· F O U N D R Y·

Transforming Access to Care

Foundry's Integrated Youth Services Model

January 2023



Executive Summary

Key Messages

For (IY) as into

Foundry's integrated youth services (IYS) model can be understood as an emergent service system intended to address long-standing challenges delivering and accessing quality care for young people.

2

Rather than initiating all-new services, the approach reshapes and augments existing local services in a collaborative service framework to better facilitate access, including considerations around youth uptake and acceptability.

3

Local centres deliver a range of evidence-informed interventions across physical and mental health, substance use and social service areas.

4

Interventions are selected for implementation based on peer-reviewed evidence, clinical and lived experience, and operational context to enable strong youth outcomes.

Why an IYS Evidence Brief?

Integrated youth services (IYS) have alternately been labelled a grassroots movement, a health and social services delivery system and a clinical model of care, among other descriptors.

Indeed, IYS in practice may incorporate aspects of each of the above — and in many ways has for Foundry, an early IYS sector leader in Canada. Since its inception in 2015, Foundry has grown from an initial pilot site in Vancouver, BC, to 20+centres open or in active development in 2023.

As interest in IYS increases — largely in response to the fragmentation and ongoing challenges in the youth and young adult health sector — the need to clearly ground, describe and share information about IYS has increased in parallel, for service providers, community partners, funders/policymakers and all those invested in furthering youth health and wellness.

To that end, this brief sets out the evidence and rationale behind the core components of Foundry's IYS model and approach to transforming access to services for youth and young adults in British Columbia. As a living document, it aims to support the ongoing learning and development of the IYS sector in British Columbia and across Canada.

What is Foundry's IYS Model?

At the centre of the model is the holistic service framework that structures the model of care offered in each Foundry centre.

At present, the key aspects of Foundry's IYS model are most easily understood through Figure A below (see Figure D for a more detailed view).

The **service framework** sets out the five service streams offered (mental health, substance use, peer support, physical and sexual health, and social services), Foundry's integrated stepped care model (ISCM), as well as guidance for the interventions offered in each service stream. As outlined throughout this document, each of the supports or interventions selected

for implementation — whether Emotion-Focused Family Therapy, substance use counselling, medication or others—is based on peer-reviewed evidence, clinical and lived experience, operational context and appropriateness to ensure the right fit and focus on youth outcomes. Furthermore, by intentionally working across the social determinants of health, the framework works to bridge dualistic ('mind versus body') Western conceptions of health and siloed approaches to service delivery.



IYS Framework Overarching Themes

Redesigning Service Systems

The impetus of Foundry's model is not to develop and build all new services and resources in a community. It is instead predicated on a process to reorganize existing services, whether non-profit or publicly administered, to create new 'service systems'. Through an asset-based, community-development approach, Foundry's IYS model brings together diverse community partners and sectors to work together under a single, unified name and service framework. While partners do collaboratively identify gaps in community resourcing, the core approach fundamentally reshapes and integrates existing services to make them more welcoming, more navigable and ultimately more accessible.

Co-Creating Experience

Core to Foundry's vision of transforming access to care is committing to ongoing youth and family/caregiver engagement, incorporating the broader circle of care that many youth are embedded within. Foundry's development process, from the selection of the name, centre physical design, location and service offerings include substantial youth input, recognizing how a common look and feel can support youth experience, service navigability and acceptability. Bringing young people into shared decision making in these areas also supports the broader goal of empowering youth as care-seekers in their health journey.

Learning Health System

The structure of the Foundry IYS model is broader than a single centre or community. A provincial network of centres further enhances service awareness and navigation between communities and regions for service providers, youth and their families/ caregivers — a key benefit. Significantly, it also allows for the use of a common data collection platform, clinical care measurement tools and communities of practice, supported by a backbone organization to ensure structure and consistency. The development of this Learning Health System within and between centres allows for more rapid knowledge exchange, improved operational workflows, clinical practice and training, and implementation of new innovations — all in service of supporting stronger youth outcomes.

Where do we go from here?

Integrated youth services models are an exciting innovation that provide comprehensive, person-centred and coordinated care for young people. As with any new or existing model, there is much to learn. The early findings and synthesis around IYS are promising, with strong uptake and satisfaction. As Foundry's own Learning Health System is developed and operationalized, we expect to continue sharing many more learnings to offer forward to the sector.

Acknowledgements

We acknowledge, with much gratitude, that our work takes place on land steeped in rich Indigenous history and home to many First Nations, Inuit and Métis Peoples today. We recognize that Foundry centres are situated on the traditional and unceded territories of many First Nations communities, and we are both humbled and thankful to be able to carry our work forward with Indigenous Peoples who have been stewards of this land since time immemorial.

This evidence brief was produced by Foundry Central Office (FCO) in support of the Foundry network and other Integrated Youth Services (IYS) networks globally. We recognize Darlene Seto as project lead for this document and Kaelin Fleming as a core contributor with the support, leadership and contributions of Steve Mathias, Karen Tee and Kelly Veillette as project sponsors. We wish to acknowledge other FCO and Foundry Lead Agency team members and partners for providing their invaluable feedback and review through the development of this document.

We would also like to thank Foundry's partners and funders, Lead Agencies, advisory committees and the youth and families/ caregivers who are centred in everything we do. The core components and principles of the Foundry model, as described in this document, have consistently and intentionally been grounded in and reviewed by the youth and families/caregivers that we serve.

It's time for a new approach



Contents

Acknowledgements Introduction Sector Challenges The Foundry IYS Model I. Redesigning Community 'Service Systems' II. Co-creating Experience with Youth and Family/Caregivers III. A provincial IYS Learning Health System Foundry's Core Service Framework	8 11 14 16 18
Sector Challenges The Foundry IYS Model I. Redesigning Community 'Service Systems' II. Co-creating Experience with Youth and Family/Caregivers III. A provincial IYS Learning Health System	8 11 14 16 18
The Foundry IYS Model I. Redesigning Community 'Service Systems' II. Co-creating Experience with Youth and Family/Caregivers III. A provincial IYS Learning Health System	11 14 16 18
I. Redesigning Community 'Service Systems' II. Co-creating Experience with Youth and Family/Caregivers III. A provincial IYS Learning Health System	14 16 18
Foundry's Core Service Framework	
Modes of Service Delivery and Access Virtual Services Integrated Stepped Care	
I. Mental Health and Substance Use Cognitive Behavioural Therapy (CBT) Solution-Focused Brief Therapy (SFBT) Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET) Emotion-Focused Family Therapy (EFFT) II. Peer Support Family Peer Support III. Physical and Sexual Health IV. Wellness and Social Services Work and Education: Individual Placement Support (IPS)	25 26 27 27 29 31 32 33
Future Direction	37
Appendix A. Methodology	38
References :	39

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Figure B: Peak Age of Onset of Mental Illness Worldwide (9)9 Figure C: Top Causes of Death in BC in 2022 by Age Category (11) ...10 Figure D: Foundry's IYS Framework 13 Figure E: Shifting Community 'Service Systems' 14 Figure F: Foundry's Core Service Streams 20 Figure G: Foundry's Integrated Stepped Care Model .. 23

Figure A: Foundry's IYS Framework Overview

Introduction

The development and evolution of the integrated youth services (IYS) sector in Canada, and in parallel, of Foundry as an IYS organization in recent years, is a testament to the sector's extraordinary opportunity, promise and impact in transforming the system of care for young people.

While there is recent scholarship detailing the emergence of IYS nationally and internationally and summarizing core IYS model components across jurisdictions, a great deal of heterogeneity remains across self-described IYS organizations globally. While aspects of its initial service framework and evaluation findings have been articulated in early reports, there is not an up-to-date document available discussing Foundry's current IYS approach or most current learnings and adaptations.

As such, the purpose of this document is to further set out, summarize and describe the specific current and aspirational organizational IYS model at Foundry. It focuses on providing the rationale, context and evidence behind core elements of Foundry's approach, service framework and supported interventions. The information contained within has been developed through consultation, discussion and interviews with key Foundry leadership and partners and analysis of Foundry internal and external documents, in conjunction with an evidence review conducted on core aspects of Foundry's IYS model and clinical model of care. A more comprehensive elaboration of methodology around the evidence review is provided in "Appendix A. Methodology" on page 38.

