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A Regional Health Collaborative Formed By NewYork-Presbyterian Aims To Improve The Health Of A Largely Hispanic Community

ABSTRACT Communities of poor, low-income immigrants with limited English proficiency and disproportionate health burdens pose unique challenges to health providers and policy makers. NewYork-Presbyterian Hospital developed the Regional Health Collaborative, a population-based health care model to improve the health of the residents of Washington Heights–Inwood. This area is a predominantly Hispanic community in New York City with high rates of asthma, diabetes, heart disease, and depression. NewYork-Presbyterian created an integrated network of patient-centered medical homes to form a "medical village" linked to other providers and community-based resources. The initiative set out to document the priority health needs of the community, target high-prevalence conditions, improve cultural competence among providers, and introduce integrated information systems across care sites. The first six months of the program demonstrated a significant 9.2 percent decline in emergency department visits for ambulatory care–sensitive conditions and a 5.8 percent decrease in hospitalizations that was not statistically significant. This initiative offers a model for other urban academic medical centers to better serve populations facing social and cultural barriers to care.

A population-based model of health and health care encompasses the ability to assess the health needs of a specific population; implement and evaluate interventions to improve that population's health; and provide care for individual patients in the context of the population's culture, health status, and health needs.[1] NewYork-Presbyterian Hospital, in association with the Columbia University Medical Center, has developed a population-based, collaborative model of regional health planning and care coordination designed to measurably improve health and reduce disparities.

This model, called the NewYork-Presbyterian Regional Health Collaborative, aligns services to meet the documented health needs of the local community by incorporating cultural competency, using information systems such as electronic health records and disease registries, and coordinating care across the continuum. The collaborative encompasses the entire neighborhood of Washington Heights–Inwood, in upper Manhattan, to help improve the health of the community by reducing health disparities at both the individual and population levels. The goal is to uniformly enhance and align the health care systems throughout the neighborhood to improve overall access and quality for the entire population.

In 2008—recognizing that the residents in its community were experiencing gaps in care and

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unmet needs in the context of escalating health costs—NewYork-Presbyterian initiated a major review of the health care delivery model. The goal was to create a system of care modeled on the concept of population-based health. The hospital wanted the system to meet identified needs of the community; improve access to care; and coordinate care for each patient, wherever he or she received care.

The hospital reviewed the services it provided and conducted a formal health needs assessment of the community, using existing health and census data and feedback from community groups, staff physicians and nurses, and groups of physicians unaffiliated with NewYork-Presbyterian. The hospital and Columbia University Medical Center developed a rational, coordinated system to deliver care to the community and agreed to monitor progress through measurable outcomes. The transformed system launched in October 2010.

Background

THE HOSPITAL NewYork-Presbyterian Hospital is a 2,278-bed academic medical center that provides patient care, teaching, research, and community service to a large and diverse population in New York City. It is the teaching hospital for two major universities, Columbia University College of Physicians and Surgeons and Weill Cornell Medical College. The hospital's attending physicians are employed directly by the two medical schools. NewYork-Presbyterian Hospital's facilities are spread across five campuses in the New York City area.

Although much of the discussion around national health care reform has focused on features of integrated delivery systems—as exemplified by Mayo Clinic, Geisinger Health System, and Kaiser Permanente—the great majority of hospitals in the United States are not organized as integrated systems. Most traditional academic medical centers, like NewYork-Presbyterian, serve the complex needs of people living in their service areas by providing care through a hospital and several off-site clinics. Many patients use hospitals' emergency departments for routine care.

In 2010 NewYork-Presbyterian provided care in 1.8 million outpatient visits and discharged more than 117,000 inpatients. More than 40 percent of the outpatient visits came through the Ambulatory Care Network, which includes the hospital and seven stand-alone community health center practices in the Washington Heights–Inwood area. The clinics treat a predominantly Hispanic population with public insurance (Exhibit 1).[2]

THE COMMUNITY According to information from the New York State Department of Health, NewYork-Presbyterian serves more than 60 percent of the 270,000 residents of Washington Heights–Inwood, a community geographically bounded by the Hudson and Harlem Rivers. Most of the residents are poor, Spanish-speaking immigrants who face socioeconomic and health disparities compared to residents of other parts of Manhattan and New York City (Exhibit 2).[3–5] Consequently, taking the residents' culture, language, and health literacy into account plays an important role in efforts to meet health needs and reduce health disparities in this community.

