Success Story

Population Health:
A Bridge to Better Patient Care and Lower Costs

Introduction

Over the years, the term "population health management" has taken on various definitions. One constant, however, is the concept of collaboration. This ranges from patient-physician partnerships to a framework in which healthcare delivery systems, public health agencies, community-based organizations and other entities work together to improve health outcomes in their communities.[1]

As many provider organizations have discovered, it's no easy task for facilities charged with creating unconventional partnerships, building new business models, leveraging intelligence technologies and sharing financial risk.[2]

This paper outlines the journey of one major health system that has taken major strides in making the concept of population health management (PHM) a reality.

In 2016, Christiana Care Health System reported savings of $1.7 million per year under its "Bridges" care and management program for patients with ischemic heart disease, primarily through improved care manager caseloads, automation that included risk-based stratification, and discharge medication management.

Christiana Care Health System

Christiana Care Health System, headquartered in Wilmington, Delaware, is one of the country's largest healthcare providers, ranking 21st in the nation for hospital admissions.

Based on its status as a regional center for excellence in cardiology, Christiana Care in July 2012 received a $10-million, three-year award from the Centers for Medicare & Medicaid Services' Center for Medicare & Medicaid Innovation to develop a care and management program for ischemic heart disease, specifically pursuing better outcomes related to blood pressures, reduced readmissions and management of LDLs.

Significantly, the hospital supplemented the award with its own funds to reach beyond the project and position them to pursue other areas of population health management.

Bridging the Divides

The focus of Christiana Care's "Bridging the Divides" (or "Bridges") care and management program was on helping patients with ischemic heart disease transition successfully from hospital care and improve their long-term health. In the program, the health system works closely with community doctors and specialists to support enrolled patients for at least one year after they are discharged from the hospital. Within 18 months of initiation of the program, more than 2,300 patients were enrolled in "Bridges."

5% of patients create 50% of healthcare costs.[3] Christiana Care Health System implemented a Population Health Management program that focused on one of its key higher-percentage populations.

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Process and Planning

In order to develop protocols and standardize care plans for a certain condition, according to Christiana Care, organizations first must understand the patient population, involve the right members of the care team and commit to team-based care.

In this regard, the health system identified three foundational components needed to successfully develop a coordinated care model:

1. Well-trained care management team

2. Strong technology infrastructure

3. Stakeholder buy-in

Notably, the program received 100-percent support from cardiac physicians. This was achieved by engaging them in the concept of better care for patients – not an easy achievement considering that the initiative demands flexibility with scheduling and an unprecedented level of data integration with the American College of Cardiology's Pinnacle data registry.

To truly serve a patient population with compassionate care that leads to better outcomes, you must first understand them. That's a central issue facing hospitals, health systems, payers and others embracing the tenets of population health management.

A core component of the program was improving the technology infrastructure to make data from clinical sites more available to the providers caring for each patient. The system was designed to incorporate data from many places that patients receive care, including inpatient and outpatient electronic medical records from primary care and specialty physicians and statewide lab and hospital use information from the Delaware Health Information Network.

As its EHR system did not provide a sufficiently robust platform to track metrics and provide the analytics support necessary to understand patients and gauge the success of any interventions, Christiana Care turned to Medecision and its Aerial™ platform to pull information from the various systems, parse the data and develop workflows to address patient needs with custom interventions divided among care team members.

Among functionalities, the platform is able to analyze disparate patient data from multiple systems to automatically develop an illness acuity score. This score is evaluated by the system in the form of risk-prioritized patient lists that are presented to care managers for review and intervention. Some patients will receive more attention than with traditional manual care management, while other patients receive less, with the expectation that the specific patient's findings will trigger the appropriate intervention.

The Human Factor

Understanding patients requires a robust technology infrastructure, but a provider network also must have a committed staff and the necessary services in place to monitor and respond to diverse patient needs.

Bridging the Divides aims to enhance the efficiency, quality and care outcomes from the moment a patient arrives in the hospital through release and beyond. For example, upon hospital discharge, a patient may receive a reminder call about a follow-up appointment; a social worker arranges transportation to that visit and a pharmacist ensures that patient is taking prescribed medications as directed.

