

The Case for Professional Case Management to Enhance Patient-Centered Coordinated Care: A Sampling of the Evidence

New Ways of Delivering Coordinated Health Care Services Aim to Improve Care Quality

The challenge

More than half of Medicare beneficiaries have five or more chronic conditions. Each year, the average Medicare beneficiary sees two primary care physicians and five specialists from four different practices.^{1,2} In fact, some see as many as 16 different physicians in a year.³ In a 2007 survey, about 40 California physicians reported that, over the previous 12 months, their patients experienced problems because care was not well coordinated across multiple sites or providers.⁴

According to a 2005 Commonwealth Fund survey, a third of U.S. respondents indicated that either their test results or records were not available at the time of a doctor's appointment, or that a doctor had ordered a test that had already been done. At least a third of hospital patients did not receive instructions about what symptoms to watch for when discharged and did not know whom to contact with questions—or were simply left without arrangements for follow-up care.⁵

A survey published in the *Archives of Internal Medicine* highlights the communication gap between doctors and patients. In interviews with patients on the day of their discharge, researchers found only 18% knew the name of the physician in charge of their hospital care. The authors pointed out that this confirms past research. What's new is the discrepancy between patient and physician understanding. For example, 77% of physicians believed patients knew their diagnosis, but only 57% of patients actually knew at discharge.⁶

These challenges are being addressed in multiple ways across the country through initiatives aimed at improving the coordination of health care services for patients. Care coordination is an essential activity to achieve the goals of better individual health, better population health and reduced health care costs as outlined by the Administration and other key health care policy experts. Patient-centered, coordinated, team-based care can help patients reach their optimum level of wellness, self-management and functional capability.

¹ Thorpe Kenneth E., Ogden Lydia L. Analysis & Commentary The Foundation That Health Reform Lays For Improved Payment, Care Coordination, And Prevention *Health Affairs*, June 2010; 29(6): 1183-1187.

² Pham HH, Schrag D, O'Malley AS, Wu B, and Bach PB. Care patterns in Medicare and their implications for pay for performance. *N Engl J Med*. 2007;356(11):1130-9.

³ Bodenheimer, T. Coordinating Care—A Perilous Journey through the Health Care System, *N Engl J Med*. 358:1064-71 (March 6), 2008.

⁴ Harris Interactive, *Health Perspectives in California*, June 2007 (cited in *Snapshot: Uncoordinated Care: A Survey of Physician and Patient Experience*, California HealthCare Foundation, 2007).

⁵ Schoen et al. Taking the pulse of healthcare systems: experiences of patients with health problems in six countries. *Health Affairs*. 2005; 0: hlthaff.w5.509v3 (www.commonwealthfund.org/surveys/surveys_show.htm?doc_id=313115).

⁶ Olson DP, Windish DM. Communication discrepancies between physicians and hospitalized patients. *Arch Intern Med*. 2010 Aug 9;170(15):1302-7 (<http://archinte.ama-assn.org/cgi/content/abstract/170/15/1302>).

Professional case management is a critical component of improving care coordination

Evidence abounds demonstrating the need for—and success of—professional case management to ensure coordination of care. The following provides multiple examples—across various health care settings and throughout the nation—of the benefits of professional case management in improving the delivery of health care services for patients.

» Hopkins model eases transitions

Care coordination can ease these transition gaps in communication and continuity. Early results from a Johns Hopkins' project to improve care for seniors with multiple chronic illnesses found that its Guided Care™ program significantly increased patient perceptions of quality, as well as enhanced physician satisfaction, significantly reduced costs and lowered caregiver stress.⁷ The Guided Care nurse smoothes the patient's path through the continuum and coordinates the efforts of providers across care settings: emergency departments, hospitals, rehabilitation facilities, physician offices, nursing homes and at home.

