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Measure What Matters: Toward Multi-Sectoral Action to Improve Child and Youth Health and Well-being

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POLICY RECOMMENDATIONS

Improving child and youth health and well-being in Alberta requires a central strategy and collective effort co-designed with the participation of youth, families and community partners. Recommended paths include cross-sectoral collaboration in provincial policy-making supported by ongoing monitoring, enhanced governance and a focus on marginalized groups. In alignment with principles of good governance and policy-making, there are four interconnected considerations:

1. Make child and youth health and well-being a policy priority and co-design a shared vision.
2. Create a cross-sectoral governance structure for collaboration and accountability.
3. Enhance data and monitoring efforts to learn and adapt with meaningful evidence.
4. Focus on health equity and prioritize marginalized groups.

EXECUTIVE SUMMARY

Despite Canada's strengths and widespread acknowledgment of the importance of children and youth, this country recently ranked 30th among 38 high-income countries on indicators of their well-being (UNICEF Innocenti 2020). While there are limited data readily available for monitoring within and across jurisdictions, Alberta compares worse than Canadian averages on indicators of early development vulnerability and child abuse (PHAC 2023a).

The Alberta government convened a Child and Youth Well-being Review (GOA 2021) and Action Plan (GOA 2022a) to understand and address the pandemic's adverse impacts. Indigenous and racialized children and youth, children in low-income families and children with disabilities were highlighted as being disproportionately impacted. In addition, the review found significant gaps in mental health, education, social data and evidence along with fragmentation of data within ministries and service systems (GOA 2021).

Influences on child and youth health, well-being and health inequity have social, environmental and economic origins that extend beyond health policy boundaries (Lopez et al. 2021; Vargas-Barón, Diehl and Small 2022; Clark et al. 2020; Patton et al. 2016). Yet, public policy can be a powerful intermediary between children's conditions and outcomes (UNICEF 2020). Cross-sectoral, whole-of-society approaches are required to improve child and youth health and well-being and government ministries have important roles to play (Akseer et al. 2020; De Montigny, Desjardins and Bouchard 2019; Leppo et al. 2013).

Meaningful and accessible measurement and monitoring information is required to support co-ordinated, cross-sectoral decision-making and policy strategies to improve health outcomes and reduce health inequities (OECD 2021). Information is required about child and youth material living standards, physical and mental health, social lives and learning and education (OECD 2021). While definitions of child and youth well-being vary depending on diverse perspectives and cultural, social and local contexts, many established indicators and frameworks can be tailored to local community needs and priorities (OECD 2021).

APPROACH

We carried out an environmental scan to explore the Alberta provincial policy, partner and data landscape over a 10-year period to understand opportunities for provincial child and youth health and well-being indicators. The methodology involved a systematic search of government websites to identify relevant publicly accessible provincial policies, data sources and interested groups. Literature was synthesized to provide a foundation on key concepts and on national contexts. A dialogue forum brought a range of perspectives together from participants across multiple domains of child and youth health and well-being to provide feedback on the environmental scan and discuss paths forward.

INSIGHTS

Our scan revealed a complex landscape including numerous Alberta government publications, sources of data and many engaged groups and organizations. Over the past 10 years, numerous initiatives have been undertaken to support child and youth health and well-being and there have been a number of achievements. Alberta has advanced knowledge, policy and practice across many domains of child and youth health and well-being through efforts involving an expansive network of groups and community organizations.

However, despite the many efforts that have taken place, we observed a number of challenges. Initiatives are often fragmented or siloed. Many sectoral and issue-specific strategies appear comprehensive and evidence-informed, although some appear to have been commissioned as one-off works without clear connection to a central framework or strategy. In addition, many initiatives appear disrupted — starting, stopping and changing course with changes in government political leadership — and they often lack implementation plans, ongoing accountability instruments and transparent outcomes monitoring to ensure they are sustained and align to desired goals. Nonetheless, there is a substantial foundation of work upon which Alberta can build. Past and current initiatives and networks can be leveraged and become more connected to advance child and youth health and well-being across the province.

National and provincial actions and public policy can influence child and youth health and well-being across a variety of domains (UNICEF 2020). Interventions and early investments in health, education and development have immediate, long-term and intergenerational benefits and high benefit-cost ratios (Clark et al. 2020). Supporting improved developmental outcomes in early life is a strategic and cost-effective way for governments to advance health equity (Perrin et al. 2020; Leppo et al. 2013). To some extent, these actions are a human rights obligation, in fulfillment of Canada's commitments to the global Sustainable Development Goals (SDGs) (GOC 2022f) and the United Nations Convention on the Rights of the Child (UNCRC) (GOC 2019c, 2022b) which Alberta endorsed in 1999 (OCYA 2022).

However, no single institution or organization can create all the conditions that children and youth need to flourish. To improve child health and well-being and reduce inequities, collaborative multi-faceted and multi-sectoral action and whole-of-society participation are needed at all levels of government and civil society (Clark et al. 2020; De Montigny, Desjardins and Bouchard 2019; UNICEF 2022b; Vargas-Barón 2019; Vargas-Barón, Diehl and Small 2022; Bethell et al. 2017; Black et al. 2017; Moore et al. 2015; National Academies of Sciences, Engineering, and Medicine 2019; Patton et al. 2016). This includes cross-sectoral alignment of data and evidence, and collaboration across government and with vast community partners to inform, assess and monitor decision-making.

PATHS FORWARD

Improving child and youth health and well-being in Alberta requires a central strategy and collective effort co-designed through participatory approaches with youth, families and community partners. Recommended paths forward for discussion with community partners and interested and affected groups include cross-sectoral collaboration in provincial policy-making supported by ongoing monitoring, enhanced governance and a focus on marginalized groups. In alignment with principles of good governance and policy-making, there are four interconnected considerations:

1. Make child and youth health and well-being a policy priority and co-design a shared vision.

2. Create a cross-sectoral governance structure for collaboration and accountability.

3. Enhance data and monitoring efforts to learn and adapt with meaningful evidence.

4. Focus on health equity and prioritize marginalized groups.

THE ISSUE

Childhood health and well-being is foundational for a healthy society. Childhood experiences influence physical, emotional, social and cognitive development with lasting implications for lifelong health, well-being, interpersonal relationships and opportunity (Chief Public Health Officer 2009; Clark et al. 2020; Black et al. 2017; Patton et al. 2016). Despite appreciation of the conceptual importance of child and youth health and well-being in society, Canada recently ranked 30th among 38 high-income countries in the well-being of children and youth under age 18 (UNICEF Innocenti 2020). Notably, Canada was in the bottom third of high-income countries in child and youth mental health and happiness, youth suicide, physical health and survival, childhood poverty and supportive relationships.

Child health and well-being varies regionally and at sub-regional levels. Currently, limited data are readily available for monitoring and comparison purposes within and across jurisdictions. On indicators of early development vulnerability and child abuse, Alberta compares worse than Canadian averages. While Canada has a high percentage of children in poverty compared with other OECD countries, Alberta has a lower percentage of children in poverty than the Canadian average (PHAC 2023a). Influences on child and youth health and well-being, like most determinants of health and health inequity, have social, environmental and economic origins that extend beyond health policy boundaries (Lopez et al. 2021; Vargas-Barón, Diehl and Small 2022; Clark et al. 2020). Nationally and provincially, increased attention has been drawn to the state of child and youth well-being in the context of the COVID-19 pandemic, which adversely impacted

the physical, mental and social well-being of many children and youth (Samji et al. 2022; CIHR 2022; GOA 2021; Gadermann et al. 2021; Chaabane et al. 2021; Madigan et al. 2023) and exacerbated risks posed by other known threats to their well-being (Children First Canada 2020).

The Alberta government convened a Child and Youth Well-being Review (GOA 2021) and Action Plan (GOA 2022a) to understand and address the pandemic's adverse impacts on children and youth. Indigenous and racialized children, children in low-income families and children with disabilities were highlighted as being disproportionately impacted. In addition, the review cited significant gaps in mental health, education and social data and evidence, and revealed that information is limited and fragmented within individual ministries and service systems. A key recommendation from the review is to "accelerate and utilize data collection, collaboration, and innovation to better assess child and youth development and enhance decision making related to their well-being and resiliency" (GOA 2021). The plan identifies government's next steps to include improved data collection, outcomes reporting and a cross-ministerial dashboard to facilitate better informed and more timely decision-making (GOA 2022a).

Government ministries have a critical role to play in promoting and monitoring child and youth health and well-being. Unfortunately, this landscape is often fragmented as ministries responsible for different aspects involved rarely co-ordinate well (Clark et al. 2020). Co-ordinated efforts are often hampered by siloed information systems and financial arrangements, a lack of readily available data, ministerial competition and insufficient mechanisms and capacity for planning policies across sectors that are backed by costed and funded implementation plans (Clark et al. 2020). Monitoring child and youth health and well-being can inform policy strategies to improve health outcomes and reduce inequities (OECD 2021). Readily accessible monitoring data are required to support co-ordinated, cross-sectoral decision-making and action to drive positive change (OECD 2021). Currently, Alberta lacks a framework for this monitoring, which limits co-ordinated strategic planning ability.

This paper explores the Alberta landscape to understand opportunities for measuring and monitoring child and youth health and well-being.

OBJECTIVES AND APPROACH

This briefing paper contributes to government and community-led efforts to improve monitoring and decision-making related to child and youth health and well-being in Alberta. Considering the breadth of this topic — across government and community, across multiple domains of health and well-being and across distinct ages and stages in childhood to age 18 — its goal is to begin to address the gap between what cross-sectoral policies and initiatives exist today and what may be needed moving forward.

First, we present an environmental scan that identifies, describes and consolidates publicly accessible Government of Alberta documents and data sources, and maps the stakeholder landscape in very broad terms. Its methodology, detailed in Appendix A, involved a systematic search of government websites to identify policies and initiatives, data sources, interested and affected groups and non-academic partners in documentation published in the last 10 years. This is followed by a brief backgrounder of key concepts and a snapshot of context and history in Canada, which is further expanded upon in literature synthesized in Appendices B and C. Finally, we provide an analysis and recommendations drawing from academic and grey literature along with insights and feedback from a community dialogue forum.

This briefing paper, along with the findings of a scoping review that is currently underway of international child and youth health and well-being indicators (Roth et al. 2022), can be used as inputs to inform identification of key indicators for monitoring in Alberta.

THE ALBERTA LANDSCAPE

An environmental scan revealed a complex landscape that includes numerous Alberta government publications and many engaged groups and organizations.

The scan is depicted in the sections that follow and describes three key areas:

- **The partner landscape** depicts stakeholder networks of organizations, institutions and interested or affected community groups that directly or indirectly influence child and youth health and well-being in Alberta;

- **The policy and governance landscape** includes publicly available policies and government publications; and

- **The data landscape** lists numerous databases and dashboards that contain data or indicators related to child and youth health and well-being.

THE PARTNER LANDSCAPE

Borrowing from social ecological models of development and well-being (UNICEF 2022a), the environmental context in which child and youth health and well-being is situated and influenced extends from the individual to the immediate home and community environments, and is influenced by provincial, national and global contexts. In Alberta, there is an enormous network of organizations and people working directly with children, youth and families, and whose work indirectly influences child and youth health and well-being. To provide a sense of the breadth of entities and prospective partners in Alberta by the numbers, there are approximately:

- 850+ AHS facilities and 40 primary care networks (PCNs) in the health sector (AHS 2020d);

- 350+ school authorities and 2,300+ schools in the education sector (Alberta Education 2023);

- 25 publicly funded post-secondary institutions within Advanced Education (GOA 2022g);

- 70 family resource networks (FRNs) within the Ministry of Children's Services (GOA 2022i);

- 200+ family and community support services (FCSS) organizations reporting through the Ministry of Seniors, Community and Social Services (FCSSAA 2022; GOA 2022h);

- 300+ Alberta municipalities, 45 First Nations, eight Métis settlements (GOA 2023g); and

- 26,000+ non-profit organizations, many of which support children and youth (GOA n.d.c.).

While acknowledging that the environment is complex and dynamic, and relationships are interconnected, a simplified conceptual view of the organizational landscape through a provincial ministry lens is shown in Figure 1.

