

PAVING THE PATH TO CONNECTED CARE: STRENGTHENING THE INTERFACE BETWEEN PRIMARY CARE AND COMMUNITY-BASED CHILD AND YOUTH MENTAL HEALTH SERVICES

Policy-ready paper developed by the Ontario Centre
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Commonly used language

The existing literature uses many terms interchangeably. The following lexicon reflects the most commonly used and/or accepted definitions.

Client: Throughout this policy-ready paper the term client will be used to refer to a user of the health care system. Although the term patient is more commonly used when referring to individuals seeking services from physicians, in this text, client will be used for uniformity.

Client engagement: This term is often used interchangeably with client-centered care, client-focused care, client empowerment, and client-as-partners. It refers to “the active participation of [client]s at various levels of the system to take ownership of their health care and to contribute to the well-being of the health care system as a whole, whether at an individual level, at an institutional/practice level, or at a systemic level. [Client]s and families are integral members of the health care team who participate in all aspects of care, including partners in planning, implementation and evaluation of existing and future care and services” (OMA Health Policy Department, 2016).

Family: Throughout this policy-ready paper the term family will be used to refer to the parents, caregivers, legal guardians or others responsible for the care of children and adolescents.

Primary care: “Level of a health service system that provides entry into the system for all new needs and problems, provides person-focused (not disease-oriented) care over time, provides care for all but very uncommon or unusual conditions, and co-ordinates or integrates care provided elsewhere by others” (Starfield, 1998). Primary care settings may include, but are not limited to: solo physician practitioners, family health teams, community health centres, and nurse practitioner-led clinics. It has also been argued that primary care settings for mental health may also include walk-in clinics, urgent care clinics, next-day clinics, same-day clinics, hospital outpatient services, and, increasingly, emergency departments although that is not their mandate. For children and adolescents, primary care providers commonly include: family doctors, general practitioners, pediatricians, nurse practitioners, nurses, physician assistants, community-based pharmacists, team psychologists and team social-workers.

Community-based mental health care: Defined as a set of specialized mental health services (assessment, psychotherapy, counselling support, psychopharmacological management) offered by agencies or individual mental

health providers operating outside of tertiary care and primary care centres. For children and adolescents, community-based mental health providers can include: community psychiatrists, psychologists, social workers, school counsellors, psychotherapists, counsellors, and community agencies. In Canada, some of these resources are publicly funded (primarily community-based agencies), while other resources are private and fee-for-service (virtually all psychologists, social workers and psychotherapists in private practice).

Primary mental health care/ primary care behavioural health: The World Health Organization (WHO) and the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) have proposed the following definition: “Primary care for mental health refers specifically to mental health services that are integrated into general health care at a primary care level. Primary care for mental health pertains to all diagnosable mental disorders, as well as to mental health issues that affect physical and mental well-being. Services within the definition include: first line interventions that are provided as an integral part of general health care; and mental health care that is provided by primary care workers who are skilled, able and supported to provide mental health care services. Primary care for mental health forms a necessary part of comprehensive mental health care, as well as an essential part of general primary care. However, in isolation it is never sufficient to meet the full spectrum of mental health needs of the population.” (2008)

Stepped-care: A broad term referring to the stepwise organization of services and pathways, which can be applied at the agency, hospital or health care system level. The objective is to enhance the efficiency of services when resources are scarce by initially delivering the most effective yet least resource-intensive treatment and then providing more intensive treatment to those that do not improve with the first step. This is true in choosing interventions as well as choosing referral options. It proposes that milder cases be taken on by more generalist providers who can provide support and low intensity “minimal” interventions, while only severe/complex cases require the attention of specialists and more intensive interdisciplinary interventions. Therefore, the intensity of services should match the severity of the client’s symptoms, level of functioning and needs. A feedback system of careful monitoring of treatment by providers is needed to determine if, or when, a step-up or step-down is necessary. A system-level implementation of a stepped-care approach to child and adolescent mental

health services exists in the United Kingdom (UK) and is supported by the National Institute for Health and Care Excellence guidelines (NICE, 2011a). Examples of the application of the stepped-care approach to adult primary care are common in other countries as well (e.g. Australian Government Department of Health, n.d.; Franx, Oud, de Lange, Wensing, & Grol, 2012)

Coordinated care: A broad term encompassing “the deliberate organization of [client] care activities between two or more participants (including the [client]) involved in a [client]’s care to facilitate the appropriate delivery of health care services). Organizing care involves the marshalling of personnel and other resources needed to carry out all required [client] care activities, and is often managed by the exchange of information among participants responsible for different aspects of care” (McDonald et al., 2007). Coordinated care aims to increase efficiency and reduce the duplication of services.

Integrated care: A broad term referring to a standard approach to care which goes beyond coordinated care and centres around a unified care plan generated and provided by an on-site multi-disciplinary team (Peek & The National Integration Academy Council, 2013). This team is responsible for the overall care of an individual which often goes beyond the area of specialization to address numerous health and social needs. Individuals who require integrated care models would likely have complex health and social needs that require a specialist, various health providers and support workers to function as a team to address and improve the determinants of health for these individuals.

Collaborative care: A broad term sometimes used interchangeably with integrated care. Collaborative mental health care refers to “a range of practice models that: (1) involves consumers, families, and caregivers, as well as health care providers from mental health and primary health care settings—each with different experience, training, knowledge, and expertise; (2) promotes mental health

and provides more coordinated and effective services for individuals with mental health needs; (3) works in a range of settings including community health centres, primary care provider practices, an individual’s home, schools, or community locations such as shelters; and (4) varies according to the needs and preferences of the individual and the knowledge, training, and skills of the providers. There are many configurations for collaborative mental health care initiatives. Collaborative mental health care is a concept that emphasizes the opportunities to strengthen the accessibility and delivery of mental health services in primary health care settings through interdisciplinary collaboration” (Gagné, 2005). Collaborative care should not be confused with the Chronic Care Model.

Shared care: Predominantly used in Canada, shared care is a broad term referring to primary care providers and mental health providers (historically psychiatrists) working together as part of a single mental health care delivery system (Kates et al., 1996; Kelly, Perkins, Fuller, & Parker, 2011). Their roles are therefore complementary; the primary care provider maintains overall care for a client, while the mental health provider aims to support the primary care provider. It follows the belief that no single provider can be expected to have the time and skills to provide all the necessary care a client may require. The client must be an active participant in this process; understanding that both the family physician and psychiatrist will remain involved in his or her care, and knowing who to contact when a problem arises (CPA & CFPC, 2000).

Concurrent disorders: Co-occurrence of an addictions and a mental health disorder.

Dual diagnosis: Co-occurrence of mental illness and developmental disability.

Abbreviations

LHIN Local Health Integration Network
MCYS Ministry of Children and Youth Services
MOHLTC Ministry of Health and Long Term Care

PRPAC policy-ready paper advisory committee
the Centre the Ontario Centre of Excellence for Child and Youth Mental Health

Executive summary

Given discussions and activities currently underway regarding primary health care reform, and the implementation of specific activities related to *Moving on Mental Health*, there is an opportunity to gather knowledge regarding evidence-informed models of care that may be useful in the Ontario context, and make recommendations for policy development aimed at strengthening the primary mental health care system.

In Canada and the United States, it is believed that up to 20 percent of children and adolescents suffer from a mental illness at any given time. The primary care setting provides a unique opportunity to address the mental health needs of children and adolescents since primary care providers have regular and ongoing contact with many children, adolescents and their families. Physicians, however, often report feeling ill-equipped to diagnose and manage child and youth mental health concerns and many disincentives exist for primary care providers to address or treat mental health issues. On the other hand, demand for community-based child and youth mental health services is high and increasing while availability of appropriate providers is low, resulting in exceedingly long waitlists.

There is an increased recognition that a more efficient and effective system of mental health care that maximizes the use of all providers is deeply needed. Establishing collaborative and integrated care partnerships across primary care and child and youth mental health sectors has been suggested as the answer to improving access to care, quality of care and outcomes.

Methods

We undertook targeted consultations with a wide range of key stakeholders (ministry representatives, youth with lived experience, families with experience seeking mental health support for their child or adolescent, primary care providers, and community-based child and youth mental health service providers), performed a systematic scoping review of the literature and carried out an environmental scan of current provincial, national and international practices. We believe that these methods have enabled us to better understand the needs of Ontario service consumers (children, adolescents and their families), what collaborative practices are supported by evidence, and what models are used provincially and abroad.

Results

SOURCE	PREDOMINANT THEMES
Stakeholder interviews and focus groups	<ul style="list-style-type: none"> • greater mental health training for primary care providers • importance of the client-provider relationship • paying greater attention to youth and family needs • primary care provider's role as a mental health provider and inter-provider collaboration expectations • barriers to collaboration • experience in the mental health system and calls for change
Scoping literature review	<ul style="list-style-type: none"> • communication, relationships and collaboration between primary care and community-based child and youth mental health services • referral practices • roles and responsibilities of each professional within the mental health care system • primary care provider mental health training • Clinical Information Systems (CIS) (also called Electronic Medical Records) • standardized screening and assessment tools
Environmental scan: Five models of the primary care and community-based child and youth mental health services interface	<ul style="list-style-type: none"> • consultation-liaison models • facilitated referral and liaison models • co-location models • community hub models (also one-stop-shops) • Chronic Care Model (CCM) framework

Using a blended model approach and collaborative care principles

There is limited evidence demonstrating the effectiveness of any one model of the primary care and community-based child and youth mental health services interface. Nevertheless, the current research provides strong evidence that collaborative and shared care principles are necessary and that primary care is an appropriate setting for brief and evidence-based interventions provided by a mental health professional.

We believe the following approach, framework and model can drive meaningful change by providing guidance for the modification or development of clinical pathways, by increasing accountability, and by enabling better measurements of care delivery:

I. The stepped-care approach

The stepped-care approach promotes the delivery of the most effective, yet least resource-intensive treatment. More expensive and complex interventions are only implemented after simpler, less costly interventions have been unsuccessful. Similarly, milder cases should be seen by more generalist providers who can support low intensity “minimal” interventions, while only severe/complex cases should require the attention of specialists and more intensive interdisciplinary interventions. Monitoring of client progress is an essential element to determine if, or when, a step-up, or step-down, is necessary. This approach can help shape pathways between primary care and community-based child and youth mental health services and guide the redefinition of provider roles and responsibilities within the pediatric mental health system.

II. The Chronic Care Model framework (CCM)

The CCM framework emphasizes effective partnerships between sectors which allow clients to take advantage of specialist treatment expertise, comprehensive primary care and longitudinal care. The CCM core elements are useful in guiding the organization and management of clinical resources in a truly collaborative manner within organizations across communities: local leadership teams comprised of various primary care and community partners; incentives for providers to take on mental health cases and collaborate; access to decision support for primary care providers through training, guidelines and specialist consultation; modification of delivery systems including changes in planned visits and follow-up; clarification of roles,

responsibilities and expanded scope of practice of the health care team; implementation of Clinical Information Systems; referral, navigation support and access to appropriate community resources beyond primary care; and self-management support for subthreshold clients or those on waitlists.

III. The community hub model

The community hub model can provide a one-stop-shop, youth-friendly location that can enhance community engagement, strengthen social networks among community members, decrease stigma and address inequities. In fact, community hubs are thought to be especially useful in capturing marginalized or at-risk youth who do not tend to present at traditional primary care settings (e.g. transitional aged youth, marginalized youth, youth who need additional services such as school and addiction support).

Recommendations

The following recommendations were developed to strengthen the partnership between primary care and community-based child and youth services in providing developmentally appropriate services to children and adolescents with mental health concerns across the spectrum of symptom severity and functional impairment. As the recommendations are broad, we stress the importance of paying attention to issues of diversity and the social determinants of health in designing clinical pathways and in clinical service provision.

1. ORGANIZATIONAL STRUCTURES AND PRACTICES THAT SUPPORT INTER-PROVIDER COMMUNICATION

Poor communication between providers across primary care and community-based child and youth mental health services is a major barrier to optimal care. On the one hand, many primary care providers have little knowledge of available and appropriate mental health services in their community, how to initiate a referral to a mental health agency, or what to expect in terms of treatment type and length. On the other hand, community-based child and youth mental health services seldom inform primary care providers of referral status and treatment outcomes, and have little knowledge of primary care provider practices, including fee reimbursement and prescription of medications. Given that our mental health system is very much in flux, as some focus group participants described, it is often challenging to understand other providers’ roles,

responsibilities and competencies as they relate to mental health. Because of this, providers are more likely to go with what they know, which leads to professional isolation and lost opportunities for consultation and collaboration. Collaborative principles need to be a priority for all providers to achieve better outcomes. These principles include (1) primary care and community-based child and youth mental health service leadership teams representing the community's needs, (2) access to decision support for primary care providers through specialist consultation (for example, using Tele-Mental Health), (3) clarification of roles and expanded scope of practice in interdisciplinary teams, and (4) implementation of Clinical Information Systems. To this end, each provider, whether in a solo-practice clinic or agency, should articulate a mission statement which includes collaborative mental health and which is then translated into concrete organizational strategies that are continuously monitored.

2. MORE EFFECTIVE MENTAL HEALTH TRAINING FOR PRIMARY CARE PROVIDERS TO BUILD CAPACITY

Mental health training for primary care providers tends to focus on diagnostic categories, symptoms and evidence-based treatments, but has lacked teachings in interviewing and “soft” skills needed to fully engage children and adolescents with mental health difficulties. These skills include, but are not limited to: communicating to clients and their families about mental health in an empathic non-judgmental manner; encouraging expressions of concern; addressing readiness/motivation, preferences and barriers for treatment; seeking consent and assent; and running a practice so that it is sensitive to mental health and developmental issues. Indeed, our findings emphasized the variability in primary care providers' attitudes and beliefs towards mental illness, comfort and confidence level in discussing mental health issues with youth and families, age of consent, and knowledge and ability to screen, diagnose, treat and/or refer. Encouragingly, most primary care providers report wanting to increase their training in mental health, but state that time is the greatest barrier to do so effectively.

