FRIDAY, NOVEMBER 21, 2014 | WASHINGTONPOSTLIVE.COM

The Washington Post

DIABETES

SPECIAL REPORT

In 1958, 1.6 million people in the United States had Type 1 or Type 2 diabetes

Today, 29.1 million people, or 9.3 percent of the country, have the chronic disease

GROWING EPIDEMIC

Before the nation can turn the tide on diabetes, society must recognize it as a pervasive killer

BY BRADY DENNIS

William Herman has spent decades researching diabetes, treating patients grappling with complications from it and trying to educate people on how to prevent it. During those same years, he also has seen the prevalence of the disease grow virtually unabated.

"It really is an epidemic, both in the U.S. and globally," said Herman, director of the University of Michigan's Center for Diabetes Translational Research and a consultant to the World Health Organization.

The statistics are staggering. More than 29 million Americans, or 9.3 percent of the U.S. population, have diabetes — but a quarter of them don't yet realize it, according to the Centers for Disease Control and Prevention. An additional 86 million Americans have pre-diabetes, which is marked by higher-than-normal blood-sugar levels and puts them at an elevated risk of developing diabetes. The WHO estimates that nearly 350 million people worldwide have the condition.

Year after year, diabetes exacts a massive human and economic toll. Those who have it are at a higher risk of heart disease, stroke, kidney failure and blindness, and of losing toes, feet and legs to amputation. The risk of death for adults with diabetes is 50 percent higher than it is for adults without the disease, according to the CDC.

"The costs of diabetes are enormous, and they are growing," Herman said. "People with diabetes account for a substantial portion of the total cost of health care in the United States."

Medical expenses tend to be twice as high, on average, for people with diabetes than for those without the disease. Collectively, it costs

DIABETES CONTINUED ON AA2

GRAPHIC ILLUSTRATION BY DAN WORTHINGTON/THE WASHINGTON POST

EDITOR'S NOTE

Education is key to mitigating effects

Mary Jordan

Every day in the United States, 4,700 people learn they have diabetes and more than 200 people have a limb amputated because of the disease. Diabetes also is the leading cause of kidney failure.

Although the number of people with the chronic disease is skyrocketing, there is still a lack of public understanding of it. Ann Albright, who directs the Division of Diabetes Translation at the Centers for Disease Control and Prevention (CDC), says that 1 in 9 or 10 people now have diabetes and that of the 29 million with it, about 8 million don't even know they have it. That means, she says, they are not receiving treatment and making lifestyle changes that could help stave off life-threatening complications.

Even more worrisome, Albright says, is the estimated 86 million Americans with pre-diabetes, those whose blood sugar is higher than normal but not yet high enough to constitute diabetes. "Anybody think of the Titanic? We've got this looming iceberg. . . . It can be as many as 1 in 3 to 1 in 5 people by the time we're hitting 2025," she says.

Albright and some other of the nation's leading diabetes experts spoke at the Washington Post forum "Diabetes: Slowing the Epidemic" on Nov. 13 and they are excerpted in this special report.

There are two distinct forms of diabetes: Type 1, which is an autoimmune disease whose trigger is not known and which accounts for about 5 percent of the cases, and Type 2, which is often associated with obesity, a lack of physical activity and personal history. In many cases, the right diet and exercise can prevent or delay the onset of Type 2 diabetes.

Researchers at the National Institutes of Health are racing to try to find a vaccine for Type 1 diabetes and slow the rate of those developing Type 2.

"The first thing we need to do is find everybody who has diabetes and who has pre-diabetes, because there are so many effective things that they can do to change the course of their health," said Judith Fradkin, who runs NIH's Division of Diabetes, Endocrinology and Metabolic Diseases.

Robert Ratner, chief medical officer at the American Diabetes Association, says that diabetes must not be treated only as a medical condition, but also as a public health problem caused by environmental factors.

"It used to be that food was expensive and exercise was part of your daily living," he says. "Now, food is cheap and you have to pay a membership to go to the gym because you don't walk to work."

Given the rising human toll of diabetes, along with its astronomical cost to the health-care system, workplaces, YMCAs and other community centers are starting promising programs to educate people on how to prevent it, delay it and better manage it. Those programs are urgently overdue.

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9 STEPS
you can take toward healthier habits

BY HOPE WARSHAW

Eat more fruit and vegetables, steer clear of fried foods, walk more, sit less and so on. Heard these messages a time or two? Although you know all too well that implementing one or more of these healthy behavior changes could help prevent or delay pre-diabetes or Type 2 diabetes, life's challenges continue to get in the way of your best intentions time and time again. ¶ "The leap from knowing to doing can loom as large as a step the size of Superman's," says Joan Bardsley, an assistant vice president at the MedStar Health Research Institute and president of the American Association of Diabetes Educators. "Pair this challenge with our high-fat-food-focused, technology-laden society that thwarts efforts at every turn to eat fewer calories and burn more," Bardsley adds. ¶ These nine steps can help you make those all-important behavior changes.

