Patient-Centered Primary Care COLLABORATIVE

eHealth Innovation Profile:

Maximizing Care Teams and Health IT to Improve Patient Care

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Union Health Center
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Over the past several years, health information technology ("eHealth) has been increasingly recognized as a critical tool to support providers and practices in achieving the Triple Aim goals of better care, better health, and lower costs. While eHealth can be effective on its own, a truly patient-centered medical home will consistently use eHealth tools, capabilities, and even payment reforms to maximize quality improvement opportunities. These strategies include using tools such as electronic health records, patient portals, and patient registries to coordinate care, manage chronically ill patients, exchange patient health information, and manage populations. [i]

In this *"eHealth Innovation Profile,"* the PCPCC presents a story from the **Union Health Center (UHC),** a community health center in New York City that provides comprehensive primary care services to a diverse, low-income population in New York City. UHC has consistently emphasized a strong commitment to adopting innovative technologies and embracing a culture of continuous quality improvement. One of UHC's most successful approaches has been adopting an **innovative care team model** that focuses on **chronic disease management** through the use of **patient registries**. In fact, UHC was one of thirty practices recently selected by the Robert Wood Johnson Foundation as an exemplary model of workforce innovation through its new Learning from Effective Ambulatory Practices (LEAP) program.

While incredibly challenging to implement, UHC's approach has led to a deeper understanding of the value of **population health management (PHM).** PHM is a set of interventions designed to maintain and improve people's health across the full continuum of care—from low-risk, healthy individuals to high-risk individuals*.*[ii]

What is a patient registry?

A registry is a list of all the patients in a physician's practice who share a characteristic, such as a certain condition or medication regimen. Registries help the care team proactively monitor their patients, by providing reminders, and identifying patients that are not receiving or are overdue for care, or are not adhering to their care plans. Registries can be integrated with other tools like automated telephone systems to leave voice or text messages with appointment reminders, or reminders for overdue patients to schedule appointments.

Like most systems, registries are only as effective as the information entered and the processes and workflows that ensure their optimal use. It is important to keep in mind that data will be coming from multiple sources, such as electronic health records (EHR), claims data, practice management systems (PMS), and possibly other providers and organizations. It is critical to consider the capacity of current staff, technologies, and patient needs in developing population health management goals.

Additional Resources

- [Transforming the role of medical assistants in chronic disease management,](#) Health Affairs.
- [Capitated Health Center Uses Health Coaches to Manage Chronic Illness; Leading to Improved Outcomes](#), AHRQ Innovations Exchange.
- [UNITE HERE Health Center: Pioneering the Ambulatory Intensive Caring Unit](#), Center for Health Professions at the University of California, San Francisco.
- [Thirty Primary Care Practices Selected as Exemplary Models of Workforce Efficiency and Innovation](#), Robert Wood Johnson Foundation.

Union Health Center (UHC)
New York, NY

Provider Type	Community Health Center
Medical Home	NCQA Level 3
Patients	11,000
Office Visits	55,000
Technology	Adopted GE's Centricity in 1997

Innovation Impact

- 46% reduction in overall annual health costs
- 18% reduction in total cost of care
- Significant decline in emergency room visits, hospitalizations and diagnostic services
- Significant improvements in clinical indicators for diabetic patients

UHC's Care Team Model

Along with eHealth, UHC has truly embraced the patient-centered care team model. This model has helped ease the transition to new workflows, processes, and features that are critical to change management and quality improvement. UHC clinicians and staff are assigned to clinical care teams, comprised of physicians, nurse practitioners, physician assistants, nurses, medical assistants, and administrative staff. The practice uses a full capitation model with standard fee-for-service, and a fee-for-service plus care management payment model.

In 2005, UHC instituted the California Healthcare Foundation's Ambulatory Intensive Caring Unit Model (AICU), which emphasizes intensive education and self-management strategies for chronic disease patients. The model relies heavily on the role of medical assistants (called "patient care assistants" or PCAs), and health coaches. Working closely with other members of the care team, PCAs and health coaches review and update patient information in the record, conduct personal outreach and self-management support, and certain clinical tasks. For instance, all PCAs have been trained to review measures (HgbA1C, blood pressure and LDL Cholesterol), provide disease education, and set and review patient health goals. A subset of higher-trained health coaches work more intensely with recently diagnosed diabetic patients, or those patients whose condition is not well managed.