Study Data And Methods

GATHERING INFORMATION As noted above, in 2008 NewYork-Presbyterian completed a comprehensive qualitative and quantitative community health needs assessment, which updated a study conducted in 2006.[5,6] The new study analyzed structural, cognitive, and health care access barriers related to health knowledge among community residents, as well as cross-cultural communication needs among community residents and providers.[7] Data were obtained from the Census Bureau, the New York City Department of Health and Mental Health, and existing studies and surveys. Focus groups and interviews with key informants—including members of existing community- and faith-based groups—provided input on the residents' perceptions of their health needs.

These analyses identified prevalent chronic diseases and needed preventive services. The result was clinical and population health protocols that are consistent with nationally recognized evidence-based standards and guidelines.

THE COLLABORATIVE The NewYork-Presbyterian Regional Health Collaborative is an ongoing effort that began in 2008 and has gone through four developmental phases. Phase 1 lasted one year and involved more than 140 multidisciplinary participants at NewYork-Presbyterian Hospital, Columbia University, and two organizations of independent community physicians. Together these organizations developed recommendations based on health needs, access barriers, and structural challenges and identified key areas of improvement that the collaborative would focus on. The targeted areas were cultural competency, information technology, access to care, and the patient-centered medical home.

In phase 2, which lasted six months, the groups developed program recommendations, defined resource and cost challenges, and identified initial strategies for implementation. Rec-

ognizing that access to care was a recurring theme, the groups recommended developing a patient-centered medical home model at New York-Presbyterian.

Implementation began during 2010, in phase 3, as process and outcome measures and emergency department and inpatient hospital utilization metrics were established to monitor and track progress. Phase 4 began in 2011, with the goals of providing complete care coordination across the continuum of services and supporting the conversion of community physician practices into patient-centered medical homes. This phase is expected to last well into 2012.

Strategies And Programs

Four multiyear strategies were formulated to address the findings of the 2008 study, as follows: establishing patient-centered medical homes; exchanging health information; implementing a targeted care intervention; and creating a "medical village"—or interlinked medical homes connected to other health care providers, such as hospitals, as well as additional community resources, such as home care providers. The strategies are discussed below.

ESTABLISHING PATIENT-CENTERED MEDICAL HOMES

▶ **TRANSFORMING CLINICS INTO MEDICAL HOMES:** Based on recommendations from phases 1 and 2 of the collaborative, NewYork-Presbyterian adopted the National Committee for Quality Assurance's patient-centered medical home model[8] for the Ambulatory Care Network practices and school-based health centers. The yearlong implementation phase—phase 3—included a site-specific analysis of the gaps in care at each primary care clinic in the Ambulatory Care Network. Key internal and external stakeholders—such as hospital leaders, students from Columbia's Mailman School of Public Health, and members of the community—conducted the analyses, which also assessed each clinic's readiness to meet National Committee for Quality Assurance standards for becoming a patient-centered medical home.

Diabetes mellitus, congestive heart failure, asthma, and depression were identified as the four conditions to be targeted during the first stage of implementing the patient-centered medical home model. These four were chosen based on the 2008 health needs assessment and the documented prevalence of the conditions at each clinic.

A multidisciplinary group of approximately fifteen hospital leaders—including physicians and staff members from information technology, nursing, quality, and strategy departments—met for eight months to lead the implementation of the patient-centered medical home model across the network of clinics. The first step was to design and integrate information technology dashboards with up-to-date patient information summaries and a registry—an aggregate clinical data repository that allows for trend analysis and data reporting—into clinicians' work flows.

Next, patient flow within each clinic and between centers of care was redesigned to accommodate a patient-centered approach that incorporated disease and population management

EXHIBIT 1

Demographic Characteristics Of Ambulatory Care Network Patients At NewYork-Presbyterian Hospital, 2008

Characteristic	Percent
RACE/ETHNICITY	
Hispanic	68
Black	13
Non-Hispanic white	8
Other	11
	11
PAYER	
Medicaid	60
Medicare	18
Self-pay	11
Private insurance	6
Other	5

SOURCE Note 3 in text.