Figure 1. A Map of Child and Youth Health and Well-being Organizational Entities and Partners through a Provincial Ministry Lens
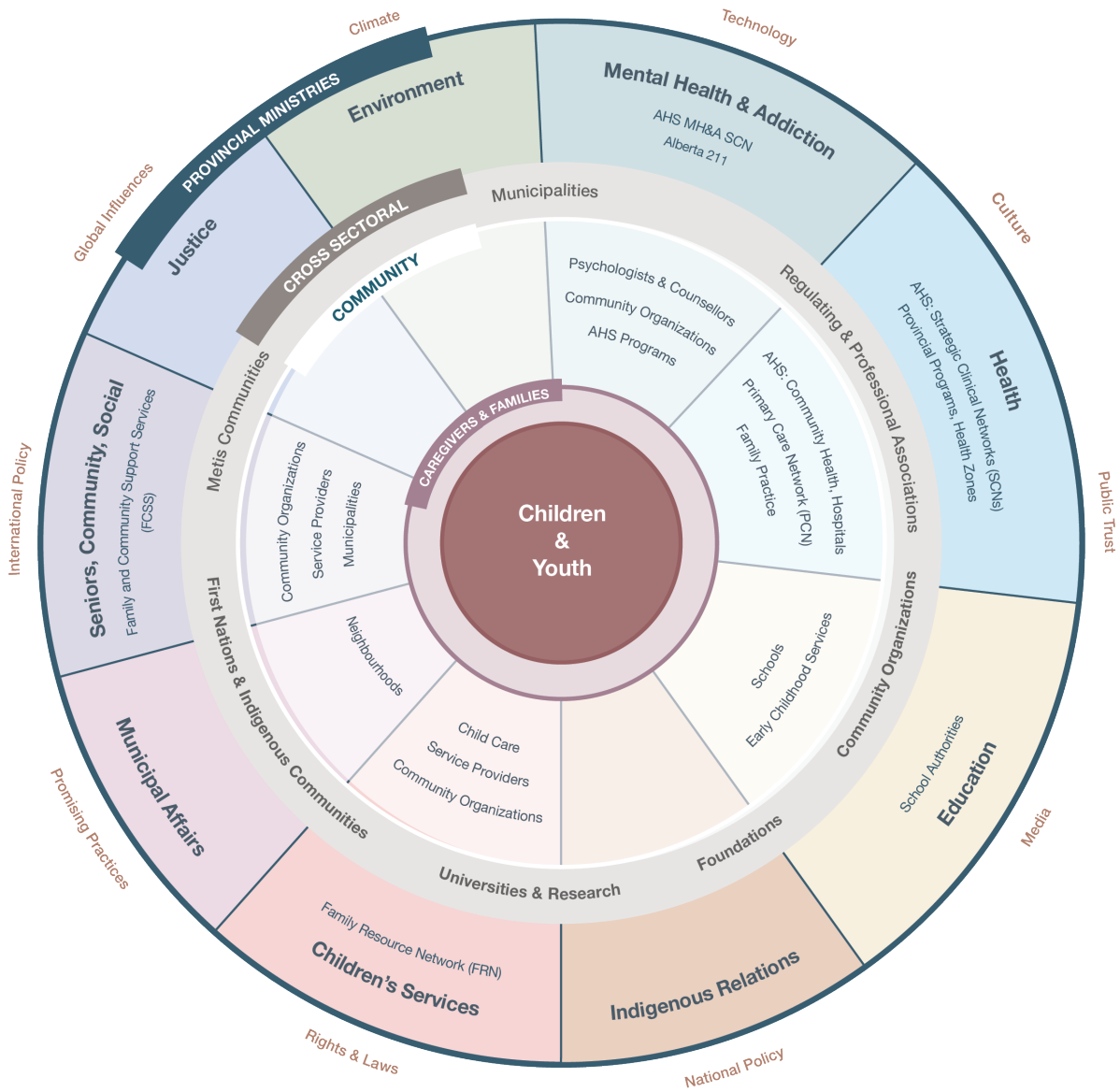
PARTNER LANDSCAPE HIGHLIGHTS

The map identifies three levels of involvement.

Core: Most Impacted — Children, Youth and Families

Children and youth are at the centre as the most impacted by policies and initiatives aimed at measuring and enhancing their well-being. However, they are not passive recipients of their environment but rather are actively involved and interacting with it. Involving and listening to the priorities and needs of young people and their families is critical. In addition, parents, families and caregivers are inherently intertwined through interactions and relationships with children and youth and represent key influences on their health and well-being. While for simplicity's sake, the diagram shows children and youth at the centre, it's important to note that relationships

within and among people, organizations and community in all levels of the diagram, plus broader influences shown outside, such as technology and culture, which include the pervasive nature of social media, are influential aspects of young people's daily lives.

Involved: Partners — Community-Level Organizations and Cross-Sectoral Entities

Community Partners

Approximately 500 specific community-based and civil society organizations were identified in documentation and analyzed in a separate partner registry geared to understanding networks involved in child and youth health and well-being in Alberta. They represent only a subset of the broader list of affected/interested groups and organizations listed above. In addition, many networks, associations and alliances exist within the community partner landscape that play important co-ordination, support and advocacy roles.

Municipalities

Searching municipal and regional databases and websites was out of this review's scope; however, the environmental scan identified a few notable municipal initiatives. Edmonton Social Planning Council has developed a social well-being indicator tracker (Edmonton Social Planning Council 2022). The City of Calgary and the City of Edmonton each publish robust FCSS program resources and literature (City of Edmonton 2023a; City of Calgary 2023). The City of Edmonton has also undertaken a child-friendly city initiative (City of Edmonton 2023b) and the City of Calgary recently launched an equity index (City of Calgary 2022). These are thoughtful and potentially helpful contributions to broader province-wide indicator development.

First Nations and Métis Settlements

While recognizing the self-governing roles and distinct relationships of First Nations, Métis and Inuit communities with federal and provincial governments, their conceptual location on the map is intended to convey their cross-sectoral presence in the lives of children and youth in the areas of education, health and child and family services.

Universities and Research Institutes

The province has several university-led child- and youth-focused research programs and clinics. While not exhaustively captured in this scan, a snapshot of these includes the University of Calgary Alberta Children's Hospital Research Institute (ACHRI) (University of Calgary 2022), the University of Alberta Women and Children's Health Research Institute (WCHRI) (University of Alberta 2022b), the Community University Partnership of the Study of Children, Youth and Families (CUP) (University of Alberta 2022a) and the University of Lethbridge Institute for Child and Youth Studies (I-CYS) (University of Lethbridge 2022).

Regulatory and Professional Associations

These include regulatory bodies and colleges for government-regulated health professions as well as professional associations and alliances. While most often sector-focused, they have been reflected as a single category to indicate these organizations span multiple sectors.

Influence: Authorities — Government Ministries, Organizations and Programs

Provincial Ministries

The map is conceptually depicted through a provincial ministerial lens to help illustrate how ministry structures, policies and programs intersect with cross-sectoral entities and community organizations involved in aspects of child and youth health and well-being. The ministries of Children and Family Services; Seniors, Community and Social Services; Health; Mental Health and Addiction; and Education featured most prominently and with the most relevant mandates.

Broader Influences

Surrounding the map are just a few of the broader influences that directly and indirectly impact child and youth health and well-being.

POLICY AND GOVERNANCE LANDSCAPE

Within and sometimes across ministries there are statutory frameworks, policies and programs that impact child health and well-being. Policies are defined broadly as systems of laws, regulatory measures or any action taken by government (Howlett and Cashore 2014). Table 1 below lists key policies and documents found in the environmental scan. Based on publicly available information, the authors categorize each policy and document first by its general function, based on whether it seemed to primarily serve as a legislative and regulatory framework, strategy or accountability instrument, or a structure, network or service model. Distinctions between these categories were based on the existence of formal legislation or a regulation vs. broader strategic documents without guiding legislation/regulations vs. structures or networks for service delivery. Once categorized, they were correlated with the ministries identified as leading or being involved in each.

The following definitions guided the process of organizing and classifying policies and initiatives:

- **Legislative and regulatory frameworks:** These include active acts, key legislation and affiliated laws and regulations;

- **Strategy and accountability instruments:** These include government publications, guidelines, standards, procedures, initiatives, plans, actions and reports for the purposes of directing or guiding the actions of government, public institutions and agencies; and

- **Structures, networks or service models:** These include key networks, programs, services, supports and benefits.

Table 1. A Listing of Key Alberta Policies Related to Child and Youth Health and Well-being

Legend: R = Responsible or lead ministry; I = Involved or supporting ministry

Selected Policies and Initiatives	Coverage		Ministries														
	Sectoral	Cross-sectoral	Children's Services	Health	Education	Community/Social	Mental Health	Justice	Advanced Education	Indigenous Relations	Public Safety	Culture	Municipal Affairs	Service Alberta	Transportation	Environment	Treasury & Finance
Legislative and Regulatory Frameworks																	
Youth Justice Act (2000) and Regulations	X										R						
Health Information Act (2000) and Regulations	X			R													
Office of Statistics and Information Act																	R
Child, Youth and Family Enhancement Act (2000) and Regulations		X	R	R		R											
Family and Community Support Services (FCSS) *Act* (2000) and Regulations	X					R											
Persons with Developmental Disabilities Services Act (2000) and Regulations	X					R											
Family Law Act (2003) and Regulations	X							R									
Alberta Human Rights Act (2003)	X							R									
Family Support for Children with Disabilities (FSCD) *Act* (2003) and Regulations		X		R		R											
Protection of Children Abusing Drugs Act (2005) and Regulations	X						R										
Protection of Sexually Exploited Children Act (2000) and Regulations	X		R														
Drug-endangered Children Act (2006) and Regulations	X		R														
Early Learning and Child Care Act (2007) and Regulations	X		R														
Child and Youth Advocate Act (2011)	X		R														
Education Act (2012) and Regulations	X				R												
Children First Act (2013) and Disclosure of Information Regulation	X		R														
Early Childhood Services Regulations (2022)	X				R												

Selected Policies and Initiatives	Coverage		Ministries														
	Sectoral	Cross-sectoral	Children's Services	Health	Education	Community/Social	Mental Health	Justice	Advanced Education	Indigenous Relations	Public Safety	Culture	Municipal Affairs	Service Alberta	Transportation	Environment	Treasury & Finance
Strategy and Accountability Instruments																	
Alberta Child Health Surveillance Report (2005)	X		I	R	I	I	I										
Positive Futures – Optimizing Mental Health for Alberta's Children & Youth (2006)	X			R													
FASD Cross-Ministry Committee Initiative (2013)		X	R	R	I	I		I	I	I	I						
Alberta's Strategic Approach to Wellness (2014)	X			R													
FCSS Measures Bank & Outcomes Model (2014)	X					R							I				
Primary Health Care Strategy (2014)	X			R													
AHS Healthy Children & Families Strategic Plan (2014)	X			R													
Every Student Counts — Keeping Kids in School (2014)	X				R												
Valuing Mental Health Review and Report (2015)		X	I	R	I	I		I		I							
Working Together to Support Mental Health in Schools (2017)		X	I	I	R			I									
A Stronger, Safer Tomorrow: Action Plan on Child Intervention (2018)	X		R														
Well-being and Resiliency Framework (2019)	X		R														
Suicide Prevention Action Plan, Building Strength, Inspiring Hope (2019)		X	R	R	I	I		I	I	I							
Strategic Clinical Network Transformational Roadmaps (2018–2022)																	
Child and Youth Well-being Review (2021)	X		R														
Child and Youth Well-being Action Plan (2022)		X	R	I	I	I	I						I		I		
Toward an Alberta Model of Wellness (2022)		X	I	R		I	R	I			I						
FCSS Accountability Framework (2022)	X					R							I				
Cross-Ministry Protocol Supporting Children/Youth/Parents w/Disabilities (2019)		X	R	I	I	R											
Modernizing Alberta's Primary Health Care System (MAPS) (2022)	X			R													
K-12 Education Curriculum	X				R												
Ministerial Business Plans & Mandate Letters	X		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

Selected Policies and Initiatives	Coverage		Ministries														
	Sectoral	Cross-sectoral	Children's Services	Health	Education	Community/Social	Mental Health	Justice	Advanced Education	Indigenous Relations	Public Safety	Culture	Municipal Affairs	Service Alberta	Transportation	Environment	Treasury & Finance
Structures, Networks and Services																	
AHS Strategic Clinical Networks (SCNs)	X			R													
Family Resource Networks (FRNs)	X		R														
Family and Community Support Services Association (FCSSAA)		X				R											
Office of the Child and Youth Advocate (OCYA)	X		R														
Primary Care Networks (PCN)	X			R													
Alberta Schools and Authorities	X				R												
Early Childhood Services	X				R												
Comprehensive School Health		X		R	R												
Social-Emotional Learning	X				R												
Youth Integrated Mental Health Hubs		X	I			I	I	R									
Mental Health Capacity Building in Schools Initiative		X		R	R												
School Attendance Board	X				R												
Child and Youth Health Services Initiative		X		R	I		I	I									
Personalized Community Care		X	R	R													
Alberta 211		X		R			I	I									
Advancing Futures		X	R						I								
Student Aid	X								R								
Child and Youth Support Program	X		R														
Alberta Child and Family Benefit (ACFB)	X		R														
Family Support for Children with Disabilities (FSCD)	X					R											
Alberta Child Health Benefit (ACHB)	X			R													
Alberta Health Care Insurance Plan (AHCIP)	X			R													

POLICY AND GOVERNANCE LANDSCAPE HIGHLIGHTS

Many initiatives are sectoral, taking place largely within or applying to one government ministry. These are included to provide context for relevant work happening in key government sectors; however, emphasis has been given to cross-sectoral policies and initiatives identified in the scan to illuminate existing collaborations on which future alignment work can build. Highlights of key initiatives and policies are described below for discussion purposes.

Children's Services

Overview

The mandate of the Ministry of Children's Services is to support the well-being of children, youth and families in Alberta by focusing on safety and well-being from early learning and childhood development through to early intervention supports, intervention services and transitions to adulthood (GOA 2022n). Guiding legislation includes the *Early Learning and Child Care Act* (Alberta 2007) and the *Child, Youth and Family Enhancement Act* (Alberta 2000a). Focus areas include child intervention services and child-care regulation, including the implementation of the Federal-Provincial Child Care Agreement (GOA 2022j).

Children First Act

One of the most prominent examples of cross-sectoral legislation addressing child and youth health and well-being holistically is the *Children First Act* (Alberta 2013). It was adopted in 2013 to enhance legislation, tools, processes and policies to improve the security, education, health, safety and well-being of children and youth (Alberta 2013). The act stipulates the completion of a government-wide review of policies affecting children and a children's charter to support government departments in the development of policies, programs and services and to guide collaboration among departments and agencies, service providers and Albertans. Public engagements were undertaken (GOA 2014c, 2015a, b) to inform the children's charter; however, it is not clear whether the policy review was completed, and there is no evidence of a children's charter in effect.

