Resource	Primary Topic		Key Points	Category
Brooklyn MRT Health Systems Redesign Work Group	Brooklyn Hospital Future Viability	1	While there are well-managed hospitals in the borough of Brooklyn, providing excellent healthcare services to meet the needs of the communities they service, there are many others that are on the brink of failure due to skewed payor mixes, poor management, and a lack of flexibility in responding to the changing marketplace of healthcare delivery all of which are constraining these hospitals' ability to effectively serve their communities over the long term (14).	General
		2	Critical socioeconomic indicators for Brooklyn: (1) Median household income for the entire borough was \$42,143 in 2010 (2) 2010 unemployment rate for Brooklyn was 10.5%, higher than the 9.3% rate observed throughout New York State (3) Of those 25 and older, 12% of residents have less than a 9th grade education, 29% have attained a high school diploma or equivalent, and 29% have a Bachelor's or graduate degree (20).	Demographics
		3	The highest poverty rates in Brooklyn include: Greenpoint, Bushwick-Williamsburg, Central Brooklyn, and East New York-New Lots each with more than 30% of households living below the federal poverty level (20).	Demographics
		4	The highest rates of uninsured residents are located in Bushwick-Williamsburg and Sunset park, each with over 25% (21).	Health Indicators
		5	38% of Brooklyn residents are of foreign nationalities and 45% of these residents are not US citizens. These immigrants residing in the borough are mostly of Latin-American origin (52%), European (20%), and Asian (25%). This large foreign-born population means that a great deal of Brooklyn residents have limited English proficiency. Of those who are 5 years or older, 25% claim to speak English "less than well" (21).	Demographics
		6	Residents of Brooklyn have higher rates on health status indicators than the New York City average. In 2009, 26% of adults were obese, 11% of adults had diabetes, and 31% of adults had high blood pressure (21).	Health Indicators
		7	Rates of hospitalization and premature death are higher in Brooklyn when compared to the New York City average between 2007-2009. 47% of residents died prematurely compared to 45% citywide; premature death is defined by death before age 75 (21).	Health Indicators
		8	Brooklyn has higher rates of heart disease hospitalizations, heart disease deaths, diabetes hospitalizations, and diabetes deaths than the citywide average (22).	Health Indicators
		9	Health disparities within Brooklyn are significantly related to race and ethnicity. 62.3% of Black non-Hispanic residents died prematurely (before age 75) between 2007 and 2009 at a rate double that of White non-Hispanics. Black non-Hispanic residents have 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 ethnicities in 2009. Black non-Hispanic children in Brooklyn were hospitalized for asthma at a rate of 70.0 per 10,000 compared to 7.6 per 10,000 for White non-Hispanic children. Hispanic Brooklyn residents have the highest percentage of death before age 75 (62.5%), highest prevalence of diabetes (15.5%) and asthma (11.0%), and the second highest rates of obesity (29.3%) and high blood pressure (31.3%) (22).	Health Indicators
		10	High rates of chronic disease are compounded by socioeconomic barriers to healthcare, 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 isolate. 40% of Brooklyn residents are on Medicaid and 15% are uninsured (25-26).	Demographics
		11	The healthcare delivery system of Brooklyn is ill-equipped in some areas to address the complex health issues facing communities. It is dominated by hospitals that are dependent upon public funding 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 (26).	Finance
		12	Too many hospitals have failed to create, and are not organized to partner with, strong primary care and community-based specialty care networks in their communities (26).	Collaborative Efforts
		13	Even the well-managed hospitals of Brooklyn lack the resources to make necessary investments in physical plant, staff, medical talent, information technology, or new models of care (26).	Finance

Current Problems

Primary Topic Kev Points Resource Category 14 The healthcare delivery system of Brooklyn fails to engage patients in care through primary care settings, resulting in preventable use of higher cost services Utilization and poor health outcomes (26). 15 Brooklyn hospitals' utilization data reveals a variety of trends and factors that undermine their financial stability including declining admissions in many Finance 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 (26). 16 In 2010, there were approximately 297,000 inpatient discharges from Brooklyn hospitals, down from approximately 301,000 in 2009. These discharges were Utilization concentrated heavily in the medical service category: Medical (38%), Surgical (26%), Pediatric (5%), Obstetrical (12%), Healthy Newborn (9%), High Risk Neonate (1.5%), Psychiatric (5%), and Chemical Dependency (3%) (26-27). 17 Of the 2010 patient discharges in Brooklyn, the combined 8% of mental illness (psychiatric and chemical dependency) discharges resulted in more than 15% Utilization of the inpatient days -- the largest percentage of inpatient days of all the clinical categories (27). 18 The case mix index, or the measure of acuity of the patients served the complexity of the resources required for their treatments) for medical-surgical Health Indicators patients in 2010 was 1.41 for Brooklyn, lower than the average of 1.54 of New York City and the state. Because reimbursement is tied to case mix index, the lower average is associated with lower revenues (27). 19 Average length of stay (ALOS) in Brooklyn is 6.12 days overall with 6.03 for medical-surgical patients. This value is higher than the national average of 4.8 Utilization days and is higher than three of the four other boroughs of New York City. Manhattan is the exception and has a longer ALOS of 6.21 days (27). Despite the longer average length of stay (ALOS), the Brooklyn hospitals are not fully occupied. In 2010, 71% of inpatient beds in Brooklyn were occupied Utilization daily (excluding healthy newborn admissions). This is below the planning standard of 85% occupancy. However, these rates vary widely between hospitals. Brookdale, Brooklyn Hospital, Interfaith, Long Island College Hospital, Wyckoff, and Kingsbrook Jewish each had occupancy rates of less than 66% in 2010. Long Island College Hospital, in particular, had an occupancy rate of 45.2% (27). The inpatient payor mix of the borough is dominated by Medicaid, which paid 42% of discharges in 2010. Medicare covered 33% and commercial insurance Finance covered 17%. The remaining 8% of patients are considered "self-pay" patients, who typically include uninsured and charity care patients. With high percentages of patients covered by Medicare and Medicaid (75% in 2010), Brooklyn hospitals are particularly vulnerable to the effects of the state and federal budgets (28). 22 Inpatient discharges have declined by 2% between 2008 and 2010. Discharge trends vary widely by hospital. From 2006-2010, there was a 20% decline at Finance Long Island College Hospital, declines of 8%-11% at Brookdale, Woodhull, and Wyckoff. During this same period, discharges increased by 5%-9% at University, Kings County, Methodist, and Beth Israel Brooklyn (formerly the "Kings Highway" division). Discharges increased between 11%-15% at Kingsbrook Jewish, New York Community, and Maimonides (29). Discharge trends vary by payor. Across the 15 Brooklyn hospitals from 2008-2010, discharges of Medicare patients declined by 1%, Medicaid patients Finance declined by 7%, and commercially-insured patients declined by 7% as well. Three of the five sharpest declines were observed at the three HHC hospitals: Coney Island Hospital (-15%), Kings County Hospital (-15%), Woodhull Hospital (-30%), Declines of -18% and -21% were observed at Lutheran and LICH, respectively (29).

