PROACTIVE STRATEGIES FOR CHRONIC DISEASE MANAGEMENT

What strategies can health systems deploy to better engage and manage patients with chronic disease?

Overview

Patients with unmanaged chronic disease eventually enter hospitals with high-acuity, low-margin medical and surgical admissions. Proactive disease management through high-touch behavioral change programs in the ambulatory setting can reduce these admissions. Yet, patients often do not interact with the health care system in a manner that supports their illness. Many chronic disease programs experience low patient engagement rates or struggle to produce a lasting impact on the health of participants. The COVID-19 pandemic has only exacerbated this issue as proactive engagements, including wellness visits and screenings, have declined and are underutilized. Despite these challenges, developing sustainable high-tech and low-tech engagement strategies for a chronic care management program will mitigate the rising acuity of primary care patients and reduce costly hospital admissions.

Landscape: Pain Points of Chronic Disease Program Engagement

Patient activation, access to chronic care services and lack of financial value have hindered engagement rates within chronic disease programs. Prior to the pandemic, as many as 133 million people under age 65, including 116 million adults aged 18 to 64, were estimated to have 1 or more preexisting conditions. This number is expected to increase from the effects of the pandemic as many individuals forgo care and remain undiagnosed. The relationship between COVID-19 and preexisting noncommunicable diseases has driven a high percentage of severe COVID-19 cases, to the point that 1 in 5 individuals worldwide could be at an increased risk of severe COVID-19. The combination of these 2 factors has created a syndemic and the need to treat infection alongside underlying comorbidities.

Sg2 CHRONIC DISEASE CARE FAMILIES

- Advanced Liver Disease
- Chronic Lung Disease
- Chronic Obstructive Pulmonary Disease
- Congestive Heart Failure
- Dementia and Cognitive Disorders
- Diabetes Mellitus
- End-Stage Renal Disease
- Inflammatory and Autoimmune Diseases
- Multiple Sclerosis and Demyelinating Diseases
- Rheumatoid Arthritis

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Strategic Aims: Value Proposition

Medical admissions are a common pain point for many organizations but not always for the same reasons. Developing an effective chronic disease management program allows health systems to better manage medical admissions and focus on 1 or more of the following:

Margin Loss. Chronic disease management programs have been shown to decrease complex chronic disease admissions, minimizing the number of inpatient beds occupied by low- or negative-margin patients. Top DRG codes for diabetes, chronic obstructive pulmonary disease (COPD) and chronic lung disease return a –6%, –9% and –4% profit margin per case, respectively, among individuals with a major complication or comorbidity. Implementation of a dedicated management program supports efforts to decrease chronic disease admissions, reducing per member per year (PMPY) costs and supporting a value-based care model.

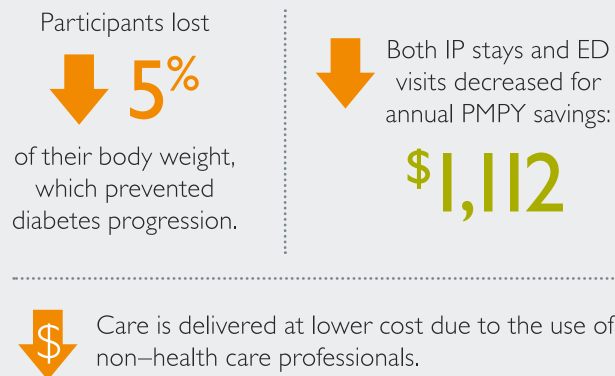
Comorbid ALOS. Chronic disease management programs help control preexisting comorbidities that can negatively affect outcomes and increase patient length of stay. For example, obese individuals often exhibit poor outcomes and longer lengths of stay for surgical procedures across all service lines. Individuals who lack access or do not have the means to seek routine preventive care experience higher surgical and readmission risks. Chronic disease management programs offer robust prehabilitation tools for patients before they are admitted for a procedure.

MEDICARE DIABETES PREVENTION PROGRAMS

Background

- Medicare enrollees with prediabetes have access to lifestyle change programs that offer educational sessions and weight loss programs approved by the CDC.
- Group sessions allow participants to share their experience with peers, which facilitates retention.
- Trained counselors, not traditional health care workers, deliver the program.

Results



Opportunity Cost. Decanting chronic disease patients from the inpatient setting frees up beds for high-margin services within the health system, an issue that has become increasingly important since the start of the pandemic. A recent capacity management initiative launched by Michigan Medicine focused on lowering its hospitals' number of unnecessary IP admissions, including patients with complex chronic illnesses. By combining proactive disease management efforts, preventive ambulatory services and proper triaging techniques, Michigan Medicine was able to free up 54 inpatient beds across the organization.

