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Chronic Disease  
Management  
Transforming  
Health Care  
Delivery



## Executive summary

The costs of chronic disease, both human and financial, continue to escalate at an alarming rate. This phenomenon has led health care payers and retailers to create new models of chronic disease management and prevention.

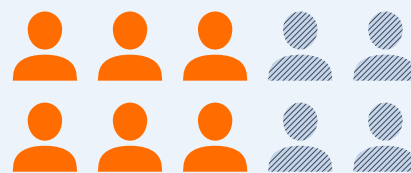
This white paper examines how payers are expanding and improving their established programs, as well as implementing new avenues to address chronic illness. It also looks at how retail pharmacies and convenient care clinics are positioning themselves as accessible neighborhood health centers that complement primary care and provide quality patient monitoring, engagement and education.

Leveraging advanced technology and evidence-based information, these alternative care delivery models are working to reduce the physical suffering and financial burdens of the chronically ill.

## The Chronic Disease Crisis

Chronic diseases like diabetes, heart disease, and cancer are the leading causes of illness, disability, and death in the US. These diseases also account for a significant portion of the nation's healthcare costs, which totaled \$4.3 trillion in 2021 and made up 18.3% of the gross domestic product. Of this spending, 90% is attributed to the care of people with chronic and mental health conditions.<sup>i</sup>

Chronic diseases are defined as conditions lasting a year or more, requiring ongoing medical attention, and limiting daily activities. The majority of adults in the US, six out of ten, have at least one chronic disease, and four out of ten have two or more.<sup>ii</sup> As the population ages, the number of people with chronic diseases is



**60%** of US adults have at least one chronic disease.



**40%** of US adults have two or more.

expected to increase significantly. For example, the number of adults aged 65 and over is projected to double from 52 million in 2018 to 95 million by 2060.<sup>iii</sup> Furthermore, the long-term effects of COVID-19 and its variants on vulnerable populations remain unknown, with some patients experiencing chronic long-term consequences after recovering from the virus.<sup>iv</sup>

While healthcare in the US has become proficient at improving survival rates for acute illnesses, this success has led to the growing prevalence of chronic diseases. The human cost of chronic diseases can be severe, causing pain, suffering, and diminished quality of life.



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For example, individuals with diabetes may experience life-altering complications such as kidney failure, amputations, and blindness.

Many chronic disease patients report activity limitations, such as difficulty walking or needing help with daily tasks like dressing or bathing. Additionally, arthritis affects 24% of all US adults and has become a leading cause of work disability, contributing to lost wages for patients and their families.<sup>v</sup>

Patients with debilitating chronic conditions and their families also shoulder the financial burden of high out-of-pocket costs for medical care and necessary medications, which can lead to further distress and depression.

Perhaps most shocking of all is the statistic that among Medicare fee-for-service beneficiaries, people with multiple chronic conditions account for 93% of total Medicare spending. Furthermore, a large proportion of these costs are for acute care hospital and emergency department visits that could have been prevented with earlier intervention.<sup>vi</sup>



**93%** of Medicare spending is by people with multiple chronic conditions.



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## The Impact of Chronic Disease on Our Health Care Landscape

Our current system of health care delivery and finance evolved in the 20th century with a primary focus on treating acute illnesses. This model of care was extremely successful in helping patients survive acute events. Ironically, improvements in survival rates for acute illnesses have contributed to the growing prevalence of chronic disease.<sup>vii</sup>

### A Need for Change

The acute, episodic model of care does not adequately address the needs of people with chronic conditions. Such patients typically see multiple providers, and the health care system has offered few incentives and little support to coordinate care across providers and service settings. The result is that patients experience gaps in care.

Medication adherence is a critical component of chronic disease management, and failure to adhere to medication regimens can lead to increased healthcare costs and reduced quality of life for patients.

The acute model of health also does not adequately support chronic disease patients in the self-care necessary to manage their conditions. Most people need both education and encouragement to adhere to complex treatment plans, such as taking all prescribed medications as directed, following a nutritional plan and monitoring vital signs. There is a growing body of evidence that shows supporting people to self-manage their health and care can lead to improvements in clinical humanistic and economic outcomes.<sup>vii</sup>

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An example of necessary self-management, coupled with efficient monitoring, can be found in the burgeoning problem of medication nonadherence, a situation that is rampant among those with chronic diseases. It has been referred to as “medicine’s weakest link”<sup>ix</sup> and stands as a primary conduit to poor outcomes and exorbitant costs.