We expect the model to further continue to learn and evolve beyond what is articulated here. To that end, this is best understood as a living document, intended to support ongoing exploration and growth within Foundry and the broader IYS community. Through the development of this document, we hope to further support knowledge creation and mobilization around integrated youth services broadly, and to continue supporting the experience, access to care and well-being of young people across the province and country.

Sector Challenges

For decades, there have been ample voices from community-level advocacy, academia and institutional bodies at all levels pointing to the long-standing system challenges of delivering adequate and appropriate care for young people across the country, including within **British Columbia. The challenges identified are** multi-faceted and have been well-described in numerous publications (1-5). In many cases, they exist across sectors and areas.

At the forefront are insufficient publicly funded services to address known need, with an estimated annual funding gap of \$3.1 billion for mental health services in Canada (6). Current resource allocation tends to be focused on acute and/or specialist services with strict inclusion criteria, making individuals with subclinical disorders or more moderate symptoms ineligible for care or putting them on long wait lists. While non-profit organizations have worked to help fill the gap, many mental health and substance use services continue to be offered privately, often at significant cost to the user, and are therefore out of financial reach for a significant majority, including those who would often benefit from them the most.

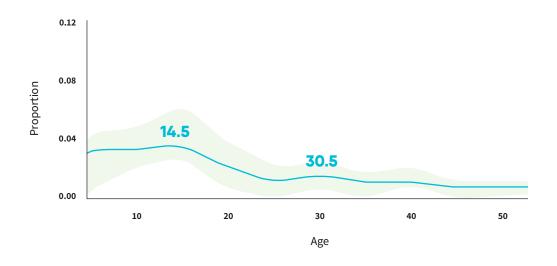
Furthermore, overly biomedical, colonial and largely Western service models are often disengaged from those accessing care, contributing to a lack of holistic, integrated and culturally safe or appropriate care options. Intergenerational trauma, alongside ongoing systemic discrimination and racism in health and social service systems, continues to enact disproportionate harms, particularly for Indigenous Peoples and communities (7). There is increasing acknowledgement around the multiple dimensions that comprise and contribute to human well-being — as understood in many ancestral Indigenous knowledge systems — alongside a significant and increasing body of evidence around the broader social determinants of health. Regardless, our social sector systems within and across health, education, housing and justice more often work at odds rather than in concert with each other.

A Need to Focus on Youth

While many of these challenges also exist across sectors and age groups, the gaps noted above are of particular concern looking at youth and young adult care given that:

- In Canada, young people ages 15-24 have the highest rates of mental illness and/ or substance use disorders across all age groups (8).
- The onset of mental illness occurs before the age of 14 in 1/3 of individuals and before the age of 25 in 2/3 of individuals (9).
- The global peak age of onset of any mental illness is 14.5, with substance use disorders peaking at age 19 (9).
- Suicide is the second leading cause of death in Canadians ages 15-34 (10), and drug toxicity and suicide are the first and third leading causes of death in British Columbians ages 10-39, respectively (11).
- 66% of young people ages 18-29 in British Columbia reported worsened mental health due to the COVID-19 pandemic, the highest proportion of any age group (12).

FIGURE B:
PEAK AGE OF ONSET OF MENTAL ILLNESS WORLDWIDE (9)



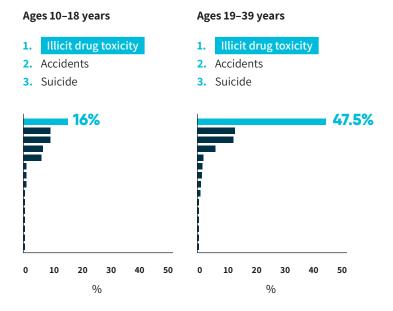
Siloed administrative, policy and funding structures between sectors and crucially, for those under age 19 and those over age 19, results in many young people being lost in the cracks at a critical time of mental, emotional and social development.

All of this results in delayed and at times developmentally inappropriate diagnosis and treatment, exacerbated by the lack of a specialized workforce to recognize and address how mental health problems often present differently in young people.

The consequences of these delays are compounded considering the strong body of literature supporting early intervention for youth mental health (similar to early intervention for any health concern). Early intervention leads to better mental health outcomes among young people who receive appropriate treatment when they are at high risk of developing mental illness and/or are displaying early signs of symptoms (13–15). Not only that, but there are also significant benefits and efficiencies when considering how to best allocate scarce funds and resources (16,17). For example, a 2022 largescale economic modelling study by Stelmach et al. (16) developed a model to assess the economic impact of investing in the prevention and treatment of mental disorders and suicide in adolescents across 36 countries. They found that for every \$1 invested in prevention or early intervention for depression, anxiety, bipolar disorder and suicide among youth, they expected a \$23 return to the economy through both economic and health benefits (16).

Thus, the vision for Foundry was borne from the recognition of these challenges and the will to develop an easily accessible model of care grounded in known, evidence-based interventions that would work to address these long-standing issues, as well as the emergent challenges of the present day.

FIGURE C:
TOP CAUSES OF DEATH IN BC IN 2022 BY AGE CATEGORY (11)



The Foundry IYS Model

Transforming access to care for young people



The Foundry IYS model, as first conceived and proposed in 2014, was designed with a depth of knowledge and experience of the challenges and opportunities of British Columbia's unique configuration of community-based and public sector health, mental health and substance use and social sector services, expert reviews of best practices and peer-reviewed evidence for youthfacing services, and the close involvement of those impacted at source – young people and their families/caregivers.

With this came the recognition that in many communities, local agencies with on-the-ground experience were already attempting to work across sectors to support youth and families/caregivers in their community. However, progress was uneven, not well supported — by data, material resourcing, nor by broader system actors — and so efforts were typically limited in scope and stymied by structural limitations.

With these factors in mind, Foundry's IYS model was initially shaped using a collective impact (CI) approach," among others, to inform the core structure of the organization. Based upon CI principles, this included collaborative, continuous engagement with partners spearheading work in their communities and using a community-informed approach to develop and maintain a common agenda. It also included a shared measurement platform to capture and share progress, a process for identifying and coordinating activities for effective resource management ('mutually reinforcing activities' in collective impact framing) and development of a strong backbone organization (Foundry Central Office) to coordinate and advance shared work.

This early structure helped place a foundation for key aspects of Foundry's IYS model today, including a focus on collaborative work and leadership, as well as continuous learning and development. Today, the ongoing evolution of Foundry's model — alongside broader health sector learning — has shifted towards emphasizing a learning health system (LHS) approach, as a value-proposition framework for

In 2014, a proposal entitled Transforming Access to Health and Social Services for Transition-Aged Youth (12-24) in British Columbia was submitted to the Province of British Columbia's Select Standing Committee on Children and Youth. This turned into the collaborative province and philanthropy-funded BC Integrated Youth Services Initiative (BC-IYSI) for a proof-of-concept undertaking in five communities across the province that has since expanded into Foundry. For more information, please review: Foundry: Early learnings from the implementation of an integrated youth service network (18) and Distributive Leadership Within an Emerging Network of Integrated Youth Health Centres: A Case Study

of Foundry (19).

ii. As developed by the Tamarack Institute, the Collective Impact framework contains five core conditions: including the development of a common agenda; using shared measurement to understand progress; building on mutually reinforcing activities; engaging in continuous communications and providing a backbone to move the work forward.

informing service delivery, clinical and policy planning and decision making. While multiple definitions of Learning Health Systems exist," in essence, they represent a continuous improvement cycle where data, knowledge and practice — in all their diverse forms — are driven through organizational culture, enablers, or incentives, and leadership (21). Most simply, data collected from health care practice and research is immediately mobilized to healthcare providers and teams in ways that are meaningful and useful to them to support practice and policy change (22). The outcomes from that process are further fed into the learning cycle, working to diminish the normally substantive lag between evidence, policy and practice.

Today, the key aspects of Foundry's IYS model — extending beyond its core service framework or clinical model of care — can be roughly articulated along three key themes:iv

- Redesigning community-level 'service systems'
- Co-creating experience with diverse youth and families/caregivers
- Building a provincial Learning Health System



- iii. A Learning Health System was first conceptualized by the United States' Institute of Medicine, now National Academy of Medicine, as one in which "science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the delivery process, with patients and families as active participants in all elements, and new knowledge captured as an integral by-product of the delivery
- iv. These key aspects or components of Foundry's IYS model are distinct from, but informed and inflected by, our organizational and broader sector values and principles.