1. Be ready

You — not your spouse, parent or health-care provider — need to acknowledge that the habit you want to change is a problem. Experts call this readiness to change. People are ready to change different behaviors at different times. You may be ready to start walking 20 minutes at lunch, but don't intend to change your menu options at lunch.

"Slowly and over time untangle your unhealthy habits to positively impact your weight, glucose levels," says William Polonsky, an associate professor at University of California at San Diego and president of the Behavioral Diabetes Institute.

2. Take stock

Assess your food choices, eating habits and exercise habits. Keep records for a few days to see your reality in black and white. Be honest with yourself.

3. Choose a change or two

Change behaviors you want to change and ones that will benefit you in a meaningful way. Tie the trigger for the new behavior to an existing one. Example: If you want to eat more fruit and you regularly eat breakfast, include fruit with breakfast.

Believing a change is important and having the confidence to make it is critical. "Importance is having more reasons to change the behavior than to continue doing it. Confidence is your belief in yourself to change the behavior," Polonsky says.

4. Set SMART (specific, measurable, attainable, realistic, time-frame specific) goals

Choose one to three small, meaningful changes you can live with long term. Set your goals honestly, specifically and realistically. If they're too general or overly ambitious, you won't achieve them.

5. Track progress

Most formal weight-management programs encourage the use of tracking tools to record your food intake, calories, time spent exercising and moods. These raise awareness and increase accountability.

6. Evaluate progress, revamp

To string together a series of behavior changes that eventually become a healthier lifestyle takes months, perhaps years. Gain insight from both positive and negative experiences. People repeatedly start these ventures with excitement. Then unexpected events occur, whether positive or negative. "Expect life to get in the way of your best intentions," says Felicia Hill-Briggs, an associate professor at Johns Hopkins medical institutions and senior director of population health research and development at Johns Hopkins HealthCare. She encourages people to make a list of potential roadblocks and then think through solutions before beginning. This tactic prevents being blindsided by bumps along the way.

7. Experience success

Take simple steps to set yourself up for success. For instance, bring healthy snacks in controlled portions to work to minimize hunger and unhealthy deviations and set out your exercise clothes the night before. Success breeds success.

8. Repeat

"Keep biting off small changes that have meaningful benefit to you," Hill-Briggs says. Implement one tiny habit change, then another. Continue to practice the changes you've made. Over time, collective changes build a healthier way of living.

9. Seek and find support

Most people maximize their success by surrounding themselves with a cheerleader or two. "Education and support delivered by a diabetes educator or other trained health professional can help you prioritize your goals and develop strategies to jump over hurdles and not be derailed by pitfalls," Bardsley says.

To slow this epidemic of pre-diabetes and Type 2 diabetes, more workplaces, hospitals, community centers and places of worship are offering diabetes prevention and management programs. Look around. Or consider an online program. Do, however, make sure a knowledgeable counselor is available. Research shows it's important to increase success.

PEOPLE WHO CHANGED BEHAVIOR AND FOUND SUCCESS

Mary Buckley, 57
Chief information officer at Chester County Hospital in Pennsylvania

When Mary Buckley got married, she weighed 118 pounds, but after two pregnancies and a breast cancer diagnosis that she said caused her to treat herself to food for comfort, she topped 200. "I was disgusted with myself. I didn't feel good, my feet hurt," she says. Her doctor told her she was at risk for Type 2 diabetes, so she enrolled in a year-long diabetes-prevention program at a hospital funded through a grant from the Centers for Disease Control and Prevention to the American Association of Diabetes Educators.

"My heart was not in it at first," she says. "I did just enough to lose a few pounds, but I couldn't get my poor sleep and night binging under control." Then she joined a gym and signed up for 10 sessions with a personal trainer who pushed her. "I felt good after working out and I wasn't as apt to eat from dinnertime to bedtime and beyond."

Buckley has shed 25 pounds. Her cardiologist said her blood pressure is under control and she is not taking any medication. She eats regularly rather than going hours without food and keeps healthy snacks with her.

"Don't think you should be able to go this alone. It's tough work. Find your champions and surround yourself with cheerleaders," she says.

Robyn Wilson, 33
An administrator for Ahold USA retail from Harrisburg, Pa.

Robyn Wilson weighed 250 pounds when she turned 30. She had a strong family history of Type 2 diabetes and was diagnosed with it, too. Wilson dramatically changed her food choices and eating habits and largely stopped eating packaged foods, instead choosing fresh fruit and vegetables. "I said no to sweets, sugar-sweetened drinks and unhealthy carbohydrates," Wilson says. She started drinking more water. She found that when she had a good night's sleep, it tamped down cravings for unhealthy foods. She became an aerobics instructor and lost 80 pounds. Her weight has been holding steady at 170 and she no longer needs glucose-lowering medication. She attends a monthly diabetes group coordinated by a registered dietitian at her workplace, and she leads the support group's monthly exercise. "Don't eat things you don't like or do activities you don't enjoy," Wilson says. "Do what puts a smile on your face."

