

AHRQ Estimating the Costs of Supporting Primary Care Practice Transformation Grants

Transition of Primary Care Medical Group Practices to Next Generation Models

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Overview of Estimating Costs Grant

This project focused on two high-performing family medicine clinics serving mid-level income populations. The clinics transitioned from traditional fee-for-service illness-oriented, physician-centric health care to a patient-centered population health model. A health insurance plan provided compensation to the two clinics for 2 years while they developed, implemented, and tested the model. The goal of the transformation was to position the clinics to participate in possible future Total Cost of Care contracts being developed by insurance companies.

Both clinics had commercial, Medicare, and Medicaid patients and had electronic health record systems that were established more than 5 years prior to the study. Both also received a state-level medical home certification based on the National Committee for Quality Assurance (NCQA) model. Both were also participating in an Accountable Care Organization before the transition.

The study had four aims:

Aim 1: Document transformations made by the practices in their patient care processes and programs.

Aim 2: Document each practice's experience implementing the transformations, including strategies employed, the influence of practice culture, and any organizational dislocation resulting from the transition, such as staff and physician turnover.

Aim 3: Document both the initial cost and the cost to maintain the transformation.

Aim 4: Document patient-level savings to insurance plans (per member/per year costs from the insurance company's perspective), adjusted for level of illness.

Costs estimated included both direct and indirect costs. Direct costs included the costs of program development and implementation and changes in practice-level production costs, including new hires, consultant fees, administrative expenses, reduced clinical and support staff workloads, construction and

Health Care Setting

This project focused on two high-performing, mid-sized family medicine clinics (seven to nine clinicians) owned by a large nonprofit, hospital-based, integrated health care system. One clinic served a rural population, the other a suburban population. Clinic patients included commercial, Medicare, and Medicaid patients.

Location

Minneapolis-St. Paul metropolitan area, Minnesota

Costs Estimated

Costs related to primary care transformation efforts, including:

- Staff time
- Consultant fees
- Administrative expenses
- Capital outlays
- Training costs
- Lost revenue from fewer clinic visits and provision of unbillable services
- Patient-level costs



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equipment costs, and training costs. Indirect costs included lost revenue resulting from decline in billable services, organizational dislocation, and staff turnover.

Data and Methods

The study used an in-depth mixed-methods case study approach.

For Aims 1 and 2, data were collected through interviews, surveys, and document reviews. Interviews were conducted with practice administrators, medical directors, other key administrative personnel, and clinical staff (35 interviewees total). The interviews were used to collect information on each practice's transformation components and transition experience, including barriers experienced and structural or staffing changes made to overcome them, turnover attributed to the transition, and perspectives on the success of the transformation. Survey instruments included an organizational culture survey and an instrument focusing on organizational structure and cost data. Document review focused on performance reports, including health care quality and access metrics, such as ambulatory care sensitive hospitalization rates, hemoglobin A1c levels for diabetes patients, and patient satisfaction surveys.

For Aims 3 and 4, data were collected through interviews, an instrument focusing on organizational structure and cost data, and a review of financial records and insurance claims data. Data elements collected included:

- Clinical and support staffing levels, by type, job category, and specialty
- Patient workload (patient visits per provider per year, adjusted for illness level)
- Unique patients, patient encounters, and procedures per full-time equivalent physician by specialty
- Medical revenue
- Cost data pertaining to transformation components described during interviews, such as new equipment, additional staff, and training costs
- Changes in patient-level costs

Comparison ratios and tables were used to estimate costs for each transformation component. Multivariate regressions were used to analyze patient-level costs. Patient-level costs at the clinics that underwent transformation were compared with those of a control group consisting of 28 primary care clinics that did not restructure their patient care process. Costs were standardized to correct for changes in payment rates and inflation.

Anticipated Benefits

In addition to publications in applied policy and clinical journals, this project will develop a document that primary care medical group practices can use to estimate the costs associated with transitioning to next generation patient care models. Results from this study may be helpful to primary care practices and insurers contemplating a transition to patient-centered population health models and Total Cost of Care contracts.

Challenges to Estimating Costs

Data collection constituted a considerable burden. To overcome this challenge, the research team included a physician who was well-connected within both clinics, and the clinics were compensated for their participation in the study.



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A limitation of case study designs, such as the one used for this project, is that study results may not be generalizable to other practices.

Results

Both clinics completely restructured the way they provided care and who provided it. One clinic took primary responsibility for developing and testing the model before implementing it in an incremental manner. The second clinic fully implemented the model after it was developed by the first clinic. The transition to a patient-centered population health model involved a complete restructuring of the

“This project provides a unique opportunity to study an extensive transformation of medical group practice care systems that likely portend the future for all medical practices. Other group practices can use the products of this study to guide their transition process as health care reform unfolds.”

- John Kralewski, PhD, Principal Investigator

clinics' patient care processes, clinical teams, and cultures. Patients were offered multiple portals of care, including electronic and phone visits, walk-in visits, and traditional in-person appointments. Only three patients were scheduled per clinic hour to allow for ample time with the clinical team. Clinical teams were expanded and organized into team “pods,” with each patient assigned to a pod. Teams were also reconfigured with nurses providing nearly 40 percent of the care based on care guide documents. Use of electronic health records was

expanded to all providers, including nurses, and care coordination staff was expanded to provide followup care coordination between appointments, during walk-in appointments, and for patients needing phone advice beyond the topics covered in nurses' care guides. While the clinics experienced some physician turnover during the transition, they were able to recruit new physicians who wanted to be part of the new care model. The clinics went far beyond most primary care transformations described in the literature related to health care reform, successfully adopting new structures, processes, and cultures at the patient care level to achieve a paradigm shift in the primary care model employed at these clinics.

The study estimated the transition costs for both clinics. The cost of transformation was more than \$1 million per clinic, but the insurance companies saved more than \$4 million in one year. These gains were not sustainable, however, because the clinics were unable to bill for services provided by nurses and for telephone visits.

Publications

Publications from this study are forthcoming.