Family Resource Networks and Well-being and Resiliency Framework

A focus on improving child intervention practices led to the development of three publications in 2019: "The Well-being and Resiliency Framework," "Evaluation Framework" and "The Miyo Resource — kâ-nâkatohkêhk" (GOA 2019c, d). The framework outlines seven domains of child well-being and describes ways to promote child well-being and resilience and desired outcomes across the Children's Services service continuum. In alignment with established scientific evidence on brain and biological development, it unpacks the concept of resilience, positive supports and adversities in the child's environment, and the impacts of adverse childhood experiences on child development. In alignment with the framework, the Family Resource Network (FRN) initiative, comprised of 136 service providers, including 70 hubs, launched in 2020 to co-ordinate delivery of prevention and early intervention services for children and youth across Alberta (GOA 2022i).

Health

Overview

The Ministry of Health sets policy and direction to achieve a sustainable and accountable health system to promote and protect Albertans' health (GOA 2022o). Alberta Health administers provincial programs, provides expertise on communicable disease control and implements and ensures compliance with government policy whereas health services are planned and delivered by Alberta Health Services (GOA 2022o). Several aspects of health governance, assessment, service delivery, co-ordination and information management are relevant in the context of child and youth health and well-being and are particularly important in identifying and monitoring health indicators.

Alberta Child Health Surveillance Report

Alberta Health and Wellness's health surveillance group (Alberta Health and Wellness 2005) published the Alberta Child Health Surveillance Report. It involved a cross-ministry reference group including members from Alberta Learning, Children's Services, the Mental Health Board and the Office for Disability Issues, Alberta Seniors and Community Supports. The AHS public health surveillance team develops, implements and operates an integrated surveillance network, analyzing health data and demographic information from various sources to create an epidemiological picture to inform decision-making and protect health (AHS 2022d). Today, several additional relevant datasets, dashboards and reports exist in the Alberta government website's health analytics section (GOA 2022k), the Open Government Portal (GOA 2022l) and the Interactive Health Data Application (IHDA) (GOA 2022f) listed in Table 2 below.

Health Strategy and Co-ordination — Strategic Clinical Networks

Strategic clinical networks (SCNs) and provincial programs aim to advance improvements in specific areas of health, working to develop integrated, sustainable solutions to complex, multidisciplinary challenges (AHS 2022e). The most relevant SCNs to overall child and youth health and well-being are: Provincial Population and Public Health (PPIH) (AHS 2020c); Indigenous Wellness Core (IWC) (AHS 2018a); Provincial Addiction and Mental Health; Primary Health Care Integration Network (AHS 2018b); and Maternal, Newborn, Child and Youth (MNCY) (AHS 2020b). The Healthy Children and Families department is part of PPIH and focuses on pre-conception to children 18 years of age and their families (AHS 2022b).

Primary Care

The 2014 Primary Care Strategy (GOA 2014b) and primary care networks (PCNs) (GOA 2023f) focus on the community-based model in which every Albertan is connected to a health home/medical home where they can access team-based integrated supports and a primary care provider. The new Modernizing Alberta's Primary Health Care System (MAPS) initiative is currently underway to identify immediate and long-term improvements to strengthen Alberta's primary health-care system (GOA n.d.f.).

Education

Comprehensive School Health

A prominent example of cross-sectoral strategy is comprehensive school health, a health-promotion approach in school settings in which Health and Education partner, recognizing the interdependence between health and educational outcomes in children (Alberta Education 2022). Alberta is part of the Pan-Canadian Joint Consortium for School Health in which provincial education ministers and health/wellness ministers facilitate a comprehensive and co-ordinated approach to health promotion in schools (Pan-Canadian Joint Consortium for School Health – Governments Working Across the Health and Education Sectors 2022).

K-12 Curriculum

The curriculum includes grade-specific physical education and wellness components, such as social-emotional learning, health and life skills, physical education and career and life management in high school (GOA 2023d). The new K-6 curriculum combines the disciplines of physical education and health/wellness education which, through a healthy school community, promote students' holistic development in eight dimensions: physical, social, emotional, spiritual, environmental, financial, intellectual and occupational (GOA 2023e).

Seniors, Community and Social Services

Family and Community Support Services (FCSS)

FCSS is a long-standing provincial/municipal funding partnership through which municipalities may design and develop preventive social services intended to promote and enhance the well-being of Albertans, their families and communities (Alberta 2000b; GOA 2012, 2014a, 2022d). A new accountability framework defines FCSS prevention as: "A proactive process that strengthens the protective factors of individuals, families, and communities to promote well-being, reduce vulnerabilities, enhance quality of life, and empowers them to meet the challenges of life" (GOA 2022d, 7). While the new framework emphasizes performance metrics and accountability reporting, a 2014 measures bank is referred to for program outcome indicators to assess the impact of programs and services on the social well-being of individuals, families and communities (GOA 2014a). The framework includes a set of child/youth indicators based on measures provided in the Search Institute's Developmental Asset Framework® (Search Institute® 1997).

Seniors, Community and Social Service (SCSS) Cross-Ministry Strategies

The SCSS ministry is a key steward of several cross-ministry strategies including the province's 10-year Fetal Alcohol Spectrum Disorder (FASD) Strategy, the Family Support for Children with Disabilities (FSCD) program and a protocol between Children's Services and Community and Social Services that includes Health and Education to support children, youth, parents and guardians with disabilities (GOA 2019b).

Mental Health and Addiction

The Ministry of Mental Health and Addiction, established in 2022, supports Albertans experiencing addiction and mental health challenges by implementing a comprehensive recovery-oriented system of care and increasing access to evidence-based services. The ministry also licenses and supports the funding of community-based programs and services (GOA n.d.e.). Over the past 10 years, three major provincial mental health strategies/reports emerged from the environmental scan — Creating Connections: Alberta's Addiction and Mental Health Strategy and Action Plan 2011–2016 (GOA 2011); Valuing Mental Health: Report of the Alberta Mental Health Review Committee (GOA 2015c); and most recently, Toward an Alberta Model of Wellness (GOA

2022e). These strategies have inherently been cross-sectoral prior to, and in the lead-up to, the formation of the new Ministry of Mental Health and Addiction. Of note is the recent Youth Suicide Prevention Strategy which provides a five-year multi-sectoral action plan (GOA 2019a).

THE DATA LANDSCAPE

Given the importance of measurement and monitoring in cross-ministry government action, we recognized a need to understand what data sources exist in Alberta. There are numerous disparate publicly available data sources and dashboards at the federal and provincial levels that contain data or indicators related to child and youth health and well-being. While not an exhaustive audit, the table below provides a snapshot of these data sources for discussion purposes. Domains and measures within these sources have been captured separately. Most of the Alberta data sources identified are managed by the Ministry of Health or AHS. Data analysis can support greater understanding of the health and well-being of children and youth over time.

Table 2. A Listing of Key Data Sources Related to Child and Youth Health and Well-being

Data Source	Description
National Public Health Indicators, Surveys and Interactive Datasets	
Census of Population (Statistics Canada 2023c)	Provides a detailed statistical portrait of the population by demographic, social and economic characteristics.
Canadian Community Health Survey (Statistics Canada 2023b)	Provides population-level information on health determinants, health status and health-system use at the sub-provincial levels of geography (health region or combined health regions).
Canadian Health Survey on Children and Youth (CHSCY) (Statistics Canada 2023a)	Explores issues that have an impact on the physical and mental health of children and youth, such as physical activity, the use of electronic devices, time spent in school and extracurricular activities, mental health, childhood experiences, suicidal thoughts, substance use and the impact of the COVID-19 pandemic. The 2023 version follows respondents from the previous cycle in 2019 to assess changes in child and youth health and well-being over time.
The Health Behaviour in School-aged Children (HBSC) study in Canada (Public Health Agency of Canada n.d.)	A World Health Organization cross-national research study of youth aged 11 to 15 years old that collects data every four years. The study aims to provide insight into young people's well-being, health behaviours and social contexts.
Canadian Student Tobacco, Alcohol and Drugs Survey (GOC 2023a)	Collects information on tobacco, alcohol, cannabis and drug use among students in grades 7 to 12.
Canadian Hospitals Injury Reporting and Prevention Program	The Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) is an injury and poisoning surveillance system that collects and analyzes data on injuries to people who are seen at the emergency rooms of 11 pediatric hospitals (and one children's outpatient clinic within a general hospital) and nine general hospitals in Canada.
Health Inequalities Data Tool	Provides data on indicators of health status and health determinants, stratified by a range of social and economic characteristics meaningful to health equity.
First Nations and Inuit Health and Wellness Indicators (Centre for Surveillance and Applied Research 2022)	Provides an overview of some key indicators of health of First Nations people and Inuit grouped into four domains: demographics, health status and outcomes, determinants of health and health-system performance.
Perinatal Health Indicators (PHI) (Centre for Surveillance and Applied Research 2020b)	Provides national surveillance information on indicators of maternal, fetal and infant health based on data from CIHI's Discharge Abstract Database, the Canadian Community Health Survey and Vital Statistics (birth, stillbirth and death databases).

Data Source	Description
Physical Activity, Sedentary Behaviour and Sleep (PASS) Indicators (Centre for Surveillance and Applied Research 2021b)	Provides surveillance information on physical activity, sedentary behaviour and sleep behaviour risk and protective factors grouped by movement behaviour and three key domains: Individual, family/social environment and built/society environment.
Positive Mental Health Surveillance Indicator Framework (PMHSIF) (PHAC 2023a)	The Positive Mental Health Surveillance Indicator Framework (PMHSIF) provides information on positive mental health outcomes and its associated risk and protective factors.
Child Maltreatment Surveillance Indicator Framework (Centre for Surveillance and Applied Research 2020a)	Presents child maltreatment outcome indicators and risk and protective factors at the individual, family, community and societal levels, disaggregated by sex, age and other socio-demographic variables.
Suicide Surveillance Indicator Framework (PHAC 2019)	Provides information on suicide and self-inflicted injury outcomes and associated risk and protective factors.
Canadian Chronic Disease Indicators (CCDI) (Centre for Surveillance and Applied Research 2021a)	Provides indicators on the burden of chronic diseases and associated determinants grouped within six domains.
Alberta Public Interactive Data Applications and Dashboards	
Interactive Health Data Application (IHDA) (GOA 2022f)	Provides information in data table and interactive map formats on health status and determinants of health of Albertans including statistics (indicators) on a variety of topics such as demographics, mortality, chronic and infectious disease and children's health. Many IHDA datasets can be broken down by age. Includes Alberta Community Health Survey and Canadian Community Health Survey data, and Maternal and Child Health, and Addiction and Mental Health data.
Alberta Community Health Dashboard (Alberta Health and Alberta Health Services 2022a)	Provides data on modifiable risk factors and rates of cancer screening to help communities set priorities, make decisions and plan community services.
Community Profiles Dashboard (Alberta Health and Alberta Health Services 2022b)	Provides community profiles at the local geographical area (LGA) level to provide residents, community agencies and local governments with an overview of the wide array of factors influencing health in their community.
Alberta Environmental Public Health Information Network (AEPHIN) Risk Factors (GOA n.d.a.)	Provides information on environmental monitoring and public health data in Alberta. It presents interactive data from the Canadian Community Health Survey on health status, health-care use and determinants of health. Socioeconomic data are presented based on Statistics Canada Census data from 2006, 2011 and 2016.
The Alberta Primary Care Network (PCN) Profiles Dashboard (GOA n.d.b.)	Health-zone and PCN-level demographics, panel distribution, socio-determinants, chronic disease prevalence rates, maternal and child health indicators (birth rate and maternal prenatal smoking) and inpatient service use.
The Alberta Childhood Immunization Dashboard (Alberta Health 2022a)	Information on childhood coverage rates for all routine public health immunizations, available by geographic area, vaccine type, age and year.
Child Intervention Data Tool (GOA n.d.d.)	The Child Intervention Data Tool provides an overview of children, youth and young adults who received child intervention services under the *Child, Youth and Family Enhancement Act* (CYFEA). Results are displayed for the last 10 years and are updated annually in September of each year.
Additional Relevant Reports, Surveys and Assessment Tools	
Primary Health Care Community Profiles (Alberta Health 2022b)	To support primary health-care planning, a series of reports provides a broad range of demographic, socioeconomic and population health statistics considered relevant to primary health care for communities across the province.
Maternal, Newborn, Child & Youth (MNCY) SCN Monitoring Indicators (AHS 2022c)	The MNCY SCN's transformational road map identifies a series of monitoring indicators. A further inventory of these indicators is mapped to available IHDA data and other data sources.
The Alberta Early Development Instrument (EDI) (ECCA 2016)	The EDI program gathered information on the development of young children in Alberta to inform planning, policy and programming decisions at a provincial and community level.

Data Source	Description
Alberta Education Data and KPIs (GOA 2022c)	Indicators of academic achievement, high school completion, student engagement and belonging and the satisfaction of students, parents, teachers and school board members that school provides a safe, caring and healthy learning environment.
FCSS Accountability Framework (2022) (GOA 2022d) and Measures Bank (2014) (GOA 2014a)	The FCSS outcomes model guides outcome measurement and provides a framework to measure the impact of programs and services on the social well-being of individuals, families and communities. It includes 40 child/youth developmental asset indicators based on measures developed by Search Institute®.
Child and Youth Well-being and Resiliency Evaluation Framework (2019) (GOA 2019c, d)	This evaluation framework describes ways to promote child and youth well-being and resiliency and desired outcomes across the Children's Services service continuum.
Child Intervention Quarterly Statistics (GOA 2022b)	Quarterly statistics reports published regarding child intervention services and children in care.
The Child and Youth Data Lab (2005–2011) (PolicyWise 2023)	The Child and Youth Data lab linked, analyzed and reported administrative data across six ministries (Children's Services; Community and Social Services; Advanced Education; Health; Justice and Solicitor General; and Education) for Albertans zero–30 years old over a six-year period between 2005 and 2011.

