

## Assessing the Impact of the Patient-Centered Medical Home

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| <b>Organization:</b>           | University of Colorado Health Science Center           |
| <b>Contract Number:</b>        | 290-07-10008-6   |
| <b>Project Period:</b>         | July 2009 – February 2011, Including No-Cost Extension |
| <b>AHRQ Funding Amount:</b>    | \$249,876  |
| <b>Summary Status as of:</b>   | December 2010  |

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**Target Population:** Chronic Care\*, Chronic Obstructive Pulmonary Disease, Diabetes, Heart Disease

**Summary:** The University of Colorado Health Sciences Center and the Robert Graham Center are conducting an evaluation of clinical outcomes, financial and economic impact, and patient and provider satisfaction for a medium-sized primary care health system that has implemented a long-established patient-centered medical home (PCMH) model. For 20 years, the WellMed Medical Group has provided care that matches the National Committee for Quality Assurance definition of a PCMH. The study examines outcomes and cost-effectiveness of the PCMH model implemented in WellMed's 22-practice, 80-provider health system. The evaluation is on overall care; care for specific diseases such as coronary artery disease, diabetes mellitus, and chronic obstructive pulmonary disease; and preventive care, including adult immunizations.

The study team is using a mixed-method qualitative and quantitative evaluation approach. Key informant interviews and participant observations are helping the study team understand how WellMed developed its model of care over time, the critical organizational milestones on the road to becoming a PCMH, and what it means to be a PCMH for WellMed. These qualitative data will provide a narrative foundation that complements and informs the quantitative findings. Data collection is focusing on the strategic changes made to improve health outcomes for different conditions. Health outcome measures will include clinical outcome test values, hospitalization, and mortality. Particular attention will be given to the associated effects of specific elements of the medical home model, including care management, team-based care characteristics, and health information technology (IT) functions.

A trend analysis to assess the impact of the WellMed model on patient and provider satisfaction will examine PCMH-related interventions associated with changes in satisfaction. In addition, a detailed analysis of data will assess the impact of the WellMed PCMH on patient care and health outcomes over a period of 10 years (1997-2006), comparing the full claims data available during various blocks of time with similar patient panels. Purposeful implementation of a comprehensive patient data management system allows internal and external cohort analyses. This study will provide ample opportunity for a well-functioning PCMH to demonstrate any improved outcomes.

### Project Objectives:

- Determine how WellMed developed their level-3 PCMH model (facilitators, barriers, key components, history, and leadership) using a qualitative methods approach. **(Achieved)**
- Determine if implementation of the WellMed model impacted patient and provider satisfaction. **(Ongoing)**

- Determine if implementation of the WellMed level-3 PCMH improved care and health outcomes for patients. **(Ongoing)**
- Determine the incremental in-practice expenses per patient per month required to operate the WellMed PCMH, and the key components of the program. **(Ongoing)**

**2010 Activities:** The quantitative comparison analysis is complete and the first of four studies was published in the January 2011 volume of the Journal of Ambulatory Care Management, [Case Study of a Primary Care–Based Accountable Care System Approach to Medical Home Transformation](#). During a qualitative analysis meeting in July, a set of nine questions were identified where supplemental information was necessary from WellMed. The questions were submitted to WellMed, and were incorporated in the overall qualitative analysis and resulting paper. The project team developed a revised timeline describing WellMed’s 20-year evolution based on the qualitative analysis and a table that summarized the important qualitative themes identified to date and how they connect to PCMH, the accountable care organization, and community elements of the WellMed model. The three remaining papers are currently being finalized.

The analyses from the first paper were presented at AcademyHealth Research Meeting in June, at the Agency for Healthcare Research and Quality (AHRQ) Annual Conference in September, at the Patient Centered-Collaborative Care Conference in October, and to the North American Primary Care Research Group in November. The final analyses will be part of an invited panel at AcademyHealth in June 2011.

The final report is under review by AHRQ staff.

**Preliminary Impact and Findings:** Preliminary results from the satisfaction survey analyses show high overall satisfaction with WellMed: 95.9 percent of patients responded they were “very satisfied or satisfied” with the WellMed staff in 2006, and 96.0 percent of patients responded they were “very satisfied or satisfied” in 2009. WellMed Medicare bed days are 60 percent lower than in the fee-for-service population; hospital admission rates, readmission rates, and emergency department visits are all significantly lower as well. WellMed invests 40 to 50 percent more in the primary care setting than is typical of Medicare (approximately 10 percent of total spending). WellMed beneficiaries appear to enjoy mortality reduction of nearly 50 percent compared to an age and sex adjusted peer cohort in Texas.

The qualitative analysis showed 13 emergent themes which will be elaborated on in the final report. Some of the themes include:

- Patients generally report feeling like “one of them”, like they are part of a family, and feel “at home” when visiting their WellMed clinic.
- The guiding principles from which the WellMed model was constructed and the way in which the model has evolved stem from and promote the four pillars of primary care.
- Areas of further work for WellMed include greater focus on: 1) the patient’s experience; 2) definition, clarification, and optimization of roles; 3) bolstering capacity for fast continuous change; 4) patient activation, engagement, and self-management; 5) going from a physician-centric to a more patient-focused team-based model; 6) integrated mental health care; 7) formal linkages and processes to tap into community resources; 8) formal behavior change strategies; and 9) a common IT platform.
- Commonly used mechanisms to promote buy-in and facilitate change include formal and informal trainings and learning opportunities, regular clinic meetings, rewards and incentives, open-door policy for suggestions and ideas, facilitative leadership, and tapping into WellMed resources such as services, tools, and other departments.

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**Strategic Goal:** Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions, and the electronic exchange of health information to improve quality of care.

**Business Goal:** Knowledge Creation

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\* *AHRQ Priority Population*