

opportunities to communicate are more frequent. But some changes in health care may be causing relationships to deteriorate. EMRs and the use of hospitalists probably have led to fewer personal interactions among physicians, and the consolidation of physician practices and changes in insurance participation can affect referral networks.

I did not have relationships with most of Mr. K.'s other clinicians when his care began, so I reached out to them early and often to establish connections. I believe these connections instilled a sense of mutual accountability, helping to mitigate the potential for a bystander effect.⁵ Part of

my job as quarterback is to make sure the other players know where the ball is and what routes each player is running. But everyone has to come to the huddle willingly. Fortunately, providing care collaboratively is more enjoyable than staying alone in our silos. I considered it a mark of successful teamwork when Mr. K.'s surgeon sent me an e-mail on day 80 saying, "Tumor is out!"

No one knows for sure how Mr. K.'s case would have played out without effective care coordination. But this instant replay reveals that there is only one way for physicians to confront the perilous nature of complex care: together.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

From the Departments of Healthcare Policy and Research and Medicine, Weill Cornell Medical College, New York.

1. Improving America's hospitals: the Joint Commission's annual report on quality and safety, 2007 (http://www.jointcommission.org/assets/1/6/2007_Annual_Report.pdf).
2. Hinds PJ, Bailey DE. Out of sight, out of sync: understanding conflict in distributed teams. *Organization Sci* 2003;14:615-32.
3. Press MJ, Michelow MD, MacPhail LH. Care coordination in accountable care organizations: moving beyond structure and incentives. *Am J Manag Care* 2012;18:778-80.
4. Bodenheimer T. Coordinating care — a perilous journey through the health care system. *N Engl J Med* 2008;358:1064-71.
5. Stavert RR, Lott JP. The bystander effect in medical care. *N Engl J Med* 2013;368:8-9.

DOI: 10.1056/NEJMp1406033

Copyright © 2014 Massachusetts Medical Society.

Toward Increased Adoption of Complex Care Management

Clemens S. Hong, M.D., M.P.H., Melinda K. Abrams, M.S., and Timothy G. Ferris, M.D., M.P.H.

Many observers of U.S. health care are now convinced that improved management of the care of patients with complex, high-cost conditions is an essential part of the solution to our health care cost problem. Increasing evidence supports the use of specially trained, primary care-integrated, complex care management (CCM) teams to improve outcomes and reduce costs by addressing the needs of the small proportion of patients who account for a majority of health care expenditures.¹ For example, for successive cohorts of high-risk patients from 2006 through 2012, Massachusetts General Hospital achieved savings of 4%, 8%, and 19% by pursuing a CCM approach.² CCM is a nearly universal element of the strategies used by providers accepting financial risk under Medicare's account-

able care organization contracts.³ Even as the momentum builds, however, substantial financial and nonfinancial barriers to more widespread adoption remain.

The fee-for-service payment system is the most significant barrier to CCM adoption. CCM services are not easily separated into discrete, reimbursable units. Even when these services are disaggregated, most are not currently reimbursed. Providers, therefore, have little incentive to adopt CCM. In fact, when these programs are affiliated with hospitals, the fact that effective CCM reduces the rate of hospitalization creates a financial disincentive. Although it might be possible to pay for CCM on a fee-for-service basis, global-payment or shared-savings approaches that reward reductions in avoidable health care utilization are clearly preferable.

Providers that are reimbursed through contracts that hold them accountable for costs of care (either total medical expenses or changes in total medical expenses) have an incentive to implement CCM. Many providers, however, remain unable to commit to such contracts. Fortunately, incremental payments used in conjunction with traditional fee-for-service systems can feasibly support CCM. In such a hybrid model, payers provide a care management fee (typically a per-member-per-month payment) to cover the costs of the CCM, and the provider is at risk only for the management fee. This approach provides an incentive to reduce avoidable use of services without requiring the provider to take on risk for the total costs of care for its patient population. Contracts under which providers take on risk for care

management fees are most powerful when that risk is tied to sufficient shared savings (if the savings exceed the fees), particularly for hospital-based providers seeking to offset losses from reduced acute care utilization. Incentive-based payment, based on standards for CCM-program operation or achievement of quality thresholds, further enhance this payment method. Greater availability of the care management-fee approach would dramatically expand the pool of participating providers to include those unable to shoulder the financial risk of a global-payment contract.

Additional financial barriers include lack of capital for CCM start-up costs (e.g., costs of information technology and staff training) and unrealistic expectations for a return on investment in less than 3 years. One-time supplemental payments would help with start-up costs, and contracts of sufficient duration (3 to 5 years) would give providers time to implement a CCM program and make the course corrections required to achieve a return on investment.

Nonfinancial barriers also impede CCM adoption. A recent Commonwealth Fund brief describes some of the common characteristics of successful care management programs.⁴ CCM works best when care managers collaborate closely with all providers caring for their assigned patients. Integration of providers of behavioral health care is especially important, given that behavioral health problems contribute significantly to excess use of health care services among high-cost patients.⁵

Although integrated delivery

systems are best positioned to enable close collaboration, most primary care is still provided by small and medium-sized practices that often operate in relative isolation. These small primary care practices (many of them located in rural areas) rarely have the resources or volume of patients to justify hiring CCM staff. Specific incentives that encourage providers to share key resources — such as patient registries, CCM staff, health information technology (HIT) platforms, and analysts to support quality-improvement efforts — can help practices to achieve economies of scale and reduce their costs. Government or private organizations can convene regional entities and create an organizational home for shared CCM resources. Real-world examples include Vermont's Blueprint for Health and Health Quality Partners in Pennsylvania.

