Strengthening Performance Measurement for Mental Health and Addiction in Ontario

A DTFP-ON Project
Project Lead: Karen Urbanoski, PhD

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The theme pertaining to performance measurement in peer support services was co-developed and co-written by the Lead, with Betty-Lou Kristy, Peer Support Substance Use Systems Lead, Mississauga Halton LHIN Enhancing and Sustaining Peer Support Initiative led by TEACH (Teach Empower Advocate Community Health); a Peer Initiative of Support & Housing-Halton, and Deborrah Sherman, Executive Director, Ontario Peer Development Initiative

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Executive Summary

The process of designing a performance measurement system starts with the development of a conceptual model. This is done to identify, organize, and ensure a shared understanding of all of the elements that comprise care quality. The idea is that, by starting with theory, we ensure that the final set of indicators all tap an element of performance (i.e., an aspect of services that is linked to desired outcomes), that all areas of performance are covered, and that some areas of performance are not unduly prioritized to the neglect of others. Deriving and working from a conceptual model also helps to clarify expectations among stakeholders (including the service providers who are being asked to report on their performance, as well as the people who use these services), and facilitates the identification of system supports that need to be in place. It avoids the specification of indicators solely because of feasibility or availability (although these are, of course, still important considerations during indicator selection).

There is a high level of current interest and activity in performance measurement for Mental Health and Addiction (MHA) services in Ontario. Accordingly, now is the time to consider how performance has been previously conceptualized and measured in MHA services here and in other jurisdictions. Now is also the time to connect with and ask stakeholders how they think about performance and quality in the services they plan, fund, deliver, and receive. As work continues on the development of indicators that align with other parts of the provincial health system, this report provides a systematic look at what defines performance in the MHA service sector and why.

This project, Strengthening Performance Measurement for Mental Health and Addiction in Ontario, aimed to achieve two objectives:

1. To synthesize the available literature on how performance is defined and measured in MHA services in Ontario and around the world, and
2. To contribute evidence to broader provincial discussions of performance measurement.

Toward these objectives, we conducted a systematic scoping review of the published academic and grey literature and met with various stakeholder groups across the province. The review identified and included 221 articles and reports, representing work conducted in 21 countries and 5 continents. We used a structured analytical process to systematically evaluate the scope and organization of existing MHA performance measurement frameworks, and compare them to Ontario’s framework for measuring health system performance, the Common Quality Agenda (CQA). The analysis identified a high level of commonality across frameworks in the ways that MHA performance is conceptualized. The 6 domains of the CQA – accessible, client-centered, effective, efficient, safe, and equitable – are almost unanimously reflected in MHA frameworks around the world.

We also conducted a thematic analysis of the international literature, identifying themes around:

- the balance of measures at the client, program, and system levels
- the balance of measures of structure, process, and outcome
- evidence on the links between domains and indicators
• attention to family and caregiver issues in performance measurement
• how equity is incorporated into performance measurement
• performance measurement in peer support services

The majority of existing MHA performance measurement frameworks balance measures that can be used to express information about clients, programs/facilities, and systems (i.e., they yield information about variability across episodes of care and service providers, as well as speaking to system and population health). Measures of process (what is done to and for people) and outcomes (the results of care) are relatively more common than are measures of structure (the resources that are needed for service delivery). Despite recognized challenges in developing valid measures of structure, this is a stated priority for future development work in many jurisdictions. In Ontario’s framework for measuring health system performance, indicators (including an initial set of 10 developed specifically for the MHA sector) strike a balance between measures of process and outcome, but exclude structure. Known infrastructure, funding, and workforce challenges in the MHA service sector may provide a rationale for measuring and monitoring structural inputs across the system. The capacity, feasibility, and value of incorporating measures of system structure (or not) deserve thoughtful attention.

Conceptual linkages between domains are rarely specified or evaluated in performance measurement frameworks. Empirical study of the associations between indicators is more common, and has highlighted the challenges in defining valid indicators that are consistently associated in expected ways. Existing evidence is mixed on the extent to which commonly used indicators can be expected to discriminate between high and low performing service providers, or respond to changes in policies and practices. The Washington Circle measures are arguably the most researched process indicators for MHA services. Although developed for use in addiction treatment settings, they may apply or be modified to apply to community-based mental health care more broadly. Given that the data needed to construct them are also currently available (at least in the addiction treatment sector), these measures may hold promise for use in Ontario.

Family and caregiver experiences are incorporated into performance measurement systems in a variety of different ways, including through measures of family-centered care, family-provider relationships, family involvement in care and, to a lesser extent, provision of direct services to family. Although families and caregivers are not represented in the initial set of 10 indicators defined for MHA services Ontario, an indicator representing family and caregiver support has been recommended for development. Newly developed tools that are currently being rolled out across the province, such as the Ontario Perceptions of Care (OPOC) tool, have the capacity to document both client and family experiences of care.

Typically, equity is conceptualized as cross-cutting other performance domains, allowing for exploration of whether and how features of effectiveness, accessibility, safety, and so on are distributed across the population. This is how equity is conceptualized in the preliminary, CQA-based set of performance measures for MHA in Ontario, with the 10 indicators to be broken down by geography, neighbourhood
income, immigration status, age, and sex (and plans for additions to this list). Because of the unique barriers to treatment experienced by women who are pregnant and parenting young children (e.g., fear of losing custody, provider stigma), we recommend incorporating parental status into evaluations of equity in MHA service systems. Others have noted the importance of moving beyond patient sociodemographic characteristics, to incorporating measures of program and system structures in the evaluation to equity (e.g., the numbers and characteristics of people who are excluded from services because of admission rules or capacity issues; the sociodemographic characteristics of staff; the use of interpreters).

Finally, we note the legitimate concerns and challenges of implementing performance measurement in peer support services, combined with a general lack of examples in the literature on ways in which this has been done successfully in the past. As performance measurement in MHA continues to evolve in Ontario, efforts should be made to partner with peer support organizations to ensure both that the services they offer are represented in these strategic initiatives and that the indicators on which they are evaluated are fair, appropriate, and able to support quality improvement.

The recent attention to developing strategic goals for data and performance measurement in Ontario’s MHA service system holds much promise for allowing services to showcase their strengths and accomplishments, and to advocate for what they need to deliver quality services. With this in mind, we strived to provide a comprehensive overview of the strengths and challenges of performance measurement, while recognizing the context of Ontario’s system. This report offers an aspirational view for a comprehensive provincial performance measurement system and raises a number of considerations for ongoing work.
Strengthening Performance Measurement for Mental Health and Addiction in Ontario

Performance measurement aims to “monitor, evaluate, and communicate the extent to which various aspects of the health system meet their key objectives” (p. 2, Smith et al., 2008). There is a high level of current interest and activity in performance measurement for Mental Health and Addiction (MHA) services in Ontario, with a number of initiatives aimed at framework and indicator development and overall system improvement.

This project achieves two objectives:
1. It synthesizes the available literature on how performance is defined and measured in MHA services in Ontario and around the world, and
2. It contributes this evidence to broader provincial discussions of performance measurement.

This project entails a conceptual exploration of performance in MHA service systems, and has been designed to be complementary to other initiatives currently underway in Ontario, including indicator development work being conducted by the Data and Performance Measurement Task Group of the Mental Health and Addictions Leadership Advisory Council, as well as the suite of other projects funded through Health Canada’s Drug Treatment Funding Program (DTFP).

Why develop a conceptual model of performance?
There is a wealth of performance data in Ontario, and an extensive literature base on performance measurement in the MHA service sector (Institute for Clinical and Evaluative Sciences [ICES], 2015a; Ministry of Health and Long-Term Care [MOHLTC], 2008; Veillard et al., 2010). There is, however, no system-wide framework or model outlining what constitutes high performance in the sector. Performance measurement in Ontario’s broader health care system is conducted by Health Quality Ontario (HQO), whose Common Quality Agenda (CQA) assesses performance in terms of accessibility, client-centeredness, effectiveness, efficiency, safety, and equity (HQO, 2014b; www.hqontario.ca). Efforts to extend this framework into the MHA service sector are underway.

The recommended starting point for developing a performance measurement system is the creation of a conceptual model that identifies and organizes all the pieces that are understood to comprise performance (Smith et al., 2008). The idea is that, by starting with theory, we ensure that the final set of indicators all tap an element of performance (i.e., an aspect of services that is linked to desired outcomes), that all areas of performance are covered, and that some areas of performance are not unduly prioritized to the neglect of others. Designing and working from a conceptual model also helps to clarify expectations among stakeholders (including the service providers who are being asked to report on their performance, as well as the people who use these services), and facilitates the identification of system supports and contexts that are needed for system improvement. It avoids the specification of
indicators solely because of feasibility or availability (although these are, of course, still important considerations during indicator selection; Etches et al., 2006).

Given the current activity around defining performance indicators for Ontario’s MHA service sector, now is the time to consider how performance has been previously conceptualized and measured in MHA services here and in other jurisdictions. Now is also the time to connect with and ask stakeholders how they think about performance and quality in the services they plan, fund, deliver, and receive. As work continues on the development of indicators that align with other parts of the provincial health system, this report provides a systematic look at what defines performance in the MHA service sector and why.

**The Drug Treatment Funding Program (DTFP) in Ontario**

Funded through Health Canada’s Anti-Drug Strategy, the DTFP aims to support system improvement initiatives for addiction treatment in Canada. Projects across the country address the following three broad objectives:
- Supporting implementation of evidence-informed practices
- Strengthening performance measurement and evaluation
- Linkage and knowledge exchange

Former projects funded by the DTFP included the development of an evidence-based staged screening and assessment strategy to replace the Alcohol and Drug Assessment Tools (ADAT) and creation of the Ontario Perceptions of Care (OPOC) scales. Subsequent implementation of these tools across the province is resulting in the generation of extensive data that can be used in quality improvement and performance measurement, in addition to guiding clinical care. Prior DTFP work has also highlighted the strengths and challenges in developing and implementing post-treatment follow up and outcome monitoring in Ontario’s addiction treatment sector. More information on former and current DTFP projects across the country is available at [http://eenet.ca/drug-treatment-funding-program-2/](http://eenet.ca/drug-treatment-funding-program-2/).

Among the recommendations made by independent evaluators of the last round of DTFP projects was the need to strengthen the sector’s ability to measure outcomes and demonstrate accountability (Sridharan et al., 2014b). The present project emerged from that recommendation.

**In the sections that follow**, we describe our approach and findings of a systematic scoping review of literature on performance measurement in MHA services (see **Box 1** for the questions that guided our review). Where relevant, we highlight key pieces of work being conducted in Ontario. We use the CQA to evaluate existing frameworks and synthesize findings from our stakeholder consultations into a set of considerations for future work in this area.
**APPROACH**

A scoping study was identified as most suitable approach for this project because it can accommodate the exploration of broad topics, it is typically used to provide conceptual clarity on an issue, and it explicitly includes stakeholder consultation (Arksey & O’Malley, 2005; Levac et al., 2010). The process of conducting a scoping study involves articulating primary and secondary research questions to define the scope of inquiry, followed by a systematic literature search and standardized review of selected documents, and a structured content analysis of data. The final step involves consulting with project stakeholders to discuss the findings and next steps.

**Study scope**

Our research questions are outlined in **Box 1**. We used a tiered framework for substance use and mental health service planning to bound our definition of the MHA service system (National Treatment Strategy Working Group, 2008; Rush, 2010). We tailored our search strategy and other project activities to cover the following system functions: early intervention and self-management; treatment planning, risk or crisis management; and more intensive and specialized care. These functions correspond to Tiers 2-5 in the model, and cover the full population from those at risk of incurring harms or experiencing lower severity mental health and substance-related problems to those experiencing highly complex problems and co-occurring disorders. Functions that target the general population, such as primary prevention (Tier 1), were considered to be out of scope of the current project.

**Literature search**

Our literature search included English-language scientific articles and grey literature published 2005-2015. Documents were identified through keyword searches in online and library databases, key websites, and consultation with stakeholders, which included subject area academic experts, Local Health Integration Network (LHIN) representatives, and other DTFP project leads across Canada. The reference lists of selected articles were also searched to identify additional articles that were missed. The search strategy was designed by the Project Lead and reviewed by a CAMH librarian. Details on the literature search, including keywords, searched databases and websites, and the inclusion/exclusion

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**Box 1: Scope of Inquiry**

**How are performance and quality defined and measured in MHA service systems?**

What elements comprise performance in MHA performance measurement frameworks developed internationally?

What elements comprise performance in health performance measurement frameworks developed in Canada?

