



TARGetKids!

Healthier Children through Preventative Healthcare

Background

If your child had a severe, life threatening illness or a chronic condition you would be grateful for the expertise of the health professionals and scientists at Canada's leading children's hospitals. Fortunately, less than 5% of Canadian children will require this expertise each year. What about the rest of our children? It has been suggested that their health is good enough. But few of us when we refer to our children would describe them as being "good enough". We want the best for our children; we want them to be healthy, happy, and have every opportunity to realize their potential. We want them to start life on the optimal trajectory for success; to receive health care that promotes their health, ensures timely and accurate diagnosis and effective treatment when they are sick.

It is estimated that by the end of childhood, 40% of our children are dealing with complications of overweight or obesity, asthma, injury, behavior problems or learning difficulties - all potentially preventable conditions are greatly amplified among socioeconomically disadvantaged children. Now, in a unique partnership between SickKids with its longstanding dedication to improving children's health and St. Michael's Hospital with its commitment to reducing health disparities, research to improve the health of all of our children is underway. TARGet Kids! aims to raise the ceiling of children's health through effective and timely primary healthcare.



Preventative Primary Healthcare Research

The goal of primary healthcare is to ensure that children are on an optimal trajectory for health by identifying and correcting influences that are negatively affecting their health and development. In Canada, the majority of children receive primary health care from community-based primary care providers (pediatricians, family physicians or nurse practitioners). This is especially true for infants and toddlers for which over 85% of who see a primary care provider. Thus primary healthcare providers are in a unique position to address the questions and concerns of parents of infants and toddlers. As health is the reason parents attend primary healthcare, primary healthcare providers are also uniquely positioned to introduce parents and children to health research. As a result of their special relationship with their patients and families, primary care providers may be highly successful at disseminating knowledge generated from such research. The primary healthcare setting is an ideal venue for creating and disseminating knowledge for disease prevention.

The TARGet Kids! Platform

TARGet Kids! is as a unified platform to bring together child health researchers and primary health care providers and focus their efforts on research of relevance to the majority of Canadian children and their parents. Its main aim is to advance the scientific basis for chronic disease prevention and develop innovative interventions for primary healthcare providers to overcome common health problems that are limiting our children's potential.

Rapidly expanding, TARGet Kids! is breaking down traditional disciplinary boundaries and bringing together the necessary expertise and resources to accomplish these goals. Currently, TARGet Kids! is a team of leading health scientists from the Hospital for Sick Children and the St. Michael's Hospital as well leading community pediatricians and family physicians from the

departments of Pediatrics and Family and Community Medicine at the University of Toronto.

Your child's care today is their health tomorrow

TARGet Kids! Research Priorities

Research priorities focus on preventing common health problems that begin at a young age, track well into older childhood, have the potential for long term negative health consequences and are potentially preventable through primary healthcare:

Obesity: In Canada, rates of childhood overweight and obesity have reached epidemic proportions. In 2004, 26% of Canadian children 2-17 years of age were overweight. There is strong evidence that overweight in young life tracks into adulthood and interventions targeted at preschool aged children are the most likely to be successful. Presently, childhood overweight is not well addressed in the health care system, other than management of associated diseases.

Vitamin D deficiency: Due to Canadians' limited winter sunlight exposure, over 80% of generally healthy urban Canadian toddlers have insufficient levels. Emerging evidence has linked low vitamin D levels to several chronic health conditions including respiratory infections, asthma, diabetes, multiple sclerosis and a number of cancers.

Iron deficiency: In Ontario, 30% of infants and toddlers have insufficient iron stores. Early iron deficiency has been linked with delayed development, behavior problems, school failure, lower employment and an increased risk of stroke during childhood.

It's about promoting a healthy childhood

TARGet Kids! Methods

As efforts for prevention must begin at birth, TARGet Kids! has developed cutting edge methods for collecting nutritional, environmental, behavioral and laboratory data during routine primary healthcare for children from birth to 5 years of age and has implemented state-of-the-art data management technology to:

- a) Establish a large group of healthy children to be followed annually to link early health exposures to later illness
- b) Determine prevalence of overweight, obesity, iron deficiency and vitamin deficiency
- c) Determine risk factors for obesity, iron deficiency and vitamin D deficiency as targets for prevention
- d) Develop tools needed to measure risk factors and outcomes for obesity, iron deficiency and vitamin D deficiency
- e) Implement pragmatic primary health care based trials of interventions for the prevention of obesity, iron deficiency and vitamin D deficiency

TARGet Kids! Progress

Since operations began in September 2008, over 5000 children have been enrolled into the TARGet Kids! from the practices of 12 primary care providers in the greater Toronto area. We hope to continue to expand the TARGet Kids! platform to involve allied health professionals, the public health sector and children beyond Toronto.

Financial Support

The Canadian Institutes of Health Research (CIHR) has provided funding for 5 years of longitudinal data collection, as part of a Team Grant in Childhood Obesity with the HISTORY team (High Impact Strategies Towards Overweight Reduction in Youth). Additional funding has come from the St. Michael's Hospital Foundation, the Danone Institute and the Dairy Farmers of Ontario.

