NORC at the University of Chicago

FINAL REPORT

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Evaluating Implementation of the Brain Story & Resilience Scale Framework:

Current Opportunities

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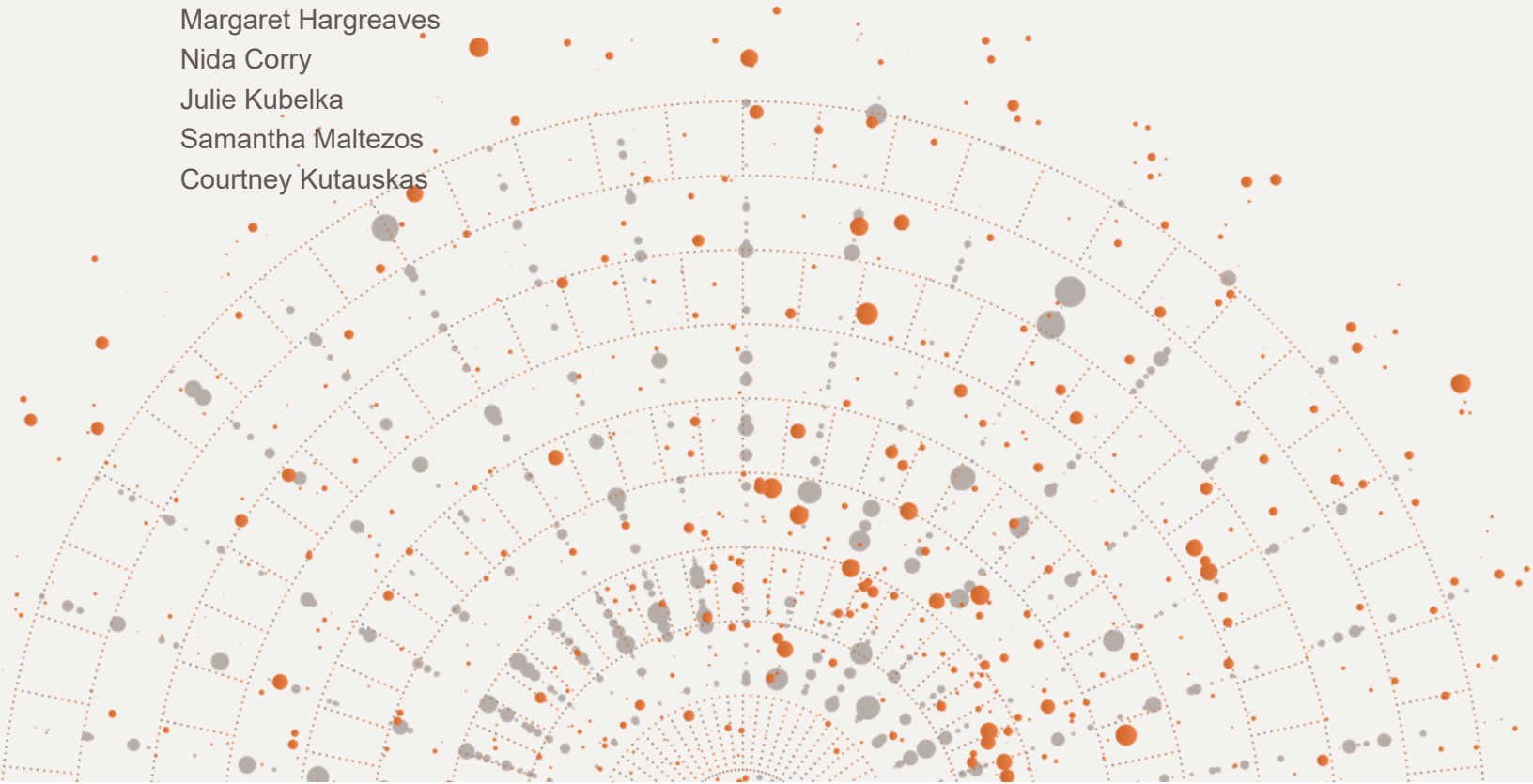

Foreword from the Palix Foundation

In March 2024, the Palix Foundation commissioned researchers from NORC at the University of Chicago to develop an evaluation framework to support multi-level implementation of the Alberta Family Wellness Initiative's Brain Story and Resilience Scale Framework in select communities across Alberta. The researchers from NORC reviewed evidence on existing measurement instruments and met with community members in several Albertan communities to gather resilience-related metrics, and to develop an implementation evaluation framework.

During this iterative process, NORC and the Palix Foundation identified several areas that would benefit from further exploration:

- Tools that facilitate the collection of self-reported individual- and organizational-level indicators of resilience-related outcomes were identified in this project; however, additional insights into next generation, objective indicators of resilience, as well as key outcomes demonstrating effectiveness, penetration, and sustainability of the Brain Story and Resilience Scale Framework at a community level are needed.
- Most of the indicators identified in this report focus on child, youth, and adolescent outcomes, reflecting the current work of the community organizations; however, understanding indicators of resilience across the entire lifespan is crucial for real-world application and evaluation.

As such, the following document outlines key observations and insights gained from community partners, as well as immediate opportunities to evaluate the implementation of Brain Story and Resilience Scale Framework implementation. This report comprises the first step of a larger-scale initiative to create community-level metrics of resilience, which the Palix Foundation looks forward to building to support positive outcomes for individuals, families, and communities.

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Introduction

Researchers from NORC at the University of Chicago were commissioned by the Palix Foundation to develop an community-level evaluation framework designed to guide community efforts to assess and improve the dissemination, uptake, and implementation of the Alberta Family Wellness Initiative's (AFWI) Brain Story and Resilience Scale Framework in communities across Alberta.

The following report summarizes these efforts and is organized into four sections:

- **Section 1** introduces the background of the AFWI, the purpose of this project, and an overview of the project methodology.
- **Section 2** shares findings from the project's site visits and community insight interviews, data indicator interviews, and literature scan.
- **Section 3** collates these findings to develop individual-, organizational- and community-level evaluation questions, indicators, and data sources to assess implementation of the Brain Story and Resilience Scale Framework.
- **Section 4** presents the next steps and future opportunities to evaluate resilience-related outcomes at the community-level.

This report is intended as a resource to inform evaluation efforts to assess implementation of the Brain Story and Resilience Scale Framework. The report is not intended to be prescriptive. Organizations and communities should set their own context-specific, resilience-related goals and customize the indicators and data sources from this framework to meet their data needs.

Section 1: Background and Purpose

History of the Alberta Family Wellness Initiative

Since 2005, the Palix Foundation has been working to translate research about brain development and its implications for lifelong mental and physical health into policy and practice, with the goal of achieving better outcomes for individuals, families, and communities across Alberta and around the world. To accomplish this goal, the Palix Foundation created the Alberta Family Wellness Initiative (AFWI). A brief overview of the AFWI's history is shown in Figure 1.

Figure 1. History of the Alberta Family Wellness Initiative

The Brain Story and Resilience Scale

The Brain Story is a collection of six core metaphors that explain key aspects of brain development and lifelong health. These metaphors, originally crafted by the National Scientific Council on the Developing Child, Center on the Developing Child at Harvard University, and the FrameWorks Institute, form a public health message that establishes a common language and knowledge about brain development, mental health, and addiction, which can be used to influence policy and practice (Centre on the Developing Child at Harvard University, n.d.; Frameworks Institute, n.d.). As shown in Figure 1, the AFWI created the free, online Brain Story Certification Course in 2016. This course combines these engaging metaphors with lectures on brain development from world-leading experts in neurobiology and mental health.

The Resilience Scale is one of the Brain Story metaphors. It communicates how three factors--adversities, positive supports, and skills and abilities-- interact to determine an individual's capacity for resilience (Figure 2). Since 2022, the AFWI has been sharing knowledge about the Resilience Scale with audiences of policymakers, practitioners, and the public through a 3-hour Resilience Scale Masterclass or a one-day Resilience Day event.[1]

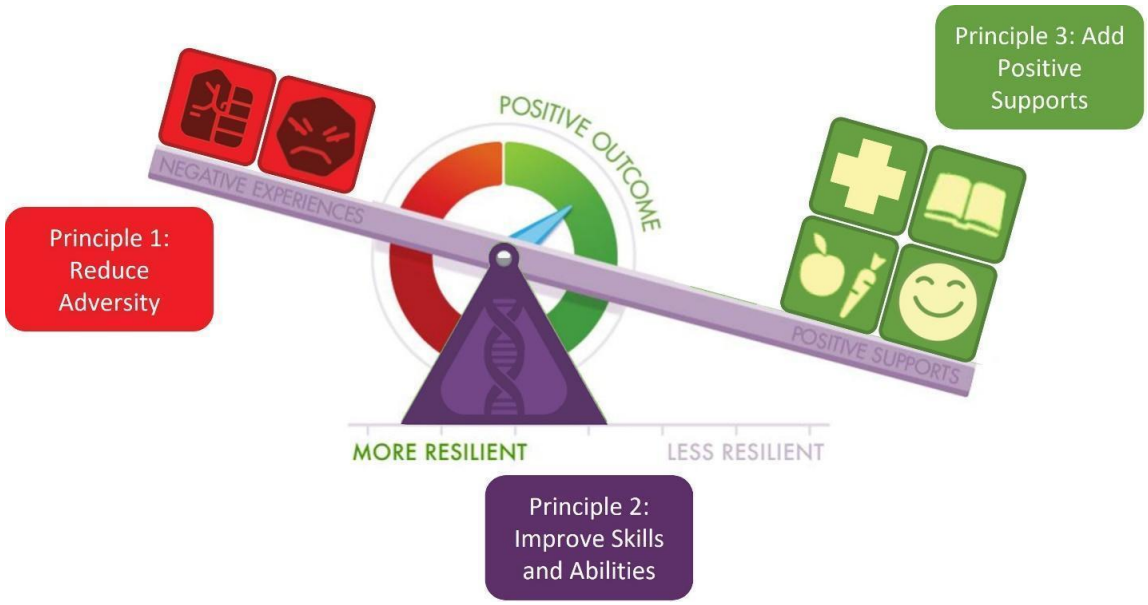

Figure 2. The Resilience Scale

The Resilience Scale has been central to the advances the AFWI has made towards the goal of embedding the Brain Story across systems and producing concrete changes in policy and practice for the betterment of individuals, families, and communities. Using the Resilience Scale as a framework, the AFWI established a tri-fold strategy that evaluates the needs of individuals, clarifies the role of organizational programs in building resilience, and works towards systems integration (Figure 3).

[1] One-day Resilience Day events begin with the Resilience Scale Masterclass and are followed by contributions from community partners and leaders as well as additional discussions and workshops for attendees.

- At the individual level, the Resilience Scale is a metaphor for understanding the whole of the Brain Story, as well as a tool for use in practice. Report 1: Brain Story: Using the Resilience Scale as a Tool for Individuals (AFWI, 2023a) outlines the design and assessment of a practical, hands-on exercise that guides service providers in creating a hypothetical individual's Resilience Scale. This "Resilience Scale Toolkit" facilitates the implementation of the Resilience Scale in clinical practice.
- At the organizational level, the Brain Story and Resilience Scale Framework serve as a tool for organizational change management. Report 2: Brain Story: Organizational Change Management (AFWI, 2023b) outlines a template for coding programs and services according to what element of the Resilience Scale they target (i.e., reducing adversity, adding positive supports, or improving skills and abilities).
- At the systems level, the Brain Story and Resilience Scale Framework serve as a tool for systems integration, including by mapping community assets according to the Resilience Scale. Report 3:Brain Story: Creating Systems Integration using the Resilience Scale (AFWI, 2023c) presents a strategy template to integrate the Brain Story and Resilience Scale at the systems level to improve collaboration, referrals, and service provision within communities.

