WAR ON DIABETES: An ounce of prevention is worth far more than a pound of cure

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Ask Eugenia Millender why we’re losing the war against diabetes and she’ll tell you simply: We’re on the wrong battlefield.

“Prevention has not been our focus,” laments the clinical director at FAU’s Diabetes and Education Research Center, “and now we’re paying for it.”

In 1999, the authors of an article in *Diabetes Care* pondered the question: “How will we know when we’re winning the war on diabetes?” Little did they know, the epidemic hadn’t yet hit its stride. That over the next decade, the number of diagnosed cases in the U.S. would explode from about 10 million to nearly 20 million.

And with it has come a steep price: In 2007, diabetes contributed to more than 231,400 U.S. deaths and generated $116 billion in medical bills.

The primary driver of diabetes diagnoses is another epidemic: obesity.

But while the link between the two has been known for years, says Florida Atlantic University professor Charles Hennekens, people don’t necessarily associate obesity with diabetes.

For that to happen, he said, something deeper needs to change. “Diabetes may be an old problem, but, man, it’s a whole new set of issues,” he said.

Now, rather than wondering when we’ll begin to win the war on diabetes, the nation’s health authorities are wondering how to keep from adding to the list of casualties — 79 million people stand on the verge of becoming diabetic. And increasingly in the disease’s sights are the nation’s children, threatening to create a generation that may not outlive their parents.

Type 2 preventable
The diabetes in question here is not what is commonly referred to as type 1, or juvenile diabetes. That happens when the body makes little or no insulin, a hormone needed to move blood sugar into the cells for energy. Type 1 diabetes cannot be prevented.

Instead, the nation’s crisis is the surge of type 2 diabetes – which accounts for about 95 percent of all diabetes cases. With type 2 diabetes, either the body doesn’t produce enough insulin or the cells ignore it. But what most frustrates health authorities is that this form of the disease is preventable with proper diet and exercise.

That also means they can draw a more direct line from diabetes to obesity.

Not everyone who is obese will develop type 2 diabetes, and not everyone with type 2 diabetes is overweight. But the two are inextricably linked. Researchers have found that two of every 1,000 normal weight people are diagnosed with diabetes while some 18 of 1,000 obese people have the disease.

Dr. Ann Albright, with the U.S. Centers for Disease Control and Prevention’s division of Diabetes Translation, explains their relationship by repeating an oft-quoted piece of scientific wisdom: “The genetics loads the gun, and your lifestyle pulls the trigger.”

West Palm Beach artist Anthony Burks arrived at age 44 with such a loaded gun.

At least five of Burks’ relatives, including his mother, have diabetes. He’s also black, a factor that nearly doubled his risk for getting the disease.

Then Burks put his finger on the trigger. He was rather sedentary and weighed about 225 pounds when he should’ve weighed closer to 185 pounds.

He ignored the “eat better, exercise more” message, he says, until he landed in the intensive care unit at St. Mary’s Medical Center a year ago. Tired, thirsty and constantly urinating, he thought maybe he had cancer. He had type 2 diabetes.

That was his trigger. No more soda and fried chicken – though he still sips the occasional sweet tea. And he’s taken up walking.

His biggest concern, however, is trying to convince his sons to do what he didn’t much earlier. “I’m always in their ear about it,” Burks said. “You can either fix it now, or go through what I went through.”

1.9M adults diagnosed every year

Says the CDC’s Albright: There’s an under-appreciation for the serious effects of diabetes.

“Diabetes is the number one cause of blindness; it can lead to kidney failure, heart attacks and strokes,” she said.
That’s managed to stir Palm Beach County’s health authorities to do more to help the estimated 100,000 local residents — including a growing number of kids — who have been diagnosed with type 2, and the thousands more who are considered high-risk for developing diabetes or already have it but don’t know it.

In January, more than 100 officials representing among others, hospitals, insurers, schools, community groups and government agencies formed the Diabetes Coalition of Palm Beach County. The hope was that through better coordination, they could at least begin turning the tide in the war.

To that end, the coalition first updated the information available through the county’s heavily used 2-1-1 help line so that callers can be referred to a more complete list of places for diabetes testing and education.

And this week, free glucose screenings and diabetes education is being offered at dozens of locations including five of the county’s health centers and additional public venues as part of National Diabetes Month.

Millender said the screenings will help gather vital statistics and give authorities a better picture of who is sick and who is on the verge. That, she said, will help the coalition to plan a strategy to help rein in diabetes.

Those in the field agree that with 1.9 million adults diagnosed with type 1 or type 2 diabetes every year, and with the obesity rate among American children having tripled over the previous generation, the strategy has to center on prevention. But prevention is both a simple and Herculean task.

Changing the way we eat and how often we walk, bike or run sounds simple enough. But in the face of a culture that is full of obstacles from fried-filled Sunday dinners to communities without sidewalks to insurers not paying enough for educational guidance, change often requires the effort of more than one person.

Clinical trials have shown that losing 5 to 7 percent of body weight – about 10 to 14 pounds for a 200-pound person – and getting 150 minutes of moderate physical activity reduces the risk of developing type 2 diabetes by 60 percent or can make diagnosed diabetes manageable without drugs for some.

People must first be aware of their risk and know how to make changes in their lives, however. And that education is spotty, both locally and nationally.

