Combating an Epidemic and ‘Bending the Trend’ on Costs Associated with Diabetes

Independent Health leads the way in promoting better diabetes care, management and prevention to reduce costs.

One in three children born in the United States will develop diabetes in their lifetime if current trends continue. Every 20 seconds, another individual in the United States is diagnosed with this chronic disease. Those diagnosed will spend 2.3 times more on medical costs than those without diabetes. These alarming statistics signify diabetes’ escalation toward epidemic proportions and its severe financial consequences.

Drastic changes must be realized to curb this potentially devastating trend. It’s incumbent upon the community, physicians and health plans to take action immediately to curtail the damaging impact diabetes has on quality of life and health care costs.

Partnering with physicians, employers, members and not-for-profit organizations, Independent Health has taken the lead to reverse this trend and promote effective prevention and management strategies to reduce diabetes’ local impact on Western New York and our health care system.

"Independent Health is constantly seeking solutions to transform health care and achieve lower costs, better health and better care," said Michael W. Cropp, M.D., president and chief executive officer, Independent Health. “To help ‘bend the trend’ on higher costs of diabetes, Independent Health is proud to offer programs that support physicians in managing their diabetic patients and delivering proactive care. We are also actively engaging members in taking responsibility for their own health and well-being through educational and fitness programs to further encourage healthy lifestyles and preventive methods.”

What is Diabetes?

Diabetes, a life-long chronic disease involving problems with the insulin hormone, affects nearly 26 million Americans — creating an epidemic that’s heavily impacting the already burgeoning cost of health care. Diabetes is the sixth-leading cause of death in the United States. It can lead to a number of other ailments, including heart disease, blindness, kidney failure and lower-extremity amputations.

Diabetes occurs when the body produces little or no insulin. The body breaks most food down into glucose, and insulin is necessary to allow glucose to move into the body’s cells. Because diabetics don’t have proper levels of insulin, glucose remains in the blood, causing high blood sugar, which often leads to a myriad of other health problems.

The two most prevalent strains of diabetes are known as Type 1 and Type 2. Type 1 diabetes occurs when the body’s immune system destroys the pancreas’ insulin-producing cells, making the body unable to produce insulin. Type 2 diabetes, the most common form, occurs when the body does not produce enough insulin or is resistant to insulin.

Nationwide statistics look increasingly grim. One in 10 U.S. adults has the disease and 79 million adults have pre-diabetes. The Centers for Disease Control and Prevention (CDC) estimates, if current trends continue, as many as 1 in 3 adults could have diabetes by 2050.
The picture in New York state is equally alarming as 1 out of every 12 adult New Yorkers has the disease. In 2008, the CDC estimated that 8.9 percent of Erie County residents have diabetes — the highest rate by county in Western New York. Allegany, Cattaraugus, Chautauqua, Genesee, Niagara, Orleans and Wyoming counties were not far behind. Wyoming County came in with the lowest rate at 7.6 percent.

2008 Age-Adjusted Estimates of the Percentage of Adults with Diagnosed Diabetes in New York

Costs for treatment of diabetes and its numerous complications have the potential to overwhelm the system and drive overall health care expenditures up dramatically. Direct and indirect costs of diabetes to the national health care system reached $174 billion in 2007. Locally, direct costs alone totaled nearly $1.4 billion in 2010. Given the upswing in diagnoses, this number has climbed, and can only be expected to grow if these pervasive trends continue.

On an individual level, the CDC estimates people diagnosed with diabetes will spend 2.3 times more in medical costs than those without diabetes.

What can be done?

Reversing the trend of high rates of diabetes is certainly possible and must be accomplished. Type 2 diabetes, which accounts for nearly 95 percent of all diabetes cases, is usually preventable and manageable, and its causes are primarily lifestyle-driven.

Two of the most common risk factors for Type 2 are obesity and physical inactivity. Older age, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, and race and ethnicity also play a role. African Americans, Hispanic/Latino Americans, American Indians and some Asian Americans and Pacific Islanders are at a particularly high risk for Type 2 diabetes.

Making a trend-altering change in methods of prevention and management, and focusing on promoting physical activity and lowering rates of obesity, are the keys to minimizing the drastic impact of diabetes and improving the lives of the millions of at-risk Americans.
Independent Health Initiatives to ‘Bend the Trend’

Independent Health understands the importance of delivering affordable, quality care, and the necessity of prevention and wellness programs in the community. The current health care system and the costs associated are no longer sustainable. While national health care reform legislation aims to correct these inefficiencies, the most sustainable solutions will take place at the local level. Better health, better care and lower costs must be advanced in tandem to achieve progress in all three areas.