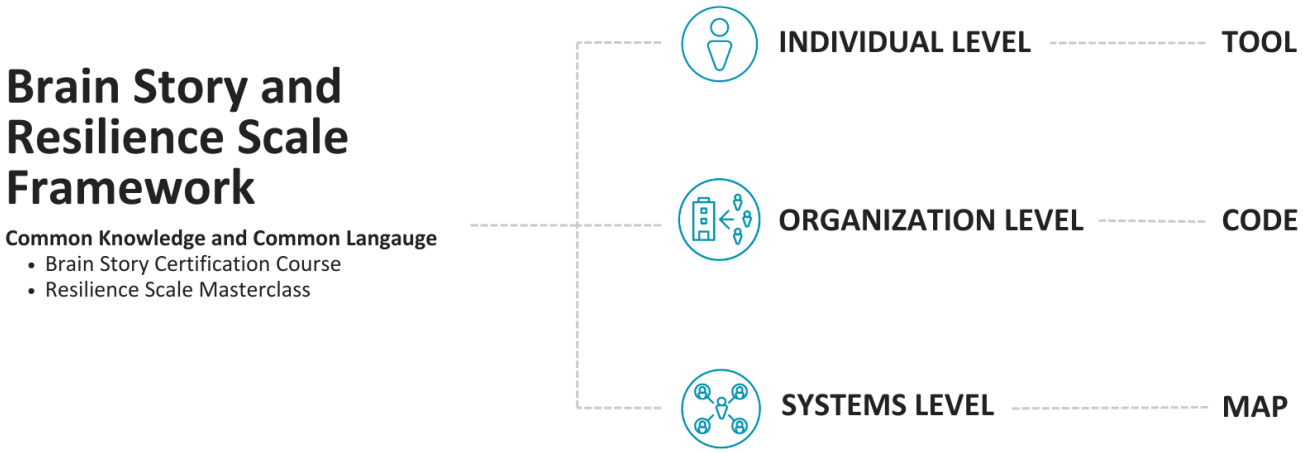

Figure 3. Overview of the tri-fold strategy of the Resilience Scale Framework

These seminal reports are key resources that have informed the design of implementation and/or evaluation plans for the mobilization and application of the Brain Story and Resilience Scale Framework.

Implementation Evaluation Framework Project Overview

In March 2024, the Palix Foundation commissioned researchers from NORC at the University of Chicago to develop an implementation evaluation framework for the Brain Story and Resilience Scale Framework.

NORC is an objective, nonpartisan research organization that partners with government, corporate, and non-profit clients around the world to deliver insights and analysis that inform the critical decisions facing society. As such, NORC was well-suited to develop an evaluation framework that could be used and adapted by organizations and communities to inform their efforts to assess implementation of the Brain Story and Resilience Scale Framework. The NORC team included the following experts:

- Meg Hargreaves, MPP, PhD, a Senior Fellow, an expert in systems change evaluation, and Director of previous Palix-funded Change in Mind evaluations.
- Nida Corry, PhD, a Principal Research Scientist and Licensed Clinical Psychologist with research and clinical expertise in trauma, behavioral health, veteran health, women's health, substance use, and integrated care.
- Julie Kubelka, MSEd, a Research Scientist, Project Manager, and Task Leader, with expertise in evaluating programs and systems change initiatives in the areas of early care and education, child well-being, and safety and justice.
- Samantha Maltezos, MPP, is a Senior Research Associate, with experience supporting evaluation projects centering on criminal justice, physician payment models, trauma-informed care, and systems change.
- Courtney Kutauskas, MSW, a Senior Research Associate, with experience supporting health projects focusing on interpersonal and community violence, public health, and mental and behavioral health.

In addition to completing the following activities presented in this report, the NORC team participated in the project's advisory oversight group.

Project Methodology

The following describes the methods for stakeholder engagement, review of evidence, and development of an implementation evaluation framework completed by the NORC team. Additional methodological information is available in Appendix A, with interview guides provided in Appendix B.

Site Visits and Community Insight Interviews

The NORC team began this project by conducting one-day site visits to three Alberta communities--High Level, Medicine Hat, and Lethbridge–in April 2024. These sites were identified by the Palix Foundation as communities engaged with the Brain Story, although at different stages of implementation of the Brain Story and Resilience Scale Framework. These site visits were designed to gather insights on:

- The communities' goals for implementing and using the Brain Story and Resilience Scale Framework,
- Areas where the Palix Foundation could provide additional support for implementation,

- The desired resilience-related outcomes for the community,
- Organizations' current data infrastructure and evaluation efforts.

This information was gathered using semi-structured interviews with key staff from the communities' health, education, child & family services, and justice sectors.

Data Indicator Identification

In addition to the information collected during the community insight interviews, the NORC team completed follow-up data indicator interviews and a literature scan to support identification of appropriate data indicators for this report. A data indicator is a measurable outcome that provides insights into the effectiveness of the intervention. It can also be referred to as a performance indicator, metric, index, or a success factor.

Data Indicator Interviews

NORC participated in the AFWI's *Building Resilience for Individuals, Families, and Communities* event in June 2024 (Appendix A) and administered an electronic survey to attendees to solicit inputs on the implementation evaluation framework, including potential indicators and data sources for inclusion. Follow-up data indicator interviews were then completed with key staff from twelve participating organizations spanning health, education, child & family services, and justice sectors in Alberta. Semi-structured interviews were used to learn about:

- Indicators and data collection activities that organizations are currently using to track resilience-related outcomes, and
- Public and private data sources in Alberta that organizations draw upon or contribute to.

Literature Scan

The NORC team then conducted a literature search to identify potential measurement tools of resilience and constructs related to enhancing resilience that can be applied across individual-, organizational-, and community-levels and priority sectors. Relevant citations were retained and the pertinent information, including the focus, target population, sector, and indicators were extracted.

Indicators and data sources identified by interviewees were explored through the literature scan and publicly available resources. Additionally, the Palix Foundation offered articles and potential measures for consideration. NORC assessed these resources and integrated them as appropriate.

Information gathered from the community insight interviews, the data indicator interviews, and the literature scan was consolidated to create illustrative examples of existing measurement tools to assess resilience-related outcomes at the individual-, organizational-, and community-level across health, education, child & family services, and justice sectors.

Evaluation Framework Implementation

Key evaluation questions, indicators, and data sources for evaluating the implementation of the Brain Story and Resilience Scale Framework were developed by the NORC team using the Implementation Science at a Glance guide from the National Cancer Institute (2019), described in Appendix C. These questions and indicators were refined based on insights from community site visits and data indicator interviews.

Section 2: Community Insights and Data Indicators

Community Context

All community insight interview participants were from one of the following communities:

High Level

High Level is a small town in the northern part of Alberta, known for its role as a service hub for surrounding rural and Indigenous communities.

- Population of around 3,400 people (Statistics Canada, 2022)
- Diverse community, with Indigenous (Little Red River Cree Nation, North Peace Tribal Council, and Dene Tha' First Nation), non-Indigenous, and immigrant populations
- Due to its large geographical area and remote location, High Level faces unique challenges to transportation, power, digital connection, and access to key services, but it is also known for its strong community ties and resilience in times of crisis (e.g., wildfires and economic fluctuations)

Medicine Hat

Medicine Hat is a mid-sized city in southeastern Alberta, known for its strong community spirit.

- Population of approximately 63,300 people (Statistics Canada, 2022)
- Diverse and well-connected community, including a mix of European descent, Indigenous (Cree, Blackfoot, Métis), and immigrant populations

Lethbridge

Lethbridge is a larger, growing city, acting as a regional hub for business, education, and culture in southwestern Alberta.

- Population of approximately 98,400 people (Statistics Canada, 2022)
- Diverse community, with a mix of Indigenous (primarily Blackfoot), European, Asian, and immigrant populations, as well as a large student population

Community Insight Interviews

Thirty-six individuals took part in community insight interviews, and 11 individuals took part in data indicator interviews (three individuals took part in both the community insight and data indicator interviews. Interviewees represented a range of locations and sectors, as shown in Figure 4.

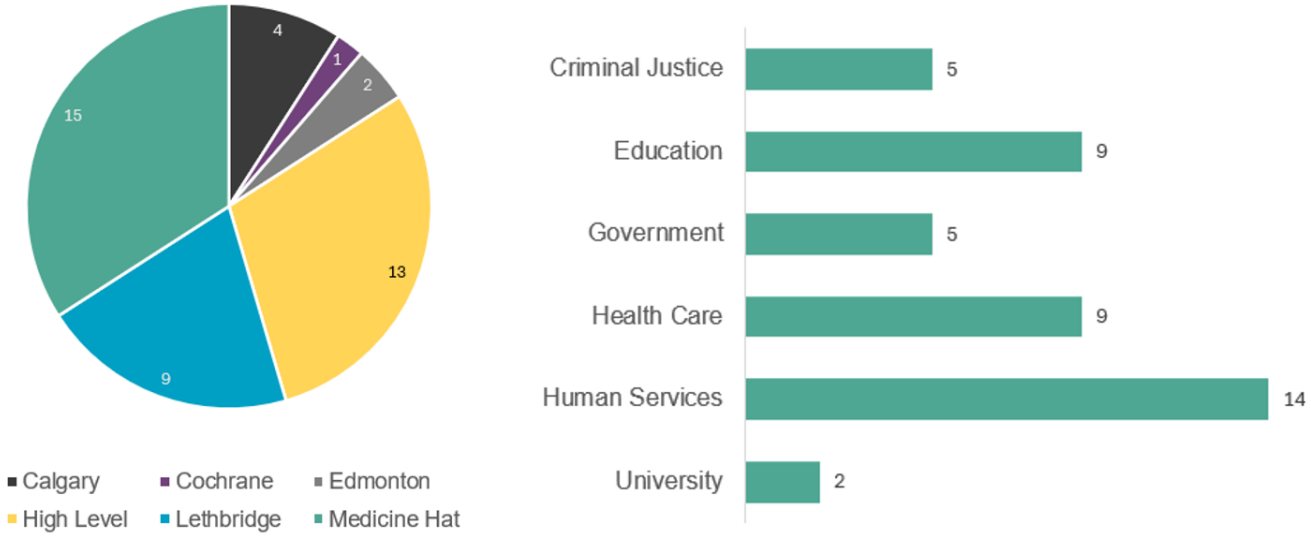

Figure 4. Distribution of the (a) geographical location and (b) sectors of work for all 47 participants of the community insight and data indicator interviews. Note that interviewees from Calgary, Cochrane, and Edmonton only took part in the data indicator interviews.

Collective Community Insights

Key themes and findings from the community insight interviews are summarized below, with further information available in Appendix D.

