



Coordinating Care in an Age of Chronic Illness. As the population ages, the number of people with chronic illnesses increases. If current methods of healthcare delivery remain unchanged, treating chronic diseases will elevate healthcare spending and insurance costs to unforeseen levels. Avoiding that outcome requires an integrated, cooperative approach.

Too often the onus for sharing consistent and accurate patient information, including diagnoses, medications, and treatments falls to the patient.

According to McKinsey, chronic illness currently accounts for 75 percent of our global healthcare spending and is the leading cause of death and disability.¹ By 2030, two out of three Americans will have a chronic condition.²

Treating chronic illnesses involves a team of care providers, from physicians to pharmacists, from family and friends to the person with the illness. In order to effectively and efficiently treat chronic diseases, there needs to be a continuum of cooperation, from hospital to home, from specialist to patient, from intervention to prevention. However, our current system of healthcare delivery is not organized to treat those with chronic conditions in a coordinated, team approach.

A segregated group of specialty physicians, nurses, diagnostic technicians, and others work in isolation from one another. Too often the onus for sharing consistent and accurate patient information, including diagnoses, medications, and treatments falls to the patient. But patients don't necessarily comprehend all of the technical and clinical information associated with their health, nor are they necessarily able to coordinate among these "silos" of care.

The very serious consequence of such a siloed system is that patients with chronic illnesses fall through the cracks of a complex system. This can result in escalated illness, more hospitalization, increased costs, and greater risk of death.

What if a siloed, segregated delivery model became a coordinated, integrated model? Several healthcare systems are already creating new integrated care models.

In the spring of 2010, Cleveland Clinic broke ground on a community health center. David Bronson, president of Cleveland Clinic Regional Hospital, describes it as a "medical home," a place where patients "learn how to both prevent and manage their diseases, access the latest in medical technology and stay connected to their physicians so they can take better control of their health."³

The Center will emphasize chronic disease management and will be staffed with "patient navigators," healthcare professionals who assist patients with all aspects of their care. Their job is to coordinate healthcare services, making sure patients are getting to their appointments and following treatment plans.

Cleveland Clinic's "Patient First" culture is changing the way care is delivered for its patients. A coordinated, team-based approach is now their model. "We are removing the old methodology of, 'Here's a script, go schedule your X-ray. Here's a script, go see ENT.' And we're replacing it with the idea of one-stop shopping," says Lyman Sornberger, Cleveland Clinic's executive director of patient financial services.⁴ The goal is to help people succeed in managing their chronic illnesses so that they stay out of the hospital.⁵

Germany's Polikum, the largest provider of healthcare services in that country, has created polyclinics, places where patients connect with both their primary and secondary care

By 2030:

- The over-65-year-old population will triple
- 6 out of 10 will be managing more than 1 chronic illness
- 1 out of 3 will be considered obese
- 1 out of 4 will be living with diabetes
- 1 out of 2 will be living with arthritis¹³

providers, undergo tests, and fill prescriptions. Polikum has seen its hospitalization costs reduced by about half within a year of adopting this approach.⁶

“Care pathways” is how Kaiser Permanente expresses its integrated care approach. Each person involved in a patient’s care is a part of the team that travels along that patient’s pathway. Hal Wolf, senior vice president and COO of the Permanente Federation, explains what is necessary to achieve a successful integrated care model: “Integrated care requires everyone involved in the patient’s care to work as a team.... They must focus not only on the particular treatment he or she is providing but also on the entire care pathway.”⁷ Necessary to improved outcomes is improving on the internal channels of communication within the health system. “Everyone must talk openly to each other and maintain the same patient-centric focus,” says Wolf.⁸

Geisinger Health System in Pennsylvania is practicing the concept of a medical “home,” a central place for patients to receive their care. For Geisinger, the home is typically a primary care practice. The primary care medical staff’s job is to look out for their patients, to be available 24/7, helping patients with direct care, referrals, billing questions, and other issues. Geisinger’s system has cut patient hospital admissions by 20 percent and costs by seven percent.⁹

Lisa Wangsness, of the *Boston Globe*, describes medical homes as a kinder, gentler approach to managed care, one that is “based on the idea that high quality care and stronger relationships between patients and their primary care doctors will save money in the long run.”¹⁰