As Independent Health strives to position Western New York as a model community for sustainable reform, it’s clear supporting healthy lifestyles to decrease the occurrence of diabetes, and thereby lower costs, can help reverse the trend. Through partnering with physicians, connecting with members, and reaching out to the community, the health plan offers several programs and services aimed at prevention of diabetes and management of already existing cases.

Partnering with Physicians

Independent Health prides itself on its continuous collaboration with physicians. These partnerships enable physicians to play an integral role in the design and development of programs that help physicians improve delivery of care to diabetic patients, and as a result, lower costs through better management of the disease.

Practice ExcellenceSM

As a pioneer in pay-for-performance programs, Independent Health and its physician partners established the Diabetes Practice Excellence program in 2005 to improve the health of patients with diabetes and prevent associated complications. As a result, the health plan began to see a reduction in costly complications associated with the disease.

Under this initiative, diabetes outcomes continue to improve. But while physician practices are following best practice guidelines, patient compliance and adherence — to diet, exercise and medication — plays a significant role in the program’s success and continues to provide opportunity for improvement.

The program engages physicians in review of their management of diabetic patients compared to evidence-based guidelines. The review allows physicians and office teams to identify opportunities for improved patient management. The indicators of quality care include regular monitoring of blood pressure, cholesterol and glucose, annual retinal exams, foot exams and regular assessment of kidney function. Independent Health provides physicians and office teams with resources and support they need to develop strategies for preventive medicine and proactive care.

“The idea is to get everyone in the community up to a uniform standard so that, if you’re a patient with diabetes, no matter which physician office you chose, you can expect the same level of high-quality care,” said Thomas J. Foels, M.D., chief medical officer at Independent Health.

The program’s participation rate among eligible physicians exceeds 90 percent. The program achieved significant improvement in comprehensive diabetes care at the physician practice site level. Success is attributed to engagement of physicians, actionable reports, office-based education, written action plans and alignment with Independent Health’s internal disease management programs.
Practice Excellence targets a random sample of these physicians’ diabetic patients for medical record review, but process improvements made are applied to all diabetics in the practice. Results gathered through the Healthcare Effectiveness Data and Information Set (HEDIS), a national performance measuring tool, showed steady improvements in participating physicians’ adherence to these clinical guidelines for treatment of diabetes.

Under the Practice Excellence program, reported adherence to guideline scores among physicians showed a 12 percent improvement over 12 reporting cycles. For example, adherence to completing the first A1C test increased from 65 percent to 87 percent, the A1C goal increased from 31 percent to 50 percent and the recording of glomerular filtration rate (GFR) increased from 18 percent to 81 percent.

Diabetes Practice Excellence Program Pre and Post Results

*Measuring GFR was added in cycle 3 of the reviews.*
Additionally, from 2009 to 2010, the rate for inpatient diabetic admissions for certain complicating co-morbidities decreased, including admissions for cardiovascular disease, which declined from 88 out of 1,000 in 2009 to 79 out of 1,000 in 2010.

When diabetic patients walk into Dr. Don Robinson’s Hamburg, N.Y. office, they are weighed, their glucose is checked, vital signs are taken, eyes are checked and their shoes come off for a foot exam. “They know right away what to do,” Dr. Robinson said.

Robinson said diabetes is a very expensive and potentially deadly disease that can be effectively treated with proactive care.

“These programs put the money and incentive up front to prevent complications and costly procedures later,” he said. “Beyond the cost savings, the real payoff is down the road in terms of quality of life for patients who experience fewer renal failures, fewer amputations…”

The program’s goals to improve quality of care, promote early identification of clinical complications, and help physicians develop systematic approaches to care of patients, can be translated to the treatment of other diseases as well. Due to the success of Diabetes Practice Excellence, Independent Health has developed Practice Excellence programs for other chronic diseases, including patients at risk for cardiovascular disease with heart failure, children’s asthma, childhood overweight and obesity, and chronic obstructive pulmonary disease.

**Patient-Centered Medical Home**

Furthering its commitment to revolutionizing health care delivery, Independent Health launched the Patient-Centered Medical Home (PCMH) pilot program in 2009. The cornerstone of this program is care coordination between the primary care physician and specialist and use of technology to manage patient care. This access allows caregivers to more easily provide proactive care—a key component to preventing and treating diabetes.

The goals of PCMH are to improve quality, affordability and increase patient, physician and staff satisfaction. Currently, 130 physicians participate in the program, to the benefit of more than 50,000 patients.

Each of the 18 primary care practices participating in the pilot program has achieved the highest level of NCQA recognition as medical home practices. To achieve this recognition, practices must, in part, adhere to or adopt the following criteria: improved access, patient monitoring, case management, patient self-monitoring, electronic prescribing, test tracking, referral preferences, performance reporting, electronic communication, and education and learning.

There is a marked improvement in the management of diabetic patients when comparing outcomes of patients in the PCMH pilot with those who are not.