EXHIBIT 2

Demographic Characteristics Of Residents Of Washington Heights–Inwood And New York City, 2000

Characteristic	Washington Heights–Inwood	New York City
RACE/ETHNICITY		
Hispanic	76%	27%
White non-Hispanic	14	35
Black/African American non-Hispanic	8	24
Asian/Pacific Islander	2	10
LITERACY AND EDUCATION		
Born outside United States	50	36
Speak Spanish at home	62	48
Less than 9th grade education[a]	23	10
INCOME		
Median household income	$28,865	$38,293
Unemployment rate	14.5%	9.6%
Percent with household income below federal poverty level	30	21

SOURCES Notes 6 and 7 in text. **NOTES** Not all percentages sum to 100 because of rounding. New York City includes Washington Heights–Inwood. [a]For those over age twenty-five.

strategies. Multidisciplinary care teams were established, and all team members were trained in cultural competency and the use of the new electronic dashboards and registry.

All patients with diabetes, asthma, congestive heart failure, or depression were automatically entered into a disease registry and were followed longitudinally in accordance with evidence-based clinical guidelines. Depression screening was highlighted and integrated into the disease registry. Patient education was expanded and targeted according to the clinical severity of each patient's condition.

▶ **THE MEDICAL HOME DESIGNATION:** The National Committee for Quality Assurance has designated NewYork-Presbyterian's seven community-based ambulatory care centers as level 3 patient-centered medical homes. This designation is the highest level of patient-centered medical homes and is based on specific criteria that reflect the organization's evidence-based and coordinated primary care patient-centered medical home services.[8] Another eight Washington Heights–Inwood school-based health centers are preparing to apply for this designation. New York-Presbyterian is one of the very few US academic medical centers to have large networks of level 3 patient-centered medical homes—an achievement emblematic of the high-quality care provided to the Washington Heights–Inwood community.

The complete set of patient-centered medical home services became fully operational at all seven clinics October 4, 2010. This is considered the "patient-centered medical home initiation date"—the time when patients had access to the enhanced and coordinated services of the patient-centered medical home.

▶ **RELATED GOALS:** Improving access was identified as a major need, so several initiatives targeted this. The existing decentralized call centers where patients scheduled appointments, learned test results, and received follow-up information were transformed to a centralized contact center for information and appointment scheduling. Over a five-month period, the number of repeat calls from patients fell because service was improved and more problems were resolved in initial calls. NewYork-Presbyterian worked with community health workers to identify and communicate with people who might be eligible for, but not enrolled in, the Children's Health Insurance Program or Medicaid, or who might not be receiving services for which they were eligible.

Another goal of the initiative was to improve cultural competency, specifically across the Ambulatory Care Network and in the emergency department. The 2009 National Quality Forum framework and seven domains of cultural competency guided the programmatic efforts and led to employing bilingual and bicultural community health workers and "navigators" of the health system to help provide culturally competent care.[9]

NewYork-Presbyterian implemented a four-hour training program that used a skills-based and patient-based approach, aimed at building a workforce that could address the linguistic, cultural, and health literacy needs of patients.[10] As of May 2011 approximately 1,100 employees in the emergency department and Ambulatory Care Network had received this training.

The hospital also set up an Office of Care Management—initially focused on managing the four targeted conditions—where culturally competent nursing staff guided patients across inpatient and outpatient settings and oversaw their transitions of care. This office contacts patients who are admitted to NewYork-Presbyterian and makes follow-up appointments for them at their patient-centered medical homes. Care managers also follow the disease registry in order to identify adverse patterns of utilization and clinical indicators—such as repeat visits to the emergency department, underuse of hemoglobin A1c diabetes tests, or abnormally high values of hemoglobin A1c—and intervene as appropriate.

EXCHANGING HEALTH INFORMATION Information technology solutions have included the development of a personal health record for each patient, patient-specific disease dashboards, and a population-based disease registry. The personal health record allows patients to view their medical records and access medical information on any electronic device that connects to the Internet. The disease dashboards automatically pull data such as critical laboratory and clinical values, inpatient admissions, emergency department visits, and past clinic visits from NewYork-Presbyterian's information technology systems, including the electronic health record, clinical labs, and patient registration systems.