What are the purported causal links between performance domains?
Criteria employed in selecting documents are detailed in Appendix 1. Briefly, the search strategy covered two broad areas: frameworks for MHA performance measurement developed internationally, and all frameworks developed for health system performance measurement in Canada (e.g., including hospital and primary care). The rationale for including Canadian frameworks regardless of whether they were developed explicitly for MHA was to ensure that the study results would build on prior and ongoing work in Ontario and Canada, and would align with other frameworks being implemented in other parts of Ontario’s health care system. In these two broad areas, document selection focused on identifying articles that contained information on framework development (including methods, approaches, definitions, concepts, and theories); information on the implementation of performance measurement, ethical issues, stakeholder experiences of performance measurement, statistical issues in risk adjustment, or psychometric properties of specific indicators (with the exception of the linkages between indicators) was not included. In cases of report series, the most recent report available was selected for inclusion.

The literature search identified 14,998 unduplicated articles and reports (Figure 1). Three team members screened these documents to determine eligibility. The screening process involved a review of titles, abstracts and executive summaries of documents, applying the study’s inclusion/exclusion criteria. Where this was not sufficient to determine eligibility, the full document was obtained and reviewed in more detail until a judgment could be made. From the documents identified in the literature search, 343 met the initial selection criteria. Of these, an additional 119 were excluded upon further review. A total of 221 documents were selected for full review.

Figure 1: Flow chart of document selection

Did not meet selection criteria (14,655) ← Documents identified by literature search (14,998)

Excluded at secondary screening (119) ← Selected after initial screening (343)

Selected for review (224) → Not found (3)

Included in review (221)
During the early stages of document screening and selection, approximately 10% of the documents were screened by two team members independently. This was done for training and practice in applying the inclusion/exclusion criteria, and to check reliability in article selection. Team members reviewed a subset of articles and compared their results. Discrepancies were resolved through discussion and the inclusion/exclusion criteria were revised where needed to improve clarity. This process was repeated until 10% of the 14,998 documents had been screened by multiple team members.

Full versions of selected articles were obtained through the University of Toronto library system and journal and organizational websites. If needed, we contacted first authors of documents that were not otherwise located. We were unable to locate three documents, all theses on health system organization and performance measurement completed at Trinity Western University in BC. In the end, 221 documents were included in the review.

Data coding and analysis
A standardized coding tool was created to guide the process of extracting data from the documents (Appendix 2). The tool was designed to facilitate the extraction of data that spoke to the study question and sub-questions, without generating a great deal of extraneous or irrelevant information. That is, the coding process did not aim to yield full summaries of the documents, but to pull out only those pieces of information directly relevant to the review. Material from the articles was copied verbatim into the fields of the tool, with minimal (if any) paraphrasing at this stage. Where an article did not contain information relevant to a given field, it was left blank. Four people performed the article coding. Early on in the coding process, the Project Lead conducted periodic reviews of completed tools to assess quality, to initiate discussions with the reviewers on their approach to coding, and to answer questions on documents or fields that were difficult to code. The tool was revised twice based on these discussions. In addition, a random sample of approximately 10% of documents (n=25) was selected to assess reliability across coders and ensure that a standard process was being followed. These articles were coded independently by two reviewers, and percent agreement was calculated for five selected fields on the coding tool (Table 1). Agreement across reviewers was reasonably high (above 70%) for all fields, except for “the associations between domains, between indicators, and/or other correlates and outcomes.” Discrepancies occurred because of differences across reviewers in judgements as to whether the articles contained this kind of information. Articles were re-reviewed by the Project Lead for this field.

Table 1: Percent agreement across reviewers in coding articles

<table>
<thead>
<tr>
<th>Data Field</th>
<th>% Full agreement</th>
<th>% Full or partial agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part(s) of health system covered</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>Health condition(s) covered</td>
<td>88%</td>
<td>96%</td>
</tr>
<tr>
<td>List of performance domains</td>
<td>68%</td>
<td>72%</td>
</tr>
<tr>
<td>Level(s) of measurement</td>
<td>40%</td>
<td>72%</td>
</tr>
<tr>
<td>Information on the associations between domains, between indicators, and/or other correlates and outcomes</td>
<td>44%</td>
<td>52%</td>
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</table>
We followed the analytical approach described by Levac et al (2010) to synthesize findings from the completed coding tools. This included a descriptive analysis of document types and characteristics and a thematic analysis of data pertaining to the study’s sub-questions. The thematic analysis was an iterative process of organizing data into themes, separately for each study sub-question. We developed an analytical framework based on the Matrix Model (Figure 2), a simple model for describing the information that is produced by a given set of indicators (Gaebel et al., 2015; Rush et al., 2009). In the documents we reviewed, we tabulated performance domains and the population and temporal dimensions of indicators. Performance domains embody the conceptualization of performance in a given study. Box 2 provides definitions of some common domains.

**Temporal dimensions** reflect the familiar components of structure, process, and outcome (Donabedian, 1966). Structures are the resources that are needed for service delivery, including staffing, funding and infrastructure, as well as the contextual environment in which services are delivered (see also Hogg et al., 2008). Processes refer to the actions by which these resources are put to work (i.e., they describe what is done to and for people; Baars et al., 2010). Outcomes are the results of care in the short, medium, and long term. These dimensions are relational in that structures are seen to influence processes, which in turn influence outcomes (i.e., they constitute a chain of events).

Temporal dimensions are crossed with **population dimensions**, which represent the hierarchical levels at which structures, processes, and outcomes are measured. Similar to Rush et al. (2009), we use the system-level to refer flexibly to regional, provincial, or national jurisdictions. The program/facility level refers to measures of units of service, which may reflect programs within treatment agencies or to the agencies or facilities themselves (e.g., hospitals, clinics, centres). Client-level measures yield information on the people who attend services.

**Box 2: Common Performance Domains Defined**

- **Acceptability/responsiveness**: services meet the needs and expectations of clients, family, community, providers and payers
- **Accessibility/timeliness**: people can obtain service at the right place and right time
- **Appropriateness**: services are relevant to people’s needs and based on accepted standards/evidence
- **Competence/capable**: provider knowledge and skills are appropriate to deliver required services
- **Continuity**: services are uninterrupted and coordinated across programs, providers, and levels of care, and over time
- **Effectiveness**: services achieve some desired outcome
- **Efficiency**: desired outcomes are achieved with the most cost-effective use of resources, waste is avoided
- **Safety**: actual or potential harms are avoided or reduced to acceptable limits
- **Equity**: service quality does not vary as a function of people characteristics (for instance, sex, gender identity, area of residence, socioeconomic status)
Employing the Matrix Model in our evaluation of performance frameworks gives us a sense of what existing frameworks can and cannot tell us. It provides a useful heuristic for evaluating the extent to which a given framework is comprehensive and balanced, and for locating strengths and gaps in the ways that performance is measured. **Figure 2** shows our analytical framework. At the lowest level, we have measures taken on people who access services. Client characteristics include sociodemographic factors, as well as health status, behaviours, and expectations. These are conceptualized as structural features as they represent what people bring to services with them. Moving across this row, clients then attend services and outcomes are achieved. All of these client-level measures can be rolled up or aggregated to the program/facility and system levels (e.g., mean number of visits attended in a given program or for the system as a whole). Additional program or facility characteristics (not rolled up from the client level) include workforce characteristics (e.g., core competencies, staff satisfaction, staff complement, qualifications), organizational policies that govern service delivery, caseload, costs, and productivity. System-level measures likewise include measures that are rolled up from lower levels (e.g., total caseload, whether a program operates at full capacity, whether evidence-based practices are used, percentage of staff with a given qualification), as well as measures of system infrastructure (e.g., information systems), high-level policies and laws (e.g., on what data are collected and how), and population health (e.g., years of potential life lost, infant mortality rate, community prevalence rates).

**Figure 2: Analytical framework**

<table>
<thead>
<tr>
<th>Population dimensions</th>
<th>Temporal dimensions</th>
<th>Structures</th>
<th>Processes</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td><strong>System</strong></td>
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<td>System policies and characteristics</td>
<td>Population health</td>
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<td>Legislation</td>
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<td>Remuneration</td>
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<td>Information systems</td>
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<td><strong>Program/ Facility</strong></td>
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<td>Mandate</td>
<td>Costs, productivity</td>
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<td>Capacity</td>
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<td>Workforce characteristics</td>
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<td>HR policies</td>
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<td>Location and setting</td>
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<td><strong>Client</strong></td>
<td>Wait time</td>
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<td>Client characteristics</td>
<td>Types of services received</td>
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<td>Attendance</td>
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<td></td>
<td>Length of stay/retention</td>
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<td>Therapeutic alliance</td>
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<td>Errors</td>
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<td>Follow-up</td>
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<td>Health status</td>
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<td>Functioning</td>
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<td>Quality of life</td>
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<td></td>
<td>Perceptions of care</td>
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Performance domains are distributed across these dimensions in predictable ways. Referring to the domains in Box 2, measures of competence tend to be structural, while measures of acceptability, accessibility, appropriateness, and continuity tend to refer to processes. Measures of effectiveness, efficiency, and safety are often (but not always) outcomes. In evaluating existing performance frameworks, we consider the distribution and balance of domains and indicators across these population and temporal dimensions. To provide insight on the rationale for specific measures, we reviewed the completed coding tools for methods of domain and indicator selection and the theoretical and empirical linkages between them. Results are tabulated and themes are discussed, with specific examples used to illustrate key findings.

**Stakeholder consultation**

The project has been shaped over time through stakeholder consultation. A timeline and description of consultation activities is provided in Table 2. Findings from the stakeholder consultation are synthesized with findings from the literature review and are summarized under the appropriate theme or heading in the sections that follow.

**Table 2: Overview of consultation**

<table>
<thead>
<tr>
<th>2015-16</th>
<th>2016-17</th>
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<tr>
<td><strong>Apr-Jun</strong></td>
<td><strong>Jul-Sep</strong></td>
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<tr>
<td>Presentation at AMHO annual conference</td>
<td>Consultation with LHIN MHA leads, representative from CCSA, and DTFP- Manitoba lead on existing PM work</td>
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<td>Presentation at DTFP launch event</td>
<td>Consultation to DTFP-ON Advisory Panel</td>
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<td>Presentation to DTFP-ON Advisory Panel</td>
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1 OPDI: Ontario Peer Development Initiative; TEACH: Teach Empower Advocate Community Health
FINDINGS

Summary
The 221 documents were distributed geographically across 21 countries and 5 continents (North America, Europe, Australia, Asia, and Africa; Figure 3a). The US contributed the largest number of reports (39.8%), with 31.7% produced in Canada. Other countries contributing notable amounts of literature were England (5.9%), the Netherlands (4.5%), and Australia (4.5%). From the literature produced in Canada, 7 provinces are represented (Figure 3b). The majority of Canadian documents were produced by research teams located in Ontario. Forty three (61.4%) of the papers we identified solely covered general health care system performance in Canada, while 169 (76.5%) focused exclusively on the MHA service system in Canada and internationally, and 9 papers (4.1%) covered a combination of international MHA and general health care service systems. A minority of papers (17.6%, n=39) addressed addiction services specifically.

The literature covered a wide array of service settings and client populations. 10.9% of documents (n=24) pertained specifically to child and youth services. Although most of the frameworks pertained to services delivered in a variety of settings (69.2%, n=153), 13.1% (n=29) referred to hospital-based or inpatient care only, 7.2% to primary care (n=16), 6.3% to outpatient care (n=14), 1.4% (n=3) to care delivered in prisons, 1.4% (n=3) to pharmacies, and 1.4% (n=3) to emergency or crisis care.

The documents included a number of different formats and types:

- Original research reports (peer-reviewed articles published in academic journals that report new data and findings; n=129, 58.4%)
- Review articles (both systematic and non-systematic reviews of the literature, typically also peer-reviewed and published in academic journals; n=22, 10.0%)
- Grey literature (reports by government, organizations, and working groups, not peer-reviewed or published in academic journals; n=47, 21.3%)
- Conference abstracts (proceedings of academic conferences or special issues of academic journals; n=5, 2.3%)
- Descriptions (articles and reports describing methodological approaches, tools, or specific initiatives, without presenting original research data; n=18, 8.1%)

The documents employed a wide of approaches and methods in generating evidence on performance measurement. Common methods included focus groups, interviews, expert panels, Delphi processes, administrative data analysis, literature review, case studies, surveys, and concept mapping. The characteristics of studies were taken into consideration in the thematic analysis and, where relevant, are highlighted in the results below.
Figure 3a: Geographic distribution of documents included in the scoping study

Figure 3b: Geographic distribution of Canadian documents included in the scoping study
What elements comprise performance in MHA performance measurement frameworks developed internationally?