Like the patient navigators at Cleveland Clinic, Melinda Abrams, assistant vice president of the Commonwealth Fund, sees the primary care practice as fulfilling that role in the medical home model. “The goal is that the primary care practice is redesigned so that the patient will see their primary care physician as a source to help them navigate the system.”¹¹

The “Silver Tsunami”

A convergence of factors is creating a fast-growing population of people with chronic conditions. One, nearly one-third of the U.S. population is Baby Boomers. Two, the first Baby Boomers turned 60 in 2006; today, 50,000 Baby Boomers turn 50 every day.¹² Three, Baby Boomers will live longer than the generations that preceded them. And four, Baby Boomers are being diagnosed with chronic illness in record numbers, due to the sheer size of their demographic and their age, heredity, the effects of smoking over many years, the results of being overweight, and poor nutrition.

These numbers and illnesses translate into more physician and ED visits and more hospitalizations and readmissions. A coordinated approach to care for these Boomers will improve the quality and costs of treatment.

Over the next 10 years, demand for cardiologists will increase by 33%, while the supply of cardiologists will increase by 5%.¹⁸

The Costs

Today, 80 percent of healthcare spending pays for the care of 20 percent of Americans living with chronic illnesses, such as diabetes and heart disease. Out-of-pocket costs to these Americans will increase to the point where affordability will be a serious issue. More healthcare costs may be absorbed through government funding such as Medicare and Medicaid. But as readmissions drive up costs, these organizations are cutting back on reimbursement of readmissions if patients return for care within 30 to 60 days of their hospitalization.¹⁴

A greater emphasis on transitional team care, on patient education, and on holistic care delivery may cut hospital readmission rates. Not only will this improve the quality of life for those with chronic illness, it will also save a great deal of money. Medicare spends \$17 billion a year for readmissions. One out of five patients is readmitted.

Patients with chronic diseases are readmitted at alarming rates because managing their illnesses is complex, and their physiology is fragile. One change in a medication, neglect to take medications as prescribed, or failure to show up for a doctor's appointment can have severe health repercussions and often result in more trips to the ED and more hospitalizations.

One organization estimates that half of hospital readmissions could be prevented if post-discharge care was carefully integrated and coordinated.¹⁵ Yet without financial incentives to work cooperatively and practice a patient-centered care model, silos of care and segregated treatment will continue.

Supply and Demand

Physicians are not growing at the numbers that the population in need of physician care is growing. This includes primary physicians as well as specialists.¹⁶ Take orthopedic surgeons as an example. Baby Boomers will be replacing their hips and knees at increasing numbers—eight times more knee replacements will be performed in the future than are today.

Demand for orthopedic surgeons over the next decade will increase by 23 percent, while the number of orthopedic surgeons practicing will increase by only 2 percent.¹⁷ Leveraging new models of care and new roles for care providers will be necessary to fill the gaps in supply and demand.

Changes in Attitude

When it comes to healthcare, the Boomer generation has different attitudes and expectations than past generations. They are better educated than previous generations, and they are also part of the Internet culture, using the Web, social networks, and text and e-mail as regularly as the younger Gen Yers.

Most (79%) of all adult users and 86% of those with chronic conditions seek health information online.¹⁹

“People with multiple problems need time, and that is not cheap and is currently not paid for by medical insurance. It’s not possible to address five different problems in a 20-minute visit. We don’t get one problem at a time.”
— Dr. Atul Gawande²⁰

Boomers will be more involved in their healthcare. They may well be the first generation of “patient consumers” seeking out and educating themselves on treatments, physician and hospital rankings, and costs of care. They will bring their own research and thoughts to the table when discussing conditions and care treatments with their physicians. This generation also has more medical services and technologies available to them than ever before.

However, given the complexity of chronic illnesses and the number of physicians, specialists, and other healthcare professionals involved in treatment, Boomers, no matter how educated and technologically savvy, can be overwhelmed and confused by the intricacies of their care.