**Consider:**

- Medication adherence is a critical component of chronic disease management, and failure to adhere to medication regimens can lead to increased healthcare costs and reduced quality of life for patients.<sup>x</sup>
- Statistics show that each year, poor adherence contributes to:
  - more than \$500 billion in avoidable health care costs;
  - around 125,000 potentially preventable deaths;
  - up 25% of hospitalizations in the United States annually, at \$100 billion in excess costs
- Skipping medications is causing early death and worsening medical conditions that will cost Medicare an extra \$177.4 billion over 10 years (2020-2030).<sup>xi</sup>
- In 2021, 22% of US adults did not fill prescriptions due to the cost.<sup>xii</sup>

## The Case for Prevention

Chronic diseases usually can be controlled but not cured. People living with chronic illnesses often must manage daily symptoms that affect their quality of life and experience acute health problems and complications that can shorten their life expectancy.

However — and it’s a big however — the causes of many chronic diseases can be narrowed down to a short list of risk behaviors. Thus, the Centers for Disease Control notes, most chronic diseases can be prevented simply by eating well, being physically active, avoiding tobacco and excessive drinking and getting regular health screenings.<sup>xiii</sup>

This puts the power in the patient’s hands and the responsibility on the shoulders of health care organizations to educate and monitor in the early stages of life.



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## Finding the Answers

Increases in the number of people living longer with chronic conditions coupled with rising health care costs and expenditures have spurred health plans, employers and the government to look for ways to reduce health care use and costs, with disease management targeted as a viable approach in providing effective care while reducing the costs of care for the chronically ill and their numbers going forward.

Success in this pursuit will require innovative programs, widespread cooperation among health care stakeholders and the commitment of the patients themselves, as well as advanced technology and forward thinking.



## Government Impetus

The Patient Protection and Affordable Care Act of 2010 launched potentially groundbreaking changes in how health care is paid for and delivered in the United States.<sup>xiv</sup> While the legislation undeniably opened access to coverage for millions of Americans, its impact on reducing health care costs and improving quality have been mixed.

Though efforts are under way to strengthen the Act and expand its reach and effectiveness and Medicare Advantage plans, which emphasize value gain in popularity, some experts maintain that any lasting improvements in the health care payment and delivery systems will require “persistent effort on the part of public and private stakeholders.”<sup>xv</sup>

## Payers Take the Lead

New models of chronic disease management are gaining traction in part due to those legislated and regulatory reimbursement reforms, with payers developing approaches that reimburse providers on the quality and efficiency of patient care, aligning payments with patient outcomes. Quality-based reimbursement provides incentives for providers to focus on care coordination and patient education, incentives that are lacking in traditional fee-for-service arrangements.

This is not surprising, as health care payers have been innovators in chronic disease management since health plans began developing programs to manage diabetes in the 1980s.<sup>xvi</sup> Health plans traditionally have had a greater incentive than providers to decrease the costs

of care and a greater capacity to perform analyses of patient populations. In the Medicare program, Medicare Advantage plans, which are required to make chronic disease management a core plan function, produce better outcomes on a number of quality measures than are seen within the fee-for-service program.<sup>xvii</sup>

Health care payers are perhaps best positioned among stakeholders to provide the experience consumers want.

These revamped programs emphasize holistic approaches that address all of a member's care needs, not just their primary condition. Essential components of a payer chronic disease management program include:<sup>xviii</sup>

- **Risk stratification**, in which predictive analytics and claims data are leveraged to discern which members are at increased risk for high-cost care and assign risk scores.
- **Engaging patients** in self-care management, in which a case manager works one-on-one with patients to help better understand and manage their conditions and improve contributing behaviors.
- **Patient education**, engaging patients through dynamic and personalized content.
- **Engaging providers**, closing coordinating with clinicians, supporting their care plan and alerting them to gaps in care and risk factors the payer chronic disease management plan can address.
- **Program evaluation**, in which payers regularly evaluate their programs using appropriate outcome measures to better understand the factors that improve patient and provider engagement, as well as a financial analysis to establish return on investment.



Going forward, technological innovations and shared responsibility for patient care will continue to improve the efficiency and scalability of self-management interventions.

It also must be remembered that now, more than ever, consumers are looking for value from their health plans.

And, in an increasingly consumer-oriented health care environment, payers also must account for member experience when determining the value of their care management programs and plan benefits.<sup>xix</sup>

That said, payers are perhaps best positioned among stakeholders to provide the experience consumers want. With their depth of information on each member, they have the capability through analytics to translate it into useful insights that can improve outcomes and lower costs. This health intelligence also can assure needed — and, surveys say, desired — education and information can be individualized for greater impact.



