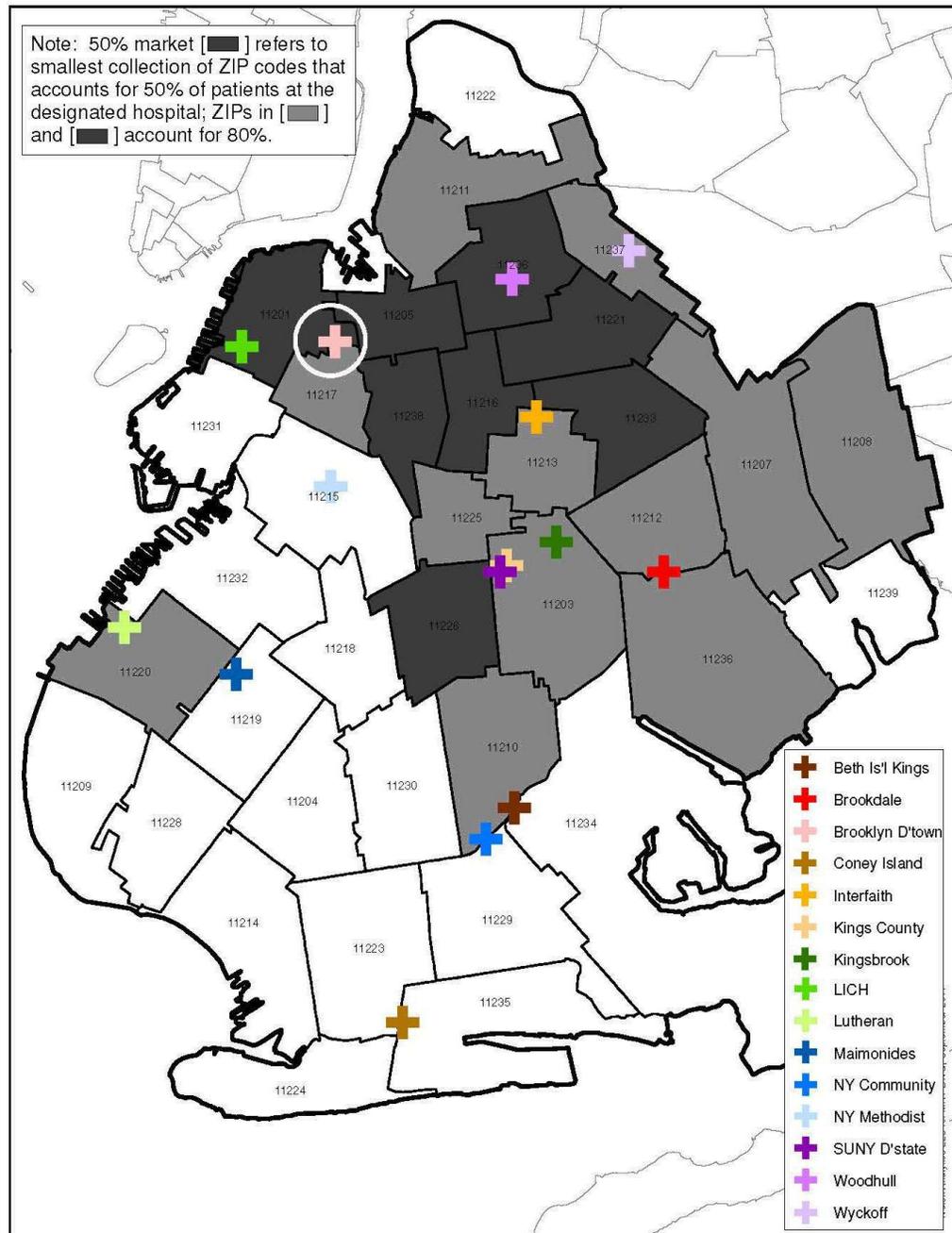
Data Source: NYS OASAS Data Warehouse, geocoded extract of 9/13/2011.