In this section, we summarize the results of our analysis of existing performance frameworks. Table 3a summarizes frameworks for measuring health system performance in Canada; that is, for health care in general, not limited to MHA services. Table 3b includes performance frameworks for MHA services internationally. Note that in addition to traditional performance measurement frameworks, we included studies on the concept of performance and service quality from a variety of perspectives (e.g., service users, families, policy makers, researchers, clinicians), as well as tools or instruments developed to measure quality in different service settings. As such, not all of the rows in these tables correspond to traditional frameworks, although all represent approaches to conceptualizing performance.

The tables are organized according to HQO’s Common Quality Agenda (CQA) (HQO, 2014a, 2014b, 2015a; see also Kates et al., 2012 and Appendix 3). We prioritized this work because HQO has a legislated mandate to measure and report on provincial health system performance, and we wanted to ensure that our work aligns with what is being done in other parts of the system. The CQA originally included indicators that mapped to 9 performance domains (column headings in Table 3a) and were organized by sector (Primary Care, Mental Health, Home Care, Hospital Care, Long-term Care), with additional indicators reflecting cross-sector coordination and structural elements (Health of Ontarians, System Integration, Health Workforce, and Health Spending). Columns highlighted in blue in Table 3a are domains which, aligning with the framework from the US Institute of Medicine (IOM, 2006; see also Pincus et al., 2007; Pincus et al., 2011), are the current measurement priorities for the provincial health care system (HQO, 2015b). These 6 domains (accessible, client-centered, effective, efficient, safe, and equitable) also provide the focus for the Data and Performance Measurement Task Group in defining indicators for Ontario’s MHA service sector.

As can be seen (Tables 3a-b), there is a fair amount of commonality across frameworks in the ways that MHA performance is conceptualized. The 6 IOM/CQA domains are almost unanimously reflected in the MHA frameworks that we reviewed. Domains for accessibility, client-centeredness, integration or continuity of care, effectiveness, efficiency, safety, and appropriate resources were almost always present, although the specific terminology varied. We evaluated domain definitions and indicators to identify conceptual similarity where terms differed. For instance, acceptability and responsiveness align closely with client-centeredness, as does sustainability with appropriate resources.

Other domains are specified less commonly, but are worth considering in order to get a full picture of how performance has been conceptualized in past work. Ontario’s Mental Health and Addictions Quality Initiative (MHAQI); a collaborative effort between the province’s psychiatric hospitals to share practices and quality improvement initiatives and to develop quality indicators) specified an additional domain for client complexity, meant to reflect the “diversity and intensity of needs” among people accessing hospital-based mental health and addictions services (Table 3b; Prince & Willett, 2014).
A number of frameworks included a domain for **appropriateness**, which captures whether services are relevant to people’s needs and based on accepted standards/evidence. This overlaps conceptually with **effectiveness**, as well as **timeliness**. In other frameworks, these same issues were captured by way of a set of core services or clinical activities that fall within the scope of practice of a specific type of service provider (e.g., primary care providers; Barnsley et al., 2005; Hogg et al., 2008; Puszka et al., 2015; Waraich et al., 2010). The Baseline Scorecard developed by the ICES for child and youth mental health specified domains for **system use**, **quality**, and **early identification**, all capturing aspects of the receipt of specific services (Table 3b; ICES, 2015b). In an international effort to develop benchmarks for quality of mental health care, 6 of the 12 final indicators were classified as measuring treatment, capturing various aspects of adherence to clinical guidelines in terms of the number of visits and types of medications within specific timeframes (e.g., percentage of persons whose treatment for a substance use disorder lasts at least 90 days; percentage of persons age ≥18 years who, after being diagnosed with depression and started on antidepressant medication, have at least 180 days of antidepressant medication; Hermann et al., 2006). Similar domains documenting the receipt of specific types of services are apparent in a number of other frameworks (Costa et al., 2014; Hoge et al., 2009; Pyne et al., 2008; Stone et al., 2006; Wilkinson et al., 2008; Zima et al., 2005).

In frameworks designed for use in specific care settings, rather than the system overall, some domains reflected more directly the nature of services provided. For example, the CRIDES Framework for performance measurement in psychiatric emergency settings includes a domain for **least restrictive care**, capturing the use of seclusion and restraints and successful conversion of involuntary episodes to voluntary (Table 3b; Balfour et al., 2016). Building on the concept of integration, the CRIDES Framework also has a domain on **partnership**, which includes not only post-discharge care planning and reporting to primary care and other providers but also diversion from law enforcement. Likewise, the **living environment** (e.g., restrictiveness, number of residents, physical environment), **self-management and autonomy**, and **recovery-based practice** emerged as key domains in performance measurement for mental health care delivered in long-term care institutions (Killaspy et al., 2011; Taylor et al., 2009), as did **response times** for performance measurement in inpatient psychiatric liaison services (Solomons et al., 2011).
Table 3a: Performance measurement in general health care in Canada

<table>
<thead>
<tr>
<th>FRAMEWORK</th>
<th>Additional Domains</th>
<th>Accessibility/ Timeliness</th>
<th>Client-Centered</th>
<th>Integration</th>
<th>Effectiveness</th>
<th>Focus on Population Health</th>
<th>Efficiency</th>
<th>Safety</th>
<th>Appropriate Resources</th>
<th>Equity</th>
<th>Population Dimensions</th>
<th>Temporal Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Quality Agenda (Health Quality Ontario, 2014a, 2014b, 2015a)</td>
<td></td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>S=System P=Program C=Client</td>
<td></td>
</tr>
<tr>
<td>Health System Performance Measurement Framework (CIHI, 2013, 2015; see also CIHI, 2009)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓ (Effective and Appropriate)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>SPC SPO</td>
<td></td>
</tr>
<tr>
<td>Alberta Quality Matrix for Health (Health Quality Council of Alberta, 2010; see also Schull et al., 2011)</td>
<td></td>
<td>✓ (Acceptability)</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>SPC SPO</td>
<td></td>
</tr>
<tr>
<td>MOHLTC Health System Strategy Map (Veillard et al., 2010)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓ (Clinical outcomes and health status)</td>
<td>✓ (Healthy behaviours, health promotion and disease prevention)</td>
<td>✓ (Productive use and appropriate allocation of resources)</td>
<td>✓ (Availability of data, Sustainability and Equity)</td>
<td></td>
<td>SPC SPO</td>
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<td></td>
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<tr>
<td>Hospital Report Framework (described in Yap et al., 2005)</td>
<td></td>
<td>✓ (Patient satisfaction)</td>
<td></td>
<td>✓ (Internal coordination of care, Hospital-community integration)</td>
<td>(Outcome)</td>
<td>✓</td>
<td></td>
<td>(Financial viability, Liquidity, Human resources)</td>
<td></td>
<td>S SPO</td>
<td></td>
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</tr>
<tr>
<td>Conceptual framework for primary care (Hogg et al., 2008)</td>
<td></td>
<td>✓ (Comprehensiveness, Patient-provider relationship)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>P SP</td>
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<tr>
<td>McGill University Health Centre Transition Support Office (Biron et al., 2012)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓ (Continuity)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Work life</td>
<td>SPC SPO</td>
<td></td>
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</tbody>
</table>

Notes:
- a Identified as a priority area for future indicator development
- b The core services or clinical activities that fall within the scope of primary care; specifically, health promotion and primary prevention, secondary prevention, care of chronic conditions and care of acute conditions
- c Comprehensiveness is defined as the “ability to ensure the tailoring of services to health care needs.” (p. 312, Hogg et al., 2008), while the patient-provider relationship reflects interpersonal communication, respect and trust, whole-person care, cultural sensitivity, family-centered care and advocacy
- d Defined as “the physical, cultural, psychosocial and work/job design conditions that maximize health and well-being of health providers, quality of patient/client outcomes and organizational performance” (Table 1 in Biron et al., 2012)
### Table 3b: Performance measurement in MHA service systems in Canada and internationally

<table>
<thead>
<tr>
<th>FRAMEWORK</th>
<th>PERFORMANCE DOMAINS</th>
<th>Additional Domains</th>
<th>Accessibility/Timeliness</th>
<th>Client-Centered</th>
<th>Integration</th>
<th>Effectiveness</th>
<th>Focus on Population Health</th>
<th>Efficiency</th>
<th>Safety</th>
<th>Appropriate Resources</th>
<th>Equity</th>
<th>Population Dimensions</th>
<th>Temporal Dimensions</th>
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<tbody>
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<td>Canada</td>
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<td></td>
<td>S=System P=Program C=Client</td>
<td>S=Structure P=Process O=Outcome</td>
</tr>
<tr>
<td>Addicition System Strategy Map (MOHLTC, 2008)</td>
<td>Recovery and rights ✓</td>
<td>(Quality of Care Matched interventions)✓ ✓</td>
<td></td>
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<td>SPC</td>
<td>SPO</td>
</tr>
<tr>
<td>Ontario Mental Health System Scorecard (MOHLTC, 2007)</td>
<td>Standards adherence ✓</td>
<td>(Client and family satisfaction) ✓</td>
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<tr>
<td>Mental Health and Addictions Quality Initiative (MHAQI; Prince &amp; Willett, 2014)</td>
<td>Client complexity ✓</td>
<td>(Client experience) ✓</td>
<td>(Outcomes) ✓</td>
<td></td>
<td></td>
<td>(Fiscal responsibility) ✓</td>
<td>(System resources &amp; capacity, HR, Sustainability, Decision-making)</td>
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<td>SPO</td>
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<tr>
<td>Newfoundland and Labrador Centre for Health Information (2015)</td>
<td></td>
<td>(Acceptability) ✓</td>
<td>(Quality, Health Outcomes) ✓</td>
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<td>SPO</td>
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<tr>
<td>BC Provincial Quality Indicators (BCPQI; Jones, 2005)</td>
<td>Appropriateness ✓</td>
<td>(Acceptability) ✓</td>
<td>(Continuity) ✓</td>
<td></td>
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<tr>
<td>Performance of the addiction and mental health system (Alberta Health Services, 2015)</td>
<td>Appropriateness ✓</td>
<td>(Acceptability) ✓</td>
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<tr>
<td>Quality of collaborative mental health care (McCusker et al., 2013)</td>
<td>Comprehensive ✓</td>
<td>(Respectfulness, Provision of information Responsiveness, Consumer involvement, Whole-person care) ✓</td>
<td>(System coordination) ✓</td>
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<tr>
<td>CCQI Framework, Fraser Region Child and Youth Mental Health Program (Chovil, 2009)</td>
<td>Appropriateness ✓ ✓</td>
<td>(Continuity) ✓</td>
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<tr>
<td>Continuous Enhancement of Quality Measurement (CEQM) in Primary Mental Health Care (Waraich et al., 2010)</td>
<td>Appropriateness ✓ ✓</td>
<td>(Continuity) ✓</td>
<td>(Outcome) ✓</td>
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<tr>
<td>Mental Health of Children and Youth in Ontario; Baseline Scorecard (ICES, 2013b)</td>
<td>System use Quality Early identification</td>
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<td>(Outcomes)</td>
<td>(Children and youth at risk; Known prevalence)</td>
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<td>(Resources)</td>
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<td>World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS; WHO 2005; see also Saxena et al., 2007)</td>
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<td>Quality Index of Service Organization (Costa et al., 2014)</td>
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<td>(Coordination)</td>
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<td>(Staff supervision, Multidisciplinary teams, Evaluation)</td>
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<td>Quality measures for international benchmarking of mental health care (Herrmann et al., 2006)</td>
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<td></td>
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<td>(Coordination; Continuity)</td>
<td>(Outcomes)</td>
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<td>National Mental Health Performance Framework (Brown &amp; Pirkis, 2009; National Mental Health Performance Subcommittee, 2013)</td>
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<td>(Continuity)</td>
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<td>(Sustainability, Capability)</td>
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<td>Performance Management Framework, Victorian AOD Sector (Turning Point, 2014a, 2014b)</td>
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<td>(Acceptability)</td>
<td>(Continuity)</td>
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<td>✓</td>
<td>(Sustainability, Competence)</td>
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<td>Crisis Reliability Indicators Supporting Emergency Services (CRISIS) framework (Balfour et al., 2016)</td>
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<td>Performance indicators for public mental health care, Netherlands (Lauriks et al., 2014)</td>
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<tr>
<td>Mental Health Benchmarking Project, Scotland (Coia &amp; Glassborow, 2009)</td>
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<td>(Patient experience)</td>
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<td>(Health outcomes)</td>
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<td>Performance indicators for mental health services, Ireland (Carrick et al., 2013)</td>
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<td>(Coordination)</td>
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Table 3b Continued

