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Rising Diabetes Threat Meets a Falling Budget

By Ian Urbina

In Worcester, Mass., scientists are boxing up their test tubes at a shuttered laboratory where just two years ago they isolated a chemical that triggers diabetes.

In Oklahoma City, health workers faced with soaring rates of Type 2 diabetes, the most common form of the disease, question whether they can afford to continue to offer classes where diabetics learn how to avoid foot amputations.

In Columbia, S.C., diabetes educators say they need more money to expand a program that uses the pulpit in black churches to preach the importance of a healthy diet and exercise.

Across the country, health care officials who rely on federal money to help stem the growing epidemic of Type 2 diabetes say they have become increasingly frustrated and alarmed.

Diabetes is the only major disease with a death rate that is still rising — up 22 percent since 1990 — and it has emerged as the leading cause of kidney failure, blindness and nontraumatic amputation.

But public health experts say federal spending on the disease has historically fallen short of what is needed. And now the government has cut diabetes funds in the budgets for this year and next, despite the explosive growth of a disease that now figures in the deaths of 225,000 Americans each year.

"Diabetes is clearly one of the most important threats facing us," said Dr. Georges C. Benjamin, executive director of the American Public Health Association, "and its funding is decades behind other diseases."

Until this year, federal health spending had risen steadily for more than 20 years, fueling expanded efforts against many diseases, including diabetes. But the experts say the commitment to Type 2 diabetes never kept pace with the spread of the disease.

The number of Type 2 diabetics in the United States has doubled in the past two decades, to an estimated 20 million, when undiagnosed cases are included, making the disease the country's

fastest-growing public health problem. Epidemiologists predict that one in three American children born in 2000 will join the ranks of those afflicted with Type 2.

This year, the federal government is spending \$1.1 billion to study diabetes, less than a quarter of what is spent to study cancer. The government spends 10 times more per patient on cancer research, and the death rate for that disease, unlike that for diabetes, has begun to fall.

Epidemiologists say the disparity is partly explained by lingering but outdated perceptions of diabetes as a slow-moving condition that preys on the old and obese, not more recent views of it as an expanding danger that is striking people at earlier ages.

Spokesmen for the federal health and budget agencies declined to comment for this article on their spending decisions. But some budget analysts said that diabetes activists have not properly credited tens of millions of dollars that the federal government spends annually to stem obesity, a leading cause of Type 2 diabetes.

Some epidemiologists also suggested that expenditures for cancer research make sense, given the fact that cancer still kills twice as many people as diabetes. And some public health experts said it was often a bad idea to measure spending for one disease against another because overall public health spending needs to be increased.

"The reality is that there are always competing requirements when it comes to public health funding," said Laura Segal, a spokeswoman for the Trust for America's Health, a nonprofit health research group in Washington.

Disease research is often underwritten by advocacy groups and pharmaceutical companies, but the federal government is by far the chief financier. From the viewpoint of pure economics, some health experts say it is hard to fathom why the federal government does not spend more on diabetes, which the American Diabetes Association has estimated costs the United States economy about \$132 billion per year for treatment and lost productivity at work. Federal spending for both research and treatment, meanwhile, is \$1.2 billion annually.

"That means the federal government is putting less than 1 percent of what this disease costs us into research and development," said Dr. C. Ronald Kahn, president of the Joslin Diabetes Center in Boston, a leading research institution. "Even the tire industry spends at least 3 percent of their total sales on research and development."

Diabetes comes in several forms, all characterized by elevated levels of sugar in the blood. Some 95 percent of all cases are Type 2 diabetes, which is largely associated with weight gain and an inactive lifestyle. Type 1 diabetes, which is thought to stem more from genetic factors, affects a smaller number and has not risen significantly in recent years.

Federal efforts to fight diabetes are concentrated on two major missions: research on how to prevent, treat or cure the disease going forward, and treatment of people who already have diabetes.