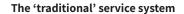
I. Redesigning Community 'Service Systems'

Given the range of existing community assets and expertise, the impetus of Foundry's model is not to develop and build wholly new integrated service centres from the ground up but to enable a reconfiguration of how existing health and social services are delivered.

The aim is to offer not only more navigable and easier to access services for youth but also facilitate and bring together a range of partner organizations to collaboratively offer a suite of diverse services to support young people under a single, provincially networked identity and umbrella.

FIGURE E: SHIFTING COMMUNITY 'SERVICE SYSTEMS'







Aligning and integrating the service system

On the ground, the initiation of a Foundry centre convenes, in effect, a community development process that offers a spirit of shared ownership of the centre. Individual centres, operated by Lead Agencies with a strong record of community leadership, work in partnership with local funders, service partners and youth and families/caregivers to collaboratively identify and fill in community assets and gaps within a defined but flexible care model of evidence-informed interventions. Foundry and partner contributions — in funding, physical infrastructure, staff time, expertise or otherwise — are pooled to build out offered services. In this sense, a single centre is typically made up of staff and services provided from multiple agencies, partnering across sectors, with a single united identity. In many cases, service providers are leaders in the transformation, having experienced the challenges of working in more siloed settings. The comradery, consultative and clinical support afforded by working with a multidisciplinary team, alongside the means to support youth needs more fully and holistically, are seen as significant benefits to service providers, enhancing provider satisfaction and workforce sustainability. While the 'backend' may be comprised of multiple agencies and systems, the experience of a young person is focused on receiving seamless care through their health journey.

Last, though certainly not least, integration is fostered not merely based on the co-location of services, but through deliberative and intentional processes at multiple dimensions and levels of leadership, clinical care, administration and more. Through these structures, whether IT infrastructure, interprofessional clinical

rounds or shared normative practices, a seamless care experience is prioritized to minimize the need for a young person to navigate complex referral systems or repetitively share their story. Service providers can have clearer communication and collaboration channels to share and receive vital information with others in the young person's circle of care; they know what interventions a youth has been offered and received. Integrated care allows service providers to collaborate with other providers around the young person — regardless of which agency employs them. It can also shift some of the administrative and information sharing burden of specialist referrals from the young person to the provider.

Given the relative novelty of IYS, the body of literature around these dimensions of integration is still nascent, with high variability in how integration is characterized and therefore in understanding impact on outcomes (23,24). The existing literature around integration of mental health services with other forms of health care, however, shows promising results with young people reporting improvements in mental and physical health, confidence and self-esteem, and educational and vocational opportunities (1). Of particular importance is the acceptability and accessibility of IYS, with young people reporting high satisfaction due to greater accessibility, stronger appropriateness of the services and having multiple services offered in one place (1,25). This focus on integration and centering the experience of young people, as supported by the evidence, is key to delivering on the transformation of experience and access to care, and so is central to the model.

v. Foundry's model of integrated care is based upon the 2005 model articulated by Fulop et al. (23), and is based around seven domains of integration, including systematic, normative, clinical, functional, service and organizational For more information, please see: Building Integrated Care from the RCHN Foundation

II. Co-creating Experience with Youth and Family/Caregivers

The moniker 'Foundry,' as a play off the words 'found' and 'foundation,' was selected after several rounds of robust youth engagement in communities across the province and nationally.

Adopting an easily identifiable marker or name brand supports youth experience, navigability and acceptability, similar to other models in Australia and Ireland (26,27). Building from those international experiences, a clear visual identity allows for easier navigation by both youth and their families/caregivers. It supports a common 'look and feel' and, moreover, a common experience across centres. Recognizing the multiple forms of stigma (28) that can present around accessing mental health, substance use and related services, having a welcoming and youth-friendly identity that can provide anonymity around the particular services accessed is also intended to reduce individual and social barriers in accessing care.

Ensuring a youth-friendly and co-created space is an important principle of Foundry's IYS model, from the selection of program names and physical design to inclusion in centre selection processes, outreach, hiring and more. Traditional 'Western' or colonial models of care can take a top-down approach when designing and implementing services for youth, rather than prioritizing the voices of those who matter most. The process of co-creation and shared decision-making is an important step in decolonizing health and wellness by creating more appropriate and culturallyaccessible services through fostering genuine

and meaningful connection with diverse youth and families (29). Viksveen et al. found in their 2021 systematic review that facilitating shared decision-making and allowing for choice in young people's care, at both individual and organizational levels, is associated with strengthening appropriateness and acceptability of services while also contributing to improved treatment outcomes (30). A fellow IYS service, headspace, has also found that shared decision-making is associated with higher satisfaction scores among young people accessing youth-friendly mental health services (31).

In this respect, empowering youth and their community as part of centre service delivery also supports empowering youth as care seekers that take the lead in deciding in how they would like to engage with available services. This approach is designed to reflect the growth trajectory for many transition-age youth, as they shift from being adolescents whose care decisions may be made by adult caregivers to being adults being supported to make care decisions autonomously (19). We continue to work on new ways to ensure the youth voice is part of organization activities and decision making, including decisions such as staff hiring, governance and priority setting.

While Foundry's model is grounded in the lived and living experience of youth, it also recognizes that young people are embedded within a circle of care typically involving caregivers, family members, friends and/ or their broader community. With this in mind, the involvement and engagement of family (as defined by youth themselves) is a key component of Foundry's IYS model. This includes engaging family advisory groups in centre operations, as well as providing family peer supports and family-based therapeutic interventions. A 2021 scoping review published in Lancet Psychiatry explored the efficacy of parental involvement in psychological interventions for youth by synthesizing the results from 73 randomized trials (32). The study found that, although the literature on caregiver involvement in youth mental health treatment is still limited, caregiver involvement can increase treatment efficacy, with no studies finding worsened outcomes among youth (32).

Unsurprisingly, there is also strong evidence demonstrating the importance of supportive family relationships for overall youth mental health and well-being. Family and caregiver connectedness is a key protective factor against youth homelessness, by providing youth with supportive relationships, healthy routines, and the opportunity to develop self-regulation skills (33). In addition, throughout the COVID-19 pandemic, a cross-sectional study found that strong family support for youth was associated with lower levels of mental illness, such as depression, anxiety and post-traumatic stress disorder, highlighting the importance of building up strong and supportive family systems for youth (34). These findings are all well supported throughout the literature (35), underscoring the need to embed a comprehensive family lens as a holistic approach to youth mental health and wellness.

III. A provincial IYS Learning Health System

The new system-level opportunity to support reorienting the service system around youth more broadly than within individual communities is now arising with the development of Foundry's integrated provincial network, with a common service framework, IYS approach, vision and mission. As part of the model, centres use a common data platform, clinical screening and assessment tools, and measurement framework. This allows for data-driven process and outcome measures to support clinical and operational decisions. A provincial backbone organization (Foundry Central Office) acts as a broader capacity builder across the network of centres, a clearing house for centralized data collection, knowledge creation and exchange, and an implementation and policy bridge to central system-level partners.

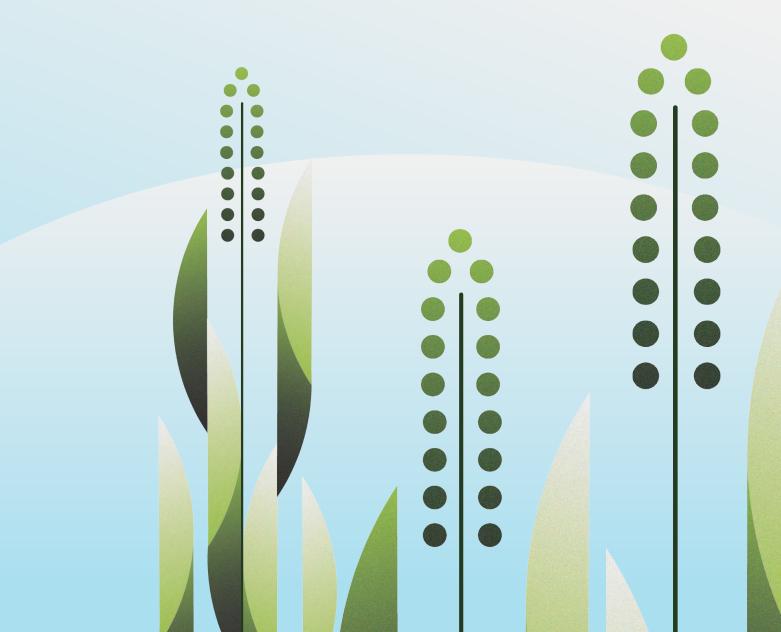
Operationally, the network of centres provides important learning and development opportunities - communities of learning and practice by region, population size, community trends and more. The common data supports allow for formal and informal quality improvement across the network, supporting consistent implementation and integrity of the model, as well as ancillary functions such as fundraising. For youth and families/caregivers, there is increased navigability and ease when moving between centres, supporting a greater continuity of care regionally and provincially.

