

CANADIAN PAEDIATRIC SURVEILLANCE PROGRAM

New study revisits how Type 2 Diabetes is changing in Canadian kids

Ten years following the completion of the first Canadian Paediatric Surveillance Program (CPSP) study on type 2 diabetes (T2D) in children and youth, a new comparative study is investigating whether incidence rates, demographics, clinical presentation, and severity have changed.

"In the last decade there's been rapid progress in understanding the physiology of the condition and the challenges we face in treatment," said Dr. Shazhan Amed, principal investigator, clinical associate professor at the University of British Columbia and a paediatric endocrinologist at B.C. Children's Hospital.

Researchers now know that T2D is more severe in children and youth than adults, said Dr. Amed. Complications such as kidney or cardiovascular disease start earlier, and treatment challenges include the lack of efficacy of oral anti-diabetic agents and the need for subcutaneous insulin therapy early on in the disease.

Rates of T2D are higher in female youth as compared to males. Teenage girls with T2D who later become pregnant are particularly at risk of poor health outcomes. They have high rates of fetal loss, complications during pregnancy, and babies born with congenital abnormalities.

While researchers know more today than a decade ago, there is still much to learn about childhood-onset T2D, said Dr. Amed.

To date, most data is from Manitoba, largely from First Nations populations.

By gathering cross-country data, this study will play a crucial role in treatment and

prevention efforts for a wide range of patient populations.

"Looking at provincial comparisons is really important to better understand the distribution across the country," said Dr. Amed. "This study will also examine whether or not we've been able to standardize our management approach across the country, and if not then, what are the differences in how provinces approach treatment and why those differences exist."

Dr. Amed hopes that the data will push decision makers, public health, and government officials to allocate resources to prevention and treatment.

"If [T2D among children and youth] is increasing at a fairly rapid rate, that gives us the data we need to advocate for more resources both for prevention and treatment," she said.

Sharing data with other health professionals is also an important priority, said Dr. Amed.

"More information will help to engage family physicians because [in large part], they are managing people with T2D and often manage older youth with T2D," said Dr. Amed.

This study runs from June 2017 to May 2019. Ethical approval was received from Health Canada and the Public Health Agency of Canada's Research Ethics Board, UBC Children and Women's Research Ethics Board and the University of Manitoba Research Ethics Board. For more information, visit www.cpsp.cps.ca/surveillance/current-studies 📄

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