Additional Sources of Data Cited in Documentation
Addiction System for Information and Service Tracking (ASIST)
Alberta Health Care Insurance Plan (AHCIP) Quarterly/Annual Population Registry Files
Alberta Health Care Insurance Plan (AHCIP) Physician Claims Data, Alberta Health
Alberta Health Services Connect Care Database
Alberta Health Services Data Repository (AHSDDRX), Postal Code Translator File
Alberta Health Services National Ambulatory Care Reporting System (NACRS)
Alberta Hospital Discharge Abstract Data (DAD), Alberta Health
Alberta Blue Cross Claims Data, Alberta Health
Alberta Blue Cross, Publicly Funded Pharmacy Influenza Immunization Program
Alberta Cancer Registry (ACR)
Alberta Injury Database
Alberta Regional Mental Health Information System (ARMHIS)
Alberta Vital Statistics Births and Deaths Files, Alberta Health
Ambulatory Care Data, Alberta Health
Clinical Activity Reporting Application (CARA)
Community Geographic Information System (CGIS)
Communicable Disease Reporting System (CDRS)
Delivery Site Registry, Alberta Health
Diagnostic Imaging
Emergency Department Information System (EDIS)
Laboratory Tests
Immunization and Adverse Reactions to Immunization (Imm/ARI)
Inpatient Discharge Abstract Database (DAD)
Longitudinal Demographic Profile (LDP)
Mobile Crisis Information System (MCIS)
Notifiable Disease Registry (NDR)
Pharmaceutical Information Network (PIN) Dispenses

Data Source	Description
Primary Care Network (PCN) Patient Panel Files, Alberta Health	
Regional Immunization Applications	
Registry Alberta Congenital Anomalies Surveillance System (ACASS)	
Sexually Transmitted Disease (STD) System	

BACKGROUND LITERATURE AND KEY CONCEPTS

Background literature and key concepts that underpin our approach to the review and recommendations are summarized in a literature synthesis in Appendix B. For the purposes of our review, the assumptions and approaches below inform the analysis and recommendations that follow:

- Childhood and adolescence are critical periods of developmental opportunity and vulnerability that influence well-being throughout life;

- Environments, experiences and contextual factors including family, community, socio-cultural, socioeconomic, political and legal contexts — and surrounding structures, systems and services — influence child and youth development over the life course (the social ecological perspective). Therefore, efforts to assess, support and improve child and youth health and well-being must be multi-sectoral;

- While there is no universally accepted definition for well-being or common approach to measuring it, in its broadest sense well-being and quality of life encompass physical, mental and social domains and are often determined by material resources, physical and mental health, skills and abilities, social and cultural lives and connections with others;

- Public policy can be a powerful intermediary between children's conditions and outcomes (UNICEF 2020). A health-in-all-policies (HiAP) approach applies a cross-sectoral lens to account for the potential health impacts of policies to improve population health and health equity (Leppo et al. 2013); and

- Well-being frameworks and indicators, such as OECD's Measuring What Matters for Child Well-being Policies initiative that present comparable children's well-being outcomes — with emphasis on children's rights and childhood as a key determinant of lifelong health — can support evidence-informed policy-making (OECD 2021).

NATIONAL CONTEXTS

Alberta's context is situated within the broader federal policy landscape and influenced by approaches in other jurisdictions. Appendix C provides a synthesis of current and historical federal initiatives and Indigenous contexts related to child and youth health and well-being policy along with a snapshot of monitoring reports from other jurisdictions. Key insights and knowledge applied to our review and analysis are summarized here:

- There are many federal health and well-being data programs and monitoring initiatives, some of which are age-specific or child/youth-focused, that can be leveraged in Alberta;

- Alberta was one of the first provinces to publish comprehensive child and youth health and well-being monitoring data;

- B.C., Manitoba and Nova Scotia have used different models for their own provincial monitoring programs. Alberta can engage other jurisdictions to assess strengths and challenges associated with each approach;

- The United Nations Convention on the Rights of the Child (UNCRC) and historical federal, provincial and territorial agreements and strategies for improving child well-being influence monitoring and policy approaches; and

- Reconciliation with Indigenous communities and respect for nation-to-nation agreements that acknowledge the distinct rights and diverse perspectives of First Nations, Métis and Inuit peoples and the historical and ongoing impacts of colonialism are fundamentally important to context at the fore in addressing child and youth health and well-being. The related jurisdictional complexity warrants focused effort and collaboration.

ANALYSIS AND PATHS FORWARD

The analysis of the Alberta policy, partner and data landscape as described above led to a series of considerations for paths forward based on the goal of establishing greater cross-sectoral alignment to monitor and advance child and youth health and well-being.

Our review revealed a complex landscape, including numerous Alberta government publications and sources of data, and many engaged groups and organizations.

Over the past 10 years, Alberta has made strides undertaking numerous initiatives to support child and youth health and well-being. A few highlights:

- The *Children First Act* was enacted in 2013, with aspirational goals for child well-being;

- Knowledge on child and youth development and well-being has been generated, integrated and advanced in policy and practice settings;

- Child welfare reform and a journey toward reconciliation with Indigenous peoples has been a priority;

- Alberta became a leader in FASD response and prevention;

- Alberta recently undertook a review of child and youth health and well-being related to the COVID-19 pandemic;

- Provincially and nationally, significant advancements in data and data visualization have been made and there are many data sources for health and well-being indicators; and

- Indicators have expanded from mortality and disease statistics that are often deficit-based to include positive and strength-based indicators of child and youth well-being.

Despite the many sector-specific and cross-sectoral efforts that have taken place, however, we observed significant challenges:

- Initiatives are often fragmented or siloed from other ministry initiatives. Many sectoral and issue-specific strategies appear comprehensive and evidence-informed, although many have been commissioned as one-off works without clear connection to an overarching framework or strategy;

- Initiatives appear disrupted — starting, stopping and changing course with different government political leadership; and

- Initiatives often lack detailed implementation plans, ongoing accountability instruments and outcomes monitoring to ensure they are sustained and align to desired goals.

Nonetheless, it is clear from this environmental scan that Alberta can build upon a substantial foundation of work. Past and current initiatives and networks can be leveraged and become more connected to advance child and youth health and well-being in this province, but this will take a concerted commitment of effort, intentional alignment within and across government and community and significant investment and support.

PATHS FORWARD: RECOMMENDATIONS

Here we discuss four key considerations for paths forward supported with important context from literature and the current Alberta landscape. For clarity's sake, they are presented as distinct recommendations; however, they are inherently interconnected and interdependent.

Improving child and youth health and well-being in Alberta requires a central strategy and collective effort co-designed with leadership from the provincial government through participatory approaches with youth, families and community partners and with a focus on marginalized groups. Specifically:

1. Make child and youth health and well-being a policy priority and **co-design a shared vision.**

2. Create **a cross-sectoral governance structure** for collaboration and accountability.

3. Enhance data and **monitoring efforts** to learn and adapt with meaningful evidence.

4. Focus on health equity and **prioritize marginalized groups.**

1. CO-DESIGN A SHARED VISION AND STRATEGY

Improving child and youth health and well-being in Alberta should be made a policy priority. National and provincial actions and public policy can influence child and youth health and well-being across a variety of domains (UNICEF 2020). Interventions and early investments in health, education and development have immediate, long-term and intergenerational benefits and high benefit-cost ratios (Clark et al. 2020). In addition, supporting improved developmental outcomes in early life is a strategic and cost-effective way for governments to advance health equity (Perrin et al. 2020; Leppo et al. 2013). To some extent, these actions are a human rights obligation, in fulfillment of Canada's commitments to the global Sustainable Development Goals (SDGs) (GOC 2022f) and the United Nations Convention on the Rights of the Child (UNCRC) (GOC 2019c, 2022b) which Alberta endorsed in 1999 (OCYA 2022).

A central vision (e.g., strategy, charter or framework) and collective effort are needed, co-designed through participatory approaches with youth, families and community partners. This vision and effort must be established and connected to desired outcomes ("the what"); principles, approaches and instruments that can be applied to achieve outcomes ("the how"); and responsibilities involved ("the who").

A Shared Vision and Policy Agenda: 'The What'

Several key policies and initiatives can be leveraged in the development of a shared vision and policy agenda. The *Children First Act* (Alberta 2013) is the most likely piece of cross-sectoral legislation to connect policy and provide an overall vision for outcomes that Albertans hope to achieve. Wide consultations were undertaken to formulate such a vision in a children's charter, which did not come to fruition. In the absence of the charter and policy review it mandated, this act seems to serve only one of its intended purposes — to enable information-sharing among service providers. The Child and Youth Health and Well-being Review and Action Plan is another

key effort to leverage. While focused on pandemic response and recovery, it is a key input to a longer term strategic vision and plan. Further assessment of initiatives highlighted in this scan should be undertaken with key stakeholders to determine their relevance to a shared vision and paths forward. This includes developing a set of principles that can inform a policy agenda and align decision-making and action. Evidence is needed to inform priorities, identify policy levers and guide decision-making transparently. A common knowledge base and common language established in collaboration with community partners can guide indicator development. Monitoring, learning and adapting based on ongoing assessment and evaluation will be required. These processes need structural support to facilitate cross-sectoral alignment across government and throughout the community partner landscape.

Partners in Child and Youth Health and Well-Being in Alberta: 'The Who'

To improve child health and well-being and reduce inequities, collaborative multi-faceted and multi-sectoral action and whole-of-society participation are needed at all levels of government and civil society (Clark et al. 2020; De Montigny, Desjardins and Bouchard 2019; UNICEF 2022b; Vargas-Barón 2019; Vargas-Barón, Diehl and Small 2022; Bethell et al. 2017; Black et al. 2017; Moore et al. 2015; National Academies of Sciences, Engineering, and Medicine 2019; Patton et al. 2016). This includes cross-sectoral alignment of data and evidence, and collaboration across government and with vast community partners to inform, assess and monitor decision-making.

The most effective actions are largely inter-sectoral and multi-component, tailored to local needs and capacities and facilitated through collaborative processes and structures of governance across ministries and diverse sectors of society (De Montigny, Desjardins and Bouchard 2019; Patton et al. 2016). From an institutional perspective, government plays an important role in health. However, health is also influenced greatly by non-governmental bodies, the corporate and business community, professional associations, academic institutions and community organizations, all of whom play a role in preserving and promoting health and have many opportunities to act in the whole community's health interests (World Health Organization 2018). Partnerships and shared responsibility across sectors, together with civil society, the private sector and communities, are seen as being at the heart of good governance for both health and sustainable development (World Health Organization 2018).

This environmental scan focuses on provincial-level efforts as the provincial government, with its jurisdiction over health, education, children, family and community services, has an important co-ordination role to play, particularly in healthy policy development and implementation, data co-ordination and measurement efforts and information sharing. However, community-led action is crucial for health promotion. Whereas all stakeholders should recognize their important role in developing and implementing a strategic vision for improving child health and well-being in Alberta, government — with its mandate and commitment to system improvement — is best positioned to lead the co-design of a shared vision with a wide range of stakeholders.

Participatory Approaches: 'The How'

From a governance perspective, participation of a wide group of actors in decision-making processes is a fundamental principle. The expertise and interests of a vast landscape of networks, organizations and people, including young people themselves and their families, must be sought to co-design policy solutions for positive impacts.

Many programs are still designed from the top down, without the involvement of user groups, and as a result, are likely to be ineffective, of insufficient scope and unsustainable.

The field of early childhood policy planning and implementation over the last decade highlights important roles in policy planning for community/municipal and provincial decision-makers, specialists, parents and children. Their participation in the design and implementation of policies and interventions is critical to ensure their needs are addressed, particularly for those in difficult situations and those experiencing developmental delays, disabilities and behavioural and mental health challenges (Leppo et al. 2013; Vargas-Barón 2019). Several jurisdictions have implemented consultation mechanisms (mostly at the municipal level) to bring children and young people into the policy-making process (Leppo et al. 2013). Further, the establishment of multi-sectoral early childhood committees at the community level has been shown to support successful policy implementation (Vargas-Barón 2019). Community-building initiatives that increase cohesion, co-operation and interpersonal trust among children and adolescents, especially in communities with low social capital, are required to level up the social gradient.

Importantly, participatory approaches can provide settings for meaningful youth engagement (Patton et al. 2016). Adolescents and young adults are central actors in their own lives and well-being and their meaningful participation and engagement are essential for effective action (Patton et al. 2016). This same engagement is also important for their own emotional and social development. Sustainable systems and processes are needed in which engagement becomes a normal part of their lives (Patton et al. 2016).

Collective impact is one structured approach to collaboration among partners from different sectors across government authorities and community partners toward a common agenda (Alberta Education 2017; De Montigny, Desjardins and Bouchard 2019). It offers a consistent language for the pursuit of cross-sector collaboration by focusing on the critical conditions required for success: a common agenda, mutually reinforcing activities, continuous communication, a shared measurement system and a backbone support organization (De Montigny, Desjardins and Bouchard 2019). Backbone infrastructure ensures dedicated staff, ongoing support, co-ordination, progress and accountability reports and governance-related operations. It creates essential linkages across and within governance levels, from executive and steering committees to working groups and the community at large (De Montigny, Desjardins and Bouchard 2019).

2. CREATE A CROSS-SECTORAL GOVERNANCE STRUCTURE

Government's role is to establish legislation, policy and standards; allocate funding; and support the development of programs, professional development and initiatives that contribute to the well-being of all Albertans (Alberta Education 2017). Sound governance, a capacity to implement within the relevant sectors and good information systems to monitor implementation and health outcomes are key (Patton et al. 2016). In addition, transparent and accessible data for the inclusion of sectors beyond health-service delivery and for the engagement of civil society are essential. This requires an authorizing environment from the highest levels of government with an identified lead ministry or institutional representative acting as co-ordinator and holding an official mandate with clearly defined roles (Leppo et al. 2013; Patton et al. 2016). Executive-level leadership is required to foster leadership at all levels, dedicate capacity and resources and to create an environment for cultural change in practices and ways of working that look outwards, encourage dialogue and support learning and innovation (World Health Organization 2018).