Changing Places

Primary physicians, specialists, pharmacists, and diagnostic technicians work in clinics, medical office buildings, emergency rooms, hospitals, rehabilitation centers, and long-term care facilities. As the number of people with chronic illnesses increases, treating them in one place by one healthcare practitioner is simply not a sustainable care model. A diabetic may be better served in a clinic that caters to that particular illness. In such facility, for example, the patient will see a nutritionist, a physician, and a pharmacist all in one visit and possibly sign up for the exercise classes held there throughout the week. A one-stop facility, as Cleveland Clinic’s Community Health Center and Geisinger’s “medical home” seek to create, may well be the models that improve outcomes and costs.

These approaches are in striking contrast to today’s more typical approach: The diabetic patient visits her primary physician, who gives her a new prescription, a referral to a nutritionist, reminds her to watch her weight and diet, and sends her off to navigate follow up.

Silos of segregated care must be replaced by a continuum of care. Our future model of healthcare delivery must address growing numbers of people with chronic diseases, aging patients, supply of and demand for physicians, changing roles for care providers, alternative care settings, and leveraging technology to create an integrated, connected, and cooperative model of care.

Managing Care on a Daily Basis

When managed care systems and health maintenance organizations (HMOs) began to form in the early 1970s, the concept of preventative care, wellness checkups, and annual diagnostic testing was a new idea for many. Beyond vaccinations, little had been done in the way of preventative care.

An increased awareness of the benefits of nutrition and exercise has helped broaden our views of what “taking care of our health” means. So do treatment approaches such as acupuncture, massage, meditation, and yoga—holistic mind/body activities associated

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with Eastern medicine. Many of the concepts behind an integrated approach to treating chronic disease (and an integrated approach to healthcare, in general) have the idea of holistic care behind them.

Managed care involves greater responsibility on the part of the patient in taking the lead on health issues and treatment follow up. Eating well and exercising regularly helps cardiac and diabetic patients remain healthier and out of the hospital. Remembering to take medications does, too. Maintaining a positive outlook can improve physiological symptoms. There is much a patient can do to help in his or her care process.

And there are new tools and ways to access information, many aided by technology, that help patients in their disease and care management.

Take Project RED, for example, which is short for "reengineered discharge." Brian Jack, a physician at the Boston University Medical School, has created a 10-point checklist that teaches patients about their illness and treatment throughout their hospital stay. It helps patients learn about and organize their post-discharge responsibilities, such as following up on appointments and filling prescriptions. Jack's idea was to reengineer discharge orders that are organized and understandable to patients. Emergency room visits and readmissions have been reduced 30 percent since Project RED became standard protocol.²¹

Jack's next project, in which he worked with computer scientists at the Massachusetts Institute of Technology (MIT), created Louise, a virtual discharge advisor. The computer animation allows patients to work at their own speed to understand their discharge plans and follow-up activities. One patient even preferred Louise over a human doctor. Louise "explains more, and doctors are always in a hurry."²²

Building a Community of Care

A community of care is at the heart of wellness and maintaining a healthy lifestyle, even for those with chronic illness. The intersection where the patient and the care provider meet changes in an integrated care model. Instead of a single intersection, there are many points of contact and connection along the continuum, not only for the patient, but also for the care providers.

But with a limited supply of physicians and specialists to fill the growing patient demand, how can this community of care be sustained? Patient navigators, advocates, transition coaches, nutritionists, behaviorists, virtual advisors and educators, and exercise coaches join the more traditional care roles of physician, pharmacist, physical therapist, and nurse.

An Internet search for "patient navigator" reveals the demand for this growing role within an integrated care model. These trained clinicians and service providers "walk" with patients during treatment as well as discharge. They help demystify the complexities of

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illness and treatment, of medical billing and prescription directions, and serve to inform and guide family and friends.