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<tr>
<th>FRAMEWORK</th>
<th>Additional Domains</th>
<th>Accessibility/ Timeliness</th>
<th>Client- Centered</th>
<th>Integration</th>
<th>Effectiveness</th>
<th>Focus on Population Health</th>
<th>Efficiency</th>
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<tr>
<td>UK Association of Public Health Observatories report on mental health (Wilkinson et al., 2008)</td>
<td>Interventions</td>
<td>(Service user experience)</td>
<td>(Effectiveness of partnerships)</td>
<td>(Risk and protective factors, Population health status)</td>
<td>(Workforce capacity)</td>
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<tr>
<td>Performance measurement framework for substance abuse treatment, South Africa (Myers et al., 2015)</td>
<td>Quality</td>
<td>✓</td>
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<td>Institute of Medicine (2006; see also Pincus et al., 2007, 2011)</td>
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<td>Washington Circle (Garnick et al., 2012; Garnick et al., 2006)</td>
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<td></td>
<td>✓</td>
<td>(Continuity)</td>
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<td>SPC</td>
<td>P</td>
</tr>
<tr>
<td>Quality indicators for outpatient child mental health care in California (Zima et al., 2005)</td>
<td>Completeness of the clinical assessment, Following basic treatment principles, Appropriate psychosocial treatment, Medication referrals</td>
<td></td>
<td></td>
<td>(Linkage to other service sectors)</td>
<td>✓</td>
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<td>SPO</td>
</tr>
<tr>
<td>Quality of Care Framework for child mental health care (Vargo et al., 2013)</td>
<td>Appropriateness</td>
<td>✓</td>
<td>(Consumer engagement)</td>
<td>(Outcomes)</td>
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</tbody>
</table>

Notes:
- These domains correspond to strategic directions put forth by the Mental Health Commission of Canada (MHCC)
- Defined as consideration for clients’ values, preferences and expressed needs in the care they receive
- The WHO-AIMS is a tool for assessing regional or national mental health care systems. Items are grouped into subscales assessing the jurisdiction's policy and legislative framework, the types and characteristics of specialized and primary mental health care services, human resources, public education and links with other sectors, and monitoring and research. Items were cross-referenced with the performance domains in the CQA.
- Defined as assistance to communities in using evidence-based activities to foster healthy living, such as the use of prevention services, screening and assessment for alcohol, tobacco, and other drugs, housing, legal system involvement, and medication side effects.
- Measured in terms of client engagement and perceptions of care, and therefore aligned closely with acceptability or client-centeredness.
We identified efforts that put a more explicit focus on developing frameworks that are linked to strategy (see Box 3 for key questions on linking performance measurement to strategy, produced by the Health Council of Canada, 2012). Examples include the Ontario MOHLTC’s use of health system strategy maps to develop health system performance scorecards (MOHLTC, 2007, 2008; Veillard et al., 2010), as well as the Mental Health Commission of Canada (MHCC) Informing the Future initiative (MHCC, 2015). It is notable that the performance domains developed though the MOHLTC’s strategy mapping exercises are basically the same as those defined by HQO. The same can be said of studies that employed techniques such as concept mapping, other group-based activities, or surveys with stakeholders to identify the main components of performance (Graham et al., 2014; Holmes et al., 2014; McCusker et al., 2013; Nabitz et al., 2005a; Nabitz et al., 2005b; Resnick & Griffiths, 2010; Roeg et al., 2005; Sayal et al., 2012; Vargo et al., 2013). For example, in a study of performance definitions across stakeholder groups (comprised of clinicians, health system managers, patients, policy makers, and researchers), accessibility, continuity, patient-centeredness, comprehensiveness, coordination, effectiveness, equity, and safety emerged as key components, named by 3 or more of the 5 groups (UBC Centre for Health Services and Policy Research, 2015).

Box 3: Developing a pan-Canadian approach to health system performance reporting for improved accountability (Health Council of Canada, 2012)

The “provinces and territories need to be explicit about the improvements that they want to see in the health outcomes and health status of Canadians:

What are the overarching priorities? Do we want a lower incidence of specific conditions such as cancer or cardiovascular disease? Do we want to reduce health inequities? These types of goals need to be clearly established.

Within these overarching goals, a subset of targets needs to be identified: What is the rate of improvement or reduction we want to achieve and what is the timeframe in which to achieve these goals?

Do we wish to compare our performance with that of other countries? If so, to whom should we compare? Should Canada be the best in the world? The best within the Organisation for Economic Co-operation and Development?

How do we wish to achieve these goals? Through improved health care quality? Improved access to specific health care and/or community services? Improved systems? Or a combination of all these approaches?”
In our own stakeholder consultation activities, discussions with people with lived experience of the system highlighted the importance of responsiveness (specifically, whether services are responsive to the needs, expectations and preferences of service users and their family) as a key aspect of performance. Stakeholders also noted a preference for the term “person-directed” care, over client- or person-centered care.

We found a number of studies that reported lists of performance indicators, without the organizing structure provided by domains (American Society of Addiction Medicine, 2014; APA/PCPI/NCQA Substance Use Disorders Work Group, 2008; British Columbia Office of the Provincial Health Officer, 2015; Cole et al., 2012; Ganju et al., 2005; Holmes et al., 2014; Laugharne & Shankar, 2009; Levitt et al., 2014; Nigam et al., 2008; Oklahoma Department of Mental Health And Substance Abuse Services: Decision Support Services, 2006; Parameswaran et al., 2015; Samu et al., 2011; Teague et al., 2006). In general, the indicator lists did not contribute any new information over and above the more structured frameworks; that is, the indicators could be easily fit into the domains articulated in Tables 3a-b. The only possible exception is the rather unique approach taken by Washington State’s Measures of Statewide Performance for mental health, which organizes indicators according to whether they measure success at the individual-, system- or community-level (Mental Health Transformation Workgroup, 2011). Individual-level success is measured for people who attend services and for the general population, while system-level success is measured in terms of patterns of services use and resources. Indicators of community-level success are also divided into measures for people who use services and for the general population: client-specific measures assess perceptions of acceptance in the wider community, while general population measures capture public attitudes, media portrayals of mental health issues, and local government legislation. The result is a framework that provides an interesting look at mental health issues and their impact on communities, more broadly than the service system per se.

**Balance across client, program/facility, and system**

With a couple of exceptions (Hogg et al., 2008; MOHLTC, 2007; WHO, 2005), the frameworks that we reviewed all had the capacity to offer insights into the quality of care at the client, program or facility, and system levels (see the second to last column in Tables 3a-b). Frameworks contained both indicators specific to a given level of measurement (e.g., provider density is inherently a system-level measure), and indicators that were defined at a lower level, but could be reasonably rolled up for interpretation at a higher level (e.g., wait times are measured for individuals who use services, but also provide information at program and system levels).

Note that the capacity to express information at a given level of measurement does not necessarily reflect the intended use of the information. The purpose of performance measurement is typically to express information about programs/facilities and systems, not about specific episodes of care or clients. Our interest lay in evaluating the extent to which frameworks balanced indicators that could be used to express information about clients, programs/facilities, and systems (e.g., the extent to which they can provide relevant information about variability across episodes and service providers, as well as speaking to system and population health).
Overall, few framework development initiatives addressed the issue of population dimensions explicitly (see Mental Health Transformation Workgroup, 2011; Turning Point, 2014b for exceptions). Some reports offered insights into stakeholder perceptions of the relevance of indicators across levels of measurement. During framework development in the state of Victoria, Australia, service providers identified client-level measures as being the most relevant to quality improvement (specifically, measures of wait times, follow-up activities, reductions in substance use, and client satisfaction), while accreditation (a program-level measure) was the indicator to which they most felt they could be held accountable (Turning Point, 2014a). Links between services (a system-level measure) were also seen as both useful and important for accountability. In a document summarizing the findings of consultations with service providers conducted by the Canadian Mental Health Association in Ontario (CMHA, 2008), the lack of a clear link to provider accountability was noted as a limitation of system measures.

**Balance across structures, processes, and outcomes**

Much greater attention was paid in the literature to temporal dimensions, likely owing to the traction of Donabedian’s conceptual framework for assessing quality in healthcare (Donabedian, 1966). A number of reports framed their evaluation of performance and quality solely in terms of structures, processes, and outcomes (e.g., Cheng et al., 2010; Dausey et al., 2009; Grabowski et al., 2010; Kilbourne et al., 2010; Meehan et al., 2007; Roeg et al., 2005; Schaub et al., 2013). Most of the frameworks that we reviewed contained elements of all three temporal dimensions (see the last column in Tables 3a-b). For instance, the framework used by the Canadian Institute for Health Information (CIHI) is divided into quadrants for the social determinants of health, health system inputs and characteristics, health system outputs, and health system outcomes (CIHI, 2013). There is, however, variability in the distribution of indicators across dimensions. The following paragraphs provide a summary of the ways that structure, process, and outcome are incorporated into frameworks, and highlight some of the key issues in measurement and interpretation.

**Structure** is incorporated into frameworks typically as measures of sustainability or appropriate resources (e.g., provider density, knowledge and skills, population characteristics, infrastructure, capacity, legislation, funding for services, investments in training and research). Existing frameworks varied in the number and breadth of measures of structure (see Saxena et al., 2006 for a comparison of 4 national level frameworks), but overall, it tended to be the least frequently measured temporal dimension. In a number of frameworks, structural indicators were limited to measures of provider competence (for instance, participation in continuing education, or the presence of mentorship programs), or whether evaluations are conducted (Addington et al., 2005, 2007, 2012; Chovil, 2009; Waraich et al., 2010). There are a number of reasons for this. It is difficult to identify the specific characteristics of providers, services, and systems that affect care processes and outcomes (Donabedian, 1966; Jones, 2005; Patel et al., 2015), which makes it difficult to know what to measure. In addition, a favourable structural measure indicates only the capacity for, rather than the occurrence of, high quality services (Henderson et al., 2014) – it indicates only whether the conditions were in place for good quality care. Knowing the proportion of clinical staff members with Master’s level training or
whether investments were made in research and evaluation may be factors that influence better quality of care, but their presence does not alone guarantee it. This highlights the need for established pathways linking structures with processes and outcomes (see the section Predictors and Outcomes: the links between domains below for more details on this issue).

A number of reports cited a need for greater attention to exploring and developing structural indicators (Baars et al., 2010; Hogg et al., 2008). In studies describing efforts to conceptualize structure for performance measurement, aspects identified by service providers and managers in addiction treatment included inter-organizational cooperation and coordination, finances and facility characteristics, professionalization, staff autonomy, and job requirements (Roeg et al., 2008). At CIHI’s most recent consensus conference to identify priorities for future development, stakeholders identified the need for indicators that show how resources are configured to respond to needs, and that assess organizational culture (e.g., innovation, quality improvement, and use of data and evidence), provider practices and satisfaction, and structure in community-based care (including mental health care; CIHI, 2015). Areas for future indicator development identified by the Washington Circle, a multidisciplinary expert panel convened by the US Center for Substance Abuse Treatment to develop performance measures for addiction treatment, also included several structural measures: whether medications to treat substance use disorders are covered by insurance, whether data on client perceptions of care are collected and reported, management practices, and connections between providers at different points along the continuum of care (Garnick et al., 2012). Finally, in Ontario, stakeholders consulted as part of the evaluation of DTFP-ON projects in 2014 identified a number of structural features as priorities for future system improvement work (see Box 4, Sridharan et al., 2014a).

Recognizing that there is often conceptual overlap between domains (e.g., care coordination and timely transitions between providers, elements of integration, may be adequately captured by efficiency and timeliness), it is notable that structure is not well-represented in the 6 domains of the CQA. There is value in streamlining the definition of performance and in aligning with frameworks used in other jurisdictions (notably, the 6-domain structure of the CQA matches the IOM framework for performance; IOM, 2006; see also Fisher et al., 2013 or HQO, 2015b for a discussion of this issue). Several other frameworks that we reviewed likewise did not include obvious indicators of structure (Alberta Health Services, 2015; Hermann et al., 2006; Lauriks et al., 2014; Myers et al., 2015; Patel et al., 2015; Waraich et al., 2010).

### Box 4: Top 5 system-level priorities identified by stakeholders in Ontario in 2014 (Sridharan et al., 2014a)

- Adopt trauma-informed care practice and values
- Improve coordination along continuum of care and across sectors providing services
- Improve pay in community-based organizations to improve recruitment and retention of qualified staff
- Increase collaboration in addiction and mental health services
- Strong leadership from within the government
In the interest of conducting a comprehensive conceptual exploration of performance, however, the trade-off associated with not explicitly monitoring structural features of the system should be considered (i.e., what information is lost and whether this matters). Baars et al (2010) suggest that measuring outcomes in the absence of client and population characteristics runs the risk of rewarding good outcomes without controlling for illness severity or social determinants of health. This implies that robust outcome measurement requires that structures also be measured.