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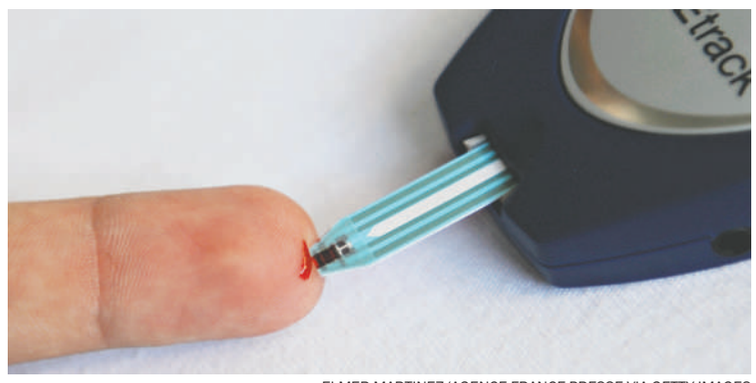
Warshaw, a registered dietitian and certified diabetes educator, is the author of numerous books published by the American Diabetes Association.



ELMER MARTINEZ/AGENCE FRANCE-PRESSE VIA GETTY IMAGES

Exacting a massive human, economic toll

DIABETES FROM AA1

the U.S. health system an estimated $250 billion a year, including major amounts of lost work and productivity. That includes billions spent on inpatient care, doctor's visits, medication and supplies such as glucose monitoring strips. The American Diabetes Association (ADA) estimates that treating patients with the disease accounts for more than $1 of every $5 spent on health care in the United States.

"It has affected all segments of the population," said Edward Gregg, chief of the epidemiology and statistics branch of the CDC's diabetes division. "But it hasn't affected everyone equally."

The risks generally increase with age, but a growing number of people younger than 20 are diagnosed with diabetes. Asian Americans, African Americans, Hispanics and Native Americans all have higher rates of the disease than whites, and those who live in areas of extreme poverty have been hit particularly hard.

The CDC found that diabetes diagnoses increased between 1995 and 2010 in every U.S. state, including by 50 percent or more in 42 states. During that period, the total number of cases in the country more than doubled.

Despite the immense number of people who have diabetes, it has not triggered national alarm. Other illnesses, such as cancer and Alzheimer's disease, often garner more attention. One reason is that people with diabetes sometimes go years before experiencing any decline in their quality of life. When complications do surface, they often do so gradually and manifest in various ways. People don't always recognize diabetes as the source of severe health problems.

In fact, the CDC says diabetes is underreported as a cause of death, even though it is the seventh-leading cause of death in the United States. For instance, the numbers of people listed as dying each year from heart disease and stroke are larger than they are for diabetes but many of those people had diabetes as an underlying condition.

Before the nation can turn the tide of the epidemic, society must recognize diabetes as the pervasive killer it is, said Marjorie Cypress, a nurse practitioner for ABQ Health Partners in New Mexico and president of health care and education for the ADA.

"We have to convince people this is a serious disease," she said. "It really needs to be a big push on every level."

Type 2

The overwhelming majority of diabetes cases — as many as 95 percent — involve the Type 2 form of the disease. It occurs when the pancreas can no longer make enough of a hormone called insulin, and the body cannot effectively use the insulin being produced — a condition known as insulin resistance. The result is a build-up of glucose levels in the blood, which over time can harm the kidneys, eyes, nerves and heart.

Early symptoms can include frequent urination, excessive thirst, persistent fatigue and a tingling or numbness in the hands or feet. Or there may be no symptoms until long after someone has developed diabetes, which is one reason doctors have placed a growing emphasis on early screening.

Although genetics play a role in a person's risk for the disease, the increase in diabetes diagnoses is largely attributable to lifestyle changes, Gregg said. The disease is closely associated with high blood pressure and cholesterol, poor diets, obesity and a lack of exercise. The good news is that improvements in diet and lifestyle can go a long way toward delaying or preventing the disease. The trick is to help people find effective ways to change their habits.

"Lifestyle interventions have been shown to be very effective when targeted at people with very high risk for diabetes," Herman said. "The major opportunity going forward is to get those interventions into routine clinical practice."

Type 1

Type 1 diabetes is another challenge entirely, and a perplexing one. Once referred to as juvenile diabetes, it is an autoimmune disease that can develop at any age, but typically is diagnosed in children and young adults. It accounts for about 5 percent of all diabetes cases.

With Type 1 diabetes, the body does not produce the insulin needed to convert sugars and other food into useful energy, and in fact the body's immune system attacks insulin-producing cells, mistaking them for foreign invaders.

It remains unclear what triggers the disease. Evidence suggests that a person's genetic makeup or environmental factors, such as viral infections, can play a role.

"It still is somewhat of a mystery," Cypress said. "I don't think we really know, and that's probably why we haven't found something that works to prevent it."

For now, patients with Type 1 diabetes face a delicate balancing act, continually monitoring blood-sugar levels to keep them from dipping too low or spiking too high. They also must take daily insulin via a pen, syringe or pump, as well as manage the condition through proper diet and exercise.