The role of patient advocate is a natural one for nurses, who consider advocacy a part of their job. A recent article posted on nursezone.com addressed the role of nurses as patient advocates. "Nurses are at the front lines of care, and they have a good handle on the issues and what the patients need," says Janice Phillips.²³ But the role of patient advocate is growing as a distinct profession within the care continuum. Janet Wise and Karen Mercereau are both former RNs who now run private patient advocacy businesses. Mercereau has also created a curriculum to train nurses as advocates. "This is a movement, nurses actively working together to turn health care around, patient by patient." Wise even accompanies her patients to their doctor's offices.²⁴

The Cleveland Clinic's patient navigators are trained primarily in customer service and on aspects of the clinic's healthcare delivery system. "The navigator role is part of a shifting of resources from the back-end to the front, which is where the industry is heading," says Cleveland Clinic's Lyman Sornberger.²⁵ One-on-one navigation is how patients are guided through the system, as navigators straddle the worlds of clinician and patient.

A policy brief from The Synthesis Project, a Robert Wood Johnson Foundation initiative, defines the goals of care management, particularly for people with chronic conditions: improve patient's functional health status, enhance coordination of care, eliminate duplication of services, reduce the need for expensive medical services, and increase patient engagement in self care.²⁶ Whether patient coaches, advisors, advocates, or navigators, these definitions describe the roles that they are beginning—and will continue—to fill.

Expanding Care Networks

Just as Project RED and Louise are expanding traditional avenues for receiving information, the roles of care providers are also expanding. It follows that the places in which care is administered will also expand. An increasing population of people with chronic diseases is resulting in new care settings that are designed for specific patient communities and care pathways.

The Bolton Primary Care Trust in the U.K. created a diabetes network to better address a growing population of diabetics. The network includes primary and secondary care, social services, volunteer groups, and patient representatives. The networks are local, so that patients are visiting facilities and practices close to their homes.

The Collaborative Cardiac Care Services is a network for cardiac patients in Colorado's Kaiser Permanente (KP) system. Once they are hospitalized for a cardiac event, they are registered in the acute care events (ACEs) network and assigned a nurse manager, who coordinates the transition process from hospital to home. A pharmacist is then assigned responsibility for the patient and monitors them long term. The results of the

Cooperative approaches involve patients as well. Group appointments are gaining recognition as an effective method for educating patients on their health and care.

Collaborative Cardiac Care Services network are impressive: The mortality rate of these cardiac patients has dropped by 76 percent and saved \$30 million in annualized costs.²⁷

Kaiser Permanente is also building a one-stop shop approach in its California facilities. Hal Wolf describes it as an "end-to-end experience." KP members receive primary and secondary care within the facilities. Some facilities also include laboratory and imaging tests and pharmacy services. The most integrated also offer same-day outpatient surgery. "This way, we take care of most of our patient's health care needs in a single facility," says Wolf.²⁸

At the Cleveland Clinic's Community Health Center, patients can be taught to prepare healthy, inexpensive meals in the "Iron Chef" teaching kitchen. The Center also offers a 21-bed dialysis unit, meeting rooms for community-sponsored events, and a full-service pharmacy.²⁹

Care settings can also serve to more quickly and obviously support a cooperative and integrated care approach. The Torbay Care Trust in the U.K. located healthcare and social work professionals in a single facility. The goal was to communicate a clear vision to the staff and patients about the benefits of integrated care and to excite staff about new ways of working.³⁰

Cooperative approaches involve patients as well. Group appointments are gaining recognition as an effective method for educating patients on their health and care. These appointments typically include 10 to 15 patients, all of whom share a similar health condition, who meet together with one or more caregivers for instruction and education on their condition. For people who have undergone orthopedic surgeries or for those living with heart disease, group appointments offer patients access to information from both their caregivers and their peers.

Several hospitals in the Detroit, Michigan, area have implemented group models of care within their orthopedic departments. Jim Crean, a physician assistant and orthopedic coordinator, helped organize the Joint Club at the POH (formerly known as Pontiac Osteopathic Hospital) Regional Medical Center. "There's nothing magical about people being grouped together from a biomechanical standpoint, but groups create camaraderie, and people become more active sooner," he says. "It's good for patients to compare their progress with other patients."³¹

Calandra Anderson, who staffs the Joint Club, emphasizes the value of community in the healing process. "No one is alone. You can grow together, learn together. Because it's a collaborative effort, patients have less anxiety, less fear and more quickly get back to their independence in life."³²

Instituting a shared medical appointment has benefits for a health system's efficiency as well. A physician's productivity increases by an additional six patients during a four-hour clinic session. Not only is physician productivity and physician and patient

