### Medical Homes Cut Costs and Bolster Quality

BY LUCY AMENT

FROM HEALTH AFFAIRS

he patient-centered medical home can increase health care quality, reduce provider costs, and improve clinician morale, according to a 2-year analysis of a medical home pilot implemented by Group Health Cooperative, a Seattle-based health insurance and care delivery system.

At 24 months, patients in the system's prototype medical home reported a better care experience on six of seven scales, compared with patients in Group Health Cooperative's other clinics.

The system's return on its investment in the prototype clinic is 1.5:1, or \$1.50 for every dollar invested, said Dr. Robert J. Reid of the Group Health Research Institute and his coauthors, all of whom

The system's return on its investment in the prototype medical home clinic is 1.5:1, or \$1.50 for every dollar invested, according to a 2-year analysis of a pilot study.

are employed by Group Health (Health Aff. 2010;29:835-43).

A series of previous reforms implemented by Group Health Cooperative to improve access, physician productivity, and financial performance—including same-day appointments, productivity-based physician salary adjustments, and an electronic health record allowing patients to message their physicians—brought gains in the stated objectives but resulted in physician burnout, a relative decline in clinical quality, and increased use of "downstream" services.

As a result, Group Health piloted a whole-practice transformation at one of its Seattle clinics that entailed hiring more clinicians to reduce patient-perphysician levels from 2,300 to 1,800.

Under the new model, for every 10,000 patients there were 5.6 physicians, 5.6 medical assistants, 2 licensed practical nurses, 1.5 physician assistants or nurse practitioners, 1.2 registered nurses, and 1 clinical pharmacist.

Other changes included:

- ► In-person visit times were increased from 20 to 30 minutes.
- ► Time was allotted each day for caregiver teams to plan and coordinate care.
- ► More care management was assumed by nurses and pharmacists.
- ► Medical assistants and LPNs took responsibility for previsit, outreach, and follow-up activities.
- ▶ Physicians were exempted from productivity-based salary adjustments to encourage health care activities outside of in-person visits.

The authors analyzed differences between the medical home prototype clinic and control clinics in the areas of patient experience, provider burnout, quality of care, and costs at the imple-

mentation of the pilot (baseline), at 12 months, and at 24 months.

The burden of disease between patients at the prototype clinic and 19 other Group Health clinics was the same, although the former were slightly older (53 versus 51 years) and more likely to be female (57% of patients versus 55%).

To evaluate patient experience, the authors surveyed 6,187 patients at the

prototype clinic and two control clinics, chosen because of similar enrollment and leadership stability.

The patients were asked about their experience with doctor-patient interactions, shared decision making, coordination of care, access to care, helpfulness of office staff, patient involvement, and goal setting.

At 24 months, the prototype clinic received better scores on all measures ex-

cept satisfaction with office staff helpfulness, which was about the same at all three clinics.

Measuring burnout with the Maslach Burnout Inventory, the researchers found that 24-month mean emotional exhaustion scores for the prototype clinic staff and control staff were 12.8 and 25, respectively, and that depersonalization scores were a respective 2.0 and 4.4.

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References: 1. Holman RR. Diabetes Res Clin Pract. 1998;40(suppl):S21-S25. 2. Polonsky WH, Jackson RA. Clin Diabetes. 2004;22(3):147-150. 3. Hoerger TJ, Segel JE, Gregg EW, Saaddine JB. Diabetes Care. 2008;31(1):81-86. 4. Brown JB, Nichols GA, Perry A. Diabetes Care. 2004;27(7):1535-1540. 5. Data on file, sanofi-aventis U.S. LLC.

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Differences in personal accomplishment scores were not statistically significant.

Using 22 indicators from the Healthcare Effectiveness Data and Information Set aggregated into four composites (with the patient as the unit of analysis), the researchers also looked at 4,747 study and 132,330 control adult patients at the prototype and other clinics.

They found improvements in the prototype clinic to be 20%-30% greater on three of the four composites, compared with improvements in the other clinics.

Finally, Dr. Reid and his coworkers compared data on use and cost from

Group Health's costing system for 7,018 continuously enrolled adults at the prototype clinic with those of 200,970 adults enrolled at other clinics.

In-person primary care visits among prototype patients decreased 6% since the clinic's in-

ception, even though these patients used 80% more secure message threads and

The decrease in emergency department utilization and urgent care visits resulted in savings of \$4/month per patient, and their reduction in admissions saved \$14.18/month.

5% more phone encounters, suggesting greater communication with their physicians.

Prototype patients used specialty care more than controls did, but made

29% fewer visits to the emergency department and urgent care services.

And prototype patients had 6% fewer all-cause inpatient admissions, compared with controls

Cost trends mirrored trends in utilization, Dr. Reid and his colleagues said.

Prototype patients' use of primary care cost \$1.60/month more per patient, and their use of specialty care cost \$5.80/month more per patient.

But the decrease in their emergency department utilization and urgent care visits resulted in savings of \$4/month per patient, and their reduction in admissions saved \$14.18/month, they reported.

Across all types of care, the researchers estimated a total savings of approximately \$10.30/month per patient.

Adoption of electronic medical records, increased investment by policy makers in primary care and health information technology, and more training to help clinicians make the transition to the patient-centered medical home are needed to realize the full potential of the medical home model, the researchers said.

At a daylong symposium on reinventing primary care hosted in Washington by Health Affairs, coauthor Dr. Eric B. Larson, executive director of the Group Health Research Institute, warned against "a treadmill-like mentality," noting that before the prototype, the system's doctors "saw a lot of people but it didn't improve quality."

Dr. Larson said the pilot medical home was designed to have "a continuous healing doctor-patient relationship as its core principle," in addition to "proactive comprehensive care, efficiency, satisfaction, and effectiveness."

Based on the results it saw with the pilot, Group Health plans to create medical homes in 26 clinics and to encourage the model's adoption among its contracted providers, Dr. Larson commented.

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Based on data from 2003-2004, about 40% of patients with diabetes nationwide were not adequately controlled —and may have spent an average of 5 years with an A1C >8% from diagnosis to insulin initiation.<sup>3,4</sup>

You may be surprised that in a survey, about 80% of patients with type 2 diabetes taking oral antidiabetic drugs said they would consider taking insulin based on your recommendation.<sup>5</sup>

Patients may focus on blaming themselves for their uncontrolled blood glucose, but you can help them focus on turning this negative mindset into positive action for managing their disease.<sup>2</sup>

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