

Health center examines diabetes' growing threat

Clinics in six states focus on the disease's rate of spreading and its effects on children

By Helen Altonn

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Diabetes is increasing at unprecedented rates among adults and children worldwide, says Dr. Beatriz L. Rodriguez, a UH John A. Burns School of Medicine professor.

The U.S. Centers for Disease Control and Prevention sees it as a major emerging public health threat, said Rodriguez, principal investigator in Hawaii for a national study, "SEARCH for Diabetes in Youth."

"The SEARCH study is helping us to increase our understanding of this disease and may help us find ways to increase prevention and provide better treatment," she said.

The Pacific Health Research Institute has received \$3 million for the second phase of the study for the next five years.

About 50 new cases of diabetes in children and youth are identified here every year, Rodriguez said.

Diabetes can lead to complications such as renal and cardiovascular diseases, amputation and blindness.

It is one of the more common severe chronic diseases of children in America, Rodriguez said.

The increased rates of diabetes

SEARCH STUDY

For more information about a national study about diabetes in youth, call 441-5530 on Oahu or (800) 916-3320 on the neighbor islands.

among youths mean more people are going to have diabetes for a longer time, which will increase the rate of severe complications, she pointed out.

TYPE 2 DIABETES involves a condition called insulin resistance, when the body can't use insulin well. It is known as adult onset or non-insulin dependent diabetes.

Type 1 diabetes, the most common and severe form, is an autoimmune disorder. The immune system destroys insulin-producing cells in the pancreas so the patient must have insulin injections. It is known as juvenile or insulin-dependent diabetes.

The study to examine the extent of diabetes in the nation's youth population began in 2000 with funding from the CDC and support from the National Institutes of Health and the National Institute of Diabetes & Digestive & Kidney Diseases

Hawaii has one of six clinical centers participating in the study. Others are in Ohio, Colorado, South Carolina, Washington and California.

In the first five years, the clinics identified more than 10,000 children and youth diagnosed with diabetes.

About 7,600 provided information for the study and about 4,600 were seen in the clinics.

The Hawaii clinic has had about 270 youths with diabetes participating, Rodriguez said.

Investigators are collaborating with the Hawaii Medical Service Association, Kaiser Permanente and Med-QUEST to identify and follow youths with diabetes. In the first phase of work, investigators found the disease is more complex than they believed, said Rodriguez, professor of geriatric medicine, public health science and epidemiology.

"We're working very hard to sort it out."

For example, she said some children thought to have Type 2 diabetes also have the Type 1 autoimmune disorder. "And vice versa, we may have a Type 1 kid who is overweight (with Type 2 diabetes)."

Type 1 autoimmune diabetes was the most common form identified among Hawaii youth, consistent with national findings, Rodriguez said.

Type 2 diabetes was rarely found in children under age 10 but was found in youths of all races and ethnicities and was most common in ethnic minorities.

It is three times greater in Asian and Pacific Island children than Caucasians, affecting about one in 750 Asian/Pacific Islanders from 10 to 19 years old, Rodriguez said.

About 90 percent of children with Type 2 diabetes are over-

weight, and more minority youth are overweight than non-Hispanic white youths, she said.

"Hopefully, we will find ways to prevent the disease and be able to provide better care for these children who already have the disease."

The clinics want to get a better idea how many children and youths under age 20 have diabetes. Many people, young and old, are believed to have undiagnosed Type 2 diabetes.

The investigators want to identify changes in the incidence of diabetes over time and learn more about complications of the disease in children and youth.

They also plan to investigate the type of care and medical treatment young patients are receiving and learn how the disease affects lives of the youths, Rodriguez said.

The PHRI investigators are now seeking youths under age 20 who were diagnosed with diabetes this year.

"We are interested in seeing them soon after being diagnosed so we can look at changes that occur over time," Rodriguez said.

She advises people to be alert to symptoms of diabetes and take children to a doctor if they urinate frequently, are constantly thirsty, eating a lot and losing weight.

Co-investigators are Drs. J. David Curb, Greg Uramoto, Sorell Waxman, Wilfred Fujimoto, Teresa Hillier and Beth Waitzfelder. Coordinating the project is Fiona Kennedy.