Community Understanding of Resilience

Interviewees often reported that the residents in their communities were resilient by necessity. However, not all community members were familiar with the term “resilience” or with other terminology used in the Brain Story and Resilience Scale Framework. Interviewees emphasized the importance of explaining terminology during training events and having a common language for both educational and operational purposes, an essential tenet of the AFWI’s mission.

Current Data Use

There are organizations in each community with strong data collection practices that support their understanding of how well their programs are meeting clients’ needs. Of significance, organizations reported that data collection practices were often driven by funders' data requirements, which varied across different sectors and levels of government. This was perceived to limit opportunities to collect data for their own evaluation questions. The interviewees noted a bias toward collecting data that measures efforts to reduce adversities, rather than gathering data that measures efforts to add positive supports. There was interest in receiving guidance on how to

implement new methods for collecting data to track both program- and client-level outcomes, as staff often lack the time and organizational capacity to conduct full program evaluations.

Facilitators and Barriers to Community Resilience

Interviewees highlighted the vital role of community members in addressing emerging needs and fostering resilience. While leaders are innovative and committed, interviewees shared that structured cross-sector collaboration can be lacking. Some organizations reported working to align local and provincial resilience and recovery efforts to enhance their integration and impact.

Leaders expressed excitement at implementing the Brain Story and Resilience Scale Framework, but some also reported lacking the organizational bandwidth to devote themselves to creative thinking and developing new initiatives. These leaders noted the value of having a champion or project coordinators facilitate the community's engagement in Brain Story and Resilience Scale Framework activities. Additionally, organizational leaders noted that high staff turnover can be a barrier to maintaining new initiatives.

Applying the Resilience Scale

Communities appreciated the Resilience Scale Masterclasses and Resilience Day events as opportunities to collaborate with other community organizations and engage with shared resilience knowledge and language. Community and organizational leaders expressed strong motivation to integrate the Brain Story and Resilience Scale Framework into their work. While their visions for applying the Scale varied—understandably so, given that interviews took place before implementation—there was a shared interest in gaining further clarity. Many interviewees highlighted the value of additional examples demonstrating how the Scale can be applied beyond clinical settings, which could further support its effective adoption across diverse contexts.

Insights from High Level[2]

Community leaders explained that most people in High Level are familiar with the concepts of resilience but have different terms for talking about it. For example, First Nations Elders think deeply about resilience but have their own Indigenous worldview, vocabulary, and strategies for building resilience.

Interviewees shared that they felt the residents of High Level have shown a lot of strength and resilience in dealing with COVID-19, wildfires, evacuations, floods, unstable housing, drugs, and alcohol, with limited funding. One noted, “If you live up here, you’re resilient.” These catastrophic events have changed the community’s makeup in recent years, making it more difficult for organizations to interact with community members. Specifically, community-wide initiatives focused on promoting resilience that used to be organized for residents of High Level no longer existed, and their reintroduction for the community would be welcomed.

Community leaders in High Level discussed the strengths of their partnerships and noted that their collaborators were receptive and open to working with people from different sectors while acknowledging areas for improvement in their work. They credited their rural location for people’s creativity around “solutioning.” Leaders also described their community’s strength in respecting diverse cultural backgrounds, practices, and traditions. Interviewees recognized the leaders of the Indigenous communities near High Level as well respected and influential community collaborators.

Leaders explained that while people are the community’s greatest strength, relying on individual change agents was a challenge due to the high mobility rate among leaders, as well as the heavy workload of staff. Staff turnover has made it difficult to sustain programs and consistently build knowledge and skills. As a result, leaders reported that some staff are better equipped than others, meaning that families can have different experiences when navigating the system for resources. For this reason, leaders felt it was important to “widen the circle of knowledge” to parents and the community. Interviewees suggested starting with schools to reach families, as schools are places where families interact regularly, and teachers typically remain in their roles longer than other professionals.

Community leaders who worked daily with families and children with high Adverse Childhood Experience (ACE) scores saw the Resilience Scale as a powerful, strength-based clinical tool to help families tell their own stories. The Resilience Scale created a shared language about resilience and helped them to identify their community’s green and red boxes. This application facilitated the allocation of appropriate resources, referrals, and other interventions to meet basic needs and increase their capacity to tip the scale towards more positive outcomes.

[2] Photos in this section are of High Level’s Resilience Day event.

Understanding the elements of the Resilience Scale helped providers to “meet clients where they are,” build resilience, and reduce their risk of harm without involving the criminal justice system.

The Resilience Scale Framework was also seen as a valuable tool to prevent staff burnout, especially during crises. For example, during the previous year’s wildfires, interviewees shared that populations were evacuated to High Level and the community felt that it was “left with the most vulnerable people,” without enough resources to support them. They believed the Masterclass training could better equip staff to support children and families in the short term, but that the real challenge is a lack of resources for a community responding to significant events outside their control. Additionally, leaders were unsure how to encourage broader participation in the Brain Story and Resilience Scale Framework training without authority to mandate it.

High Level interviewees were also intrigued by the idea of mapping the community according to the Resilience Scale, seeing the potential to enhance service awareness, improve referrals, and help residents access resources. They saw their community as excellent at collaborating and building capacity in the areas of preventative care and early intervention and believed that their community would benefit from this network-building tool.

Insights from Medicine Hat[3]

Medicine Hat community leaders described their city as innovative and open to new initiatives. Local leaders reported that they found the Brain Story easy to understand, offering a shared language and framework for reshaping service delivery, but that the broader community was unaware of the science behind resilience. The Resilience Day event, held in Medicine Hat on January 30, 2024, served as an important first step in disseminating and embedding the science of resilience into their community by inspiring local leaders and piquing the interest of organizations across sectors (including the business community), but more work was required to engage community members with the Brain Story and Resilience Scale Framework.

Medicine Hat leaders identified the people in their community as their greatest strength, reporting that Medicine Hat is "full of passionate people with vision, working across sectors." In this mid-sized community, organization leaders reported being collaborative and "deep thinkers" about their community's needs. Many served in multiple civic roles connected to both business and non-profit sectors, increasing the potential for overload and burnout, but also creating opportunities for comprehensive and meaningful change. Interviewees also noted that local organizations need more financial support so that their leaders have more time and capacity for strategic planning rather than managing their operations.

Fatigue and burnout were reported as significant barriers at all organizational levels. One interviewee noted, "Staff can't take on one more thing." Some organizations were looking to create safer, more supportive, and adaptive working environments to help reduce staff turnover and burnout.

Local politics were also cited as a barrier to local reform, but interviewees shared that they felt the Resilience Scale work was important and that it should be supported regardless of changes in leadership.

The organizations interviewed thought that mapping the community according to the Resilience Scale provided an important opportunity for service providers to talk directly about how to connect and collaborate around building capacity for resilience. They were excited to begin the community mapping process to connect with other organizations in their community.

Interviewees reported appreciating the hands-on approach of the Resilience Scale, which allowed participants to identify their own red and green boxes, giving them control over their narrative and a visualization of their protective factors. Interviewees also reported how important it is to educate their staff about the Resilience Scale Framework and train their clinicians to use the Scale activity with their clients. This tool bridged the theory-to-practice gap, creating a practical application of the Brain Story.

[3] Photos in this section are show one of Medicine Hat's Resilience Day events.

Insights from Lethbridge[4]

In Lethbridge, community leaders noted that residents often lacked an understanding of resilience. They reported that families preferred "quick fixes" over engaging in the more involved work of understanding and applying brain science and child development concepts to their situations. Interviewees did note that "the good thing is our community seeks help." Residents may not know the best resources, but they do turn to organizations for help and referrals. Community leaders shared that many struggle to navigate the local service system and understand which resources to apply for, often going through a lengthy process or failing to access the right help initially.

Many organizations felt that local services and funding was often directed towards treatment rather than prevention initiatives. Prevention advocates called for a better balance in this regard. Some local leaders noted that political priorities can create conflicts for organizations receiving funding from multiple government levels, making it difficult to comply with conflicting directives. Other barriers included challenges in obtaining council and zoning approvals, securing funding for new programs, and staff burnout, with difficulty recruiting and retaining skilled workers due to low pay and demanding work of Child & Family Service jobs.

Many Lethbridge organizations encouraged service providers to take the Brain Story Certification Course and participate in Resilience Day events, though many found the course lengthy and struggled to mandate it due to staff time constraints. These organizations emphasized the importance of understanding how adversity impacts brain development when working with vulnerable populations.

Participants reacted positively to the Brain Story and Resilience Scale Framework. One organization planned to integrate the Resilience Scale into case management, while another used AFWI training videos to engage parents and staff. Some non-direct service staff found the material personally valuable but requested more practical examples of how they could apply it to their roles.

4 Photos in this section are of Lethbridge's Resilience Day event.

Data Indicators

The following section shares examples of indicators at the individual-, organizational-, and community-levels for assessing efforts to promote resilience identified through the community insight and data indicator interviews. The findings showcase examples of tools currently being used in communities to assess resilience-related outcomes, however we acknowledge that this list does not cover all available data opportunities.

Indicators identified by communities are organized according to the coding of the Resilience Scale Framework and are shown in Table 1. The following table includes:

- How the indicator tool is coded in alignment with the Resilience Scale Framework, as follows:
  - Reducing adversity  , adding positive supports  , or improving skills and abilities  ,
- A brief description of the indicator tool,
- The population with which the tool was being used,
- The sector in which the tool was being used,
- The level at which the indicator may be used, as follows:
  - Individual-  , organizational-  , and community- or systems-  levels.

Some of the tools identified in this process represent older-generation models, reflecting more traditional approaches to evaluation of resilience-related outcomes. However, other tools reflect the shift toward new ways of thinking, emphasizing the use of objective, data-driven insights and fostering cross-sector collaboration. The following table highlights both the legacy systems still in use and the growing movement toward more integrated, innovative practices.