These dashboards give patient care teams a longitudinal snapshot of an individual patient over time. They also alert clinicians who are caring for a patient when examinations, tests, or screenings are pending or overdue, thus ensuring timely and appropriate evidence-based therapeutic and preventive interventions.

The same electronic health record is used throughout the Ambulatory Care Network and the hospital, allowing for a seamless flow of information across transitions of care. There are electronic population-based disease dashboards for all ambulatory care patients with a primary or secondary diagnosis of diabetes mellitus,

asthma, congestive heart failure, or a combination of these three targeted conditions who visited one of the seven ambulatory care clinics on or after January 1, 2010. Depression screening has been incorporated into all three disease dashboards and the disease registry to facilitate treatment and care management. A comprehensive list of data fields for depression is currently under development.

Between October 2010 and July 2011, 7,731 patients with diabetes, 2,030 with congestive heart failure, and 6,550 with asthma were added to the registry. The registry captures vital patient-centered medical home and care management data, such as visits to school-based health centers or the emergency department, inpatient admissions, blood pressure, and levels of hemoglobin A1c and low-density lipoproteins (LDL), or "bad" cholesterol.

The same protocols, standards, and evaluation methodologies are applied to each patient. The registry is built and managed by an information technology team at NewYork-Presbyterian, but it is designed to allow disease management and care teams to study specific populations in the database independently. This allows providers to identify specific high-risk patients or groups of patients and proactively direct them to care at the patient-centered medical homes, which avoids unnecessary emergency department visits and hospitalizations.

IMPLEMENTING THE TARGETED CARE INTERVENTION To better meet the needs of chronically ill adult patients with multiple conditions, the initiative also included a targeted care intervention that identified the causes of frequent readmissions and excess use of the emergency department. NewYork-Presbyterian conducted a detailed analysis of historical patient utilization data to assess readmission risk, using a model developed by John Billings and colleagues to identify patients at high risk of readmission to a hospital in the next twelve months.[11]

A "root cause analysis" that included chart and patient reviews and physician focus groups for a sample of 273 high-use patients identified the following as major contributors to costs: multiple medications; care involving multiple providers, which can be highly fragmented and uncoordinated; lack of a primary care physician; and inadequate management of care transitions. Further chart analysis indicated that high rates of depression, social problems such as homelessness, and cultural and language barriers were common among frequent users of hospital services.

Substantial evidence suggests that there are opportunities to improve quality and reduce costs by improving the management of care transitions, matching patients to a patient-centered medical home, and other care management strategies, many of which are being implemented through the NewYork-Presbyterian Regional Health Collaborative.[12]

Consequently, the targeted care intervention focused on the critical hospital-to-home transition period to minimize preventable readmissions. The three major elements of the targeted care intervention model were comprehensive discharge planning, beginning when a patient is admitted or arrives at the emergency department; management of transitions of care, including a home visit, by a rapid-access team consisting of a nurse practitioner or nurse and community health worker; and linking the patient with a patient-centered medical home.

The intervention incorporated elements that had proved to be effective at NewYork-Presbyterian, such as the use of community health workers to help reinforce patient education and providing ongoing support and monitoring after discharge. In addition, the design of the intervention adopted key elements of Mary Naylor and colleagues' transitional care model and Eric Coleman and colleagues' care transitions intervention.[13,14]

CREATING A MEDICAL VILLAGE A *medical village*, according to the NewYork-Presbyterian Regional Health Collaborative, is a geographically defined community with a number of patient-centered medical homes linked to other providers and community-based resources. The concept has been described previously in the health care literature.[15]

