



# AHRQ Estimating the Costs of Supporting Primary Care Practice Transformation Grants

## Cost Assessment of Collaborative Healthcare (CoACH)

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### Overview of Estimating Costs Grant

The purpose of this study was to develop and test a Web-based tool to both prospectively and retrospectively estimate the annual incremental expenditure of integrating mental and behavioral health services in primary care practices through the patient-centered medical home.

The research team developed the tool and tested it with six primary care practices in Grand Junction, Colorado that were providing or considering whether to offer onsite integrated behavioral health care. The practices are part of the Sustaining Healthcare Across Integrated Primary-care Efforts project, funded by the Colorado Health Foundation, which is studying whether a global budget for primary care, including mental health, is sustainable.

Costs estimated by the tool include the costs of starting and maintaining integrated primary care and mental health care. Cost elements assessed include staff salaries, benefits and training, staff time spent on tasks related to integration, and capital expenditures.

### Data and Methods

The Web-based tool was created using open source L.A.M.P. (Linux, Apache, MySQL, PHP) development stack. It is usable on desktop and tablet computers as well as mobile devices. The tool includes a practice intake questionnaire and an integration activities graphic workflow. The intake questionnaire asks about practice demographic information; number, full-time equivalents, salary, and benefit information for all providers and staff involved in integrated care delivery; time spent on integration activities by each provider and staff type; and operational costs directly related to integration, including new space, computers, software, and other materials. Based on information provided in the intake questionnaire, the tool estimates the total cost of integration activities and displays a graphic workflow and a table summarizing minutes per activity per personnel. Respondents can then edit workflow assumptions to model the total cost of different scenarios, such as adjusting the number of minutes per activity or adding new activities. This gives respondents the ability to plan for integration costs and experiment with cost outcomes. Detailed analysis methods employed by the tool have been described in previous publications.

The six participating practices piloted the tool to assess and improve its usability and accuracy. Practices received instructions, an instructional video, and technical assistance and were encouraged to work as a team to improve the accuracy of inputs. The tool was used to predict project startup costs and total cost

### Health Care Setting

This project focused on six primary care practices ranging from solo rural practices to large urban multispecialty primary care practices.

### Location

Grand Junction, Colorado.

### Costs Estimated

- Staff salaries and benefits
- Training
- Operational costs such as space, equipment, software, and training



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of the integration. After integration efforts were fully implemented and reached a mature state, the project team used the tool to estimate the practice's actual integration costs. Any deficiencies in the cost tool were noted. In cases where actual costs were significantly different from projected costs, the cost tool was reviewed and improved for clarity, ease of use, comprehensiveness, or other characteristics to improve its accuracy.

### Anticipated Benefits

This project developed, tested, validated, and improved a cost analysis tool that primary care practices can use to assess the cost of integrating mental health providers. The Web-based tool is currently undergoing beta testing. The refined and tested tool will be disseminated through the AHRQ Academy, an online learning network focused on the integration of behavioral health and primary care, as well as other relevant outlets.

### Challenges to Estimating Costs

One of the challenges for this project was the variability of integration models adopted by primary care practices. To address this challenge, the project team helped practices to clearly explain their models in a way that could be analyzed using the cost tool. Other challenges included controlling for co-occurring quality improvement initiatives and estimating reimbursements associated with behavioral health co-location and integration. Resolving these challenges would require further study.

### Results

The tool produced an estimated annual incremental expenditure of integration and an adjustable workflow for each practice. The workflow produced by the tool helped practices to better understand their workflow and can aid in making informed decisions about practice modifications to optimize patient, provider, and overall practice experiences.

*"The patient-centered medical home model presents an important opportunity to improve care for patients with a mental health diagnosis in addition to or as part of their other medical problems. Our cost analysis tool will help primary care practices to better plan the integration of their primary care and mental health services."*

- Benjamin Miller, PsyD,  
Principal Investigator

Practices ranged greatly in the cost of their mental and behavioral health integration because of the variation in personnel and integration activities. Costs were lowest in practices that did not have behavioral health providers and utilized their primary care providers, medical assistants, and front office staff to implement primary and secondary behavioral health screening. Costs were highest in a large practice with multiple embedded behavioral health providers and extensive case and care management to support integration efforts.

### Relevant Information

The cost analysis methods used in this study have been described in:

Ritzwoller DP, Sukhanova A, Gaglio B, et al. Costing behavioral interventions: a practical guide to enhance translation. *Ann Behav Med* 2009;37(2):218-27.

### Publications

Publications from this study are forthcoming.