Signs of progress

Despite the decades-long worsening of the diabetes epidemic, the news isn't all grim.

The fact that more people are being diagnosed has a silver lining: Greater public awareness has led to increased screening.

"That's a good thing, because they are getting care," Herman said.

Experts also point to the inroads made by the National Diabetes Prevention Program, a public-private collaboration among federal health agencies, community-based organizations, insurers and other groups that encourages modest lifestyle changes that can prevent or delay the onset of Type 2 diabetes.

The program has taken different forms in different places, but it generally involves teaching people strategies for healthier eating and increased physical activity. For example, YMCAs nationwide have seen results in offering a year-long program in which small groups of at-risk patients meet regularly with a lifestyle coach.

In addition, researchers continue to study the physiology and genetics of the disease. Promising drugs and diagnostics continue to arrive on the market, allowing both Type 2 and Type 1 patients more tools to treat their conditions.

"There's better comprehensive care. There are better medications. Also, people are better educated; they manage it better," said Gregg, the CDC epidemiologist. But "because people with diabetes are living longer, once people get diabetes, they are spending a lot more years with the disease."

Cypress said that real, lasting change will require an even bigger push, the kind of massive effort it took for the country to begin viewing tobacco use as a public health scourge. It will take a fervor that extends to national policies and grass-roots efforts, she said. And, for those with Type 2 diabetes, it will require finding more ways to help people make sustained lifestyle changes, such as getting more healthful foods into schools and underserved communities; encouraging regular exercise among all ages; and relying on teachers, pastors and other community leaders to help spread the message.

"It's not just one fix. It's a societal shift," Cypress said. "We need to create that sense of urgency."

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DIABETES: A SPECIAL REPORT

Facing not only diabetes, but stigma, too

Those with Type 2 say they often receive judgment and blame from people who aren't educated about the condition

BY ALISON SNYDER

At a baby shower for a co-worker, Patti Smith reached for a cookie and was scolded by an officemate.

"People watch what you eat," says Smith, 56, who lives in El Cajon, Calif., and was diagnosed with Type 2 diabetes three years ago. She manages the disease through a strict diet — one cup of oatmeal for breakfast, a salad for lunch, kale chips for a snack, leftover salad for dinner after she finishes work and before she hits the gym. She weighs every portion and counts every carb. When she dines at a restaurant, she packs up half her meal to go before she even starts eating. She has lost 90 pounds and keeps her blood glucose levels in check without medication. "I know where I'm at," she says. "If I want to treat myself with a cookie once a month, I can have a cookie."

It's a frustrating reality for people with Type 2 diabetes — they often receive more criticism than understanding, and they're treated as though their incurable condition is essentially self-inflicted.

"Part of what makes diabetes hard to accept for those who have it is that we talk about it negatively," says Susan Guzman, a clinical psychologist who specializes in diabetes care and co-founded the Behavioral Diabetes Institute in San Diego. "It has two forbidden sins: gluttony and sloth."

There are understandable reasons behind this perception: More than half the people with Type 2 diabetes are obese, and diet and exercise are well known to be important tools for managing the condition.

KATHERINE FREY/THE WASHINGTON POST

Eating healthfully — as well as exercising — is extremely important in managing diabetes.

But obesity is not the only contributing factor. A constellation of genetics, race, age and environmental factors such as influences in the womb also affect whether a person develops the disease, and none of them can be controlled.

Even obesity is a tricky issue. "Many people think obesity is a lifestyle disorder," says Sethu Reddy, chief of the adult diabetes section at Joslin Diabetes Center in Boston. "But there are a whole host of biochemical changes that might lead to obesity."

Nevertheless, the blame persists, says Jessica Browne, a researcher at the Australian Center for Behavioral Research in Diabetes in Melbourne.

"There are a lot of different factors that go beyond the individual behavior and the individual responsibility," says Browne, who led a study of Type 2 patients that found that a large majority feel judged or blamed for having the disease.

"If we are overemphasizing individual responsibility and behavior as the only cause of Type 2 diabetes, then what that means is that once you have diabetes, you are blamed because we make the assumption that it is due to your behavior and your bad choices."

This attitude adds more stress to a condition that already creates social problems: People with Type 2 may have to eat at specific times, they suffer from frequent urination, and many of them must test their blood glucose levels by pricking themselves — sometimes several times a day, often when they are at work or in another public setting. Some have to inject themselves with insulin.

Even health-care workers can exude disapproval — and patients may see criticism when none is intended. "Imagine a young primary care physician or a slim dietitian. It is really important how they talk to patients" so they don't convey that it's the patient's fault, Reddy says.

People with the much less common Type 1 diabetes, in which the body's immune system destroys the insulin-producing cells in the pancreas, often feel lumped together with those who have Type 2 even though being overweight has nothing to do with that type of the disease.

"A lot of people assume I'm Type 2 diabetes," says Dennis Hubert, 53, who was diagnosed with Type 1 at age 17. "People see I'm heavy and their first assumption is that I did it to myself. That's one thing that really gets down to my core."