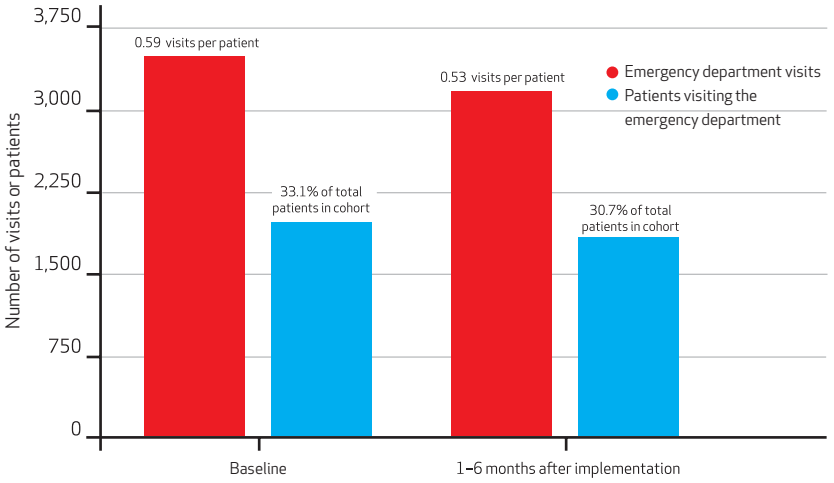
The first goal of NewYork-Presbyterian's medical village in Washington Heights–Inwood was to collaborate with the New York City and State health departments to help local physician practices adopt electronic health record systems, transform themselves into patient-centered medical homes, and establish health information exchanges. NewYork-Presbyterian has developed a Spanish-language personal health record[16] and is preparing to disseminate it across the medical village in 2012. Multiple community service efforts, described in the online Appendix,[17] add to the impact of the medical village.

Study Results

Preliminary utilization results for patients in the existing disease registry—for diabetes mellitus, congestive heart failure, and asthma—seen during October 2010 indicate decreased emergency department visits for ambulatory care–sensitive conditions—diagnoses best dealt with in an outpatient setting—and hospitalizations during the six months after the patient-centered medical

EXHIBIT 3

Emergency Department Use By Patients With Diabetes, Asthma, Or Congestive Heart Failure, NewYork-Presbyterian Hospital, 2010–11



SOURCE NewYork-Presbyterian Hospital disease registry. **NOTES** "Baseline" is utilization in the six months before October 2010, when the patient-centered medical home model was implemented.

home model was implemented (Exhibits 3 and 4).

NewYork-Presbyterian plans to use the prevention quality indicators developed by the Agency for Healthcare Research and Quality[18] to measure the quality of care provided by the hospital's health care system and the overall health of community residents. The indicators are a set of metrics that measure hospital inpatient admissions for diagnoses of ambulatory care sensitive conditions. Because there is a one-year lag in New York State reporting of hospital discharges, the indicators were not available for this population at the time this article was written.

For the purpose of data analysis, we assigned patients to a cohort based on their first date of service in one of the seven patient-centered medical homes on or after October 4, 2010. The baseline data in Exhibits 3 and 4 include the number of emergency department visits and hospitalizations at NewYork-Presbyterian within the six months preceding the first patient-centered medical home visit—that is, the start of the cohort time period. Similarly, emergency department visits and hospitalizations after implementation are those during the six months after the start of the cohort time period.

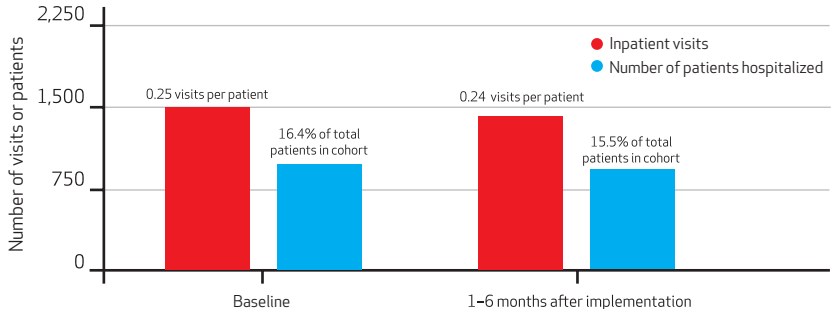
The October 2010 cohort ($N = 5,963$ patients) is the first group for which we have six months of utilization data since the implementation of the patient-centered medical home model (Exhibit 5). Baseline utilization for this group was a mean of 0.59 visits per patient in the cohort to the emergency department (standard deviation: 1.176; 95% confidence interval: 1.15, 1.21). After implementation of the patient-centered medical home model, emergency department use for this group decreased 9.2 percent, to a mean of 0.53 visits per patient in the cohort (standard deviation: 1.083; 95% confidence interval: 1.06, 1.11, $p = 0.001$), a significant difference. During the same period, hospitalizations for the 2010 cohort dropped from 1,503 to 1,416—a 5.8 percent decrease ($p = 0.25$), which was not a significant difference.

