Methods and Outcomes of Care Management Programs Within Physician Organizations vs. Plan-Based Programs

Background

Americans are increasingly plagued by chronic diseases and conditions. Care management (CM) is a team-based, patient-centered approach to helping patients and their families better manage these conditions and diseases. Research has shown that it can be effective in improving clinically meaningful metrics such as blood pressure and blood glucose levels, and in reducing complications related to chronic disease. However, not all individuals with chronic diseases require services beyond the usual care offered by their providers. Therefore, methods for determining which patients should be offered CM and optimal structuring of CM have become increasingly important issues to providers, health plans, and employer groups trying to allocate scarce resources.

Study Methodology

A research team led by Jodi Summers Holtrop, Ph.D., compared CM methods used by a Midwestern health plan with those used by five physician organizations that partnered with that same plan as part of a 2-year, provider-delivered CM pilot program. They also compared engagement rates and cost savings for CM provided by the physician organizations with similar programs run by the health plan.

The five physician organizations selected 52 of their primary care practices to participate (although one practice subsequently dropped out, leaving 51). These practices had both the capability and resources to deliver CM services, with the majority (42) having been designated as patient-centered medical homes by the health plan. Because members accepted into the pilot program were removed from the plan's disease management (DM) targeting process, researchers retrospectively applied the plan's targeting methodology to these members to identify those that would have met the plan's criteria. The resulting determination concluded whether the individual met only the provider-based criteria, only the plan-based criteria, both sets of criteria, or neither set of criteria.

Researchers also compared member engagement rates among those enrolled in the provider-delivered CM program with the plan's estimated engagement rate among members eligible for CM who did not participate in the pilot. To gain qualitative insights, the research team interviewed leaders and staff at the physician organizations, and conducted onsite observations and practice member interviews at almost half (25) of the participating practices. To assess the cost effects of provider-delivered CM, researchers gathered data on the costs patients incurred for health care (excluding pharmaceuticals) beyond the original study period. Using sophisticated statistical techniques, they compared these costs to those incurred by similar patients enrolled in CM programs managed by health plans.

Continued on page 2.

Takeaway Points

- **Providers use different approaches than the plan:** Physician organizations used varying approaches to both targeting patients and delivering CM services, and these approaches generally differed from those the health plan used.
- **Providers tend to be more inclusive than the plan in targeting patients:** Provider-delivered CM programs targeted a higher proportion and different subgroups of patients than did similar programs run by the health plan, with only a 7.1 percent overlap in the targeted population. The provider approach relies more on clinical information and personal knowledge of the patient, while health plans tend to focus more on the patent's overall utilization history.
- **Provider-based programs generate more patient engagement:** In general, provider-delivered programs achieved a higher patient engagement rate than did the health plan model.
- **Provider-based programs yield greater cost savings, especially when they used care managers embedded within local practices:** When physician organizations placed the CM program within local practices (or closely associated CM activities with practices), CM generated greater cost savings than did similar programs run by the health plan, which relied on centrally located care managers.

Agency for Healthcare Research and Quality

Principal Findings

- **Different targeting approach, with the plan emphasizing risk scores and providers focusing on clinical information and personal knowledge:** Health plans targeted patients for CM by setting thresholds based in part on algorithms designed to predict the future risk of incurring high costs. Physician organizations used a different approach, with all five having a designated person (usually a care manager) review the list of patients accepted into the pilot and subsequently discuss these patients with a physician. Together, they identified those appropriate for CM. The health plan targeted those with higher mean risk scores than did the physician organizations (4.3 versus 2.9), in large part because the health plan explicitly used this score to identify eligible patients. By contrast, most physician organizations decided whether to offer CM based on their clinical and personal knowledge of the patient and his/her situation, often relying on data indicating poorly controlled conditions (e.g., high hemoglobin A1c levels), significant psychosocial issues (e.g., lack of family support), and/or a high degree of motivation to participate.
- **Relatively little overlap in between the patients targeted by the two CM types, with providers being more inclusive than the health plan:** Only 7.1 percent of all accepted patients met both the plan and provider criteria, with these patients representing 19 percent of all patients targeted by the physician organizations and 45 percent of all patients targeted by the plan. On average, physician organizations targeted a larger percentage of patients than did the health plan (37 versus 16 percent). Across the five physician organizations, the percentage of patients meeting the health plan criteria was fairly stable (ranging from 14 to 18 percent), while the percentage meeting the provider criteria varied significantly (from 11 to 93 percent).
- **Greater reliance on practice-based care managers among physician organizations compared with the health plan:** Physician organizations and their participating practices varied in how CM services were delivered but generally relied more on practice-based care managers than did the health plan, which exclusively used nurses centrally located at the health plan and providing services by phone. While one physician organization ran their own centralized CM program, two exclusively used practice-based managers who provided services both in person and by phone, and two used a combination of their own centralized care managers and practice-based care managers.
- **Higher patient engagement in CM delivered by the physician organizations than in plan-based programs:** Patient engagement rates were higher for provider-delivered CM than for the health plan's DM program. However, patient engagement varied both across and within physician organizations, often as a result of how CM services were delivered. For example, within one physician organization, practices offering CM services in person during the patient visit had much higher engagement rates than did those offering them over the phone (71 versus 20 percent). Engagement rates for the health plan's DM programs averaged 13 percent among members eligible for CM who did not participate in the pilot.
- **Greater cost savings for CM delivered by the physician organizations than for the plan-based program:** Patients participating in provider-led CM programs experienced lower costs for care over periods of up to 4 years after the launch of the program, with savings being greatest for those served by care managers embedded within the practices. Comparable patients served by health plan programs experienced less significant cost savings.

Research Publications

Annis A, Holtrop J Summers, Tao M, et al. Comparison of provider and plan-based targeting strategies for disease management. Am J Managed Care 2015 May;21(5):344-51.

Holtrop J Summers, Potworowski G, Green LA, et al. Analysis of novel care management programs in primary care: an example of mixed methods in health services research. J Mixed Methods Res 2016 Sep 27. doi:10.1177/1558689816668689.

Holtrop J Summers, Potworowski G, Fitzpatrick L, et al. Effect of care management program structure on implementation: a normalization process theory analysis. BMC Health Serv Res 2016 Aug 15;16(a):386. doi: 10.1186/s12913-016-1613-1.

Luo Z, Chen Q, Annis A, et al. A comparison of health plan- and provider-delivered chronic care management models on patient clinical outcomes. J Gen Intern Med 2016;31(7):762-70.

Chang H, Chung H, Tao M, et al. Comparison of care management delivery models on the trajectories of medical costs among patients with chronic diseases: 4-year follow-up results. Health Serv Outcomes Res Methodol 2016(16):234. doi:10.1007/s10742-016-0160-x. http://link.springer.com/article/10.1007/s10742-016-0160-x. Accessed November 29, 2016.

Additional Resources

Farrell T, Tomoaia-Cotisel A, Scammon D, et al. Care management: implications for medical practice, health policy, and health services research. AHRQ Publication No. 15-0018-EF. Rockville, MD: Agency for Healthcare Research and Quality; February 2015. http://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/caremanagement/index.html. Accessed November 29, 2016.

Tomoaia-Cotisel A., Farrell TW, Solberg LI, et al. Implementation of care management: an analysis of recent AHRQ research. Med Care Res Rev 2016 Oct 20. [Epub ahead of print.] DOI:10.1177/1077558716673459.

AHRQ Publication No. 15(17)-0016-4-EF
December 2016