Smith, on the other hand, says that "from the outside, I don't look like I have anything wrong with me." But nearly every day, she says, she doubts herself and fends off the insecurities her disease brings. One way she keeps her spirits up is by riding with a friend on his Harley, and she has become friends with a group of motorcyclists. At weekend breakfasts, Smith explains what she eats and why, and encourages the men to adopt some of her habits — such as ordering smaller portions in restaurants. Now, instead of mountainous plates of food for each of them, four of the "big-bellied guys" split meals with one another.

"They say, 'I'm thanking you for this, Patti. You're saving us money,' " Smith says. But she benefits, too — from talking comfortably about how she manages her diabetes. She says, "If you aren't open about it, you feel you are alone."

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Targeting Americans' sweet tooth

Researchers are hoping to educate about the dangers of too much added sugar in diets

BY LISA ALIFERIS

Dean Schillinger is a primary-care physician at San Francisco General Hospital. He first came to the city in 1990 at the peak of the AIDS epidemic. "At that point, one out of every two patients we admitted was a young man dying of AIDS," he says.

Today, that same ward is filled with diabetes patients.

"I feel like we are with diabetes where we were in 1990 with the AIDS epidemic," Schillinger said. "The ward is overwhelmed with diabetes — they're getting their limbs amputated, they're on dialysis. And these are young people. They are suffering the ravages of diabetes in the prime of their lives. We're at the point where we need a public health response to it."

Schillinger and other researchers at the University of California at San Francisco are setting up a project called Sugar Science, to spell out the health dangers of too much added sugar in our diets. The project aimed at consumers includes a user-friendly Web site and materials such as television commercials that public health officials can use for outreach. Health departments from San Francisco to New York City have agreed to participate.

NOAH BERGER

Dean Schillinger is part of the Sugar Science project at the University of California at San Francisco.

There's a reason the word "science" is part of the project's name. The UCSF team distilled 8,000 studies and research papers and found strong evidence that the consumption of too much added sugar overloads vital organs and contributes not just to Type 2 diabetes but also to heart disease and liver disease.

Although there are no federal guidelines that recommend a limit on sugar consumption, the American Heart Association (AHA) urges cutting back dramatically. The average American consumes the equivalent of 19.5 teaspoons a day in added sugar. The AHA says men should reduce that to no more than nine teaspoons and women should consume less than six teaspoons. The World Health Organization (WHO) is proposing similar limits.

Laura Schmidt, a professor of health policy at UCSF's medical school, is also part of the Sugar Science team. "Right now, the reality is that our consumption of sugar is out of whack," she says, "and until we bring things back into balance, we need to focus on helping people understand what the consequences are."

> *"I feel like we are with diabetes where we were in 1990 with the AIDS epidemic."*
>
> Dean Schillinger

Schmidt is quick to point to the food environment as a driver of the increase in obesity over the past generation. "The only major change in the diet that explains the obesity epidemic is this steep rise in added sugar consumption that started in the 1980s," she says.

That sugar isn't just making us fat, she says, "it's making us sick."

The Sugar Association, however, says that some of the information presented by Sugar Science conflicts with a 2002 Institute of Medicine report and conclusions by the European Food Safety Authority in 2010. Andy Briscoe, president and chief executive of the association, notes that federal data shows that the per capita consumption of natural sugar, which comes from sugar cane or sugar beets and is called sucrose, is 34 percent lower than it was 40 years ago. He adds that sugar critics often lump together the consumption of sucrose and high-fructose corn syrup, which is used extensively in sugar-sweetened beverages, such as soda, sports drinks and energy drinks.

"Natural sugar in moderation can be part of a balanced, healthful diet and lifestyle — and has been safely used by our grandmothers and their grandmothers for decades," he said in a statement.

John Bode, president and chief executive of the Corn Refiners Association, said in a statement, "The focus on any one particular food or ingredient is a disservice to consumers and distracts from the broader need for balanced diet and exercise."

Although Schmidt says the Sugar Science team, which includes researchers from the University of California at Davis and Emory University, is not "anti-sugar," she says that it looked at all the evidence, including the reports cited by the Sugar Alliance. Schmidt says more recent reports from the AHA and the WHO reflect the newest health findings. Sugar Science is funded by a grant from the Laura and John Arnold Foundation, a Houston-based philanthropic organization.

Schillinger concurs, saying Sugar Science has no political agenda and wants to generate "credible science, what we understand and don't understand about sugar."

It's about knowing how much sugar is too much, researchers say.

But knowing how much sugar you're eating can be challenging. Some key facts on the Sugar Science Web site are these:

- Added sugar is hiding in 74 percent of packaged foods, including some products that are considered healthful and may not be viewed as sweet, such as yogurt, pasta sauce and salad dressing. (Proposed changes to nutrition labels would include a separate line for added sugars.)
- Overloading on fructose, a common type of added sugar, can damage your liver — just like too much alcohol.
- One 12-ounce can of soda a day can increase your risk of dying of heart disease by one-third. That same soda can have as many as nine teaspoons of sugar. (Sugar is listed by grams on nutrition labels; four grams of sugar equals one teaspoon.)

