

CHRONICALLY SUCCESSFUL

Solving the problem of chronic care management



THE REALITIES ARE STARK. Chronic disease is among the most rampant and costly health challenges in the US, and it is the nation's leading cause of disability and death. About [one half of Americans](#) suffer from at least one chronic disease - [broadly defined](#) as a condition that lasts one year or more years, requires ongoing medical attention, and/or limits a person's daily activities. [One in four adults](#) has two or more chronic diseases.

As the nation's 78 million [Baby Boomers](#) move into their senior years, they will likely acquire [multiple chronic conditions](#) that accompany the aging process - further stressing the nation's already over-stretched healthcare system. [The US Department of Health and Human Services](#) projects that by 2020, 81 million Americans - more than half of those with chronic conditions - will have multiple chronic conditions.

About one half of Americans suffer from at least one chronic condition, and one in four adults has two or more.

Historically, care for the chronically ill has been provided inconsistently and ineffectively. Multiple chronic conditions typically require treatment from a primary care physician and an array of specialists, many of whom are operating in silos without care coordination. Patients can receive [conflicting information and varying diagnoses and experience problems with drug interactions](#). When complex illnesses are not tightly managed, the eventual result is health complications - requiring acute interventions, ramping up costs, and reducing the quality of the patient experience. To lessen the load on the nation, the healthcare system of tomorrow will need to be highly efficient in diagnosing, treating, and preventing chronic disease.



Better managing chronic conditions can deliver positive results to all healthcare stakeholders:

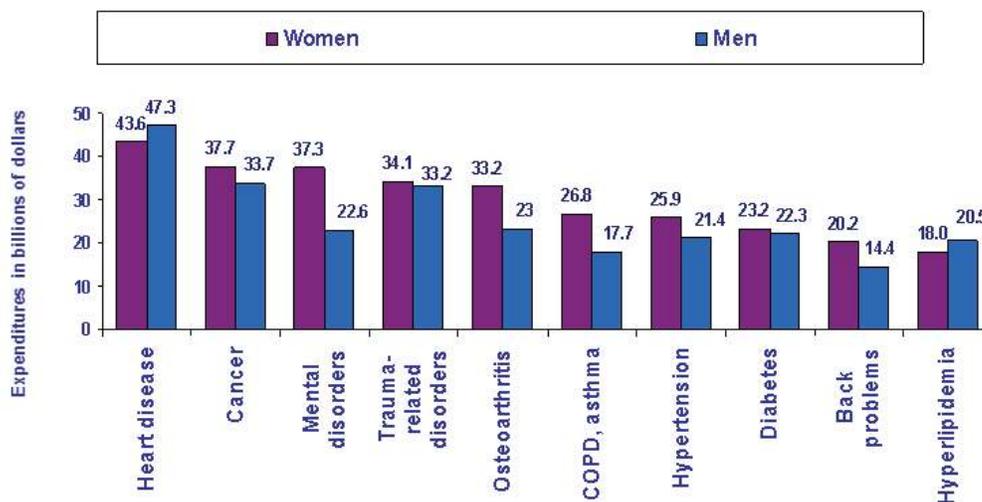
- **To providers**, by lessening the incidence of preventable hospitalizations and adverse events, offering regular access to patient health data, and improving patient self-management
- **To payers**, by lowering costs, gaining more visibility into member compliance practices, and enhancing member satisfaction
- **To patients**, by delivering support and interventions, helping avoid dangerous complications, and improving quality of life
- **To employers**, by reducing insurance claims against employer-provided health policies and averting losses in productivity linked to employees who miss work – at a price tag of [\\$1,685](#) per employee per year

High stakes: assessing the impact on healthcare costs

People with chronic conditions are healthcare’s “frequent flyers.” Accounting for [81 percent of hospital admissions, 91 percent of all prescriptions filled, and 76 percent of all physician visits](#), they are responsible for [75 percent](#), or \$1.5 trillion, of the \$2 trillion spent each year in the US on healthcare. For the Medicare and Medicaid programs, spending on chronic disease represents an [even greater proportion](#) of total spending: more than 99 percent in Medicare and 83 percent in Medicaid.

To make the most of their healthcare dollars, providers and payers alike are focusing on patient populations with multiple chronic conditions, as these patients consume the greatest percentage of health resources. On average, the cost of healthcare for a patient with more than five chronic conditions is nearly [15 times](#) that of a patient with no chronic conditions. Better managing this population outside the hospital can reduce hospitalizations, readmissions, and costs.

The most costly chronic conditions among adults



Source: Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality, *Household Component of the Medical Expenditure Panel Survey, 2008*.

On average, the cost of healthcare for a patient with more than five chronic conditions is nearly 15 times that of a patient with no chronic conditions.

The federal and state response: shifting risk to providers

The [Affordable Care Act \(ACA\)](#) has catalyzed efforts to improve chronic disease management by mandating [financial penalties](#) for providers with relatively higher rates of Medicare readmissions. Under threat of penalty, many hospitals are seeking fresh approaches for tracking patients after discharge.

