



Quality Improvement Effort Pays Off in Diabetes Care

Spending 500 dollars a year to improve diabetes care is a sound investment, according to one of the first studies to examine the clinical and economic impact of quality improvement on diabetes care.

In the June 2007 issue of *Health Services Research*, a University of Chicago-based research team reports that a relatively inexpensive national effort to improve the process of care at selected clinics was able to make enough difference in its first four years that, if sustained, it could reduce patients' lifetime risk of blindness, end-stage kidney disease and coronary artery disease -- all common complications of diabetes.

At a cost of less than \$500 per patient each year, this modest quality improvement effort is projected to reduce the incidence of major complications, such as end-stage renal disease, which can cost \$44,000 per patient each year.

"In this setting, we found that the economic value of improving the delivery of existing diabetes care was roughly equal to the benefits of developing a new treatment, such as a novel diagnostic technology or a better drug," said study author Elbert Huang, MD, assistant professor of medicine at the University of Chicago. "A small investment in upgrading the delivery of health care brought about a substantial improvement in health that justified the costs of the program."

"Unfortunately," he added, "the people who make such financial investments are not the people who directly benefit from them."

Federally qualified community health centers (FQHCs) routinely lose money on health care improvement programs. The added costs are borne by the health centers and by state and federal government programs; the benefits accrue to society. "Cost-effective medicine," Huang said, "depends entirely on an ongoing societal commitment to providing chronic care for vulnerable patients."

The researchers studied how diabetes care changed at 17 Midwestern FQHCs that participated in the Health Disparities Collaboratives -- a national, federally funded quality-improvement initiative launched in 1998.

The program was designed to make certain that patients at these FQHCs, which provide primary care services in underserved urban and rural communities, received the current standard of care. This includes regular testing for glycosylated hemoglobin, assessment of fats and cholesterol in the blood, eye exams and blood pressure checks, with appropriate follow-up. It also involves preventive treatments such as the use of ACE inhibitors, which can treat high blood pressure and heart failure,

and aspirin, which can prevent heart attacks and strokes.

After reviewing four years of charts for 80 patients from each of the 17 centers, the researchers reported that "multiple components of care improved from 1998 to 2002." Annual glycosylated hemoglobin testing increased from 71% to 92% of patients. Blood lipid testing rose from 15% to 44%. Eye exams went from 25% to 44%. Prescriptions for ACE inhibitors rose from 33% of patients to 55%, and aspirin prescriptions rose from 22% to 45%.

These improvements added very little expense. The diabetes quality-improvement program cost about \$700 per patient the first year, \$600 the second year, \$500 the third year and leveled off at \$378 per year beginning in year four.

The researchers then estimated how much the patients' risk for the major complications from diabetes would be decreased if these improvements were maintained. Better care, they concluded, should reduce the lifetime incidence of blindness from 17% of patients down to 15%, of kidney failure from 18% down to 15%, and of coronary artery disease from 28% to 24%.

Next they tried to place a dollar value on the benefits of the program -- a longer life with fewer complications. In medical cost-effectiveness analysis, a commonly accepted standard is to say that a new device, medication or program that generates one year of extra life for a healthy person at less than \$100,000 is a good value. Another commonly used standard is \$50,000 per one year of extra life in perfect health.

The diabetes quality-improvement initiative passed all these standards. Even at twice the price and with the benefits deeply discounted, the value added by the program exceeded commonly accepted standards. "Since diabetes is so common and is increasing rapidly, whatever enhances diabetes care is worth looking at," Huang said.

A study released last month at the American Association of Clinical Endocrinologists' annual meeting in Seattle found that poorly managed type 2 diabetes costs the U.S. health system an extra \$22.9 billion a year in direct medical costs. Diabetic complications cost almost \$10,000 per patient each year, concluded the author of that study, Willard Manning, PhD, a University of Chicago health economist.

Multiple quality-improvement programs have been found to produce improvements similar to those generated by the Health Disparities Collaboratives' diabetes program, Huang said, but "the economic value of these programs is generally unknown." The lessons learned from this evaluation, he added, "can provide important insights for policy makers."

University of Chicago Medical Center

=====

DID YOU KNOW:

Duct Tape and Moleskin Similarly Effective in Treating Common Warts : Duct tape and moleskin are equally effective in treating common warts in adults. "Several reports have suggested that occlusion with adhesive tape is an effective treatment for warts," write Rachel Wenner, MD, from the University of Minnesota in Minneapolis, and colleagues. "Given that duct tape therapy is inexpensive and relatively painless, we were interested in further evaluating this therapy." We found

no statistically significant difference between occlusive therapy with transparent duct tape and therapy with moleskin alone for treatment of common warts in adults," the authors conclude. "Further studies are warranted to determine whether specific types of adhesive resins are important for a therapeutic effect of duct tape." Arch Dermatol. 2007;143:309-313.

=====

Help us keep this newsletter free-update your profile.

<http://www.diabetesincontrol.com/surveys/index.php>

This article came from

http://www.diabetesincontrol.com/index.php?option=com_content&view=article&id=4836

Please visit Diabetes In Control for the most current news in Diabetes care.
www.diabetesincontrol.com