

The Honorable Stephen A. Huffman
Chair, House Health Committee
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Chair Huffman, Vice Chair Gavarone, Ranking Member Antonio and members of the House Health Committee, thank you for the opportunity to offer proponent testimony on House Bill 241, which would create a diabetes registry in Ohio.

On March 1, 2016 I took my son to what I thought would be a routine doctor's visit. I thought we may pick up an antibiotic when we left and go with our day. It turned out he did not have an infection, but rather Type 1 diabetes. His blood sugar was four times what it should have been. We went home and packed a bag to go to Nationwide Children's Hospital, where we spent three days learning to manage this disease before we headed home. We were every bit as terrified as when we'd brought home our first baby, but also determined that we would make sure he did all the things he wanted to do.

For those of you that aren't familiar with it, Type 1 diabetes is an autoimmune disorder in which the body attacks the islet cells in the pancreas that are responsible for making insulin. It is not caused by diet, excess weight or eating too much sugar. Type 1 diabetics require insulin to stay alive.

It's hard to explain the balancing act of this chronic disease to people who haven't lived it. On paper, it looks simple: you take a shot of long acting insulin or set a base rate on a pump, and then you count carbohydrates and dose meal time insulin accordingly. In reality, it's much more complicated than that and we are making high stakes decisions on a regular basis. We are always weighing other factors that affect blood sugar, such as the type of food, exercise, illness and hot weather. We are always watching for changes in blood sugar readings and determining whether we need to change insulin dosages. We watch carefully for night-time low blood sugars. We are often up in the night like people with newborns. On a good day it's a juggling act, and on a bad day it's a roller coaster.

One thing that means a great deal to us is knowing other families that are on this journey, which brings me to my point. While we were in the hospital, I became aware of another family in our neighborhood whose son was diagnosed five weeks before mine. That spring, I also became aware of a second family whose daughter was diagnosed two weeks before my son. That is three cases within one mile in five weeks. Since then, two more boys have been diagnosed within the past year. That's five cases in less than 18 months, and those are the ones I know about.

Research has shown that Type 1 diabetes is on the rise. A story published in the New England Journal of Medicine in April cited the SEARCH study for Diabetes in Youth, which found that Type 1 diabetes is increasing by 1.8% per year and Type 2 diabetes by 4.8% per year. A 2014 New York Times article reported that from 2001 to 2009, the prevalence of Type 1 diabetes in children increased 21 percent, and prevalence of Type 2 diabetes increased 30 percent. This research also shows significant increases in diabetes in people of African-American and Hispanic descent. Traditionally, Type 1 diabetes has been a disease that disproportionately affected people of Northern European descent.

"I don't understand the basis for an increase," said Dr. Robin Goland of Columbia University. "There are a few possibilities, but we need to figure out if it's something in the environment or something in our genes." I have attached the articles for your information. I believe the best way to figure that out is to

start tracking cases of diabetes and looking at the data - not just the number of diagnoses, but the locations, the race and gender of those diagnosed.

I may never know what caused my son's immune system to malfunction, whether it was the flu and pneumonia he had in fifth grade, a virus he contracted after that, or an environmental cause. But given that diabetes is on the rise, I believe it makes sense to track and study it so that we can better understand the causes. My son will manage this disease for the rest of his life barring a cure. I have no doubt that he will grow up and live whatever life he chooses. But managing this disease comes at a cost, not just the balancing act but the risk of complications and the real financial cost. Even when their blood sugars are carefully managed, diabetics are at increased risk of diabetic retinopathy, peripheral neuropathy, and kidney and heart problems. Insulin prices have skyrocketed over the past ten years. Test strips are outrageously expensive when you consider what goes into them. Even with insurance, Type 1 diabetes costs can easily reach or exceed \$1,000 a month. Identifying and preventing new cases of diabetes not only has the potential to save people the lifelong burden of managing a chronic disease, it also has the potential to save our health care system money. I do not know what the state spends on diabetes care and supplies through the Medicaid program. I made a public records request and was told I would have to pay to extract that information, which I did not choose to do. But I imagine it is significant. When it comes to children, insulin and test strips were in the top ten pharmacy expenses for the Bureau for Children with Medical Handicaps in fiscal years 2014 and 2015, accounting for \$888,000 in spending and over \$1 million in spending respectively.

In conclusion, thank you for the opportunity to testify today. I would be happy to answer any questions.