Self-pay inpatients are a small percentage overall yet increased by 56% between 2008-2010 (29).

Finance

Current Problems				
Resource	Primary Topic	Key Points		Category

25	With declining admissions at many hospitals and little growth overall, competition for patients among hospitals is fierce. Not one Brooklyn hospitals commands 40% of the inpatient discharges in the zip codes that provide 50% or more of its inpatients (their primary market). Only four hospitals attract more than 30% of the inpatient discharges from their core markets: Lutheran (37%), Maimonides (37%), Coney Island (32%), and Wyckoff (21%). More than 70% of the residents of the core market areas of the remaining 11 hospitals go to the other hospitals for care. Kingsbrook Jewish and NY Community command the smallest shares of their markets at 9% and 8%, respectively (30).	Service Area
26	Competition for Brooklyn patients include the Manhattan hospitals (particularly for commercially-insured and surgical patients), Brooklyn hospitals are also competing with each other for patients (30).	Service Area
27	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% of Brooklyn hospital inpatients are Brooklyn residents, only 76% of Brooklyn residents who were admitted to a hospital in 2010 used a Brooklyn hospital. 18.4% went to Manhattan facilities, 2.7% to hospitals in Queens, 1.2% to Staten Island, .6% to the Bronx, and 1.4% elsewhere (30).	Service Area
28	Migration to Manhattan for care has risen from 60,000 to over 65,000 from 2006-2010. The strongest magnets for Brooklyn patients in 2010 were Beth Israel Medical Center, NYU Langone Medical Center, NY Presbyterian-Weill Cornell Medical Center, and Mount Sinai Medical Center (31).	Service Area
29	Brooklyn hospitals are not attracting patients from other boroughs and are losing a significant portion of their geographic market to Manhattan's academic medical centers. The number of commercially-insured Brooklyn patients going to Manhattan hospitals increased by 15% from 2006-2010. For 2010, 35% of commercially-insured patients migrated to Manhattan for care, whereas only 13.5% of Medicaid patients did so (31).	Service Area
30	46% of all Emergency Department visits that do not result in a hospital admission in Brooklyn are either non-emergent or primary care treatable. These high rates of preventable emergency department or inpatient use are indicators of waste in a healthcare delivery system; the need for higher intensity and expensive healthcare services could be averted through the use of lower level, less costly care (31).	Utilization
31	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% higher in Brooklyn hospitals than he statewide average hospital rate. For Brooklyn, 15.4% of adult medical-surgical admissions occur in this category compared to 13.1% citywide and 12.9% statewide (31).	Utilization
32	Sub-optimal inpatient and emergency department use in Brooklyn varies by neighborhood and is associated with the health professional shortage area (HPSA) designations and with the incidence of 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 per 100 residents, respectively). The highest rates of PQI inpatient discharges are found in these same neighborhoods as well as Northwest Brooklyn and Sunset Park. The highest PQI rates by hospital are found at Woodhull, Beth Israel Brooklyn, Brooklyn Hospital, Brookdale, Interfaith, and Kings County which are all above the state and city PQI rates (32).	Utilization
33	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 health and out of the hospital. Also, 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 (33).	Utilization
34	A significant portion of the effort and resources of Brooklyn's hospitals are directed towards accommodating the effects of a fragmented healthcare system that both lacks adequate primary and preventive care and encourages patients to rely inappropriately on ED and hospital-based services (33).	Utilization
35	Brooklyn's hospitals do poorly on patient satisfaction surveys such as the HCAHPS survey conducted by CMS. Not a single Brooklyn hospital reached or	Quality

exceeded the statewide average score with respect to the percentage of patients who would "definitely recommend" the facility (34).

Improvement

Brooklyn H	ealthcare Delivery System		
Current Pro	blems		
Resource	Primary Topic	Key Points	

