



farm to pharmacy

This page:
Brendalee
Plamondon
(right) and the
Farmacy's
registered
dietitian, Anna
Ziegler (left),
load a cart
with nutritious
grocery staples.



inspired:

sharing stories makes us stronger

An innovative program aims to reshape diabetes treatment through food.

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In the heart of coal country, one medical center is taking the phrase “food as medicine” literally. Geisinger’s Fresh Food Farmacy in Shamokin, Pennsylvania, prescribes—and provides—free, nutritious groceries to patients with type 2 diabetes and food insecurity. Combined with education and personalized attention, that fresh food helps patients see dramatic changes in their health. “It works smashingly,” says Andrea Feinberg, M.D., medical director of Geisinger’s Health and Wellness Program, who created and launched the program in 2016.

“We’ve seen over 20 percent drops in hemoglobin A1C.”

Located in the administrative building of Geisinger Shamokin Area Community Hospital, about 70 miles northwest of Allentown, the Fresh Food Farmacy spreads over 1,500 square feet. Patients check in at a front desk, which displays a whiteboard listing the six fruits and six vegetables as well as other foods available to choose from that day. Nearby are an on-site dietitian’s office and a conference room where the program holds classes on diabetes self-management. Beyond all that lies the heart of the Farmacy: the pantry. Picture a



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—ANDREA FEINBERG, M.D., PROGRAM FOUNDER





From top to bottom: Brenda Lee and Anna Ziegler, RD, discuss a meal plan; volunteer Josh Ziegler and staff members Eileen Burke and Michelle Schoch prep and stock the Farmacy pantry.



spotlessly clean storeroom lined with three commercial fridges, three freezers, and large shelving units for shelf-stable foods.

When participants come to the Farmacy they meet with a nurse health manager, who helps guide them through the program, and a dietitian, who writes a “food prescription.” Each week at check-in, patients select foods that appeal to them and satisfy the prescription, and leave with menus, recipes, and enough food to feed their entire family for two meals a day, five days a week. “We feed everyone [in a household] because we know that the other people in the household suffer from the same risks of developing obesity and diabetes, because they’re related,” says Feinberg. “They also share the socioeconomic factors that place these people at increased risk.”

THE FRESH FOOD PRESCRIPTION

When Brenda Lee Plamondon, 55, joined the program in February 2017, she needed a motorized scooter to get around. “I didn’t go to many places,” she says. “I was either at home or at church, that’s it.” With a diet reliant on inexpensive carbohydrates and canned vegetables, her A1C hovered above 9 percent, her weight over 300 pounds. Two years prior, her best friend had died from complications of diabetes. Brenda Lee knew she had to make a change, but she wasn’t sure how. When her doctor at a local Geisinger clinic told her about the Fresh Food Farmacy, she jumped at the chance to join. She filled out a form and found she qualified for the program. “I was a sponge,” she says. “I wanted to learn everything.” Her husband, Roland, whose mother had passed away due to diabetes, joined her for support.

Brenda Lee’s doctor invited her to apply for the Fresh Food Farmacy program after Geisinger scoured its database for patients in her zip code with uncontrolled type 2 diabetes. A simple questionnaire screened her for food insecurity. As long as patients meet those two requirements and are willing to participate in the program’s educational aspects, Geisinger doesn’t turn them away.

For the Plamondons, shopping for healthy food had been a challenge. Fibromyalgia, herniated disks, and osteoarthritis left Brenda Lee in too much pain to walk, but because of her uncontrolled diabetes, doctors advised against surgery. She used a motorized scooter to get around and rarely ventured out. Roland, himself disabled, handled most of the grocery shopping and cooking on their limited income. “I wasn’t eating many vegetables because of the cost,” says Brenda Lee. “We’d get a can of green beans, a can of carrots—it was cheaper.”

Now, the Farmacy provides the Plamondons with a weekly supply of healthy groceries. But the program provides more than food. For the first six weeks, participants (and sometimes family members, as with Brenda Lee’s husband) attend weekly two-hour classes devoted to diabetes nutrition education, where they also learn about techniques to deal with physical and emotional symptoms, appropriate ways to get exercise, and more. In the classes, participants meet others who are facing similar challenges, reducing the isolation that is often linked with poverty and chronic illness. They also gain a team of nurse health managers, dietitians, health coaches, and a pharmacist, who act as an ongoing support group. “At the second class, they had us pick

EACH PARTICIPANT IN THE PROGRAM RECEIVES MENUS, RECIPES, AND ENOUGH FOOD TO FEED THEIR ENTIRE FAMILY FOR TWO MEALS A DAY, FIVE DAYS A WEEK.



Project coordinator Kody Graham stores fresh bell peppers in the Pharmacy's fridge.



