

Health Services Research Impact

Diabetes Management

SNAPSHOT OF SUCCESS

Diabetes Management Improves Clinical Outcomes and Hospital Utilization

THE ISSUE

As the U.S. population ages and obesity becomes more prevalent, more people than ever are coping with diabetes and other chronic diseases. In addition to being complex and difficult to treat, these conditions are costly to manage. Many employers, health plans, and states are asking whether disease management (DM) could help control rising health care costs while improving care. DM is a system of coordinated health care interventions that targets populations with a specific condition or set of conditions and uses cross-disciplinary teams of health care professionals. It emphasizes self-care and promotes adherence to recommended care protocols. Preliminary research indicates that DM may improve health care quality, but there is not yet any evidence that it can contain costs.



Health services research conducted over the past decade indicates that, within managed care organizations and community clinics, patients with diabetes who are enrolled in DM programs

control their blood sugar better than those who are not. DM patients are also screened more frequently for eye and foot disorders and other complications associated with diabetes, according to a review of 27 studies examining the effectiveness of DM for patients with diabetes. These findings form the basis for recommendations in support of diabetes DM by the Task Force on Community Preventive Services (see “Related Information”).

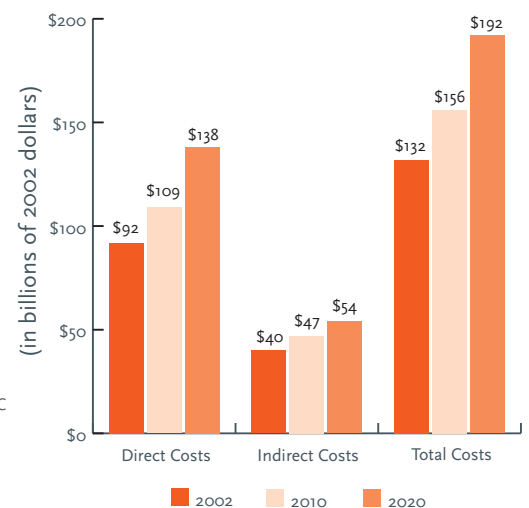
The literature review, which was published in the *American Journal of Preventive Medicine* in 2002, found that blood glucose (sugar) levels were significantly lower among diabetic patients enrolled in DM than in those not enrolled. Moreover, kidney testing increased by 10 percent in DM patients, foot exams by 27 percent, and cholesterol testing by 24 percent. Patients’ satisfaction, quality of life, and ability to take care of themselves—such as by self-monitoring their glucose levels—also improved with DM in a small number of studies. Utilization of hospital services—a significant driver of health care costs—was reduced by 31 percent in patients enrolled in DM in one study.

Other investigations suggest that DM can improve outcomes and reduce hospital and emergency department utilization for patients with other chronic conditions such as asthma, congestive heart failure, and coronary artery disease. However, the most compelling clinical evidence in favor of DM is for patients with diabetes.

As more evidence accrues, providers are beginning to use DM in both the public and private sectors. Most DM programs are implemented through health maintenance organizations (HMOs), pharmacy benefit management firms, or Medicaid agencies. According to 2000 data from the American Association of Health Plans (now called America’s Health Insurance Plans), which represents more than 1,000 HMOs, more than 90 percent of their members have DM programs in place. Moreover, more than 20 states are now engaged in developing or implementing DM.

Although it’s too soon to tell whether DM improves outcomes in a range of chronic conditions, or whether it can cut or contain costs, the interplay between research and practice has thus far helped advance this new approach.

Projected impact of changing demographic characteristics on the national cost of diabetes



Source: American Diabetes Association.

RELATED INFORMATION

The Task Force on Community Preventive Services is an independent, nonfederal group that has developed the Guide to Community Preventive Services. The Guide is intended to help U.S. communities and health care systems to reach their prevention goals. The Task Force is supported by the U.S. Department of Health and

Human Services in collaboration with public and private partners. Based on the findings highlighted in this "Health Services Research Impact," the Task Force "strongly recommends disease management programs to improve diabetes care." The complete Community Guide is available at www.thecommunityguide.org.

FACTS

The first use of the term "disease management" appears to have been in the late 1980s at the Mayo Clinic.

– *The American Journal of Preventive Medicine*
(see "Further Reading.")

Approximately 75 percent of all employers offer some form of DM services to their employees with chronic diseases.

– *American Medical Association*

About 6 percent of the U.S. population has diabetes; roughly a quarter of those with the disease have not yet been diagnosed.

– *Centers for Disease Control and Prevention*

Health care spending in 2002 for people with diabetes was more than double what spending would have been without diabetes.

– *American Diabetes Association*

WEB SITES

National Diabetes Fact Sheet
www.cdc.gov/diabetes/pubs/pdf/ndfs_2003.pdf

Disease Management Association of America
www.dmaa.org

American Diabetes Association
www.diabetes.org

Medicaid Disease Management and Health Outcomes
www.dmnnow.org

What is health services research?

Health services research is the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Its research domains are individuals, families, organizations, institutions, communities, and populations.

— *AcademyHealth, 2000*

FURTHER READING

American Diabetes Association. "Economic Costs of Diabetes in the U.S. in 2002," *Diabetes Care*, March 3, 2003, Vol. 26, No. 3, pp. 917–32.

Norris, S.L. et al. "The Effectiveness of Disease and Case Management for People with Diabetes: A Systematic Review," *The American Journal of Preventive Medicine*, 2002, Vol. 22, No. 4S, pp. 15–38.

Wheatley, B. "Disease Management: Findings from Leading State Programs," State Coverage Initiatives Issue Brief, AcademyHealth, December 2002. Also available at: www.statecoverage.net/pdf/issuebrief1202.pdf.



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