Mental health training is delivered at two levels: residency and continuing medical education (CME). In designing residency training programs, it has been proposed that medical students should be trained by a variety of content experts, such as family physicians, psychiatrists and psychologists, use multiple modes of learning (e.g.

simulated client) and share educational rounds with other departments and disciplines to stimulate interdisciplinary knowledge and collaboration. Residency training can also be bolstered by the promotion of resident participation in shared/collaborative care projects, clinical placements in interdisciplinary teams, greater attention to the intersection of mental health concerns and medical conditions within required rotations, and consultation opportunities throughout their training. With regards to CME it has been proposed that there should be increased focus on the diagnostic, management and inter-professional skills needed for collaborative care and that CME should reflect local practice contexts and community needs by involving local specialists and community agencies and by fostering strong relationships.

3. MORE OPPORTUNITIES FOR PRIMARY CARE MENTAL HEALTH TRAINING FOR MENTAL HEALTH SPECIALISTS

It is often assumed that mental health professionals know how to work collaboratively. However, this report shows that few mental health providers clearly understand how primary care providers need to operate in a publicly funded system, what information primary care providers need to coordinate physical and mental health services or how their own practice fits within the health care system. In line with our recommendation above, we suggest that the curricula of relevant disciplines, such as psychology, social work and psychiatry also incorporate concepts of shared/collaborative mental health care in their training requirements. Primary care providers should ideally be involved in teaching part of this curriculum. Clinical opportunities for specific training in primary care-mental health should also be offered, including, but not limited to: experience providing consultation and support to primary care providers within a primary care team, providing brief individual therapy in a primary care context, and leading psycho-educational and parenting groups. Principles of shared/collaborative mental health care should be part of the values promoted by the provincial associations and orders regulating these professionals.

4. DEVELOPMENT OF GUIDELINES AND STANDARDIZED CLINICAL PATHWAYS

There are currently no best-practice guidelines to support communities in developing clinical pathways for child and adolescent mental health. Ontario's communities are diverse in their composition and needs (e.g. remote/rural, Francophones) which means that there is no one-size-fits all

solution. However, we believe that following the principles of the stepped-care approach and CCM framework can help each community develop guidelines on how to implement collaborative care and efficient clinical pathways between primary care and community-based child and youth mental health services. Clinical pathways need to include standardized referral forms developed by both primary care and community-based child and youth mental health service providers and formal agreements governing communication expectations. Developing guidelines is the first step, monitoring implementation and fidelity are also crucial to help support future decision-making.

5. INTEGRATING STANDARDIZED TOOLS IN PRIMARY CARE PRACTICES

Given primary care providers limited time and the wide range of mental health symptoms to cover, standardized tools can support primary care providers in identifying children and adolescents who might need a more comprehensive mental health assessment. Standardized tools can be used to: (1) standardize and simplify symptom and illness identification for primary care providers, (2) help create comparable clinical pathways across the province and create equal opportunity access, (3) help clinical decision-making, (4) monitor symptoms over time and/or track treatment efficacy, and (5) determine severity of illness and functional impairments. Multiple barriers to successful implementation exist, including training in the interpretation of results, administration and scoring time, and cost. Some researchers and families caution against the overuse of standardized tools as these are only useful if their results have a direct impact on decision-making and are supported by additional practice resources that can improve mental health care outcomes.

We recommend the use of standardized tools that can be easily administered, interpreted and used by both the primary care and community-based child and youth mental health service settings. Standardized tools can provide a common language between providers (communimetric principles) and could be used as part of the referral process. We recommend that primary care providers have access to a menu of evidence-based tools which includes tool specifications (e.g. age group, length, specific vs. general symptoms check). Eligible tools should have face validity, sound psychometrics for primary care, be easy to administer and score, available in the public domain (i.e. free) or at a low cost, and be easily integrated into workflow or a Clinical Information System.

6. ESTABLISH EFFECTIVE BILLING AND REIMBURSEMENT PRACTICES THAT WILL SUSTAIN MENTAL HEALTH SERVICES

We need to review incentives and disincentives that exist for child and adolescent mental health services within primary care. Current billing and reimbursement practices have been criticized for not recognizing the unique nature and challenges of child and youth mental health care. Many primary care providers have called for greater incentives for evaluating mental health concerns, using standardized tools, as well as consulting and collaborating with community-based child and youth mental health services, all of which require a great amount of time. Shifts from fee-for-service models to bundled payments or medical home models have facilitated improved performance in the U.S. (Baker & Axler, 2015). However, we need to find what will work best for Ontarians. Furthermore, some have argued that the inclusion of mental health in our provincial health coverage would reduce wait times as we are underutilizing a large portion of our mental health specialists in the private sector because of limits on Ontario Health Insurance Plan coverage. Although this option may mean significant changes to our health care system, it is worth considering.

7. FAMILY AND YOUTH ENGAGEMENT AT ALL LEVELS OF THE CHANGE AND MONITORING PROCESS

In line with other national and provincial initiatives, we believe that integrating youth and families at all levels of the change process will ensure primary care and mental health services are responsive to the needs of Ontarians. However, while there is a growing recognition of the importance of consulting children, youth and families, meaningful engagement rarely happens in a way that allows for maximum benefit and impact (Cannon, Matthews, & Cairns, 2013). Family and youth engagement needs to go beyond compliance, participation or involvement in choice about their care (Evidence In-Sight, 2016). Family and youth engagement, when it comes to provision of care, means an active partnership between families and service providers, involving and listening to what families say, engaging in two-way communication, and seeing the families as partners and allies in children and youth's mental health (Evidence In-Sight, 2016). It also includes active partnerships between families, researchers, policy-makers and other stakeholders working together to improve the process of mental health care. Appropriate engagement of youth and family with lived experience at all stages of planning can shed light on

how clients navigate diverse services and assist in optimizing pathways and serves as an accountability mechanism to ensure that the health care system is acting in a way that benefits them.

8. NEED FOR MORE RESEARCH AND ONGOING EVALUATION

Results from this policy-ready paper emphasize the need for more extensive and targeted research in this area. We need to further invest in researching which models will best serve child and adolescent mental health care, disorder-specific management techniques in primary care and the utility of training programs. More research around which models are best for complex populations is also needed, such as dual diagnoses and concurrent disorders, and for diverse populations. The continued funding of research on evidence-based child and adolescent mental health interventions is also needed, as any model of care is limited by the effectiveness of available treatments. In addition, we need to collect and report on a range of meaningful indicators

to assess current performance and monitor short and long term outcomes and sustainability. We should not only be tracking outcomes from individual encounters, but also from care collaboration between primary care and community-based child and youth mental health services such as: social determinants of health, implementation, uptake, satisfaction of stakeholders, child outcomes, etc. In terms of implementing changes to community-based child and youth mental health services, accountability requirements should be established through quality targets and timeframes for improvement. Useful accountability metrics include: measures of health outcomes, quality of care, access to care, efficiency, equity, lived experience outcomes, and client engagement. This means that we need commitment towards planned program evaluations. This report also highlighted the potential advantages of the comprehensive use of Clinical Information Systems (also called EMRs) which could provide data for more detailed analyses of clinical practice and outcomes.

Concluding remarks

The recommendations provided in this paper are integrated and interrelated. Together they can help strengthen the interface between primary care and community-based child and youth mental health service settings. With discussions and reforms currently underway in Ontario, there is an

opportunity to move forward with these recommendations and evidence-informed models of care to support greater collaboration across sectors, the creation of seamless care and ultimately, to improve the mental health outcomes of children and youth across the province.

Context

The Ontario Centre of Excellence for Child and Youth Mental Health (the Centre) works to support child and youth mental health agencies across the province in using evidence to strengthen care. At the service area level, the Centre offers a range of collaborative tools, resources and services to strengthen skills and knowledge while promoting evidence-informed practice and enhanced mental health outcomes for children and youth. At the system level, the Centre supports and leads coordinated and consistent evidence-informed approaches to enhance service planning and delivery.

The Centre's policy-ready papers bring together the latest evidence on a topic of relevance for policy development in child and youth mental health. These products begin with consultation with key stakeholders (policy-makers, organizational leaders, youth and families), and are developed with respected experts who review the latest evidence on specific topics and offer targeted, actionable recommendations for policy-making. The Centre has produced 16 policy-ready papers since 2008 on a range of topics, including governance in transitioning the child and youth mental health system; value-based planning for allocation of core services; meeting the mental health needs of Ontario's newcomer youth; and child and youth mental health in the early years (ages 0-6).

Rationale and objectives of this report

Discussions taking place regarding the primary health care reform presently underway in the province, along with the implementation of specific activities (led by the Ministry of Children and Youth Services) within the *Moving on Mental Health* initiative have supported communities to collaborate across sectors to ensure seamless care that meets the health and mental health needs of Ontario's children and youth. Accordingly, there is an opportunity to gather knowledge

regarding evidence-informed models of care that may be useful in the Ontario context, and make recommendations for policy development aimed at strengthening the primary mental health care system. The recommendations made in this report are integrated and interrelated. In other words, work in one area to strengthen the interface between primary care and community-based child and youth mental health service settings will influence the implementation of other activities designed to achieve this goal.

Many families first present with a new or established mental health condition to the hospital emergency department or their family doctor for emerging concerns. Physicians, however, often report feeling ill-equipped to diagnose and manage child and youth mental health concerns, especially when needs are complex. On the other hand, while community-based child and youth mental health services have the expertise to deal with such issues, they have historically been set apart from the rest of the health care system. This highlights the need to develop a more efficient and effective system of mental health care that would maximize the use of all providers. Establishing collaborative, integrated and coordinated care partnerships across primary care and community-based child and youth mental health service sectors has been suggested as the answer to improving access to care, quality of care and outcomes.

Past research and recommendations on this topic have mainly focused on adult mental health services or looked at mental health services more broadly with no specific attention to the unique needs of children and adolescents. In Canada, there is no consensus as to how the primary care and community-based mental health interface should be managed and, as a result, services for pediatric mental health continue to be fragmented.

The WHO Commission on the Social Determinants of Health (2008) recognizes the growing evidence that those

belonging to minority, marginalized and oppressed groups experience inequities in their health status, access to services and quality of care. Social determinants of health are the key social, environmental, political and economic factors (for example, affordable education, poor quality of housing, exposure to community violence) that shape health outcomes (Khanlou, 2003). Extending this view to a mental health context, the Centre for Addiction and Mental Health (CAMH) defines health equity as “creating equal opportunities for good health for all and reducing avoidable and unjust differences in health among population groups” (2012). We adopt this lens throughout our paper and ground the literature review and related policy recommendations in an understanding that wide health and mental health inequities continue to exist among Canadians across several ethnic, cultural, linguistic, economic, geographic, etc. dimensions. These must be considered in implementing changes to mental health care for Ontario’s children and youth.

The proposed goals of this policy-ready paper are:

- to summarize current evidence related to the interface between primary care and community-based child and youth mental health service sectors
- to explore evidence-informed models used to guide work in this area through an environmental scan
- to undertake targeted consultations with Ontario service consumers (children, adolescents and their families) to better understand their mental health needs and hear what they think is, and is not, currently working well
- to provide a series of policy recommendations aimed at strengthening the way the primary care and community-based child and youth mental health service systems work to support child and youth mental health service provision in Ontario

The objective of the paper is to explore conceptual models and make recommendations where gaps have been identified. The purpose of this paper is not to assess or provide evidence for specific clinical tools, programs or disease pathways, but rather to focus on common factors and general models to address and improve upon the wide spectrum of mental health care.

Stakeholder engagement and knowledge mobilization

The Centre’s commitment towards stakeholder engagement and knowledge mobilization is evident at all levels of this project. From an early point in the paper’s development process, policy-makers, researchers, service providers, primary care providers, family and youth representatives, and other decision-makers across sectors participated in planning meetings. Key informant interviews and focus groups were conducted as part of the consultation process and participants were given the opportunity to review and provide further comments on the outcomes of those consultations. Finally, family and youth representatives, and several service providers and researchers formed the policy-ready paper advisory committee (PRPAC) which provided guidance and advice throughout the entire development process. Selected members also participated on the writing team.



Introduction

Child and adolescent mental health needs

It has been estimated that up to 75 percent of all mental health disorders have an onset prior to age 24 (Kessler et al., 2005). Pediatric mental health and substance disorders are associated with distress and functional impairments including: decreased quality of life, school failure and lack of vocational success, poor sexual and reproductive health, peer and family problems, work problems, criminal activity, and premature death (Mash & Barkley, 2006; Costello, 1989; Wissow, van Ginneken, Chandna, & Rahman, 2016). In fact, suicide represents the second-leading cause of death for Canadian youth aged 15-24, after unintentional injuries such as motor-vehicle accidents (Statistics Canada, 2009). Moreover, many health behaviour patterns that contribute to morbidity and mortality in adulthood are established in adolescence (e.g. obesity, smoking, substance use) (Mash & Barkley, 2006; Asarnow, Rozenman, Wiblin, & Zeltzer, 2015).

In Canada and the United States, it is believed that up to 20 percent of children and adolescents suffer from a mental illness at any given time (Waddell, McEwan, Shepherd, Offord, & Hua, 2005; Kirby & Keon, 2004; MHASEF Research Team, 2015). Of these youth, more than half have two or more co-occurring mental illnesses (Kirby & Keon, 2004) and experience significant functional impairment (Costello, Egger, & Angold, 2005). These numbers are expected to continue to increase in the future (Leitch, 2007).

Despite similar rates of mental health problems as adults, children are four times less likely to have had a mental health contact (Nadeau et al., 2012). In fact, less than 25 percent of youth with a diagnosed mental health disorder are receiving treatment (MHASEF Research Team, 2015) and this number drops to 20 percent in rural Canada (Zayed et al., 2016). Although the financial cost of mental health services is considerable, the direct and indirect costs to society of not providing appropriate services for pediatric mental health disorders are much greater. This includes the loss of productivity associated with failure to complete high school, criminal justice costs, loss of work due to mental health, lost tax and employment insurance premium

revenues, increased support costs, and increased medical costs of associated physical conditions (McGorry, Purcell, Hickie, & Jorm, 2007; Mash & Barkley, 2006). According to Access Economics, for every \$1.00 spent, there is a \$3.26-\$5.60 return on investment for prevention and treatment of pediatric mental illness (Mathias et al., 2015).