Table 1. Data Indicator Tools Currently Used by Organizations and Communities in Alberta to Assess Resilience-Related Outcomes

DESCRIPTION	POPULATION	SECTOR	LEVEL
Healthy Outcomes of Positive Experiences Framework (HOPE; Sege & Browne, 2017) • Framework used to establish shared language and approaches to reducing toxic stress, strengthening core life skills, and strengthening support for families experiencing justice issues. • The framework aims to increase education in brain science, understanding of the impact of trauma, and integration of the programs across sectors.	Justice-involved families	Justice	
Alberta Education Assurance Survey (Government of Alberta, 2019) • Provincially mandated annual survey administered to students, parents, and teachers of school-age children that focuses on student growth and achievement, teaching and leading, learning supports, and governance. • The data are analyzed at the provincial, school authority, and school levels and are provided back to schools and school authorities for planning and reporting purposes.	School-age Children, Parents, Caregivers, Teachers	Education	
ALIGN Well-Being Initiative and Toolkit (ALIGN Association of Community Services, n.d.) • The toolkit provides an assessment of seven domains of well-being: connection to the land, caring and stable relationships, meaningful knowledge, healthy development and growth, sense of identity and autonomy, cultural connection, and supportive and safe environments. • This toolkit can be used to ensure that programs and service delivery are culturally responsive and based on the perspectives and values of culturally diverse communities.	Children, Youth, Caregivers, Agencies	Child & Family Services	
Child and Youth Resilience Measure (CYRM-28; Ungar & Liebenberg, 2011) and **Adult Resilience Measure** (RRC-ARM; Liebenberg & Moore, 2018) • Self-reported, 28-item instrument used to assess social-ecological resilience in adults and children. • The CYRM and RRC-ARM measure individual, relational, and contextual (community and culture) factors of resilience.	Adults, Children	Child & Family Services, Health	
Family Star Plus (Burns & McKeith, 2017) • Self-reported scales used to assess aspects of parenting such as parent's emotions, children's emotions, friends and community, children's learning, and children's behavior. • There are a range of Family Star scales designed specifically for use with parents of children	Parents, Caregivers	Child & Family Services	

	DESCRIPTION	POPULATION	SECTOR	LEVEL
	aged 0-5 years (Early Years) and for families experiencing parental conflict (Relationships).			
	**Herth Hope Index** (HHI; Herth, 1989) • Self-reported, 12-item instrument used to assess hope, defined as "a multidimensional life force characterized by a confident yet uncertain expectation of achieving a future good which the hoping person considers to be personally significant" (Herth, 1992). • The tool evaluates whether parents feel more prepared to care for their children, what has changed for parents after receiving support and services, what resources or community connections they have, and their overall feelings of hope.	Parents, Caregivers	Child & Family Services	
	**The Positive Parenting Program** (Triple P; Sanders, 1999) • Parenting and family support system used by organizations to help families understand the support and resources they may need. It supports parents in developing positive relationships with their children and in learning strategies to improve behavioral problems. • Triple P has two main tools for evaluation: parent questionnaires and fidelity observation forms. The questionnaires are for practitioners to monitor "before" and "after" results, addressing different family functioning and behavior domains. • There is a web-based scoring application for these questionnaires to compare the program's effectiveness with other interventions. The scoring application can be adapted to serve an entire region, provide analysis of the wider effects, and score an individual family's progress.	Parents, Caregivers	Child & Family Services	
	**Protective Factors Survey** (PFS; Counts et al., 2010) • Self-reported tool designed for use with parents and caregivers participating in family support and child maltreatment prevention services. • The tool is used to assess change in protective factors in five areas: family functioning/resiliency, social support, concrete support (such as whether the family utilizes benefits or other support), nurturing and attachment, and knowledge of parenting and child development.	Parents, Caregivers	Child & Family Services, Health	
	**Well-being and Resiliency Framework** (Government of Alberta, 2019) • Framework provides rationale for and describes the ways of working to promote well-being and resiliency in Alberta. • The framework articulates the Government's approach to prevention and early intervention, defines key terms, and captures emerging research and evidence-based practices of service	Service providers	Child & Family Services	

	DESCRIPTION	POPULATION	SECTOR	LEVEL
	delivery. It also incorporates Indigenous perspectives on well-being and resiliency.			
	Ages and Stages Questionnaire-3 (ASQ; Squires & Bricker, 2009) • Self-reported questionnaire administered to parents that is used to assess key areas of early childhood development (including communication, problem solving, and personal-social) and social-emotional development (including self-regulation, interaction, and social-communication). • The questionnaire is scored by an appropriate service provider, and early intervention services are offered if needed.	Children aged 1 month to 5 ½ years	Education	
	Global Appraisal of Individual Needs (GAIN; Dennis et al., 2003) • Tool to collect data about coping skills related to substance use and mental health and track a client's mental or behavioral health improvement over time.	Adults	Health, Child & Family Services	
	Workforce Competencies (Canadian Centre on Substance Use and Addiction, 2023) • Developed to provide technical (i.e., clinical skills) and behavioral (e.g., humanistic care, empathy) competencies that those working with individuals with substance use can implement in their practice.	Service Providers (Substance Use)	Health	

Literature Scan Findings

Data indicators and associated tools identified in the literature scan are included in Appendix E. Please note this is an illustrative, not exhaustive list.

Through an iterative process, the Palix Foundation identified areas that will benefit from further exploration in terms of data indicators that were beyond the scope of the original literature scan findings, as follows:

- In most cases, tools that facilitate the collection of sector-specific data indicators were identified in the literature scan.[5] These tools can be used to produce individual-level indicators or may be collated with other measures to demonstrate organizational-level outcomes, and can be aggregated at a sector level, but do not easily translate into community-level indicators. This is because there are many different tools available to assess resilience-related outcomes, and the use of one specific tool is not consistently adopted across all agencies or sectors. Identifying indicators of resilience that have broader spread and scale may be more useful for community-level evaluation.
- Additionally, many of the tools identified in the literature scan were self-report surveys or were questionnaires administered by practitioners to assess or document client-level outcomes. The Palix Foundation is striving to support a shift towards a greater inclusion of next generation quantitative measurements of resilience-related outcomes (that may be leveraged from cross-sector data sources) to evaluate the adoption, effectiveness, penetration, and sustainability of the Brain Story and Resilience Scale Framework within and across in communities.
- Indicators related to child-, youth-, adolescent-, and adult-specific outcomes were predominantly identified by virtue of engaging with priority sectors (health, education, child & family services, and justice) suggested by the Palix Foundation at the outset of the project; however, identifying next generation indicators of resilience across the life course and throughout aging is also important for evaluating the application of the Brain Story and Resilience Scale Framework.

As such, more work to address these considerations will be completed as a next step for this project.

[5] A **data indicator** is a measurable outcome that provides insights into the effectiveness of the intervention. It can also be referred to as a performance indicator, metric, index, success factor. A **tool**, in this context, describes a method or instrument that is used to collect, process, or analyze data to create the data indicator. This could include assessment scales administered by clinicians or other practitioners, self-assessment tools, surveys, questionnaires, dashboards or databases.

Section 3: Evaluation Framework to Assess Implementation of the Brain Story and Resilience Scale Framework

This section presents implementation-focused evaluation indicators that can be considered by organizations and/or communities preparing to implement the Brain Story and Resilience Scale Framework. These indicators are based on Implementation Science constructs as described in Appendix C and are intended to assess feasibility, uptake, and utility of the Brain Story and Resilience Scale Framework, including but not limited to:

- Translation and diffusion of the Brain Story science through the Brain Story Certification Course, Resilience Scale Masterclass, Resilience Days, and other professional development events,
- Fidelity of the implementation of the Resilience Scale Framework,
- Barriers and facilitators of community adoption, customization, and use of the Framework,
- Degree of uptake in organizational and clinical operations, and
- Quality of implementation support for ongoing use of the Resilience Scale Framework to meet organizational needs and goals.

Tables 2 to 5 present key evaluation questions, corresponding indicators, and data sources to assess the implementation of the Brain Story and Resilience Scale Framework. Additionally, the activity type (i.e., dissemination, implementation support, service delivery), designated time frames (i.e., short-, medium-, long-term) and intervention levels (i.e., individual, organizational, systems) are presented for each question. The following key defines the acronyms presented in the tables.

KEY	
D	Dissemination
I	Implementation Support
S	Service Delivery
ST	Short-term: Outputs/outcomes within 1 year of implementation
MT	Mid-term: Outputs/outcomes within 3 years of implementation
LT	Long-term: Outputs/outcomes within 5 years of implementation
Ind	Individual level
Org	Organizational level
Sys	Systems level

The evaluation questions presented are neither comprehensive nor prescriptive. Rather, they are meant to guide evaluation approaches focused on the implementation and use of the Resilience Scale Framework.

Table 2. Outcomes and Potential Indicators Related to the Brain Story Knowledge Diffusion

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
What is the reach of the Resilience Day events?	D	ST	Ind	Completion date; Location; Length; Content	Records of attendance
		ST	Org	Proportion of participation among organization and/or program staff (i.e., coverage)	Staff list and records of attendance
		ST	Sys	Proportion of participation across organizations in the community (i.e., coverage)	Staff list and records of attendance
How effective is the Resilience Day in helping participants improve understanding and knowledge about effects of trauma and factors that promote or hinder resilience?	D	ST	Ind	Significant improvements in trauma-related knowledge associated with Resilience Day participation	Tailored survey items assessing knowledge before and after (or post/pre assessment) Resilience Day; Qualitative interviews
How feasible is Resilience Day participation?	D	ST	Org	Feedback from participants, organizations, and community leaders regarding barriers and facilitators to participating in Resilience Day.	Tailored survey items assessing barriers and facilitators administered after Resilience Day; Qualitative interviews
What is the reach of the Resilience Scale Masterclass?	D	ST	Ind	Increased number of individuals completing Resilience Scale Masterclass	Records of attendance
		MT	Org	Increased proportion of Resilience Scale Masterclass completion among program staff within an organization	Staff list and records of attendance
		MT	Sys	Increased proportion of residents or number of organizations completing Resilience Scale Masterclass in community	Number of eligible or targeted organizations in community; Records of attendance
What is the reach of the Brain Story Certification course?	D	MT	Ind	Increased number of people completing Brain Story Certification	Record of completion, by community, per month or year

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
		MT	Org	Increased proportion of certification among organization's and/or program's staff	Staff list and records of completion
		LT	Sys	Increased proportion of certification across organizations in the community	Organizational engagement and records of completion
What is the intended adoption of the Brain Story?	D	ST	Ind	Positive beliefs and behavioral intention to apply what was learned about the Brain Story	Tailored survey items assessing behavioral beliefs and intention to apply Brain Story knowledge at individual-level; Qualitative interviews
		ST	Org	Positive beliefs and behavioral intention among administrators to apply the Brain Story in organizational activities (e.g., promoting staff training)	Tailored survey items assessing behavioral beliefs and intention to apply Brain Story knowledge at organizational-level; Qualitative interviews
What is the implementation cost for organizations to participate in training activities?	D	MT	Org	Estimated labor and materials cost of implementing training activities (e.g., Resilience Day, Resilience Scale Masterclass, and certification completion)	Administrative records

Table 3. Outcomes and Potential Indicators Related to the Resilience Scale as Clinical Tool

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
How effectively are staff trained to administer the Resilience Scale?	I	ST	Ind	Increase in perceived utility of training	Staff feedback; Post-training survey
		ST	Ind	Ability to complete the scale with fidelity to implementation protocol	Reliability assessment for scale completion post-training
Is there clear guidance on how to use the Resilience Scale within an organization?		ST	Org	Organization(s) perceive the guidance document to be useful and clear to understand how to utilize the Resilience Scale as clinical tool	Staff feedback
	I	MT	Org	Organization(s) develop implementation protocol, scale innovations, and/or written guidance for recommended use of Resilience Scale within organization	Administrative review; Organizational policy
To what extent is the Resilience Scale incorporated in clinical decision-making?	S	MT	Org	Increased documentation of Resilience Scale in record and use of data to inform clinical decision-making	Electronic health records; Clinical decision workflows incorporating the Resilience Scale
What is the level of uptake of the Resilience Scale as a clinical tool?	S	MT	Org	Increased proportion of patients/service recipients completing the Resilience Scale	Patient records; Staff documentation of completion of the Resilience Scale
		MT	Org	Organizations implement a training plan to support use, with clear identification of who will administer scale	Administrative review

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
		MT	Org	Increased frequency and consistency of scale use within organization	Documentation of completion of Resilience Scale; List of eligible scale administrators and client load
		LT	Sys	Increase in documented Resilience Scale use across community organizations, including sharing those data for clinical care	Administrative review; Documentation of completion and documentation of Resilience Scale
Does the Resilience Scale promote shared language and approaches to thinking about adversity and related interventions?	S	MT	Ind	Improved staff perception about the importance and feasibility of becoming more trauma-informed in clinical approaches	Attitudes Related to Trauma-Informed Care Scale (ARTIC) (Baker, 2015)
		LT	Sys	More organizations document using Palix Foundation clinical scripts	Administrative review; Qualitative interviews
Does the Resilience Scale facilitate identification of staff and/or clients' service and support needs to strengthen capacity for resilience and improve well-being?	S	MT	Ind	Increased clarity and prioritization of service and support needs to improve capacity for resilience and well-being.	Pre/post or Post/pre assessment of service and support needs to enhance resilience
Does use of the Resilience Scale improve system alignment (e.g., sharing information across systems and organizations, including client outcome data to promote integrated, client-centered care)?	S	LT	Sys	More data sharing agreements across systems and organizations; improved structured information sharing	Administrative review

N.B., Outcomes and Indicators predominantly aligned with Report 1: Brain Story: Using the Resilience Scale as a Tool for Individuals (AFWI, 2023a).