UHC's eHealth Strategies

Patient Registries: UHC uses patient registries to identify patients with specific conditions to ensure that those patients receive the right care, in the right place, at the right time. In some instances they use registries to target cases for chart reviews and assess disease management strategies. For example, patients with uncontrolled hypertension helps identify treatment patterns, reveal any need for more provider engagement, and may indicate the need for care team workflow changes. In the future, UHC would like to construct queries that combine diagnosis groups with control groups and stratify patients by risk group. For example, care teams could pull a report of all patients over the age of sixty-five with multiple chronic conditions or recent emergency room admissions.

Maximizing Time and Expertise: UHC uses technology such as custom EHR templates to support primary care assistants (PCAs) and free up clinicians for more specialized tasks and complex patients. For example, a PCA or health coach taking the blood pressure of a high-risk diabetic patient has been trained to determine whether or not BP is controlled. If it is not controlled, the health coach checks the electronic chart for standard instructions on how to proceed, and may carry out instructions noted in the record. Or, if no information is available they will consult with another provider to adjust and complete the note. Following all visits with PCAs or health coaches, the patient's record is electronically flagged for review and signed by the primary care physician.

Working with Medical Neighbors: The teams also collaborate with on-site specialists, pharmacists, social workers, physical therapists, psychologists, and nutritionists to enhance care coordination and "whole patient care." UHC has also adopted "curbside" consultations and e-consults to reduce specialty office visits. For example, if a hypertensive patient has uncontrolled blood pressure, the record is flagged by the PCA for further follow up with a physician or nurse practitioner, who may opt for an e-consult with the nephrologist to discuss recommendations. UHC also has a "Specialty Coordination Team" comprised of 2 primary care physicians, 1 Registered Nurse, 1 PCA and 1 Health Coach, which functions as a liaison between primary and specialty providers.

Customized Reporting: With their most recent upgrade to a meaningful use-certified version of their EHR, UHC will have the capacity to generate standardized meaningful use reports. UHC intends to construct queries that generate reports that group diagnosis groups with control groups, and identify and manage sub-groups of high-risk patients (or risk stratification). For example, care teams can run a report of all patients with diabetes that have an elevated LDL and have not been prescribed a statin.

Challenges and Lessons Learned

- **Recruiting staff with IT and clinical informatics expertise**: Over the years, UHC has faced challenges in identifying and recruiting staff with the right mix of IT and clinical informatics skills. While effective in troubleshooting routine issues and hardware maintenance, UHC felt there was a clinical data analysis gap. To resolve this, UHC works closely with an IT consultant, and also recruited a clinical informatics professional to work with providers and performance improvement staff.

- **Consistent data entry:** UHC's lack of consistent data entry rules and structured data fields led to several challenges in producing reports and tracking patient subgroups. The problem stems from UHC's lack of internal data entry policies, as well as the record's design. For instance, UHC cannot run reports on patients taking aspirin because this information may have been entered inconsistently across patient records. Moving forward, UHC will be implementing data entry rules and work closely with their vendor to maximize data capture.

- **Real-time data capture:** UHC realized that by the time data reaches the team, it may no longer be current. As a workaround they considered disseminating raw reports to clinical teams in real-time, followed by tabulated, reformatted data. They are exploring the possibility of purchasing report writing software to streamline the process.

- **Managing multiple data sources:** Like many practices, UHC pulls data from its billing system and clinical records, causing issues with data extraction. For example, pulling by billing codes does not provide the most accurate data when it comes to clinical conditions, health status, or population demographics. UHC recognized that to reduce errors in identifying patients and subgroups this will require custom reports.

[i] Bates, D. Bitton, A. The Future of Health Information Technology in the Patient-Centered Medical Home. *Health Affairs* 29(4) (2010): 614–621.

[ii] Felt-Lisk, S., and Higgins, T. Exploring the Promise of Population Health Management Programs to Improve Health. Mathematica Policy Research Issue Brief. August 2011.