Put together conceptually, these pieces comprise core elements for a provincial IYS Learning Health System (described on page 12): one that proposes the collection and use of clinical practice and services data, linked with a learning community to identify challenges and synthesize diverse evidence, and timely decision making to adapt policy and practice, centred on youth, family/caregiver and community needs.

As such, crucially, the innovation of Foundry as the emergence of a new system of care for young people in British Columbia is underpinned by the fact that while Foundry works to transform how youth access health and social services, what is provided – the specific interventions, services and supports provided within centres – is based on a clear foundation of peer-reviewed evidence and applied knowledge to facilitate strong, evidence-informed care.

Foundry's Core Service Framework

Adopting a holistic vision to service delivery



Foundry's core service framework is most easily understood through the frame of five core service streams offered at all centres: physical and sexual health, mental health, substance use, peer support (youth and family) and social services, including employment and education services and wellness programs.

A foundational intention of the service model is to provide a culturally-safe, holistic approach to health and wellness to ensure that services are not exclusively focused on providing solutions to mental health and substance use concerns but broad supports addressing overall health and educational, employment and social concerns.

While we use the concept of service streams to clarify core services and supports offered at Foundry, many clinicians and service providers offer supports across multiple streams. For example, as part of the integrated care team, primary care providers (i.e., physicians, nurse practitioners and nurses) offer support across physical, mental and sexual health services, as well as substance use services and supports. Peer supporters also regularly bridge across multiple service streams.

FIGURE F: **Physical FOUNDRY'S CORE** & Sexual **SERVICE STREAMS** Health Peer Mental Support Health Substance Social

Services

Use Support

In this sense, Foundry centres use a primary health care approach that encompasses a broad, social determinants of health lens, as well as offering primary care services inclusive of physical health, mental health, substance use and more. vi

By facilitating clear access routes to care for youth, the centres build on ongoing national primary care reforms trending towards the expansion of teambased approaches to care, better coordination and integration of care, and improved appropriateness of care (36). In addition, the model of care embeds many of the principles that have been found to be prioritized in Indigenous primary care models such as accessible services, community engagement, ongoing quality improvement, cultural safety, flexibility, and holistic health care (29). Reviewed as a whole, Foundry's integrated youth services model aims to embody and reflect both Western and Indigenous perspectives on health and wellbeing to allow for more safety for diverse youth accessing services.

vi. Primary health care refers to an approach to health and a spectrum of services beyond the traditional health care system. It includes all services that play a part in health, such as income, housing, education and environment Primary care is the element within primary health care that focuses on health care services, including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and iniury. See Canada.ca

Modes of Service **Delivery and Access**

How services are delivered or, more specifically, their modes of delivery and impact on access, is also a key consideration within Foundry's service framework. Recognizing the ongoing challenge of long waitlists, which can deter help seeking and delay timely intervention, a priority of the model is delivering services that can prioritize earlier and easier access to care, such as walk-in or group services.

Walk-in counselling in particular is a modality with a growing evidence base. Typically utilized with Solution-Focused Brief Therapy (SFBT, discussed on page 26), a number of studies have shown positive preliminary findings in this area. A child and youth walk-in counselling service in Ontario was evaluated and compared to a traditional counselling model, where they found quicker improvements in mental health and higher client satisfaction relating to wait times, availability of the counsellor and respect for cultural values among youth attending the walk-in service compared to those accessing the traditional service model (37). Other studies including both youth and adults have had similar findings with faster improvements in symptoms and higher client satisfaction compared to usual care services involving long waitlists prior to accessing counselling services (38-40).

Noted benefits of the walk-in counselling model also extend beyond client-level outcomes, with positive impacts observed at the system level. Between 2017 and 2018, Newfoundland and Labrador experienced a 68% reduction in wait times for mental health and substance use services, with some communities experiencing even more significant reductions in recent reporting, attributed in part to the implementation of walk-in counselling services across the province (41).

Virtual Services

Recent advancements to virtual health delivery, triggered in large part by the COVID-19 pandemic, led directly to Foundry's inclusion of virtual services as an alternative service delivery modality. Even prior to the pandemic, many young people, especially those in rural and remote settings, were unable to access critical services in-person. Recognizing this critical barrier, Foundry's provincial virtual services are now a key aspect of Foundry's service framework. Virtual access is available to all core service streams, helping to ensure more equitable access to quality services for youth in communities without centres, reducing travel time burden and cost (42,43).

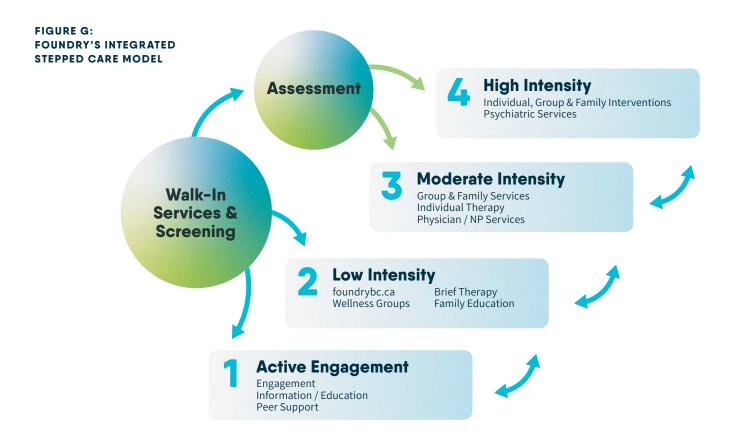
The COVID-19 pandemic has led to an influx of interest and research on virtual services, with numerous studies finding reductions in symptoms of anxiety and depression, as well as the promotion of positive sexual health practices while maintaining a high level of service acceptability (44-52). For youth in rural and remote communities — which tend to have a higher proportion of Indigenous youth — this becomes all the more important. And when virtual services are provided in conjunction with brick-and-mortar centres, the opportunity to toggle between levels and modes of care according to preferences and feasibility allows for greater access to care than ever before.

Integrated Stepped Care

Foundry services are provided through an evolving integrated stepped care model (ISCM) that operates across Foundry's multiple service streams in addressing a young person's needs and strengths across the dimensions of their lives. Stepped care provides a framework for designing a more holistic and integrated system of service delivery. Organizing multiple, partnered services along a continuum of support allows for optimizing resources and increasing access.

In stepped care, the type and intensity of a service is targeted towards the needs, readiness and preferences of a person seeking service.vii Lower intensity services are less intrusive, more autonomous and require less investment (i.e., commitment and time, such as online psychoeducational resources), compared to high intensity services, such as multiple sessions of psychotherapy. Each young person receives the most effective yet least intensive option first targeted to their individual needs, readiness and preference. This ensures a more efficient use of services by only offering high intensity, complex and more challenging interventions when less intensive ones have not worked.

> vii. Research literature differentiates two types of stepped care — 'progressive' versus 'stratified' stepped care — around which there is a lack of clarity on most appropriate use and how model benefits (i.e., reduction in health costs, etc.) may differ between approaches. The majority of research studies use a progressive approach where every young person begins at the lowest intensity level of care regardless of initial presentation and can be stepped up accordingly. Stratified stepped care, where a young person is matched to a treatment intensity level that matches their unique needs, is more commonly used in practice (53-55) at IYS centres, including Foundry.



Providing treatment in a stepped care approach has shown similar efficacy to the traditional approach of offering more intensive treatments first, while significantly reducing clinician time, lowering the cost for both clients and providers (56–60). It also helps minimize the life disruptions that can be associated with more intensive treatments. The visual representation of this model is about offering services along a trajectory, and young people can access evidence-informed services along a continuum of care in a manner aligned

with their changing needs and in response to interventions (Figure G). Currently, Foundry has developed a number of stepped care pathways, including ones specific to mood, anxiety and distress; substance use; and disordered eating, with additional pathways being elaborated, as well as work to incorporate two-eyed seeing into the model. A particular young person may access services on different 'steps' of any given pathway (e.g., mood, anxiety, and distress as well as substance use) depending on their specific context.