The primary care context

The primary care setting provides a unique opportunity to address the mental health needs of children and adolescents since primary care providers have regular and ongoing contact with many children and adolescents, often starting before the child enters school (Simonian, 2006). In Ontario, 71 percent of students in Grades 7-12 reported having visited a physician in the past year (Boak, Hamilton, Adalf, Henderson, & Mann, 2015). However, rates of mental health symptom recognition by primary care providers continue to be lower than prevalence rates suggesting considerable under-diagnosis (Sayal & Taylor, 2004; Kramer & Garralda, 2000). One reason may be that only 2-12 percent of primary care visits by children and adolescents with a diagnosable mental health disorder are explicitly about mental health concerns (Vallance, Kramer, Churchill, & Garralda, 2011; Cullen, Broderick, Connolly, & Meagher, 2012). Nevertheless, 32 percent of youth reported that they would approach their family physician first if they suspected a mental illness (Davidson & Manion, 1996) and families will first present to the hospital emergency department or their family doctor when struggling with emerging mental health concerns (Gandhi et al., 2016).

Many families report needing a trusting relationship with their primary care provider to feel comfortable disclosing mental health information (Sayal et al., 2010). On the other hand, research has shown that families needed to disclose psychosocial information up to four times during a single visit for a diagnosis to be given, but only once for a referral to be initiated (Lynch, Wildman, & Smucker, 1997). Symptom severity, level of impairment, an externalizing disorder, parental expression of concern and request for referral were found to increase the likelihood of recognition by a primary care provider (Vallance et al., 2011). Only perceived parental burden and concern increased the likelihood of

being referred out to mental health services (Vallance et al., 2011; Hacker, Goldstein, Link, & Wissow, 2013). Child and adolescent perception of their primary care provider's attitude towards mental health as well as the primary care provider's communication and interpersonal skills has been shown to influence help-seeking for mental health concerns in youth (Sayal et al., 2010; Biddle, Donovan, Gunnell, & Sharp, 2006).

Although mental health problems are commonplace in primary care, many disincentives exist for primary care providers to address or treat mental health issues (Ashcroft, Silveira, & McKenzie, 2016). Current billing codes have been criticized since capitation systems, which allocate a fixed fee-per-patient, do not take into consideration the higher burden of care required when working with a new or exacerbated mental health condition or the overlap between physical and mental health problems (CAMH, 2016). Furthermore, current systems of remuneration do not cover indirect (non-client contact) services such as case discussions, referral input, or consultation (Kates et al., 1996). In fact, most billing incentives are based on practice areas, percentage of rostered clients¹, type of service provided, and diagnostic category. For example, *care for individual and family developmental/behavioral* is payable at a higher fee only to pediatricians whose annual fee-for service claims in this area are greater than 35 percent and who can demonstrate training in child and adolescent mental health (MOHLTC, 2015). Similar services rendered by family practitioners or pediatricians who do not meet those criteria are payable at a lesser fee (MOHLTC, 2015).

The community-based child and youth mental health services context

Pathways to child and adolescent mental health care are often multidirectional and complex (Sayal, 2006). While some families access community services through self-referral, others are discharged to community services following hospital admissions, are referred by their primary care provider, or are strongly encouraged to seek services by the school system. Demand for community-based child and youth mental health services is high and increasing while availability of appropriate providers is low (Healy, Naqvi, Meagher, Cullen, & Dunne, 2013), resulting in long waitlists. Wait times will vary depending on region, services

Families highlighted financial strain stemming from unfunded mental health treatment in the community, loss of work, cost of transportation and child care for siblings as barriers.

and clinical priority level, but can easily reach one-year which greatly exceeds the Canadian Psychiatric Association's proposed wait time benchmarks of 24 hours for emergent care, two weeks for urgent care, and one month for scheduled care (Kowalewski, McLennan, & McGrath, 2011; Canadian Psychiatric Association, 2006). This is an even greater problem in rural/remote areas where the availability of mental health providers with specific child and adolescent knowledge is scarce (Zayed et al., 2016).

The high cost of care and insurance restrictions on mental health services is another major barrier to adequate access to community-based services (Kelleher, Taylor, & Rickert, 1992). In Ontario, although community-based agencies are publicly funded and the Ontario Health Insurance Plan (OHIP) covers physician-delivered treatment, psychotherapy provided by mental health professionals (psychologists, social workers, counsellors) in private practice is fee-for-service and can quickly become very costly. Other financial concerns include location and hours of operation of mental health services (CAPHC, NICYMHCA, & PCECYMH, 2010). Mental health appointments often require family to take time off and children out of school. For families with limited financial means or older adolescents seeking services on their own, transportation restrictions and increased cost associated with travel can lead to poor attendance (CAPHC, NICYMHCA & PCECYMH, 2010).

Interface between the primary care and community-based settings

There is an increased recognition that collaborative interdisciplinary care for chronic conditions, such as mental illness, is deeply needed. In 2015, The Ontario government released a document called *Patients first: Action plan for health care* which seeks to address system changes related to access and coordination of care between primary care

¹ We recognize that service users are referred to as "patients" within a medical context, and "clients" in community-based settings. In this policy-ready paper, for consistency, we have used the term "clients" when referring to service users across these two sectors.

and community care, including mental health care. Similarly, the Ontario Medical Association (OMA) believes that collaborative interdisciplinary care for chronic conditions “will require physician leadership, training and continuing education in collaboration and shared care along with the establishment of formal and functional communication processes, the building of trust and respect between all providers, the identification of shared goals for the [client] and the system, and the utilization of supportive clinical and administrative systems” (OMA, 2015).

Within the mental health system, the greatest barrier to seamless partnerships between primary care and community-based child and youth mental health services is professional isolation and inadequate communication between providers (Kolko, 2009). Providers and clients alike report that important basic information is often poorly communicated leading to fragmented care (for example, the presenting problem, whether a diagnosis has been reached, past reports and history of services; Hacker et al., 2013). Providers in both settings also report low rates of inter-professional communication (Greene, Ford, Ward-Zimmerman, & Foster, 2015) and that their respective roles and responsibilities are poorly delineated and understood (Heneghan et al., 2008; Greene et al., 2015). Additional barriers that have been identified include: contradictory financial incentives, lack of inter-operable electronic clinical records, and issues with respect to professional roles and sharing of responsibilities between different providers and care sites (OMA, 2015).

Stakeholders and researchers alike therefore believe that the mental health system not only needs more investment and a greater number of mental health providers to tackle long waitlists and limited access, but it also needs to be better integrated (Kutcher, Davidson, & Manion, 2009; Kolko & Perrin 2014). In other words, children and adolescents require the right combination of services, at the right time, and in the right place.

Some primary care providers preferred to send children and adolescents to the emergency department since they had greater chances of getting seen sooner than through a referral to community-based child and youth mental health services.



Methods

As part of the policy-ready paper development, we undertook targeted consultations with a wide range of key stakeholders, performed a scoping review of the literature and carried out an environmental scan of current provincial, national and international practices. We believe that these methods have enabled us to better understand the needs of Ontario service consumers (children, adolescents and their families), what collaborative practices are supported by evidence, and what models are used provincially and abroad.

Key stakeholder interviews and focus groups

The following stakeholders were consulted to gain insight into the current state of the interface between primary care and child and youth mental health: ministry representatives, youth under the age of 24 with lived experience, families with experience seeking mental health support for their child or adolescent, primary care providers (family physicians, pediatricians, nurse practitioners, pediatric rheumatology specialist, mental health lead, LHIN physician lead and psychiatrist) and community-based child and youth mental health service providers.



STAKEHOLDER	RECRUITMENT STRATEGY
Ministry of Children and Youth Services (MCYS) and Ministry of Health and Long Term Care (MOHLTC)	A list was received from MCYS of 34 possible professionals to include from the MCYS and the MOHLTC. An e-mail was first sent out to the list, then the Centre’s project coordinator followed up individually to increase attendance.
Youth	Recruitment flyers were created in both official languages to invite youth with lived experience and primary care contact in the past five years to participate in a key informant interview or in an in-person youth focus group. These recruitment flyers were sent out by the policy-ready paper advisory committee’s youth advisor and family member representative to their networks.
Families	The recruitment for the family key informant interviews happened using a staged approach. The first mail-out went to a leadership group of 33 members. The second mail-out went out to the Parents for Children’s Mental Health (PCMH) distribution list in their newsletter.
Community-based child and youth mental health service providers	Recruitment messaging was crafted and sent out by the Centre’s knowledge brokers to MCYS <i>Moving on Mental Health</i> lead agencies via e-mail to invite them to participate in one of two scheduled telephone focus groups.
Primary care providers	Recruitment messaging was crafted and sent out through e-mail to primary care team leads across the 14 LHINs, various members of the policy-ready paper advisory committee to distribute amongst their networks, various networks representing a number of professional associations, and various Aboriginal Health Access Centres. Recruitment messaging was also passed on by community service providers to their primary care networks.

These consultations were not meant to be comprehensive, but an effort was made to ensure there was regional representation (North, West, Centre, East and Toronto) within each of these stakeholder groups. We conducted one in-person focus group in Ottawa with six youth participants with lived experience, two telephone focus groups with 19 community-based child and youth mental health service providers and one telephone focus group with two family members. We conducted key informant interviews with various stakeholders across the province including nine family members, eight youth, two community-based child and youth mental health service providers and 10 primary care providers. We are aware that families and youth with lived experience who participated might not be representative of the continuum of complexity and, because of the nature of the consultation, might have had less positive outcomes overall. The interview and focus group questions were based on access to services, service experience/delivery, service integration/interface and recommendations for improvement/evaluation (See appendix A).

Scoping literature review

In order to determine if collaborative, integrated and coordinated care partnerships across primary care and community-based child and youth mental health service sectors can improve access to care, quality of care and outcomes, the following databases were searched: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) (1946 to present), Embase Classic + Embase (1947 to 2016 June 02), PsycINFO (1806 to May Week 4 2016), EBM Reviews - Cochrane Central Register of Controlled Trials (April 2016), EBM Reviews - Cochrane Database of Systematic Reviews (2005 to June 02, 2016), and EBM Reviews - Cochrane Methodology Register (3rd Quarter 2012). This search yielded a total of 5,409 articles. Fifty additional articles were identified through reference

lists. Articles related to physical health issues, tertiary care services, and mixed populations with no specific data on children and adolescents or adult populations were excluded. Forty-five articles were retained for abstraction and analysis. Out of these, only 16 described and/or evaluated interface models.

Environmental scan

To learn more about models of collaboration used at the provincial, national and international level, we screened the reference lists of articles identified through the literature review for additional non-peer review documents; we used Google and Google Scholar search engines to identify websites and reports; we searched websites of known child and youth mental health organizations which might have relevant materials; we reached out to experts in the field through multiple venues (e-mail, personal contact, conferences) to identify unpublished reports or documents in progress; and we paid special attention to newsletters and e-mails from various organizations or interest groups. This search yielded 27 documents. Seven were retained for abstraction and analysis. Finally, we interviewed two Ontario community-based child and youth mental health service agencies and asked questions pertaining to their model of interface between primary and secondary mental health care. We also exchanged information through e-mail with other Ontario agencies.



Results

Key stakeholder interviews and focus groups: Summary and themes

Data from the qualitative interviews and focus groups were aggregated into themes and then analyzed using the Theoretical Domains Framework (See Appendix B for the full table). Similar themes recurred across the different groups and provided perspectives on the issue from every stakeholder involved.

Overall, all stakeholders agreed that children and youth are not receiving the services they need and that the mental health system needs improvement. They further agreed that a lack of mental health training and knowledge of community-based child and youth mental health services in the primary care setting greatly impedes recognition, management and treatment of child and adolescent mental illness. All stakeholders discussed the variability in the perceived role and responsibilities of the primary care providers within the mental health system. This

lack of clarity seemed to account for the wide range of mental health practices in primary care. Youth and families emphasized the need for greater sensitivity towards developmental and mental health issues on the part of primary care providers and staff, such as privacy and confidentiality, and the importance of building an open relationship with all their providers. All stakeholders believed that greater inter-provider communication and collaboration would be beneficial to the care of children and adolescents with mental health issues. However, both primary care and community-based child and youth mental health service providers reported multiple organizational barriers, mainly a lack of time and unsupportive reimbursement practices.

Scoping literature review: Themes

Following the search of the literature, data was abstracted, analyzed and aggregated into six themes (See Appendix C for the full table):

<p>1 Lack of communication, poor inter-professional relationships and limited collaboration between primary care and mental health</p>	<ul style="list-style-type: none"> • Many researchers believe addressing these three issues is crucial to the development of a better mental health care system
<p>2 Referral practices</p>	<ul style="list-style-type: none"> • Relates to the lack of communication and collaboration • A significant number of referrals are never completed; when they <i>are</i> completed, primary care providers are rarely informed of treatment modality, length or outcomes, putting families and clients in the position of having to relay information between providers
<p>3 Roles and responsibilities of each professional within the mental health care system</p>	<ul style="list-style-type: none"> • Roles were found to be unclear and ill-defined, especially for primary care providers • Few had knowledge of the roles and responsibilities of other providers, leading to professional isolation
<p>4 Primary care provider mental health training</p>	<ul style="list-style-type: none"> • Consensus in the literature is that most primary care providers lack adequate training to appropriately address child and adolescent mental health concerns • There is great variability in their comfort level and attitudes towards mental health • Two targets of training were identified for future improvement: residency and continuing medical education (CME)

<p>5 Inter-operable Clinical Information Systems (CIS)</p>	<ul style="list-style-type: none"> • Some studies emphasized the need for inter-operable Clinical Information Systems (CIS), also called Electronic Medical Record (EMR) or Electronic Health Record (EHR) • CIS have many advantages (e.g. facilitating communication, referral mechanism, use of standardized tools, tracking of changes in clinical status, reminders), but they also have some disadvantages (e.g. high upfront cost, training required for optimal use, uptake from all providers, and concerns around data safety and confidentiality)
<p>6 Standardized screening and assessment tools</p>	<ul style="list-style-type: none"> • Evidence was mixed concerning the adoption of broad screening practices, but many studies had positive results concerning the implementation of standardized mental health assessment tools in primary care practice once a concern was identified • Many cautioned, however, that the implementation of standardized tools was irrelevant unless illness detection is supported by additional practice resources that can impact outcomes (i.e. available referral and treatment)

Systematic literature search and environmental scan: Models of the primary care and community-based child and youth mental health services interface

Five evidence-informed models of collaboration were found through the systematic literature search and environmental scan. Each model highlights a different way of organizing the primary care and community-based child and youth mental health services interface.