The implications of not measuring structure may also differ across parts of the system. Systems research in community-based addiction services has paid a fair amount of attention to issues of structure, noting that issues related to funding and staffing (including core competencies, training, retention and turnover of skilled personnel; Eby et al., 2010; Gallon et al., 2003; McLellan et al., 2003; Ogborne & Graves, 2005) are perennial challenges. Having data on structures may enhance our ability to interpret any regional or facility-level differences in processes and outcomes that come out of performance measurement activities. To the extent that they lend a perceived sense of fairness to performance measurement (for instance, by allowing service providers to highlight their challenges in meeting treatment demand and delivering high quality services), measures of structure may be important tools for advocacy and equity in policy development and implementation. This is not to advocate one way or another for the inclusion of specific indicators, but to note that the capacity, feasibility, and value of incorporating measures of system structure deserve thoughtful attention as the province moves forward with performance measurement.

**Process** measures predominate in performance measurement (Henderson et al., 2014; Lauriks et al., 2012; Patel et al., 2015). In addition to being relatively easy to capture with existing administrative data sources, there is a clear link between treatment process and provider accountability and costs (Asch et al., 2011; Carrick et al., 2013; McLellan et al., 2007; O’Brien et al., 2007). Whereas outcomes can be affected by a wealth of factors external to clinical care, process measures fall more clearly within the purview of service providers (i.e., they are the measures to which providers can most reasonably be held to account). Relative to outcome indicators, process indicators are also actionable and sensitive to differences in performance (Baars et al., 2010; Watkins et al., 2010). As such, they tend to be responsive to changes in policy and practice, making them well suited to evaluating quality improvement initiatives. In one study in which people with severe mental illness were asked to rate their perceptions of care, it was indicators of process (i.e., corresponding to the responsiveness of services: choice of providers, wait times, and the receipt of information), not outcomes, that emerged as priorities for implementing meaningful change (Barbato et al., 2014). As with structural measures, the validity of process measures depends on their link to downstream outcomes. In many cases in the literature, this link appeared to be assumed or theoretical, rather than having been demonstrated empirically (see the section Predictors and Outcomes: the links between domains below for more details on this issue).

An example of development work that has focused heavily on treatment processes is given by the Washington Circle, mentioned earlier (Garnick et al., 2006, 2009, 2012). The work conducted by this group is important because it represents the most comprehensive effort to establish standards for the
delivery of community-based addiction treatment services to date. More on these indicators, including their application to services in Ontario, can be found in the Case Study (p. 22-24).

Although process measures tend to be most common, there was nonetheless still room for additional indicator development. For instance, in CIHI’s recent consensus conference (discussed above with respect to structural indicator development), stakeholders identified processes in community-based settings and people’s experiences of care as a priority areas for future development (CIHI, 2015).

### A case study: the Washington Circle indicators

The Washington Circle (WC) refers to a multidisciplinary expert panel convened by the US Center for Substance Abuse Treatment to develop performance measures for addiction treatment services (Garnick et al., 2006, 2009, 2012). The group developed a set of process measures that focus primarily on the timeliness of services at two key points in treatment when drop-out tends to occur. Specifically, the measures focus on the duration and intensity of involvement in early stages treatment, and continuity between services of different types (e.g., withdrawal management and residential or outpatient treatment). Table 4 defines the WC measures of treatment initiation and engagement, and continuity of care following withdrawal management and residential services.

#### Table 4: Definitions for selected WC measures

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<tr>
<th>Measure</th>
<th>Numerator/denominator</th>
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<td>Outpatient initiation</td>
<td>Individuals in outpatient treatment receive a second visit within 14 days of first visit</td>
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<td>All individuals with one visit to outpatient treatment</td>
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<tr>
<td>Outpatient engagement</td>
<td>Individuals in outpatient treatment receive 2+ visits within 30 days of initiation</td>
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<td>All individuals with one visit to outpatient treatment</td>
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<tr>
<td>Continuity after withdrawal</td>
<td>Individuals discharged from a withdrawal management service</td>
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<tr>
<td>management</td>
<td>enter outpatient or residential treatment within 14 days</td>
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<tr>
<td></td>
<td>All individuals discharged from a WMS</td>
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<tr>
<td>Continuity after residential</td>
<td>Individuals discharged from residential treatment who enter outpatient treatment within 14 days</td>
</tr>
<tr>
<td>treatment</td>
<td>Individuals discharged from residential treatment</td>
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</tbody>
</table>

The indicators have been used to evaluate the timeliness of services in the initial weeks of treatment in public and private, youth and adult services for alcohol and other drugs (Garnick et al., 2009, 2011), and to explore equity in treatment processes across racial groups (Acevedo et al., 2012, 2015a; Lee et al., 2012). Indicators specific to pharmaceutical interventions for substance use disorders are under development (Fernandes-Taylor & Harris, 2012; Thomas et al., 2011; Thomas et al., 2013).
Several WC indicators are currently measurable in Ontario’s specialized addiction treatment sector. Our team has used data from the Drug and Alcohol Treatment Information System to calculate annual provincial rates of treatment initiation and engagement in outpatient treatment settings, and continuity of care after withdrawal management and residential services from 2008-09 through 2012-13 (manuscript in preparation).

Figure 4 shows that about half of people who start outpatient treatment get a second visit within 2 weeks (i.e., the criteria for treatment initiation). Only about one-third attend 2 more visits in the month after initiation (i.e., the criteria for treatment engagement), and there has been little variation in these numbers over time. In order to meet the criteria for engagement, a person will have attended a minimum of 4 visits in the first 6 weeks after admission (i.e., 2 visits in the first 2 weeks, plus 2 more in the next month). Studies have shown that the fewer the number of days between the first and second visit, the more likely it is that treatment engagement will be happen (Acevedo et al., 2015b; Lee et al., 2012).

Figure 4: Treatment initiation and engagement in specialized outpatient addiction services in Ontario
Figure 5 shows that there has been more fluctuation over time in the proportion of people who enter residential or outpatient treatment within 2 weeks of being discharged from a withdrawal management service. Excluding the low rate in 2008-09, it can be seen that only 31-36% of people who are discharged from withdrawal management enter an active treatment program in the recommended timeframe. Rates of continuity of care after discharge from residential treatment are lower, with only 12-15% of people receiving outpatient counselling in the community within 2 weeks of leaving a residential facility.

Figure 5: Continuity of care following withdrawal management and residential treatment in Ontario

As with any process measures, these figures do not offer insights into the reasons behind the numbers and do not take into account the context in which service providers operate. However, paired with structural measures and qualitative approaches, these process measures can be used to locate areas of strength and gaps in the system and to identify potential solutions. Monitored over time, they can demonstrate the successes of quality improvement initiatives at the local, regional, and provincial levels.

Funding for this work was provided by the Canadian Institutes for Health Research (MOP 126057, PI: Urbanoski)

Outcome measures were present in almost all of the frameworks that we reviewed. In many of areas of health care, but particularly in MHA services, outcomes are multidimensional and do not always lend themselves to objective measurement. In addition, differences in outcomes have to be contextualized through case-mix adjustment to ensure that they do not simply represent differences in baseline illness severity (a full description of case-mix adjustment methods is beyond the scope of this project; for more
information, see Phillips et al., 2003; Salem-Schatz et al., 1994). Because of their multidimensional character, outcome indicator definition and selection can be challenging. Stakeholders attending CIHI’s most recent consensus conference on health indicators identified outcomes and people’s experiences with transitions across providers and levels of care as priority areas for indicator development for Canada’s Health System Performance Measurement Framework (CIHI, 2015).

Table 5 provides a summary of the outcome dimensions that are captured across the frameworks we reviewed. The most common outcomes in performance measurement were related to service use (e.g., treatment retention, length of stay, 30-day readmission), symptoms and functioning, and client or family perceptions of care. These are consistent with outcome domains identified as priorities by administrators and health planners (Herbeck et al., 2010). The least commonly measured outcome domains were quality of life, substance use, or social relationships. Other than the 10 outcome dimensions in Table 5, we noted two frameworks that included measures of HIV/AIDS risk behaviours (Myers et al., 2015; Schaub et al., 2013).

There is variability in the ways that outcomes are monitored. A number of outcomes can be drawn out of administrative data from health and other service systems (e.g., suicides, high school graduation, arrests and incarceration; Garnick et al., 2007). Several jurisdictions have implemented routine outcome monitoring using standardized tools, such as the Resident Assessment Instrument (RAI-MH) in Ontario or the Health of the Nation Outcome Scales (HoNOS) in Alberta and New Zealand (Alberta Health Services, 2015; National Mental Health Performance Subcommittee, 2013; New Zealand Mental Health and Addictions KPI Programme, 2010). In addiction service settings, routine monitoring has traditionally been limited to urinalysis and measures of treatment attendance, although more recent efforts to monitor progress and outcomes over the course of treatment have emerged (Goodman et al., 2013; McLellan et al., 2007).

Another theme to emerge under the subject of outcomes was the importance of capturing multiple perspectives (e.g., client, family, provider) in order to get the full picture of service quality (Gaebel et al., 2015; IOM, 2006; Lauriks et al., 2012; see National Mental Health Performance Subcommittee, 2013 for an example of how this has been implemented in a performance framework). Measures of perceptions of the quality of care are particularly interesting in this respect. It has been shown that client perceptions of care tend to vary more within providers than between providers (reviewed in Ruud, 2009). It is entirely legitimate for clients to experience care delivered by a single provider differently; however, this finding does raise questions as to whether client perceptions can be used to distinguish between high and low performing providers (this is true even when the client’s report of their own experiences is valid). It also highlights the need to look at whether and how perceptions of care differ across the characteristics of people who use services (e.g., whether women or people with a particular diagnosis tend to have a better or poorer experience with a given provider).

[Continues p. 28]
Table 5: Outcome domains in performance measurement of MHA service systems

<table>
<thead>
<tr>
<th>FRAMEWORK</th>
<th>Mortality/Suicide</th>
<th>Symptoms/Functioning</th>
<th>QOL</th>
<th>MHA service use</th>
<th>Perceptions of care</th>
<th>Substance use</th>
<th>Housing</th>
<th>Legal system</th>
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<tr>
<th>FRAMEWORK</th>
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COUNT OF TIMES DIMENSION WAS MEASURED: 11, 21, 7, 23, 21, 8, 10, 12, 15, 6

Notes:
- Mortality rates, rates of premature mortality, suicide rates, Potential Years of Life Lost (PYLL) due to suicide
- Measures of symptom improvement or remission, clinical status, health status, suicidal ideation or risk, intentional self-injury, Health of the Nation Outcome Scales (HoNOS), Global Assessment of Functioning (GAF), or other measures of mental, physical and social functioning
- Service utilization-based measures of outcomes, including length of stay, treatment retention/drop-out, 30-day readmission, and community tenure
- Measures of client and family perceptions of care, experiences, and satisfaction
- Measures of substance use, relapse and abstinence
- Measures of socioeconomic status, including high school graduation rates, changes in employment status, income, and financial security
Predictors and outcomes: linkages between domains or indicators

Conceptual linkages between domains are rarely specified in performance frameworks (i.e., domains typically represent sets of unconnected indicators that together comprise quality of care). One exception is the Health System Performance Measurement Framework developed by CIHI (2013; Appendix 4). Performance domains are embedded in quadrants that align with the 3 temporal dimensions (social determinants of health, health system inputs and characteristics, health system outputs, and health system outcomes). The linkages between resulting domains are represented, showing a dynamic, causal flow across model components (CIHI, 2015). Also unlike most of the other frameworks we reviewed, some performance domains are broken down by quadrant; for instance, with efficiency represented as the allocation of resources (a structure), efficient delivery of services (a process), and improved value for money (an outcome). The MOHLTC’s health system strategy map also specifies linkages between domains of performance, through to longer-term system goals (MOHLTC, 2008; Veillard et al., 2010).

Relative to linkages between domains, the associations between indicators are more commonly addressed in the literature. Demonstrating empirical links between indicators, particularly across temporal dimensions (i.e., structures, processes, and outcomes) gives evidence of indicator validity. For instance, wait times are commonly monitored as a process measure of accessibility because they can impact service effectiveness. Studies that assess whether a given indicator of wait times is associated with client outcomes contribute evidence on whether the indicator is performing as expected. This can lead to refinements in the ways that indicators are defined and used.

Taking the performance literature as a whole, the causal relationships between indicators are typically either not specified or not validated through research (Lauriks et al., 2012). What is clear is that the relationships between health system performance and actual health outcomes are varied and not always in the expected direction (Arah & Westert, 2005). This gap in our understanding hinders our ability to use performance data to derive policy that will maximize population health (Etches et al., 2006). Although the literature is piecemeal, there are many examples of studies that have assessed the linkages between performance indicators. We use Donabedian’s temporal dimensions to organize findings from these studies, summarizing evidence on (first) the links between measures of structure and process or outcome, and (second) between measures process and outcome.