Foundry's Service Streams and Supported Interventions

Providing evidence-informed and youth-oriented care

As noted in Figure F on page 20, Foundry's service framework incorporates five core service streams: physical and sexual health, mental health, substance use, peer support (youth and family) and social services, including employment and education services and wellness programs. While the exact mix of services and supports at each centre is established based on community consultation, need and service availability, a core of specific, evidence-informed

interventions are prioritized and supported through our backbone organization via training supports, capacity building and more. The following sections present some of the most recent peer-reviewed evidence on supported interventions, along with information to characterize its use in Foundry centres.

I. Mental Health and Substance Use

Foundry's mental health and substance use streamsviii incorporate four core psychotherapies, each of which are well-supported and evidence-based therapeutic modalities for youth.

- Cognitive Behavioural Therapy (CBT)
- Solution-Focused Brief Therapy (SFBT)
- **Motivational Interviewing (MI)**
- **Emotion-Focused Family Therapy (EFFT)**

The intertwined nature of substance use and mental ill-health highlights the urgent need for concurrent and integrated services.

Foundry offers several modalities of care, including psychotherapies, medication-based treatments and wellness supports to help youth live a good life.

Each of the core psychotherapies was orginally selected by the Foundry Provincial Clinical Working Group, now called the Provincial Clinical Collaborative and Knowledge Exchange.

In addition to the above foundational counselling services, Foundry also offers a range of specialized mental health and substance use services as part of its centre-based and virtual services. This might include early psychosis interventions, eating disorder specific interventions, as well as pharmacotherapy, addictions medicine (e.g., Opioid Agonist Therapy) and shared-care with psychiatrists. These specialized services may be supported by a range of clinicians and support staff. Due to the wide number and range of these services, we do not include specific reviews for these within the scope of this document.

viii. While the mental health and substance use service streams are distinct from each other, we discuss them in this document together to better illustrate the shared interventions and therapeutic modalities within both streams

Cognitive Behavioural Therapy (CBT)

As a time-limited (typically up to 12 sessions), structured, psychotherapeutic approach, CBT's focus on solving current problems and teaching skills to modify problematic thinking and behaviours aligns well with a youth-focused and growth-oriented approach. CBT has a strong track record as an effective therapeutic intervention for youth with depression, anxiety and substance use disorders (61-63) with a wide variety of supported modalities. A 2020 systematic review found that individual, group, family and remote-based CBT led to 9.5, 9, 26 and 6 times higher improvements in symptom reduction by mode, compared to controls (62). The rigorous evidence in support of CBT aligns well with Foundry's broad reach as it has allowed for various adaptions to meet the needs of diverse youth — CBT has been uniquely adapted and effective in meeting the needs of sexual and gender diverse and racialized youth (64-66). The development of trauma-focused (TF) CBT has also been demonstrated to reduce symptoms of depression, post-traumatic stress disorder and other trauma-related symptoms in youth (67-69).

Solution-Focused Brief Therapy (SFBT)

Solution-Focused Brief Therapy is a strengths-based, short-term therapeutic modality that is future-focused, goaldirected and focuses on drawing on client's strengths and their own solutions to the problems that they bring into the counselling session.

While SFBT is backed by a smaller body of literature than CBT, there are multiple systematic reviews and randomized controlled trials that have demonstrated the efficacy of this intervention, with some focusing on youth specifically. SFBT functions well as a cost-effective early intervention for mild-to-moderate concerns (70) that is also particularly developmentally appropriate and well-suited for young people who prefer to use their resilience and strength to co-construct solutions and goals (71,72). Studies have found SFBT to be effective for youth with externalizing and/or internalizingix disorders and leads to improvements in psychosocial outcomes in youth (70,77-79). There are, however, some mixed results within the literature with a 2013 practitioner review finding SFBT to be effective for both internalizing and externalizing disorders (70), while a 2021 meta-analysis found only strong evidence for SFBT in addressing youth externalizing disorders (77). There have also been promising results across various setting such as schools, social service agencies and hospitals (79).

At Foundry, single-session SFBT is the typical approach used at both walk-in counselling as well as brief intervention services, although SFBT is not always used with a walk-in format in reviewed studies.

SFBT is a strengths-based therapeutic approach that has demonstrated efficacy in youth.

Foundry offers SFBT through a walk-in counselling approach, allowing youth to access same-day, solutionfocused counselling.

ix. Externalizing disorders are characterized primarily by actions in the external world. These are typically behaviours that can be easily observed by others. Examples include risk-taking, impulsivity, violent or aggressive behaviours towards others, and thrill- or sensation-seeking. Internalizing disorders are characterized primarily by behaviours directed towards oneself, which may often go unnoticed. These are typically emotions and feelings that youth find difficult to control and may present as withdrawing from others, having difficulties with anxiety, mood, or depression, engaging in negative thinking, experiencing insomnia/hypersomnia or feeling decreased pleasure in activities (73-76).

Motivational Interviewing (MI) and Motivational Enhancement Therapy (MET)

Motivation-based psychotherapies are foundational to supporting behaviour change and overall engagement in health care. This therapeutic modality has been used in substance use, mental health and general health care interventions in order to support a person with exploring and resolving the ambivalence that is related to behaviour change.

There is a robust evidence base in support of both Motivational Enhancement Therapy (MET) and Motivational Interviewing (MI), particularly when these motivation-based techniques are used in combination with CBT to address both mental health and substance use concerns. Studies looking at MET have found decreased substance use behaviours and improvements in depressive symptoms among youth in MET alone and MET combined with CBT (80-83). Similar results have been established with MI. with this intervention proving to be effective for dual substance use and mental health diagnoses in youth and young adults (84-86). A 2019 review classified multicomponent psychosocial therapy, including combinations of CBT and motivation-based techniques, to be wellestablished and highly efficacious, while motivationbased techniques as a standalone therapies were classified as "probably efficacious" (87).

This highlights how services with the ability to offer multicomponent interventions may be the most favorable for youth substance use, although motivational techniques as standalone treatments are still a useful tool due to their overall accessibility across settings and providers and their typically shorter duration.

Emotion-Focused Family Therapy (EFFT)

As a family therapy approach, Emotion-Focused Family Therapy (EFFT) aligns well with Foundry's focus on supporting a holistic perspective on youth wellness that recognizes the value of caregiver engagement. Originally developed for working with individuals experiencing eating disorders, EFFT focuses on working with caregivers specifically to support them in acquiring and mastering skills to support their youth.

In recent years, EFFT has increasing evidence of effectiveness across a wider range of mental health areas in providing skills and resources for caregivers to support their young person effectively. In particular, EFFT, delivered through caregiver workshops, has resulted in improved self-efficacy, positive attitude shifts, self-blame, and reduced fear for caregivers of youth with eating disorders (88,89). Foroughe et al. (2019) published an evaluation of an intensive 2-day EFFT caregiver workshop for caregivers of youth with general mental health issues and found similar outcomes — reduced caregiver emotional blocks, improvements in caregiver self-efficacy and improved child symptomatology — highlighting the utility of EFFT beyond eating disorder treatment (90). Newer research has explored the efficacy of EFFT for caregiver trauma, with one study showing improvements in caregiver coping skills and child emotion regulation among caregivers with childhood trauma (91).

It is worth noting that the literature on EFFT, especially beyond the field of eating disorder treatment, is still limited and primarily consists of pre-post interventions and qualitative designs. Current feedback from caregivers and service providers around EFFT in Foundry centres has indicated that training providers in EFFT and offering caregiver workshops increases the Foundry centre providers' confidence in involving family members. Other benefits we have noted internally also include increasing parental and caregiver involvement in centres, as well as reducing stigma and shame as EFFT is a strengths-based and pragmatic approach.