**Education spotty at best**

More than 40 percent of adults diagnosed with the disease say they have had no “formal” diabetes education, and national diabetes experts are skeptical about the rest.
“Most doctor visits are about 20 minutes long, and of that 20 minutes, you actually spend eight to 12 with the physician,” said Sandra Burke, president of the American Association of Diabetes Educators. “That’s not diabetes education.”

Indeed, it takes hours over weeks or months to change habits.

At FAU’s Diabetes Education and Research Center, located on the St. Mary’s Medical Center campus, diabetics and those with pre-diabetes come for about four visits, each about two hours long. Patients come to day-long sessions at Jupiter Medical Center’s Diabetes Education Center. A typical class, which has 10 to 15 people, covers using a blood glucose meter and reading food labels, said Yolanda Torres, a diabetes educator at both facilities.

The diabetes education the CDC has invested $6.75 million in this year alone, the one proven to change habits, requires enrollees to attend 22 classes over the span of 10 months.

If getting doctors to refer patients is one of the first hurdles to getting education, Torres says money is perhaps a bigger hurdle. “Unfortunately, our biggest challenge is insurance coverage,” she said. “I had a patient yesterday who had to pay $300 for class. That was her co-pay.”

Education may change the habits of the diabetic or the person at risk. But that is not enough, the CDC’s Albright says.

The CDC reports that one in 10 people has diabetes; and if that doesn’t change, as many as one in three will have the disease by 2050.

63% of adults obese in county

We need only look to our children to see the future. Type 2 diabetes was once seen only in adults aged 40 years and older, but now it can be seen in children ages 10 to 19 — and in all ethnic groups.

The CDC attributes this rise to obesity, lack of physical activity, as well as exposure to diabetes in utero.

In Palm Beach County, where more than 63 percent of the adult population is overweight or obese. Their children are racing to keep up. More than a third of middle-schoolers are overweight or obese, and nearly a quarter of high schoolers.

“We have done a great job treating diabetes … not on keeping people from getting sick,” said Alina Alonso, director of the Palm Beach County Health Department. “By focusing on obesity and trying to bring down the numbers, we’ll be able to get prevention.”

Alonso and other local health leaders are now embarking on a campaign to reach a broader audience with a program called 5-2-1-0, which encourages families daily to serve their children five fruits and vegetables, limit TV and computer screen time to two hours, engage in one hour of activity and serve zero sugary beverages.
“We have to look at the whole community’s habits,” Alonso said, “our restaurants, our fast food industry, our physicians, our schools. This is really a community effort.”

2 types of diabetes

**Type 1** - Commonly referred to as juvenile diabetes, it happens when the body makes little or no insulin, a hormone needed to move blood sugar into the cells for energy. Type 1 diabetes cannot be prevented.

**Type 2** - Accounts for about 95 percent of all cases. Happens when the body either doesn’t produce enough insulin or the cells ignore it.

This failure takes years to develop into diabetes and is preventable through changes in diet and lifestyle. For decades, it was referred to adult-onset diabetes until children began to be diagnosed.

The exact mechanism that leads to this failure is the subject of intense study. We do know that our bodies convert the food we eat into a sugar or glucose in the bloodstream and the insulin helps it glucose from the blood to the cells. If the cells are resistant, then the body makes more insulin. When the system doesn’t work, unhealthy amounts of sugar build up in the blood stream, setting the stage for diabetes.

*Source: Palm Beach Post research.*

**What is diabetes?**

A disease marked by high levels of glucose (sugar) in the blood because of defective insulin production. The pancreas creates insulin, which ferries energy-giving blood sugar into the cells. Those insulin-producing cells are killed in a diabetic person, either after the body’s other cells develop resistance to insulin (type 2) or when an autoimmune reaction attacks the insulin producers (type 1).

**Some of the major complications**

Adults with diabetes face

- 2 to 4 times higher rate of death from heart disease

- 2 to 4 times higher rate of stroke

- Leading cause of blindness

- Leading cause of kidney failure
- Nervous system damage that can reduce sensation in the extremities; the worst cases can lead to amputation

Source: Centers for Disease Control and Prevention

**How diabetes is treated**

**Type 1**

To survive, must have insulin delivered by injection or a pump. Healthy eating and exercise also help control blood sugar.

**Type 2**

Many can control disease with healthy eating and exercise, losing weight and taking an oral medication. Some require insulin. Many also need medications to control cholesterol and blood pressure.

Source: Centers for Disease Control and Prevention

**Palm Beach County Diabetes Week**

Free glucose screenings and diabetes education is being offered at dozens of locations this week — including hospitals, community organizations and 5 of the county’s health centers. Following are some locations and times:

**Genesis Health Center**

564 East Woolbright Road, Boynton Beach

9:00 a.m. to 1:00 p.m.

**Community Health Center of West Palm Beach**

2823 North Australian Ave., West Palm Beach

8 a.m. to 8 p.m.

**Lantana/Lake Worth Health Center**

1250 Southwinds Drive, Lantana

8:00 a.m. to 5:00 p.m.

**Delray Beach Health Center**
225 South Congress Ave., Delray Beach
8:00 a.m. to 5:00 p.m.

C.L. Brumback Health Center
38754 S.R. 80, Belle Glade
8:00 a.m. to 5:00 p.m.

FoundCare Community Health Center
2330 S. Congress Ave., West Palm Beach

Jupiter Volunteer Health Center
6405 Indiantown Road, Jupiter
9:00 a.m. to 1:00 p.m.

For a full list, go to: http://www.diabetescoalitionpbc.org/events/

Source: Diabetes Coalition of Palm Beach County, Inc.