We noted earlier the need for further development of structural indicators (Baars et al., 2010; CIHI, 2015; Garnick et al., 2012; Hogg et al., 2008). This includes establishing the causal pathways by which structures affect processes and outcomes. Overall, studies are equivocal on the links between common structural measures and treatment processes or outcomes. As might be expected, a more positive organizational climate in peer-based family services for child mental health (indicated by high flexibility, competence and engagement of staff, and functionality, combined with low stress, rigidity and resistance) predicts better quality of care as indicated by process measures (Kutash et al., 2014; Olin et al., 2014b). Others have found associations between several national, regional, and facility characteristics (including income inequality, gross domestic product, material deprivation, provider
density and facility size) and process measures of quality (e.g., accessibility, coordination, service complement; Costa et al., 2014; Olfson et al., 2010).

Conversely, a measure of state-level spending on mental health was related to service access and incarceration rates, but not to a variety of other measures of care quality and effectiveness (Hendryx, 2008). Neither state funding for mental health nor facility size or academic affiliation have been shown to predict suicide rates, a common outcome measure (Desai et al., 2005; Hendryx, 2008). Greater availability of mental health care at a population level, in terms of the numbers of psychiatrists and hospital beds, has been linked to higher suicide rates, although this could easily be an artifact of how suicides are measured and recorded across countries rather than a true causal link (Rajkumar et al., 2013).

These findings serve to illustrate the above mentioned challenges in deriving meaning from structural measures. If temporal dimensions are actually linked sequentially as presumed, then we might expect to see this pattern of findings whereby measures of structure are linked more closely with measures of process than with outcomes. This does not imply that system and service structures have no impact (or only a weak impact) on client outcomes, simply that we would expect to see a weaker empirical relationship because of the multitude of intervening factors along the causal pathway.

A wealth of literature has focused on the connections between measures of service delivery processes and outcomes. These include one-off studies and larger concerted efforts to evaluate the validity of performance indicators. The adoption of the Washington Circle measures by several US national and state-level systems has generated extensive administrative data that has been used to evaluate the links to outcomes (Garnick et al., 2011; Harris et al., 2007; Oklahoma Department of Mental Health and Substance Abuse Services, 2006; Oregon Health Authority, 2014). Associations can be evaluated at the client-, program/facility-, and system-levels, and it is entirely possible for an indicator to relate differently to the same outcome at these different levels of aggregation. At the client-level, the effect being tested is whether an individual who receives quality care experiences a better outcome. At the facility-level, the effect being tested is whether facilities that provide better care have, on average, better outcomes.

At the client-level, process indicators based on the frequency and intensity of visits to outpatient services in the initial weeks of treatment (such as the Washington Circle measure of treatment engagement: receiving 2+ services in the month following treatment initiation) are associated with greater reductions in substance-related symptom severity and a lower likelihood of arrest or incarceration in the year following treatment (Garnick et al., 2007; Harris et al., 2010). The association is nuanced, however, and the positive influence of engagement on arrest was found to be weaker in Black and Latino clients (Acevedo et al., 2015b). Not meeting the criteria for treatment engagement was also associated with an elevated risk of hospitalization for MHA, but only among those who had a prior suicide attempt (Glass et al., 2010). On this basis, Glass et al (2010) suggest that the benefits to individual clients of meeting performance measures may be greater among those with higher levels of severity at admission.
Several measures of continuity of care have also been linked to positive outcomes at the client-level. Timely receipt of follow-up community care after discharge from inpatient services has been linked to better outcomes in terms of functioning (Greenberg & Rosenheck, 2005) and abstinence from drugs and alcohol (Garner et al., 2010). Continuity after withdrawal management (receiving residential or outpatient treatment within 2 weeks of being discharged from a withdrawal management service) has been shown to reduce the likelihood of readmission to withdrawal management (Lee et al., 2014). Care continuity as measured by treatment intensity (number of visits within a modality, rather than transitions across modalities) was not found to be associated with improved functioning (Greenberg & Rosenheck, 2005) or reduced substance problem severity (Harris et al., 2009a), although it was associated with a lower risk of suicide and reduced employee absenteeism (Desai et al., 2005; Rost et al., 2005b). Timely and appropriate antidepressant medication management was associated with improvements in depression symptoms (Rost et al., 2005a).

It seems intuitive that measures of process and outcome should be linked to one another at the level of individual clients. However, facility and system level analyses are also important since these are the levels at which performance measures are typically intended for use (Desai et al., 2005; Harris et al., 2009a). If a given indicator does not link to outcomes at the facility level, then it may not be suitable for discriminating between high and low performing facilities. Nor would it be expected that policies and quality improvement initiatives targeting that indicator would necessarily lead to measureable improvements in facility performance.

Although associated at the client-level, indicators of length of stay and continuity of care aggregated to the facility-level were not associated with risk of suicide (Desai et al., 2005). In discussing their findings, Desai et al (2005) question the suitability of using suicide as an indicator of care quality because of its instability and lack of association with any facility level characteristics (including either process measures or structural measures, such as facility size or academic affiliation). Likewise, the Washington Circle measures of treatment initiation and engagement, aggregated to the facility level, have not been shown to predict post-treatment substance use (Harris et al., 2007), although there is evidence that the number of visits in the first month of treatment does predict facility-level changes in alcohol problem severity (Harris et al., 2009b). In one study, an indicator of continuity of care based on service intensity actually predicted poorer facility-level outcomes (Harris et al., 2009a). In speculating on this unexpected finding, the authors raise the possibility of high performing institutions that have managed to develop successful programs with shorter lengths of stay or ways of effectively transitioning clients to self-help or other groups that operate outside of insured services.

Because we were focused on performance indicators, our review is not an exhaustive account of all research examining the implications of service and system structures, or evaluating the links between treatment processes and outcomes. The mix of findings reported here on the linkages between common performance indicators serves to demonstrate the importance of following up indicator specification with efforts to test the causal pathways by which they are presumed to influence each other.
**Attention to family or care-giver issues**

It was common to see indicators pertaining to the experiences and expectations of family members and caregivers in frameworks on MHA service performance. Family-centered care, family-provider relationship, family involvement in care and, to a lesser extent, provision of direct services to family, are incorporated as features of effectiveness and client-centeredness or responsiveness (Addington et al., 2005, 2007, 2012; Balfour et al., 2016; Chovil, 2009; Hogg et al., 2008; Jones, 2005; MOHLTC, 2007; New Zealand Mental Health and Addictions KPI Programme, 2010; Vargo et al., 2013; Waraich et al., 2010; Zima et al., 2005). Parent or family involvement in care was well represented in frameworks specific to youth mental health care (Chovil, 2009; Vargo et al., 2013; Zima et al., 2005). The MHCC’s Informing the Future initiative includes an indicator for care-giver stress, aligning with the Commission’s strategic direction of mental health promotion and prevention (MHCC, 2015). Australia’s National Mental Health Performance Framework offered the opportunity for potentially more comprehensive representation of family and caregivers, by specifying both client and caregiver in their definitions of service effectiveness, appropriateness, responsiveness, and safety; however, caregiver-specific indicators do not appear to have been developed in all of these domains (Brown & Pirkis, 2009; National Mental Health Performance Subcommittee, 2013).

Indicators tapping family and caregiver issues also appeared in Canadian frameworks for general health system performance, albeit to a lesser extent. The CQA reports an indicator on informal caregiver distress for home care settings, while respect for family values is incorporated into the concept of client-centeredness (HQO, 2015a). Similarly, the Health Quality Council of Alberta (2010) incorporates family experiences of care for long-term care facilities. Burden on informal caregivers and caregiver perspectives on integration have been identified as priorities for future indicator development by CIHI (2015).

**How is equity incorporated into frameworks?**

Typically, equity is conceptualized as cross-cutting other performance domains, allowing for exploration of whether and how features of effectiveness, accessibility, safety, and so on are distributed across the population. Depending on the population under consideration, indicators are variously broken-down by diagnosis, age, sex, gender identity, sexual orientation, ethno-cultural background, Indigenous status, geography (urban/rural/remote), socioeconomic status, homelessness, legal system involvement, and parental status (Acevedo et al., 2012, 2015a; CIHI, 2015; Grabowski et al., 2010; IOM, 2006; Jones, 2005; Lee et al., 2012; MHCC, 2015; National Mental Health Performance Subcommittee, 2013; New Zealand Mental Health and Addictions KPI Programme, 2015; Turning Point, 2014b; Waraich et al., 2010). Given the gendered nature of barriers to MHA treatment, particularly for women who are pregnant and parenting, monitoring access by sex and parental status is an important function of performance measurement in this part of the sector. We located only one framework (developed for the addiction treatment sector in Victoria, Australia) that included parental status in the evaluation of equity (Turning Point, 2014b).
In Ontario, the CQA and Baseline Scorecard for mental health in children and youth break their indicators down by LHIN and, depending on the data source, by selected sociodemographic characteristics (e.g., sex, age, income, education, rural or urban, immigration status, and language most often spoken at home; HQO, 2014a, 2015a; ICES, 2015b). In contrast, the system strategy maps developed by the MOHLTC conceptualized equity in terms of spending and the distribution of resources (structural indicators), rather than the broader evaluation of equity in processes and outcomes that is seen in the more recent provincial initiatives (Veillard et al., 2010). Incorporating equity into measuring the performance of the addiction treatment system was a key recommendation in prior evaluation of the DTFP-ON (Sridharan et al., 2014b). Likewise, access and the availability of resources across the social determinants of health were areas identified as priorities for indicator development in Canada’s Health System Performance Measurement Framework (CIHI, 2015).

In an evaluation of planning efforts targeting health equity among hospitals in the Toronto Central LHIN, stakeholders identified the need for the development of a coordinated data strategy and highlighted the data elements that they felt were key to evaluating health equity in the region (Nakaima et al., 2013). In addition to sociodemographic characteristics of patients and caregivers, stakeholders identified the need to evaluate equity in program/facility features (i.e., structures), such as: the numbers and characteristics of people who are prevented from obtaining care because of admission criteria or the capacity of services to meet their needs, the sociodemographic characteristics of staff, the availability of training on equity and cultural competency for board members and staff, and the number of times that language services (i.e., interpreters) are used.

Similar findings are reported in an evaluation of stakeholder perceptions on how performance measurement in primary care can contribute to progress in achieving health equity (Wong et al., 2014; Wong et al., 2011; see https://equiphealthcare.ca/ for more information on this initiative). Indicators developed through stakeholder consultation covered structures, processes, and outcomes, including staff training and support for promoting equity and using trauma-informed practices, culturally safe practice, inter-professional and inter-sectoral collaboration, use of procedures to prevent people from “falling through the cracks”, and the assessment of quality of life (Wong et al., 2014).

Although most frameworks incorporated equity as a cross-cutting domain, there were other approaches. For example, the framework developed for the addiction treatment sector in South Africa conceptualized equity as a sub-dimension of access (Myers et al., 2015). In Australia’s system of MHA services, equity is used in framework development, with applicability across diverse populations being one of the criteria for indicator selection (National Mental Health Performance Subcommittee, 2013).
In the literature on performance measurement in MHA service systems, very limited attention is given to peer support (see Box 5 for a definition of peer support). Most commonly, where peer support was reflected in existing performance measurement frameworks, it was as a single indicator focused on availability, with no information captured on capacity, scope of activities, or effectiveness (Ganju et al., 2005; Mental Health Transformation Workgroup, 2011; Oregon Health Authority, 2014; Parameswaran et al., 2015). More generally, it was unclear whether performance measurement frameworks designed for use in MHA service systems included peer support services within their scope (i.e., whether peer support services were expected to report on and be held accountable to the same performance indicators and benchmarks as other services). There was also very little discussion of the issues, challenges and implementation of performance measurement in peer support services.

The sole exception was an initiative to develop quality indicators for parent-delivered support services in child mental health (Kutash et al., 2014; Olin et al., 2014a; Olin et al., 2014b). The scope of this initiative included services delivered by parents and caregivers who have lived experience with caring for a child with mental health problems. As the rationale for their work, the authors note that “the viability of the … service model, like other behavioral services within the changing healthcare system, depends on the ability to identify components of quality care and link them to positive outcomes” (p. 8, Olin et al., 2014a). Indicators were developed through literature review and a Delphi approach with an expert panel comprised of researchers, clinicians and peer support workers. The resulting set of indicators was...
the only example we were able to find in the literature that was developed specifically for use in peer-based services (because of its uniqueness, the indicators are listed in Appendix 5).

