AHRQ Estimating the Costs of Supporting Primary Care Practice Transformation Grants

Estimating the Costs of Primary Care Renewal

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Overview of Estimating Costs Grant

Since 2006, CareOregon, a Portland, Oregon-based Medicaid managed-care plan, has worked with select practices that provide primary care to its members to implement a patient-centered medical home (PCMH) program called Primary Care Renewal (PCR). PCR provides reimbursement and other support (e.g., collaborative meetings and practice coaching) to encourage practices to provide multidisciplinary, coordinated, and comprehensive care. Practices implementing PCR agree to establish team-based and customer-driven care, barrier-free access, proactive health improvement for patient panels, and onsite or otherwise integrated behavioral health services.

CareOregon subsequently extended its PCR work by creating the Patient and Population Centered Primary Care (PC3) training collaborative, which allows clinics that are interested in PCMH implementation to explore the PCR experience. Eight organizations, representing more than 40 primary care practices, currently participate in the PC3 learning collaborative. The participating organizations have adopted formal improvement methods, redesigned practices to increase patient empanelment, and introduced care teams. The care teams typically include a physician, registered nurse case manager, medical assistant, and front office staff; however, in some cases, the organizations have supplemented the teams with other staff such as behavioral health coaches or counselors, a triage nurse, or a licensed clinical social worker.

Health Care Setting

This project includes eight clinic systems, representing more than 40 primary care clinics. The clinics serve primarily low-income patients and include neighborhood health centers, general primary care practices, school-based clinics, and a mobile health center.

Location

Western Oregon

Costs Estimated

This study sought to estimate direct and indirect costs of PCMH implementation, including:

- Costs of specific implementation activities
- Total costs
- Costs per service
- Costs per member

In this study, researchers worked with CareOregon and the eight PC3 organizations to try to quantify the true resource and cost burden that similar clinics are likely to bear in successful PCMH transformation. The study had the following specific aim:

> **Aim 1:** Using process improvement theory as a framework, to apply costing methodology and qualitative research methods to the identification, categorization, and quantification of the direct and indirect costs of successful PCMH practice transformation within a safety net–based medical care system.

The study team planned to express the cost of PCMH implementation in terms of costs of specific implementation activities, total costs, costs per visit or other service, and costs per member.

Data and Methods

Data sources for this study included project reports provided by CareOregon and the PC3 collaborative and semistructured interviews conducted with staff in two of the PC3 organizations. The project reports provided structural and background information about the clinics (e.g., clinic hours, staffing, care team design, empanelment status) and financial data, including project budgets and standard labor and nonlabor information. Information from the reports was used to develop an initial model of the PCMH implementation process. The model conceptualized PCMH implementation as a series of nine activities that have been identified as "building blocks of high-performing primary care": engaged leadership, data-driven improvement, empanelment, team-based care, patient-team partnership, population management, continuity of care, prompt access to care, comprehensiveness, and care coordination.

The team planned to use activity-based costing methods to identify costs associated with each activity. In contrast to traditional cost accounting, in which indirect costs are allocated in proportion to an activity's direct costs, activity-based costing assigns indirect costs on the basis of actual use or consumption. The costing method involves the following steps: identify specific activities associated with a process; quantify the activities using appropriate activity measures; assign known indirect expenses (such as labor costs) to the activities and compute activity rates; and generate cost estimates for each activity based on activity volume or time spent on the activity.

To obtain data for the cost estimates, the study team interviewed staff who had participated in PCMH transformation in two of the PC3 organizations. The interviewees included the chief medical officer, operations director, clinical director, process improvement coordinator, and systems analyst/electronic medical record support specialist. In preparation, the team developed an interview guide with questions organized by activity. The questions asked staff to identify new practices that were implemented, who had been involved in the work, how much time was dedicated to the activity, whether new roles were developed, and whether any tasks or activities had to be suspended or assigned to other staff during PCMH implementation. The team planned to combine information obtained through the interviews with financial data to compute the direct and indirect costs, as well as opportunity costs of each activity.

Anticipated Benefits

The study provides valuable insights into how staff charged with implementation view their work in pursuit of better patient care.

Challenges to Estimating Costs

Obtaining information about the transformation activities as planned proved problematic. This was partly due to the retrospective nature of the interviews, as most of the activities being discussed had occurred between 18 and 36 months prior. Although respondents could usually recall and discuss a given implementation activity quite easily, details about specific hours spent on each task, specific staff assigned to a task, or foregone activities yielded sporadic and incomplete detail.

Interviewees also considered many PCMH implementation activities to be part of their regular activity and not substantively different from their other work. For example, making data systems more efficient, assigning patients and appointments to individual providers, and improving access were viewed as normal and ongoing quality endeavors. This interpretation made it difficult for staff to isolate work that was specific to the PCMH and identify potential tradeoffs in activities. This suggests that activity-based costing works best when the analyzed process is clearly distinguishable. Additionally, efforts to estimate the costs of PCMH transformation might be more effective if they are established early in the implementation process and conducted contemporaneously with PCMH transformation.

Results

After analyzing the responses obtained through the interviews, the study team concluded they did not have sufficient usable information to construct the activity-based cost model of PCMH implementation as planned.

Although the costs of PCMH transformation could not be estimated, the study yielded valuable insights into how staff members charged with PCMH implementation view their work in pursuit of better patient care. For many staff, the work associated with PCMH implementation was not viewed as distinct from the work they were already doing to improve care. Milestones such as PCMH recognition provide useful targets for staff to aim for, thinking about workflows in new ways can generate innovations about efficiency, and financial incentives for transformation are helpful. However, the researchers found that PCMH goals and principles already imbued the work of many clinic staff, such that new activities to achieve these goals were seen as a natural continuation of their ongoing efforts rather than a clearly separate initiative.

> *"Although we didn't achieve our full objective of a PCMH implementation cost model, this study yielded valuable insights into how staff charged with implementation view their work in pursuit of better patient care."*
>
> - Richard Meenan, PhD, MPH, MBA, Principal Investigator

Relevant Information

Activity-based costing methodology is discussed in:

Kaplan RS, Bruns W. Accounting and Management: A Field Study Perspective. Cambridge, MA: Harvard Business School Press; 1987.

The 10 building blocks of high-performing primary care practices are discussed in:

Bodenheimer T, Ghorob A, Willard-Grace R, et al. The 10 building blocks of high-performing primary care. *Ann Fam Med* 2014;12(2):166-71.

Publications

Publications from this study are forthcoming.

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