Table 4. Outcomes and Potential Indicators Related to Organizational Coding of Program Services

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
What is the level of uptake of organizational coding of program services?	I	MT	Org	Increase in completed coding of programs	Administrative review
		LT	Sys	Increased integration of completed coding across organizations in the community	Administrative review
		LT	Sys	Increase in documented and maintained number of/database of organizations completing coding	Administrative review
Does organizational coding help establish a shared language and approach to thinking about adversity-related interventions?	S	LT	Sys	More organizations report the existence of documented shared language and training on said language	Administrative review; Qualitative interviews
Does organizational coding enhance ongoing quality assessment/rating of services and programs?	S	LT	Org	More organizations report quality assessment plans and implementation of training across sectors	Administrative review; Qualitative interviews
To what degree is the coded referral network maintained?	S	LT	Org	Schedule created and followed for maintaining and updating coding (e.g., for new programs and/or services)	Administrative review
		LT	Sys	Schedule created and followed for maintaining and updating coding (e.g., for new programs or service)	Administrative review

N.B., Outcomes and Indicators aligned with Report 2: Brain Story: Organizational Change Management (AFWI, 2023b).

Table 5. Outcomes and Potential Indicators Related to the Community Referral Network Map

EVALUATION QUESTION				INDICATORS	DATA SOURCE(S)
What is the level of uptake of the community referral network map?	I	MT	Org	Maintained referral tracking system documenting the use of the network	Qualitative interviews; Referral records
		MT	Sys	Increased awareness across organizations and providers of the existence and purpose of the coded referral network	Survey; Qualitative interviews
		LT	Sys	Increased referrals made using referral network map	Qualitative interviews; Referral records
		LT	Sys	Increase in number of organizations in community using the referral network	Administrative review; Survey
How accessible is the community referral network map?	I	MT	Org	Identification of barriers and facilitators for utilizing the referral network map in the course of service provision?	Qualitative interviews; Provider survey; Referral records
		MT	Sys	Increase in perceived user-friendliness and utility of network map	Qualitative interviews; Referral records
Does the community referral network map facilitate more coordinated care to meet the needs of community members and families?	S	LT	Org	Increased access to positive supports (green boxes) and reductions in adversity (red boxes)	Qualitative interviews; Administrative review; Survey
		LT	Sys	Increase in 'green box' and 'red box' organizations and services in the community.	Administrative review; Survey

N.B., Outcomes and Indicators aligned with Report 3:Brain Story: Creating Systems Integration using the Resilience Scale (AFWI, 2023c)

Section 4: Summary and Next Steps

Summary

In this first iteration of this work, this implementation evaluation framework designed by researchers at NORC on behalf of the Palix Foundation can be used to guide efforts to assess and improve the dissemination, uptake, implementation, use, and outcomes of the AFWI's Brain Story and Resilience Scale Framework.

Section 2 of this report presents the insights and current practices with regards to evaluating resilience from communities in Alberta who are actively implementing the Brain Story and Resilience Scale Framework. Overall, communities and organizations are highly motivated and excited about the potential of the Brain Story and Resilience Scale Framework to enhance services and strengthen community resilience. However, to support successful implementation, it is important to acknowledge and address challenges, such as funding requirements driving evaluation efforts, imbalance of identifying adversities more than positive supports and efforts to improve skills and abilities, and staff burnout.

- This report identified that the data measures identified by interviewees was perceived to be biased towards collecting data that measures efforts to reduce adversities, rather than gathering data that measures efforts to add positive supports or improve skills and abilities. An important next step in this iterative process is understanding how the indicator tool is coded in alignment with the Resilience Scale Framework i.e., whether the indicator reflects efforts to reduce adversity, add positive supports, or improve skills and abilities. Applying this lens within evaluation frameworks could support more balanced and strategic actions that come from data monitoring such as improved resource allocation.
- The Brain Story and Resilience Scale Framework is designed to build staff capacity and alleviate burnout, and emphasizing this for organizations and communities may encourage broader engagement with the Brain Story and Resilience Scale Framework. By engaging in training and implementation of the Framework, organizations have reported experiencing meaningful mid-term benefits, including increased capacity, improved cohesion, and greater overall effectiveness (AFWI, 2023b; Dalton & Rapa, 2025).

The implementation evaluation framework presented in Section 3 of this report provides key indicators to assess the feasibility, uptake, and utility of the Brain Story and Resilience Scale Framework. This evaluation framework can help organizations and communities assess and monitor their implementation efforts.

- Several leaders noted that sustained coordination and support are essential for the successful, widespread adoption of the Brain Story and Resilience Scale Framework. As a learning partner for systems, the Palix Foundation offers support to organizations and communities in their evaluation efforts. The Palix Foundation can work with groups to develop tailored plans aligned with their specific goals and outcomes, using this implementation evaluation framework as a guide.

Building for the Future

This report provides an in-depth overview of 'current state' approaches for evaluation of resilience-related outcomes at the individual-, organizational-, and community-levels. This foundation can be used to guide evaluation efforts for implementation of the Brain Story and Resilience Scale Framework; however, further

exploration of numerous areas would be beneficial to further evaluate the adoption, effectiveness, penetration, and sustainability of the science of resilience in communities, including:

Resilience Across the Lifespan and Throughout Aging

Understanding health across the lifespan is critical for developing effective interventions, policies, and programs that address the evolving needs of individuals from conception through to old age. The capacity for resilience is determined by the complex interplay of our genes and experiences. While the brain has the capacity to change across the entire life course, there are nuances to building resilience at different life stages. The current report mainly captures resilience-related outcomes for children, parents, and families; however, expanding our lens to a life course approach, including aging, will promote not only optimal development but also disease prevention and quality of life over time.

Digital Tools to Support Collaboration

Tools, such as software, that facilitate cross-sector collaboration are an essential next step to support community efforts to evaluate resilience-related outcomes. Software solutions that support secure data sharing, integrated analytics, and role-based access can bridge organizational silos, support coordinated care for clients and empower stakeholders to evaluate outcomes collectively. This is a pressing issue in health - In fact, Alberta Virtual Care Health Data Interoperability Working Group (2023) recommends that health data interoperability should be mandated through legislation in Alberta. The Palix Foundation seeks to partner with and support innovative digital solutions that can address this gap. By aligning technical infrastructure with collaborative practice, there are opportunities to drive more coherent and impactful responses to understanding resilience in communities.

Objective Indicators

Promoting a scientific approach to community-level evaluation is considered a necessary next step to strengthen interventions and improve outcomes (Trinkett et al., 2011). The integration of objective measures to evaluate resilience-related outcomes and the effectiveness of interventions is an emerging and important area. While self-reported data--used for many indicators in this report--provides valuable insight, it is often limited by bias and recall error. In contrast, objective indicators such as biometric data and behavioral metrics offer greater precision, reliability, and the ability to quantify change over time. However, these measures are not yet standard in evaluations, and there is a need to better understand the relationship between an objective indicator and a resilience-related outcome.

In addition to evaluation of subjective indicators, the inclusion of objective data represents a next-generation approach to assessing resilience and will become the new standard for driving evidence-based, outcome-oriented systems change. Notable examples of this emerging model include:

- The University of Calgary's Adverse Childhood Experiences (ACEs) Hub is a multidisciplinary initiative dedicated to improving the understanding, prevention, and mitigation of the long-term impacts of childhood adversity through the consolidation of global data. It brings together researchers, clinicians, educators, and community partners to address the complex effects of early trauma on health, development, and social outcomes with the aim of guiding clinical practice and shaping policies to improve the outcomes individuals affected by ACEs.
- The Adolescent Brain Cognitive Development (ABCD) Study is the largest long-term study of brain development and child health, involving 21 research sites in the United States (Karcher & Birth, 2020). The study tracks nearly 12,000 children aged 9-10 years into early adulthood and collects a wide range of data, including MRI brain imaging, cognitive and behavioral assessments, physical and mental health

measures, genetic and environmental data, substance use patterns, as well as school performance and family dynamics. Using these objective measures, it moves beyond self-report tools to offer deeper insight and predictive modelling opportunities to support the understanding of how biology, environment, and experience shape development over time. This study will transform the ability to identify early risk and resilience factors, evaluate the impact of policy and interventions, and guide evidence-based approaches to promote lifelong well-being.

- The Health Outcomes and Resilience in the Face of Adversity (HERO) study aims to develop and validate biological measures of stress activation and resilience in young children. Initial findings show that early adversity is associated with distinct biological responses in children, as measured through hair and saliva sample analysis (de Mendonça Filho et al., 2023). These markers therefore have the potential to support early detection of toxic stress in children and can support early intervention during this critical period to promote better health outcomes.
- The Attachment and Child Health (ATTACH™) program is a compelling example of an intervention whose effectiveness has been validated through objective biological measures (Yu et al., 2024). This brief, targeted parenting intervention is designed to strengthen parent-child relationships by enhancing parental reflective function, particularly in families experiencing adversity (Anis et al., 2022). Evidence from randomized controlled trials and quasi-experimental studies demonstrates that participation in ATTACH™ is associated with reduced inflammatory markers in both mothers and children, as measured through dried blood spot analysis (Yu et al., 2024). These findings highlight the program's direct biological impact, suggesting that improved relational functioning can meaningfully reduce stress-related physiological responses.
- LENA® Start is an example of an evidence-based program that utilizes objective measures to engage and support parents in meaningful behaviour change (Beecher et al., 2019; Beecher et al., 2020). The program is designed to help parents and caregivers increase responsive interactions with their child during the first years of life to improve language development. It uses Language Environment Analysis (LENA) - a technology-based system that captures and analyzes audio recordings from a child's environment to measure language exposure and interaction. Using a small wearable device and specialized software, it tracks metrics like adult word count, conversational turns, and child vocalizations. These data are given in a report to parents throughout the program, giving them objective insights into their progress which can support motivation, goal setting, and meaningful behaviour change.

Next Steps

To support the above directions, the Palix Foundation is committed to advancing the adoption of objective, life course approach, and evidence-based evaluation frameworks to assess resilience-related outcomes at the individual-, organizational-, and community-levels across Alberta. A central focus of the Palix Foundation's upcoming work is to build capacity for more rigorous, data-informed approaches to reducing adversity, adding positive supports, and improving skills and abilities to improve resilience in communities.