» Geisinger Navigator model cuts readmissions

Geisinger's ProvenHealth Navigator (PHN), a multidimensional medical home model, resulted in significantly fewer hospital admissions (18%) and readmissions (36%) when measured across the entire population. Total care costs for the entire PHN population decreased 7%, but this decrease did not achieve statistical significance. "Our findings, coupled with qualitative observations, however, highlight the importance of placing nurse case managers directly into the practices and arming them with data and analytical capabilities."⁸

» Case management can enhance chronic disease outcomes

A 2007 study published in *Disease Management* found case management reduced the overall risk of heart disease by about 10%. The Stanford University researchers concluded: "If implemented with attention to critical factors, CM has great potential to improve the process and outcomes of chronic disease care."⁹ A 2010 paper in the *New England Journal of Medicine* found that coordinated care management improves disease control and decreases adverse outcomes in patients with both depression and other chronic conditions, including diabetes and coronary heart disease.¹⁰ Patients randomized to receive a collaborative care intervention (which included nurse care managers) had significantly greater improvements across several categories.

⁷"Onsite Nurses Work With Primary Care Physicians to Manage Care Across Settings, Resulting in Improved Patient Satisfaction and Lower Utilization and Costs for Chronically Ill Seniors." *AHRQ Healthcare Innovations Exchange*. AHRQ, 10 Jun 2010. Web. 17 Aug 2010. (<http://www.innovations.ahrq.gov/content.aspx?id=1752>).

⁸Gilfillan RJ, Tomcavage J, Rosenthal MB, et al. Value and the medical home: effects of transformed primary care. *Am J Manag Care*. 2010;16(8):607-614. (http://www.ajmc.com/media/pdf/AJMC_10augGilfillan607to614.pdf).

⁹Stafford RS, Berra K., "Critical Factors in Case Management: Practical Lessons from a Cardiac Case Management Program" *Disease Management*. August 2007, 10(4): 197-207 (<http://www.liebertonline.com/doi/abs/10.1089/dis.2007.103624?journalCode=dis>).

¹⁰Katon WJ, Lin EH, et, al Collaborative care for patients with depression and chronic illnesses. *N Engl J Med*. 2010 Dec 30;363(27):2611-20.

» Nurse-led case management an effective strategy for diabetes

A meta-analysis of diabetes case management interventions revealed nurse-led case management provides an effective clinical strategy for poorly controlled diabetes based on a meta-analysis of clinical trials focusing on blood glucose control. The findings were published in the April 2010 *Diabetes Research and Clinical Practice*.¹¹

» Navigation could drive colorectal cancer screening

Patient navigation may help reduce racial and ethnic disparities in colorectal cancer screening. Patient navigators increased the completion of screening in 465 low-income patients, according to the multi-center study published in the *Archives of Internal Medicine*.¹²

» Nurse case management can reduce CVD morbidity/mortality

A review of studies conducted 1950-2009 demonstrates that individualized, systematic and guideline-based nurse-based case management (NCM) can translate into clinically meaningful reductions in cardiovascular-related morbidity and mortality. The researchers, who published their findings in the March/April 2011 issue of the *Journal of Cardiovascular Nursing*, concluded the NCM model was effective for hospitalized patients, especially during the post-discharge period, in primary care, low-income clinics and in the community, including the workplace. Providing NCM for those at risk of or with cardiovascular disease could help reduce the related loss of productive lives—as well as costs.¹³

» Care management makes a difference in poorly controlled pediatric asthma

A 2009 review of asthma care management interventions found mixed results for care management in general, but concluded that coordinated programs worked, with the greatest benefit seen in populations with under-treated, poorly controlled asthma. “Fragmented, subcontracted care management programs that were not community-based and not connected to the child’s medical home were not beneficial. A care management process that involved both in-person visits and telephone follow-up and provision of resources for reduction of asthma triggers in the home were components of successful programs.”¹⁴

» Early workers’ comp case manager intervention improves outcomes, satisfaction

Among workers with low back pain, early nurse case management contact improved worker satisfaction with how their employer is treating their claim. It also substantially improved the odds of continual employment (more so than age, job satisfaction and the expectation of a good recovery).¹⁵

¹¹ Welch G, Garb J, Zagarins S, Lendel I, Gabbay RA. Nurse diabetes case management interventions and blood glucose control: results of a meta-analysis. *Diabetes Res Clin Pract*. 2010 Apr;88(1):1-6. Epub 2010 Feb 8. PubMed PMID:20116879. <http://www.diabetesresearchclinicalpractice.com/article/S0168-8227%2809%2900551-8/abstract>.