	Key Points	Category
36	Patient satisfaction with the communication 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%, respectively, in every single Brooklyn hospital, with the exception of Maimonides (34).	Quality Improvement
37	23% of all Brooklyn residents, and nearly one-third of residents in five Brooklyn neighborhoods, indicate that they lack a primary care providerGreenpoint, Central Brooklyn, Bushwick-Williamsburg, East New York-New Lots, and Sunset Park (35).	Health Indicators
38	Since 40% of Brooklyn residents are on Medicaid and 15% are uninsured, medical practices that do not routinely serve Medicaid and uninsured patients cannot satisfy primary care needs in Brooklyn's economically-challenged communities. This is because, unlike FQHCs and hospital-sponsored clinics, private medical practices rarely offer substantial free care to low-income, uninsured patients (35).	Finance
39	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. However, Medicaid beneficiaries had an average of 6.7 outpatient visits per member per year in Brooklyn compared to 5.3 citywide and 5.2 statewide. These rates vary widely by neighborhood and are the lowest in central and northeast Brooklyn (35).	Utilization
40	The availability of primary care varies by neighborhood in Brooklyn. Although there are dozens of hospital outpatient clinics, diagnostic treatment centers, and 13 FQHCs with more than 80 sites, outpatient facilities are unevenly distributed among Brooklyn neighborhoods (35-36).	Service Area
41	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 (36).	Service Area
42	There are 85 FTE primary care physicians per 100,000 residents across Brooklyn, which is higher than the statewide average of 82 FTE physicians per 100,000 residents. However, in Canarsie-Flatlands, Central Brooklyn, Greenpoint, and East New York-New Lots, the rate is less than 60 FTEs per 100,000. 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 residents (36).	Service Area
43	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). 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. All together, 50% of mental health clients report a chronic medical condition in Brooklyn compared to 44% statewide (37).	Utilization
44	Brooklyn hospitals are seeing high levels of utilization among people with behavioral health diagnoses. Of all inpatient discharges in the area, 27% involve behavioral health as a primary or comorbid diagnosis. For 11 Brooklyn hospitals, 30-day readmission rates to a psychiatric inpatient setting from inpatient psychiatric care in Brooklyn are higher than the statewide average (37).	Quality Improvement
45	Outpatient behavioral health services are unevenly distributed among Brooklyn neighborhoods. The 69 mental health clinics and 44 chemical dependence treatment outpatient programs are concentrated in Central and Northwest Brooklyn neighborhoods even though Southern Brooklyn and Bushwick-Williamsburg have higher numbers of residents discharged from hospitals with a behavioral health diagnosis (38).	Service Area
46	Overall, in regards to behavioral healthcare services, there is a heavy reliance on inpatient and emergency department care, segregation of medical and behavioral healthcare, 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 are unrelated to individual outcomes (38).	Collaborative Efforts
47	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 (42).	Service Area

Current Problems				
Resource	Primary Topic		Key Points	Category
		48	Six hospitals (Brookdale Hospital Medical Center, Brooklyn Hospital Center, Interfaith Medical Center, Kingsbrook Medical Center, Long Island College Hospital, Wyckoff Heights Medical Center) lack a business model that will allow them to survive in the long term (and even the short term). They all lack favorable positions in key indicators of financial stability: operating margin, current ratio, debt-to-bed ratio, and net assets (42).	Finance
		49	Brookdale, Wyckoff, Interfaith, and LICH have a negative operating margin with Kingsbrook Jewish and Brooklyn Hospital having slightly positive operating margins (42).	Finance
		50	Brookdale Hospital Medical Center, Interfaith Medical Center, Kingsbrook Medical Center, Long Island College Hospital, and Wyckoff Heights Medical Center each have current ratios of less than 1.0 each hospital lacks revenues sufficient to support day-to-day operations. This forces facilities to consider reliance on managing cash flow or borrowing to help cover expenses (43).	Finance
		51	Brookdale Hospital Medical Center, Brooklyn Hospital Center, Interfaith Medical Center, Kingsbrook Medical Center, Long Island College Hospital, and Wyckoff Heights Medical Center each have high levels of long-term debt. Each of these six hospitals have long-term debt to bed ratios above the state median of \$141,000 per bed with Interfaith reaching an extreme of \$517,000 per bed more than double the median of Brooklyn (44).	Finance
		52	Low operating margins, combined with high levels of long-term debt and low current ratios, preclude the six hospitals of interest from capital investment in physical plant and depreciable medical/nonmedical equipment. With capital spending ratios below 100%, these hospitals are disinvesting or spending less in new capital than what is being incurred in depreciation of old capital. 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 (44).	Finance
		53	The net asset positions of Brookdale, Long Island College, Interfaith, and Wyckoff Heights ranged from -\$78 to -\$285 million in 2010. This makes it difficult for these hospitals to initiate 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 (45).	Finance
		54	Federal Medicare disproportionate share (DSH) payments will be cut substantially beginning in 2014, which will have a particularly significant impact on hospitals, like those in Brooklyn, that serve large numbers of low-income Medicare and Medicaid beneficiaries (46).	Finance
		55	Through the work of the Medicaid Redesign Team (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 primarily on their ability to leverage adequate reimbursement from managed care plans and to manage their costs (46).	Finance
Crain's Health Pulse, 11-16-2011	Emergency Department Use	1	Residents of central and northeast Brooklyn have both the highest number of ED visit rates (per 100 residents) and subsequent hospital admission rates (per 100 residents). The rates of these neighborhoods are much higher than the New York City average. The specific neighborhoods include Flatbush, East New York & New Lots, Central Brooklyn, Bushwick, and Williamsburg (1).	Utilization
The Need for Caring in North and Central Brooklyn	Community Health Needs Assessment	1	The major reasons for not going to a doctor according to the patients surveyed include not being sick, not having insurance, the cost of care, insurance difficulties, time issues, and a belief in natural healing (55).	Utilization
,		2	Patients surveyed indicated that high blood pressure, asthma, diabetes, hearing/vision problems, dental problems, bone/joint/muscle problems, obesity, depression, and health/vascular issues were the most predominate health concerns in their household in descending frequency (50-51).	Health Indicators
		3	Survey respondents indicated that they (52.4%) and their household members (46.7%) generally had income-eligible public health insurance Medicaid, Child Health Plus, and Family Health Plus (49).	Finance
		4	When asked if they and those living in their household had health insurance, including Medicaid, 72.6% of survey participants answered that all members of the household have health insurance, 12.0% said that some have insurance, 11.9% said that no one in the household has health insurance, and 3.4% were not sure (47).	Finance