The formation of a cross-cutting group that is inter-sectoral, inter-institutional and multidisciplinary is needed to support collaboration, planning and implementation, distribution of resources and assessment, monitoring and accountability of efforts (Leppo et al. 2013; Clark et al. 2020). Alberta does not appear to have a cross-ministry structure in place to guide or monitor child and youth health and well-being legislation and initiatives, such as the *Children First Act* or the implementation of the Child and Youth Well-being Review and Action Plan. Such a structure would provide needed leadership, foster collaboration and support community-level partnerships and province-wide networks. Governance structures and mechanisms should enable alignment, connectivity and accountability across government ministries as well as enable collective accountability across civil society.

Well-aligned with the literature, the Alberta environmental scan identifies a set of primary ministries with responsibilities related to child and youth health and well-being: Children and Family Services; Health; Mental Health and Addiction; Education; Seniors, Community and Social Services; and Justice would represent a core group within a cross-ministry structure or committee. A governance structure could include a multi-ministry approach with participation across sectors and levels of government (horizontally) and throughout community and society (vertically).

While not an exhaustive list, several other ministries were cited in documentation as having a specific role to play. These include the ministries of Advanced Education; Indigenous Relations; Public Safety; Culture; Municipal Affairs; Service Alberta; Transportation; Environment; and Affordability and Utilities.

Whereas Alberta's Standing Committee on Families and Communities is a legislative policy committee that may effectively carry out functions in relation to legislative processes, a similar committee or different structure, such as an advisory council comprised of key ministries discussed, is needed for the executive branch of government to ensure efficient policy implementation, participation and accountability.

Learning From and Building Upon Cross-Sectoral Initiatives

Strengths, weaknesses and opportunities of existing and previous cross-sectoral initiatives can be assessed and built upon, leveraging successes and effective approaches. The environmental scan identified a number of cross-sectoral initiatives and precedents for cross-collaborative working committees and reference groups for specific and/or time-limited initiatives (Alberta Education 2017; GOA 2019a, b; ECCA 2022; PolicyWise 2023; Alberta Health and Wellness 2005). In some rare instances, cross-ministry protocols have been developed to guide ongoing planning and service co-ordination between ministries (GOA 2019b) while in other cases, national networks and agreements support provincial cross-ministry collaboration (Pan-Canadian Joint Consortium for School Health – Governments Working Across the Health and Education Sectors 2022).

Notably, several community-driven collaborations, research and policy initiatives specifically geared toward early childhood development (ECD) in Alberta have taken a cross-sectoral view and called for integrated and multi-sectoral approaches (Evaluation Capacity Network 2022; The First 2000 Days Network 2022; ECCA 2022; Muttart Foundation 2023; Alberta Family Wellness Initiative 2020). Over the past 10 years, the Alberta Family Wellness Initiative (AFWI), has mobilized scientific knowledge on early childhood development leading to cross-sectoral policy and practice integration throughout the province (Alberta Family Wellness Initiative 2022). AFWI's Resilience Scale Framework applies an individual, organizational and systems lens through cross-sectoral professional development and communities of practice focused on building resilience (Alberta Family Wellness Initiative 2023).

Several other cross-sectoral initiatives identified in this environmental scan, such as the Early Development Instrument (EDI) appear to have lapsed and there does not appear to be a cross-sectoral strategy or framework to support ECD in the province. Understanding and learning from current and past initiatives is an important first step in setting up an effective cross-sectoral approach.

Accountability and Transparency

Many initiatives identified in the environmental scan appear disrupted — starting, stopping and changing course with different government political leadership and they often lack detailed implementation plans, ongoing accountability instruments and outcomes monitoring to ensure they are sustained and align to desired goals. Permanent or long-term governance structures that include both government and civil society partners do not only help with efficient implementation of cross-sectoral efforts, but also increase accountability.

There are different ways in which the executive can aim to be accountable for their actions in the sense of staying true to their promises or following through with established plans. The idea of accountability comes with conceptual ambiguity as its wide use has expanded its meanings, but it commonly refers to constraints on the use of power (Lührmann, Marquardt and Mechkova 2020; Bovens 2007). The two main dimensions of accountability often involve answerability (mechanisms of monitoring and oversight including transparency) and enforcement (Lührmann, Marquardt and Mechkova 2020). Some scholars have broken down the concept of accountability into spatial directions between actors, such as vertical (between citizens and government), horizontal (between different government institutions) and diagonal (between media/civil society and government) (Lührmann, Marquardt and Mechkova 2020). One of the commonly understood prerequisites for public accountability is transparency (Meijer 2014). For public policy and advocacy purposes, the two concepts are often referred to as twin principles with the belief that an open and transparent government enables efforts to influence the behaviour or decision-making of powerful institutions by holding them accountable in the public eye (Fox 2007). The different actors in Alberta all play a role in monitoring the implementation of strategies to improve accountability.

3. ENHANCE DATA AND MONITORING EFFORTS

Improving measurement and undertaking consistent monitoring of outcomes and system performance can inform evidence-based public decision-making. Government can work with partners to identify and select existing measures and indicators across sectors and synthesize data in a central reporting platform.

The environmental scan revealed numerous surveys, datasets, data sources, frameworks and dashboards at the federal and provincial levels that contain data or indicators related to child and youth health and well-being in Alberta. Here we describe considerations based on our interpretation of the current data landscape and insights from literature on the topic of child and youth health and well-being indicators.

The Benefit of Monitoring Indicators

The need for policies based on sound evidence is widely accepted. Measuring outcomes and system performance can reveal important gaps and opportunities to apply policy levers for change. The role of evidence in policy-making is key to understanding policy impact, reviewing policy design, monitoring progress and measuring the distribution of policy outcomes across different groups (Pollock et al. 2018).

Measuring and understanding child and youth well-being are ongoing, multi-faceted efforts (UNICEF Canada 2019). Different objective and subjective measurement approaches including social indicators, self-report surveys and child and youth-centred studies can be used, and each has its strengths and limitations (Pollock et al. 2018). Despite limitations, the role for indicators and frameworks is emphasized as critical to inform better policy-making (Richter et al. 2019; Patton et al. 2016; Clark et al. 2020; OECD 2021; UNICEF Canada 2019). Data that are timely, developmentally relevant, age and sex disaggregated, defined to a local level and that can allow comparisons over time and track inequalities can enable responsive action (Patton et al. 2016). These data can be complemented by other research initiatives and methods as most appropriate. Synthesized data within a transparent central reporting framework can facilitate regular monitoring of well-being outcomes, inform public decision-making and improve system performance.

Connecting What We Want to Know With What We Have

Informed by a shared vision of desired outcomes, key questions about the current state and future aspirations for child and youth health and well-being will emerge and highlight data and evidence gaps. Together with the stewards of the data sources identified in this environmental scan, data can be reviewed to determine what current information and indicators exist that may be meaningful to monitor and are reasonably accessible. Knowledge gaps can be collaboratively identified through participatory approaches and priorities can be determined through consensus-building processes.

Existing Frameworks and Approaches Elsewhere

Promising practices globally and in Canada, some of which are highlighted in this scan, can be leveraged in the development of indicators and measurement approaches in Alberta. The merits and limitations of approaches used in other jurisdictions can be weighed. B.C.'s indicator framework (B.C. PHO and CIHI 2013), for example, includes physical health and well-being, mental and emotional health and well-being, social relationships, economic and material well-being and cognitive development. The framework considers five ecologies: the individual; family and peers; schools; communities; and society and culture. Criteria for indicator selection included those significant to the well-being of children and youth, relevant to policy, easily understood, amenable to comparability, capable of producing estimates for key subgroups and developed using rigorous methods (B.C. PHO and CIHI 2013). Discussion of existing frameworks and approaches elsewhere can illuminate considerations for Alberta-focused efforts.

A Shift From Deficits to Strengths and Outputs to Outcomes

Child indicators have historically focused on child survival and over time they have become more inclusive of child well-being, shifting from primarily focusing on negative outcomes to focusing more on positive outcomes (Ben-Arieh 2008a, b). This evolution is apparent in Alberta. Much existing and available health data identified within health dashboards include what may be viewed as deficit-based or disease-oriented indicators, such as mortality rate, cause of death, morbidity and injury rates and risk factors. However, some of the more recent health dashboards include a broader range of diverse indicators largely from self-report surveys (Alberta Health and Alberta Health Services 2022a). The Youth Positive Mental Health Surveillance Indicator Framework and data tool (PHAC 2023b) is a good example of a framework that provides information on health outcomes and both associated risk and protective factors across four domains: individual, family, community and society.

Several program- and sector-specific strategies and evaluation frameworks identified in this scan, such as the FCSS Outcomes Model (GOA 2014a) and the Well-being and Resiliency Evaluation Framework (GOA 2019d) include consideration of strengths and resilience along with risk and protective factors; however, provincial population-level data do not appear to be reported. This is possibly because data that denote positive dimensions of well-being and factors that contribute to improved health can be more difficult to identify, define and measure. Siloed strategies and information management systems, limited data collection, aggregate reporting capacity and general unwillingness to invest in these areas present additional barriers. To this end, much of the data identified in the scan were performance-based rather than outcomes-based. Program output measures were more commonly reported than outcomes measures within both strategy-level and report-back documentation. Again, this is likely because the latter are more difficult to measure and quantify.

Embracing Innovative Approaches

As the science of adversity and resilience advances, there is increased potential in the appropriate and selective use of biomarkers in primary health care to address the effects of adverse experiences on child well-being (Shonkoff et al. 2022). For example, AHS recently began including Adverse Childhood Experience (ACE) data as a part of patient electronic medical records. The inclusion of these data can help inform health-care providers and patients about the impacts of early life experience on lifelong health outcomes and eventually better inform the allocation of resources by policy-makers.

Other Forms of Evidence, Knowledge and Research Methods

Traditional survey methods and general population data often miss hidden, hard-to-reach populations and viewing the situation of children through population averages alone risks masking the realities of those experiencing forms of marginalization (Clark et al. 2020). Indicators therefore should reflect inequalities, deprivation and differences across groups of children (OECD 2021). Waves of survey data help researchers to examine change over time at cohort or aggregate levels and enable regional comparability; however, they do not necessarily enable understanding of an individual's journey that may be linked to their subjective well-being (Pollock et al. 2018).

Disaggregated data analysis, administrative data analysis, qualitative methods and community-based participatory research and other forms of research and evaluation complement indicators in telling the more in-depth story of health and well-being of children and youth in varying contexts. Longitudinal perspectives are an important means of better understanding family and educational factors, poverty and equality, youth migration, multiculturalism and factors such as the transition from school to work and mental health (Pollock et al. 2018).

Data and Evidence Availability

Population health indicators and data at global, national and subnational levels are needed to monitor health and guide resource allocation (Stevens et al. 2016). However, the availability of health data for every population and year is limited and discrepancies in available measurements can limit their comparability over time or across populations. As a participant in OECD's Initiative to Strengthen Health Information Infrastructure, Canada is identified as one of the stronger performing countries in having policies, regulations and practices that foster the development, use, accessibility and sharing of key national health datasets for research and statistical purposes while also having a high degree of recommended health data governance policies and practices in place (OECD 2022a).

At a national level, a number of health datasets are accessible via Statistics Canada. The Canadian Institute for Health Information (CIHI) is developing a secure virtual analytic environment for national health-care datasets where researchers can access data (OECD 2022a). However, provincial/territorial jurisdictions are cited as having legal restrictions or policy barriers to dataset linkages, particularly for the linkage of health and non-health data (OECD 2022a). Our environmental scan reflects this reality in Alberta. A large volume of health data exists, some of which can be used to inform monitoring, but significantly less data are accessible outside of health. This major challenge needs to be addressed. Previous multi-sector initiatives that reported more holistically on data, such as the Alberta Child Health Surveillance Report (Alberta Health and Wellness 2005), the Child and Youth Data Lab (PolicyWise 2023) and the Early Development Instrument initiative (ECCA 2016) appear to have been discontinued. This corresponds with the significant data and evidence gaps identified by the Child and Youth Well-being Review (GOA 2021). A concerted effort must be made to fill the gaps in child and youth mental health, education and social data with investments in improved cross-sectoral data collection and monitoring. Rather than accepting the data as they have historically been collected, measures and data should be identified through research and engagement.

4. FOCUS ON HEALTH EQUITY

It is critical to prioritize health equity in efforts to monitor and improve outcomes and it will be important to identify regional priorities and focus areas with input from a wide range of perspectives. This requires identifying populations of children and youth and equity-deserving groups who have been historically marginalized by systems and who can be prioritized in efforts to monitor and improve outcomes.

The report "Key Health Inequalities in Canada: A National Portrait" states health inequalities are persistent and, in some cases, growing in Canada (GOC 2018). It presents results for 22 indicators that represent some of the most widespread and pronounced health inequalities in Canada (GOC 2018) and notes significant health inequalities among Indigenous peoples, sexual and racial minorities, immigrants and people living with functional limitations (GOC 2018). In addition, a gradient of inequalities was seen for many indicators by socioeconomic status (income, education levels, employment and occupation status). Indicators featured were selected to cover a range of health outcomes, health behaviours and broader determinants of health. They were chosen based on whether they revealed particularly widespread or pronounced inequalities across population groups, allowed for systematic disaggregation of data across key population groups and were policy-relevant and actionable.

Developmental vulnerability in early childhood measured by the Early Development Instrument among children living in the most materially and socially deprived areas was more than twice as high as among children living in areas least deprived (GOC 2018).