Consultation-liaison models

In consultation-liaison models, the care of the client remains with the primary care provider and the role of the mental health team is to provide support through consultation. The mental health team is, at a minimum, composed of a psychiatrist and usually a mental health nurse, psychologist, or social worker. The key features of these models are that the primary care providers can receive timely consultation and support (usually by telephone) regarding diagnosis, prescribing medication and treatment options, and community referral assistance. The mental health team's mandate also often includes organizing outreach and education activities to engage and educate primary care providers on basic and new developments in the mental health field. In these models, the team might interact with the client directly on occasion, but this is not frequent or required. Examples of consultation-liaison models include: The Massachusetts Child Psychiatry Access Project (MCPAP),

Massachusetts State, USA; the Partnership Access Line (PAL) Washington State, USA (Hilt et al., 2013); the Project TEACH, New York State, USA (Gadomski et al., 2014); and the Maryland Behavioral Health Integration in Pediatric Primary Care (B-HIPP), Maryland State, USA. Evaluation of the MCPAP and PAL programs demonstrated an increase in participating primary care providers' confidence in their ability to treat mental health issues leading to an increased openness to taking on a greater number of mental health clients. Furthermore, primary care providers reported appreciating the help in finding appropriate community services for their clients (Sarvet et al., 2010; Holt & DMA Health Strategies, 2010; Hilt et al., 2013). On their end, families reported preferring the decreased stigma of being treated longer by their primary care providers (Sarvet et al., 2010; Holt & DMA Health Strategies, 2010). However, results also highlighted barriers to implementation, specifically the incredible amount of outreach needed at the beginning of the project to engage primary care providers in the program and address skepticism surrounding the utility of the program (Sarvet et al., 2010; Holt & DMA Health Strategies, 2010). The MCPAP reported that the program cost was \$0.18 per child per month (Holt & DMA Health Strategies, 2010). However, in terms of financing and sustainability, the MCPAP reported that most of the cost could not be reimbursed through regular claims as providers had very little direct client contact. More broadly, the main criticism of this model is that it did not decrease community-based child and youth mental health service wait times and that these programs primarily tie primary care to psychiatrists based in tertiary care centres, rather than to community-based child and youth mental health services (Sarvet et al., 2010; Holt & DMA Health Strategies, 2010).

Facilitated referral and liaison models

Facilitated referral and liaison models include databases of available community mental health services. Case workers are also typically employed to assist in finding and accessing appropriate services for the family. Facilitated referral and liaison models in Canada are very common and usually known as centralized intakes. An example would be *Pathways for Children & Youth* in Kingston which provides an intake service for the surrounding community and primary care providers and links them to appropriate community-based child and youth mental health services. We found no formal evaluation of a facilitated referral and liaison model with children, adolescents and their families. Although this model could offer support to primary care providers in referring their clients, the main criticism is that, in practice, most centralized intakes do not accept physician referrals and ask clients to self-refer which removes the possibility of coordinating services with the primary care provider and puts the onus on the client to inform both providers of what is happening in the other setting.

Co-location models

Co-location refers to the provision of primary care and mental health services at a common physical location. These models have differing degrees of service coordination and information sharing. Variations of this model include: (1) mental health professionals with independent practices located in the same building as a primary care provider clinic, (2) mental health professionals employed by a primary care provider clinic, (3) mental health professionals employed by a community centre out-stationed in a primary care provider clinic and (4) primary care providers out-stationed in a community-based child and youth mental health service setting (Williams, Shore, & Foy, 2006). Examples of co-location models in Ontario include team-based models such as *Family Health Teams* which sometimes employ social workers or psychologists and the *Youth Wellness Centre* in Hamilton. An example of the third type of co-location is the *Caroline Families First* program in Burlington. The primary care team (Caroline Family Health Team) houses staff employed by local community-based child and youth mental health services (such as ROCK) and uses a wraparound approach to care which includes peer and family support as well as navigation and referral support.

A preliminary evaluation of this program showed decreased symptoms in children, decreased caregiver strain, greater provider communication, and less primary care provider time spent dealing with crises (Whalen, 2016). The main criticism of co-location models is that although close physical proximity increased the chances of better communication, it is not sufficient. Formal policies need to be adopted for care to truly be integrated and collaborative.

Community hub models (also known as “one-stop-shops”)

Community hub models follow the integrated care and co-location principles. They usually provide and help coordinate services for children and adolescents with complex mental health, health and other needs or who are highly vulnerable (e.g. those with unstable housing). While the structure of community hub programs can vary greatly, they often include intensive behavioural health care planning and case management as well as multiple access points through other services such as those related to primary care, drug abuse, housing, academic or work support. Community hub programs are generally family-centric and provided in the home, school, or community setting to allow families to remain in their community. Examples include: *Headspace* and *BackTrack* in Australia, *Jigsaw* in Ireland, *Youthspace* in England, and *Corner Clinic Teen Parent Programme* (LePlatte, Rosenblum, Stanton, Miller, & Muzik, 2012) which supports teenage parents in Michigan. In Québec, through the *Plan d'Action en Santé Mentale*, services for youth provided at Centre de santé et de services sociaux (CSSS) have been restructured (Nadeau et al., 2012). In Ontario, an organization like the *Youth Services Bureau* in Ottawa also has many elements of the community hub model (provides mental health, health, housing, justice and employment support) and uses a wraparound approach by partnering with other mental health programs in the region. Other jurisdictions have shown that community hubs are particularly important for those who do not present at traditional primary care settings, such as males, older adolescents/young adults, and other vulnerable populations (e.g. those who are street-involved, homeless, have low income, those with developmental disabilities or who identify as lesbian, gay, bisexual, transgender, Two-Spirit, queer or other) (McGorry, Bates, & Birchwood, 2013). These jurisdictions believe that the success of community hubs is based on the ease of access to mental health through

multiple access points, health and addiction services, the communal and youth-friendly atmosphere, and the youth engagement/empowerment approach (Headspace, 2014). Community hub services can be particularly important in rural settings where other services are scarce (McGorry, Bates, & Birchwood, 2013). One drawback from implementing the *Headspace* program in Australia is that it has unwittingly reduced funding for other providers and does not replace care provided through traditional settings (Orygen, 2016).

Chronic Care Model (CCM) framework

The CCM is not a model per se but a framework which, in fact, contains elements of other models. The CCM (Wagner, Austin, & Von Korff, 1996) framework was initially conceived for the management of physical chronic diseases and emphasizes the need to focus on primary care as an opportunity to provide ongoing management instead of prioritizing acute symptoms and specialized services. The model has been applied to adult mental illness which involves practitioners from different specialties working together (usually a primary care physician, a case manager, and a mental health specialist) in a coordinated way to ensure the client receives the right services. There have been multiple adaptations to the CCM framework to better fit mental health within primary care settings (e.g. Wissow et al., 2014), nevertheless the CCM invariably incorporates the following core elements to organize and manage clinical resources: (1) leadership team comprised of various primary care and community partners and care provider incentives, (2) access to decision support for primary care providers through training, guidelines and specialist consultation, (3) modification of delivery systems including changes in planned visits and follow-up, clarification of roles and expanded scope of practice of the health care team, (4) implementation of Clinical Information Systems (CIS) that empower providers through reminders, alerts and ease of referral and tracking with community-based services, (5) self-management support for clients, and (6) access and referral to appropriate community resources beyond primary care (Woltmann, Grogan-Kaylor, & Perron, 2012). The CCM framework requires greater evaluation and research to

support its use with child and adolescent mental health problems, but it shows promise. In fact, there is very strong evidence that providing mental health interventions within collaborative primary care settings can reduce mental health symptoms.

A meta-analysis of the following five collaborative care randomized controlled trials (RCTs) yielded a medium and statistically significant effect ($d = 0.63$, $P < 0.001$; Asarnow et al., 2015):

- Doctor Office Collaborative Care (DOCC): Intervention used with children with behavioural problems, attention deficit hyperactivity disorder and/or anxiety. The study demonstrated higher rates of treatment initiation and completion as well as improvements in symptoms and parental stress ($z = 2.140$, $P = 0.03$; Kolko et al., 2014).
- Reaching Out to Adolescents in Distress (ROAD): Intervention used with 13 to 17-year old adolescents with depression. The study demonstrated significant improved receipt of treatment, depressive symptoms, and functional status as well as higher rates of depression remission ($z = 4.819$, $P < 0.001$; Richardson et al., 2014).
- Doctor Office Collaborative Care (DOCC): Intervention used with children five to 12-years old with externalizing disorders. The study demonstrated significant improvements in service use and completion, behavioural and emotional problems, individualized behavioural goals, and overall clinical response ($z = 3.774$, $P < 0.001$; Kolko, Campo, Kilbourne, & Kelleher, 2012).
- Youth Partners-in-Care (YPIC): Intervention used with 13 to 21-year old adolescents with depression. The study demonstrated significant improvements in receipt of treatment, depressive symptoms, mental health related quality of life, and satisfaction with care ($z = 3.461$, $P = 0.001$; Asarnow et al., 2005).
- Collaborative Care Cognitive-Behavioural Therapy: Combined cognitive-behavioural therapy and antidepressant intervention for adolescents with depression. The study demonstrated nonsignificant reduction in depressive symptoms ($z = 1.510$, $P = 0.13$; Clarke, et al., 2005).

Discussion

A review of the available research and scan of models currently used revealed a call for and movement towards greater collaboration between primary care and community-based child and youth mental health services. There also appears to be a consensus that primary care settings are uniquely positioned to address the mental health concerns of children and adolescents and provide care before concerns become more severe and impairing (CPACFH & TFMH, 2009; Vallance, 2011). There is evidence from other jurisdictions that primary care providers can successfully incorporate identification and assessment of child and adolescent mental health disorders in their practice and provide medication management of these disorders with consultation support from mental health experts such as child and adolescent psychiatrists. There is also strong evidence that primary care is an appropriate setting for brief and evidence-based interventions (such as psychoeducation, brief individual cognitive-behavioural therapy, group sessions and parenting support) provided by a non-physician mental health specialist (psychiatric-trained nurse, psychologist, social worker, counsellor) (Asarnow et al., 2015; Vallance et al., 2011).

Findings from the review of the literature also suggest that simple coordination of care is not sufficient for meaningful change to happen within our mental health care system. The principles promoted through the integrated, collaborative and shared care concepts are necessary. Therefore, based on this review, models that focus solely on co-location without additional collaborative processes would not be recommended. Rather, the ideal is a collaborative approach where providers share treatment plans, care processes and have continuous interactions.

Using a blended model approach and collaborative care principles

Overall, a handful of models and frameworks have been proposed to tackle the gap between primary care and community-based child and youth mental health services. However, models presented in this report have moderate to anecdotal support in their applicability to child and youth

populations. Therefore, there is currently limited evidence demonstrating the effectiveness of any one model of the primary care and community-based child and youth mental health services interface (Richardson, McCarty, Radovic, & Ballonoff Suleiman, 2016). Nevertheless, the current research suggests that the needs of the child and youth mental health system in terms of the interface between the primary care and community-based child and youth mental health service sectors appear to be like that of the adult mental health care system. In fact, similar models and recommendations might be applicable to both systems. The greatest difference between the child and adolescent and the adult mental health system remains the developmental and family-specific considerations.

In deciding what model (or models) best fit the Ontario context, one should consider the following attributes: the approach must provide structure and guidelines to be applied in a standardized way across the province, but also be flexible enough so that it can be tailored to the needs of individual communities. In fact, we anticipate that the specific care pathways and partnerships will look different in different regions. We believe that the following approach, framework and model will be able to drive meaningful change by providing guidance for the modification or development of clinical pathways, helping increase accountability, and enabling better measurements of care delivery:

I. The stepped-care approach

The stepped-care approach is useful in helping shape pathways between primary care and community-based child and youth mental health services. Its principles dictate that the system must first deliver the most effective, yet least resource-intensive treatment. More expensive and complex interventions are only implemented after simpler, less costly interventions have been unsuccessful. Furthermore, milder cases should be taken on by more generalist providers who can support low intensity “minimal” interventions, while only severe/complex cases should require the attention of specialists and more intensive interdisciplinary interventions

targeting the unique needs of that child or adolescent. Monitoring of client progress is an essential element to determine if, or when, a step-up, or step-down, is necessary.

This approach is therefore also of great value in guiding the redefinition of provider roles and responsibilities within the pediatric mental health system. The role of primary care in the mental health care system should include being a gateway and navigational support to specialty services, being the principal point of identification, provide first-order intervention and promote general positive mental health and well-being. Therefore, general practitioners, family physicians, nurse practitioners and pediatricians should be responsible for prevention, identification, assessment, and with the support of child and adolescent psychiatrists, diagnosing and prescribing medication (if warranted) of clients with mild disorders or those who do not fully meet diagnostic criteria, but experience functional impairment. Team mental health professionals (e.g. nurses, social workers, psychologists) should be responsible for prevention and brief psychosocial treatment of common mental illnesses such as depression, anxiety, attention deficit hyperactivity disorder and other behavioural disorders. Both primary care providers and team mental health providers in primary care should be able to use developmentally appropriate standardized tools and techniques such as motivational interviewing to determine the level of readiness/motivation, preferences and barriers for treatment.