THE FORMULA

Healthy food
+ education
+ support
= improved health outcomes, fewer complications, and lower healthcare costs.

goals. Mine was to start using my walker," says BrendaLee.

Once participants graduate from the diabetes-education classes, they come in weekly for groceries and to discuss their progress with a dietitian, who makes necessary tweaks to their meal plans. The Farmacy also offers ongoing education in the form of additional nutrition and cooking classes. "I like going in and seeing Anna [Ziegler, the dietitian] and Michelle [Chapman, the health manager]," says BrendaLee. "They offer us recipes, and we try them. Now I'm hooked on pollock, the fish. Before, I never ate fish." Geisinger checks in with participants annually regarding

their financial situation, and as long as they're food insecure, they remain in the program. If their finances improve, the Farmacy helps them determine which healthy foods to buy.

WHY LIFESTYLE INTERVENTION WORKS

Programs like the Fresh Food Farmacy that focus on changing PWDs' behaviors as well as their environments show promise compared to conventional medication-focused treatment. The reason: An all-encompassing approach, with personalized attention. "Diabetes is such a multifaceted condition," says Ann Albright, Ph.D., RD, director of the Division of Diabetes Translation at the U.S. Centers for Disease Control and Prevention. "And it occurs because of a number of factors: people's genetics, their lifestyle, the environment in which they live. We have to address all of them, because they all ultimately impact the individual."

One similar behavior-change program that has produced encouraging results is the CDC's National Diabetes Prevention Program, which focuses on preventing diabetes progression in people with prediabetes. A yearlong lifestyle-change program offered nationwide, it asks participants to attend weekly classes focused on nutrition and physical activity for the first six months, and monthly reinforcement sessions after that. A recent study in *Diabetes Care* found that the more sessions participants attended, the more likely they were to achieve a 5 percent weight loss, which has been shown to slash the likelihood of progression from prediabetes to type 2 diabetes.

"A diabetes prevention program is like having insurance coverage," says Albright. "It's not

enough to just have it. You have to utilize it, you have to understand it."

According to Feinberg, the Fresh Food Farmacy has also found a link between robust participation and success. "In the beginning, we didn't require people to take the classes," she says. "But we found that the classes built a community for them. We also started to see physiologic outcomes that were much improved compared to people who just picked up food. Now we have a social contract with our patients, that they have to take the classes."

FOOD FARMACY FINANCE

All this personalized, intensive assistance may sound expensive, but it's not, compared to the costs of uncontrolled diabetes. "When you have elevations in hemoglobin A1C and you're food insecure, your health costs are astronomical, thousands [of dollars] per patient per month," says Feinberg. "We've looked back at our claims data and the results are astounding. We can save insurers huge amounts of money by providing this innovative but commonsense approach to diabetes."

When patients first enter the Farmacy program, their care typically costs Geisinger Health Plan (Geisinger's insurance program) an average of \$8,000-\$12,000 per month. Currently, the Farmacy program costs just \$2,200 per patient per year, and it brings down those monthly health care costs by an average of two-thirds. The Shamokin location, where the pilot program started with six patients, now works with 100 patients, and the program has been so successful that Geisinger plans to open Fresh Food Pharmacies in two more Pennsylvania hospitals this year.



BrendaLee cheers on her husband, Roland, and her great-niece and great-nephew at the arcade.

Currently, donations and grants from Geisinger Health Plan, the Central Pennsylvania Food Bank, and nearby philanthropies pay for the program, but Feinberg believes that their results will be impressive enough to secure regular funding through Medicaid, Medicare, and insurance companies—and to convince other health systems to start similar programs.

Albright, too, sees the potential for savings. “If you can slow the increased need for medical care or flatten what’s going on over time, that can be very cost-effective,” she says. “People are developing fewer complications, needing fewer emergency room visits—all of

those things, over time, are going to have a financial impact.”

And the benefits extend beyond the specific teachings of the Farmacy’s classes. “Through nurturing and improvement in their clinical outcomes, participants have a new lease on life, because they feel like they can address their health issues,” says Feinberg. They’re asking for help in quitting smoking, and learning more about exercise and weight loss in general. “These are people who were very disengaged now becoming engaged.”

SEEING RESULTS

One year after they joined the Farmacy, the Plamondons’ lives have changed dramatically.

Brendalee’s A1C is now under 7 percent, and she’s lost more than 30 pounds. Her medical team has greatly reduced her insulin dosage, and she’s traded her scooter for a walker. “I have a great-niece and -nephew, and we’ve been taking them all over the place,” she says. “We took them miniature golfing—that was my idea!” Roland is thrilled to see his wife regaining her mobility, and he boasts good news of his own: he’s lost 20 pounds.

Now, when Brendalee talks about the future, you can hear the excitement in her voice. “I’m going to stick with this forever,” she says. “I’m glad we got in on the ground floor. We’re kind of growing with the program.”

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