APPENDIX L

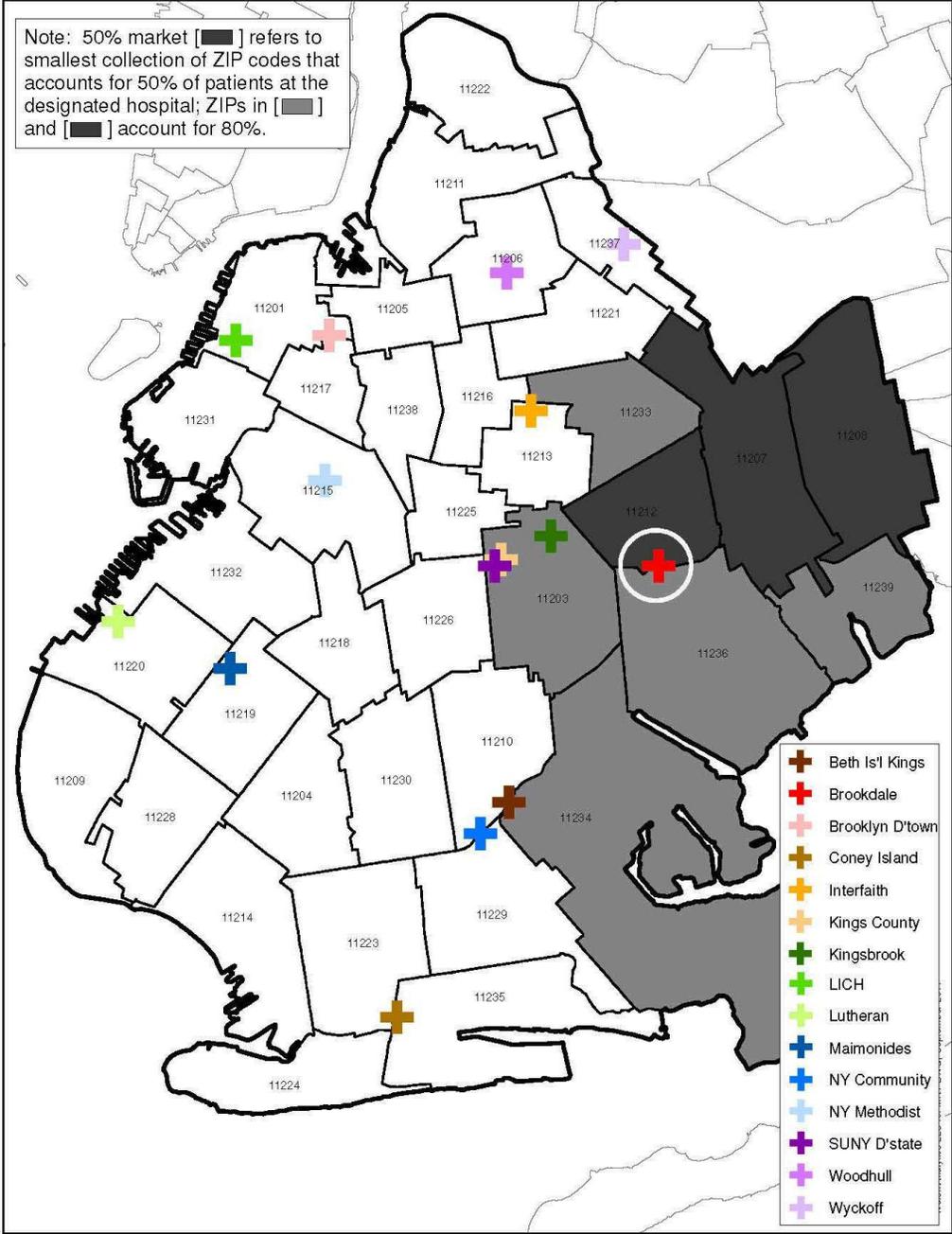
CORE MARKET MAPS FOR 6 FOCUS HOSPITALS¹¹³

Boundaries for 50% and 80% Markets for All Patients
at Brooklyn Downtown Hospital Center in 2010