A community-based child and youth mental health service provider's role should be to provide brief and long-term psychosocial treatment for clients who have mild symptoms but did not improve from treatment in primary care, have moderate symptoms, and/or might need more intensive or long term support because of an added level of complexity (e.g. depression complicated by a history of trauma). Their role should also include psychoeducation, parent training and support to the whole family. Community-based child and youth mental health service providers should be responsible for providing consultation to primary care providers, keeping them updated with the state of referrals, treatment uptake and outcomes, and providing recommendations during hand-offs back to primary care when services are terminated.

Community-based child and adolescent psychiatrists' main role should be to provide consultation to primary care providers concerning diagnosis and pharmacological treatment of any child or adolescent presenting mental health concerns, provide direct assessment and treatment services to clients who have complex, severe and/or

Primary care providers perceived their role and responsibilities towards mental health concerns as ill-defined, leading to large practice differences between them.

refractory disorders, and liaise with tertiary care centres (Parker et al., 2002). Like community-based child and youth mental health services, community-based psychiatrists should be responsible for keeping primary care providers updated with the state of referrals, treatment uptake and outcomes and recommendations during hand-offs back to primary care. They can also play a crucial role in ongoing primary care provider mental health training.

Finally, thanks to significant technological advances, Tele-Mental Health (also e-Mental Health, telepsychiatry, telemedicine) is an important tool that can greatly impact the efficiency of provider-provider and client-provider interactions within the mental health system (Paing et al., 2009; Hilty et al., 2013; Hilty, Yellowlees, Myers, Parish, & Rabinowitz, 2016). Tele-Mental Health can be used by expert mental health consultants (primarily psychiatrists) to provide support to primary care providers regarding: (1) diagnosis, (2) medication management, and (3) continuing educational and training on topics related to mental health disorders (e.g. Kemper et al., 2008). Tele-Mental Health can also be used in direct interaction with clients to conduct assessments and psychosocial treatment (e.g. Myers, Vander Stoep, Zhou, McCarty, & Katon, 2015). Although clinical guidelines and considerations for the child and adolescent population still need to be addressed (Nelson, Cain, & Sharp, 2017), the main advantage of Tele-Mental Health for the Canadian context is that it can surmount geographical barriers in regions (mainly rural) with a low density of appropriate providers. Lastly, Tele-Mental Health can also be used to provide continuing education to primary care and community-based child and youth mental health service providers.

II. The CCM framework

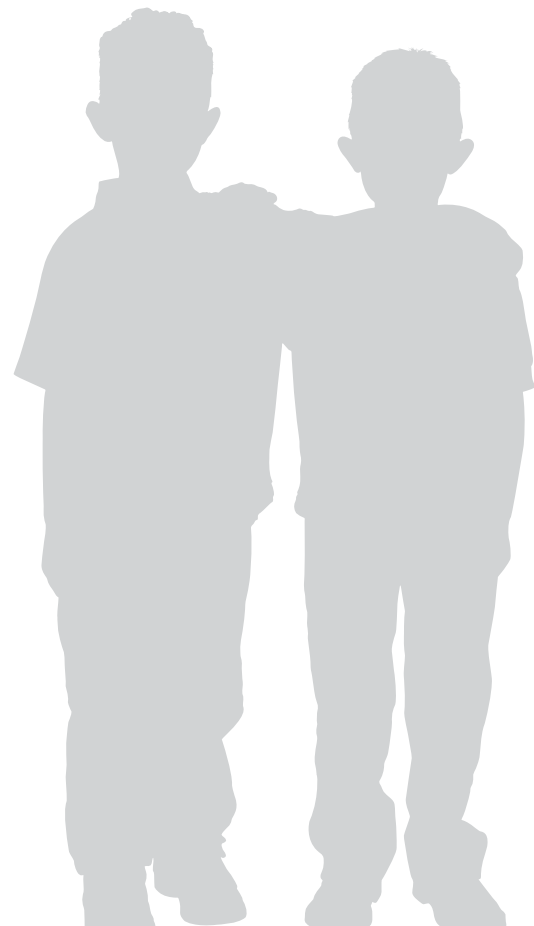
The CCM framework emphasizes effective partnerships between sectors which allow clients to take advantage of specialist treatment expertise, comprehensive primary care and longitudinal care. The CCM core elements are useful in guiding the organization and management of clinical resources in a truly collaborative manner within organizations across each community:

- local leadership teams comprised of various primary care and community partners
- incentives for providers to take on mental health cases and collaborate
- access to decision support for primary care providers through training, guidelines and specialist consultation
- modification of delivery systems including changes in planned visits and follow-up
- clarification of roles, responsibilities and expanded scope of practice of the health care team
- implementation of Clinical Information Systems (CIS) that can facilitate communication between team members, ease the referral mechanism, facilitate the use of standardized tools, track client change, and act as a reminder to perform certain tasks during client encounters (such as mental health questions)
- referral, navigation support and access to appropriate community resources beyond primary care
- self-management support for subthreshold clients or those on waitlists

III. The community hub model

The community hub model can provide a one-stop-shop, youth-friendly location that can enhance community engagement, strengthen social networks among community members, decrease stigma and address inequities (Lum & Ying, 2014). In fact, community hubs are thought to be especially useful in capturing marginalized or at-risk youth who do not tend to present at traditional primary care settings including, but not limited to:

- youth seeking primary care and/or mental health services independently and who might not want to access their family primary care provider for various reasons such as, stigma, lack of family support, confidentiality, and lack of youth friendliness
- older youth and transitional aged youth who are no longer connected to pediatric mental health services and need support while transitioning to adult services
- youth who do not have a primary care provider and are marginalized because of gender identity, sexual orientation, unstable housing, etc.
- youth who might need additional services, such as support with alcohol and addiction, teen pregnancy and parenting, school and employment
- male youth, who more generally have lower rates of attendance to traditional primary care settings than females (McGorry, et al., 2013)



Other considerations

Barriers and facilitators to collaborative care

Research has shown that one of the greatest barriers in moving towards collaborative care within the mental health system is the lack of knowledge of other professionals' scope of practice. Very few primary care providers are aware of the differences in training between mental health providers, their scope of practice or how they operate. In the reverse, few mental health providers clearly understand how primary care providers need to operate in a publicly funded system or what information they need to coordinate physical and mental health services. Research has suggested that training as well as incentives for greater inter-provider interactions and communication could address this barrier.

Many other barriers also exist at the system and institutional levels. The current fragmentation of care between health and mental health; the increasing client loads faced by many primary care providers and psychiatrists; the insufficient number of community-based child and youth mental health service providers in certain areas; the lack of clarity concerning the assignment of medicolegal responsibility in shared care; and negative attitudes on the part of some providers toward the contributions other providers can make, all reduce the opportunities as well as the willingness of providers to collaborate (Kates et al., 1996). Moreover, there are many disincentives to collaboration within clinics or agencies structures, mainly because there is no time and no remuneration for work related to collaboration with other providers.

In settings where collaborative and integrated care was achieved, facilitators were mostly organizational in nature. This included building a culture of collaboration through strong leadership (for example, making mental health one of the clinic's priorities and applying this policy in practice) and building lasting professional relationships within the institution's own team, with other clinics and with other

Community-based child and youth mental health service providers reported very few formal partnerships and that collaboration was only possible with a primary care provider with whom they have a personal relationship, which can take a long time to build.

professionals in the community. Finally, CIS and common standardized tools were heralded as crucial to truly integrate information and make collaboration practical and less burdensome.

Infant mental health

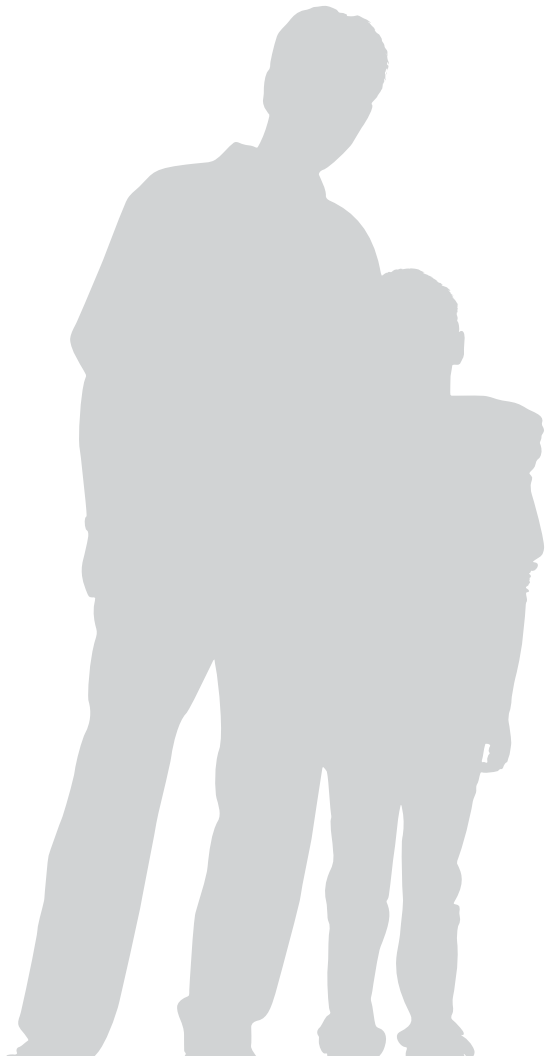
Although we acknowledge the importance of early developmental factors on later health outcomes (Hertzman, Clinton, Lynk, & The Canadian Paediatric Society (CPS) Early Years Task Force, 2011; Zeanah, Stafford, Nagle, & Rice, 2005), the focus of this paper has primarily been on child and adolescent mental health. One of the reasons is because infant mental health (0 to 3-years old) is tightly connected with the timely achievement of motor, verbal and socio-emotional developmental milestones which is most often already captured by primary care providers at well-baby visits. Primary care providers often use standardized checklists or screening tools, such as the Rourke Baby Record and the Nipissing District Developmental Screening, that are non-specific to mental health but capture some individual and family-level risk factors.

The enhanced 18-month well-baby visit specifically has been targeted as an important opportunity for primary care providers to identify vulnerabilities to future mental health concerns (Williams, Clinton, & CPS Early Years Task Force, 2011). These include, but are not limited to: social determinants of health (e.g. poverty), late developmental milestone achievement, adverse childhood experiences (e.g. abuse), parental mental illness and substance misuse (Zeanah et al., 2005; Regalado & Halfon, 2001). The enhanced 18-month well-baby visit is an opportunity for prevention by promoting a wide variety of positive behaviours (such as nutrition, quality parenting, child management, injury prevention, and pro-literacy activities) and access to local community programs which can impact long term mental wellness (Williams et al., 2011). Primary care providers expressed support for the addition of a special fee code that acknowledges the longer enhanced visits; however, they remained concerned that adequate community supports are not always readily available once infants and families are identified as needing referral and treatment (Williams et al., 2011; Regalado & Halfon, 2001). Finally, the Canadian Paediatric Society and Early Years Task Force have recommended that federal and provincial governments commit to the monitoring of the progress of children at key points in their development and invest in effective early child development interventions (Hertzman et al., 2011).

Using a whole-family perspective in child and adolescent mental health

Children and many adolescents depend on their families to initiate a primary care consultation and are often accompanied by a family member during visits. Furthermore, the home environment, mental health of the caregivers and the mental health of the child or adolescent are strongly intertwined. It is known that adverse childhood experiences (e.g. physical and sexual abuse, household dysfunction and violence, parental imprisonment) can lead to long term impairment (Fergusson, Boden, & Horwood, 2008), but some less severe life events can also impact child and adolescent mental health. These include, but are not limited to, parental loss of employment, death in the family,

frequent home moves, divorce, having a sibling with high medical health needs, bullying, and learning difficulties (Patel, Flisher, Hetrick, & McGorry, 2007). It is also common for caregivers of children and adolescents to struggle with their own mental health difficulties (Wissow et al., 2016). There is evidence that a tactful and respectful discussion of caregiver stress during pediatric visits is well received by caregivers and resulted in higher satisfaction with their child's primary care provider (Brown & Wissow, 2008). Recognition of the importance of collaboration with the adult mental health care system, to provide adult caregivers treatment, might be pivotal to increase the well-being of the whole family. Caregivers can also be overwhelmed by their child's difficulties and might have difficulty managing daily life. Parent training is an effective treatment that takes into consideration the needs of the whole family and provides caregivers support in adapting their parenting practices to diminish problematic behaviours (e.g. Stattin, Enebrink, Özdemir, & Giannotta, 2015). Therefore, primary care providers' role as longitudinal care providers, often to many members of the family, has been described as ideally positioned to observe the trajectory of families and, when indicated, provide prevention-oriented support.



Limitations

The greatest limitation that was encountered during this project was the lack of consistently and reliably collected mental health treatment efficacy and outcome data in Ontario. Although, individual programs might collect some of this data, we have no way to link clients across sectors, retrieve data from certain populations of interest (e.g. Indigenous families), systematically compare efficacy of different programs across our mental health care system, or produce meaningful report cards. For this reason, it is difficult to determine which models work best and why. Therefore, there is a need to collect and report on a range of meaningful indicators to assess current performance and monitor short and long term outcomes and sustainability (Yang et al., 2016).

The body of literature that was reviewed for this report highlights the complexities of addressing the issues with our mental health care system and demonstrates that other jurisdictions also struggle to address similar gaps. However, none of the available literature could address how models might be amenable to the reality that clients may access multiple providers concurrently and across institutional systems (health, children's aid, justice, education). These institutional systems may address the child or adolescent's mental health issues to a greater or lesser extent, but seldom share information and clients may go back and forth between multiple settings depending on a host of circumstances. Moreover, other models, such as the patient-centered medical home which is rooted in collaborative care principles, have not been examined in child and adolescent mental health, but would be important targets for future research (Croghan & Brown, 2010).