The site also includes tips for cutting down on sugar. The easiest way to do so, the researchers say, is to stop drinking sugar-sweetened beverages.

More than one-third of added sugar in the American diet comes from sugary drinks. The Sugar Science researchers also recommend reading nutrition labels. Although there are 61 names for sugar on ingredient labels, the UCSF team says that "if the chemical name has an 'ose' at the end — as in dextrose, fructose, lactose — it's likely to be added sugar."

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Aliferis is editor of KQED's State of Health blog. This article is part of a partnership that includes KQED, National Public Radio and Kaiser Health News, a national health policy news service. It is an editorially independent program of the Henry J. Kaiser Family Foundation.

ANDRE CHUNG FOR THE WASHINGTON POST

Bringing the right people together to find a solution

Sonal Shah
Executive director, Beeck Center for Social Impact & Innovation, Georgetown University

The research is already out there about what is preventable, and we're not even acting on it. Why not? We're only paying for treatment, and why shouldn't we be paying for prevention? And I think the private sector gets that, and so insurance companies understand it, and certainly the government understands it, but it's a cost.

We live in silos. Health care. Finance. Hospitals. The challenge is collaboration. How do you bring the right people to the table who include those who know the research, that include the communities, that include the private sector that is thinking about this, that include the finance folks? How do you bring that together to have a conversation to actually solve the problem?

The challenge is bringing the right groups of people together in a collaborative model that can translate between the different parties, because they all speak different languages.

ANDRE CHUNG FOR THE WASHINGTON POST

Looking to private investors to help lower health costs

Nikki Tyler
Independent business consultant

Our idea was to bring in private investors who could provide the capital to scale the Diabetes Prevention Program in more communities and then the investors' payback could actually be directly attributed to the outcomes in terms of health-care savings that are accrued as a result of lower progression to Type 2 diabetes. So we were very much trying to bring in the private sector and think of new and innovative ways to finance health-care interventions and outcomes.

ANDRE CHUNG FOR THE WASHINGTON POST

Empowering children by setting health goals

Antonio Convit
Deputy director, Nathan Kline Institute; professor, NYU School of Medicine

You'd have to live under a rock not to know that you need to eat better and move more.

When you give kids in particular a goal that they can work toward, rather than just their waist size, that has a big empowering effect. It changes the conversation from "You're fat" to "How do I improve my health?"

We go into a school and we measure the height and the weight of all the kids. Then we target the kids who are carrying excess weight, because those are the ones who are at higher risk for developing medical problems . . . and we share with them and their families a detailed medical report with common-sense advice as to how to improve those medical numbers.

The important thing to note is that the earlier you start with changing your lifestyle and losing those few pounds, the more likely you are to succeed. For example, we know that if an adolescent loses significant weight, they're much more likely to maintain that weight loss as an adult.

Small, little things that you incorporate into the way you live every day, those are the things that will have an impact down the road, particularly for kids.

ANDRE CHUNG FOR THE WASHINGTON POST

We can prevent, delay Type 2

Ann Albright
Director, Division of Diabetes Translation, Centers for Disease Control and Prevention

We've got this looming iceberg of about 86 million people with pre-diabetes. Blood sugar is higher than normal, but not yet high enough to constitute diabetes, but they're at very high risk for developing Type 2 diabetes and having a heart attack or a stroke.

What does diabetes cost all of us? It's the number one cause of adult blindness, number one cause of kidney failure, number one cause of amputation, huge contributor to heart attack and stroke.

But there is good news. There are things we can do to get on top of that and to not have this be the outcome for those who have diabetes. We can both prevent or delay Type 2, and we can certainly prevent and delay the complications.

Probably the most general way to describe diabetes is that the body is either unable to produce enough insulin or use the insulin it produces properly. There are different forms of diabetes. Type I is considered an autoimmune disease in which insulin-producing cells called beta cells are destroyed by processes we're still trying to understand better. And in Type 2 diabetes, people actually become resistant to their insulin. It doesn't work properly. And then, of course, we have gestational diabetes, which happens during pregnancy, and that's almost like a preview. Women who have gestational diabetes are at high risk for developing Type 2 later in life.

Probably about 20 percent of people with Type 2 are not overweight or obese. And those of Asian heritage are likely to develop their diabetes at a lower body weight. There are people who will develop diabetes and they aren't obviously overweight or obese.