Resource	Primary Topic		Key Points	Category
		5	When asked about their location of birth, 39.5% of survey respondents indicated they were foreign born while 60.5% indicated they were born in the US (42-43).	Demographics
		6	Of the 577 respondents who indicated their race in the survey, 42.5% self-identified as African-American, 23.4% self-identified as Caribbean/West Indian, 15.3% self-identified as Mixed race/ethnicity, 12.8% self-identified as White, 4.2% self-identified as Arab/Middle Eastern, .9% self-identified as African, .9% self-identified as Asian/Pacific Islander, and .2% self-identified as Native American (39-40).	Demographics
		7	In response to the question "Have you and your household members been able to get regular check-ups when you are healthy?" 86% of respondents said yes, 14% said no (56).	Utilization
		8	In response to the question "In the last two years, have you and your household members' visits to a doctor or nurse been in your neighborhood?", almost 20% of all respondents made all visits outside their neighborhood. Slightly less than 40% of respondents had all visits in their neighborhood and 32% of respondents' visits were, in part, in their neighborhood. This question was included in the survey because there have been concerns raised about a lack of services in many of the North and Central Brooklyn communities (57).	Utilization
		9	The zip code with the highest percent of respondents not using services in their neighborhood are: 11201 (Downtown Brooklyn, 50.0%), 11217 (Gowanus, 46.2%), 11233 (Bedford-Stuyvesant, 37.0%), 11238 (Prospect Heights, 29.6%), and 11207 (East New York, 26.5%). This was data gathered from the 118 respondents of the survey who indicated that none of their visits had been to a provider in their neighborhood for the last two years (58).	Utilization
		10	The type of facility in the community where respondents sought care most frequently include a doctors or nurses office (37.4%), hospital clinic (26.6%), community health center (23.8%), emergency room (12.0%), traditional healer (.8%), another kind of place (.5%), and don't know (.9%). Not all of the named facilities cited were located in the area of study (59).	Utilization
		11	The length of travel time to access care in the community was most frequently 10 to 30 minutes (52.8%), followed by less than 10 minutes (30.0%), 30 to 60 minutes (11.9%), over an hour (2.2%), and do not know/not sure (3.0%) (60).	Service Area
		12	The modes of travel to access care in the community were walking (35.2%), riding a bus (27.6%), taking the subway (11.3%), hailing a cab (9.7%), driving (9.4%), other (3.4%), and using car service (3.3%) (61).	Service Area
		13	When asked where would be the most convenient place for them and members of their household to obtain care, 89.4% of survey respondents preferred to receive care near where they lived, 6.5% wanted care near where they worked, and 4.1% did not know or were not sure (62).	Utilization
		14	The most frequently cited reasons for going outside of the neighborhood to seek care: specialist outside of the neighborhood (25.7%) which indicates a choice, and referred or assigned doctor in another neighborhood (14.7%) which suggests there was no choice (63). The most often-cited specialists are: obstetricians/gynecologists, dentists, general doctors, and cardiologists (65).	Utilization
		15	When survey respondents were asked if they or members of their household had been to an Emergency Room within the last two years, half of the respondents (49.7%) indicated yes (69). African-Americans had the percent of persons using the Emergency Room in the last two years at 56.5% (69-70).	Utilization
		16	Survey respondents were asked in the last two years, if they or any of your family ever had difficulty getting access to health care providers in their neighborhood. 43.1% indicated that they had no difficulty getting access to providers in their neighborhood. The providers most often cited for access problems in the responses were dentists, doctors for basic care, prenatal care from a mid-wife/OB/GYN, pediatricians, and mental health providers (72).	Health Indicators

Resource	Primary Topic		Key Points	Category
		17	Issues that limited the ability of individuals to access healthcare included waiting too long to get an appointment (13.5%), lack of health insurance (12.2%), waiting too long at the appointment (9.6%), not being able to afford the bill (9.1%), insurance not paying for what was needed (7.6%), a health plan problem (6.2%), and not being able to find a doctor that took one's insurance (5.3%). There survey responses captured 16 other limits to accessing healthcare (74-75).	Health Indicators
		18	83% of survey responders indicated they had access to medication while 14% claimed they did not. 4% did not know or were unsure (77).	Health Indicators
		19	In this study, of the 301 respondents who indicated they had used the ER in the last two years, the highest percentage usage of ER visits by insurance coverage was: Medicaid (49.5% for self, 37.9% household), insurance by employer (13.6% self; 9.6% household), Medicare (9.6% self, 4.0% household), and no health insurance/self-pay (7.3% self, 3.7% household) (87).	Finance
		20	Lack of transportation to hospitals was indicated as a problem in focus groups. Stairs on the subway and walking long distances are difficult for those patients with disabilities who need transportation and do not get it (96).	Service Area
		21	Many focus group participants indicated a need for community education about medications because of the difficulty in understanding the paperwork that comes with prescriptions, especially when it is only in English (96).	Collaborative Efforts
		22	Need for more qualified interpreters or medical professionals that speak their language so that there is better communication and provide culturally competent and linguistically competent care (99).	Collaborative Efforts
		23	Many focus group participants indicated a differential treatment by insurance type (95).	Quality Improvement
		24	Many focus groups indicated lack of information about their health insurance plans which is seen as a barrier to care (109,111, 121).	Quality Improvement
		25	A focus group of pregnant mothers emphasized that long waiting times a problem particularly because of limits on food and beverage consumption in waiting areas (115).	Quality Improvement
		26	A focus group for LGBTQ patients indicated a lack of awareness and knowledge among health care providers about LGBTQ issues which not only hampers communication and good relationships with providers but also compliance. Brooklyn is not seen as a good place to seek care (121).	Patient Outreach
Brooklyn Healthcare Improvement Project (B-HIP)	Healthcare in Northern and Central Brooklyn	1	Northern and Central Brooklyn have the greatest need for improvement, as evidenced by poor health indicators (high prevalence of chronic diseases and rates of infant mortality) combined with acknowledged delivery system problems such as a shortage of accessible primary care providers as reported by HRSA. High rates of potentially preventable ED use and avoidable hospital admissions have also been observed (12).	General
		2	The majority of study area residents are enrolled in public insurance or are uninsured. An additional, unknown number are undocumented immigrants who are ineligible for public health insurance, but receive medical care in local emergency departments regardless of their ability to pay (12).	Finance
		3	Challenges to care coordination are present in a population that speaks over 35 languages, not including dialects, with more than two-thirds of residents speaking a language other than English at home (14).	Demographics
		4	In the study area, approximately 25% of the population is below the age of 18 13% higher than the state average. 23% of the study area population over 25 years of age has not graduated from high school 44% higher than the state average (14).	Demographics