Shift to Value-Based Care. Adopting a value-based chronic disease management model supports the expansion of outcomes-based payment initiatives that have escalated during the COVID-19 pandemic. In addition, value-based care is accelerating with the increased adoption of Medicare Advantage.

System Leakage. Outreach efforts beyond the walls of the hospital, such as care navigation, can improve patient loyalty, minimizing patient leakage and ensuring that downstream procedural care remains in-network.

Chronic Disease Health Assurance

Longitudinal engagement initiatives, with tools that support long-term behavioral change, can help mitigate the severity of a patient's condition. Many programs fall short on providing consumer-centric, proactive communication between patients and providers. However, without these critical interactions, chronic disease management efforts fail to deliver strong clinical and financial outcomes. Engagement and prevention are central to an emerging concept known as health assurance, which includes efforts to reach patients during the early stages of a chronic disease in order to avoid acute downstream complications. Health assurance initiatives should support at least 1 of the following:

- Increase patient adoption and retention of chronic disease management programs.
- Decrease low-margin chronic care admissions.
- Minimize downstream leakage by earning early patient loyalty.

Interpretations of health assurance may vary, with high-tech and low-tech designs providing equally effective support for chronic disease management programs across organizations.

PROGRAM EXAMPLE

Health Assurance Acquisition Corporation

The Health Assurance Acquisition Corp aims to keep patients healthy by building partnerships with existing care providers. Common characteristics of successful health assurance programs include:

- Data-driven insights.
- Continuous communication.
- Personalized care.
- Proactive outreach.
- Engaging treatment efforts.
- Outcome-driven incentives.

"The digital health sector will become bigger than the physical health sector in terms of time and dollars spent."

—Stephen Klasko, MD, Independent Director, Health Assurance Acquisition Corporation

Sources: US Securities and Exchange Commission. Health Assurance Acquisition Corp Form S-1. October 26, 2020; Landi H. Former Livongo execs start new company and prepare for $500M IPO. *Fierce Healthcare*. October 28, 2020.

Chronic Care Engagement Solutions

Health assurance can be incorporated into a larger chronic disease System of CARE to support better outcomes and minimize costs. Provider organizations should successfully adopt these initiatives by either:

- Replicating engagement initiatives and building internally.
- Partnering with an existing organization or vendor.
- Leveraging a combination of replication and partnership to properly align physicians with the strategic aims of the chronic disease program.

When evaluating options, identify which strategy best allows the organization to properly incorporate health assurance efforts across all effected clinical teams.

High-Tech Chronic Care Management Solutions

For health systems that are not looking to build internally, there are numerous technology platforms that support health assurance through a turnkey solution. Often, up-front cost and stakeholder utilization of vendor-provided technology are the biggest hurdles to adoption. The following are a few examples of organizations that have overcome these hurdles and leveraged technology platforms to manage their chronic disease patient population.

Diabetes and Hypertension

Teladoc Health

Teladoc Health, formed through the merger of virtual health provider Teladoc and the digital diabetes management company Livongo, combines a network of virtual providers with a platform that guides patients through daily chronic disease management strategies. Teladoc Health has created a 1-stop shop for behavioral change by using a digital engagement platform and primary care capabilities. Payers, such as Blue Shield of California, have partnered with Teladoc Health, resulting in more than 90% member satisfaction with Teladoc services and more than doubling claims cost savings due to proactive patient disease management efforts. At the time of the Teladoc Health merger, Livongo senior leadership formed their own partnership with Jefferson Health, known as the Health Assurance Acquisition Corporation.

Omada

Diabetes and hypertension management group Omada has formed partnerships with provider organizations, such as Intermountain Healthcare, Kaiser Permanente and HealthPartners, to deliver a personalized digital therapeutic platform for chronic illnesses. The platform supports patients with chronic disease by facilitating behavioral therapies to improve habit development, promote real-time coaching and health education, and prescribe necessary medications for multiple comorbidities. Programs are designed around outcomes-based pricing, ensuring that payment is driven by robust enrollment, engagement and clinical outcomes. One payer has observed approximately 9% cost savings PMPY and an average annual pharmacy cost savings of $248 among participating patients since the program started. Patient engagement remains strong throughout the program, with 24/7 access to the customized platform, resulting in an 87% retention rate.