By design, population health management is proactive, reaching patients where they are in the care continuum. Christiana Care's coordinated care strategy allocates resources to support a wide variety of options, including phone consults, patient home visits, device monitoring and even deploying care management professionals embedded within community physician groups.

Team members are tasked with proactive patient outreach and follow-up based on demonstrated health risk and situation. Some patients have extraordinary socioeconomic needs that must be met to avoid a readmission. Others may have difficulty adjusting to new behaviors designed to improve health and prevent readmission.

In order to manage increased accountability and risk, while increasing patient engagement, improving outcomes and growing a business, healthcare organizations need a strategy that moves consumers, providers and payers toward more efficient and effective care models.

Results

In 2016, Christiana Care reported savings under the "Bridges" program of $1.7 million per year, primarily through improved care manager caseloads, automation that included risk-based stratification and discharge medication management. Specifics include:

Moving patient to care manager ratios from 1/2,000 to 1/2,500.

A 50 percent reduction in the number of process steps required for a care manager to access and process program participant readmissions.

A 43 percent reduction in overdue tasks.

Positive patient feedback, with 91 percent indicating they received the right amount of follow-up after discharge and 88 percent more optimistic about their future.

Lessons Learned

Among takeaways from its experience, Christiana Care acknowledges that setting up a population health management program is a significant undertaking, requiring widespread buy-in from the top down, organizational change and development of relationships with other groups and agencies. And, while the right technology can make a significant difference, effective leadership and team building are necessities.

Organizations following suit also can expect to encounter potential obstacles and deterrents that include the sometimes overwhelming burden of socioeconomic factors, mental health and addiction issues among patients and the difficult task of motivating patients to care for themselves.

Interactions with post-acute care partners can be challenging as well, potentially causing duplication in effort, conflicting goals or ineffective transitions of care.

In addition, a Christiana Care manager advised, organizations can't wait for all the data to be in before launching a population health management program. It's better to have a focal point, as the health system did with ischemic heart disease, starting with basic information and then pulling in labs, in-patient EMRs and other sources to build the data over time. In addition, it is critical that an organization's infrastructure is up to the task.

Looking Ahead

Already using claims data and real-time clinical data and information from the Delaware Health Information Network, Christiana Care next plans to pull in data from the EMRs in its Accountable Care Organization (ACO). This is just one way in which the health system continues to refine its PHM efforts, maintaining its commitment to innovation and relying on its proven ability to manage change quickly and effectively.

The Role of Technology in Population Health

Getting the right service to the right patient at the right time takes a strong technology infrastructure. An EHR can't do it alone. While they are great repositories of the critical patient data necessary to make population health management work, few EHRs are equipped with the proper data analysis functionality needed to support risk stratification and produce actionable information based on predictive analytics.[4]

As a result, healthcare organizations increasingly are taking on platforms that:

- **Connect, curate and direct standardized data within existing technology and workflow for a unified clinical record.**
- **Enable information sharing and exchange among everyone in the patient's care circle.**
- **Apply analytics for insight into populations and acquire actionable intelligence to prevent patients from slipping through the cracks.**
- **Incorporate intervention and engagement tools that support coaching, care management and care coordination workflow and gaps-in-care alerts.**
- **Provide up-to-the-minute information and tracking and reporting capabilities.**

About Christiana Care

Christiana Care Health System is a not-for-profit health system with two hospitals with more than 1,100 patient beds, a home health care service, preventive medicine, rehabilitation services, a network of primary care physicians and an extensive range of outpatient services. It also is a major teaching hospital with two campuses and more than 250 medical-dental residents and fellows.

Christiana Care is recognized as a regional center for excellence in cardiology, cancer and women's health services. The system is home to Delaware's only Level I trauma center, the only center of its kind between Philadelphia and Baltimore. Christiana Care also features a Level III neonatal intensive care unit, the only delivering hospital in the state to offer this level of care for newborns.

Resources

1. Population Health in the Affordable Care Act Era, Michael A. Stoto, PhD, AcademyHealth, February 21, 2013
2. Population Health Management: Steps to Risk Sharing and Data Analytics, HealthLeaders Media, October 2013
3. Why 5% of Patients Create 50% of Health Care Costs, Forbes, January 10, 2013
4. The Population Health Management Conundrum: Overcoming Challenges to Sustainable PHM Strategies, Becker's Hospital Review, June 16, 2015

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