Sigurvinsdóttir	Systematic review and meta-	CBT is an effective treatment for anxiety disorders in
et al. (2020)	analysis of 81 studies on CBT for anxiety in those under 18	young people under 18. Individual-, group-, remote- and family-based CBT modalities were all effective in reducing symptoms of anxiety, all with moderate to large effect sizes.
Babowitch and Antshel (2016)	Systematic review of 15 studies on adolescent interventions for co-occurring substance use disorders and depression	CBT alone was effective in reducing depressive symptoms, but the evidence on substance use behaviours is mixed. An integrative approach of CBT with motivational therapies (such as MET and MI) have been shown to be moderately effective in reducing comorbid symptoms of both depression and substance use disorders.
Tanner- Smith and Lipsey (2015)	Systematic review and meta-analysis of brief alcohol interventions for youth and young adults Single session brief alcohol interventions significantly reduce alcohol use in both adole and young adults. Interventions employing motivational interviewing techniques showe largest reductions in alcohol use among you people with large mean effect sizes around 0	
Fadus et al. (2019)	Review on the most effective evidence-based treatments for adolescent substance use disorders	CBT, in both individual and group formats, is highly effective for treating adolescent substance use disorders and is classified as "well-established." As stand-alone treatments, motivation-based techniques are not as effective in reducing substance use (classified as "probably efficacious") but have shown efficacy in combination with other treatment modalities (classified as "well-established"). Given their accessibility for various settings (schools, primary care) they are a key aspect of comprehensive substance use care.
Havighurst et al. (2020)	Review of the literature on emotion-focused interventions for caregivers of youth with mental health issues	EFFT is generally administered through 2-day caregiver workshops, where studies have found improvement in caregiver self-efficacy, stronger caregiver-child relationships, and improved child mental health symptoms. The main limitation is the limited body of evidence surrounding EFFT, highlighting a need for future research.
Bond et al. (2013)	Practitioner review and systematic evaluation of the solution-focused brief therapy (SFBT) evidence in children 5-18 years old and their families	The studies included overall support the use of SFBT with children 5-18 with internalizing and/or externalizing behaviour issues. The evidence base as a whole is still relatively weak, with many studies having methodological limitations and only five studies being categorized as high-quality.
Hsu et al. (2021)	Systematic evaluation of the SFBT evidence for behaviour problems in children and adolescents under 18	The evidence suggests overall effectiveness of SFBT (small to medium effect size) in addressing behavioural issues in children and youth. When analyzing the effectiveness for different presenting concerns, SFBT only showed effectivenes for externalizing behaviours (small to medium effect size), while the small effect size for internalizing behaviours was not statistically significant. Family involvement in SFBT had no statistically significant impacts on outcomes.

II. Peer Support

A relative newcomer to the youth health services field, peer support is based on the idea that those who have experienced adversity can provide support, encouragement, hope and mentorship to others facing similar situations, encouraging them to continue their wellness journey.

Youth and family peer supporters with personal lived and living experience of mental health or substance use concerns (or who are supporting a young person) are an integral part of the care team and offer a variety of peer-based services. The aim is to integrate youth and family peer support within Foundry centres across all service streams.

Peer support is an innovative and essential component of the Foundry model that focuses on the lived and living experience of youth and families with an emphasis on empowerment and hope.

Peer support results in improved mental health, higher quality of life and improved relationships.

The literature on peer support within mental health and substance use services originated in adult populations. Fewer studies are focused on youth, though there is emerging evidence around youth peer support. Peer support was included as a key component of the Foundry care model, in part due to its ability to bridge between the clinical and non-clinical aspects of mental health, and between clinical practice and social services (92). As such, it is a strong practical support of integrated care across areas. In addition, youth peer support in particular has been identified as a bridge between youth and adult 'cultures' and systems of care (93), of particular importance for transition-aged youth.

Youth Peer Support

Recent youth-specific literature reviews have noted that youth peer support, in various forms such as social support, friendships, peer support and social connectedness, is a protective factor against suicide, depression, anxiety and stress in youth (94). In addition to improving youth's sense of empowerment, hope and quality of life, youth peer support is also associated with reduced substance use, improved family relationships, increased job retention and overall improved mental health (93,95-97).

Given the person-centred approach to peer support, youth also report higher acceptability regarding the appropriateness of and access to mental health services involving peer support (98). In one study, participants felt the approach was less "authoritarian" and that peer support allowed for exploring more diverse solutions and perspectives to the concerns a youth may be facing (96). A recent qualitative study of peer support workers in British Columbia expressed similar sentiments, as they described how the flexibility within their role and ability to connect with youth allowed them to "truly meet youth where they are at", which involved active listening, providing

emotional support, offering advocacy and helping youth identify and connect to services and supports (e.g., counselling, primary care, harm reduction) (99). This aligns with how peer support is approached within Foundry, where it focuses on creating opportunities for those with lived experience to recognize themselves as offering unique expertise around youth and family wellness, while simultaneously creating a safe environment that is both supportive and comfortable for the youth themselves. In addition, there is also some evidence demonstrating how peer support operates as a bridge across service streams or sectors. One recent study by Kidd et al. (2021) examined peer support for young people (ages 18-26) experiencing precarious housing. They found that participants had increased engagement in employment, education and volunteering (100).

Family Peer Support

Family peer support has increasingly been recognized as a service that is not typically found or resourced in other areas. The literature, though still early in development, is well-aligned with Foundry's inclusion of family peer support into its care model. One recent (2022) systematic review by Sartore et al. assessed the effect of peer support for parents and carers of children with complex needs. They found limited evidence on outcomes of benefit or harm, but they did note that caregivers overwhelmingly perceived the supports as valuable (101).

Other studies have noted that family peer support leads to improvements in family functioning, symptomatology and treatment adherence (102), as well as establishing that family peer support can promote emotional resilience, hope and a sense of belonging, leading to overall improvements in caregiving competencies (102,103). Importantly, families have displayed feelings of being accepted, cared for, empathized with and respected, leading to improvements in caregiver coping skills (103).

Peer Support — Summary of Key Studies			
Roach (2018)	Integrative review of 15 quantitative studies (mix of cross-section and longitudinal study designs)	Peer support for adolescents 12-18 with mental health concerns is a protective factor against anxiety, depression and suicidal ideation. Benefits were found both long-term and short-term.	
Gopalan et al. (2018)	Scoping review of 30 youth peer support programs in the United States	Improved relationships between family and youth; recovery from substance use disorders and reduced substance use; improved social functioning; higher scores on quality of life, hopefulness and confidence; increased job retention; enhanced empowerment; improved mental health overall, including symptoms of anxiety and depression.	
Reif et al. (2014)	Review of peer recovery support for individuals with SUD - two randomized controlled trials, four quasi-experimental studies, four studies pre-post designs and one review	This review found moderate evidence in support of peer support for individuals with substance use disorders. The studies included found reduced relapse rates, increased treatment retention, improved relationships with providers and other social supports, and increased satisfaction and acceptability with treatment services.	
Acri et al. (2017)	Review of six family peer support interventions	Some studies showed benefits in outcomes such as family functioning, parental concerns about their child, knowledge about mental illness and parenting skills. Other constructs such as parental stress, family support, perceived burden and coping were unchanged. Client outcomes were largely positive in critical areas such as symptomatology, functioning, treatment adherence and hospitalizations.	
Sartore et al. (2021)	Systematic review of 22 studies looking at peer support interventions for parents and caregivers of children with complex needs	Complex needs was described as any acute or chronic medical or psychological condition with a relatively long-lasting course. They found no evidence of either benefit or harm due to limited evidence on family peer support but did find that parents and carers perceived the interventions as valuable.	

III. Physical and Sexual Health

At Foundry, primary care providers provide physical and sexual health care as well as supports across other service streams, including mental health and substance use. This may include generalist supports as well as more specialized care (e.g., prescribing Opioid Agonist Therapy, gender-affirming care), facilitating the ability to offer a continuum of supports at different intensities. Integrated care models have been studied in many settings, with strong support in relation to the integration of physical health, mental health and substance use services, as well as peer support (104-108).

Asarnow et al. conducted a systematic meta-analysis in 2015 where they assessed the efficacy of collaborative care models with integrated physical health and behavioural health services for youth. Overall, they found integrated care to yield significant improvements in mental health outcomes

compared to traditional care, with one model predicting a 73% probability that a randomly selected youth would have better mental health outcomes in collaborative care compared to a traditional care model (104). This has been shown throughout the literature, with consistently improved mental health outcomes and higher treatment initiation and retention (106,109). Collaborative care models have been heavily studied in the context of youth depression, with significant reductions in depressive symptoms among youth in collaborative or integrated care models compared to traditional care models (107,110,111). In addition to reductions in clinical symptoms, integrated care models including physical and mental health can result in a higher quality of life, greater confidence in health care advice and stronger health care satisfaction among youth (31,110).