The Pan-Canadian Health Inequalities Reporting Initiative and the 2018 "Key Health Inequalities in Canada: A National Portrait" by PHAC, CIHI, Statistics Canada and the Pan-Canadian Public Health Network (PHN) frame considerations related to advancing child and youth health equity. The report provides a series of recommendations including action on social determinants of health across the life course with evidence-informed policies, using a Health in All Policies (HiAP) approach and ongoing monitoring and evaluation. It suggests a combination of targeted and universal policies and proportionate universalism, in which there is universal delivery of policies and interventions across the whole population but at different levels of intensities depending on the varying needs of specific sub-groups (GOC 2018).

Future efforts should specifically include the development of a parallel path led by Indigenous researchers, elders and knowledge keepers that focuses on Indigenous children and youth. The "Key Health Inequalities in Canada: A National Portrait" report includes perspectives shared by the First Nations Information Governance Centre (FNIGC) and Métis National Council (MNC) that are crucial in contextualizing considerations for addressing the health-planning interests and self-governance rights of Indigenous communities (GOC 2018). There are important learnings to be fostered through collaborative dialogue and understanding of strengths of Indigenous worldviews.

DIALOGUE FORUM

In June 2023, the University of Calgary's Alberta Children's Hospital Research Institute and the School of Public Policy hosted a dialogue forum to bring together a range of perspectives on the topic of child and youth health and well-being policy and monitoring in Alberta. Its objectives were to:

• Create a shared vision for improved and aligned policy-making that aligns with "One Child, Every Child," the University of Calgary's new multi-year child research initiative;

• Identify policy principles and priority areas for action to advance the shared vision;

• Discuss and validate the findings from the environmental scan on child health and well-being policies, initiatives, partners and data sources; and

• Achieve consensus on key considerations and specific actions that can be taken immediately following the forum.

More than 100 representatives from different organizations and institutions across various sectors participated in the forum, including:

• Indigenous community leaders;

• Government (provincial, federal, municipal) representatives;

• Researchers and students;

• Leaders from community organizations and not-for-profits, foundations and youth-serving organizations; and

• Professionals from the health, education, justice and social services sectors.

A draft version of this briefing paper was shared ahead of the event and remained open to feedback until mid-July.

Among participants who attended, there was general consensus on the four key considerations for paths forward and general validation of the environmental scan's findings.

Policy principles and priorities that emerged as themes from participants and aligned well with the four key considerations and paths forward, included:

• Cross-sectoral/ministerial collaboration

• Putting children and youth at the centre

• Community capacity

- Equity/EDI/inclusivity/accessibility

- Breaking generational cycles

- Early intervention/prevention

- Data/measurement/outcome monitoring

- Cultural competency in policy-making

- Community/family needs and voices

- Lived experience — all voices need to be heard

- Importance of implementation

- Growing up in a thriving setting

- Holistic approach (e.g., physical, emotional, spiritual, cultural, social)

Participants were divided into breakout groups to discuss the four themes. There were rich discussions and a number of ideas and considerations were captured regarding opportunities, challenges and actionable next steps. Participants expressed interest in convening four committees following the meeting to review the feedback on each theme and to build a functional action plan to govern work in each area. These committees are planned to convene in alignment with the "One Child, Every Child" initiative and connect to the eventual cross-sectoral governance structure recommended in this strategy.

CONCLUSION

Global and national monitoring efforts tell us we need to pay greater attention to the health and well-being of children and youth across the country and in Alberta. It is our collective responsibility to ensure the conditions that support their health and well-being. This environmental scan provides a view of the provincial policy landscape over the past 10 years. Numerous policies and initiatives across multiple ministries have been undertaken over the past decade at the provincial level and they need to be aligned to a central vision and population-level assessment plan co-designed through participatory approaches with youth, families and community partners with a focus on under-served equity-deserving groups. Hundreds of organizations are involved across the province, offering significant opportunities to achieve a more connected collective effort.

A cross-sectoral governance structure is critical to facilitate alignment and collaboration and drive accountable, transparent decision-making and action. Numerous data sources provincially and nationally can be reviewed and discussed to determine what data may be leveraged to monitor child and youth health and well-being in the province. Meaningful evidence will include many forms of data, research and knowledge. Existing frameworks and approaches, combined with further research and engagement, can inform measurement and monitoring processes that will benefit children and youth. Critically, data must extend beyond looking at a few health outcomes. Policy leadership must extend past the health sector and include a cross-ministerial strategic approach. Alberta has a substantial foundation of work to build upon and it has the tremendous strengths and commitment of a community of partners across the province. Together, we can forge paths toward a brighter future where the health and well-being of children and young people is safeguarded.

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APPENDIX A: ENVIRONMENTAL SCAN DETAILED METHODOLOGY

PURPOSE AND OBJECTIVES

The aim of this environmental scan is to describe government activity and key publications related to child and youth health and well-being in Alberta and highlight opportunities for cross-sectoral collaboration using a health-in-all-policies (HiAP) approach. The environmental scan is a necessary first step in understanding the Alberta landscape and will serve as a foundation for broader stakeholder engagement and input. This information, along with the findings of a scoping review of existing international indicators, can be used to inform the identification of indicators for child and youth health and well-being for Alberta. Specifically, it has the following objectives:

- To identify and map policies, initiatives and stakeholders;

- To identify key existing population-level measurement activity and data sources in Alberta for future analysis; and

- To apply a HiAP lens to highlight implications and opportunities for multi-sectoral co-ordination to improve child and youth health and health equity.

SEARCH STRATEGY AND INCLUSION/EXCLUSION CRITERIA

Using the University of British Columbia's guide to Grey Literature for Health Sciences (University of British Columbia 2022), a search protocol was developed and a grey-literature search was conducted between September and December 2022 to identify publicly available literature from official government organizations published in the past 10 years related to child and youth health and well-being in Alberta. Documents and web pages were included for review if they contained population-level initiatives in Alberta, had specific relevance to Alberta or directly referred to Alberta. While the inclusion period was 2013 to 2022, older documents were reviewed and included when deemed to have very high relevance to the scan's objectives. To identify interested groups, stakeholders and networks, non-governmental organization websites were searched; however, the scan was primarily limited to material published by official government and governmental organizations.

The search included provincial and federal government websites, health-related grey-literature databases that publish Alberta-related child and youth health and well-being content and internet searches using Google. Websites searched included:

- Government of Alberta (alberta.ca; open.alberta.ca; ocya.alberta.ca; healthanalytics.alberta.ca; education.alberta.ca)

- Alberta Health Services (albertahealthservices.ca; healthiertogether.ca)

- Health Quality Council of Alberta (hqca.ca)

- Government of Canada (canada.ca; gc.ca)

- Canadian Institutes of Health Research (cihr-irsc.gc.ca)

- Statistics Canada (statcan.gc.ca)

Government websites were searched first and when they revealed non-governmental organizations with specific relevance to Alberta, these organizations/websites were captured and searched accordingly. Of these, Alberta-focused websites had priority, but secondary websites with national scope were searched with the inclusion of an Alberta-specific keyword

modifier. In cases where using a website's built-in search functionality did not produce results, or did not narrow result sets sufficiently, Google's advanced site search was used as an alternative means to search web domains for relevant keywords. The first five pages of search results were scanned to capture relevant authorities, organizations and publications. This often resulted in additional snowball searching to locate information based on specific initiatives identified.

Each database and website search was constructed to suit the website's specific parameters and constraints. Grey-literature sources typically have more limited search ability than academic sources; therefore, a flexible strategy was used to include, at minimum, the following keywords:

• "Alberta" was used on non-Alberta-based websites

• "Child/youth health," "child/youth wellness/well-being/wellbeing/quality of life," "child/youth social welfare," "child/youth resilience," "child/youth health data," "child/youth well-being measures/indicators" and "child/youth policy/legislation"

Given the necessarily broad search strategy and volume of results generated, the following documents and content, which were not deemed essential to this scan's objectives, were excluded: Job Postings; Job Descriptions; Employment Resources; Occupational Health & Safety Materials; Building Infrastructure & Capital Project Documents/Updates; Procurement Activities; COVID-19 Vaccination and Emergency Operations; Immunization Scheduling and Operations; Disaster/Emergency Evaluation Reports; Syrian, Ukrainian Refugee Crisis Support; Continuing Care & Congregate Living Documents; Specific School Courses or Curricula; Post-Secondary Education; Adult-oriented Addiction Treatment Services; Supervised Consumption; Child Support Payment Information; Cannabis; Cultural Events; and Translated News & Publications. Ministerial orders were also not captured unless incorporated into acts and regulations. Many services were identified. Some are described when they are deemed useful for policy context or to showcase the breadth of service delivery or networks (e.g., Health); however, they are considered out of scope unless named in policy.

Record Keeping

Due to the need for the search strategy to be flexible to meet the needs and constraints of each website and database, search record-keeping was important. For searches conducted, details were captured in a log with corresponding results attributed to each search. A spreadsheet was used to host a stakeholder register, search log and data collection table. Data extracted included publisher, type of document or content (i.e., legislation/regulatory or policy/initiative/strategy/action plan), sectors involved, and when relevant, the specified framework, domains, measures or indicators identified related to child and youth health and well-being.

Analysis

Key findings were synthesized and summarized. Further research and analysis were undertaken to identify evidence-based approaches that may be appropriate for Alberta's context. This analysis and considerations that emerged aim to increase multi-sectoral policy alignment and monitoring and draw from HiAP literature along with promising practices and lessons learned published by relevant intergovernmental organizations specializing in child and youth health policy, such as OECD and UNICEF.

Limitations

A strength of the methodology used to complete this environmental scan is that it involved rigorous website and database searching; however, it was limited in being primarily a passive scan of web-based information and therefore requires stakeholder dialogue to complete a more fulsome depiction of the Alberta landscape. Stakeholder engagement will further strengthen the information and enrich the context described in this report.

Despite using a rigorous search methodology, results may be missing key sources of data and context if such information was not publicly available or picked up in searches. Further, since sources of information were largely web-based, it is also possible that stale information is reported without recognizing its outdated status. Similarly, reporting information found and described online may be insufficient in conveying a complete picture of the surrounding context. Significant efforts were made to mitigate limitations by undertaking additional searches and research to understand the context of government initiatives found in this scan. This environmental scan and analysis therefore serve as a baseline of current context and historical activity on which to build by inviting the collaboration and perspectives of diverse community organizations, young people and families.

APPENDIX B: BACKGROUND LITERATURE SYNTHESIS: CHILD WELL-BEING AND PUBLIC POLICY

A synthesis of concepts is provided below through a literature review to understand the connection between child and youth well-being and development concepts, outcomes measurement and public-policy lenses that can support future policy analysis. These concepts have grounded and influenced the recommendations provided.

CHILDHOOD, ADOLESCENCE AND LIFELONG HEALTH

Childhood is an important period of opportunity and vulnerability. There is substantial and recently reviewed neurobiological and socio-behavioural evidence on the critical and sensitive development that occurs prenatally and through early childhood (Perrin et al. 2020; Clark et al. 2020; Britto et al. 2017; Black et al. 2017). Early experiences (shaped by social, economic, cultural and environmental factors through gene-environment interaction) powerfully influence development and children's ability to thrive through adulthood. Adolescence presents another key window of developmental opportunity in which lifelong nutrition, exercise, substance use, mental health and interpersonal relationship patterns can be laid (Clark et al. 2020). Extensive research has shown that non-communicable diseases are primarily attributed to modifiable risk factors that often emerge during these early years (Akseer et al. 2020; Patton et al. 2016). Approximately 70 per cent of premature deaths in adulthood are estimated to be the result of harmful health-related behaviours initiated in childhood and adolescence (Akseer et al. 2020).

THE SOCIAL ECOLOGICAL PERSPECTIVE

Understanding child and youth health and well-being and levers for positive change entails a holistic view of systems, structures and contexts. The social ecological model recognizes the influence of environmental and contextual factors including family, community, sociocultural, economic, political and legal contexts — and surrounding structures and services — on child and youth development over the life course (UNICEF 2022a). This model also emphasizes that children, youth and families bring their own skills, assets and resources for coping with challenges and it highlights the importance of networks of people and the structures that surround them (UNICEF 2022a).

ENVIRONMENTS, RELATIONSHIPS AND EXPERIENCES

Environments in which children and young people grow and develop are not hierarchical but are interconnected (Leppo et al. 2013; Patton et al. 2016; OECD 2021). The family environment is the most intimate while broader environments include residential communities and neighbourhoods, relational and cultural communities, social ties and childhood development and educational environments (Leppo et al. 2013). A broad array of relationships, experiences and environmental conditions in these contexts matters. A supportive physical environment and nurturing conditions through quality of time and care provided by caregivers are key, and these are influenced by families and communities having sufficient income and employment, health resources, early childhood education, safe neighbourhoods and decent housing (Leppo et al. 2013).

As children grow, parents and families continue to be an important influence and source of support. The knowledge, skills, financial resources and community support available to families remain essential determinants of adolescent health and well-being (Patton et al. 2016). In addition, peers, teachers, health-care providers, club and community organization staff and employers

have increasingly important roles in young lives. For some young people, important influences may extend to the judiciary, police or youth justice and social service providers whose capacity to support and understand young people's health, social and developmental needs will affect their ability to effectively promote child and youth well-being (Patton et al. 2016).

SOCIOECONOMIC CONTEXTS AND INEQUALITIES

Environments and experiences are situated in a number of contexts, including socioeconomic, shaped by factors at the regional, national and global level (Leppo et al. 2013). Children in socioeconomically disadvantaged families experience poorer well-being and the lifelong implications of this globally, and the social gradient in health and well-being outcomes is well established (Pickett and Wilkinson 2015; Hertzman and Boyce 2010; Moore et al. 2015; Clarke and Thévenon 2022). However, the mechanisms through which this occurs are complex (Hertzman and Boyce 2010; Letourneau et al. 2013). Components of socioeconomic status intersect with multiple individual, family and community systems to create the conditions for healthy child and adolescent development (Letourneau et al. 2013).

