

House of Commons Standing Committee on Health Study on Children's Health

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One Strategy That Enhances All Others

The late Dr. Dan Offord, founder of the Offord Centre for Child Studies, believed that tracking children's life trajectories was vital to improving their health and wellbeing. To Dr. Offord – a clinician and researcher who worked at McMaster University, the birthplace of evidence-based medicine – data were the key. Data help identify and understand problems. Data lead to evidence that helps formulate, deliver, evaluate and refine solutions.

Our recommendations to the Standing Committee on Health, Study on Children's Health reflect the belief that everything we do to improve, support and sustain the physical and mental health of Canada's children and youth can become more efficient, effective, equitable and sustainable through evidence that builds on high-quality research and data.

Defining the Problem

The Committee is familiar with the 2020 UNICEF Report Card that ranks Canada 30th out of 38 wealthy countries in children's physical health and 31st of 38 in mental health. This evaluation quantifies shortcomings in our current approaches to child and youth health, but provides little guidance on how we can improve.

Data that facilitate insights into key segments of the larger population of Canadian children and youth will shape policy and programs that help at-risk young Canadians. Varin et al., for example, assert that "understanding the social determinants of health is key to developing harm reduction and mitigation strategies."¹ Currently, we have inadequate information on a spectrum of health outcomes and factors ranging from child and youth mental health to race, ethnicity, child maltreatment and parent health. As a nation, we need to expand and enrich our ability to coordinate data collection, management and analysis. Then, we need to embrace evidence-informed policy and practice to bridge the gap between research and the design and delivery of policy and practice that can improve lives.

Recommendations

The recommendations in this brief are a single recommendation in five parts. A strong national commitment to research in child and youth mental and physical health needs to build on an infrastructure capable of supporting that commitment, linked to processes that allow research findings to influence policy, care and training. This is the best strategic path to achieving a significant and sustainable impact on all aspects of child and youth health. That impact can be pervasive – enhancing programs and services federally, provincially/territorially and municipally as well as with not-for-profits and institutions nationwide. A single strategic decision can generate multifaceted and lasting benefits.

Recommendation 1: Establish long-term funding for research on child and youth mental and physical health as part of a National Child and Youth Comprehensive Health Strategy.

A National Child and Youth Comprehensive Health Strategy will have many elements, from healthcare initiatives to inequity-reducing measures. A strong national research plan will advance all aspects of that strategy. While there is significant federal funding already allocated to child and youth health research, there is also significant need for expanded funding. That need is the result of the increasing prevalence of risk factors and mental disorders, in conjunction with the need for a wider range of data in research, a greater ability to identify and understand diverse populations and a greater emphasis on longitudinal outcomes and program/policy evaluation.

Long-term research funding will facilitate crucial longitudinal, prevention and intervention research. It will also maximize the impact of each research dollar by allowing researchers to focus more on research and less on the continuous search for grants.

The research program should follow a four-step public health approach framework to generate evidence-informed policy and evidence-based practice. This begins with surveillance that defines challenges to mental and physical health. The second step identifies protective and preventative factors and measures. The third step develops and evaluates new interventions and policies. The fourth step delivers research based on the dissemination, evaluation and assessment of health strategies and the research program itself.²

Recommendation 2: Establish a national research network to collect, coordinate and harmonize data related to child and youth mental and physical health in a research-accessible system.

With complex societal challenges like improving child and youth health, it is more costly not to know than it is to collect the data that provide insight. Without data, the personal, financial and societal costs of addressing problems will be greater and positive change will be slower.

Canadian researchers need infrastructure, practices and policies that make data accessible for research purposes. This will allow them to develop new insights and innovations, analyze and improve practice, measure and evaluate progress, design and determine the impact of policies, ensure equitable access to care and services and deploy resources optimally. Evidence from surveillance and research can then better inform the design, evaluation and implementation of public health interventions and determine what works for whom, when and why.³

Research Infrastructure

There are several existing initiatives, as well as recommendations included in other briefs, that describe the kind of data infrastructure required to support research while maintaining data security. For example, the HealthCareCAN brief recommends “the formation of a pan-Canadian health data research repository.” Similar approaches have been recommended by organizations including the Health and Biosciences Economic Strategy Table and the Public Health Agency of Canada’s pan-Canadian Health Data Strategy Advisory Group. In cancer, the Digital Health & Discovery Platform launched by Innovation, Science and Economic Development Canada is developing the kind of data infrastructure that could also serve Canada’s children and youth.

This kind of interconnected data system would also link data generated specifically for research with administrative and health services data repositories such as the Canadian Child Welfare Information System and the Discharge Abstract Database.

Data Characteristics

The data we collect, organize and access through this kind of system should address priorities including:

- Providing surveillance – ongoing, systematic analysis and interpretation of data⁴
- Capturing a wide range of factors including geographic, demographic, situational/contextual, past treatment, outcome and experiential information
- Collecting diversity, inclusion, equity and accessibility data
- Incorporating information ranging from pregnancy to age 25
- Collecting information related to all types of child maltreatment including physical, sexual and emotional abuse, all forms of neglect and exposure to intimate partner violence
- Incorporating social determinants of health such as economic stability, education and healthcare access
- Including data related to treatments and services accessed
- Connecting data gathered from different levels including school, community, clinical, administrative and whole populations

Recommendation 3: Invest in training researchers and frontline staff who can conduct research, translate research into policy/practice and deliver care that reflects and contributes to research.