Physical and Sexual Health — Summary of Key Studies				
Asarnow et al. (2015)	Systematic meta- analysis of 31 randomized control trials examining integrated medical- behavioural child and adolescent care	Integrated care yielded significantly better mental health outcomes relating to anxiety, depression and behavioural problems. Collaborative care models had the best outcomes, with a 73% probability (representing a medium to large effect size) that a randomly selected youth would have better outcomes in collaborative care compared to usual care.		
Burkhart et al. (2020)	Systematic review of six randomized control trials and quasi- experimental studies	Integrated and/or collaborative care model within the pediatric primary care setting is associated with increased mental health treatment initiation and completion, as well as higher satisfaction. The model also showed improvements in child adaptive behavior and mental health outcomes.		
Sterling et al. (2012)	Review of literature on integrated adolescent care and substance use services	Young patients with substance use concerns are more likely to seek psychiatric services than substance use services. In the college setting, a study found that students who screened as high risk for alcohol use in a primary care health centre and received brief substance-focused interventions reduced substance using behaviours.		

The need for integrated health services is grounded in providing holistic and comprehensive care for youth.

Offering integrated health services can lead to improved mental health, higher treatment initiation and better treatment retention.

IV. Wellness and Social Services

In seeking to support youth with a holistic approach, it is essential that social services and supports are integrated within a Foundry centre, and when doing so that we address the unique experiences in each community - especially rural, remote or Indigenous communities. Only by integrating social and health services can we address the multidimensional population health patterns, driven by fundamental characteristics of the society in which people live.

Mental health is impacted by every aspect of our lives, highlighting the need to address the social determinants of health that shape young people's daily lives.

Foundry's wellness and social services stream includes recreation activities, housing and income supports, and employment and educational opportunities. Our health — mental, physical, emotional and spiritual—is influenced by many factors such as our employment status, level of education, income, home and community network, culture, as well as the natural physical and built environment that surrounds us. These factors are called the social determinants of health, and they represent a key part of Foundry's approach to wellness. In this respect, supporting wellness can include biological, psychological, social, emotional, spiritual and cognitive components, and it bridges all service streams.

As part of our holistic approach to care, Foundry's Wellness Program provides youth with the opportunity to grow and connect with each other and themselves through meaningful activities that span the five domains of wellness that Foundry has identified as critical to youth wellness (Physical, Emotional/Mental, Social, Cognitive/Intellectual and Spiritual/ Cultural). Examples of these activities include spending time in nature, exploring creative arts or participating in mindfulness and physical activity.

The evidence base behind wellness promotion in youth is beginning to grow, with studies showing promising results relating to youth wellness and mental health. A long-term, longitudinal cohort study found that social leisure activities — especially those that are community-based —including spending time with friends, outdoor activities, sports, music and art to name a few, are associated with reduced substance use and mental health concerns in youth, highlighting the importance of leisure activities and community connection in the promotion of youth health and wellness (112). Similar results have been shown in other studies, with involvement in multiple leisure activities, including physical activity, being positively associated with overall mental well-being (113,114).

The Wellness Program places a particular emphasis on land- and nature-based activities, supported by two systematic reviews finding that spending time in nature can improve overall mental health and quality of life, increase resilience and reduce stress in young people (115,116). For Indigenous youth specifically, land-based activities can be seen as healing practices that increase overall mental health and well-being through cultural and spiritual connection to the land and their community (117,118).

More practically, activities in this service stream also include accessing a range of social sector services, such as income assistance, housing supports, life skills, employment and education supports among others. Given the breadth of approaches and supports possible under this rubric, we are continuing to explore meaningful options and strategies for supporting youth in this area, including those around work and education.

Work and Education: Individual Placement Support (IPS)

Foundry's Work and Education Program highlights much of the knowledge base around the connection between obtaining work or attending school, which is associated with positive health outcomes, social well-being, long-term recovery and quality of life (119–121). Indeed, one of the strongest indicators of 'recovery' is a person's ability to obtain and maintain meaningful employment or participate in higher education (122,123). As a corollary, youth identified as NEET (not in education, employment or training) in Canada face significantly more challenging outcomes, with not only long-term economic hardships such as lower income and poor labour market engagement, but also a significantly higher risk of poor physical and mental health outcomes compared to their non-NEET counterparts (124).

With that known context, the Work and Education Program centres on Individual Placement Support (IPS), a well-established model for promoting employment and further educational opportunities for youth with mental health and/or substance use concerns. By providing structure and meaning to a young person's life, employment can provide stability, predictability and financial independence and allows young people to feel a sense of purpose and belonging (125). In particular, IPS addresses traditional barriers to youth employment, taking on a more holistic, person-centred and destigmatizing approach than typical vocational programs by identifying opportunities for youth based on their own unique preferences and qualifications — without the use of exclusion criteria. Foundry's own implementation of an IPS-based Work and Education Program has shown promising results, with 33% of participants securing employment after the program and 25% showing improvements across all mental health outcomes including life satisfaction and anxiety symptoms (126).

There have been several systematic reviews and randomized control trials studying the impacts of IPS in youth, which has led to a robust evidence base in support of IPS for youth with mental health and substance use concerns. The literature has shown compelling outcomes from IPS in young people including higher rates of competitive employment, longer job retention and more hours and weeks worked (127-129). A randomized control trial published in 2020 aimed to assess the non-vocational outcomes associated with young adults (ages 18-29) identified as NEET participating in IPS compared

to traditional vocational support (127). The youth in IPS reported better overall outcomes such as fewer health complaints, reduced substance use, fewer feelings of helplessness and hopelessness and more optimism regarding future wellbeing (127). Additional studies on young people experiencing first episode psychosis, depression, substance use and other social or health related issues have all shown IPS to be an effective and well-supported program for young people wanting to gain employment or further their education (127,128,130-132).

Wellness and Social Services — Summary of Key Studies				
Gmitroski et al. (2018)	Scoping review of 24 articles focused on employment for young people ages 15-29 with a mental health diagnosis	Common facilitators to employment for young people were early intervention, high self-efficacy, supported employment program, and long-term follow-up while common barriers were exclusion criteria for programs, workplace stigma, history with the justice system, inadequate training opportunities and lack of ongoing integrated funding. These barriers and facilitators were grouped into four themes: integrated health and social services, age-exposure to employment support, self-awareness and autonomy, and sustained support over the trajectory.		
Bond et al. (2016)	Pooled analysis of four randomized control trials assessing the effectiveness of individual placement support (IPS) for young people ages 20-29 with severe mental illness	Unambiguous support for the effectiveness of IPS in helping young people with mental illness attain competitive employment. The analysis revealed more weeks worked and total hours worked, longer job tenure and a higher competitive employment rate with a medium to large effect size. IPS was similarly effective for young people ages 20-25 and 25-29 when sub-group analysis was conducted. Some studies showed that the effects were not sustained for longer than a year to two years.		
Pascoe et al. (2020)	Scoping review of 29 studies examining the effect of physical activity on mental health promotion in young people ages 12-26	The evidence suggests that exercise of varying intensities may result in reduced symptoms of depression and anxiety. There was some evidence supporting the effects of physical activity on other mental health outcomes, but the evidence base was smaller and thus harder to draw definitive conclusions.		
Tillmann et al. (2018)	Systematic review of 35 studies examining how exposure to nature in children and youth (ages 0-18) affects mental health	This review identified exposure to nature to have more positive findings than non-significant findings on ADD/ADHD symptoms, overall mental health, stress, resilience and health related quality of life. Outcomes such as depression, emotion well-being and self-esteem were found to have more non-significant findings than positive findings suggesting inconclusive evidence in relation to these outcomes.		
Mygind et al. (2019)	Systematic review of 84 publications on the impacts of immersive nature-experiences on children and youth (ages 0-18) on mental, physical and social health	Across all mental, physical and social health outcomes, 60% of the publications found positive benefits of immersive nature-experiences compared to control groups, while 18% found similar improvements in both intervention and control groups, and 22% of publications reported either mixed or insignificant findings. In studies that included a control group, immersive nature-experiences improved outcomes such as self-esteem, self-efficacy, resilience, academic performance, cognitive performance and social skills and behaviours.		

Where do we go from here?