During the development of their framework, Olin and colleagues noted expert disagreement over the appropriateness of including indicators on the use of standardized assessment protocols, both for service planning and outcome monitoring. Experts disagreed on whether standardized assessment protocols were consistent with the principles and practices of peer support. Discussions resulted in indicators to document whether staff use a standardized protocol or framework to guide service planning, and whether they work with families systematically to identify goals and evaluate progress. This example serves as an illustration of the challenges inherent in applying traditional performance measures in peer support services, as well as highlighting one potential solution. It was possible to arrive at a set of indicators that were adapted to the specific needs and contexts of peer support services.

During stakeholder consultations for our project, we also heard concerns about the implementation of standard performance indicators in peer support services. Some practices, such as the collection of unique identifiers for members, were seen as inconsistent with the values of peer support and as potentially interfering with recovery. Further, in Ontario more specifically, peer support services are operating within a system where many organizations have lost their autonomy, being absorbed into larger traditional or mainstream MHA services. This trend has raised questions about what is lost when peers shift to operating within the clinical environments from which they originally sought to distinguish themselves. For instance, in a recent provincial evaluation of peer support, workers raised concerns around the power imbalance between themselves and mainstream staff, and its impact on services operating within larger organizations that are not consumer-run (Taylor Newberry Consulting, 2014). Both successes and lingering challenges were identified around the integration of peer support into the broader health system; however, work is needed to more directly answer questions on the relationship between organizational autonomy and effectiveness.

These issues, combined with a notable gap in the literature, led us to conduct a more in-depth analysis of the issues in implementing performance measurement activities in peer support. For this analysis, we reviewed key documents on peer support in Canada. This work is complementary to another DTFP-ON project focused on best practices in peer support, led by Addictions and Mental Health Ontario (see Box 6).

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**Box 6: Engaging people with lived experience of mental health and addictions at the system level**

Addictions and Mental Health Ontario conducted a literature review of evidence on engagement of peer with lived experience at the system-level (e.g., political advocacy, community planning, decision-making). Findings highlighted a number of conceptual models that can be used to orient policy and planning. However, there was very little work evaluating the involvement of people with lived experience in system-level initiatives, despite their growing representation on regional and provincial advisory groups in Canada. More information on this project is available at: [http://eenet.ca/dtfp/best-practices-in-peer-support-project/](http://eenet.ca/dtfp/best-practices-in-peer-support-project/)
Key aspects of peer support services can appear, on the face of it, to present major challenges to performance measurement. Being member-driven means that there is wide heterogeneity in types of activities across services; being accountable to members raises questions about who can legitimately define indicators and drive performance measurement and reporting; seeking to overcome traditional power differentials between “providers” and “patients” creates a tension for data collection activities. To the extent that their effectiveness derives from their position as distinct from mainstream professionally-led services (even when these are delivered by professionals who have their own lived experience), there are legitimate concerns about how performance measurement, and all that is entailed with respect to monitoring and documentation, would be implemented in peer support services. Viewed from this perspective, the efforts of peer support workers and organizations to resist “clinicalization” and to maintain some degree of independence from traditional mainstream services make sense.

Despite the above challenges, it was a repeating theme in both the literature and stakeholder consultation with peer support organizations that some form of performance measurement is critical to establishing the legitimacy and ensuring the viability of authentic peer support services going forward. The development of customized indicators that align with the values and objectives of peer support services was seen as both possible and preferable to exclusion from provincial performance measurement initiatives. The need for work on performance indicators and other support to develop the evidence base has been echoed in national and provincial reports evaluating the role of peer support in the broader MHA service system (CMHA et al., 2005; Consumer Partnerships Theme Group, nd; O’Hagan et al., 2010).

The development of performance indicators that reflect the values and principles of peer support will take a concerted effort, but there are a number of helpful starting points for the work. As part of the Longitudinal Study of Consumer Survivor Initiatives, Janzen and colleagues (2007) developed a logic model for peer support that defines key processes and outcomes. Across the services participating in this study, points of commonality included the provision of individualized support and participation in system change efforts (e.g., community planning, political advocacy, public education, and action research; Janzen et al., 2006, 2007; see also From Madhouse to Our House, a video report of study findings: https://www.youtube.com/watch?v=gnTJYtlVkc).

More recently, as part of their larger Peer Project, the MHCC defined the following guiding values of peer support (Sunderland et al., 2013):

- Hope and recovery
- Self-determination
- Empathetic and equal relationships
- Dignity, respect and social inclusion
- Integrity, authenticity and trust
- Health and wellness
- Lifelong learning and personal growth
These values are meant to help ensure that the original intent of peer support is honoured as the sector grows, standards are implemented, and programs evolve over time. In turn, they informed a set of principles of practice that characterize the nature of the relationship between peer support workers and members, which include (among others) recognizing personal goals and members, co-creating and exploring options for next steps, focusing on strengths, self-determination, and choice instead of symptoms and diagnosis, practicing self-care, and collaborating with community partners, service providers and other stakeholders. Indicators can be developed that measure fidelity to the guiding principles and/or that operationalize the principles of practice. Notably, there is alignment between the indicators in the framework developed by Olin and colleagues, and the MHCC guiding values and principles of practice.

In Ontario, important strides are being made in this area already through efforts to operationalize the values of peer support into measurable behaviours. The Enhancing and Sustaining Peer Support Initiative, led by Support & Housing-Halton’s peer initiative, TEACH (Teach Empower Advocate Community Health; a CSI in the Mississauga Halton LHIN), is actively working towards the expansion and evaluation of peer support in their region (E-QIP, 2017; see also https://youtu.be/cEmEJ-u9ICU). The Initiative takes a developmental evaluation approach to assessing the service- and system-level impacts of peer support services. Developmental evaluation focuses on modeling change within complex environments, which are characterized by many interdependent elements, uncertainty, and adaptation (Patton, 2010). It is well-suited to the unique context of peer support services, which, because they are strongly values-based and person-driven, are characterized by complexity and adaption (e.g., to their individual members and local contexts). Through this ongoing work, the Enhancing and Sustaining Peer Support Initiative is building capacity for meaningful peer involvement in the health care system (e.g., by identifying system-level impacts of peer support services as they emerge, creating tools and training programs, supporting quality improvement, and creating mechanisms for knowledge exchange).

Performance measurement in peer support services would not be expected to replace developmental evaluation or other community-based (participatory) research projects. Different approaches to monitoring and evaluation are needed to represent the totality of system- and program-level impacts of any type or model of service. In this sense, there is a need to articulate the added value of performance measurement as a complement to more comprehensive program and system evaluation in Ontario. For instance, a values-based performance measurement framework (i.e., one comprised of indicators designed to measure fidelity to the guiding principles of peer support) may provide critical insights into whether peer support services that are embedded within mainstream clinical services differ.
from autonomous organizations in their ability to adhere to the guiding principles and practices of peer support. Paired with developmental evaluation of member, service, and system impacts, such a performance measurement framework may well be able to support quality improvement and accountability as peer support continues to establish a role in the broader service system.

**CONCLUSIONS AND IMPLICATIONS FOR ONTARIO’S DATA AND PERFORMANCE MEASUREMENT STRATEGY**

This project aimed to achieve two objectives:

1. To synthesize the available literature on how performance is defined and measured in MHA services in Ontario and around the world, and
2. To contribute evidence to broader provincial discussions of performance measurement.

The impetus for the work came from recommendations made in prior rounds of the DTFP-ON, highlighting the need to strengthen the ability of the community addiction treatment sector to measure outcomes and demonstrate accountability, as well as our own prior experience conducting research in that sector. Once underway, the project evolved to ensure complementarity with other performance measurement initiatives in the province. In particular, through 2015-16, the Data and Performance Measurement Task Group developed an initial set of 10 indicators that can be implemented using available data (Figure 6). In this section, we draw conclusions from our scoping study with reference to the work being conducted by HQO and the Task Group.

**Figure 6: Performance indicators for the mental health and addictions system in Ontario (Approved by the Mental Health and Addictions Leadership Advisory Council on May 16, 2016)**

In keeping with our analytical framework, the 10 indicators are suited to characterizing the quality of episodes of care at the client, program/facility, and system levels, and they strike a balance between measures of process and outcome. None measures structure, although as noted earlier, the literature raises a number of legitimate challenges with defining valid measures of structure. Despite these challenges, a number of high-profile performance measurement initiatives in Canada and other jurisdictions have identified structure as a priority for future indicator development, suggesting that this
may be an active area of emerging work. Known infrastructure, funding, and workforce challenges in MHA sector may also provide a rationale for measuring and monitoring structural inputs across the system. The capacity, feasibility, and value of incorporating measures of system structure deserve thoughtful attention as the province moves forward with the Data and Performance Measurement Strategy.

Evaluations of similar performance indicators in other jurisdictions both support and refute their ability to discriminate high and low performing service providers, and their sensitivity to changes in policies and practices. One area for future consideration is the Washington Circle measures. With their adoption by several US national and state-level systems, they represent arguably the most researched process measures for MHA services. In addition, they are suited to community-based settings and, therefore, would be a good complement to those indicators that apply to inpatient settings (e.g., use of physical restraints and alternate level of care days). Although developed for use in addiction treatment settings, they may potentially apply or be modified to apply to mental health care more broadly. Given that the data needed to construct them are also currently available in Ontario (at least in the addiction treatment sector), these measures may hold promise for use in Ontario.

Although families and caregivers are not represented in the initial set of 10 indicators, an indicator representing family and caregiver support has been recommended for development by the Task Group. Our work uncovered a large number of examples of the ways in which family and caregiver experiences are incorporated into performance measurement systems in Canada and elsewhere. Newly developed tools that are being rolled out across the province, such as the Ontario Perceptions of Care (OPOC) tool, have the capacity to document both client and family experiences of care.

Our work also uncovered the different ways that equity has been addressed and incorporated into performance measurement. The 5 equity variables defined for Ontario (geography, neighbourhood income, immigration status, age, and sex) are consistent with how equity is defined and measured in performance measurement frameworks generally. In addition to these five variables, membership in Francophone, Indigenous, and racialized communities have been identified as gaps for future work. As noted, because of the unique barriers to treatment experienced by women who are pregnant and parenting young children (e.g., fear of losing custody, provider stigma), we recommend incorporating parental status into evaluations of equity in MHA service systems. Others have noted the importance of moving beyond patient sociodemographic characteristics, to incorporating measures of program and system structures in the evaluation to equity (e.g., the numbers and characteristics of people who are excluded from services because of admission rules or capacity issues; the sociodemographic characteristics of staff; the use of interpreters).

Finally, we note the legitimate concerns and challenges of implementing performance measurement in peer support services, combined with a general lack of examples in the literature on ways in which this has been done successfully in the past. As performance measurement in MHA continues to evolve in Ontario, efforts should be made to partner with peer support organizations to ensure both that the
services they offer are represented in these strategic initiatives and that the indicators on which they are evaluated are fair, appropriate, and able to support quality improvement.

The recent attention to developing strategic goals for data and performance measurement in Ontario’s MHA service system holds much promise for allowing services to showcase their strengths and accomplishments, and to advocate for what they need to deliver quality services. With this in mind, we strived to provide a comprehensive overview of the strengths and challenges of performance measurement, while recognizing the context of Ontario’s system. This report offers an aspirational view for a comprehensive provincial performance measurement system and raises a number of considerations for ongoing work.
REFERENCES:


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2 A full bibliography of articles and reports selected for the scoping review is available upon request from the author.


Consumer Partnerships Theme Group. *Ontario mental health and addictions strategy consumer partnerships theme paper.*


Substance Abuse and Mental Health Services Administration. (nd). *SAMHSA's national outcome measure*.