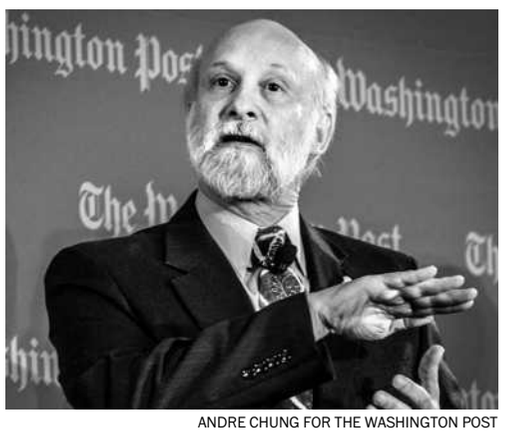
Michele Mietus Snyder, right, a cardiologist and co-director of the Obesity Institute at Children's National Health System, chats with Dominick Charbonneau and Briana White. The two were at risk of developing diabetes when they went to the institute's IDEAL (Improving Diet, Energy and Activity for Life) Clinic in Washington. They're managing their pre-diabetes through diet, exercise and, in White's case, bariatric surgery.

Changing our environment and our approach

Robert Ratner
Chief scientific and medical officer, American Diabetes Association

If we don't change the environment that we're in and the approach that we take, it's going to be devastating. We're basically looking at 1 in 3 people in the United States having diabetes, in some ethnic groups 50 percent. That's an unsustainable condition.

Diabetes has been dealt with as a medical problem for the past 100 years. We really need to start thinking of it as a public health problem.



ANDRE CHUNG FOR THE WASHINGTON POST

For example, antibiotics cure a lot of infections, but if we didn't have clean water and sewage, the antibiotics wouldn't help at all. That's the public health concern. We have an environment now that leads to obesity and diabetes. It used to be that food was expensive and exercise was a part of your daily living, because you were doing manual labor. Now, food is cheap.

And now you have to pay a membership to go to a gym because you don't walk to work. The streets are not necessarily safe. The green spaces have been diminished, so we are really looking at a social-environmental concern here that we need to deal with.

ANDRE CHUNG FOR THE WASHINGTON POST

‘It is a struggle every day’

Robin Dorsey
Volunteer/ambassador, American Diabetes Association, National Capital Area

I was diagnosed with diabetes seven years ago, when I was pregnant with my son. I was tired after I ate a meal. I was so sluggish and then would often fall asleep. And I was wondering why I was so tired all of a sudden, because I wasn’t tired before I ate.

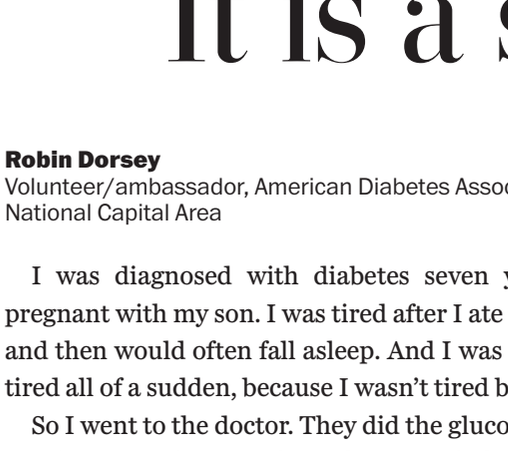
So I went to the doctor. They did the glucose test.

It is a struggle every day. When I read [food] labels, one of the key things that I look for is the carbohydrate count. Most people don’t pay attention to that, so for a can of soup, the carbohydrates may be 45 grams or higher. Well, that’s extremely high, because I was told you’re only supposed to have less than 15 grams per meal. So if I eat this whole can of soup, my sugar is going to be extremely high, I’m going to feel very fatigued, I’m not going to feel well, I’m going to have to take additional medication because now I made a poor choice. So now it’s about making better choices, because I don’t want to be sick.

When I first was diagnosed, a lot of people would say, ‘Well, if you just lose weight, then you wouldn’t have diabetes.’ And I tell people that if it was that easy, millions of Americans wouldn’t be obese.

The first stage for me was denial, because they told me it was gestational and it will go away. The second stage, once I realized it wasn’t going to go away, was depression, because I felt like I was all alone. And the last stage for me was acceptance, when I realized and understood either I’m going to wallow in my denial and depression or I’m going to change my habits and what I’m doing.

I was able to make the adjustments, research about diabetes, find out about diabetes.org, to get that information, and start getting that outreach and support that you really do need, because you’re not alone. There’s 29 million people.



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Thinking about wellness instead of just treatment

Rep. Diana DeGette
(D-Colo.)

Ultimately, I think CMS [Centers for Medicare and Medicaid Services] is the one that sort of sets the gold standard. So, for example, if they say, ‘We’re not going to reimburse for diabetes education,’ then people don’t do it. And if they say, ‘We are going to reimburse,’ then that sets the standard for the industry. That’s why the Diabetes Caucus [in Congress] is really working, in particular, on the diabetes educators, to have that reimbursed.

We really need to shift our paradigm to think about wellness versus just treatment. There is a growing consensus in Congress — and in the administration — that that’s what we need to do. We need to focus on wellness.