## Retail Pharmacies and Clinics Emerge as Hubs

In recent years, retail pharmacies have taken on an expanded role in offering consumer-centric health services, and the retail convenient care clinic is gaining acceptance as a needed addition to the primary care infrastructure.

## Retail Pharmacies Expand Services

Retail pharmacies increasingly becoming convenient one-stop shops for health products and services. Within this new model, the role of the retail pharmacist is expanding. Pharmacists now interact with patients as a health advisor, spending time to educate them about their condition, as well as about the effects and possible side effects of their medications.

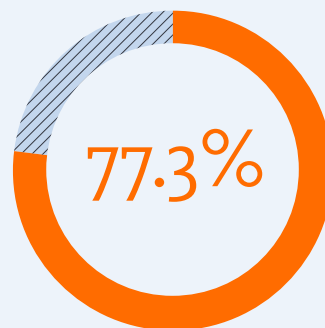
Studies have documented that pharmacists can intervene effectively to increase medication adherence among patients and reduce health care costs.<sup>xxi</sup>

Major retail pharmacies also are adding value by offering chronic disease management services within the pharmacy setting. Rite Aid<sup>xxii</sup> (later sold to the Walgreens Boots Alliance) pioneered this model with its Health Alliance initiative in 2014, and others quickly followed.

Across the retail space, pharmacies are developing targeted programs for people with specific chronic conditions, such as high blood pressure or diabetes, supported by technology and automation that inform and free up their time to focus on patient care. These programs engage with patients at the pharmacy or via electronic means and communicate with the patient's physician as needed. Pharmacists also provide customized educational materials and referrals to disease management programs, such those operated by the patient's insurance plan.

An emerging focus is point-of-care testing (POCT), which is heralded as potentially a great value add in pharmacy operations, producing rapid, reliable and actionable results, aiding in the identification and monitoring of acute infections or chronic disease. Requirements for POCT in pharmacies vary by state and may include, but are not limited to, Collaborative practice agreements, additional certifications, or written protocols.<sup>xxiii</sup>

The climate for pharmacy-based care is ripe, as patients have been shown to have an affinity, and respect for, their neighborhood pharmacist. For instance, in a recent survey, 77.3% of respondents agreed that the pharmacist is an integral member of the care team. More than 76% of respondents said they would be comfortable with pharmacists checking vitals and 54.9% of respondents would be comfortable with their diagnosing acute conditions, with even more, 58.1%, comfortable with pharmacists' prescribing medications for acute conditions. For their part, providers, too, report a high level of trust in pharmacists.<sup>xxiv</sup>



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## The Rise of the Retail Clinic

Retail walk-in clinics first entered the marketplace in the early 2000s as a convenient way to get care for common acute illnesses. In the last few years, retail clinics have been expanding their services to offer chronic disease management as well. In 2020, there were more than 3000 functional retail clinics across the country and many more planned.<sup>xxv</sup>

Retail clinics are stepping up to serve a critical need in the primary health care system, responding to patient demand and helping to fill care gaps that often lead to unneeded emergency room visits. With a shortage of primary care physicians and a growing population of patients, it will become increasingly difficult for patients to get timely appointments to see a primary care physician. Retail clinics aim to be a convenient and affordable option.

Generally, retail clinics are run by nurse practitioners or physician assistants, a practice that underpins their value statement. Change may be ahead, however, as Walgreens in 2020 announced its intent to open more than 700 clinics across the country — all staffed by doctors.<sup>xxvi</sup>

Most clinics collaborate with medical doctors who review charts and who are available for consult. Clinics are positioning themselves as part of the patient's care team rather than as a replacement for the patient's physician.<sup>xxvii</sup> For example, the clinic can coordinate a patient's lab work and testing and make sure that results are sent to the patient's doctor. If a patient doesn't have a primary care doctor, the clinic can help diagnose an illness, start treatment and refer the patient to a primary care physician.

A strength that retail clinics bring to chronic disease management is found in education, which often is missing or generic in medical practices. In this critical pursuit, technology is making the job of educating patients easier than ever before, as providers can now turn to reliable information and resources to create customized education for their patients. And patients can easily access and engage with these multimedia educational materials through patient web portals and mobile applications.

### Conclusion

Chronic disease continues to take a tremendous toll on public health and drive unsustainable levels of spending. As the health care landscape alters to meet this challenge, clinicians and payers must have easy access to current, accurate and relevant information and educational resources in order to deliver effective and efficient chronic disease care and management — whatever the model or setting.



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Elsevier's clinical solutions help chronic care teams build meaningful connections with their patients, fueling better questions, better conversations and better outcomes.

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