

program is available to people with both Type I and Type II diabetes. Clinical data collected by the program sponsor, the American Pharmacists Association (APhA) Foundation, are analyzed with support from GlaxoSmithKline. Employer cost savings will be evaluated after the first year.

"All of the indicators are pointing in the right direction and we are pleased with the progress so far," Whipple said. "People are setting goals for themselves in exercise, weight and nutrition, and we are already seeing improvements in blood glucose indicators, blood pressure, eye exams and foot exams."

Getting Healthy, Staying Healthy

Marcy*, who has lived with Type 1 diabetes for 31 years, was drawn to the program by the incentives. Her employer, H.J. Heinz, covers costs for her insulin pump and blood glucose monitoring supplies, saving her \$500 a year. A member of the Heinz management team, she sees the benefit to the company as well as the patient.

"Heinz has instituted a health and wellness initiative focused on making healthier products for customers, and on helping employees through preventative programs like this," Marcy said.

"This program enables people to understand what they need to do in order to become healthy or stay healthy. The more that people take advantage of it, the healthier our employees will be, which can be a win for everybody. Improving health means improving energy and attitude, and there is less down time from lost workdays."

Diagnosed with diabetes at age 15, Marcy vowed to never let it affect her quality of life. She aggressively managed her condition and it stayed under control until her second pregnancy, when she experienced a different side of diabetes.

"I had a lot of problems with very low blood sugars – I was passing out and had to get emergency medical help like never before," she said. "That was very difficult, but I learned that you can control it if you really pay attention and understand the balance between your medication, exercise and diet."

With an insulin pump providing insulin throughout the day, Marcy must constantly monitor her blood glucose levels. She carefully counts carbohydrates, adding the insulin her body needs to process the food. She knows that checking her blood glucose five to six times each day is the key to staying healthy.

*Name withheld upon request

"A variety of circumstances can affect your blood sugar such as stress, alcohol, being sick or taking different medications. You have to always know how these situations are affecting your body by testing your blood and making adjustments to insulin, food intake and exercise as necessary," she advises.

Marcy sets goals with her DTCC pharmacist coach and knows the satisfaction of meeting them. She appreciates seeing her pharmacist coach at her workplace and having guidance on how to balance diabetes within her busy schedule. "This partnership is especially effective for diabetics who may not see their doctor on a regular basis or who may be frightened by the disease. Diabetes can be managed, but it takes a strong support system. The pharmacist coach can help patients come to terms with the disease as well as provide the well needed support for maintaining a healthy lifestyle. The pharmacist-patient relationship is very good at helping people find an approach that works for them," she said.

Need for Support, Education

Hilde Berdine, PharmD, BCPS, serves as Marcy's pharmacist coach, as well as assistant clinical professor of pharmacy practice at Duquesne University's Mylan School of Pharmacy. She oversees DTCC pharmacist training in Pittsburgh, teaching both student pharmacists and practicing pharmacists the counseling and physical assessment skills needed for the program. Berdine also coaches 12 participants and is struck by how little support is offered to people with diabetes.

"Society and even families don't realize how bad this disease is," Berdine said. "They often don't know that uncontrolled diabetes can lead to blindness, amputation, end-stage kidney disease, and cardiovascular complications such as stroke or heart attack." She finds that patients become frustrated over time and can be overwhelmed by all the health issues that must be constantly monitored.

"It's important that patients can access a coach on a regular basis to help them through the ups and downs and help them control their diabetes as best they can," Berdine said. "You can't just show someone how to use a glucometer and send them on their way – it takes constant education, encouragement, and support to empower the patient to self-manage."

Meeting this important community need fits well with the service mission of the University and its pharmacy school. "Our participation in this pharmacist-directed wellness program gives us a

chance to give back to the community by providing much-needed diabetes patient education and make a difference in the health outcomes of people with diabetes," said J. Douglas Bricker, Ph.D, dean of Duquesne's Mylan School of Pharmacy. "Pharmacists have the ability to apply their scientific knowledge in making therapeutic decisions that will affect health outcomes, and it is essential that schools of pharmacy lead the way in preparing them for this role. It is an important contribution to evidence-based medicine."

The school recently expanded its curriculum to include the counseling and skills used in the DTCC (such as taking blood pressure and training patients on glucometer use and injection techniques) so graduating pharmacists are prepared for the future.

Partnership for the Community

"The University also is offering the DTCC program to eligible health plan participants among its 1,500 full-time employees," said Donna Steed, Duquesne benefits manager. Participants meet with pharmacist coaches on campus at the Duquesne Center for Pharmacy Care or at their participating pharmacies. Working closely with the pharmacy school, the University decided to participate in the DTCC after financial modeling convinced them of the benefit.