ANDRE CHUNG FOR THE WASHINGTON POST

Grass-roots program offers connection, accountability

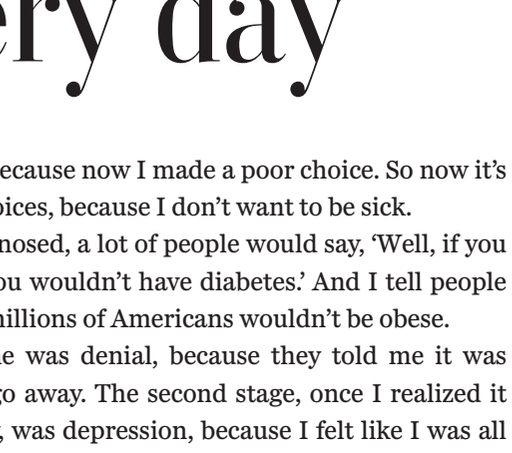
Steve Tarver
President and chief executive, YMCA of Greater Louisville

In Kentucky, between 1991 and about 2011, our obesity rate doubled, our diabetes rate doubled, so we’re headed for a train wreck.

The [YMCA] program is very grass roots in nature. It deals with portion control, about observing barriers, about weight loss, about logging your food intake.

The magic of the program is that it is dialogue-based, led by regular people. It is the social connectedness among the participants in the program and the mutual accountability that goes with weekly weigh-ins and comparing food logs and discussing what is it that keeps you from avoiding fast food.

We’ve got all of our Christmas shopping coming up, so don’t spend 10 minutes searching for that close parking place. Park far away and take the 10 minutes and make the walk. Take an extra set of stairs. It all counts.



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Learning to change behavior and find healthy routines

Matt Longjohn
National health officer, YMCA of the USA

In response to the epidemics of diabetes and other chronic disease, the Y is engineering itself to be an organization that helps provide solutions to people looking to experience behavior change and find sustainable, healthy patterns in daily routines.

The Y has about 2,700 branches, 10,000 program sites nationally. More than 80 percent of U.S. households live within five miles of a Y.

The trigger of reducing new cases of diabetes seems to be about a 5 percent to 7 percent weight loss and achieving 150 minutes of moderate to vigorous physical activity a week.

This is a lifestyle change. This is not just, ‘How do I lose 5 percent in the next 10 days by starving myself or dehydrating myself?’ This is about making changes to daily routines.

washingtonpost.com/postlive

The excerpts on these pages are from the Washington Post “Diabetes: Slowing the Epidemic” forum on Nov. 13 that was sponsored by Novo Nordisk in partnership with the GW Healing Clinic. The Post maintains full editorial control over the content of the forums and this special report. Video from the forum can be found at WashingtonPostLive.com

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Delaying the disease, cutting the risks

Judith Fradkin
Director, Division of Diabetes, Endocrinology and Metabolic Diseases, NIH

The first thing we need to do is find everybody who has diabetes and who has pre-diabetes, because there are so many effective things that they can do to change the course of their health.

If we find out that there’s a virus or a bacteria that puts people at risk or protects against Type 1 diabetes . . . we’re hoping to be able to develop a vaccine, if we can figure out what the cause is. If we can find out a dietary component, we might be able to change diets of people who are at high risk. But even now, we can offer high-risk families screenings so that they can at least detect it early.

It makes a huge difference even to postpone the onset of diabetes by a few years, because in general, the complications of diabetes can take decades to develop.

We know that the most tragic thing is these young children who in adolescence are developing Type 2 diabetes. Type 2 diabetes used to be called adult-onset diabetes because it was never seen in kids, and now, all of a sudden, we’re seeing this surge of Type 2 diabetes in children.

And what’s really, really scary about that is that in these kids who develop diabetes earlier, it seems to progress much faster. You know, they stop responding to the initial medical treatment and require more aggressive medical treatment earlier. They are already in adolescence and young adulthood showing signs of heart disease. So delaying diabetes is a very, very important goal.

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Basically, having Type 1 has changed everything

Patrick Swingle
Age 11, of Virginia

If I hadn’t gotten [Type 1] diabetes, I would be able to do sleepovers. I’ve met different friends. It’s changed really how I eat and how I live. Basically, it’s changed everything. [If my blood sugar is too low], I feel shaky, sort of. I need to sit down. I feel sweaty. When my blood sugar is too high, I feel nauseous usually.

Having diabetes is difficult. And sometimes other 11-year-olds or other kids my age will think it’s not what it actually is. They think it’s something different. You don’t give [Type 1] diabetes to yourself. It just comes on.

I hope that we get a cure.

ANDRE CHUNG FOR THE WASHINGTON POST

Diabetes expected to rise in every region of the world

Alberto Barceló
Adviser on noncommunicable diseases, Pan American Health Organization, Regional Office of the World Health Organization

There is going to be an increase in every region of the world in the number of people with diabetes, but the major increase is expected to happen in Africa, where we have a very low prevalence now.

Type 2 diabetes is on the rise because of changes in lifestyle and increases of unhealthy nutrition and lack of physical exercise. A lot of people are spending a lot of time on the computer or sitting at home watching TV. And physical exercise [has decreased] in our schools and also in the general population.