Six months before the patient-centered medical home model was implemented, 1,971 patients in this cohort went to the emergency department. They made 3,500 visits, or 1.8 visits per patient. However, in the six months after implementation, 143 fewer patients in the cohort sought emergency department services. In addition, they made only 1.7 visits per patient during that period (Exhibits 3 and 4).

Although the early results of the NewYork-Presbyterian Regional Health Collaborative are promising in terms of the number of visits to the emergency department, they represent only a six-month period after the implementation of the patient-centered medical home model. To verify the collaborative's success, we will need data from a longer period and from more cohorts. The reductions in hospitalizations and emergency department use described above correlate with evidence from other patient-centered medical home interventions.[19]

EXHIBIT 4

Hospitalizations Of Patients With Diabetes, Asthma, Or Congestive Heart Failure, NewYork-Presbyterian Hospital, 2010–11



SOURCE NewYork-Presbyterian Hospital disease registry. **NOTES** "Baseline" is hospitalizations in the six months before October 2010, when the patient-centered medical home model was implemented.

Discussion And Conclusion

FINANCIAL IMPLICATIONS The NewYork-Presbyterian Regional Health Collaborative has required a large commitment of staff resources and involved the participation of more than

140 multidisciplinary staff members at NewYork-Presbyterian and Columbia University. Work groups of ten to fifteen staff members at the manager or director level were cochaired by a senior hospital leader and senior physician and met biweekly for the first three phases.

NewYork-Presbyterian incurred direct costs of approximately $1.7 million during the first three phases of the collaborative. The costs were primarily associated with implementing and maintaining the patient-centered medical homes. However, the hospital expects to receive $3.3 million from New York State's patient-centered medical home revenue enhancement fund. Additional costs include interpretation services, which were covered by NewYork-Presbyterian's overall operating budget; and information technology dashboards and registries, which were funded by the hospital's capital budget and grants. This study could not quantify revenue losses.

CHALLENGES Over the course of the NewYork-Presbyterian Regional Health Collaborative, the hospital faced numerous challenges. For example, the initiative was a new concept for the hospital, involved many key stakeholders, and required teamwork and cooperation to go from formulating strategies to executing them. The hospital's senior leaders fully supported the collaborative. Other staff members' collaboration was obtained by including people from various disciplines across the institution in goal-oriented work groups and training sessions

In addition, the patient-centered medical home required a change in clinical practice and behavior. The development and use of dashboards and a registry, in particular, involved the implementation of multidisciplinary care teams and the institution of "previsit planning." The teams established protocols to review the patient's care needs according to clinical guidelines before the day of the visit. These new functions and roles as well as other changes in the clinical workflow required training and reinforcement.

CONCLUSION The NewYork-Presbyterian Regional Health Collaborative was designed to improve health, reduce disparities, and control costs by providing culturally competent, patient-centered care; coordinating population health services; and targeting high-cost patients for case management. The collaborative provides a model for quality health care and cost control to the thousands of US hospitals that are not part of integrated health delivery systems.

The collaborative targeted the documented needs of and health care barriers faced by community residents. It combined patient-centered medical homes into a medical village. This medical village is characterized by care coordination, an extensive information technology infrastructure, a wide variety of community-based health promotion and disease prevention projects, and collaboration with the independent local physicians.

Early results from the first six months after the implementation of the patient-centered medical home model show a significant reduction in the number of emergency department visits by patients in the disease registry for diabetes mellitus, asthma, and congestive heart failure—three ambulatory care–sensitive conditions. Although there was also a reduction in the number of hospitalizations, that was not a significant change.

The NewYork-Presbyterian Regional Health Collaborative model is relevant to national health reform efforts because it illustrates an effective means of coordinating care for a poor, immigrant community. The model also included a targeted care intervention that provided support and care coordination to patients who were considered cost outliers because of disease complexity and poor coordination of care by multiple providers.