DEFINING AND MEASURING CHILD AND YOUTH HEALTH AND WELL-BEING

While there is no universally accepted definition for well-being or common approach to measuring it, well-being broadly encompasses physical, mental and social domains and is often an overarching concept used to refer to quality of life (Pollock et al. 2018; Centers for Disease Control and Prevention 2018; OECD 2021). The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity" (GOC 2008). Concepts of well-being connote different meanings depending on diverse perspectives and cultural, social and local contexts. Generally, the concept acknowledges that people's lives are complex and that quality of life depends on a range of different things, each bringing its own value and meaning, often determined by material resources, physical and mental health, skills and abilities, social and cultural lives and connections with others (OECD 2021).

Well-being frameworks and indicators are emerging around the world and recently in Canada to better incorporate quality-of-life measurements into government decision-making and budgeting, to complement and contextualize the shortcomings of traditional economic indicators as stand-alone measures of the well-being of societies (OECD 2021; GOC 2022e). For example, OECD's Measuring What Matters for Child Well-being Policies initiative presents a dashboard and aspirational measurement framework of internationally comparable indicators on children's well-being outcomes with emphasis on children's rights and childhood as a key determinant of lifelong health (OECD 2021). Monitoring child well-being requires data and is critical if policy-makers are to design supportive policies (Clarke and Thévenon 2022; OECD 2021). This includes sound information on a range of areas, including child and youth material living standards, physical and mental health, social lives and learning and education (OECD 2021).

Child well-being indicators and dashboards can help by providing a picture of how children are doing in different areas of life and can contribute to an improved shared understanding of where key challenges lie and how to address multiple disadvantages through integrated well-being strategies (Clarke and Thévenon 2022). Various frameworks and approaches can be tailored to regional needs, contexts and data availability, and can be used to drive decision-making toward improvement over time.

HEALTH INDICATORS

Many kinds of data and indicators are used across a variety of domains of well-being. Indicators can simplify a complex array of information about the health–environment–development nexus and provide a synthesized view of conditions and trends for decision-makers and the public toward improved management and policy (Von Schirnding 2002). Health indicators summarize information about priority topics related to population health or health-system performance (CIHI 2022a). A number of established health indicators are in use to measure health status, non-medical determinants of health, health-system performance and community and health-system characteristics (CIHI 2022a), and there are guidelines for reporting population-level estimates of health status and health determinants, health behaviour and health exposure indicators (Stevens et al. 2016).

PUBLIC POLICY AND CHILD AND YOUTH OUTCOMES

Policies are defined broadly as systems of laws, regulatory measures or any action taken by government (Howlett and Cashore 2014). Public policy can be a powerful intermediary between children's conditions and outcomes (UNICEF 2020). OECD's Measure What Matters for Child Well-Being framework is designed to support monitoring and policy decision-making by factoring in extensive literature regarding the links between public policies, legal frameworks and children's well-being outcomes (OECD 2021). These include childcare, family and parenting support and health-system policies. The framework also includes dimensions for housing policies, education policies and environmental policies (OECD 2021).

Cross-Ministry Governance Structure

Global literature highlights that multi-sectoral strategies across key sectors of health, education, child protection and social protection must be applied at developmentally appropriate times during the life course to create sustained conditions for children to achieve their developmental potential (Britto et al. 2017; Vargas-Barón, Diehl and Small 2022; Black et al. 2017; Richter et al. 2019; Vargas-Barón 2005, 2019). The health sector is often closest to families and children in their early years but over time, other sectors (such as education) gain more access and responsibility through different forms of childcare, early childhood and pre-school education (Leppo et al. 2013). Settings for action extend to communities, places of employment, road transportation, media and structural, legal and policy environments (Patton et al. 2016). Having cross-sectoral structures in place can facilitate policy-making and implementation and bring investment in families, communities, schools and health services that are essential to act on health risks and support environments conducive to child and youth well-being (Patton et al. 2016).

Multi-Sectoral Policy Approaches, Principles and Lenses

To improve child and adolescent health and well-being policy, principles and priorities need to be identified and analyzed. HiAP is an approach to public policy development that systematically takes into account the potential health impacts of all policies and decisions in order to improve population health and health equity (Leppo et al. 2013). The approach is grounded in principles of legitimacy, accountability, transparency, access to information, participation and sustainability. HiAP approaches have gained traction recently as awareness of the link between health and other policy areas has increased, driven in part by the COVID-19 pandemic (Green et al. 2021) and other complex global challenges such as rising rates of chronic disease and climate change (Tonelli, Tang and Forest 2020; Bellefleur and Jacques 2021). Early childhood development (ECD-HiAP) approaches which focus on improving early life development outcomes (Leppo et al. 2013)

increasingly emphasize the importance of supportive multi-sectoral policy to enable the fulfillment of child development goals and ensure services address equity, quality assurance and accountability (Vargas-Barón, Diehl and Small 2022). Recently, UNICEF Canada developed a Child Policy Lens that can be applied to policy decision-making (UNICEF Canada 2023).

APPENDIX C: NATIONAL CONTEXTS

Alberta's context is situated in the broader federal policy landscape and influenced by approaches in other jurisdictions. Some relevant federal and provincial policies, reports and monitoring initiatives identified through our scan are described for context and informed analysis and recommendations.

FEDERAL INITIATIVES

A Brief History

Historical federal policies and initiatives provide relevant context for today's efforts to monitor child and youth health and well-being in Canada. The Government of Canada's 2001 report, "Safeguarding the Future and Healing the Past," outlined actions to address institutional child abuse through three key themes: protecting our children, making the criminal justice system more responsive to victims and responding to the legacy of residential schools (GOC 2001). This preceded the historic residential schools settlement agreement and the initiation of the Truth and Reconciliation Commission (GOC 2022b). The report affirmed the federal government's commitment to the well-being of Canada's children and youth and outlined several child- and family-oriented initiatives in partnership with provincial and territorial governments. Many initiatives combined prevention, intervention and education measures focused on children and families at risk (GOC 2001).

The Chief Public Health Officer's 2009 report, "Growing Up Well," put a spotlight on child and youth health and well-being in Canada and the critical importance of childhood in shaping health over the life course (Chief Public Health Officer 2009). It provided a snapshot of child and youth health and well-being alongside a selection of indicators, including a history of 150 years of progress toward improved health outcomes and urgent priorities for attention. The report touched on notable federal, provincial and territorial agreements and strategies that occurred at the turn of this century, including the ratification of the United Nations Convention on the Rights of the Child (UNCRC) (GOC 2021a).

National Child and Youth Health and Well-Being Monitoring and Data Programs

Today, there are many federal initiatives concerning child and youth health and well-being monitoring. Statistics Canada, the Public Health Agency of Canada (PHAC) and the Canadian Institute for Health Information (CIHI) report on many indicators produced from a range of available sources, some of which are age-specific (Statistics Canada 2021a; PHAC 2023a, b; CIHI 2022a, c, d; GOC 2021c). Canada's most recent UNCRC update (GOC 2019c) cites national child- and youth-specific data programs, such as the Canadian Health Survey on Children and Youth (CHSCY) (Statistics Canada 2019, 2022) and the Youth Positive Mental Health Surveillance Indicator Framework (PHAC 2022b, 2023b). The Health Behaviour in School-aged Children (HBSC) study (PHAC n.d.), in collaboration with the WHO, looks at young people's well-being, health behaviours and social contexts. A recent "Portrait of Youth in Canada" publication (Statistics Canada 2021b) includes chapters on health and other domains of youth well-being such as education, employment, environment and civic engagement, and a chapter dedicated to Indigenous youth (Statistics Canada 2021c). More broadly, the Canadian Community Health Survey provides population-level information on health determinants, health status and health-system use (Statistics Canada 2023b). There are also a variety of indicators monitored on population health and health-care system effectiveness (Centre for Surveillance and Applied Research 2021a; CIHI 2022a, b; GOC 2021b; PHAC 2019, 2023a, b).

Monitoring by Intergovernmental Organizations

In addition to OECD, WHO and UN-led monitoring, Canada-led monitoring initiatives are underway that connect to global goals. The Sustainable Development Goals (SDGs) and child and youth health and well-being are linked. A Canadian Indicator Framework (CIF) has been developed to measure Canada's progress toward the 2030 SDGs which aim to address social, economic and environmental challenges such as ending poverty, improving health and education, reducing inequality and addressing climate change (GOC 2023c). Data are disaggregated to help identify regional disparities for specific marginalized groups including children, immigrants, members of visible minorities, people with low incomes, First Nations, Métis, Inuit peoples, people with disabilities and members of the LGBTQ2 community (GOC 2023c). Separately, UNICEF Canada recently developed the Canadian Index of Child and Youth Well-being which presents 125 indicators across nine interrelated dimensions of well-being (UNICEF Canada 2019). This index also tracks how Canada is delivering on child-related SDGs.

Child and Youth Policies

While not exhaustively captured, there are several other federal child- and youth-focused policies. Two notable policies are the Canada Child Benefit (CCB) (GOC 2022c), a tax-free benefit that provides support to low- to middle-income families to help with the cost of raising children, and the ongoing Canada-wide early childcare agreements with the provinces (GOC 2021b). Canada's Poverty Strategy (GOC 2015) monitors child poverty indicators. Its 2019 update report indicates the CCB helped almost 300,000 children exit poverty between 2015 and 2017 (GOC 2019a). Youth-focused policy examples include Canada's Youth Policy (GOC 2019b) and Canada's youth justice legislation (GOC 2021d).

PROVINCIAL INITIATIVES

Provinces lead the delivery of many policy areas, such as health systems, education, skills development, justice, social services, road safety, affordable housing and sustainable infrastructure (GOC 2023c). Since the turn of this century, several provinces have published comprehensive reports on child and youth health and well-being. These include:

British Columbia

B.C.'s Provincial Health Officer published a 1998 feature report, "The Health and Well-being of British Columbia's Children (B.C. PHO 1998). B.C. went on to produce a joint summary report with CIHI on indicators (B.C. PHO and CIHI 2013) which outlined a framework of over 50 indicators across five dimensions of child and youth health and well-being and led to B.C.'s first assessment report in 2016 (B.C. PHO 2016).

Alberta

Alberta published the "Alberta Child Health Surveillance Report" (Alberta Health and Wellness 2005), a comprehensive cross-ministry report covering health determinants, health status and health-service use. In 2021, an Alberta Child and Youth Well-being Review was carried out to understand the effects of the pandemic on youth mental health, which resulted in the development of a provincial Child and Youth Well-being Action Plan.

Manitoba

The Manitoba Centre for Health Policy published the 2008 "Manitoba Child Health Atlas Update" which analyzed over 80 indicators of child health and development and highlighted significant disparities in child outcomes across socioeconomic status and region of residence, as well as by gender and age (Brownell 2008).

Nova Scotia

Non-governmental organizations also lead provincially focused monitoring initiatives. Last year, using UNICEF Canada's Index of Child and Youth Well-being, and guided by several other frameworks — social determinants of health, child rights, SDGs, social inequity and Adverse Childhood Experience (ACES) — Dalhousie University published "One Chance to Be a Child," a data profile on child and youth health and well-being in Nova Scotia (Department of Pediatrics and Healthy Populations Institute 2022).

INDIGENOUS CONTEXTS

Ongoing reconciliation with Indigenous peoples and communities is fundamentally important to consider in efforts to identify and define health and well-being indicators for children and youth in Alberta. This includes recognizing and respecting the distinct rights and diverse perspectives of First Nations, Métis and Inuit peoples and understanding the intergenerational impacts of colonialism and policies such as residential schools on Indigenous communities.

The federal and provincial governments have committed to collaborating with Indigenous communities and walking the path toward reconciliation together (GOC n.d.a.; GOA 2022m). While not comprehensively discussed in this paper, it is important to acknowledge the complexity and many considerations of the topic of child and youth health and well-being in Indigenous contexts.

The information here is intended to help highlight existing Indigenous-led health and well-being monitoring initiatives, important cultural considerations and the complexity of the governance and data landscape provincially and federally regarding Indigenous children and youth. Collaboration with Indigenous researchers, communities, elders and knowledge keepers is critical to informing paths forward from this work.

Indigenous Rights and Historical Context

A number of policies at the federal level guide nation-to-nation relationships. While not extensively covered, key policy considerations include the ongoing implementation in Canada of the UN Declaration on the Rights of Indigenous Peoples (Department of Justice 2021), the Truth and Reconciliation Commission of Canada's Calls to Action (TRC 2015) and *An Act Respecting First Nations, Inuit and Métis Children, Youth and Families*, to further advance the right of self-determination of Indigenous peoples through their increased jurisdiction in relation to child and family services in their communities (Department of Justice 2019).

The TRC Calls to Action include several targeted specifically to health, one of which calls upon the federal government in consultation with Indigenous peoples, to establish measurable goals to identify and close gaps in health outcomes between Indigenous and non-Indigenous communities, focusing on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence and the availability of appropriate health services (TRC 2015).

The UNDRIP act, which received Royal Assent and came into force in 2021, affirms the human rights of Indigenous peoples and provides a road map for the declaration's collaborative implementation (GOC 2022a). Rights of Indigenous peoples and articles within the act which are of specific relevance to efforts that may be undertaken toward provincial child and youth health and well-being indicators include:

• Indigenous peoples' right to self-determination;

• The right to be actively involved in developing and administrating health, housing and other economic and social programs that affect them;

• Requirements for good-faith consultation and co-operation with Indigenous communities to obtain free, prior and informed consent before adopting legislative or administrative measures that may impact them; and

• An emphasis on the prioritization of the rights and special needs of children (Department of Justice 2021).