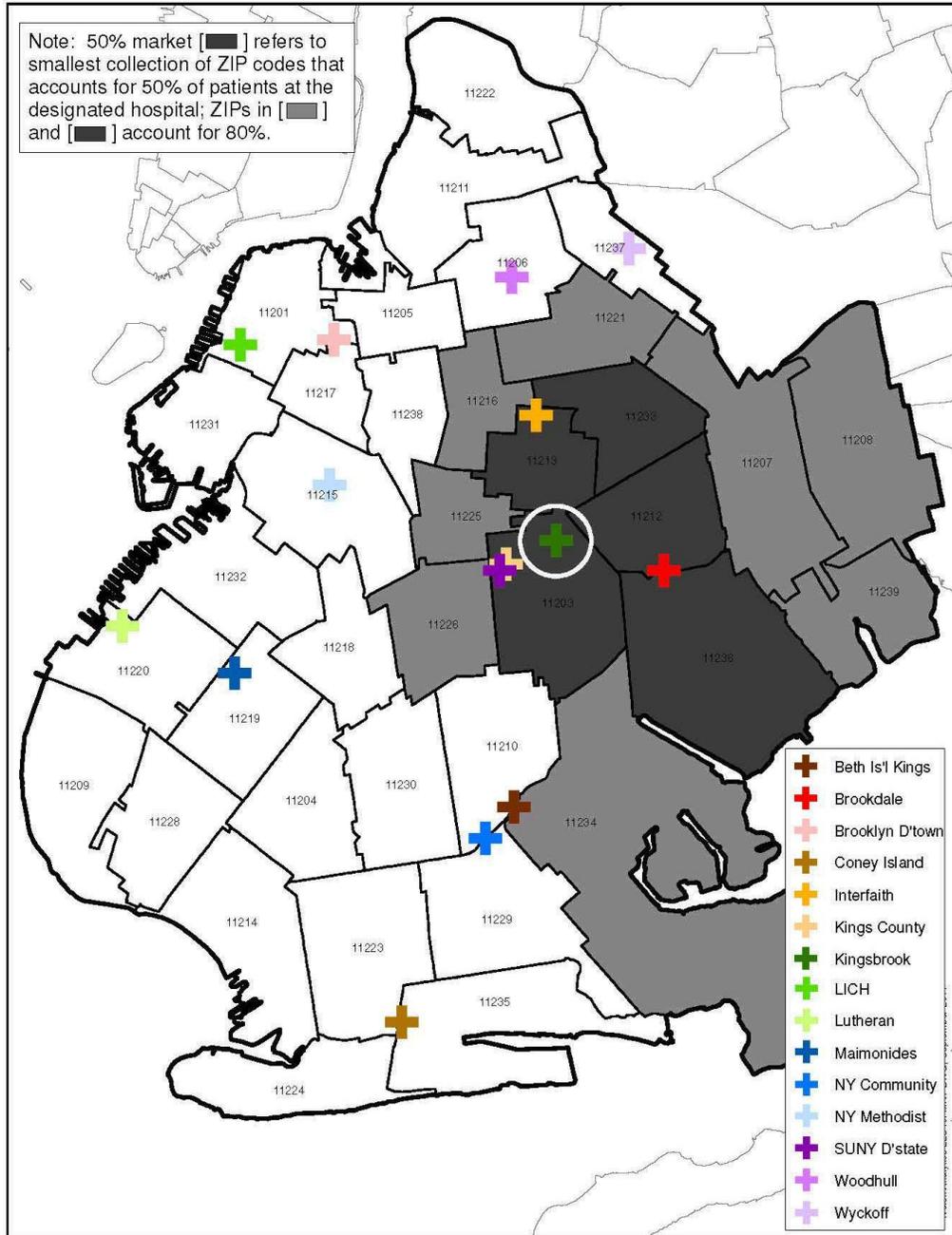


¹¹³ Welsh Analytics, LLC, NYSDOH SPARCS Deidentified Inpatient File, obtained August 2011.