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satisfaction increased, but this built-in support system also improves patient compliance with treatment regimens and supports healthier lifestyle behaviors.³³

Designing a fluid, adaptive facility for serving patients with chronic conditions is as much a part of integrated care as is creating a coordinated care team. A clinic specifically catering to cardiac patients may include an acute care wing, a mini-hospital of sorts, from which a patient is transitioned to a rehabilitative area or to home. An acute care hospital might re-portion a unit or several floors to an integrated care facility, one that might even include a gym, a kitchen, hospitality services for families, and offices for social workers and respiratory therapists. A flexible interior design that can integrate levels of care, types of treatments, rehabilitative care, and family/patient hospitality—a continuum of care services—offers choices as care processes and approaches shift.

A facility might even house an IT support group, whose role is to troubleshoot and assist patients who are connected via technology from their homes or rehabilitation centers. A call center in a healthcare facility? As the population ages and the healthcare industry serves a growing elderly population with chronic conditions, creating greater virtual connections from patients' homes to wherever-and-whoever could become a common form of care. Regularly checking in on patients at home can decrease readmissions as well as costs. Why not a customer service center and IT department located in a healthcare facility whose sole purpose is to provide service to patients who are at home?

Hospital at Home is a program designed and piloted by Johns Hopkins in Baltimore, Maryland, and tested in three cities around the U.S. Its objective was to supply hospital-level care at home to geriatric patients. The care included daily visits, diagnostic testing and treatment, and therapies. The pilot proved valuable from both financial and patient satisfaction standpoints. The cost of treating patients at home versus the hospital went from \$7,500 to \$5,100. Readmission rates decreased significantly, as well. Hospital at Home patients and their families rated the program highly—citing less stress and higher satisfaction when compared to being treated in a hospital.³⁴

A patient's home can become an efficient place for care to be delivered and, at the same time, retain the qualities of home. It can be the place where patients assume responsibility for assessing, monitoring, and communicating their health data. Technology has made possible two-way communication between patient and provider, without requiring the physical presence of the provider. The Boomer generation's familiarity with the Web and e-mail serves them well in taking a more active role in managing their care remotely. The technology tools available for self-monitoring at home are growing every day.

Patients can be trained to take their vitals, the data can be transmitted digitally or via phone, and nurses can check results and record them into the patient's digital personal health record (PHR). On a regular basis, the PHR is shared with the patient's care advisor, navigator, nurse, physician, or any combination of the patient's care team, who remain connected to the patient via remote communication. Not only does

“[Physicians] have moved with great timidity into the core of what they do: how they actually take care of patients. Yet, all around them, consumers are changing, the disease burden is changing.”
— David Lawrence³⁸

self-monitoring and communicating the information keep the patient involved and informed on managing her health, but it also keeps records up to date and accurate.

Using technology to enable patients to be proactive about monitoring their conditions is helping reduce ED visits and hospital readmissions. Studies show that engaged patients who become informed and participate in their own healthcare have improved outcomes.³⁵

The author of a McKinsey report on integrated care writes: “By taking a more comprehensive approach, integrated care offers patients higher-quality, more efficient care that better meets their needs. In many cases, the increase efficiency also helps control costs.”³⁶

In *From Chaos to Care: The Promise of Team-Based Medicine*, author David Lawrence makes the case that care teams are the only answer to supporting, treating, and managing chronic illness. Moving quickly to team-based care has to happen—the stakes are too high to not move quickly or apply pressure to change. Over 150 million Americans will be living with chronic diseases by 2020. More people than necessary will die, Lawrence writes, and the financial burdens will be high with only “modest improvements in life expectancy, quality of life, care safety, responsiveness, timeliness, affordability, or availability across our entire society.”³⁷


Shifting from the siloed, fragmented healthcare delivery that is common today to an integrated, cooperative one is a great challenge. It will involve changes on a number of fronts: improving patient self-care, building teams of care providers that are accountable and responsible as a team, introducing tools of technology to better communicate and share information. And all of these must be guided by clinical leadership that wants to get to a state of integrated, cooperative—and sustainable—healthcare delivery.

Notes

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