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Appendices

Appendix A – Methodology

Site Visits and Community Insight Interviews

In April 2024, NORC conducted site visits in High Level, Medicine Hat, and Lethbridge, Alberta. These sites were identified by the Palix Foundation as communities at different stages of development in their knowledge and use of the Brain Story and Resilience Scale Framework. NORC developed a protocol for semi-structured, in-person interviews (Appendix B) with key staff in the communities' health, education, child and family service, and justice sectors. The community insight interviews were designed to gather information about:

- the communities' goals for implementation and use of the Brain Story and Resilience Scale Framework,
- areas where the Palix Foundation could provide additional support for implementation,
- the desired resilience-related outcomes for the community,
- local organizations' data infrastructure and the availability of local data to track goals.

The interview protocol included questions about data capacity, but due to time constraints, these questions were deprioritized during the site visits.

The Principal Investigator and a senior staff member from NORC completed six interviews in High Level, seven in Medicine Hat and six in Lethbridge. Palix Foundation staff facilitated introductions, coordinated travel and interview logistics, and provided transportation between organizations, but were not involved in the interviews.

After the site visits, the NORC team reviewed the interview schedules to determine whether they had completed interviews with at least one organization from each of the four sectors (health, education, child and family services, and justice) in each community. The team conducted two additional virtual interviews to fulfill sector representation in all communities.

Data Indicator Identification

To identify appropriate indicators for this implementation evaluation framework, the NORC team completed follow-up data indicator interviews, and a literature scan.

Building Resilience for Individuals Families and Communities Convening

In June 2024, the Foundation brought together researchers, policymakers, and community implementation teams for the Building Resilience for Individuals Families and Communities event. The purpose of this convening was to:

- review the use of the Resilience Scale Framework in communities,
- provide updates on the ongoing knowledge mobilization, capacity building, and implementation of the Resilience Scale Framework at individual-, organization-, and community-levels,
- showcase the implementation work being done in High Level, Medicine Hat, and Lethbridge.

Researchers presented work on the new ACEs Hub, the use of the Resilience Scale Tool in a range of clinical settings, the establishment of biomarkers to measure toxic stress, and advances in the measurement of protective factors. Learning partners also shared updates on their use of the Brain Story in Prince Edward Island, the United Kingdom, and Australia.

The NORC team also presented this project to attendees. Following the presentation, NORC administered a short survey in Qualtrics to collect information on attendees' data practices, including data collection methods, and indicators used in each organization's work related to resilience.

NORC used the findings from this survey to identify twelve organizations to interview about their use of data. In developing the list of potential interviewees, NORC sought to include those who had reported experience tracking constructs related to resilience among organizations' clientele. NORC was also interested in interviewing individuals whose organizations used a variety of tools and instruments to measure resilience-related constructs. Proposed interviewees were reviewed and approved by the Palix Foundation in July 2024.

Table S1. Organizations and Sectors Represented in Data Indicator Interviews

	EDUCATION	HEALTH	CHILD & FAMILY SERVICES	JUSTICE
Medicine Hat School Division No. 76	■			
Providence Children	■			
Fort Vermilion School Division No. 52	■			
Alberta Health Services		■		
CUPS Calgary			■	
Family Centre of Northern Alberta			■	
Association of Early Childhood Educators of Alberta	■		■	
Family Centre			■	
The Mackenzie Family Resource Network			■	
Children's Cottage Society			■	
Reforming the Family Justice System Initiative				■

Data Indicator Interviews

The NORC team then conducted a series of follow-up interviews focused on data indicators with key staff from select organizations representing the health, education, child & family services, and justice sectors. A new interview protocol (Appendix B) was developed to:

- elicit details about organizations' approaches to measuring resilience among populations of interest
- learn about experiences–including challenges with collecting data related to resilience,
- the use and reporting of data collected by organizations, and
- collaboration and data sharing with partner organizations.

The NORC team conducted virtual data indicator interviews with staff from 11 of the 12 identified organizations between July and November 2024. The interviews brought to light indicators and metrics currently being used in the communities, as discussed in the Data Indicators section.

Literature Scan

The NORC team conducted a literature search to identify potential measures of resilience and constructs related to building resilience that are applied across individual-, organizational-, and community-levels and priority sectors (health, education, child & family services, and justice). Relevant records were identified through a search of the EBSCO, PsycINFO, and Google Scholar databases using the search strategy identified in Table S2.

Table S2. Search Strings Used to Identify Literature Relevant to the Sectors and Intervention

SECTOR/LEVEL	SEARCH TERMS
Health	(health OR healthcare OR "health care") AND (increase* OR outcome*) AND (resilience)
Education	(school OR education OR child) AND (increase* OR outcome*) AND (resilience)
Child & Family Services	("child service*" OR "child welfare") AND (increase* OR outcome*) AND (resilience)
Justice	(justice OR "juvenile justice") AND (increase* OR outcome*) AND (resilience)
Individual	(individual) AND (resilience) AND (increase* OR outcome*)
Organizational	("nonprofit" OR "human service*" OR government OR organizational) AND (resilience) AND (increase* OR outcome*)
Community	(community) AND (resilience) AND (increase* OR outcome*)

Note: Peer-reviewed articles published after 2014 were eligible for inclusion. No restrictions on publishing location.

After the article abstracts were scanned for relevance, the methodology section of articles were reviewed to identify the instrument used and its relevance to the evaluation framework. Relevant articles were retained. Pertinent information related to the focus, target population, sector, outcome measures and indicators used was extracted.

After identifying instruments used in the field to measure these concepts, the NORC team searched for sector-specific empirical articles using related instruments or assessing resilience-related constructs.
Indicators and data sources that were identified by interviewees were also explored in this literature scan and review of available resources. The Palix Foundation also suggested articles and potential measures to consider for inclusion. NORC assessed these resources and integrated them as appropriate.

Appendix B - Data Collection Instruments

Site Visit Interview Guide

Informed Consent:
I'd like to start off by thanking you for taking time to participate today. We're looking forward to our conversation with you.

As you know, NORC at the University of Chicago is working with the Palix Foundation in its endeavor to implement and evaluate their Resilience Scale Framework. As part of this work, we are having these site visits to better understand your plans for using the Resilience Scale Framework and areas where the Palix Foundation can provide additional support. We will also be asking questions about the general data landscape, what your goals/ desired outcomes for the community are, and how the data can support those goals. We hope to use this information to develop an evaluation framework that can support future implementation and outcome evaluations.

For the conversation today, I will be asking you questions and guiding our discussion. Your answers will be kept private, and we will only share your answers to the Palix Foundation in aggregate with others from your site in the final summary report. You will not be named in the report, and your answers will not be tied to you directly. Your answers will be used to guide future work in this initiative, and to better understand your site's information needs. Our team will take every precaution to maintain the confidentiality of your information and what you say.

Your participation in today's conversation is completely voluntary. If you feel uncomfortable with any of the questions, you do not have to answer. You can leave at any time. If you decide not to take part or stop the conversation, it will not influence your role using the Resilience Scale Framework, or relationship with NORC or the Palix Foundation. We expect the discussion to last about one hour.

With your permission, we would like to audio record today's conversation. The recording allows us to revisit our discussion so we can reflect on what you share and make sure we accurately capture your thoughts in the final summary report. The recording will be stored in a secure location and will not be shared with anyone outside of NORC. The recording will be destroyed once notes are finalized.

Do you have any concerns with us recording the conversation today? Yes No

What questions do you have before we get started?

Do you consent to proceed with our conversation? Yes No

Introduction

1. Please describe your role at [ORGANIZATION]. How long have you been in this role?
2. Are you familiar with the Palix Foundation's Brain Story Certification Course, Masterclass, or the Resilience Scale Framework?
3. What do you know about this work?

4. Have you been involved in the Brain Story or Resilience Scale Framework? In what capacity? What activities have you participated in?
5. Have you ever used the Brain Story or the Resilience Scale in your work?
6. [FOR SITE LEAD ONLY] How much of your organization has participated in the Resilience Scale Masterclass? If yes, are you currently using this in your work?
   Have you ever used this knowledge as a tool in your practice?
   What is your interest in this work?
   How is this work relevant to you?

Now we will ask a few questions to understand what community-level issues you are experiencing related to resilience. We will then discuss what activities your organization is planning or may have underway to improve the resiliency of your community.

Community-level Resilience

7. What does your community (please define) understand about the science of resilience?
8. We want to better understand community capacity in [Site]. What are the strengths of your community? Can you identify some green box organizations within your community that add safe, stable, and supportive relationships/environments for people?
9. What community-level problem(s) related to resilience does your leadership team want to address? How might these be addressed by using the Resilience Scale Framework? Can you identify some red box organizations within your community that help reduce adversity for people?

This next section will focus on understanding the data you collect, what you are learning from your data, and how, if at all, you are currently using the data for decision-making.

Community Data Assessment

10. What data (public or private) are available to your organization that help you address outcomes (positive or negative)?
11. What organizations and sectors are involved in collecting and reporting data documenting these challenges, strategies, and outcomes? Where possible, tie the orgs/sectors to each data source identified.
12. What data sources are your organization collecting, using, and/or reporting on? Who can we contact to better understand those data sources and variables (such as how they are defined)?
13. How are you using these data sources to support your community goals?
14. What data are missing in your community? What is something you would like to collect data on that you are not currently able to? This can include data on the levels of adverse childhood experiences in your community.
15. How are the data collected? Where – at service intake, case closure, progress assessments, feedback surveys? How often – monthly, quarterly, annually, or as needed? In what format are your data stored – client data collection forms, program spreadsheets, organization-level datasets?
16. How are the findings reported? – in what formats and for what audiences? For what audiences – staff, managers, leadership, board, clients, funders, the public? In what formats – annual agency reports, funder performance measures, meeting briefings?

17. What data do you review with your team? Client-level data - demographics, needs, engagement, program completion, outcomes? Program-level data – service utilization, referrals, wait times, costs, other? Organization-level data – budgets, resources, strategic goals, etc.

Community resilience-related solutions

18. To address these issues (i.e., <list major problems identified above>), what strategies or initiatives is your organization considering (or planning) to implement?
19. Please describe these strategies.
    [FOR SITE LEAD ONLY] What levels do they target (at individual-, organization-, sector-, system-, or community-levels)?
    What are the intended outcomes for these strategies? [Note: Wherever possible, identify outcomes associated with each respective strategy or initiative.]
    For which strategies is the team planning (or considering) to use the Resilience Scale Framework? [FOR SITE LEAD ONLY] What levels (individual-, organization-, sector-, system-, or community-levels) are you targeting to change by using the Resilience Scale Framework?
20. What resources do you intend to draw upon to implement these strategies?
21. What are some factors, either within your community or your organization, that you think will facilitate the implementation of these strategies?
22. What are some barriers you could foresee in implementing these strategies? (Staffing capacity? Allocation of financial resources? Leadership engagement?) What additional kinds of support would it be helpful to have?

Community Leadership Questions (to ask community leaders only)

23. Which organizations and sectors are (or could be) involved in addressing these problems, implementing these strategies, and using these Resilience Scale Framework?
24. Are these organizations sectors currently represented on the leadership team?
25. Are the business leadership and community leadership (i.e., volunteer boards) involved in this work? If so, how? How do you see them being involved moving forward?
26. Is there anything else that you'd like to mention before we end our conversation today?