CCM programs operate most efficiently if all the patients with complex conditions in a particular practice are eligible to participate in the program, regardless of payer. Otherwise, practices must develop different CCM programs for different patients on the basis of payer contracts instead of on the basis of need, which is administratively unrealistic. Multipayer, multi-stakeholder agreement on CCM standards, scope of service, and key performance metrics would reduce the administrative burden and enable high-quality CCM.

Effective CCM depends on a strong primary care foundation. Despite the national movement toward patient-centered medical homes, primary care remains underresourced. Conversely, achieving the full promise of patient-centered medical homes for cost savings requires effective CCM.

Policies that provide increased support for primary care will directly and indirectly support more effective CCM.

Barriers to effective CCM also come from within health care delivery organizations. Beyond the resistance to change present in most organizations, the lack of experience and knowledge of operational details regarding the best ways of designing and implementing effective CCM programs is a major obstacle. The number of training programs aimed at the management and operation of CCM programs is increasing, but high-quality, standardized CCM training for care managers and other members of the CCM team needs to be more widely available. It is important for educational institutions and other training and technical-support organizations to develop greater capacity and standards to support this new, specialized workforce and train health care teams to collaborate effectively with CCM teams. Certification programs and professionalization of current paraprofessional workers, such as community health workers, may be necessary, and reevaluation of scope of practice, interprofessional training, and training in team-based care will be important to overcome tendencies of professional groups to protect the scope of their work.

The analytic approaches and HIT required for effective CCM remain underdeveloped. Better algorithms could be developed for identifying patients whose care offers the greatest opportunity for reducing expenditures, health information exchanges could be created to provide real-time data to CCM teams, and software for population manage-

ment and care manager workflow could be improved. Organized investment in such development and the improved integration of available products into comprehensive electronic health records could accelerate adoption. Less ambitiously, performance standards for these platforms might help providers navigate the increasingly complex HIT-vendor terrain.

Finally, although the emerging research on CCM is compelling, additional evidence regarding net savings would accelerate adoption of CCM. We still have much to learn about best practices for improving care for patients with complex conditions, including how best to identify them, risk-stratify them into coherent clinical groups, engage them and their families, provide CCM services, and develop performance

metrics that are both sensitive to change and meaningful to patients, families, and providers.

Achieving the widespread adoption of high-performing CCM programs is a critical part of a national cost-containment and quality-improvement strategy. If CCM is to become a ubiquitous approach to reducing health care costs, we will need to overcome some substantial barriers. Addressing the financial, organizational, technical, and workforce barriers described above will require new policies and practices, but increased adoption can be achieved without increasing the total cost of care. Successful CCM not only pays for itself, it also directly addresses our tripartite goal of lower costs, improved care, and improved patient experience. It is time to accelerate the adoption of CCM within our health care system.


Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From Massachusetts General Hospital (C.S.H., T.G.F.) and Partners Health Care (T.G.F.) — both in Boston; and the Commonwealth Fund, New York (M.K.A.).

1. Cohen SB, Yu W. The concentration and persistence in the level of health expenditures over time: estimated the U.S. population, 2008-2009. Statistical brief no. 354. Rockville, MD: Agency for Healthcare Research and Quality, January 2012.
2. McCall N, Cromwell J, Urato C. Evaluation of the Extended Medicare Care Management for High Cost Beneficiaries (CMHCB) demonstration: Massachusetts General Hospital. (RTI project no. 0209853.018.) Research Triangle Park, NC: Research Triangle Institute International, July 2013.
3. Toussaint J, Milstein A, Shortell S. Pioneer ACO dashboard. Baltimore: Center for Medicare and Medicaid Innovation, July 2013.
4. Hong CS, Siegel AL, Ferris TG. Caring for high-need, high-cost patients: what makes for a successful care management program? New York: The Commonwealth Fund, 2014.
5. Melek S, Norris D. Chronic conditions and comorbid psychological disorders. Princeton, NJ: Robert Wood Johnson Foundation, 2008.

DOI: 10.1056/NEJMp1401755

Copyright © 2014 Massachusetts Medical Society.

 An audio interview with Dr. Hong is available at NEJM.org

Time Off to Care for a Sick Child — Why Family-Leave Policies Matter

Mark A. Schuster, M.D., Ph.D., and Paul J. Chung, M.D.

Health care providers and public health officials routinely recommend that acutely ill children stay home from school and, if necessary, see a clinician. Otherwise, their illnesses can worsen or spread to others, health care costs can increase, and small problems can become serious threats. But for many employed parents, taking time off to care for a sick child means losing income or, worse, risking their job.

“A mother deserves a day off to care for a sick child . . . without running into hardship — and you know what? A father does,

too,” President Barack Obama said during his 2014 State of the Union address. The conflict between protecting personal and public health and paying the rent and the grocery bill was highlighted during the 2009 H1N1 influenza pandemic, when government officials asked parents to keep their sick children home, only to find that millions of employed parents simply couldn’t.

Even without a pandemic, similar stories play out throughout the United States every day. Consider a mother who knows both how to assess her son’s asthma

symptoms and when he needs to see a clinician. If his medicine doesn’t seem to be working on a weekend or at night, they go straight to the clinic, he receives treatment, and they avoid a hospital admission. But when the boy has an asthma attack on a weekday morning, his mother sends him to school, fearing that missing work will mean losing her job. Three times in 18 months, when she waits until after work to bring him to the clinic, his asthma worsens, and he ends up hospitalized. Each time, what should have been 3 hours in the