AHRQ Estimating the Costs of Supporting Primary Care Practice Transformation Grants

Understanding the Direct and Indirect Costs of Transformation to Medical Homes

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Overview of Estimating Costs Grant

In 2005, the North Carolina Practice Support Program launched a statewide initiative to help primary care practices transform into patient-centered medical homes (PCMHs). Quality improvement consultants from the North Carolina Area Health Education Center (AHEC) served as practice coaches and helped practices implement workflow changes and track improvements. The practices focused on improving the care of patients with asthma or diabetes, adopting changes that included the use of patient registries, planned care templates, disease-specific care protocols, patient self-management tools, and regular meetings of the care team. Practices that achieved recognition benefited from provider incentives in the form of enhanced payments from some regional payers. A recent study examined 76 of the practices and determined that 25 (33%) achieved 2008 National Committee for Quality Assurance (NCQA) PCMH recognition; 22 practices were recognized at Level 3, and three at Level 1.

Health Care Setting

This study involves four small- to medium-sized primary care practices, each with 10 providers or fewer.

Location

North Carolina

Costs Estimated

Incremental costs of PCMH transformation and achieving NCQA PCMH recognition, including:

- Costs by phase of PCMH transformation (development, implementation, maintenance)
- Costs per full-time provider
- Costs of applying for PCMH recognition
- Total costs

The aim of the current study is to estimate the costs associated with achieving NCQA PCMH recognition. The study involves four primary care practices (three pediatric practices and one family practice) that participated in the North Carolina Practice Support Program and achieved Level 3 NCQA PCMH recognition based on 2011 NCQA standards. The practices were identified with assistance from practice consultants employed by the North Carolina AHEC's Practice Support Program, and were selected because they had developed and implemented most of the required work and practice changes using their own clinical and administrative staff members rather than relying heavily on external consultants.

The study estimates the incremental costs of PCMH transformation; specifically, costs that are attributed to new activities required for NCQA PCMH recognition and that are above and beyond previous or baseline costs. Costs estimated include total costs for each practice, costs for each phase of PCMH transformation (i.e., development, implementation, and maintenance) and each element specified in the NCQA application, and costs per full-time equivalent clinician.

Costs are further categorized as direct and indirect costs and fixed versus variable costs. Indirect costs include resources such as utilities, information technology support, and administrative resources that are shared among PCMH activities as well as other activities in the practice. Direct costs include

personnel, supplies, and other resources that are unambiguously attributable to practice transformation activities. Variable direct costs involve costs that change based on the number of patients touched (e.g., the costs of providing office visits for self-management education to diabetes patients). Fixed direct costs involve costs that do not change significantly with the number of patients (e.g., costs of staff time to generate monthly quality data reports).

Data and Methods

Data for the cost estimates were primarily obtained through qualitative semistructured interviews that were conducted in each practice with key stakeholders involved in the NCQA application process. The interviewees included practice administrators, informatics staff, and office staff representing all organizational levels. The practices also provided documents, such as the application for PCMH recognition and NCQA scoring sheets, that highlighted how they organized their work.

To guide the interviews, the study team adapted a data collection instrument that they had used in a previous study assessing practice-level costs of participating in quality improvement interventions. The revised instrument listed each standard, element, and factor specified in the NCQA PCMH application. For example, one standard specified in the 2011 NCQA application is "Enhance access and continuity;" one element of this standard is "After-hours access," and one factor is "Providing timely clinical advice by telephone when the office is not open." The team asked practice staff to estimate how many minutes or hours were required to perform each activity described in the NCQA application, and to identify the role of each person who engaged in the activity. The staff was also asked about additional costs, such as costs associated with the NCQA application itself, costs of purchasing additional software or making changes to their Web sites, and any other relevant costs that were identified during the interview. The team also asked practices to identify particular activities that were of high value for the application process and/or particularly useful to improving care. Throughout the interview, the team emphasized its interest in identifying only those activities and expenses that were above and beyond the baseline costs of doing business or costs associated with other initiatives.

> *"This project is highly relevant to public health, as it will enhance understanding of the practice-level costs of transformation, which will be of value to policymakers, quality improvement organizations, and primary care physicians."*
>
> - Jacqueline Halladay, MD, MPH, Principal Investigator

Following each interview, the study team assigned the data they had collected to the following categories: 1) nonpersonnel expenses (e.g., supplies and other fees not related to staff time); 2) staff time spent on the development phase of PCMH transformation (e.g., developing new reports in the electronic health record, new policies, or new job descriptions); 3) staff time spent on the implementation phase of PCMH transformation (e.g., time spent on training, incorporating new standing orders into care practices, or adding new care management resources to the practice team); 4) staff time spent on the maintenance phase of PCMH transformation (e.g., time spent on care management visits or quality improvement meetings); 5) time spent preparing the NCQA application; and 6) consultative and supportive services provided by external resources. Information technology costs were excluded from the evaluation except those that were specifically incurred to fulfill PCMH application requirements.

The costs of staff time were computed using mean hourly salaries for 2012 obtained from the U.S. Bureau of Labor Statistics. In cases where the salary and roles of individuals did not match roles as defined in this national data source, actual salaries were used. Costs were rolled up to determine

estimated total costs for each practice, costs by transformation phase, and costs per practice per full-time equivalent provider.

Anticipated Benefits

This project will yield a cost analysis model and methods for evaluating the practice-level costs of PCMH transformation.

Findings from this project will help policymakers, primary care providers, and quality improvement organizations understand the costs incurred by practices as they transform to PCMHs. By describing the costs associated with different approaches to PCMH transformation, the study will help primary care providers make fiscally sound decisions about how to invest their resources and structure practice changes that fulfill NCQA PCMH requirements.

Challenges to Estimating Costs

The study results may be affected by recall bias, which is a known issue associated with the retrospective approach used in this study.

Results

The practice-level costs of developing and implementing practice changes required to meet 2011 NCQA PCMH standards involved primarily direct costs. Across the four practices, there was substantial variation in how costs were distributed among PCMH development, implementation, and maintenance activities. However, the total costs per provider were remarkably similar across the four practices, at greater than $11,000 per full-time equivalent provider. The greatest single cost incurred was for new and highly valued staff, hired to provide extended services to patients.

Relevant Information

The following references provide information about tools that have been used in studies examining practice-level costs of participating in quality improvement interventions:

Halladay J, Stearns S, Wroth T, et al. Cost to primary care practices of responding to payer requests for quality and performance data. *Ann Fam Med* 2009;7(6):495-503.

Reiter KL, Halladay JR, Mitchell CM, et al. Costs and benefits of transforming primary care practices: a qualitative study of North Carolina's Improving Performance in Practice. *J Healthc Manag* 2014;52(2):95-110.

Publications

Publications from this study are forthcoming.

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