
MODELS FOR PRACTICE FOCUS AREA: DIABETES

Program Name: Diabetes Collaborative

Location: Laurel Health System, Wellsboro, Pennsylvania (Tioga County)

Problem Addressed: Diabetes and Access to Primary Care

Healthy People 2010 Objective: 1-9

Web Address: <http://www.laurelhs.org>; <http://www.tiogapartners.org>

SNAPSHOT

The Laurel Health System (LHS), with its six Federally Qualified Health Centers (FQHCs), is a participant in a national diabetes collaborative. The collaborative supports a systematic approach to diabetes care and management and development of an electronic registry of patient data in the primary care environment.

This model reflects improved access to quality primary care addressing medical conditions (such as diabetes, hypertension, and asthma) for which improved primary care management results in reduced hospitalization. It includes a diabetes electronic management system that:

- monitors patient care and ensures continuous, consistent care for the diabetic patient;
- supports effective self-management through exams, referrals for eye and foot care, nutritional counseling, and documentation of self-management goal setting; and
- estimates the financial impacts of this intervention with another tool, known as IMPACT.

The model enhances clinical care enhancement and promotes the effective use of a countywide health partnership to extend effective prevention and primary care interventions for diabetes to other providers and to people in the community.

THE MODEL

Blueprint: Beginning in January 2000, LHS's health centers were accepted for participation in the National Diabetes Collaborative. By participating, the health centers were able to establish a systematic approach to diabetes treatment and electronic management of patient data. Beginning with the patients in one of the six FQHCs, the program was implemented at all six centers over the next nine months. A key element in the program, the

The collaborative supports a systematic approach to diabetes care and management.

Diabetes Electronic Management System (DEMS), is a registry for all Laurel Health Center patients with diabetes. When a patient with diabetes schedules an appointment, a DEMS report is printed, attached to the patient's chart, and employed by the nurse or clinician with the patient in reviewing the patient's condition and engaging the patient in continuing self-management of diabetes. The registry supports ongoing analysis of the impact of this program upon patients' health status and cost of treatment. This analysis is supported by IMPACT software specially designed for organizations participating in the diabetes collaborative program. The diabetes collaborative model, fully implemented at LHS's FQHCs, is currently being extended, under the sponsorship of the countywide health partnership and regional Area Health Education Center (AHEC), to other primary care providers in this rural county.

Making a Difference: Beginning in January 2000, the use of DEMS and education for clinicians and office staff on diabetes management produced immediate small improvements in diabetes outcomes. These improvements increased and affected more patients as the program was extended to all of the six health centers over the next nine months. The program collects the following data on patients with diabetes: percent with Hemoglobin A_{1c} (HbA_{1c}) measured yearly; percent maintaining HbA_{1c} <8 percent, percent with annual foot exam, percent with influenza and pneumovax immunizations, percent controlling blood pressure at <135/85, and percent with an annual lipid profile performed. As of April 2002, there is documentation of an average HbA_{1c} of 7.1 in a population of 622 diabetic patients, with an average total cholesterol of 201 and an average LDL of 110. These factors have been demonstrated to decrease diabetic morbidity and mortality from secondary end organ failure (such as renal failure or heart failure secondary to diabetes). Cost savings for averted stroke, myocardial infarction, or coronary artery bypass graft are estimated at between \$10,000 and \$20,000 for each occurrence. Conversely, primary care revenue increased as a result of the more aggressive disease management in the first year of the program. The population of focus, 116 patients in the pre-collaborative year, yielded 115 diabetic patient visits with a revenue of \$5,410 compared to 550 visits and \$27,827 in the first year of the collaborative.

Beginnings: The model grew out of a community needs assessment sponsored by the countywide Tioga County Partnership for Community Health (TCPCH) in 1994. The assessment found the self-reported diabetes rate in Tioga County to be one-quarter higher than the national average (8 percent versus 6 percent, nationally). The 1998 county mortality rate for diabetes at 20.2/100,000 was 45 percent higher than the state average. Beginning in 1995, patient education and community health education components for diabetes were implemented by LHS, a local integrated rural health system within the county. LHS's Laurel Health Center Diabetes Education and Nutrition Counseling program was launched shortly after the

local study. In 1996, a few providers from among the six FQHCs began ongoing evaluation of HbA_{1c} levels and provision of specified care.

Challenges and Solutions: The diabetes collaborative is associated with a northeast regional cluster of such initiatives supported by U.S. Health Resources and Services Administration's Bureau of Primary Health Care. The program has become institutionalized in diabetes treatment within the LHS FQHCs. At the same time, additional grant funding has been attained from the Pennsylvania Department of Health by the county partnership (TCPCH) to extend the LHS diabetes collaborative model to other primary care providers inside the county but outside the LHS umbrella. The success of the diabetes collaborative has led LHS to seek similar benefits for other conditions. It recently became a participant in the national cardiovascular collaborative.

LHS and TCPCH communicate to the community and the larger world through its regular newsletters and websites. Staff of both organizations actively participate in state and national conferences in telling their story.

Many recent events reflect the successes that these organizations have had in their disease management efforts. In 1999, LHS's Diabetes Education and Nutrition Counseling program received the American Diabetes Association's Education Recognition Certificate for its diabetes self-management education program. This recognition, successful work within the diabetes collaborative, and state support for expansion of the diabetes management work to other providers are among a string of successes for LHS and the larger TCPCH that have contributed to an award of a Community Access Program grant in 2001 to support development of a Community Health Plan, a jointly sponsored LHS-TCPCH managed care organization.

PROGRAM CONTACT INFORMATION

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