Future Direction

Integrated youth services models are an exciting innovation that provide comprehensive, person-centred and coordinated care for young people. Since inception in 2015, Foundry has worked to make meaningful strides in advancing an integrated youth services model in BC. The Foundry IYS model and embedded framework articulated here works across the social determinants of health to support youth in living a good life.

As articulated through this document, the model is based on knowledge of the service landscape in British Columbia, clinical expertise, evidence and youth, family and service provider engagement, and the model continues to evolve through iterative learning and review.

The next phase of work continues as our provincial network continues to develop, with 23 centres now open or in development. We hope to offer increasing opportunities to share key learnings around our model, implementation and new research innovations. Priority areas identified include the formalization of the Learning Health System approach within our provincial network, where data collected is immediately mobilized to the network, knowledge is gained and practice is changed, feeding more data back to the network. The LHS will facilitate the development of quality standards and model integrity to support consistent care, furthering evidence on service integration and integrating principles of equity and cultural safety and humility into our work to better ensure that youth are experiencing services as culturally safe and responsive. How this model is best operationalized within more diverse service delivery settings, including in more rural and remote environments, will also be a key area of insight.

Today, there is a great deal more information available on IYS. Early findings around integrated youth services are promising, with good data showing Foundry's model is an effective way of reaching diverse youth and that there are long-term social and economic benefits to intervening early with diverse and accessible services. While our supported interventions offered are based on robust synthesis of peer-reviewed evidence, clinical experience and practical assessment, we continue to enhance and expand our formal evaluation to ensure appropriate supports are in use and to better understand how our work contributes to broader system impacts — and particularly on outcomes for youth. As always, innovations in practice may proceed more quickly than the documentation of peerreviewed evidence, and we will work closely with partners around these developments to contribute to the development of global evidence in these areas of innovation. As Foundry and its Learning Health System continue to grow, learn and mature, our model is anticipated to continue to be refined through new internal learnings, evaluation, engagement and broader evidence.

Appendix A. Methodology

To identify the most relevant and up-to-date literature relating to Foundry's model, an evidence review was conducted on Foundry's core service streams - mental health and substance use, physical and sexual health, peer support and social services — as well as core model components such as integrated stepped care, early intervention, virtual services and youth and family engagement. The evidence review search areas and key search terms were discussed and decided in consultation with Foundry staff and leadership involved in the conceptualization, design and implementation of the Foundry model and its various service streams, interventions and core components.

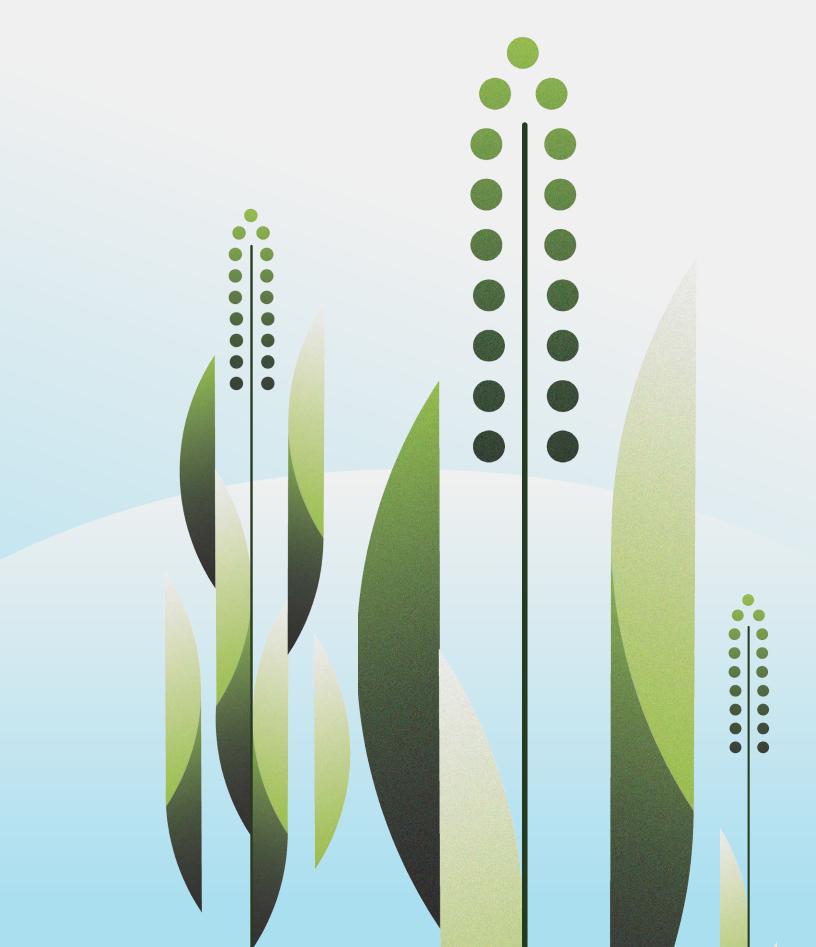
Five databases were searched — MEDLINE, EMBASE, PubMed, Cochrane Library of Systematic Reviews and PsycInfo - and individual searches expanded beyond these databases on a needs basis depending on the breadth of the literature. Medical Search Heading (MeSH) terms and keywords were used in the searches to ensure that no relevant articles were missed. The search was generally restricted to articles published between 2010 and June 2022; however, this data range was expanded if the breadth of literature was more limited. The existing literature was compiled, and the strength of the evidence base for each intervention/core principle was assessed and given a grade based on the quantity and quality of the literature.

Studies were prioritized based on the rigour of the study design, with a particular emphasis on systematic reviews and meta-analyses, scoping reviews, randomized control trials where possible and high-quality observational studies. In some cases, the literature on certain topic areas, such as peer support, are dominated by qualitative studies with a stronger focus on lived and living experience and experience related outcomes. In these cases, more traditional 'rigorous' study designs were also considered alongside other study designs and reviews better able to capture experiences and nuances that may be overlooked in quantitative scientific processes.

The evidence review findings were shared with Foundry staff and leadership to ensure that the search areas were well-aligned with the services offered across centres. Findings were shared and validated via presentations, meetings and dialogue with those involved in service implementation and delivery.

The document then went through multiple rounds of internal review which involved Foundry leadership and staff involved in service design, implementation and delivery, as well as centre Lead Agencies and key partners to ensure that the information was clear, well understood and aligned with their experiences with Foundry and the IYS sector.

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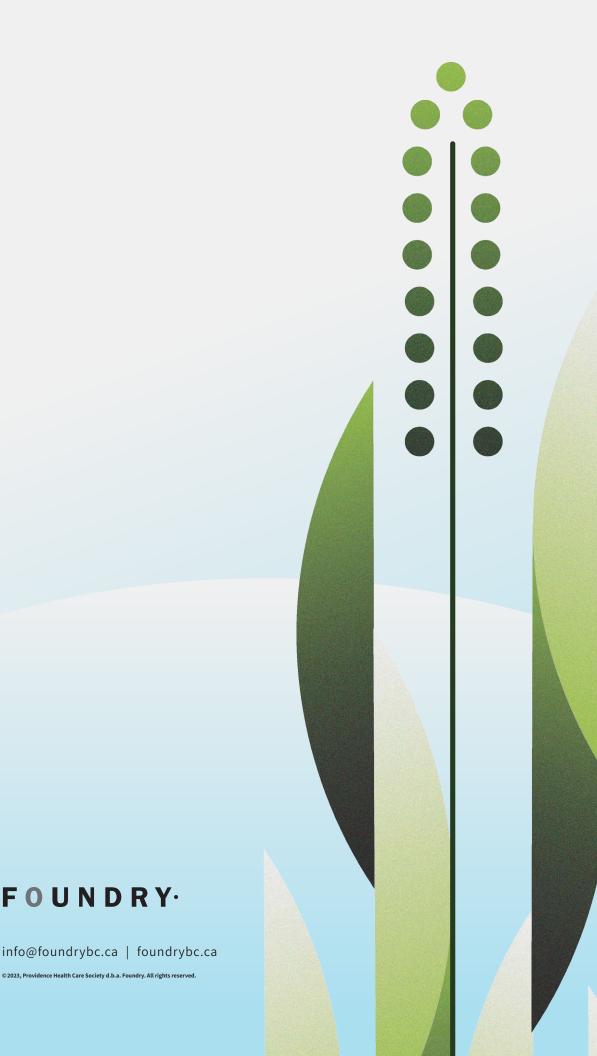
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