Current Problems				
Resource	Primary Topic		Key Points	Category
		5	Health information is complex, so younger, linguistically isolated, less educated individuals are at a higher risk for conditions that should be treated in close coordination with primary care providers to avoid unnecessary ED usage and hospital admissions. Inefficient utilization imposes high cost in the long term on patients, their communities, and the healthcare delivery system (14).	Utilization
		6	Out of pocket healthcare costs are rising faster than income over time, placing a stress on lower income individuals who have been shown to ration care in response to budgetary constraints. This will be exacerbated as New York State completes its transition of all Medicaid fee-for-service beneficiaries into managed care a program that requires more cost sharing (15).	Finance
		7	22% of the study area has received food stamps/SNAP benefits in the past 12 months (15).	Demographics
		8	The study area contains several Health Professional Shortage Areas (HPSAs) and Medical Underserved Areas (MUAs) designated by the US Health Resources and Services Administration. 699 FTE primary care physicians serve a population of 1 million individuals, a ratio of one PCP per 1,502 lives (25).	Service Area
		9	There has been a 15% growth rate of the above 65 population in the study area. These individuals require more frequent PCP visits (25).	Demographics
		10	There are glaring disparities in healthcare utilization among the neighborhoods in Brooklyn. There is evidence that would suggest that fewer PCPs and higher ED usage within certain zip codes means that there may not be sufficient availability of PCPs in some areas and residents have chosen to use emergency departments as a primary care resource. For example, zip code 11217 (of Gowanus/Park Slope) is a relatively well off neighborhood with 1 PCP per 1,287 residents, 258 ED visits per 1,000 residents, and 46 discharges per 1,000 residents between 2007-2009. By comparison during the same period, in zip code 11212 (Brownsville), a mostly underserved population with 1 PCP per 2,203 residents, there were 478 ED visits per 1,000 residents and 210 discharges per 1,000 residents. Underlying health of the populations was not controlled for (26).	Utilization
		11	Out of the 11,623 total weekly operating hours for primary care locations in the study area, only 16% (1,892 hours) are on weekends or after 5:30pm during the week (27).	Service Area
		12	Expansion of evening hours would result in additional expenses related to security/safety measures and more staff compensation during more dangerous hours. Given a public payor mix skew in the area, reimbursement rates are not adequate to support such extra costs (28).	Finance
		13	Informal discussions between the coalition directing the study along with community groups point out that residents in the study area may not be fully utilizing the primary care that is available in the community (28).	Utilization
		14	Of the 11,008 respondents to the B-HIP survey, 43% (4,680 patients) came to the ED for reasons other than what they themselves considered to be an emergency (30). The percentage of uninsured patients who came to the ED for reasons other than what they themselves considered to be an emergency was actually higher 48% of the 1,990 uninsured patients (31).	Utilization
		15	Overall results of the survey indicate that patients in the survey area use the ED as a supplement to their primary care situationally regardless of whether they have commercial or public insurance coverage (31).	Utilization
		16	33% of all B-HIP survey respondents say they do not have a PCP and 5% do not know if they have a PCP. This is observed despite the fact that Medicaid managed care enrollees had to have chosen a PCP or have had one auto-assigned (32).	Utilization

the survey. 65% of these patients explained that they would go to another ED and only 15% would go to their PCP (32).

17 Patients presenting with non-emergent needs were asked where else they would go for care as an alternative to the ED they were currently in while filling out Utilization

Resource	Primary Topic		Key Points	Category
		18	17% of patients in the B-HIP survey stated that the ED is the place they always go to get their care (33).	Utilization
		19	Almost 50% of ED staff surveyed by B-HIP responded that 25% or less of the case they see in the ED are truly emergent (34).	Utilization
		20	The main concern for providing care to ED patients as identified by the majority of the ED staff survey responders seems to be related to the inadequate staffing of the ED with transporters, nurses, and technicians.	Human Resources
		21	Patients' perception of their own ED usage suggests that a large proportion of the population could be seen in a more appropriate venue but that available options are inadequate to address patient needs (35).	Utilization
		22	Regardless of insurance type, the majority of insured ED visitors for medical diagnoses (excluding injury, behavioral health, and substance abuse) have not seen their PCP within weeks to months prior to presenting in the ED. These patients have seen a PCP within the previous year but do not keep up with their follow-up appointments (36).	Utilization
		23	While the uninsured have been long been believed to be frequent users of the ED, both administrative and survey data reveal that the uninsured are not actually responsible for the majority of primary care-treatable of potentially preventable visits in the B-HIP area emergency departments surveyed. Rather, it is the Medicaid population that made up the majority of these types of visits (36).	Utilization
		24	Mapping of all discharges by hospital for B-HIP and non-B-HIP Brooklyn residents reveals that B-HIP patients are more likely to seek care at nearby hospitals to a greater degree than non-B-HIP area patients 79% versus 73%, respectively (38).	Utilization
		25	Females are less likely than males to be admitted as an inpatient for an ACS condition (ED visits without admissions). Black/African-American and Latinos/Hispanics have higher odds than white of admissions for an ACS condition. Accounting for poor English language skills did not influence these results (39).	Health Indicators
		26	Three B-HIP "hotspots" are located in communities with healthcare problems (and other challenges that are already well-known to local residents and in Brooklyn: Brownsville/East New York, Crown Heights/Bedford Stuyvesant, and Bushwick/Stuyvesant Heights. Together, these three hotspots represent 9% of all potentially preventable ED visits, 6% of all discharges, and 8% of all ACS condition discharges in Brooklyn with only 4% of the borough's population (41).	Utilization
		27	The rate of ED visits without admissions or (ACS condition) of 463 per 1,000 in Brownsville/East New York is more than double the Brooklyn-wide rate and more than triple the non-B-HIP study area rate (41).	Utilization
		28	ACS admissions in Brownsville/East New York, Crown Heights/Bedford Stuyvesant, and Bushwick/Stuyvesant Heights alone take a heavy financial toll on the health system. The average cost of the top 20 ACS admission types is \$9,833 per case at a cost of \$31 million annually.	Finance
		29	Currently there may not be adequate Health Home capacity to handle the B-HIP study area, where a large number of medically and behaviorally complex patients reside (49).	Service Area
		30	Out of pocket costs such as drug co-pays can discourage lower income patients from filling their prescriptions and reduce patients' willingness to start treatment for newly diagnosed chronic illnesses. These sicker patients utilize more costly and expensive treatments down the line (49).	Finance
		32	The B-HIP zip codes, like many other low income, urban areas, have some of the highest rates of diabetes in the nation. Yet to date, few institutions in New York City have been able to create self-supporting diabetes care centers (50).	Service Area