COPD and Asthma

Propeller Health

In 2018, the city of Louisville, KY, partnered with Propeller Health to improve patients' asthma control without the use of a health care provider. Propeller, a digital solution that helps manage chronic respiratory disease, uses a sensor attached to an inhaler in order to monitor air quality and asthmatic triggers. Propeller collected environmental data from 1,100 Louisville participants and sent automated, personalized messages to patients when their surrounding air condition was identified as dangerous. The pilot study resulted in an 82% reduction of inhaler use and a 30% improvement of overall asthma control across all participants. The study's findings led city officials to identify environmental and socioeconomic factors that can diminish quality of life for people with asthma and COPD.

Geisinger, COPD Foundation, GlaxoSmithKline and Jvion

A partnership was created by Geisinger, COPD Foundation, GlaxoSmithKline and Jvion to manage patients with COPD through a combination of clinical expertise, technical ability and a social community. An artificial intelligence–enabled solution, powered by Jvion, identified Geisinger patients at risk for acute exacerbation of COPD who otherwise may not have been detected by clinicians. The COPD Foundation provided educational materials and an active social community to continuously engage the patients. GlaxoSmithKline funded the initiative and offered research expertise. Collectively, the partnership reduced avoidable COPD admissions by 50%. With adequate capital and research capacity, health systems searching for a multifaceted chronic disease management program should consider partnering with organizations that deliver both analytical and qualitative services to maximize patient engagement and minimize downstream admissions.

Gastroenterology

Illinois Gastroenterology Group

The Illinois Gastroenterology Group and Blue Cross Blue Shield of Illinois (BCBSIL) partnered with SonarMD to manage patients with chronic inflammatory bowel disease (IBD) and minimize adverse events. SonarMD is a personalized, text message–based tool that tracks a patient's IBD symptoms and overall health between gastrointestinal specialist visits. The platform sends a monthly survey to each patient that addresses symptoms, behaviors and self-reported health status. Responses are used to create a score that is tracked over time to identify patient health status or abnormal events. BCBSIL, which pays SonarMD $70 per patient per month for these management services, saw a 60% reduction in hospital costs. Crohn's disease–related ED visits dropped to 0%, and PMPY cost savings averaged $532 among participating IBD patients.

Decision-Making Tools

Express Scripts

While not a chronic care management solution on its own, Express Scripts has created a formulary for beneficiaries that lists select digital health offerings. The evaluation process for inclusion on the list includes peer-reviewed research, user experience and financial value. This process narrows the multitude of players to the comparatively few with proven track records of delivering high-value care. The formulary guides the decision-making process, helping patients and providers choose an appropriate digital health platform that is payer-covered.

Low-Tech Chronic Care Management Solutions

Low-tech solutions require community-based outreach efforts that meet target patient populations wherever they live, work, play, pray and click. The value in these solutions is the trusted partnerships between health systems and the communities they serve—table stakes to address social determinants of health.

Patient Activation

Cutting hair and hemoglobin A1c at barbershops: Since barbershops play a significant social, economic and cultural role in many Black communities, New York University Grossman School of Medicine provided rapid point-of-care A1cNow tests to 8 Black-owned barbershops in the Brooklyn, NY, area. The barbers were enlisted to help improve diabetes screenings for a patient population often reticent to engage with primary care. One in three customers agreed to a free diabetes screening while they received a haircut. Those who initially declined often overturned their decision after encouragement from their barber. Among those participating, 9% had hemoglobin A1c levels above clinical thresholds for a diabetes diagnosis, while 28% had levels suggesting prediabetes. Immediate disease management counseling was given to the participants, accompanied by referrals to local primary care clinics.

Employee Engagement

Lifting spirits, lightening scales in the Walmart Thrive ZP Challenge: For a health system, adopting a chronic disease engagement program for its own employees can be a way to maintain personal health engagement, decrease employee health costs and establish a foothold within its community. Walmart sponsors an employee wellness program that rewards associates who reach continued health improvement milestones. Walmart's Thrive ZP Challenge provides health tracking tools, educational material and a community of other Walmart associates working to improve overall well-being. Each challenge lasts 21 days, and participants are eligible for several cash prizes each month. Since Thrive ZP Challenge's inception, over 1.4 million associates have participated, with more individuals losing over 100 pounds than in any other commercially available weight loss program, according to Marcus Osborne, vice president of Walmart Health. Thrive ZP Challenge focuses on camaraderie and storytelling over clinical management. In addition, participants are considered members of a community rather than patients.

Peer Networking

Supporting patients through genetic disease advocacy groups: While individually rare, genetic diseases are collectively common chronic conditions that affect 30 million Americans. Local advocacy groups provide a wealth of resources to patients, including emotional support and education on treatment options, such as new clinical trials.