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PITTSBURGH AT A GLANCE

Leading the effort:

Pittsburgh Business Group on Health

Local program name:

LivingMyLife Self Management Program™

Pharmacist network:

- Coordinated by CVS/CareMark
- 80 pharmacists certified in diabetes education
- Network includes Giant Eagle, Kmart, Rite Aid and independent pharmacists
- Training provided by Duquesne University Mylan School of Pharmacy

Participants enrolled:

400 as of September 15, 2007

Participating employers include:

Carnegie Mellon University, Development Dimensions International, Duquesne University, H.J. Heinz, Respirationics, and the Ellwood Group

Influenza Vaccinations Critical for People With Diabetes

By William M. Ellis, RPh, MS
Executive Director & CEO
APhA Foundation



Influenza, commonly known as the flu, infects one in five Americans each year and causes an estimated 36,000 deaths and more than 200,000 hospitalizations.¹ Both adults and children with diabetes are at increased risk for complications from influenza.² The added risk stems from the fact that people with diabetes may have abnormal immune function that can increase the morbidity and mortality from influenza. In addition, influenza may affect blood glucose management, creating greater swings in blood glucose and the possible risk of diabetic coma.³

Vaccinations: What You Should Know

The Centers for Disease Control (CDC) and the American Diabetes Association (ADA) recommend influenza vaccinations for people with diabetes. They suggest that healthcare providers and employers offer these vaccinations as part of routine patient care.

Be aware of the following as the flu season approaches:^{1,2}

- Both the CDC and the ADA recommend that all children and adults with diabetes (aged six months and older) receive an annual influenza vaccination.

- CDC recommends that close household contacts and out-of-home caregivers for people with diabetes also receive influenza vaccination.
- Because they are in close contact with patients with diabetes, healthcare professionals such as physicians, pharmacists, nurses, etc., also should be immunized.⁴
- Influenza vaccination is safe and effective for children and adults with diabetes.²
- Research has shown a 70% reduction in hospitalizations and death among adults with diabetes who receive an influenza vaccination.
- Pneumococcal vaccine is also recommended for all people with diabetes.

Prevention Strategy

Having a strategy to help prevent the impact of influenza keeps people healthy, saves lives and reduces health care costs. Influenza vaccine is simple and inexpensive and can yield a huge return on investment by reducing absenteeism and hospitalization costs.

1 Centers for Disease Control and Prevention (CDC). Prevention and control of influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2006;55(RR-10):1-41

2 American Diabetes Association Position Statement: Influenza and pneumococcal immunization in diabetes. *Diab Care* 2004;27(Suppl 1):S111-S112

3 American Diabetes Association. Diabetes myths. Available at <http://www.diabetes.org/diabetes-myths.jsp>

4 Looijmans-Van Den Akker I, Verheij T, Buskens E, Nichol KL, Rutten G, Hak E. Clinical effectiveness of first and repeat influenza vaccinations in adult and elderly diabetic patients. *Diab Care* 2006;29:1771-1776.

The Cost of Diabetes Complications

Diabetes-related complications occur at alarming rates and put a significant economic burden on the United States. According to the *State of Diabetes Complications in America Report**:

An estimated 57.9% of people with diabetes have one or more complications associated with diabetes, including heart disease, stroke, kidney disease, eye damage and foot problems.

\$22.9 billion was spent in 2006 on direct medical costs related to diabetes complications, such as health-care visits, hospital stays, medical services, equipment and prescribed medicines.

Healthcare costs for a person with diabetes are about three times that of the average American without diagnosed diabetes.

*This April 2007 report, part of the American Association of Clinical Endocrinologists' *State of Diabetes in America* awareness campaign, was produced in partnership with a diabetes complications consortium with funding and other support provided by GlaxoSmithKline. (See details at www.stateofdiabetes.com.)