The available literature also did not clearly address how different models might serve specific subpopulations or how they might address social determinants of health. Although greater coordination, integration or collaboration between primary care and community-based child and youth mental health services cannot address social determinants of health directly, taking these factors into consideration when designing new processes and pathways is crucial (Hodgkinson et al., 2017). In terms of specific subpopulations, there is evidence that some of the presented models might be particularly helpful for

issues such as: substance use/abuse disorders (Levy & Kokotailo, 2011; Sterling et al., 2015), externalizing disorders (Kolko, Campo, Kelleher, & Cheng, 2010; Kolko et al., 2012; Kolko et al., 2014) and depression (Asarnow et al., 2005; Richardson et al., 2014). However, there was little discussion concerning models best suited for complex cases; including dual diagnosis, concurrent disorders, and severe, complex and/or treatment refractory disorders (for a more in depth discussion of concurrent disorders, see Watson, Carter, & Manion, 2014). Nevertheless, some of the literature has looked at the mental health needs of pregnant and parenting adolescents (Hodgkinson, Beers, Southammakosane, & Lewin, 2014) and have also found that integrating health and mental health during primary care visits is important for the future mental health of the adolescent, parent and child. Specific pathways were also described for adolescents experiencing psychotic symptoms, which usually included a referral to a first-episode psychosis program (Anderson, Fuhrer, Schmitz, & Malla, 2013).

Finally, we recognize methodological limitations to this report. The consultations were not comprehensive and results from interviews and focus groups might not have captured all themes. We are aware that the families and youth with lived experience who participated might not be representative of the continuum of complexity and might, because of the nature of the consultation, have had less positive outcomes overall. Furthermore, we performed a scoping review of the available literature as well as an environmental scan. Scoping reviews are usually the starting point of an inquiry guiding future research and helping end users make more informed decisions. However, scoping reviews usually don't include a quality assessment or extensive data synthesis and therefore is less methodologically rigorous than other, more advanced review methods.

Recommendations

This policy-ready paper highlights the importance of collaboration between providers in the primary care and community-based child and youth mental health service sectors to improve the efficiency of our child and youth mental health system and effectively meet the mental health needs of Ontario's children and youth. Although we recognize that both primary care providers and community-based child and youth mental health services are overwhelmed by large client rosters, mental health conditions remain under-diagnosed and under-treated in the child and adolescent population.

The following recommendations were based on the available research evidence, current practices and focus group data, and developed to strengthen the partnership between primary care and community-based child and youth mental health services in providing developmentally appropriate services to children and adolescents with mental health concerns across the spectrum of symptom severity and functional impairment. Although the recommendations are broad, we stress the crucial importance of paying attention to issues of diversity and to social determinants of health in designing clinical pathways and in clinical service provision.

1 Organizational structures and practices that support inter-provider communication

It is clear from this report that poor communication between providers across primary care and community-based child and youth mental health services is a major barrier to optimal care. The core of communication between the two sectors resides in the referral process. On the one hand, many primary care providers have very little knowledge of available and appropriate mental health services in their community, how to initiate a referral to a mental health agency or what to expect in terms of treatment type and length. On the other hand, community-based child and youth mental health services seldom inform primary care providers of referral status and treatment outcomes, and have little knowledge of primary care provider practices, including fee reimbursement and prescription of medications. Given that our mental health system is very much in flux, as some focus group participants described, it is often challenging to understand other providers' roles, responsibilities and competencies as they relate to mental health. Because of this, providers are more likely to go with what they know, which leads to professional isolation and lost opportunities for consultation and collaboration.

Most often, clinical information is shared on an ad-hoc basis and families serve as communication bridges (Greene et al., 2015).

To tackle this issue, team-based models as well as co-location models have been proposed (Kelleher, Campo, & Gardner, 2006). Although these two models can in fact increase opportunities for better communication, review of the literature has shown that physical proximity is not sufficient for this to happen. Collaborative principles need to be a priority for all providers to achieve better outcomes. These principles include (1) primary care and community-based child and youth mental health service leadership teams representing the community's needs, (2) access to decision support for primary care providers through specialist consultation (for example, using Tele-Mental Health), (3) clarification of roles and expanded scope of practice in interdisciplinary teams, and (4) implementation of CIS. To this end, each provider, whether in a solo-practice clinic or agency, should articulate a mission statement which includes collaborative mental health which is then translated into concrete organizational strategies that are continuously monitored.

2 More effective mental health training for primary care providers to build capacity

This policy-ready paper highlights the need for greater and more effective mental health training for primary care providers to increase their knowledge and confidence. In the past, training has tended to focus on diagnostic categories, symptoms and evidence-based treatments, but has lacked teachings in interviewing and "soft" skills needed to fully engage children and adolescents with mental health difficulties. These skills include, but are not limited to: communicating to clients and their families about mental health in an empathic non-judgmental manner; encouraging

Families felt primary care providers better prepared for crises than long-term management of common disorders.

Youth reported wanting to be respected in their need for privacy, confidentiality and informed consent and for providers to acknowledge youth-defined “family” (natural supports other than parents).

expressions of concern; addressing readiness/motivation, preferences and barriers for treatment; seeking consent and assent; and running a practice so that it is sensitive to mental health and developmental issues (e.g. organize sensitivity training for non-clinical staff). Indeed, many focus group participants as well as research surveys emphasized the variability in primary care providers’ attitudes and beliefs towards mental illness, comfort and confidence level in discussing mental health issues with youth and families, age of consent, and knowledge and ability to screen, diagnose, treat and/or refer. Encouragingly, most primary care providers report wanting to increase their training in mental health, but state that time is the greatest barrier to do so effectively.

So far, it appears that training has not been sufficient to address the mental health needs of children, adolescents and their families presenting to primary care. Mental health training is currently delivered at two levels:

- **Residency:** It has been shown that although opportunities for mental health training is available, it is often not mandatory and competes with time spent in other medical rotations. Training in interdisciplinary collaboration and knowledge of roles and competencies of mental health specialists is often sorely lacking. Nevertheless, in the past few years there has been a move in the right direction as an increasing amount of family medicine and pediatric medical programs allocated greater time to mental health training. In designing training programs, it has been proposed that medical students should be trained by a variety of content experts, such as family physicians, psychiatrists and psychologists, use multiple modes of learning (e.g. simulated client) and share educational rounds with other departments and disciplines to

Primary care providers reported having to seek extra mental health training on their own to attempt to fill knowledge and practice gaps.

stimulate interdisciplinary knowledge and collaboration. Residency training can also be bolstered by the promotion of resident participation in shared/collaborative care projects, clinical placements in interdisciplinary teams, greater attention to the intersection of mental health concerns and medical conditions within required rotations, and consultation opportunities throughout their training.

- **Continuing medical education (CME) opportunities:** It has been proposed that CMEs should place increased focus on the diagnostic, management and inter-professional skills needed for collaborative care as well as reflect local practice contexts and community needs by involving local specialists and community agencies and fostering strong relationships (Wissow et al., 2008). A number of continuing education teaching models exist, but most have not been evaluated to determine if primary care providers made concrete changes to their practices following the CME. A thorough assessment of CME and other continuing education programs available in Canada (e.g. project ECHO) is needed to determine which programs have the best evidence and how can they be tailored to the Ontario child and adolescent mental health context.

3 More opportunities for primary care mental health training for mental health specialists

It is often assumed that mental health professionals know how to work collaboratively. However, this report shows that few mental health providers clearly understand how primary care providers need to operate in a publicly funded system, what information primary care providers need to coordinate physical and mental health services or how their own practice fits within the health care system. In line with our recommendation above, we suggest that the curricula of relevant disciplines, such as psychology, social work and psychiatry also incorporate concepts of shared/collaborative mental health care in their training requirements. Primary care providers should ideally be involved in teaching part of this curriculum. Clinical opportunities for specific training in primary care mental health should also be offered including, but not limited to: experience providing consultation and support to primary care providers within a primary care team, providing brief individual therapy in a primary care context, and leading psycho-educational and parenting groups. Principles of shared/collaborative mental health care should be part of the values promoted by the provincial associations and orders regulating these professionals.

4 Development of guidelines and standardized clinical pathways

There are currently no best-practice guidelines to support communities in developing clinical pathways for child and adolescent mental health. Such guidelines exist in the U.S. through the Academy of Pediatrics (AAP) and in the U.K. through the National Institute for Clinical Excellence (NICE). There is evidence that advocacy and publication of disorder-specific guidelines has increased physician perceived competency in identifying and treating mental health disorders such as attention deficit hyperactivity disorder (Heneghan et al., 2008; Ayyash et al., 2013). Ontario's communities are diverse in their composition and needs (e.g. remote/rural, francophones) which means that there is no one-size-fits all solution. However, we believe that following the principles of the stepped-care approach and CCM framework can help each community develop guidelines on how to implement collaborative care and efficient clinical pathways between primary care and community-based child and youth mental health services.

Clinical pathways need to include standardized referral forms developed by both primary care and community-based child and youth mental health service providers and formal agreements governing communication expectations. Primary care providers also need support in choosing the appropriate referral for their clients. In our review of the literature this support has been historically provided by a primary care or community-based coordinator/systems navigator or provided through access to a comprehensive online platform database. In both cases the challenge remains the commitment from all community-based child and youth mental health providers to provide updated information about their services. Developing guidelines is the first step, monitoring the implementation and fidelity will also be crucial to help future decision-making.

5 Integrating standardized tools in primary care practices

Given primary care providers' limited time and the wide range of mental health symptoms to cover, many have proposed the use of standardized tools to support primary care providers in identifying children and adolescents who might need a more comprehensive mental health assessment. Standardized tools can be used to: (1) standardize and simplify symptom and illness identification for primary care providers, (2) help create comparable clinical pathways across the province and create equal opportunity access, (3) help clinical decision-making, (4) monitor symptoms over time and/or track treatment efficacy, and (5) determine severity of illness and functional impairments. However, multiple barriers to successful implementation exist, including training in the

interpretation of results, administration and scoring time, and cost. Furthermore, some researchers and families alike have cautioned against the overuse of standardized tools as these are only useful if their results have a direct impact on decision-making and are supported by additional practice resources that can improve mental health care outcomes.

We recommend the use of standardized tools that can be easily administered, interpreted and used by both the primary care and community-based child and youth mental health service settings. In fact, standardized tools can provide a common language between providers (communimetric principles) and could be used as part of the referral process. We recommend that primary care providers have access to a list or menu of evidence-based tools which includes tool specifications (e.g. age group, length, specific vs. general symptoms check). Eligible tools should have face validity, sound psychometrics for primary care, be easy to administer and score, available in the public domain (i.e. free) or at a low cost, and be easily integrated into workflow or a CIS. Furthermore, tools need to be developmentally appropriate as, unlike adult tools, measures are normed for different age groups. In addition, not all tools have alternate versions to fit every age group until adulthood. In Canada, another major challenge in the implementation of tools is the lack of tools available in both English and French language that have been thoroughly validated. A list of appropriate standardized mental health tools to be used in primary care is available to American primary care providers through the American Academy of Pediatrics.

6 Establish effective billing and reimbursement practices that will sustain mental health services

We need to review incentives and disincentives that exist for child and adolescent mental health services within primary care. Current billing and reimbursement practices have been criticized for not recognizing the unique nature and challenges of child and youth mental health care. Many primary care providers have called for greater incentives for evaluating mental health concerns, using standardized tools, as well as consulting and collaborating with community-based

Primary care providers reported that the biggest barrier to collaboration is time as they are not reimbursed or incentivized to collaborate. In fact, there are greater payments for shorter physical health visits, than longer mental health visits.

child and youth mental health services, all of which require a great amount of time. Shifts from fee-for-service models to bundled payments or medical home models have facilitated improved performance in the U.S. (Baker & Axler, 2015). However, we need to find what will work best for Ontarians.

Furthermore, some have argued that the inclusion of mental health in our provincial health coverage would reduce wait times. We are underutilizing a large portion of our mental health specialists in the private sector because of limits on Ontario Health Insurance Plan coverage. As an example, a program in Australia was implemented where primary care providers could refer to private psychologists, who have expertise in evidence-based mental health and behavioural health interventions, and their client could receive up to 12 sessions at no or low cost (Moulding et al., 2009). Although this option may mean significant changes to our health care system, it is worth considering.

7 Family and youth engagement at all levels of the change and monitoring process

In line with other national and provincial initiatives, we believe that integrating youth and families at all levels of the change process will ensure primary care and mental health services are responsive to the needs of Ontarians. However, while there is a growing recognition of the importance of consulting children, youth and families, meaningful engagement rarely happens in a way that allows for maximum benefit and impact (Cannon, Matthews, & Cairns, 2013). Family and youth engagement needs to go beyond compliance, participation or involvement in choice about their care (Evidence In-Sight, 2016).

Family and youth engagement, when it comes to provision of care, means an active partnership between youth, families and service providers, involving and listening to what youth and families say, engaging in two-way communication, and seeing youth and families as partners and allies in children and youth's mental health (Evidence In-Sight, 2016). It also includes active partnerships between youth, families, researchers, policy-makers and other stakeholders working together to improve the process of mental health care. In fact, appropriate engagement of youth and family with lived experience at all stages of planning can shed light on how clients navigate diverse services and assist in optimizing pathways. Moreover, family and youth engagement enhances clients' dignity and respect and serves as an accountability mechanism to ensure that the health care system is acting in a way that benefits them.

Youth reported wanting to be engaged in decision-making.

8 Need for more research and ongoing evaluation

Results from the investigation discussed in this report emphasize the need for more extensive and targeted research in this area (Richardson et al., 2016). We need to further invest in researching which models will best serve child and adolescent mental health care, disorder-specific management techniques in primary care and the utility of training programs. More research around which models are best for complex populations is also needed, such as dual diagnoses and concurrent disorders, and for diverse populations. The continued funding of research on evidence-based child and adolescent mental health interventions is also needed, as any model of care is limited by the effectiveness of available treatments.