Conclusion

We may have follow-up questions as we learn more about your use of the Resilience Scale Framework.
Is it ok if we reach out to you for specific questions or a follow-up conversation?

Thank you very much for your time!

Data Indicators Interview Guide

Informed Consent:
I'd like to start off by thanking you for taking time to participate today. We're looking forward to our conversation with you.

NORC at the University of Chicago is working with the Palix Foundation to implement and evaluate their Resilience Scale Framework. As part of this work, we are meeting with staff from several organizations to understand what data could be used to assess the use and effectiveness of the Resilience Scale Framework. We will ask you some questions to better understand the data you collect and how the data supports your goals. We hope to use this information to develop an evaluation framework that can support future implementation and outcome evaluations.

For the conversation today, I will be asking you questions and guiding our discussion. Your answers will be kept private, and we will only share your answers to the Palix Foundation in aggregate with others from your site in the final summary report. You will not be named in the report, and your answers will not be tied to you directly. Your answers will be used to guide future work in this initiative, and to better understand your site's information needs. Our team will take every precaution to maintain the confidentiality of your information and what you say.

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With your permission, we would like to audio record today's conversation. The recording allows us to revisit our discussion so we can reflect on what you share and make sure we accurately capture your thoughts in the final summary report. The recording will be stored in a secure location and will not be shared with anyone outside of NORC. The recording will be destroyed once notes are finalized.

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What questions do you have before we get started?

Do you consent to proceed with our conversation? Yes No

Understanding Data Sources

1. What data do you find to be the most meaningful or helpful to your work? Why? Are these data sources publicly available?
2. We'd like to understand how these data are collected. Do you collect the data directly, or is it generated through your programming? How are data collected (what are the sources)? How often? What format is the data stored in? For how long have you been collecting these data? [If the data are EXTERNAL to the organization] do you obtain the data from another source? What is that source?
3. Who within your organization has access to the data sources [specified above]?
4. What level is this data analyzed at (individual-, organizational-, community-)?

5. How are the findings reported/used – in what formats and for what audiences?
6. Do you share your data with other organizations or entities? If so, with whom?

Data Indicators

7. What indicators does your organization collect in the following domains (by indicators, we mean what is measured by data such as scales or questions administered):
   - Trauma (for example: violence victimization, psychological distress, self-harm)
   - Resilience (for example: coping skills, available resources, well-being, self-efficacy)
   - Family well-being (for example: martial relationships, social support, relationships with children, family violence, caregiving stress)
   - Mental/Behavioral Health (for example: service utilization and access, diagnoses, difficulty getting BH/MH needs met)
   - Professional development or training
   - How people are referred or qualify for services
   - Engagement with treatment/services
   - Attendance
   - Completion of program
   - Family involvement

Additional Data Collections

8. Do you collect feedback from clients/patients after they receive services? This could include--
   - People's satisfaction with services and/or provider
   - Whether services met their needs
   - Whether there were any barriers to access
   - Whether clients/patients followed through with referral(s) and received service(s)
9. Do you collect data on your own staff and the quality of services provided? If yes, what data?
10. Do you collect data on how your organization coordinates services with other organizations in the community? If so, can you tell us more about these data and how they are used?
11. What is something you would like to collect data on that you are not currently able to promote resilience among your staff and/or clientele? Why are you not collecting this? Are there costs or other barriers to data collection?
12. In thinking about the Resilience Scale Framework, what additional data (if any) would you like to collect to assess to understand how well it is being implemented/incorporated in your organization and leading to positive outcomes?

Closing Questions

Is there anything else we did not touch upon that you would like to discuss?
Thank you very much for your time!

Appendix C - Implementation Science Approach

In 2022, the National Cancer Institute (NCI) launched the *Implementation Science at a Glance* guide (NCI, 2019). This guide was designed to provide an overview of implementation science for practitioners and included a systematic 4-stage framework to support the implementation of public health interventions, regardless of the stage in the process (Figure S1).

Figure S1. The four stages of implementation, as per the NCI *Implementation Science at a Glance* guide (2022)

In practice, these stages blend and overlap, but *Assess, Prepare, Implement*, and *Evaluate* can be broadly described as follows:

Assess This stage describes the process of developing an evidence-based intervention that is aligned with the needs and resources of a community that are identified through stakeholder engagement.

Prepare This stage describes a systematic approach to adapting interventions to better fit the setting or target audience, as well as maintaining fidelity to the original intervention.

Implement This stage describes various implementation science frameworks that guide the planning, implementation, and evaluation of an intervention, and shares strategies of how to implement interventions

The implementation science frameworks include:

- **Diffusion of Innovations Theory** - explains how new ideas, practices, or technologies spread within a society or social system over time.
- **Consolidated Framework for Implementation Research** - provides a comprehensive structure for assessing factors that influence the successful implementation of interventions. It includes five domains—intervention characteristics, characteristics of individuals, inner setting, outer setting, and process—to guide systematic evaluation and adaptation.
- **Interactive Systems Framework for Dissemination and Implementation** - explains how research-based innovations are translated into practice through three interacting

systems: the synthesis and translation system, the support system, and the delivery system. These systems work together to ensure that evidence-based interventions are effectively disseminated, supported, and implemented in real-world settings.

Evaluate This stage describes the systematic collection of information, such as implementation, program, community and individual outcomes, that can be used to determine whether the implementation of an intervention was successful.

Since the release of this guide from NCI, the AFWI has identified alignment between this new approach and the body of work completed by the AFWI to date. The approach as defined by the NCI not only complements the foundation of AFWI's work but also enhances its analytical depth by providing a more refined interpretation and application of activities undertaken. As such, NORC used this guide to inform the development of the Evaluation Framework Implementation included in this report.

Appendix D – Additional Details from the Community Insight Interviews

High Level - *Current Data Use*

Most organizations in High Level collect administrative information to meet funder requirements. These data collection activities include conducting client pre-post assessments and client feedback on service quality and improvement needs. Leaders noted they were "new to the data game" and "didn't have professionals dedicated to data capture," as those with data skills often moved elsewhere to work jobs with better pay and benefits. More data collection activities are being done at the sector level:

- In the Education sector, the Fort Vermilion School Division No. 52 has a robust data system that tracks student behavior (including details on incidents), intake files on mental health assessments, as well as rates of graduation, dropout, literacy, and attendance. The data are stored in Microsoft 365 platforms, and can be queried by students, teachers, schools, or the school division but are not accessible to other service sectors or data systems.
- In the Child & Family Service sector:
    - The Family and Community Support Services agency has developed its own program logic model and collects data on program outcomes, service utilization, and resource allocation in compliance with government evaluation guidelines.
    - The Signs of Safety data system is used in Child Protective Services.
- In the Justice sector:
    - The High Level RCMP detachment uses the Youth Harm Score heat map to identify communities at higher risk and tracks crime trend data using various metrics, disaggregated by age, gender, crime description, and First Nation status.
    - The Effective Practices and Community Supervision (EPICS) data system from the University of Cincinnati is used in High Level Justice system.
- At a local population level, High Level is conducting a Residential Needs Assessment (final report due June 2025). The assessment will look at the availability of current programs and services and identify gaps. They are interested in expanding the assessment to reach people who do not live in High Level but who interface with the community's services.

Medicine Hat - *Current Data Use*

Interviewees in Medicine Hat were interested in the potential of evaluation, and expressed a desire to add staff to help them think about new ways to collect data tracking program- and client-level outcomes. Organizations shared that current staff find it difficult to find time to work on measurement and data collection issues outside existing meetings. Data collection activities that were identified during the interviews included:

- In the Child & Family Services sector, organizations in Medicine Hat noted that although they collected a lot of data, they typically collected indicators prescribed by their funding contracts. The organizations were interested in measuring the outcomes of their work to help them grow and improve their programs. They noted that prevention outcomes can be hard to measure. It can also be difficult to define and operationalize outcomes of interest, such as "success" and "quality of life."
- In the Education sector, the Medicine Hat Public School Division No. 76 administers a division-wide school survey that is nationally normed. The survey addresses social-emotional learning and is completed by students, staff, and parents. The survey has a high response rate, and the data are reported at both school and grade levels.

Lethbridge - *Current Data Use*

Several Lethbridge organizations noted the lack of measurement tools in local social services programming. One commented that while there is a desire for evidence of the effectiveness of local programs, it is difficult to quantify these results.

Community groups in Lethbridge discussed updating their strategic goals and priorities, but they lack the time and organizational capacity to conduct full program evaluations. They were also challenged to use what they learned from small evaluations and surveys in the face of political shifts in programming priorities at local-, provincial-, and federal-levels. One group reported working to organize a local community of practice with other social workers interested in systems change and exploring new opportunities such as the Resilience Scale Framework.

- In the Health sector, the Chinook Primary Care Network in Lethbridge partners with the Health Quality Council of Alberta, which provides administrative performance reporting measures and indices of "material and social deprivation." Alberta Health also produces community health profiles of population health data, but there are data lags, so they are not always up to date. Alberta Health previously collected and reported Key Performance Indicators for screening and prevention services and a standardized clinical data assessment, but this centralized data collection and reporting practice was discontinued. The decentralized model of the Primary Care Network creates a barrier to collection of performance indicators directly from area clinics.

Some community leaders explained that "Lethbridge loves data," but these data are focused more on issues of homelessness, addiction, and poverty and less on protective factors and interventions. An example of this is a recent community-wide survey on perceptions of safety in the community. Although the federal government wants to see local targets for reducing the number of Indigenous people experiencing homelessness, Lethbridge does not have enough resources to adequately support individuals experiencing homelessness who cycle in and out of local shelters.