Complex Governance, Roles and Service Systems

From a governance and policy perspective, many communities and entities are involved in services and support related to child and youth health and well-being (Health Co-Management (HCoM) Committee 2023; Crowshoe et al. 2021; GOC 2019b, 2020, 2022f; GOA 2022l; AHS 2020a, 2022e; Department of Justice 2019). From a health perspective, the federal, provincial and territorial levels of government share some degree of jurisdiction (GOC 2023b). For example, Indigenous Services Canada (ISC) works with partners to improve access to high-quality services for First Nations, Inuit and Métis peoples (GOC n.d.b.) and offers social programs through First Nations Child and Family Services. In Alberta, the First Nations chiefs, through the Alberta First Nations Health Co-Management Committee, lead a number of subcommittees to support child and youth health and well-being through agreements with the Government of Canada (Health Co-Management (HCoM) Committee). Governed through distinct legislation, Métis settlements and the provincial government partner on service provision affecting children and youth (GOA 2023c). Indigenous Wellness Core, through Alberta Health Services, partners with Indigenous peoples and communities to provide accessible, culturally appropriate health services for First Nations, Métis and Inuit people in Alberta (AHS n.d.).

Child and family service provision is also complex and there are changes underway with the federal enactment of *An Act Respecting First Nations, Inuit and Métis Children, Youth and Families* (Department of Justice 2019). The Alberta Ministry of Children's Services, through the *Child, Youth and Family Enhancement Act*, is responsible for child protection and intervention services, including a number of agreements with delegated agencies (Tremblett 2022; GOA n.d.d.).

Many Indigenous and non-Indigenous governing bodies at the federal, provincial, municipal and community level across the province and a number of health, social and cultural organizations are engaged in systems of care. Jordan's Principle and related long-term reform of First Nations Child and Family Services programs acknowledge that for Indigenous children, youth and families, these landscapes may be difficult to navigate. This may be particularly challenging for urban Indigenous children, youth and families for whom lack of access to relevant, culturally safe services presents additional barriers. There are Indigenous-led research initiatives underway to help map and improve these systems (Indigenous Primary Health Care and Policy Research (IPHCPR) Network in Alberta 2023).

First Nations Information Management, Health Surveys and Indicators

There are numerous Indigenous-led, federal and regional health and well-being monitoring programs (AFNIGC 2012, 2018, 2022; FNIGC 2016, 2018, 2022). Ownership, control, access and possession (OCAP®) is a set of First Nations principles that establish how their data will be collected, protected, used or shared in ways intended to benefit the community and minimize harm, in support of strong information governance on the path to First Nations data sovereignty (FNIGC 2022). OCAP® is a registered trademark of the First Nations Information Governance Centre (FNIGC) and was originally established in 1998 as a precursor to the First Nations Regional Health Survey (FNRHS) (FNIGC 2022). The FNRHS along with the First Nations Early Childhood, Education and Employment Survey (FNREEES), are two large-scale surveys and First Nations-led initiatives administered by FNIGC that are designed, shaped and guided by OCAP®. The Alberta First Nations Information Governance Centre (AFNIGC), as a member of FNIGC, supports the regional and community-level administration and reporting of these surveys (AFNIGC 2012).

The 2016 FNREEES survey was designed to measure the status of early childhood development, education and employment among First Nations children, youth and adults living in First Nations reserves and northern communities across Canada (FNIGC 2016). It includes a comprehensive set of indicators based on a holistic approach to measurement and holistic lifelong learning model (Canadian Council on Learning 2007) that links First Nations lifelong learning and community well-being as fundamentally interconnected dimensions of health and well-being (FNIGC 2016).

A number of Indigenous-led health and well-being indicators have been established for use by First Nations communities. The 2012 FNRHS Alberta report by AFNIGC analyzes 34 health and wellness indicators that reflect the overall well-being. The report notes it as being a first-of-its-kind research initiative in Treaty 6, 7 and 8 communities to have been developed and culturally validated by First Nations themselves (AFNIGC 2012). The report emphasizes the importance of creating an ethical space for research and engagement that involves working with elders and knowledge keepers, respecting First Nations' rights and honouring methods and processes of information sharing that align with First Nations' oral histories. In 2018, the AFNIGC published a set of Indigenous health indicators through a community-based participatory approach with 20 First Nations communities from across Alberta, designed as a base set for communities to build from with their own data and stories (AFNIGC 2018). The model centres around values of culture, language and environment and considers broad determinants of health (AFNIGC 2018).

Health Research, Policy and Practice

Efforts are underway in Canada to advance Indigenous-led health research and program evaluation. Indigenous worldviews, perspectives, histories and approaches must be considered in dialogue on child and youth health and well-being in Alberta. There is complementarity between Indigenous models of holistic well-being and other models described which consider interconnected and interdependent domains and social, environmental and cultural determinants of health. Further dialogue can illuminate how different models of conceptualizing well-being acknowledge relational, cultural and collective strengths (Bryant et al. 2021).

About the Authors

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Christiane Roth is a PhD Student and Research Associate at the University of Calgary – School of Public Policy. She is currently involved in research on disability policy and child wellbeing measurement to align policy and service delivery with child health and wellbeing. With an MSc in Human Rights from the London School of Economics and Political Science she has particular interest in the domestic application of international disability focused human rights frameworks in Canada. Christiane has work experience in policy development and advice that aims at improving participation in society and access to services for marginalized population groups. In this framework, she has lead programs on behalf of the German Development Cooperation and European Union Commission, which included efforts to improve access to legal services for people with disabilities. Her PhD, under the supervision of Dr. Jennifer Zwicker, examines how neuro-disability is considered in policies and service delivery in the justice sector.

Janet Aucoin is a PhD Candidate at the University of Calgary studying Epidemiology through the Cumming School of Medicine. Her PhD thesis is a Mixed-Methods Study that focuses on child injury prevention and physical activity in the built environment through the use of an innovative case-crossover design and incorporating the child's voice through qualitative interviews. Janet has a background in Kinesiology, Adapted Physical Activity and Psychology that led to her interest in child health and injury prevention. Her PhD is funded through CIHR and Alberta Innovates.

Karen Thomas is the Community Engagement Manager with ACHRI where she supports the Child Health & Wellness Initiative, and One Child Every Child research teams. She brings a breadth of experience, most recently as the Director of Community Relations at the Kidney Foundation of Canada, and prior to that as a counsellor at the YWCA's Sheriff King Home. Karen served as Director of Media Relations in the Faculty of Medicine from 2000-2008, a time of exponential growth and change. She was then recruited to the Alberta Heritage Foundation for Medical Research to elevate the media profile of scientists, physicians and research teams at the Universities of Alberta, Calgary and Lethbridge. An alumna of the University of Calgary, she holds two Masters Degrees — Media Studies from Concordia University and Counselling Psychology from Yorkville University.

Heather Marie Boynton is an Assistant Professor at the University of Calgary, Faculty of Social Work, Central and Northern Alberta Region. She joined the faculty in 2020 with over 32 years of frontline experience in Northwestern Ontario as a child and youth worker, social worker, case manager, and family therapist, as well as management in adult mental health. Her teaching interests include spirituality in social work, trauma, grief and loss, child, adolescent and family social work, theory and practice, interprofessional education, field practice, social work in healthcare, mental health and wellbeing. Heather's research interests are focused on advancing knowledge for practice and education in the areas of spirituality and social work. She has examined children's spirituality in trauma, grief and loss in outpatient counselling. She has been involved in spirituality research on mental health, and program evaluation of spirituality groups in mental health services.

Lynden (Lindsay) Crowshoe MD is a Blackfoot primary care physician and researcher, member of the Piikani First Nation, Associate Professor of Medicine and Assistant Dean Indigenous Health at the University of Calgary (UC) Cumming School of Medicine (CSM). He is the NPI of the Education for Equity (E4E) projects and NPI of the Alberta Network Environments for Indigenous Health Research-Indigenous Primary Health Care and Policy Research Network (NEIHR-IPHCPR). He is also the national co-lead of the CCNA (Canadian Consortium on Neurodegeneration in Aging) Team 18, focused on issues in dementia care for older Indigenous people. Dr. Crowshoe has provincial leadership experience in Indigenous PHC (primary health care) services, systems and policy; provides national input on Indigenous PHC; and has led multidisciplinary Indigenous PHC teams both on reserve and urban. He provides clinical service to the urban Indigenous population of Calgary at the Elbow River Healing Lodge, an AHS primary health service model that he developed.

Gina Dimitropoulos has over 20 years of clinical experience in both tertiary care and community based settings delivering family based treatments, group therapy and individual counselling for adolescents and adults with mental health issues. She teaches graduate level clinical and research courses. Gina also has extensive research experience in various methodologies including randomized controlled trials, mixed methods, health services research and qualitative research. Her research is in the area of youth and emerging adults with mental health concerns, chronic health conditions and trauma. She brings expertise in developing and testing interventions in youth and family peer support, patient navigation and care coordination for transitioning adolescents to the continuum of adult services with a focus on youth involved with multiple systems including justice and child protection services. Gina is involved in research to identify the longitudinal impact of child maltreatment and child pornography on the psycho-social development of children and adolescents.

Deinera Exner-Cortens is an Associate Professor and Canada Research Chair (Childhood Health Promotion) in the Department of Psychology, Faculty of Arts, an Adjunct Associate Professor in the Faculty of Social Work, and is jointly appointed to the Department of Psychiatry, Cumming School of Medicine, University of Calgary. She is also the scientific co-director of PREVNet, Canada's healthy relationships hub. She holds a PhD in Developmental Psychology (Cornell University) and a Master of Public Health (Boston University). Dr. Exner-Cortens' research focuses on 1) evaluating healthy relationships resources in school and community settings, 2) developing and evaluating implementation support tools for school-based mental health service delivery; and 3) prevention of adolescent dating violence and suicide. In her work, Dr. Exner-Cortens collaborates with a number of community and research partners both provincially and nationally.

Amy Metcalfe's program of research focuses on examining the impact of medical management of chronic disease in pregnancy on maternal and fetal health; evaluating the ability of alternative models of prenatal care to improve disease control and obstetrical outcomes; and assessing the risk of long-term disease complications following pregnancy. Underlying these key questions is a focus on validation of existing data sources for use in research and the application of novel statistical methods to answer clinically important questions.

Shelly Russell-Mayhew is Associate Dean Research Werklund School of Education, Academic Support Offices Professor, Werklund School of Education, Specialization, Counselling Psychology. The primary objective of Russel-Mayhew's research program is to lead and transform research about weight-related issues like body image (perceptions, attitudes, and experiences about the body), disordered eating (e.g., unhealthy methods of weight change), weight-related disorders (e.g., obesity and eating disorders) and professional conversations and interactions about weight (e.g., weight bias). Body weight and body image (feelings and perceptions about our bodies) are both important to well-being and healthy development. My research is informed by clinical and research experience in interdisciplinary team contexts, as well as linkages between my work in academia and committee work with policy-makers and community partners.

Kelly Dean Schwartz is an Associate Professor in the School and Applied Child Psychology program. He has a Ph.D. in Social Psychology and an MSc in Educational Psychology from the University of Calgary. From 2008-2015, he was Director of the U of C Applied Psychological and Educational Services (U-CAPES), an on-campus clinic serving children and families Calgary and area (now called Integrated Services in Education, ISE). As a registered psychologist (1993), he began his career with a Calgary school board and worked extensively with children and adolescents who had severe learning and/or social/emotional needs. Prior to his current appointment, Dr. Schwartz was on faculty at Ambrose University College for over 12 years where he served as Program Head of Behavioural Science. He has been active on the boards and committees of the College of Alberta Psychologists, the Psychologists Association of Alberta, the Canadian Psychological Association (Family Psychology Section), and HopeShares Canada.

Suzanne Tough is a Professor with the Departments of Paediatrics and Community Health Sciences in the Cumming School of Medicine at the University of Calgary, and Faculty for the MaxBell Public Policy Institute. She is a fellow of the Canadian Academy of Health Sciences, and has been a member of national and international advisory boards including the World Health Organization Preterm Birth International Consortium, the Canadian Maternal Infant Child Youth Research Network (MICYRN) and CIHR Institutes. Dr Tough has undertaken the role of Scientific Director in 3 provincial organizations/ initiative. Suzanne is the Principal Investigator of the All Our Babies/Families cohort of over 3,200 mother-child pairs followed since pregnancy through to adolescence to investigate the relative impacts of the social and genetic environments on maternal/child health to inform decision making, program planning and policy.

Brent Hagel completed his BPE (1993) and MSc (1998) at the University of Calgary and PhD (2003) at McGill University. He is a Professor in the Departments of Paediatrics and Community Health Sciences in the Cumming School of Medicine and Adjunct Professor in Kinesiology at the University of Calgary. He is Director of the Healthy Children, Families and Communities Program of the Alberta Children's Hospital Research Institute and a member of the O'Brien Institute for Public Health. He co-leads the Vulnerable to Thriving research theme of One Child Every Child. His key research interest area is child and adolescent injury prevention currently focused on the determinants of child and youth bicycle, pedestrian, ski-snowboard and ice hockey injuries.

Jennifer Zwicker is Director of Social Policy and Health at the School of Public Policy, associate professor in the Faculty of Kinesiology, University of Calgary, Canada Research Chair (II) in Disability Policy for Children and Youth and Deputy Scientific Officer for Kids Brain Health Network. Her research program assesses interventions and informs policy around allocation of funding, services, and supports for youth with disabilities and their families. Strong stakeholder and government collaboration has been critical in the translation of peer-reviewed publications to policy papers, op-eds and briefing notes for provincial and federal ministries and senate committees. Her work recently informed the Canadian Academy of Health Sciences National Autism Strategy Working Group and Royal Society of Canada Expert Working Group to develop disability inclusive policy during the COVID-19 pandemic. She has been recognized for her policy leadership as an Action Canada Alumni, Governor General Leadership Forum, and Canada's Top 40 Under 40.

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