AHRQ Estimating the Costs of Supporting Primary Care Practice Transformation Grants

Case Studies on the Cost of Medical Home Transformation and Maintenance in the Safety Net

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Overview of Estimating Costs Grant

This project expands on the Safety Net Medical Home Initiative (SNMHI), a demonstration project to transform safety net practices into patient-centered medical homes (PCMHs). The 4-year demonstration project established five selected primary care organizations as Regional Coordinating Centers (RCCs) to support PCMH transformation efforts in 65 practices across five States. Each RCC received technical assistance and funding to support practice coaches to help guide clinics on practice redesign topics such as enhanced access, care coordination, and improved patient experience. The practice transformation effort is structured along eight "change concepts": 1) engaged leadership, 2) quality improvement strategy, 3) empanelment, 4) continuous and team-based healing relationships, 5) patient-centered interactions, 6) organized evidence-based care, 7) enhanced access, and 8) care coordination. Diabetes care was a common focus for practice transformation efforts.

Under the original project, PCMH transformation and maintenance costs will be estimated for six practices. The present project will expand the cost estimate task to nine practices that have 1) demonstrated improvements in medical home function and practice performance and 2) capacity to work with billing data. Expanding to nine practices will better enable cost comparisons across settings (urban vs. rural locations and large vs. small practices).

The present study has two specific aims:

Aim 1: Evaluate the long-term sustainability and maintenance costs of PCMH transformation. The costs of maintaining the PCMH transformation will be estimated over a 24-month period following the conclusion of the demonstration project. The authors hypothesize that some elements of PCMH transformation, such as maintaining quality improvement processes or reporting on practice performance measures, will be more difficult to sustain and require increased practice costs.

Aim 2: Compare the costs of PCMH transformation and maintenance by type of practice. Study authors hypothesize that costs per patient will be higher for small and rural practices compared with larger and urban practices.

Health Care Setting

This project focuses on nine safety net primary care practices with diverse characteristics (urban, rural, large and small), located in five States. These practices are transforming into PCMHs as part of the Safety Net Medical Home Initiative, a 65-practice multistate demonstration project.

Location

Colorado, Idaho, Massachusetts, Oregon, and Pennsylvania

Costs Estimated

Costs of facilitated PCMH transformation and maintenance, including:
- Direct clinical costs
- Direct administrative costs
- Indirect costs

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The investigators will evaluate both the direct and indirect costs to individual practices of PCMH transformation and maintenance. Costs will be compared for urban versus rural and large versus small practices.

Direct costs estimated will include administrative and clinical costs. Administrative cost calculations will take into consideration overall PCMH staffing costs; purchases related to PCMH implementation (e.g., data systems, consulting, technical assistance), including donated goods; health information technology functions tied to PCMH implementation; and additional revenue streams from PCMH implementation. Clinical cost elements considered will include revenues and costs associated with patient care, both overall and for diabetes care specifically. The study will also develop a global estimate of revenue, costs, reimbursement, and staffing attributable to PCMH implementation for each practice based on overall financial status; operational changes; and trends in revenue, costs, reimbursement, and staffing.

Indirect costs and benefits estimated will include costs and benefits related to the PCMH that might not be present in financial ledgers, as reported by chief executive officers, chief financial officers, clinical leadership, and PCMH transformation leaders.

Data and Methods

Data in the analysis will include:

- Results of a self-administered PCMH history survey to estimate program costs and revenues. The survey will be administered to each primary care practice's practice leader or chief executive officer.

- Clinic-level billing data to evaluate trends in clinical costs and revenues.

- Qualitative interviews of safety net clinic leaders, providers, and staff. Interviewees will be asked about the direct and indirect costs and benefits of PCMH transformation and maintenance. Interviewees will also be asked about their perceptions of how the context of their PCMH transformation effort may have influenced costs and benefits. These questions will explore the impact of factors such as clinic setting (rural vs. urban, small vs. large), changes in the economic environment of the community surrounding the clinic, and major changes in the organization of the clinic (such as expansion).

> *"The data collected from these case studies will help to paint an important picture of what the costs of medical home transformation are for a variety of practices over time. Findings from this study can help primary care practice leaders to make better informed decisions on adopting the PCMH model. Policymakers will also likely find our results useful as they address critical questions regarding how to incentivize and sustain PCMH transformation."*
> - Elbert Huang, MD, MPH, Principal Investigator

In-depth case studies and activity-based costing methods will be used to conduct a retrospective analysis of PCMH transformation and maintenance costs for each of the nine practices included in the study.

For Aim 1, the analysis plan within each case study consists of a comparison of average monthly PCMH administrative costs (total and by change concept) between the post-SNMHI period and the 4 years of the SNMHI demonstration project, including a subanalysis comparing the last year of the demonstration project with the post-demonstration project period. Simple descriptive statistics (mean and standard deviation) will be reported on differences between SNMHI and post-SNMHI costs and revenues for the full sample of nine practices. Study authors will also report on participants'

perceptions of how PCMH-related direct and indirect costs and benefits have changed since the end of the SNMHI.

For Aim 2, a cross-case analysis will be conducted to compare the direct and indirect costs of PCMH transformation and maintenance for urban versus rural and small versus large practices. Study authors will also report on interview participants' perceptions on the way their clinic setting affected costs.

Anticipated Benefits

This project will describe the costs of medical home transformation for a variety of safety net practices over time. Findings from this study can help primary care practice leaders to decide whether to adopt the PCMH model. It may also help policymakers to more effectively incentivize PCMH transformation and maintenance.

Challenges to Estimating Costs

Project challenges include identifying practices that are willing and able to generate the cost information, timing and sequencing data requests to avoid overburdening participating practices, retaining participants for long-term followup data collection, and ensuring adequate recall of early activities in the intervention.

A study limitation is that costs estimated do not include potentially significant costs of technical assistance provided by the project team or the coordination and facilitation work provided by the RCCs.

Results

Analyses for this project are still in progress. Cost estimates will be available once the study is complete.

Publications

Publications from this study are forthcoming.