In addition, we need to collect and report on a range of meaningful indicators to assess current performance and monitor short and long term outcomes and sustainability. Some indicators are already being tracked by various ministries and these should be available for research use. However, we should not only be tracking outcomes from individual encounters, but also from care collaboration between primary care and community-based child and youth mental health services. Indicators that could be tracked include: social determinants of health, implementation, uptake, satisfaction ratings from stakeholders, and child and adolescent outcomes. In terms of implementing changes to community-based child and youth mental health services, accountability requirements should be established through quality targets and timeframes for improvement. Useful accountability metrics include: measures of health outcomes, quality of care, access to care, efficiency, equity, lived experience outcomes, and client engagement. This means that we need commitment towards planned program evaluations.

This report also highlighted the potential advantages of the comprehensive use of Clinical Information Systems (CIS/EMRs) which could provide data for more detailed analyses of clinical practice and outcomes.

Concluding remarks

The recommendations provided in this paper are integrated and interrelated. Together they can help strengthen the interface between primary care and community-based child and youth mental health service settings. With discussions and reforms currently underway in Ontario, there is an opportunity to move forward with these recommendations and evidence-informed models of care to support greater collaboration across sectors, the creation of seamless care and ultimately, to improve the mental health outcomes of children and youth across the province.

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Appendix A: Interview and focus group questions

QUESTIONS FOR YOUTH

A. ACCESS TO SERVICES (*i.e. How are children and youth accessing mental health services through primary care providers?*)

1. In the past, what have your experiences been like accessing (or trying to access) mental health services through primary care?
2. Can you describe the steps you took / the pathway you took to get help?
3. What worked? What helped? Was there anything (person, procedure, resource, policy, other factors) that made it easier for you to access the help you needed? Did anything make a positive difference for you?
4. What were the challenges? What got in the way? What were the hardest parts of your experience trying to get help? What would you say made it most difficult for you to access the help you needed?
5. Did you feel that you got the help you needed? If so, how long did it take to get the help you needed?
6. How would you rate your overall experience accessing (or trying to access) mental health services through primary care?

B. SERVICE DELIVERY (*i.e. How are youth experiencing services? – intake and referral/pathways*)

1. What's not working well? Based on your experience, what do you think are the biggest barriers, challenges or problems in the way primary care and community-based child and youth mental health services are linked (or not linked)? What are the current gaps and how should those gaps be addressed?
2. What do you think is working well in the link between primary care and community-based child and youth mental health services? What are existing strengths of the system, if any? What can we build on?

C. CLOSING

1. Can you think of ways to improve the system from how it works now? Either in terms of how you get to services or how your experience of services is once you get them?



QUESTIONS FOR FAMILIES

A. ACCESS TO SERVICES: *Learn more about why and how primary care served as an access point to mental health care.*

1. First, I'd like to hear about what it was like to get help for your child's mental health through a primary care setting. Where was the first place you turned to for help (e.g. doctor, pediatrician, walk-in clinic, hospital emergency department)? Why did you end up there?
2. Did you know you were seeking help for your child's mental health challenges or did you bring them in with other presenting symptoms?
3. How long did it take you to get an appointment with a primary care practitioner?
4. What were you hoping to get out of it (e.g. prescriptions, emotional support, referral, diagnosis)? And were your expectations met?

B. SERVICE DELIVERY: *Learn how youth and families are experiencing services.*

1. How would you describe your overall experience accessing (or trying to access) mental health services for your child through primary care?
2. How did you experience having conversations about mental health with primary care practitioners? How did it compare to conversations regarding physical health concerns?
3. How did your doctor identify that your child was struggling with mental health? Did you have to fill out any forms? What was that like?
4. What worked? What helped? Did anything make a positive difference for you? (e.g. person, procedure, resource, policy, other factors)

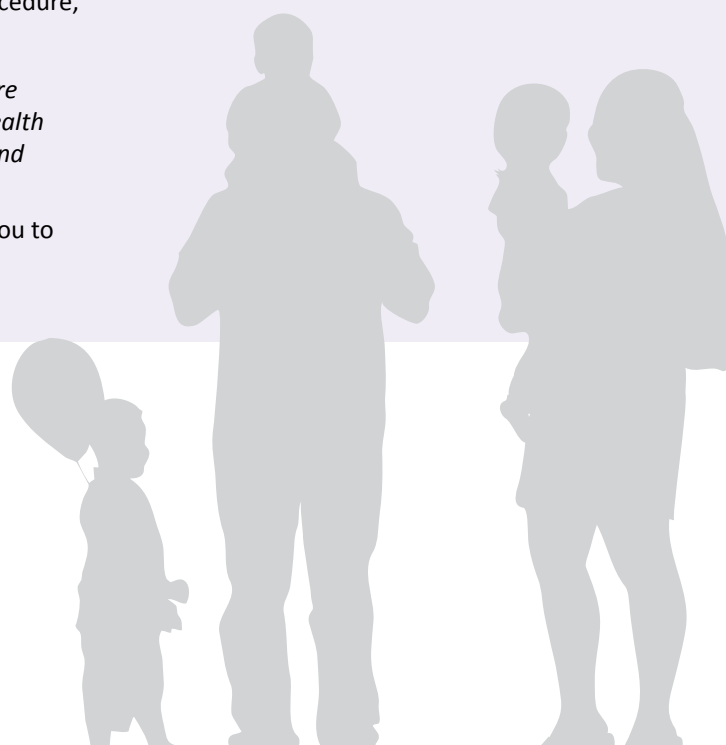
C. SERVICE INTEGRATION/INTERFACE: *Learn more about pathways from primary care to mental health care (i.e. links between primary care and child and youth mental health).*

1. Did your primary care practitioner connect you to mental health services?

2. Did these services actually meet your needs? If not, what happened? How many appointments did it take before you got the help you needed?
3. How familiar was your doctor with mental health services available in your community?
4. Did your doctor communicate with your mental health practitioner (e.g. about medications, treatment progress) and vice versa? Was there consent to share information/were you made aware of what information was being shared?
5. Was there anything that made it easier for you to access the help you needed?

D. EVALUATION/RECOMMENDATIONS: *Gather insight and recommendations to improve the interface, based on the interviewee's experiences.*

1. What do you think are the biggest barriers, challenges or problems in the way primary care and community-based child and youth mental health services are linked (or not linked)? What are the current gaps and how should those gaps be addressed?
2. What do you think is working well between primary care and community-based child and youth mental health services? What are existing strengths of the system, if any? What can we build on?
3. What could we do to make it easier for you to access mental health services through primary care? What would an ideal experience from start to finish look like?



QUESTIONS FOR PRIMARY CARE PROVIDERS

A. ACCESS TO SERVICES: *Learn more about why and how primary care served as an access point to mental health care for families and youth.*

1. I'd like to gain a sense of what leads children and youth to seek help for their mental health challenges from primary care. Were you the first person/place they turned to for help? Were you their first point of access to mental health care?
2. When families/youth come and see you, do you get the sense they typically know they're seeking help for mental health challenges? Or do they come in with other presenting symptoms?
3. What kind of help does it seem families are looking to get from you? Are they expecting to get prescriptions, emotional support, a referral, a diagnosis? And do you feel you are able to meet their expectations?
4. How long do families have to wait to get an appointment/to come and see you?

B. SERVICE DELIVERY: *Learn more about primary care provider capacity in providing mental health service delivery.*

1. In the past, what have your experiences been like supporting patients (children and youth) who present with mental health issues?
2. How do you experience conversations about mental health with patients? Do you feel properly equipped to have these conversations, support them and to address their needs?
3. Do you conduct any screening (to identify the presence of specific mental illnesses)? If so, what types (e.g. formal tools, conversations, etc.)?
4. Have you ever helped a patient create a safety plan for when they feel distressed? If yes, what was this experience like?
5. What has worked to support clients with their mental health concerns? Did anything make a positive difference for you (e.g. person, procedure, resource, policy, other factors)?
6. How does billing come into play for you? Do you feel there are incentives surrounding mental health care for primary care providers?

C. SERVICE INTEGRATION/INTERFACE

1. Have you worked directly with child and youth mental health agencies in your community? How do you

experience the interface between primary care and the child and youth mental health system?

2. Are you typically able to connect patients to community-based mental health services? How quickly/easily? What do those referral processes look like?
 - a. How familiar are you with mental health services available in your community?
 - b. What happens if these services don't meet their needs? For instance, how do you experience conversations with patients when they express the need to switch counsellors/service provider (to find the right "fit")?
3. What are the hardest parts of trying to connect patients with community-based child and youth mental health services? What would you say has made your job most difficult? What barriers exist in making referrals?
4. How much/often do you communicate with mental health service providers about a patient's treatment plan? How has that worked for you in the past?
 - a. Do you typically get consent from youth and families to share information? Do you get consent from youth to talk to their parents?

D. RECOMMENDATIONS/EVALUATION: *Gather insight and recommendations to improve the interface, based on the interviewee's experiences.*

1. What do you think are the biggest barriers, challenges or problems in the way primary care and community-based child and youth mental health services are linked (or not linked)? What are the current gaps and how should those gaps be addressed?
2. Do you feel there are enough available resources to support primary care and child and youth mental health to work in a coordinated, collaborative way? If not, what are the current gaps?
3. What do you think is working well between primary care and community-based child and youth mental health services? What are existing strengths of the overall system, if any? What can we build on?
4. Can you think of ways to improve the system from how it works now?

QUESTIONS FOR COMMUNITY-BASED SERVICE PROVIDERS

A. ACCESS TO SERVICES (*i.e. How are children and youth accessing mental health services through primary care providers? What does access look like now?*)

1. In the past, what have your experiences been like supporting clients who first accessed (or tried to access) mental health services through a primary care setting? How do you experience the interface between this system and the child and youth mental health sector?
2. What worked? What helped you to support your client, or get them the help that they needed?
3. What were the challenges? What got in the way? What were the hardest parts of your experience trying to help the child/youth?

B. SERVICE DELIVERY (*i.e. How are youth and families experiencing services? – intake and referral/pathways*)

1. What do referrals from primary care providers typically look like?
2. Do you feel there are enough resources to support primary care and child and youth mental health to work in a coordinated, collaborative way? If not, what are the current gaps?
3. What do you think are the biggest barriers, challenges or problems in the way primary care and

community-based child and youth mental health services are linked (or not linked)? What are the current gaps and how should those gaps be addressed?

4. What do you think is working well between primary care and community-based child and youth mental health services? What are existing strengths of the overall system, if any? What can we build on?

C. TRAINING

1. Do you feel equipped to interact with primary care providers? If so, what has helped you to feel this way? If not, what would help you to feel better equipped?

D. EVALUATION

1. What would things need to look like in order to say they're working better?

E. CLOSING

1. How could the interface between primary care and community-based mental health services be improved?
2. Next steps (e.g. launch of paper, how do they want to be looped back with?)



Appendix B: Key stakeholder interviews and focus groups themes

GREATER CHILD AND YOUTH MENTAL HEALTH TRAINING FOR PRIMARY CARE PROVIDERS

Youth

- felt primary care providers and primary care staff needed sensitivity and developmental training as they often felt invalidated
- some youth reported that they were treated differently because they had a mental illness
- felt primary care providers had little knowledge of how child and youth mental health services worked
- reported that primary care providers had a narrow range of primary care treatment options
- reported that primary care providers either over-relied or under-used assessment tools

Families

- reported feeling unheard, minimized or blamed by the primary care provider when disclosing mental health information
- felt primary care providers were better prepared for crises than long-term management of common disorders
- reported that primary care providers had little knowledge of child and youth mental health services in their community beyond the first general referral

Primary care providers

- wanted to be better informed and aware of mental health symptoms, diagnoses, best-evidence treatments, tools and general skills to deal with child and youth mental health
- reported lacking knowledge of child and youth mental health services, referral options and processes available in their community
- reported having to seek extra mental health training on their own to attempt to fill knowledge and practice gaps
- reported often needing timely support (while the youth and families are still in the clinic) which was only available to those working in multidisciplinary teams

Community-based child and youth mental health providers

- believe that primary care providers need more mental health training
- believe that primary care providers need to know more about community-based child and youth mental health services' processes from referral all the way to post-treatment follow-up when returning to primary care

IMPORTANCE OF THE CLIENT-PROVIDER RELATIONSHIP

Youth

- want their primary care providers to recognize and understand the value of building rapport to increase engagement
- want primary care providers to understand that a good fit with their primary care or community-based child and youth mental health providers

can lead to better outcomes, therefore switching providers can be appropriate

- appreciate when primary care providers are transparent, open and accessible

PAYING GREATER ATTENTION TO YOUTH'S AND FAMILIES' NEEDS

Youth

- engaging youth in decision-making
- respecting youth's need for privacy, confidentiality and informed consent
- acknowledging youth-defined "family" (natural supports other than parents)
- having more flexible length of appointments
- providing more informal, nonclinical looking, comfortable spaces where youth can attend appointments
- having accessible locations and youth friendly hours to improve accessibility (e.g. located near public

transit and other services accessed by youth; services available at times that are convenient to youth, such as after school and on weekends)

Families

- acknowledging and respecting the critical role families play in advocating for and supporting the care of youth
- importance of providing support to the whole family, especially around system navigation as the onus has often been put on the family to navigate a system so complex that even providers have difficulty grasping

PRIMARY CARE PROVIDER ROLE AS A MENTAL HEALTH PROVIDER AND INTER-PROVIDER COLLABORATION EXPECTATIONS

Youth

- value providers that can communicate and collaborate with other providers, as they do not need to keep repeating basic information (multiple storytelling)
- youth often access primary care, tertiary care and community-based child and youth mental health services during a short period of time and felt they often received contradictory information about whose role it was to screen, diagnose and treat their mental health concern

Families

- struggled with primary care providers who seemingly washed their hands of mental health concerns explaining that it was not their role
- appreciated when primary care providers advocate for their child and collaborated with other providers

Primary care providers

- perceived their role and responsibilities towards mental health concerns as ill-defined, leading to large practice differences between primary care providers
- are interested in collaboration and acknowledge that it leads to better outcomes
- want community-based child and youth mental health services to consistently confirm referral and report back to primary care providers

- some primary care providers proposed that integrated Clinical Information Systems would solve communication issues and permit easier referral practices

Community-based child and youth mental health providers

- believed that communication and personal relationships were crucial in successful referrals
- acknowledge that both sectors needed greater knowledge on how to collaborate
- have difficulty engaging primary care providers in mental health care and knowing what and how primary care providers want information
- reported varying levels of interest towards mental health and collaboration
- reported that relationships with primary care providers are hard to build and maintain
- reported that some providers in both sectors are resistant to changing the way they do things
- reported being concerned about privacy and confidentiality, in fact some patients directly request not sharing information back to primary care providers which then hinders any collaboration
- are overwhelmed, leading to long waitlists and little time to collaborate

BARRIERS TO COLLABORATION

Primary care providers

- reported that the biggest barrier to collaboration is time as they are not reimbursed or incentivized to do so (greater payment for shorter physical health visits than longer mental health visits)
- reported a disconnect between what they consider important information and what community-based child and youth mental health services are willing to give leading to ineffective communication
- Some primary care providers explained preferring to send children and adolescents to the emergency department since they had greater chances of getting seen sooner than through a referral to community-based child and youth mental health services

Community-based child and youth mental health providers

- although community-based child and youth mental health services realize that most children and adolescents first present to primary care, they have reduced opportunity to collaborate as many of their services are self-referral only
- reported very few formal partnerships and that collaboration was only possible with a primary care provider with whom they have a personal relationship, which can take a long time to build

EXPERIENCE IN THE MENTAL HEALTH SYSTEM AND CALLS FOR CHANGE

Youth

- some youth reported having lost confidence in the mental health system's ability to treat them

Families

- struggle navigating community-based child and youth mental health services and hit many roadblocks to treatment, such as restrictions in age, catchment area, diagnosis, length of services, etc.
- felt that challenges to care access were unique to mental health and not as present when accessing services for other health concerns

- highlighted financial strain stemming from unfunded mental health treatment in the community, loss of work, cost of transportation, child care for siblings, etc.