Resource	Primary Topic		Key Points	Category
Brookdale Hospital Community Service Plan 2009	Community Health Needs Assessment	1	In the hospital's service area, smoking rates for adults range from 13% to 22%, depending on the neighborhood. East New York (21%) and Central Brooklyn (22%) had smoking rates higher than the New York City (18%) and Brooklyn averages (19%) (4).	Health Indicators
1 Iaii 2003		2	The percentage of East New York (62%) and Flatbush (62%) adults who attempted to quit smoking are lower than the New York City (66%) and Brooklyn (65%) averages (5).	Health Indicators
		3	Colon cancer screening rates in Flatbush (42%), East New York (40%), and Central Brooklyn (36%) were below the citywide (47%) and Brooklyn (43%) rates (5).	Health Indicators
		4	Colorectal death rates in men are higher in Central Brooklyn (38 per 100,000), East New York (31 per 100,000), and Canarsie/Flatlands (27 per 100,000) than the New York City average (23 per 100,000) (6).	Health Indicators
		5	Colorectal death rates in women are higher in Central Brooklyn (21 per 100,000) and Canarsie/Flatlands (20 per 100,000) than the New York City average (17 per 100,000) (6).	Health Indicators
		6	Admissions for diabetes, hypertension, congestive heart failure, angina, chronic obstructive pulmonary disease, asthma, dehydration, pneumonia, and urinary tract infection (avoidable hospitalizations) are disproportionately higher in African Americans (7).	Utilization
		7	Closures of neighboring hospitals in 2009 Mary Immaculate and St. John's Queens Hospitals have increased crowding in emergency rooms and inpatient beds (11).	Utilization
The Brooklyn Hospital Center Community Service Plan 2012	Community Health Needs Assessment	1	The hospital needs to secure funding to embark on projects which expand access to primary care and facilitate easier navigation through hospital service areas (4).	Finance
		2	Community partnerships need to be established to support a collaborative approach healthcare delivery in Brooklyn in order to create a platform to provide population management and care integration among all healthcare providers (4).	Collaborative Efforts
		3	Community outreach programs targeting those neighborhoods identified as experiencing unmet need and lacking in primary care services are not established yet. These will provide free screenings, education, and foster partnerships with key health service agencies (4).	Collaborative Efforts
		4	Awareness of programs for uninsured and underinsured persons in the community is not high enough (5).	Patient Outreach
		5	Statistics from the NYSDOH and NYCDOH indicate that the population which the Brooklyn Hospital Center serves faces health disparities that surpass state and national averages in the areas of asthma, cancer, heart disease, and diabetes (5).	Health Indicators
Coney Island Hospital CHNA 2013	Community Health Needs Assessment	1	HHC hospitals provided a far higher proportion of care to self-pay (or uninsured) patients than any other single healthcare provider in New York City. In 2010, HHC acute care hospitals were the source of 37% of all uninsured inpatient discharges, 43% of uninsured ED visits, and 67% of uninsured clinic visits among all New York City hospitals. This volume of uninsured care translates out to approximately \$698 million in uncompensated care annually at HHC (3).	Finance
		2	In the Primary Service Area, the percentage of persons 65 and older is now 18%, significantly higher than the 11.4% for Brooklyn and 12% for all of New York City. The hospital serves the oldest population within HHC (5).	Demographics

Current Problems				
Resource	Primary Topic		Key Points	Category
		3	Navigating healthcare services is complicated by the fact that English is not the primary language of most patients treated by the hospital. These patients come from the former Soviet Union, South Asia, and China as well as Spanish-speaking countries. They tend to often have limited to no English skills and lack familiarity with the American healthcare system which can be very complex. Significant challenges are posted during care coordination when language barriers exist. This is critical concern for establishing treatment compliance for chronic diseases which require patients and providers to communicate effectively regarding the entire range of their care (6).	Demographics
		4	The burden of poverty within the service area is revealed by the population in the service area that receives income support. In 2011, the populations of the community districts that compose the service area (11, 13, 15) received income support at a rate between 35% and 47.4% (6).	Demographics
		5	The safety net burden for discharges, ED visits, and clinic visits is significantly higher than that of the average city voluntary hospitals or HHC hospitals. 48% of inpatient discharges, 41% of total ED visits, and 43% of outpatient clinic visits are reimbursed by Medicaid. Similarly, 32% of ED visits and 31% of clinic visits are classified as uninsured/self-pay which is much higher than the rates observed in non-HHC New York City hospitals 16% for Emergency Department visits and 11% for outpatient clinic visits(7).	Finance
		6	The primary and secondary service areas show elevated rates of Diabetes, Obesity, High Cholesterol, Hypertension, Asthma, and Adult Smoking compared to the New York City average (7).	Health Indicators
		7	Community Districts 13 and 15 show significantly higher death rates due to heart disease, malignant neoplasms, flu/pneumonia, CVA, chronic lower respiratory illness, diabetes, and suicide (7-8).	Health Indicators
Kings County Hospital CHNA 2013	Community Health Needs Assessment	1	There are two areas of clinical over-utilization: inpatient medicine with an occupancy rate of 101.64% and inpatient surgery with a 105.53% occupancy during FY 2012 (3).	Utilization
		2	HHC's commitment to caring for patients regardless of their ability to pay, ultimately gives it the highest "market share" of low-income, uninsured patients across New York City (3-4).	Finance
		3	HHC hospitals provided a far higher proportion of care to self-pay (or uninsured) patients than any other single healthcare provider in New York City. In 2010, HHC acute care hospitals were the source of 37% of all uninsured inpatient discharges, 43% of uninsured ED visits, and 67% of uninsured clinic visits among all New York City hospitals. This volume of uninsured care translates out to approximately \$698 million in uncompensated care annually at HHC (4).	Finance
		4	New York City Planning 2010 Population Data indicate that 26% of the primary service area residents of the hospital and 32% of the secondary service area residents speak a language other than English (5).	Demographics
		5	Fewer residents aged 25 and older have completed at least some college education compared to 42% in Brooklyn and 47% in New York City overall. For Central Brooklyn this rate is 38%, for East New York this rate is 28%, and for Flatbush this rate is 42% (5).	Demographics
		6	The percent of residents living below the poverty level is generally the same or higher than the Brooklyn and New York City averages of 25% and 21%, respectively. For Central Brooklyn the percent living below the poverty level is 31% and for East New York it is 34%. In Flatbush, the percent of residents living below the poverty level is the same as the New York City percentage but is lower than the Brooklyn percentage (5).	Demographics
		7	In Flatbush, residents were born outside of the United States at a rate (51%) higher than in Brooklyn and New York City 38% and 36%, respectively (5).	Demographics
		8	Significant health disparities are associated with race and ethnicity. Specifically, Black and Hispanic residents tend to exhibit disproportionately high rates of chronic diseases and negative health outcomes (5).	Health Indicators