As Canada’s child and youth health research infrastructure expands, we need to train growing numbers of qualified investigators, research staff, students and clinical professionals. Additionally, the data-driven nature of much of this research will increase demand for experts in fields like data science and informatics.

On the other side of the bench-to-bedside spectrum, we will need to enrich clinician training to support knowledge translation and prepare teams in hospitals, community clinics, private practices and other venues to be agile in responding to new evidence, guidelines and protocols.

Recommendation 4: Adapt current data-gathering practices to accommodate the specific needs of children and youth.

There are many data-collection vehicles that could – with adaptations – become even more powerful tools in research related to children and youth. Some mechanisms are designed for adults, but then applied to younger Canadians. Occasionally, this difference can be significant such as when dealing with differences in providing consent. We must also develop specific, sensitive protocols for collecting data on children and youth, particularly related to issues like maltreatment where we must balance the rights and dignity of individuals with the duty to report certain events.

We can also expand existing data-gathering mechanisms to collect more kinds of data. This could include, for example, more data on the family situations that have so much influence on young people. Other examples could include adjusting the Canadian Health Survey on Children and Youth to incorporate questions about child maltreatment and lowering the respondent age (currently 15) for the General Social Survey. We can also look to administrative databases to extract, for example, multidimensional risk factors, a recommendation included in the Child Maltreatment Surveillance Indicator Framework.⁵

Recommendation 5: Develop a Learning Health System in child and youth health to better connect research findings with the design and deployment of policy, care and training.

As research output expands, the next challenge will be ensuring that the insight and innovation produced by Canada’s researchers can influence the processes, interventions and policies that impact children and youth. A Learning Health System aligns science, informatics, incentives and culture for continuous improvement and innovation. Best practices become embedded in the care process with patients and families as active participants, and new knowledge is captured and applied as an integral by-product of the care experience.

Specific approaches could include requiring or encouraging research consultation by organizations creating and implementing policies and services that affect child and youth health. At the same time, researchers should strive to disseminate their work widely, advocate for their recommendations and participate in relevant consultation processes. Building the resources to pursue these activities into research grants would help incorporate the most current research into policy and program design across Canada.

Conclusion

Canada needs to invest in the coordinated effort and infrastructure required to generate the essential data, research and evidence that will lead to evidence-based policies and practices that foster healthier children and youth, a healthier society and reduced inequities. This kind of national investment – one that coordinates data gathering and analysis across provinces and territories – is a mandate that fits only with the Government of Canada. Additionally, these research-focused recommendations support the vast majority of other recommendations submitted to the Committee. Ultimately, the five recommendations in this brief can enable all aspects of our nation's quest for better mental and physical health for our children and youth.

¹ Varin M, Hill MacEachern K, Hussain N, Baker MM. Measuring self-reported change in alcohol and cannabis consumption during the second wave of the COVID-19 pandemic in Canada. *Health Promot Chronic Dis Prev Can.* 2021;41(11):325-30.

² World Health Organization. The VPA approach: the public health approach [Internet]. Geneva (CH): WHO; [cited 2021 Oct 4].

³ Nsubuga P, White ME, Thacker SB, et al. Public health surveillance: a tool for targeting and monitoring interventions. In: Jamison DT, Breman JG, Measham AR, et al., editors. *Disease control priorities in developing countries*. 2nd ed. Washington (DC): The International Bank for Reconstruction and Development/World Bank; New York: Oxford University Press; (2006).

⁴ Leeb RT, Paulozzi L, Melanson C, Simon TR, Arias I. *Child maltreatment surveillance: uniform definitions for public health and recommended data elements, Version 1.0*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2008.

⁵ Campeau A, Qadri S, Barakat F, et al. Child Maltreatment Surveillance Indicator Framework. *Health Promot Chronic Dis Prev Can.* 2020;40(2):58-61.

Offord Centre for Child Studies

The Offord Centre for Child Studies is a multidisciplinary research institute dedicated to improving the lives, health and development of children and youth. Affiliated with McMaster University, McMaster Children's Hospital and Hamilton Health Sciences, the Centre was founded in 1992 by Dr. David (Dan) Offord, the initiator of Canada's first large-scale observational study of children within families (Ontario Child Health Study). The Offord Centre generates research that influences policy, training, care and systems locally, provincially, nationally and internationally. We have led landmark initiatives and research projects including the Canadian Health Survey on Children and Youth, the Preventing Violence Across the Lifespan Research Network, the Promoting Healthy Families study, the School Mental Health Survey, the Early Development Instrument survey, the Pathways in Autism Spectrum Disorder study, Researching the Impact of Service provider Education (RISE) project and the Learning Health System for Neurodevelopment. The Centre is home to 35 faculty and 60 staff researchers in fields such as psychiatry, pediatrics, nursing, social work, clinical epidemiology and psychology. The Centre also trains undergraduate and graduate students, post-doctoral fellows and other health/research professionals.