Quality Improvement Efforts Give Mixed Results

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A national quality improvement initiative significantly improved several aspects of care for diabetes, asthma, and hypertension at community health centers, but had no impact on intermediate outcomes, according to a study published in the New England Journal of Medicine.

"The substantial room for improvement in the postintervention period suggests the need for continued refinement of these methods," wrote Dr. Bruce E. Landon from Harvard Medical School, Boston, and his colleagues (N. Engl. J. Med. 2007;356:921-34).

"There is still much to learn about the tools and methods for quality improvement and their potential effectiveness," they added.

The study compared the quality of care at 44 community health centers before and after their participation in the quality-improvement Health Disparities Collaboratives.

This initiative, sponsored by the Health Resources and Services Administration, the Agency for Healthcare Research and Quality, and the Commonwealth Fund, was designed to improve care at community health centers, a particularly relevant target because of their "prominent role in providing care for members of minority groups and other disadvantaged populations," Dr. Landon and his associates said.

Since 1998, about two-thirds of community health centers (645) have participated in the collaboratives, but to date there has been no evaluation of their effect, they wrote.

The 44 intervention centers enrolled in the quality-improvement collaborative were matched with 20 control centers which had never participated in a quality-improvement collaborative.

In addition, 40 of the 44 intervention centers also served as internal controls. Sequential, random samples of patients with diabetes, asthma, or hypertension were selected during the 1-year period before the intervention and the 1-year period after its completion.

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In all, 9,658 patients with one of the three conditions were selected: 3,392 with asthma, 2,904 with diabetes, and 3,362 with hypertension. Percentage scores for overall quality of care and composite scores for prevention and screening; disease monitoring and treatment; and outcomes were then calculated.

The study found that overall, when considering all three conditions, the intervention centers improved their care 4.9% above internal controls and 4.5% above external controls.

In the composite score for prevention and screening, intervention centers also improved 6.2% more than internal controls and 4.5% more than external controls.

And intervention centers also improved significantly more than controls in the composite score for disease monitoring and treatment (5.9% over external controls and 5.5% over internal ones).

When results were divided according to the three conditions, the overall trend was evident in centers focusing on asthma and diabetes, but not in those focusing on hypertension.

With regard to specific measures within the centers, the percentage of patients receiving anti-inflammatory medication for persistent asthma, the percentage of patients with an asthma management plan, the percentage of diabetes patients with two or more assessments of glycated hemoglobin levels, and the percentage of patients advised about smoking all increased more in the intervention centers, compared with the control centers.

The authors offered several explanations for the lack of effect with respect to intermediate outcomes, including that many of the processes of care that were studied are linked to longer-term outcomes.

In addition, "intermediate outcomes may require more intensive interventions in order to overcome environmental factors that pose particular challenges for patients treated at community health centers," they noted. ■

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