That said, peer networking is often an advocacy group's most valuable offering, as it connects families experiencing individual genetic diseases with one another. The connections prove key for empathetic interactions, creative workarounds and care expectations since these syndromic diseases often manifest in predictable ways as patients age. For health systems, partnering with advocacy groups can enhance patient satisfaction and help build a strong referral network for patients seeking tertiary care. Such program offerings can also be replicated internally to support patients with more common chronic diseases, activating crucial relationships among patients and providers.

Keys to Success: Taking the Next Steps

When formulating strategy, health systems must remember that low patient engagement is a key factor in poor chronic disease management. Given the complexity and frequency of their medical needs, patients with chronic disease value individualized, high-touch interactions with their providers. This should remain top-of-mind and be the underpinning of all chronic disease management efforts. The following are recommended steps for health systems as they determine how best to support the growing number of people with chronic disease.

- **Identify a target patient population.** Assess the chronic disease patient population to identify the most pressing gaps and issues in current care management. Piloting efforts with 1 specific population, be it patients with a specific diagnosis or an age demographic, can be an effective first step that allows testing, measuring and perfecting initiatives before expansion.
- **Understand patient needs to guide program development.** Evaluate the resources (both clinical and emotional) that each patient population requires to successfully manage their condition. Use patient engagement surveys, focus groups and conversations directly with providers to understand where there are opportunities to enhance the patient experience.
- **Determine the need for deploying a high-tech vs low-tech solution.** Along with access to resources, the patient populations and types of services a health system chooses to focus on will guide its approach. Table 1 highlights a few of the considerations and potential requirements necessary for adopting each type of solution.

TABLE 1. HIGH-TECH VS LOW-TECH SOLUTION CONSIDERATIONS AND REQUIREMENTS

HIGH-TECH SOLUTION	LOW-TECH SOLUTION
• Involve key clinical stakeholders early to secure buy-in and align goals and incentives. • Outline criteria and vetting process for vendor selection. • Build a succinct business case to justify up-front costs and time investment. • Develop training for providers and patients to support adoption of new technology.	• Develop criteria for evaluating and selecting community and/or local advocacy partner organizations. • Work with marketing and communications to support outreach strategy. • Focus engagement efforts on social environments familiar and comfortable to the target population. • Evaluate patient demand and existing resources to determine whether to build support groups internally or outsource to local organizations.

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Sg2 RESOURCES

- Resource Kit: Consumerism Resource Kit
- Webinar: Solving for X—The Academic Clinical Enterprise Equation
- You Asked: Digital Therapeutics—Moving Virtual Health Beyond Virtual Visits

Sources: Caffrey M. Report finds patients want engagement to manage chronic conditions. *Am J Manag Care*. February 20, 2017; Liddy C et al. *Prev Med Rep*. 2015;2:586–590; Ganguli I et al. *Health Aff.* 2018;37:283–291; Schneider EC and Shah A. Will the pandemic increase the number of Americans with preexisting conditions? [blog]. The Commonwealth Fund. October 8, 2020; World Health Organization. *Final Results: Rapid Assessment of Service Delivery for Noncommunicable Diseases (NCDs) During the COVID-19 Pandemic*. June 30, 2020; Editorial. *Lancet*. 2020;396:649; Clark A et al. *Lancet Glob Health*. 2020;8:e1003–e1017; Hamar GB et al. *Popul Health Manag.* 2013;16:125–131; Ward ZJ et al. *N Engl J Med*. 2019;381:2440–2450; Fusco KL et al. *SAGE Open Med*. 2017;5:2050312117700065; Gavidia M. How can the COVID-19 pandemic enhance value-based health care delivery? [video]. *Am J Manag Care.* August 12, 2020; Cipher Health. *Unlocking the Value of Integrated Physician Enterprises: Cross-Journey Patient Outreach Strategies to Build Loyalty and Drive Health System Growth*. May 8, 2020; Express Scripts. We're here to make digital health click; Baum S. How to make the diabetes patient experience suck less. MedCity News. October 21, 2016; Barrett M et al. *Health Aff.* 2018;37:525–534; Simonelli PF and Showalter J. AI vs COPD: The fight for patient health. Presented at HIMSS Conference. February 12, 2019, Orlando, FL; Osorio M et al. *JAMA Intern Med*. 2020;180:596–597; Walmart. It's your time to Thrive; National Institutes of Health. FAQs about rare diseases; Rare Diseases Clinical Research Network. Patient organizations; Addario B. *J Thorac Oncol.* 2017;12:S147–S148; Teladoc Health. How virtual care went from convenient to critical for Blue Shield of California. Accessed November 2020; SonarMD website; Sg2 Analysis, 2020; All websites accessed December 2020 unless otherwise noted.