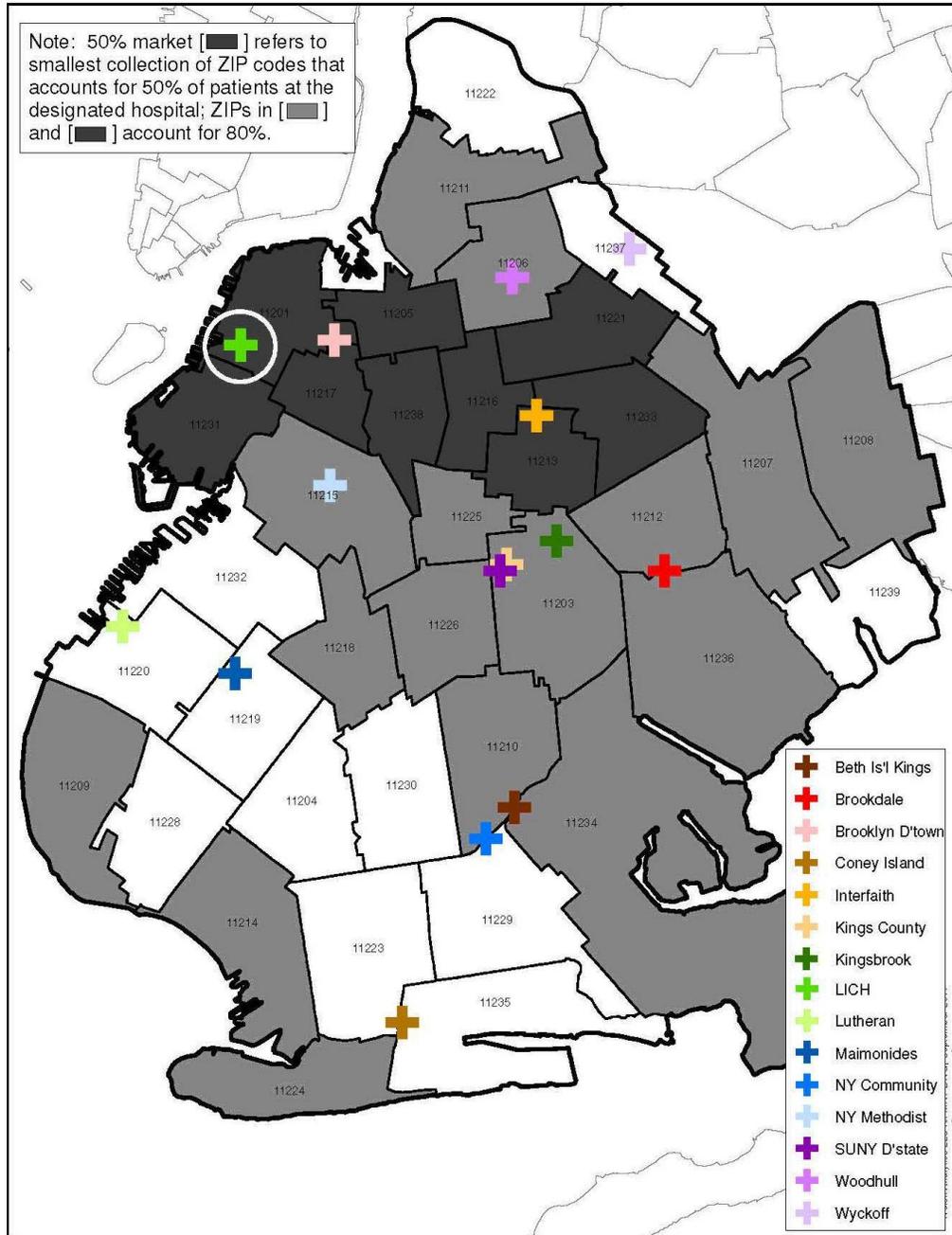
Boundaries for 50% and 80% Markets for All Patients at Brookdale Medical Center in 2010