Appendix E – Illustrative List of Tools Identified in Literature

Tools identified in peer-reviewed literature that are reported to assess efforts to reduce adversity, add positive supports, or improve skills and abilities

DESCRIPTION	POPULATION	SECTOR
Patient-Reported Outcomes Measurement Information System (PROMIS) Pediatric Scales (Varni et al., 2014) • Self-reported scales used to assess five health domains: physical functioning, pain, fatigue, mental and social health in children. These are further separated into eight constructs including desirable (e.g., peer relationships, mobility, and upper extremity physical function) or undesirable (e.g., depressive symptoms, anxiety, anger, pain interference, fatigue) outcomes, with higher scores showing more of the concept being measured.	Children aged 8 to 17 years	Health
Cumulative Stressor and Resources Inventories (Slopen et al., 2022) • Self-reported survey covering 16-indicators for stressors and 11-indicators for resources related to parental wellbeing and child health. • Higher stressors with lower resources are associated with higher levels of depression and anxiety symptoms in caregivers.	Caregivers of children aged 0 to 5 years	Health

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Tools identified in peer-reviewed literature that are reported to assess efforts to reduce adversity and improve skills or abilities

DESCRIPTION	POPULATION	SECTOR
Prenatal Distress Questionnaire (PDQ; Yali & Lobel, 1999) • Self-reported, 12-item instrument used to assess common concerns during pregnancy. • This instrument is grounded in a conceptualization of prenatal stress that includes pregnancy-specific conditions and women's appraisals or responses to these.	Pregnancy	Health

DESCRIPTION	POPULATION	SECTOR
Pregnancy-Related Anxiety Scale (PrAS; Brunton et al., 2018) • Self-reported, 33-item instrument used to assess concerns regarding childbirth and body image, worries about motherhood, acceptance of pregnancy, attitudes towards medical staff, avoidance and concerns for welfare of the child(ren). • Higher scores indicate greater levels of pregnancy-specific anxiety.	Pregnancy	Health
Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) • Self-reported, 10-item scale used to assess depressive symptoms during pregnancy and postpartum. • Higher scores indicate greater presence of depressive symptoms.	Pregnancy, Postpartum	Health
Parenting Stress Index (Abidin, 2012) • Self-reported, 36-item scale used to assess parental distress, parent-child dysfunctional interaction, difficult child, and defensive responding.	Parents, Caregivers	Child & Family Services
Adult-Adolescent Parenting Inventory (AAPI-2.5, Bavolek & Keene, 2001) • Self-reported, 40-item questionnaire used to assess attitudes about raising children, and provides an index of risk for parenting behaviors that are linked with child maltreatment.	Parents, Caregivers, Adolescent Parents	Education

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Tools identified in peer-reviewed literature that are reported to assess efforts to reduce adversity

DESCRIPTION	POPULATION	SECTOR
Stressful Life Events Screening Questionnaire (SLESQ; Goodman et al., 1998) • Self-reported, 13-item instrument used to assess experiences of stressful life events, with higher scores indicating more stressful life events.	Adults	Health
Perceived Stress Scale (PSS; Cohen et al., 1983) • Self-reported, 14-item questionnaire used to assess an individual's subjective perception of recent stressful life circumstances, with higher scores indicating more perceived stress.	Youth aged 12 years and over, Adults	Health

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Tools identified in peer-reviewed literature that are reported to assess efforts to add positive supports

	DESCRIPTION	POPULATION	SECTOR
⊕	**Child Flourishing Index** (CFI) and **Family Resilience and Connection Index** (FRCI; Bethell et al., 2019) • The CFI and FRCI are measures included in the U.S. National Survey of Children's Health. • CFI: Parent-reported, 3-item scale used to assess 'flourishing' in children aged 6 to 17 years, with a score of 3 considered as flourishing. • FRCI: Parent-reported, 6-item to assess family resilience, coping skills and connection, with higher scores indicating families with greater capacity for resilience and connection.	Children aged 6 to 17 years, Families of children aged 6 to 17 years	Health
⊕	**Rosenberg's Self-Esteem Scale** (RSES; Rosenberg, 1979) • Self-reported, 10-item scale used to assess self-esteem. Total scores range from 0 to 30, with scores below 15 indicating low self-esteem and scores above 15 suggesting normal self-esteem. • The scale was initially designed to measure youth's self-esteem but can be used in a variety of groups, including adults.	Youth, Adults	Health
⊕	**Multidimensional Scale of Perceived Social Support** (MSPSS; Zimet et al., 1988) • Self-reported, 12-item questionnaire used to assess an individual's perceived level of social support with family, friends, and significant others.	Adults, Pregnancy	Health
⊕	**Social Support Effectiveness Questionnaire** (SSEQ; Rini et al., 2006) • Self-reported, 35-item questionnaire used to assess three types of partner support (emotional, informational, and task) received over the past three months. • Total scores can range from 0 to 80, with higher scores suggesting more effective partner support.	Adults, Mothers	Health
⊕	**General Functioning 12-item Subscale** (GF12; Epstein et al., 1983) • Self-reported, 12-item scale used to assess family functioning, with 6-items reflecting healthy and 6-items reflecting unhealthy functioning. • The total for each subscale is summed and the total score is then divided by the number of items on the subscale. The total score ranges from 1.0 (best) to 4.0 (worst functioning). • GF12 is a dimension of the 60-item McMaster Family Assessment Device that organizations may use in population-based surveys.	Parents, Caregivers, Families	Child & Family Services

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Tools identified in peer-reviewed literature that are reported to assess efforts to add positive supports and improve skills or abilities

	DESCRIPTION	POPULATION	SECTOR
	**Mental Health Continuum Short Form** (MHC-SF; Keyes, 2005) • Self-reported, 14-item scale used to assess social, psychological, and emotional well-being. • Total scores range from 14 to 84 and scores above 56 indicate better mental health and well-being.	Adults	Health
	**Life Orientation Test** (LOT; Scheier & Carver, 1985) • Self-reported, 8-item instrument used to assess individual differences in optimism versus pessimism, with higher scores indicating greater optimism.	Adults, Pregnancy	Health
	**Parent Child Interaction Teaching Scale** (PCITS; Oxford & Finlay, 2013) • Observational assessment of the quality of parent-child interactions. • Parents are video-recorded teaching their child a task and the interaction is then coded using the PCTIS manual. • The manual includes 6 subscales, with 4 measuring the parent's nurturing behavior and 2 assessing child's behavior. • Total scores can range from 0 to 73 with higher scores indicating a more attuned interaction between mother and child.	Parents, Caregivers	Child & Family Services
	**Strange Situation Procedure** (SSP; Ainsworth et al., 1978) • Observational assessment of a child's attachment to their caregiver. • The procedure requires the child to go through 8 stressful but brief episodes intended to activate their attachment behaviors. • The child is observed through a two-way mirror and video recording and their behavior is coded for styles of attachment (insecure/avoidant, ambivalent/resistant, and disorganized).	Children aged 11-15 months	Child & Family Services
	**Pediatric Quality of Life Inventory** (Version 4.0; PedsQL, Varni & Burwinkle, 2006) • Self-reported (child and parent), 23-item scale used to assess the health-related quality of life of children. Scores range from 0 to 100, with higher scores indicating a better health-related quality of life. • Physical functioning, emotional functioning, social functioning, and school functioning are	Children aged 5 to 18 years	Education

DESCRIPTION	POPULATION	SECTOR
assessed, with respondents answering how much of a problem each item has been during the past month.		

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Tools identified in peer-reviewed literature that are reported to assess efforts to improve skills and abilities

	DESCRIPTION	POPULATION	SECTOR
	State-Trait Anxiety Inventory (STAI; Spielberger et al., 1983) • Self-administered instrument composed of two separate 20-item scales that are used to assess state (i.e., temporary) and trait (i.e., relatively stable) anxiety in adults, with higher scores indicating higher anxiety. • The STAI can be used in clinical settings to screen for clinical levels of anxiety, and is commonly used with pregnant women (e.g., Sinesi et al., 2019).	Clinical Populations, Pregnancy	Health
	General Anxiety Disorder (GAD-7; Spitzer et al., 2006) • Self-reported, 7-item clinical screening tool used across healthcare settings to assess anxiety symptoms, with higher scores indicating higher symptoms of anxiety in the preceding two weeks. • GAD-2 is a shortened version of the GAD-7 that incorporates the first two questions of the GAD-7, which are critical components of anxiety disorders.	Primary Care	Health
	Beck Depression Inventory (BDI-II; Beck et al., 1988) • Self-reported, 21-item questionnaire used to assess symptoms of depression in individuals aged 12 years and older. Total scores range from 0 to 63 with scores from 29 to 63 indicating severe depression.	Individuals aged 12 years and over	Health
	Center for Epidemiological Studies Depression Scale (CES-D; Turvey et al., 1999) • Self-reported, 8-item instrument (abbreviated from the 20-item CES-D; Radloff, 1977) used to screen depressive symptoms in various populations and in epidemiological studies, with higher scores indicating the presence of greater depressive symptoms.	Various	Health
	Bayley III Scales of Infant Development (Third Edition; Bayley, 2006) • Instrument used to assess cognitive, language, motor, social-emotional, and adaptive development in children ages 1 to 42 months. • The cognitive, language, and motor scales are administered to the child by a professional, while the social-emotional and adaptive scales are surveys completed by their caregivers. • Composite scores ranging from 40 to 160 are calculated for all five scales and higher scores are associated with a better performance on Bayley III scales.	Children aged 1 to 42 months	Health
	Attitudes Related to Trauma-Informed Care Scale (ARTIC; Baker, 2015) • Scale used to assess the impact of trauma-informed care training on professional	Healthcare professionals	Health

	DESCRIPTION	POPULATION	SECTOR
	attitudes toward trauma-informed care in healthcare professionals.		
	Child and Adolescent Mindfulness Measure (CAMM; Greco et al., 2011) • Self-reported, 25-item scale used to assess self-acceptance and mindfulness in youth, with higher scores indicating higher levels of mindfulness.	Children, Adolescents	Child & Family Services
	Minnesota Executive Function Scale (MEFS; Carlson & Zelazo, 2014) • Self-reported scale used to assess executive function (e.g., attention, working memory, and self-regulation) in children and adolescents, typically within clinical and educational settings. • The scale is often completed by parents, teachers, or other caregivers who can provide a detailed picture of the child's functioning across different situations.	Children, Adolescents	Education
	Peabody Picture Vocabulary Test (Fifth Edition; Dunn & Dunn, 1997) • Observational assessment of receptive vocabulary in children over 2.5 years, with higher scores indicating greater receptive vocabulary.	Children aged 2.5 years and older	Education
	Battelle Developmental Inventory Screener (Third Edition; BDI-3 Screener; Newborg, 2005) • Observational and interview-based, 100-item measure used to assess global development for children across five domains: adaptive, communication, cognitive, motor and personal-social.	Children aged 0 to 7 years 11 months	Education
	Behavior Assessment System for Children–Second Edition Parent Rating Scales (BASC-2; Reynolds & Kamphaus, 2004) • Diagnostic tools used to assess behavior and self-perception of individuals between 2 and 25 years of age. • The BASC-2 consists of five reports that can be completed by parents, teachers, clinicians, or by the individual. There are 16 primary scales, 7 optional scales, and 5 composite scales in the BASC-2, with higher scores in a subscale indicating more behavioral problems. • There is an updated version available – BASC-3 (Reynolds & Kamphaus, 2015).	Children, adolescents, and young adults aged 2 to 25 years	Education
	Behavior Rating Inventory of Executive Function-Preschool Version (BRIEF-P; Gioia et al., 2002) • Self-report, 63-item measure used to assess executive functioning in preschool children. • Parents identify whether their child displays specific behaviors, with higher scores indicating greater executive function challenges. • There are also BRIEF measures available for children and adolescents 5 to 18 years of	Children aged 2 to 5 years	Education

	DESCRIPTION	POPULATION	SECTOR
	age, as well as adults from 18 to 90 years of age (Gioia et al., 2000).		
	Child Behavior Checklist (CBCL; Achenbach, 2001) • Self-reported or clinician administered, 113-item tool used to assess behavioral and emotional challenges in children, with higher scores indicating greater challenges. • Questions are split into eight syndrome scales (anxious/depressed, depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior).	Children	Education
	National Survey of Children's Health - Item (US Census Bureau, 2016-2017) • Self-reported survey also asked adults in the household to complete the • One item of interest "[Child] stays calm and in control when faced with a challenge" can be used to assess parental perceived resilience of the child.	Parents, Caregivers, Children, Adolescents	Justice
	Brief-Coping Orientation to Problems Experienced Questionnaire (Brief-COPE; Carver, 1997) • Self-reported, 28-item questionnaire used to assess individuals coping strategies in response to stressful events.	Adults, Adolescents, Young Adults	Justice

Note: Uptake or effectiveness in community level evaluation of resilience-related outcomes is unclear.

Appendices References

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