Appendix 1: Search Strategy

Publication dates: 2005-present
Languages: English

Databases/search engines:
Pubmed, Medline, Cochrane Library, EMBASE, CINAHL
Google Scholar

Terms (used in combination):
Performance measurement, performance indicators, performance frameworks, quality indicators, quality improvement, system performance, scorecards, report cards
Quality care, quality reports, healthcare quality, health system quality
Health system evaluation
Health, healthcare, medical care
Mental health, mental healthcare, psychiatry, substance abuse treatment, addiction treatment

Organizational websites (searched by hand):
World Health Organization
Organization for Economic Cooperation and Development (OECD)
Canadian Institute for Health Information (CIHI)
Health Canada
Canadian Centre on Substance Abuse (CCSA)
Institute for Clinical and Evaluative Sciences (ICES; Canada)
Ministry of Health and Long-term Care (MOHLTC; Canada)
Health Quality Ontario (HQO; Canada)
Centre for Health Services and Policy Research (Canada)
US Department of Health and Human Services
US Department of Veteran Affairs
King’s Fund (UK)
Centre for Reviews and Dissemination (CRD; UK)
National Institute for Clinical Excellence (NICE; UK)

Inclusion criteria:
Published between 2005 and 2015
Peer-reviewed studies, including primary studies (original research) and reviews
Grey literature, including government and evaluation reports
Documents that outline MHA performance measurement frameworks and their development
Documents that outline frameworks for general health care and health system performance measurement in Canada (e.g., hospital care, primary care)
Literature that refers to adults, youth, seniors, and specific population groups (provided other inclusion criteria are met)
Original research or reviews that describe the prevalence, correlates and outcomes of existing performance indicators or measures

Exclusion criteria:
Anecdotal commentaries, editorials
Documents that describe performance measurement in areas other than health and healthcare
Documents that describe the purpose and goals of performance measurement without reference to performance domains or framework development
Documents that describe statistical or methodological issues in performance measurement (e.g., risk adjustment, validity/reliability)
Documents that describe stakeholder views, experiences, or ethical issues in applying performance measurement frameworks (without describing the framework and its components)
Descriptions or evaluations of educational initiatives for providers around improving service quality or accountability
Documents that describe the implementation of performance measurement/quality improvement initiatives (without describing the framework and its development)
Documents that outline performance measurement frameworks in Canada that are specific to non-MHA conditions (e.g., heart disease, cancer, diabetes)
Program evaluations, evaluations of specific services, types of interventions, or innovations in practice
Evaluations of quality improvement initiatives that do not involve performance measurement
Original research or reviews that report on treatment processes and outcomes generally, but not within the scope of a performance measurement strategy or framework
Evaluations of clinical practice guidelines
Appendix 2: Standardized document coding tool

**Research Question**

| How are performance and quality defined and measured in MHA service systems? |

**Instructions**

Copy and paste text directly from the article or report into the appropriate cells in the table. Do not make guesses or assumptions to fill in any part of the table; if a particular item is not addressed in the article or report, mark N/A in the appropriate cell in the table.

The purpose of the data extraction process is to gather and document specific pieces of information that speak to our study’s research question (shown above), rather than to reflect the purpose of any selected article. Some of the selected articles may have a primary purpose that is different or outside of the scope of our study. In these cases, the article was likely selected because it looked as though it may contain some information that was secondary to its central purpose, but relevant for ours. Relevant information may be limited to a single section of the article.

If the article appears to be entirely out of scope of our study (i.e., does not meet the inclusion/exclusion criteria for selecting articles; shown above), put it in the folder titled *Excluded at coding* and enter the required information in the Excel file, *Reason for exclusion.xlsx*. It is possible that a small number of articles that do not meet the search criteria have been included by mistake. Karen will monitor this folder and follow-up with any questions.

**General Information**

| Full reference |
| Author affiliation/Institution |

**Study Information**

<p>| Document type <em>(e.g., original research, review, grey literature)</em> |
| Country <em>(where study was performed, and/or where data were collected; if not restricted to one country, list the participating countries or type “international”)</em> |
| Study purpose/objectives |
| Part(s) of health system covered <em>(e.g., inpatient or hospital, acute care, outpatient or)</em> |</p>
<table>
<thead>
<tr>
<th>ambulatory care, primary care, residential treatment, withdrawal management services, emergency rooms; if not restricted to specific care settings, type “system-wide”)</th>
<th></th>
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<tbody>
<tr>
<td><strong>Health condition(s) covered</strong> (e.g., general, MH, and/or A)</td>
<td></td>
</tr>
<tr>
<td><strong>Population(s) covered</strong> (e.g., general population, women, youth, LGBTQ, Indigenous peoples, people/patients with schizophrenia)</td>
<td></td>
</tr>
<tr>
<td><strong>Sample size</strong> (include the number of study participants and the number of settings, as applicable)</td>
<td><strong>Code for original research articles/reports only</strong></td>
</tr>
<tr>
<td><strong>Study methods</strong> (e.g., focus groups, Delphi process, interviews, administrative data analysis; methods of stakeholder engagement, process for indicator selection; systematic review; scoping review)</td>
<td><strong>Methods used in the article/report that is being coded. Do not include methods used in other articles that pertain to the same performance measurement framework. Description should be limited to a few words (do not include details such as statistical procedures used in quantitative analysis, or search terms in a systematic review, etc.)</strong></td>
</tr>
</tbody>
</table>

### Performance Framework

<table>
<thead>
<tr>
<th><strong>List of prior frameworks that were consulted during development</strong> (e.g., Donabedian’s model, Canadian Health Indicators Framework, Institute of Medicine framework)</th>
<th><strong>Code for articles/reports about framework development only; list the prior frameworks that are explicitly named as having informed the framework development process</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List of performance domains</strong> (e.g., equity, effectiveness, access, safety, acceptability; if the article summarizes indicators without an over-</td>
<td><strong>Donabedian’s model specifies 3 temporal dimensions for measures of quality: structure, process and outcome. These don’t count as performance domains for our purpose. If the only over-arching framework reported in the article is Donabedian’s model, then list it in the above row and type “N/A” here. Type the indicators in the next row.</strong></td>
</tr>
</tbody>
</table>
| **arching framework, type**  
| “N/A” in this cell and just list the indicators with their definitions in the next row |  |
| **Description of each performance domain and/or indicator**  
| (for each domain covered, include: definition and candidate indicators; if indicators are not aligned with domains, describe the indicators here and type “N/A” in the row above; do not assign indicators to domains yourself) |  |
| **Level(s) of measurement**  
| (e.g., clients, programs, and/or system; note that these may differ across domains) | **Is the framework designed to be used at the system-, program-, and/or client-level?** |
| **Number and types of stakeholders who were consulted in the study**  
| (e.g., front-line service providers, management or administration, policy or decision makers, service users, researchers) | **Code for articles/reports about framework development only; list the number and types of stakeholders who participated in the framework development process** |
| **Information on the associations between domains, between indicators, and/or other correlates and outcomes**  
| (e.g., statistical or conceptual linkages of domains or specific indicators with each other or with other measures of health, other processes, client characteristics, and so on) | **Examples: presence or absence of associations between process and outcome indicators, between accessibility indicators and effectiveness indicators, between healthcare performance indicators and actual health** |
| **Anything additional** |  |
(that is relevant to answering our study’s research question)

| Articles from reference list to be screened for eligibility |  |
Appendix 3. Health Quality Ontario’s Common Quality Agenda ([www.hqontario.ca](http://www.hqontario.ca); HQO, 2015a)

### Health of Ontarians

| Smoking | Physical inactivity | Obesity | Inadequate fruit and vegetable intake | Life expectancy at birth | Infant mortality | Self-reported health status | Potentially avoidable deaths |

### System Integration

| Doctor visit within seven days of hospital discharge | 30-day readmission rates for medical and surgical patients | Hospitalizations for ambulatory care sensitive conditions | Percentage of acute care hospital days spent at alternate level of care |

### Primary Care

| Having a primary care provider | Timely access to primary care | Accessing after-hours primary care | Patients’ involvement in decisions regarding their care | Colorectal cancer screening | Diabetes eye exams |

### Mental Health

| Hospital admissions for a mental illness or an addiction | Doctor visit within seven days of hospital discharge for mental illness or an addiction | Readmission rates for a mental illness or an addiction | Use of physical restraints in acute mental health care | Suicide rates |

### Home Care

| Patient experience | Waiting for some home care services | Placement in long-term care homes | Informal caregiver distress |

### Hospital Care

| Patient experience | Emergency department’s length of stay | Hip or knee replacements completed within target wait time (Wait times for procedures) | Cardiac procedures completed within target time frame (Wait times for procedures) | Can cancer surgery wait times (Wait times for procedures) | Clostridium difficile infections acquired in hospital | Cesarean section deliveries |

### Long-Term Care

| Waiting for a bed in a long-term care home | Use of daily physical restraints in long-term care homes | Falls in long-term care homes | New or worsening pressure ulcers |

### Health Workforce

| Nurses | Family doctors and specialists | Lost time injury rates |

### Health Spending

| Total health expenditure per capita | Health expenditure per capita on drugs | Prescription or dose of medicine skipped due to cost |
Appendix 4: CIHI’s Health System Performance Measurement Framework (CIHI, 2013)
Appendix 5. Quality Indicators for Family Support Services in Community Team-Based Mental Health Care (Olin et al., 2014a)

Program policies and procedures
A program that provides high quality family support services (FSS) includes…

Role
1. Clear roles and responsibilities for FSSs (e.g., detailed job descriptions available)
2. Staff that clearly understand the role of the FSS within the goal of the program

Fiscal
3. A specific budget allocated for family support services
4. Program flexibility in use of family support services even when such services are not billable (e.g., pre-enrollment into program and post discharge)
5. Employment benefits provided (e.g., health, vacation) to FSSs

Standards to guide practice
6. A standardized protocol or framework used by program staff with all families to guide intensity, type and progress of family support services relative to family needs, goals and strengths
7. FSSs that have received training or certification in core competencies
8. FSSs employed with experience of parenting a child with emotional, developmental, behavioral, substance use or mental health concerns

Structural
9. Specialized supervision/consultation structures in place to help integrate FSS role on the team and with families
10. Structures in place to facilitate teamwork among FSSs and other staff on team (e.g., team meetings)
11. Informal communications among team members outside of planned or structured meetings (e.g., phone calls, discussions in passing)
12. Experienced family members (non-employees) as part of a board within agency
13. Program flexibility to allow integration of new/innovative ideas from staff
14. Program integration of the FSSs as equal members and/or active members of the team in working with a family

Service activities
A skilled FSS…..

Role
1. Describes FSS role and what they do in relationship to other team members
2. Describes or demonstrates boundaries of own roles and responsibilities toward families

Relationship with team
3. Demonstrates positive regard for the role of other staff on team
4. Supports the development of more effective partnerships between family and other members of the team

Ethics
5. Discusses how information they learn is shared among staff and outside family
6. Establishes a quiet, confidential location to talk (whenever possible at location of caregiver’s choice, e.g., home, school, diner, etc.)

Knowledge
7. Demonstrates knowledge of community supports and resources
<table>
<thead>
<tr>
<th>Skills in priority setting</th>
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<tbody>
<tr>
<td>8. Knows how and when to facilitate goal oriented and solution focused problem solving to help the family accomplish their goals</td>
</tr>
<tr>
<td>9. Identifies safety concerns and existence of safety plan; works with family and team to initiate a plan as appropriate and/or address the adequacy of existing plan</td>
</tr>
<tr>
<td>10. Uses systematic and standardized methods to work collaboratively with the family to identify goals of family support services based on family strengths and needs</td>
</tr>
<tr>
<td>11. Uses systematic and standardized methods to work collaboratively with the family to monitor the progress of goals of family support services</td>
</tr>
<tr>
<td>12. Facilitates a family’s identification of priorities and concerns</td>
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</table>

<table>
<thead>
<tr>
<th>Skills in providing linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Works with family to identify, reconnect and or build their formal and informal support system</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Skills in providing emotional support</th>
</tr>
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<tbody>
<tr>
<td>14. Facilitates caregiver identification of ways to promote selfcare</td>
</tr>
<tr>
<td>15. Uses his or her own experiences to support and or normalize a caregiver’s experience and promote hope</td>
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</tbody>
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<table>
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<tr>
<th>Skills in educating</th>
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<tbody>
<tr>
<td>16. Promotes empowerment by targeting assistance to caregiver need</td>
</tr>
<tr>
<td>17. Exercises sound judgment when providing advice or recommendations</td>
</tr>
<tr>
<td>18. Models or coaches caregiver use of new skills (e.g. through role plays)</td>
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<thead>
<tr>
<th>Family engagement</th>
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<tbody>
<tr>
<td>19. Promotes family voice and choice through shared decision making (e.g., helps family articulate cultural, spiritual and/or religious values and preferences)</td>
</tr>
<tr>
<td>20. Reframes or clarifies a caregiver's perspective or position in a way that avoids criticism or judgment of caregiver</td>
</tr>
<tr>
<td>21. Uses strength-based language</td>
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An inappropriate action of a family peer advocate is one that ….

<table>
<thead>
<tr>
<th>Family engagement</th>
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<tbody>
<tr>
<td>22. Uses communication that indicates blame or criticism of caregiver</td>
</tr>
<tr>
<td>23. Provides advice or service that is beyond the scope or role of FSS (e.g., legal or medical advice, transportation, providing child care)</td>
</tr>
<tr>
<td>24. Uses deficit-based language</td>
</tr>
<tr>
<td>25. Uses medical jargon inappropriately (e.g., in a patronizing way)</td>
</tr>
<tr>
<td>26. Is directive and makes decisions independent of the caregiver about what is good for the family</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Relationship with team</th>
</tr>
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<tbody>
<tr>
<td>27. Works with a caregiver to go around decisions of the rest of the team</td>
</tr>
</tbody>
</table>