Resource	Primary Topic		Key Points	Category
		9	Central Brooklyn patients are more likely to seek medical care at the hospital emergency department, at a rate of 13%, when compared to the overall rate of 8% for the city (5).	Utilization
		10	Lack of insurance contributes to non-compliance with prescription medications (5).	Demographics
		11	Socioeconomic factors create barriers to healthcare, and ultimately result in patients having less access to primary and preventive care services. When patients do seek care in the emergency department, the disease/condition has progressed to an advanced stage (5).	Utilization
		12	Central Brooklyn residents experience more barriers to healthcare access than city residents generally, with nearly 3 in 10 without a regular doctor (6).	Health Indicators
		13	Residents in Central Brooklyn have had a higher mental illness hospitalization rate over the past 10 years than in Brooklyn and in New York City overall (6).	Health Indicators
		14	Residents in Central Brooklyn observe a death rate due to HIV disease that remains twice as high as the city's HIV-related death rate even though the overall HIV disease death rate has decreased over the past decade (6).	Health Indicators
		15	More than 25% of adults in Flatbush are obese with more than half of adults reporting that they do no physical activity at all (6).	Health Indicators
		16	Mothers in Flatbush are less likely to get timely prenatal care resulting in babies more likely to be born with low birth weight than in New York City overall (6).	Health Indicators
		17	East New York adults have increased risk of developing heart disease, obesity, and diabetes. Heart disease hospitalizations are well above the citywide average, nearly one-third of adults are obese, and 16% have diabetes (6).	Health Indicators
		18	Infant mortality rates in the hospital service area are much higher than both Brooklyn and New York City overall. Brownsville (11.3 per 1000), East New York (9.5 per 1000), and Bedford Stuyvesant (8.7 per 1000) each observe greater infant morality rates per 1,000 live births from 2007-2009 than Brooklyn and New York City 5.2 and 5.4 per 1000, respectively (6).	Health Indicators
		19	The communities served by the hospital experience extremely high rates of mortality due to violence, with crude death rates several times higher than rates of New York City and Brooklyn. In 2009, these were 5.9 and 7.9 for New York City and Brooklyn respectively compared to 22.3, 19.3, and 18.0 for Brownsville, East New York, and Bedford Stuyvesant, respectively (6).	Demographics
		20	Bedford Stuyvesant and East New York, part of the hospital's primary and secondary service areas, have received health professional shortage area (HPSA) designations for their lack of primary care services (6).	Service Area
Kingsbrook Jewish Medical Center Community Service Plan 2011	Community Health Needs Assessment	1	Residents in the service region of the hospital face health disparities that surpass state and national averages for diabetes, stroke, hypertension, and asthma (1).	Health Indicators
		2	There is a need to advance prevention and avoidance of behaviors that expose individuals to HIV (2).	Health Indicators
		3	Access to screenings for chronic diseases needs to be enhanced (3).	Health Indicators

Resource	Primary Topic		Key Points	Category
		4	Local provider and community awareness about the benefits of palliative care needs to be improved (6).	Patient Outreach
Lutheran HealthCare Community Service Plan 2012	Community Health Needs Assessment	1	The hospital must expand primary care capacity to limit the barriers to primary care to assist in lowering emergency room visits and wait times (2-3).	Utilization
		2	The hospital must establish a school-based oral health program because of limited access observed in the community (3).	Collaborative Efforts
		3	The hospital must cater to the needs of its residents in a culturally sensitive manner (3).	Patient Outreach
		4	Hospitals must limit barriers particularly when it comes to insurance enrollment (4).	Finance
		5	The hospital cannot increase access to screening services without collaborating with community organizations to increase their utilization (4).	Collaborative Efforts
		6	There are numerous barriers to colonoscopy screening for Lutheran's patient population, particularly men. Only 20% of LHC's male patients receive colonoscopy screenings (5).	Health Indicators
		7	The hospital must foster more effective communication between patient and the clinical care team (6).	Patient Outreach
		8	Lutheran must improve the patients' health outcomes particularly for chronic diseases and conditions such as diabetes and high blood pressure (6).	Health Indicators
		9	Expanding insurance enrollment outreach efforts into the Emergency Room episodic users of healthcare services is traditionally very difficult to address (14).	Finance
		10	Sunset Park, a neighborhood in the service area of Lutheran, has the third highest teen birth rate (108 per 1,000 in 11232 and 96 per 1,000 in 11220) and second highest adolescent abortion rate in Brooklyn (8).	Health Indicators
		11	Measurement is needed to accurately gauge performance of sites and the organization as a whole (10).	Institutional Governance
Maimonides Medical Center Community Service Plan 2011	Community Health Needs Assessment	1	The hospital needs to actively engage medical staff, community leaders, community organizations, and health service delivery partners in discussions on improving coordination and access to services (1).	Collaborative Efforts
		2	Regular discussion of community health needs are necessary to properly serve the community (2).	Collaborative Efforts
		3	Appropriate utilization of emergency services is a community health need (2).	Utilization