**Connecting with Members and Employers**

**Diabetes Disease Management Initiative**

To help members manage their diabetes and avoid resulting complications that ultimately drive up their health care costs, Independent Health began its Diabetes Disease Management Initiative in 2005.

This program evaluates members’ level of risk for health problems resulting from diabetes to identify the best means of outreach to members at each risk level (low, moderate and high). The purpose of the program is to improve the quality of care for diabetics and decrease complications of diabetes, which cause quality of life issues and increased health care utilization and costs.
As part of this effort, the health plan conducts direct member outreach through health coach outreach calls and mailings. The health coaches involved in this program use the model for behavioral change, which emphasizes collaboration between the member and care provider, the person’s readiness to take action, and the development of the person’s autonomy so they can take responsibility for their own health.

For example, a 46-year-old diabetic patient reached her goal to not be put on insulin following a phone call from a health coach at Independent Health. Together, the health coach and member developed an action plan for her to follow that included diet education, a review of good and bad carbohydrates and healthy snack options. In three months, her A1C decreased from 8.9 percent to 6.9 percent, blood pressure regulated to 102/62 and she lost 4 pounds. Not only did she avoid being put on insulin, her A1C is now at goal.

A persistent Independent Health case manager provided assistance to a parent with a 7-year-old diabetic son after two emergency room visits for insulin dependent diabetes mellitus that is associated with uncontrolled diabetes. After reaching out to this parent, the case manager was able to secure an appointment at a pediatric endocrine clinic for the young boy to receive follow-up care, learn about diabetic diets and how to properly use the insulin pump to help him manage his diabetes.

The disease management return on investment, which includes trends and medical expenses, indicated a $2.46 return for every dollar invested in better practice methods and preventive and management care.

Outreach in the Community

New York State Diabetes Prevention and Control Program

In an effort to help curb the rising number of Western New Yorkers suffering from diabetes, Independent Health has teamed up with YMCA Buffalo Niagara to make available a program for its members considered to be at-risk for developing diabetes. This innovative program is proven to lower an individual’s risk of contracting the disease.

The program – a 16-week course for people diagnosed with pre-diabetes – involves losing weight and committing to lifestyle changes, which can help prevent or delay the onset of diabetes. The initiative is based on a successful program piloted by the National Institutes of Health (NIH) that has been shown to reduce pre-diabetic adults’ risk of developing the disease by 58 percent. In adults over the age of 60, the risk was reduced by 71 percent.

“With nearly 30,000 Independent Health members currently diagnosed with diabetes, it is crucial for us to reach those at risk of acquiring this debilitating disease,” said Peggy Davis, RN, director of health promotion for Independent Health. “Under this prevention program, participants will learn proper nutrition and exercise, how to better manage their health and adopt life-changing healthy habits to reduce their risk of developing diabetes. This partnership is another great example of how, collectively, we can make an impact on the health of our community and lower the future cost of health care.”

Educational Seminars

For those who are diagnosed with diabetes, continuing education on how to manage the disease is an important component to staying healthy and avoiding complications that arise from it. Effective at-home management also reduces health care costs and avoids unnecessary tests and visits to the doctor.
To meet this need, the Independent Health Foundation (Foundation) offers free educational seminars throughout Western New York on topics relevant to personal management of diabetes, such as what foods affect blood sugar levels, the importance of blood sugar monitoring, effective blood sugar testing devices and insulin pump therapy.

The Foundation has been offering community health and wellness programming for more than 20 years and all programs are open to the public. The diabetes programs represent one component of the Foundation’s mission to work to improve the health and well-being of Western New Yorkers through awareness, prevention, education and programs focused on community health priorities.

Recent diabetes management programs have received overwhelmingly positive feedback. For a session on insulin pump therapy, 100 percent of respondents ranked the overall program as “outstanding” and 97.1 percent rated their experience at a seminar on proper diet as “very good” or “outstanding.”

Considering growing attendance rates and positive feedback, the Foundation plans to continue to offer each of these programs regularly and frequently throughout the year.

**Progress Made, but Challenges Remain**

While Independent Health’s efforts are making an impact in the Western New York community, challenges remain and the high diagnosis trends continue across the nation. The CDC estimates 14 percent of the U.S. population had diabetes in 2010. With the CDC’s prediction that 23 percent of the population will have diabetes by 2035, the medical costs resulting from the spread of this disease will increase from its 2007 level of $174 billion to $597 billion by 2035.15

Collaborative initiatives on the part of health plans, physicians and patients are more important then ever to affect change. With a focus on making preventive programs available to health plan members, encouraging patients’ personal responsibility for their health, and enabling efficiency through health care delivery, Independent Health and its partners can continue to “bend the trend” and improve patient outcomes, lower costs and improve the lives of hundreds of thousands of people throughout Western New York.

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