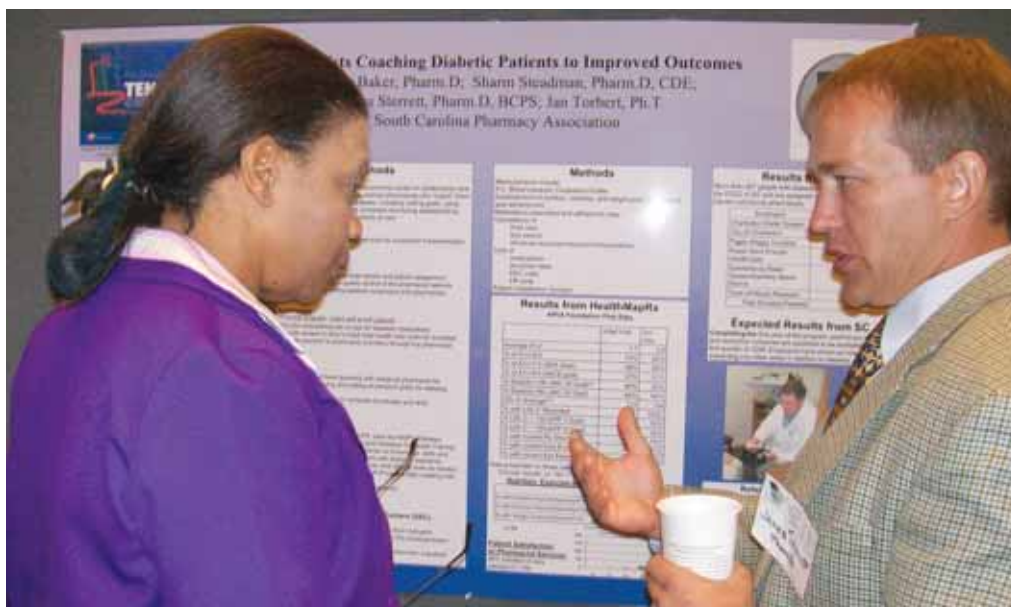
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“We looked at the cost of doing nothing, and the cost differential to enroll in the program, including estimates for coaching sessions, lab tests, glucose testing kits and waiving copayments on drugs,” Steed said. “We expect that better compliance with using maintenance drugs will offset medical costs and that, down the line, we’ll see decreased hospitalizations, emergency room visits and other critical diabetes-related problems.”

While one of the strengths of the DTCC is that participation is confidential, so the employer does not hear directly from many patients, the team feels positive about helping employees and training pharmacists.

“While this program makes sense monetarily, it also is just the right thing to do,” Steed said. “If the University, through its benefit programs and concern for its employees, can get people to work every day, not worrying about paying for their prescriptions and knowing they are working for an employer that invests in keeping them well, we are doing our part.”

DTCC ON DISPLAY IN SOUTH CAROLINA



Pharmacist Coach James Sterrett, PharmD, BCPS, CDE, explains his DTCC educational poster to a participant at the Diabetes Fall Symposium for Primary Health Care Professionals in Charleston, S.C. Sterrett, a consulting pharmacist and assistant professor at the University of South Carolina (USC) School of Pharmacy, presented the poster along with colleague Sharm Steadman, PharmD, BCPS, CDE, FASHP. More than 250 people attended the annual event sponsored by the Medical University of South Carolina and the Diabetes Initiative of South Carolina.

WHO'S WHO in the DTCC



Christine Whipple
Executive Director
Pittsburgh Business Group on Health

Role in DTCC:

Chris established the program for PBGH and has served as chief coordinator, communicator and liaison with PBGH board members, participating employers and implementation teams ever since.

Why PBGH chose to participate:

"We saw the opportunity to get support for launching this kind of program, and it was exciting to be part of a national effort that could compare and correlate our efforts with those of other markets. We also saw a potential way to support employers who might have populations in other markets with a similar need."

Most rewarding part of the experience:

"Seeing pharmacists' excitement at the impact they are making on people who have diabetes, and hearing a participant say how much the program had improved her life."

Lesson learned:

"We need to support the pharmacists working in this program. The pharmacists have a real desire to understand how to help people make positive change, and we need to incorporate ways to support the pharmacists on an ongoing basis."



Hilde Berdine, PharmD, BCPS
Assistant Clinical Professor of Pharmacy Practice
Duquesne University Mylan School of Pharmacy

Role in DTCC:

Hilde was on the PBGH planning committee to initiate and expand the Pittsburgh DTCC program. She oversees DTCC pharmacist training through Duquesne and is a pharmacist coach to 12 participants.

Why Duquesne chose to participate:

"We were approached as members of PBGH. We knew diabetes was very costly and reaching epidemic proportions in this country, that patients needed assistance and pharmacists could rise to the challenge. This was an opportunity for pharmacists in practice to learn new skills and impact this group of people."

Most rewarding part of the experience:

"Knowing that I might have a small part of advancing our profession forward and heightening the public awareness of the possible role of the pharmacist in our health care and community."

Lesson learned:

"Pharmacists find this program to be more rewarding than they thought it would be. Personally, I never realized how little support diabetes patients get from family, friends and co-workers."



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