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# Rise in diabetes among children prompts study

## Hawaii kids are being sought to take part in the nationwide program

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A search is under way for all Hawaii children diagnosed with diabetes as part of a nationwide study of juveniles with the devastating disease.

The University of Hawaii and Pacific Health Research Institute are conducting the local study. They have one of six centers participating in the five-year program nationally.

"It's really a big undertaking," said Dr. Beatriz Rodriguez, principal investigator for the Hawaii program, funded by

the U.S. Centers for Disease Control and Prevention and the National Institutes of Health.

The Hawaii Medical Service Association, Kaiser Permanente and state MedQUEST Program are collaborating with the institute to identify youths under age 20 with diabetes.

The most likely form of the disease in children is juvenile or type 1 diabetes. This is a chronic autoimmune disorder in which the body's immune system attacks and destroys insulin-producing islet cells in the pancreas, leaving the patient dependent on insulin injections.

Type 2 diabetes generally affects people in middle or older ages and is usually treated with diet and/or medication.

But an epidemic of type 2 diabetes is occurring because of genetic and environmental factors, such as obesity and lack of exercise, and younger children being affected, said Rodriguez, professor of family practice and community health.

The rate of overweight children in the United States up to age 19 tripled from 1965 to 2000, to 15.5 percent from 4.6 percent, she pointed out.

"Type 1 is the most common chronic disease of children, but Type 2 may become more common in one or two decades."

The nationwide study is the first attempted to assess the extent and severity of the disease in the juvenile population, Rodriguez said. Other centers involved are in Washington, Colorado, Southern California, South Carolina and Ohio.

Researchers want to know how many cases of type 1 and type 2 diabetes there are among children and youths under

age 20 and how many new cases are being diagnosed, she said.

They want to describe risk factors for complications by type of diabetes, acute and chronic complications, health care utilization, how children are cared for and their quality of life.

Reports on the number of kids newly diagnosed with type 2 diabetes range from 8 percent to 45 percent, Rodriguez said.

She said it is hoped to better classify the children by types of diabetes, age, sex and ethnicity and develop practical approaches to classifying the type. It is not always as clear-cut as it seems, she said.

A proposal also has been submitted for funding for a separate study of possible retinal changes in children because of the disease, Rodriguez said.

Physical measurements and blood tests will be conducted for Hawaii's diabetes study participants at Kuakini Medical Center in collaboration with pediatric endocrinologists Greg Uramoto and Sorrell Waxman.

Other co-investigators are Drs. J. David Curb and Kamal Masaki, Beth Waitzfelder, biostatistician Robert Abbott and Drs. Wilfred Fujimoto and Joseph Humphry, consultants.

To learn more about "SEARCH for Diabetes in Youth," call 441-5530 on Oahu or 800-916-3320 on the neighbor islands.