In sum, the NewYork-Presbyterian Regional Health Collaborative is a population-based model that can uniformly improve quality for all patients and reduce disparities by improving overall access and quality. The initiative was based on the commitment of an academic medical center to better serve urban populations facing social and cultural barriers, and the center's leadership and organizational capacity to plan, guide, and sustain multifaceted efforts in collaboration with community-based collaborators. It is replicable and scalable, and it could meet the needs of many underserved communities across the United States. ■

EXHIBIT 5

Disease Distribution Among Patients With Diabetes, Asthma, Or Congestive Heart Failure, NewYork-Presbyterian Hospital, 2010

Disease	Number of patients
CHRONIC CONDITION (SINGLE DISEASE)	
Asthma	1,846
Congestive heart failure	437
Diabetes	2,679
CHRONIC CONDITIONS (MORE THAN ONE DISEASE)	
Asthma, congestive heart failure	48
Diabetes, asthma	423
Diabetes, congestive heart failure	449
Asthma, diabetes, congestive heart failure	81

SOURCE New York-Presbyterian Hospital disease registry. **NOTE** Patients are those in the October 2010 cohort ($N = 5,963$), who had their first date of service in one of the seven patient-centered medical homes between October 4 and October 31, 2010.

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In this month's *Health Affairs*, Emilio Carrillo and colleagues at NewYork-Presbyterian Hospital (NYP) in New York City describe the Regional Health Collaborative, an integrated network of patient-centered medical homes that aimed to improve the health of the residents of a low-income neighborhood in upper Manhattan.

By undertaking such changes as targeting high-prevalence conditions and installing integrated information systems, the collaborative produced a decline in the use of the emergency department in Washington Heights–Inwood, a predominantly Hispanic community, as well as a 5.8 percent decrease in hospitalizations.

Carrillo is vice president of community health at NYP and has led the collaborative. "We wanted to make an academic medical center an enabler of health in the community by collaborating with the community," he says. "You sometimes hear that working with health care providers is like herding cats, but that wasn't our experience. Lots of people came together to make this work. The [information technology] programmers worked directly with the doctors to create tools they needed and wanted. The doctors themselves were very involved in organizing and changing systems. In fact, I have seldom encountered such a high level of support and engagement from a provider community."

Carrillo, who is also an associate professor of clinical public health and clinical medicine at Weill Cornell Medical College, has been a senior fellow in residence at the Robert Wood Johnson Foundation and coauthored a National Quality Forum (NQF) paper on measuring health care disparities. He serves on the NQF Care Coordination Steering Committee. For ten years Carrillo was on the faculties of Harvard's Medical School and School of Public Health. He received medical and master of public health degrees from Harvard.

Nida Shabbir Shekhani is a manager in the Office of Strategy at NewYork-Presbyterian Hospital.

Nida Shekhani is a manager in the Office of Strategy at NYP. She holds a master's degree in public health policy and management from the Mailman School of Public Health at Columbia University.

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Emme Deland is senior vice president for strategy at NYP, where she is responsible for developing both clinical and corporate strategic plans. She obtained a master of business administration degree from Columbia University's Graduate School of Business.

Elaine M. Fleck is an associate clinical professor of medicine at NewYork-Presbyterian/Columbia.

Elaine Fleck is an associate clinical professor of medicine in the Ambulatory Care Network of NYP/Columbia and director of internal medicine for the network's primary care practices. She received her medical degree from Case Western Reserve University and her master of public health degree from the Mailman School.

Jaclyn Mucaria is senior vice president for ambulatory care and patient-centered services at NewYork-Presbyterian Hospital.

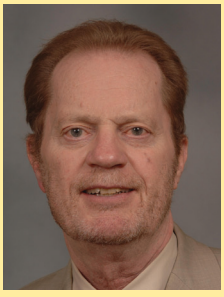
Jaclyn Mucaria is senior vice president for ambulatory care and patient-centered services at NYP. She received her master of public administration degree from New York University.

Robert Guimento is vice president for ambulatory care at NewYork-Presbyterian Hospital.

Robert Guimento is vice president for ambulatory care at NYP, where he is responsible for overseeing financial, operational, and strategic initiatives in ambulatory care across all campuses. He received a master's degree in health administration from Duke University.

Steven Kaplan is the chief medical director and quality and patient safety officer for ambulatory care at NewYork-Presbyterian Hospital.

Steven Kaplan is NYP's chief medical director and quality and patient safety officer for ambulatory care. In this role he oversees the clinical operational activities of fifteen primary care practices, seven school-based health centers, and more than sixty-five specialty care practices. A practicing physician, he is board certified in emergency medicine. Kaplan received his medical degree from Weill Cornell Medical College.