Resource	Primary Topic		Key Points	Category
		4	Patients and families pose a challenge to staff administering financial aid policies to establish eligibility (5).	Finance
New York Community Hospital Community Service Plan 2009	Community Health Needs Assessment	1	The hospital needs to find ways to better serve patients and foster a dialogue with the community (12).	Collaborative Efforts
		2	The hospital has observed that the website needs to be re-designed because it is not easy for the community to use it as a resource and feedback tool (13).	Patient Outreach
		3	Tobacco use is widely prevalent among all age groups in the community, and is a deeply entrenched, culturally accepted practice among new immigrant groups. This leads to preventable morbidity and mortality (15).	Health Indicators
		4	Diabetes and other chronic diseases are highly prevalent in the elderly population served by the hospital particularly diabetes, coronary artery disease, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD) (16).	Health Indicators
		5	Patients do not appreciate the nature of their illness and the importance of compliance with medication and dietary instructions in the case of diabetes.	Patient Outreach
		6	The hospital needs to improve its readiness for public health crises including natural disasters, infectious diseases, or man-made disasters that would affect a large number of individuals. Does the institution understand all the hazards it must plan for and can it maintain operations to provide essential services that community needs? (17)	
		7	The hospital needs to create linkages for youths in the community (22).	Collaborative Efforts
New York Methodist Hospital Community Service Plan 2012	Community Health Needs Assessment	1	The hospital was not doing enough to educate and council patients at risk or diagnosed with diabetes (3).	Patient Outreach
		2	The hospital was not doing enough to educate mothers about breast feeding and motivating them to breastfeed at least some of the time (3).	Patient Outreach
		3	30-day readmission rates for the hospital's CHF patients were observed to be at a high of approximately 30% several years ago (3).	Care Management
		4	The hospital's public website was not optimized to serve the community (3).	Patient Outreach
		5	The hospital was not emphasizing social media to engage the community (3).	Patient Outreach
		6	Patients struggle to access healthcare in the community (8).	General
		7	The hospital needs to improve health education for patients and community residents (2).	Collaborative Efforts

Resource	Primary Topic		Key Points	Category
		8	The hospital has observed an increased number of appeals for financial aid because patients are opting for higher deductible/co-payment insurance plans (9).	Finance
Woodhull Medical Center CHNA 2013	Community Health Needs Assessment	1	Hospital is located in a federally designated primary care Health Professional Shortage Area (3).	Service Area
		2	A significant portion of households surrounding Woodhull Medical Center continue to suffer from poverty, low levels of education, and poor health status (5).	Demographics
		3	66% of discharges, 51% of ED visits, and 48% of outpatient primary care visits are reimbursed by Medicaid. 9% of discharges, 33% of ED visits, and 35% of outpatient primary care visits are reimbursed by Medicaid. These rates are much higher than the citywide average (3, 5).	f Finance
		4	Many adults in the hospital's service area have not attained high levels of education. 33% of primary service area adults and 24% service area adults have not completed high school (6).	Demographics
		5	Service area residents have higher rates of diabetes, obesity, hypertension, asthma, and tobacco use than NYC as a whole (6).	Health Indicators
		6	English is not the primary language for a large number of hospital service area residents. This poses significant challenges to coordinating care and services (7).	s Demographics
		7	Communities served by the hospital are impoverished with over 26% of all families and over 35% of families with children living below Federal poverty guidelines (7).	Demographics
		8	There are four hospital in or near the hospital's service area (Wyckoff, Interfaith, Brooklyn Hospital, and Brookdale) each with financial troubles. If either were to close services or close completely, Woodhull would face increased demand for all of its services (9).	Finance
		9	699 FTE primary care physicians are in the service area of the hospital. While a large number, these physicians as a group do not sufficiently support the population's need for primary care services (10).	Service Area
		10	The obesity rate in the hospital's primary service area is 28.6% which is higher than 23.7% citywide. Some neighborhoods in the service area have obesity rates as high as 36.6% (15).	Health Indicators
		11	Rate of psychiatric discharges per 1,000 patients is higher in the service area than in Brooklyn and NYC (16).	Health Indicators
		12	The rate of diabetes in the Woodhull Medical Center service area is 11.1% compared to 10.5% in NYC (17).	Health Indicators
Wyckoff Heights Medical Center Community Service Plan 2011	Community Health Needs Assessment	1	Many hospitals are experiencing significant reductions in resources and services (11).	General
		2	High incidence of wounds due to type 2 diabetes in the community the hospital serves (11).	Health Indicators

Brooklyn Healthcare Delivery System Current Problems

Resource	Primary Topic	3	Key Points High prevalence of cardiovascular disease in service area and severity of coronary artery disease is much higher than other areas (12).	Category Health Indicators
		4	Low patient satisfaction scores in the Emergency Department (18).	Quality Improvement
		5	Elderly patients mostly suffer from multiple illnesses and functional decline, leaving them unable to access appropriate healthcare because they are homebound (21).	Health Indicators
		6	High rate of low birth weight and poor health outcomes for babies in the community(32).	Health Indicators
		7	High prevalence of obesity in WIC population of the community (34).	Health Indicators
		8	A large portion of the patients Wyckoff serves are indigent and some 10% of patients are completely uninsured (40).	Finance