¹² Lasser KE, Murillo J, Lisboa S, Casimir AN, Valley-Shah L, Emmons KM, Fletcher RH, Ayanian JZ. Colorectal cancer screening among ethnically diverse, low-income patients: a randomized controlled trial. *Arch Intern Med*. 2011 May 23;171(10):906-12.

¹³ Berra K. Does nurse case management improve implementation of guidelines for cardiovascular disease risk reduction? *J Cardiovasc Nurs*. 2011 Mar-Apr;26(2):145-67. http://journals.lww.com/jcnjournal/Abstract/2011/03000/Does_Nurse_Case_Management_Improve_Implementation.9.aspx.

¹⁴ Farber, Harold J. “Care Management for Childhood Asthma: What Works?” *Pediatric Asthma, Allergy & Immunology*. September 2009, 22(3): 105-110.

¹⁵ Butler RJ, Johnson WG, Gray BP. Timing makes a difference: early nurse case management intervention and low back pain. *Prof Case Manag*. 2007 Nov-Dec;12(6):316-27.

» Nurse case management can improve transitions for the elderly

Nurse-assisted case management can improve post-hospital transitions of elderly patients to other settings, according to a review of 15 trials. Eight of the 15 interventions showed reduced hospital readmission rates and/or fewer hospital days. Reductions in the use of emergency departments were observed in three of the 11 studies investigating this. Lower expenditures were reported by all six studies reporting such comparisons. Home visits, continuous contact with patients, early and frequent contact, patient education and the use of specialized nurses were cited as program strengths. Findings were published in *Professional Case Management* (2007).¹⁶

» Case managers can improve monitoring of post-fracture osteoporosis

Few outpatients with fractures are treated for osteoporosis in the years following fracture. In a randomized pilot study, research published in *Osteoporosis International* found a nurse case-manager could double rates of osteoporosis testing and treatment compared with a proven efficacious quality improvement strategy directed at patients and physicians (57% vs. 28% rates of appropriate care).¹⁷

» Human (vs. telephonic) contact makes a difference

Services provided *primarily* by telephone have not been effective for Medicare beneficiaries, according to research from CMS¹⁸ and a paper published in the *Journal of the American Medical Association*. It's also the conclusion of a review of 15 different programs published in *JAMA*. "Programs with substantial in-person contact that target moderate to severe patients can be cost-neutral and improve some aspects of care."¹⁹

¹⁶ Chiu WK, Newcomer R. A systematic review of nurse-assisted case management to improve hospital discharge transition outcomes for the elderly. *Prof Case Manag*. 2007 Nov-Dec;12(6):330-6; quiz 337-8.

¹⁷ Majumdar SR, Johnson JA, Bellerose D, McAlister FA, Russell AS, Hanley DA, Garg S, Lier DA, Maksymowych WP, Morrish DW, Rowe BH. Nurse case-manager vs multifaceted intervention to improve quality of osteoporosis care after wrist fracture: randomized controlled pilot study. *Osteoporos Int*. 2011 Jan;22(1):223-30. <http://www.springerlink.com/content/uunx217178u53552>.

¹⁸ Esposito D, Brown R, Chen A, Schore J, Shapiro R. Impacts of a disease management program for dually eligible beneficiaries. *Health Care Financ Rev*. 2008 Fall;30(1):27-45. (<https://www.cms.gov/HealthCareFinancingReview/downloads/08Fallpg27.pdf>).

¹⁹ Peikes D, Chen A, Schore J, Brown R. " Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials." *JAMA*. 2009;301(6):603-618. (<http://jama.ama-assn.org/cgi/content/abstract/301/6/603?eaf>).

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