The ACA has also ushered in a new era of pay-for-value reimbursement. Initiatives backed by the Centers for Medicare & Medicaid Services (CMS) include testing [bundled payments](#) for hospital and post-acute care stays, using [community-based organizations](#) to help patients in their transition from hospital to home or other care settings, and creating [Accountable Care Organizations](#) to better coordinate care, especially for the chronically ill. Through selected [Medicare Advantage](#) plans, Medicare is also moving toward a care coordination model for patients with chronic conditions.

The transition from volume to value has been further accelerated by the [Medicare Access & CHIP Reauthorization Act \(MACRA\)](#), signed into law in 2015. MACRA provides incentives as well as penalties for providers to participate in risk-bearing, coordinated care models. Similarly, state legislatures are shifting the budgetary responsibility for the overall cost of care for Medicaid patients to managed care organizations that provide services to Medicaid recipients.

This risk-shifting trend is a huge impetus for providers to make sure they can identify patients with multiple chronic diseases and reduce their utilization. The quest to care for these patients longitudinally, rather than symptomatically and episodically, provides a catalyst for monitoring them more closely - setting the stage for increased deployment of remote care management (RCM) technologies

A NEW CODE FOR CHRONIC CARE MANAGEMENT

The federal government has signaled its intention to support chronic care management (CCM) through a new reimbursement code. In early 2015, CMS introduced CPT code 99490, or CCM. The new code requires providers to spend at least 20 minutes per month with Medicare patients who have at least two chronic conditions expected to last a year or more. Reimbursement is about \$43 per patient per month. Remote care management technologies can help providers gather the information needed to meet code requirements.

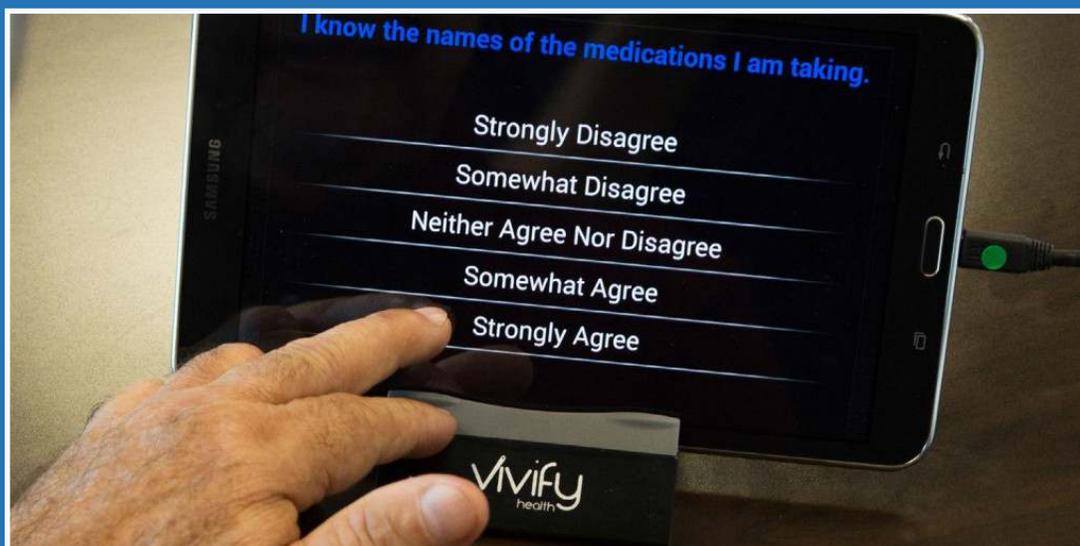
Remote care management: delivering a viable solution

For patients with chronic disease, remote patient monitoring is critical to successfully managing health outcomes. With telehealth technologies, patients can manage their conditions at home, avoid worsening symptoms that lead to costly visits to the emergency room or hospital, and improve their long-term health. Payer and provider organizations can conduct virtual doctor visits; communicate seamlessly with members, patients, and their families; and arrange for immediate medical interventions when problems are detected. Potential results include reduced costs and lowered risk by better educating and engaging patients, promoting adherence to treatment, and providing early intervention to avoid admissions – and readmissions – to the hospital.

The optimum RCM platform will:

- Offer a highly intuitive patient interface
- Be easy for patients and clinicians of all ages and technological know-how to use
- Cater to each patient's risk level
- Support integration with the electronic health record and the transfer of data among multiple devices
- Give the care team the ability to capture daily biometric data, communicate with patients through video calls, and survey patients each day, based on their conditions and unique care pathways
- Protect the privacy and security of patient information

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Patient engagement: enhancing quality of life

A [key study](#) found that patients with chronic conditions spend an average 12 hours a year interacting with healthcare professionals. This limited engagement time can result in low rates of adherence to care pathways, medications, and clinical interventions.