Roughly a third of the federal research money is being used to study Type 1, which often surfaces in children and is viewed as potentially curable. More is being spent to study Type 2, which is generally viewed as incurable, although medicine and lifestyle changes have been thought to delay, even impede, the treacherous consequences.

Research efforts are traditionally financed through the National Institutes of Health, based in Bethesda, Md. Programs to prevent, track and treat the disease at the community level are paid for by the federal Centers for Disease Control and Prevention.

Until this year, both agencies had seen two decades of growth in their budgets. The National Institutes of Health budget, for example, increased 261 percent, adjusted for inflation, to \$28.6 billion today from \$7.9 billion in 1980. The institutes' spending on diabetes research soared as well, by 240 percent, adjusted for inflation, hitting \$1.1 billion this year. But since 1980, the percentage of the institutes' budget devoted to diabetes has shrunk slightly, even as the number of diabetics has doubled.

Chronic diseases like diabetes have always had to battle for funds against infectious diseases like the flu, which seem more urgent because they carry the prospect of a rapid spread, said Dr. James S. Marks, a former Centers for Disease Control official. "People tend to have more dread about the things they cannot control than they do about the things they can control," he said.

Among the diseases that have consistently drawn more money than diabetes is cancer, in part because it is the nation's second-largest killer, behind heart disease. Since 1990 the death rate from cancer has dropped 12 percent, though it continues to draw considerably more research money per patient than diabetes does: \$465 versus \$68 in 2004.

This year, after two decades of increases, Congress trimmed health care spending across the board. Efforts to fight diabetes at both the National Institutes of Health and the Centers for Disease Control were cut. The 2007 budget proposes further reductions.

The C.D.C. is facing a cut of \$700,000 next year from its \$63 million diabetes budget, or just over 1 percent. At the National Institutes of Health, money for diabetes will be cut \$1.2 million next year, or a tenth of a percent of the agency's \$1.1 billion budget.

On their face, the cuts to diabetes spending are not huge. But the impact will be felt, according to an internal memorandum from scientists at the institutes' largest diabetes research division. They told the institutes' director that they worried about "major implications for both the human and economic costs of Type 2 diabetes" because of the reduced spending.

At one location affected by the cuts, Dr. Aldo Rossini, director of the Diabetes Division at the University of Massachusetts at Worcester, said the budget shortfalls could not come at a worse time. He is closing down one lab where successful research was being done because federal funds were not renewed, and said he might have to close others.

"Diabetes is this massive tidal wave hitting the country," he said, "and we're cutting our best hope at protection."

In the past decade, federal money has bought progress in the battles against other diseases, according to epidemiologists. They trace recent drops in the death rates for cancer and for H.I.V. and AIDS to federally financed efforts that refined medicines or promoted diagnostic and prevention measures like mammograms and condom use.

In the diabetes arena, federal money is paying for projects like one at the University of Miami, where scientists are trying to implant insulin-producing cells into diabetics so they can avoid multiple daily injections of the hormone. In another project, University of Iowa researchers are trying to develop a continuous blood monitor that Type 1 diabetics could wear at night to avoid having to awaken repeatedly to check their sugar levels.

Dr. Robert A. Rizza, the president of the American Diabetes Association, said the cuts should be viewed in the light of historical underfunding. "Even if you include federal spending on obesity, the fight against diabetes isn't anywhere near where Congress said it should be when it last had a panel look at this issue," he said.

He pointed to a 1999 report by the panel, the Diabetes Research Working Group, which concluded that by 2004 federal spending on research needed to expand to \$1.6 billion, a target that has still not been reached.

At the treatment and prevention level, the reductions in Centers for Disease Control funds are being watched closely in places like Oklahoma, where the number of diabetics has more than doubled in the past 10 years.

Federal grants from the C.D.C now pay for all of the state's major prevention and treatment programs. Without this federal help, said Adeline Yerkes, director of the Chronic Disease Service in the state's Department of Health, diabetes threatens to overwhelm the state.

"It's still just a fraction of what we need to get this under control," she said.

Next: Diabetics with similar illnesses but different agendas.