Primary care providers

- lack of appropriate services, long waitlist and inadequate resources frustrate primary care providers leading to compassion fatigue and loss of faith in the system



Appendix C: Scoping literature review and environmental scan themes

COMMUNICATION, RELATIONSHIPS AND COLLABORATION BETWEEN PRIMARY CARE AND MENTAL HEALTH PROVIDERS

Poor inter-provider communication is a significant problem that plagues the mental health system and frustrated providers and clients alike (Greene et al., 2015). Lack of communication also leads to professional isolation and has been thought to be the greatest impediment to professional attitudes, continuity of care and collaborative practice (Sayal et al., 2012). Communication may take the form of formal exchange of information through referrals, regular communication through meetings and full integration of services (CPACFH & TFMH, 2009). However, most often, clinical information is shared on an ad-hoc basis and families serve as communication bridges (Greene et al., 2015). Providers differ in their expectations concerning frequency and content of inter-professional communication (Greene et al., 2015). In one study, although most providers knew of mental health services in their region, less than half could identify a specific provider with whom they could consult (Greene et al., 2015). In fact, primary care providers were less likely to have a relationship with a mental health specialist, than any other health specialist (Holt & DMA Health Strategies, 2010). Encouragingly, 85 percent said they would like to have such a relationship (Greene et al., 2015). Provider collaboration is difficult as inter-professional relationships must be initiated, nurtured

and sustained despite limited face-to-face contact (Greene et al., 2015). For a successful collaboration, communication needs to be bi-directional; providers need to develop formal agreements to guide communication as well as coordination and co-management (Greene et al., 2015). Unfortunately, although the importance of communication was rated as high by families, actual collaboration was rated as moderate (Greene et al., 2015).

In Ontario, most physicians are independent agents whose practices are independent of organizational mandates. Autonomy in the governance and management of delivery organizations can lead to fragmentation that complicates communication and care coordination (Baker & Axler, 2015). There have also been different models of primary care funded in Ontario over the years to improve collaboration. In Ontario, 25 percent of Ontario residents receive primary care in Family Health Teams (Glazier, Zagorski, & Rayner, 2012). Nevertheless, children and adolescents are equally represented across primary care models (Glazier et al., 2012). Similarly, the composition of community-based child and youth mental health agencies and professionals can vary widely across communities.

PRIMARY CARE REFERRAL PRACTICES

Research has shown that when referrals are made to community-based child and youth mental health services, a significant number of them are never completed (Hacker et al., 2006; Rushton, Bruckman, & Kelleher, 2002) or attendance and commitment is low (Kolko, 2009). When this happens, primary care providers tend to overestimate the role of stigma as a barrier to poor uptake and underestimate situational factors, such as cost of services, transportation and

the complexities of the mental health system (Radovic et al., 2014). A more general study of pediatrician referral practices found that greater communication with mental health specialists resulted in a high referral completion rate as well as provider satisfaction (Forrest et al., 1999). Some have suggested that referral protocols be jointly developed by both sectors to increase efficiency (Madge, Foreman, & Baksh, 2008; Greene et al., 2015)

ROLES AND RESPONSIBILITIES

There is great variability in primary care providers' level of confidence and comfort regarding child and youth mental health issues (Horwitz et al., 2007; Williams, Klinepeter, Palmes, Pulley, & Foy 2004; Roberts, Crosland, & Fulton, 2014) and in their perception of their roles and responsibilities (Hacker et al., 2013). Some studies showed that while approximately 70 percent of pediatricians believed that they should manage and treat attention deficit and hyperactivity disorder (ADHD), only 16-30 percent believed they were responsible for anxiety, depression and other behavioural problems (Stein et al., 2008). On the other hand, although most primary care providers believe community-based child and youth mental health treatment would likely improve their client's symptoms, they often reported being more comfortable prescribing medication as it was the most available and immediate treatment (Dempster, 2015). There is also variability in primary care providers' beliefs and attitudes towards child and youth mental health. For example, it has been reported that some primary care providers are concerned about the over medicalization of normal distress and reluctant to label and stigmatize children, or, on the other end of the spectrum, do not believe that many mental health issues can be treated effectively (Sayal, 2006; O'Regan, Schaffalitzky, & Cullen, 2015; Roberts, et al., 2014).

When surveyed, primary care providers and child and adolescent psychiatrists agreed that it is the responsibility of primary care providers to identify and refer youth with mental health concerns (Heneghan et al., 2008). They also agreed that treatment should not be a responsibility of primary care providers (with the potential exception of ADHD) despite the fact that fewer than 10 percent in both groups believed there were sufficient professionals available in their community to treat their patients (Heneghan et al., 2008). Understandably, with already overwhelming caseloads, many primary care providers are unhappy about taking on extra work which they feel is a specialist responsibility (Madge, et al., 2008).

When it comes to knowledge of other professionals in the mental health system, few providers understand the roles and responsibilities of the others (Greene et al., 2015). For this reason, better integration of mental health specialists in primary care has been encouraged (Moulding et al., 2009). Some have also proposed that psychologists be trained to take on a consultant role to primary care providers in supervising the use of standardized tools and other mental health providers in the primary care setting (Kapalka, 2009; Stancin & Perrin, 2014).



PRIMARY CARE PROVIDER MENTAL HEALTH TRAINING

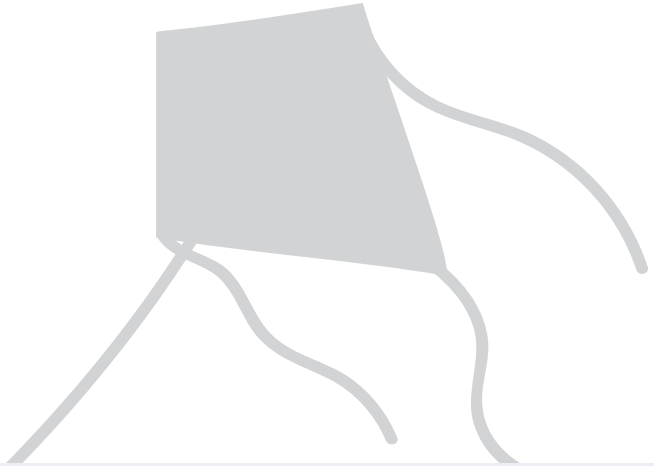
The inadequate mental health training for primary care providers is often discussed in the literature and many of them report they lack the skills and knowledge to appropriately manage mental health concerns (Olson et al., 2001). Although most primary care providers report that they would be greatly interested in more comprehensive child and youth mental health training (Healy et al., 2013; Steele, 2012), some qualify that they would only want extra training if it helps them get better at their current role, not because they want to take on new responsibilities (Madge et al., 2008). Primary care providers want training in ADHD, child and youth mental health and its operations, interventions, signs and symptoms predictive of child and youth mental health, mental health classification and effective assessment skills (Steele et al., 2012; Madge et al., 2008). Some also want more training for specific populations they might encounter in their practice, for example managing non-communicative disorders (Madge et al., 2008).

Discussions surrounding training has taken place at two levels: residency and continuing medical education (CME). The literature looking at residency training in mental health for family physicians and pediatricians in Canada shows that most residents receive limited child and youth mental health training, despite the high rate of mental health disorders in youth who visit their

primary care provider (Haller, Sancu, Sawyer, & Patton, 2009). It is suggested that collaborative practices should be a central requirement, but the topic of collaborative care in child and youth mental health is seldom discussed in medical school (CPACFH & TFMH, 2009). Past recommendations have included the importance that psychiatrists and other mental health specialists be involved in family physician's training and of creating a culture where both mental health training experiences and mentorship are prioritized (CPA & CFPC, 2000; Stancin & Perrin, 2014; Raval & Douppnik, 2017).

Training for the current workforce through CMEs on these issues has been deemed successful in some instances, but continues to be scarce (Vallance et al., 2011). Although CMEs are the preferred method for many physicians (Steele, 2012), one review of continuing education workshops determined that most workshops had not evaluated maintenance gains over time (some pre-post, but not long term) or the impact and implementation on actual physician practices (O'Regan et al., 2015). Studies show that physicians are open to continuing education training when it is in their community, easily accessible, short and pertinent to their current practice (Zayed et al., 2016; Steele et al., 2012; Madge et al., 2008).





STANDARDIZED SCREENING AND ASSESSMENT TOOLS

Many researchers and clinicians believe that introducing screening tools for child and youth mental health in the primary care setting would increase symptom recognition by primary care providers. For example, it has been shown that 80 percent of youth who die by suicide see a primary care provider in the year before their death (Bridge, Horowitz, Fontanella, Grupp-Phelan, & Campo, 2014), but less than half of primary care providers report screening for suicide risk (Vallance et al., 2011). Therefore, the use of standardized instruments can also more effectively encourage and elicit family expression of concern (Sayal, 2006). Moreover, there is evidence that the use of standardized tools more broadly is feasible and can increase rates of identification and referral (Hix-Small, Marks, Squires, & Nickel, 2007; Schonwald, Huntington, Chan, Risko, & Bridgemohan, 2009).

However, the major disadvantage of using broad screening practices is the risk of further burdening the

mental health system through over-identification of disorders (Vallance et al., 2011) and no added value if detection is not supported by additional practice resources that can impact outcomes (Ani & Garralda, 2005; Thombs et al., 2012; Kelleher & Stevens, 2009). In fact, for adults, both the NICE guidelines (2011b) and the Canadian Task Force on Preventive Health Care (2013) do not recommend blanket screening for all clients, but instead recommend to be alert for certain signs and screen those exhibiting these key symptoms. Barriers to the implementation of standardized tools also exist and include: inconsistent use of the instruments by primary care providers (Radecki, Sand-Loud, O'Connor, Sharp, & Olson, 2011; Sand et al., 2005), disagreements in the interpretation of results (Hacker et al., 2013), lack of time and difficulty getting reimbursed (Guevara, 2009; Heneghan et al., 2008; Olson et al., 2001).



CLINICAL INFORMATION SYSTEM (CIS)

The enduring division between the physical health system and the mental health system as well as the lack of more universal funding for mental health care has resulted in a gap in the ability to track clinical information related to mental health services received in the community. Therefore, a great amount of time is wasted in multiple efforts at collecting client information which is frustrating to families and youth.

Clinical Information Systems (CIS), also called Electronic Medical Record (EMR) or Electronic Health Record (EHR), have been heralded as a crucial tool to make collaboration a reality through integrated clinical information. CIS can facilitate communication between team members, ease the referral mechanism, facilitate the use of standardized tools, track changes in clinical status and act as a reminder to perform certain tasks during client encounters (example, prompt a primary care provider to ask a mental health question).

In fact, a number of different health care organizations have implemented a CIS to streamline their processes and support clinical decision-making. In Ontario, 83 percent of physicians have adopted a CIS which is above the national average of 75 percent (Collier, 2015). The adoption rate among mental health professionals and community-based agencies is thought to be much lower. For example, one study found that only 33 percent of university psychology clinics used a CIS (Cellucci, Cellucci, Stanton, Kerrigan, & Madrake, 2013). Differences in adoption rates might be due to cost as some physicians can receive reimbursement through

their association with Ontario MD. Ontario MD also supports physicians in the selection (list of approved systems for use in Ontario), implementation and utilization of their chosen CIS.

Currently, the adoption of CIS across the health care system is a highly debated topic as most physicians only use their CIS to enter and retrieve clinical notes and capture health information in a standardized format. Few use CIS tool to their full capacity which is why there is talk of 'meaningful use' and 'enhanced use' of such technology to maximize its impact on outcomes, such as collaboration (CMA, 2014). Advantages of the adoption of a CIS include: empowering providers through reminders and alerts, making referrals to community-based child and youth mental health services easier and standardized, making the use and scoring of tools easier, tracking intervention outcomes more easily by providing timely updates on client progress to primary care providers, better tracking of appointments, no-shows, and ease of access to medical or psychological reports without delays (Houston, 2010; Kelleher & Stevens, 2009). However, criticisms and disadvantages also exist and include: the high upfront cost of these systems, the training required to optimally use the technology, the consistent use and uptake from all team providers (i.e. manage resistance from other staff), concerns around data safety and confidentiality issues, and the need for inter-operable features for integration across sectors (Houston, 2010).





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