For many chronic diseases, improvement hinges on changing patient behaviors and involving family members. The most effective RCM technologies will provide patients with ongoing education, coaching, and reminders, engaging them and their loved ones to take more responsibility for health outcomes and become true partners in care. As a result of this consistent interaction, patients can manage their conditions proactively and enhance their quality of life.

The staffing question: extending clinical resources

With the surging wave of aging Baby Boomers and the ACA's expansion of insurance coverage, clinicians are hard-pressed to meet the demand for the health services they provide. By the year 2020 the US is expected to experience a [shortage](#) of 45,000 primary care doctors and 46,000 specialists – a shortfall expected to worsen over time. A [seminal study](#) found 34 percent of physicians plan to leave the practice of medicine in 10 years' time. Also, physicians who are starting their medical careers today are more likely to insist on a shorter workweek than their predecessors, further depleting the ability of clinician supply to meet patient demand.

RCM extends clinicians' reach to their patients while conserving scarce clinician time. To keep pace with demand, remote caregivers will need to create new processes for handling increased volumes of patient information. The optimum RCM system will enable clinicians to efficiently manage the complex workflow of remote care for any clinical condition – and scale the program to maximize value throughout their patient populations.



POPULATION HEALTH IS DRIVING RAPID ADOPTION OF REMOTE PATIENT MONITORING SOLUTIONS

A 2015 study finds that the use of remote patient monitoring solutions is on the rise. Of the hospitals and health systems surveyed:

- 66 percent have adopted mobile remote population monitoring solutions to support population health. These are used to manage value-based risk associated with supporting large patient populations with complex chronic conditions.
- 84 percent who have deployed remote patient monitoring are using mobile devices, primarily tablets, to support chronically ill patients recently discharged from the hospital.
- 79 percent are using data analytics and decision support tools to transform raw data into actionable insight for monitoring and managing value-based risk associated with population health.
- Most plan to evaluate patient “bring your own device” options and wearable technologies to support chronically ill patients.

Source: Spyglass Consulting Group, *Trends in Remote Patient Monitoring 2015*.



RCM successes: considering the return on investment

As remote care becomes more prevalent, evidence of its effectiveness is readily emerging through return on investment (ROI) measures. For example, RCM solutions have produced the following results for a variety of healthcare organizations:

Performance improvements and utilization metrics

- For Alignment Healthcare, a population health management company in Orange, California: 49 percent fewer admissions, 37 percent fewer ER visits, and 30 percent fewer readmissions; for one Alignment cohort, zero readmissions over one year.
- For Intermountain Healthcare, a Utah-based health system: a nine-times reduction in inpatient visits, a four-times reduction in ED visits, and a 95 percent patient satisfaction rate
- For Children's Health in Dallas, Texas: a 50 percent reduction in in-clinic visits



Financial outcomes improvements

- For Memorial Hermann in Houston, Texas: a reduction in readmissions from 17 percent to 5 percent, a reduction in nurse visits by 3.6 per episode, a reduction in home health length of stay from 82 days to 48 days, and a cost savings per patient of more than \$8,500
- For CHRISTUS Health System in Texarkana, Texas: reduced readmissions of nearly 50 percent and reduced average inpatient costs from \$16,647 to \$6,430

As CMS and private payers move more and more provider organizations into value-based care arrangements, showing a robust ROI is becoming increasingly critical to provider success. In fact, many payers are now engaging in provider partnerships to achieve optimal results. Remote patient monitoring can offer providers and payers alike a cost-effective way to demonstrate positive ROI in managing populations with chronic conditions.

The next horizon: finding the way forward

RCM technologies are rapidly coming of age, heralding the next horizon of connected, collaborative health and patient-centric care delivery. They are a dynamic solution for providers and payers to adapt to shifting patient demographics, address the burden of skyrocketing medical costs, and effectively manage chronic care across clinically diverse populations.

For those who can build these technologies into the foundation of their business today, opportunities are limitless. The time is now to embrace the future of care.

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Vivify Health Can Help

Vivify Health's remote care management platform empowers healthcare delivery systems to achieve population health goals, including managing chronic disease, reducing readmissions, improving care transitions, and optimizing patient engagement. Vivify's device- and network-agnostic mobile platform delivers the next generation of care with multi-dimensional customized care plans, biometrics, educational video content, and interactive videoconferencing and surveys for any clinical condition.

Vivify founder and CEO Eric Rock has demonstrated "chronic successes" as a serial entrepreneur, having launched three highly innovative software companies. Before Vivify he founded MEDHOST, the nation's leading emergency medicine electronic medical record and the pioneer in touchscreen technology for healthcare. Before MEDHOST, Rock founded his first company based on the first-ever table management system for the hospitality industry. The touchscreen solution used geographical visualization of restaurant status to help solve the complexities of balancing restaurant resources, improving workflows, and accurately forecasting wait times.

With Vivify, Rock continues his track record of creating disruptive technologies that reduce costs, increase efficiencies, and virtually transform industries.



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