William A. Polf is senior vice president for external relations at NewYork-Presbyterian Hospital.

William Polf is senior vice president for external relations for NYP. He is responsible for government relations, marketing, media and public affairs, community affairs, grants, and intellectual property. He holds a doctorate in American history from Syracuse University.

Victor A. Carrillo is the director of community health development at NewYork-Presbyterian Hospital.

Victor Carrillo is the director of community health development at NYP. He holds a master of public administration degree from Pace University.

Herbert Pardes is executive vice chair of the board of trustees of NewYork-Presbyterian Hospital.

Herbert Pardes is executive vice chair of the board of trustees of NewYork-Presbyterian Hospital. Previously he was president and chief executive officer of the hospital and the NewYork-Presbyterian Healthcare System. Nationally recognized for his broad expertise in education, research, clinical care, and health policy, he is an ardent advocate of academic medical centers, humanistic care, and the power of technology and innovation to transform twenty-first-century medicine.

An elected member of the Institute of Medicine and the American Academy of Arts and Sciences, Pardes has earned the Institute of Medicine's Sarnat International Prize in Mental Health. He received his medical degree from the State University of New York's College of Medicine.

Steven J. Corwin is chief executive officer of NewYork-Presbyterian Hospital.

Steven Corwin was recently named chief executive officer of NewYork-Presbyterian Hospital. A cardiologist and internist, he has been with the hospital since 1979 and joined its management team in 1991. During his tenure as the hospital's executive vice president and chief operating officer, he launched the NewYork-Presbyterian Regional Health Collaborative. Corwin obtained his medical degree from Northwestern University.

Program or Campaign	Goal and Description
Healthy Children in the Heights	Regional Effort to Reduce Obesity in Collaboration with Local Schools, Elected Officials and Community Based Organizations
CHALK(Choosing Healthy and Active Lifestyles for Kids)	Social Marketing Campaign to Reduce Childhood Obesity; Received Recognition by First Lady Michelle Obama; supported by New York City Department of Health and Mental Hygiene
Healthy Schools – Healthy Families	Exercise and Nutrition School Based in 7 Local Elementary and Middle Schools; launched with HRSA support
WIN for Asthma	Launched in 2003 with support from Merck Foundation; Care Management of Children with Asthma Using Bi-Cultural Community Health Workers
Pharmacy Assistance Program	Supports medication purchases for uninsured patients; HRSA funding
Heart Failure Program (Heinz, PhRMA)	Support patients with Heart Failure with medically trained Community Health Workers at home and in the community
Seniors living with Diabetes (United Hospital Fund, Bristol-Meyers Squibb)	Regional program to support seniors with diabetes that links with the New York City Department of Aging and Community-Based Organizations serving seniors
Building Bridges, Building Knowledge & Building Health Coalition	Collaborative comprised of Churches, Community Based Organizations, and academic institutions. Targets diabetes education and care in the community. Funded by New York State Department of Health and HHS Office of Women's Health. Utilizes Community Based Participatory Research Methodology.

Turn to Us	Childhood Violence Prevention, Derek Jeter Foundation
Single Stop	Support entitlement program enrollment; Governmental Health Insurance; Robin Hood Foundation
Parish Nursing Program	Establishes Wellness Programs in Churches
Local Industry Health Promotion and Disease Prevention Programs	Bodegueros (small food shops); Hair Salons and Barber Shops; Livery Cab Drivers; Domestic Workers
Reach Out and Read	Promotes early literacy; Bilingual and bicultural
School-Based Health Centers (SBHC)	The SBHCs operated by the Center for Community Health and Education provide a multidisciplinary service model that integrates primary care, mental health counseling and health education in seven NYP ACN sites which serve 15 Northern Manhattan intermediate and high schools. The sites are located at the George Washington Educational Campus, the Stitt Campus, the 143 Campus and the Inwood Community Campus in Washington Heights and the Percy Sutton Campus, Thurgood Marshall Academy and Promise Academy in Central Harlem. Student patients incur no charges for the care that they receive from licensed providers.

Table 2: NewYork-Presbyterian Disease Prevention Initiatives
Source: The Community of Care: Serving the Needs of the Community, NewYork-Presbyterian Hospital. 2008. Available from: http://nyp.org/csp.