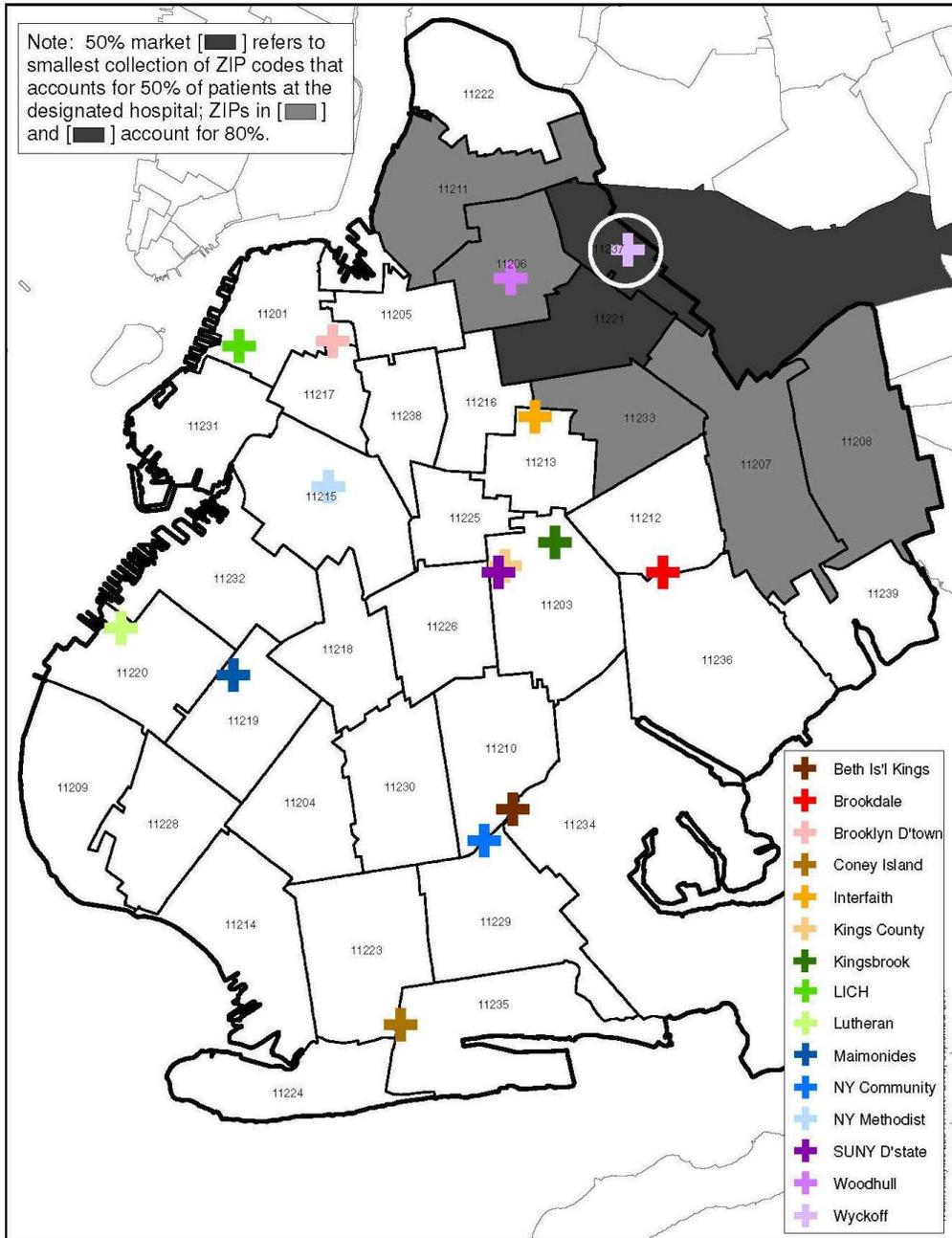
Boundaries for 50% and 80% Markets for All Patients at Kingsbrook Jewish Medical Center in 2010



Boundaries for 50% and 80% Markets for All Patients at Long Island College Hospital in 2010



Boundaries for 50% and 80% Markets for All Patients at Wyckoff Heights Medical Center in 2010



APPENDIX M

Charge to Chair/Work Group from Health Commissioner Nirav Shah



Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

June 15, 2011

Stephen Berger
Odyssey Investment Partners
280 Park Ave, 38th Floor - West Tower
New York, New York 10017

Dear Mr. Berger:

I am inviting you to lead a Medicaid Redesign initiative to evaluate the hospital system in Brooklyn, New York. As a member of Governor Cuomo's Medicaid Redesign Task Force, you are well aware the Task Force was concerned with the future financial strength and viability of the state "safety net" providers. A specific initiative was established (MRT 67) to provide the state financial and programmatic tools to assure the communities served by "safety net" providers are protected.

The hospital system in Brooklyn is today particularly challenged. Many have witnessed a drop or leveling of inpatient volume; revenue growth and capital investment has been curtailed; debt capacity limited by existing financial weakness and debt load. Yet, the communities served continue to need access to appropriate high quality and cost effective health care.

Your charge is to assess the strength and weaknesses of the Brooklyn hospitals and their future viability to deliver appropriate health care services throughout the many communities that comprise Brooklyn. Secondly, to make specific recommendations that will lead to a high quality, financially secure and sustainable hospital system that can meet the needs of all patients.

I look forward to working with you in this critical Medicaid Redesign initiative. If you should have any questions or concerns please don't hesitate to contact Richard M. Cook, Deputy Commissioner, Office of Health Systems Management at (518) 474-7028.

Sincerely,

A handwritten signature in black ink that reads "Nirav R. Shah".

Nirav R. Shah, M.D., M.P.H.
Commissioner of Health

cc: Mr. Cook

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