Accountability and Performance Indicators for Mental Health Services and Supports

A Resource Kit

Prepared for the Federal / Provincial / Territorial Advisory Network on Mental Health

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Prepared for the

Federal/Provincial/Territorial Advisory Network on Mental Health

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Executive Summary

This document was prepared for the Federal/Provincial/Territorial Advisory Network on Mental Health (ANMH). The ANMH has been concerned with promoting evidenced-based decision-making as a key principle in mental health reform. Consistent with this direction, the ANMH released three documents which addressed best practices in mental health policy and programs: *Best Practices in Mental Health Reform: Discussion Paper* (1997), *Best Practices in Mental Health Reform: Situational Analysis* (1997), *Review of Best Practices in Mental Health Reform* (1998). The present document is intended to follow-up on this work by providing a resource kit of performance indicators to facilitate ongoing accountability and evaluation of mental health services and supports.

The resource kit is designed to introduce the user to key concepts in accountability and performance monitoring. It emphasizes the importance of tracking performance indicators in the context of clear goals and objectives and suggests that the choice of indicators be driven by their relevance to decisions regarding resource allocation, policy direction, or system or program modification. Critical steps in the performance management cycle are described with the aim of improving the utility of monitoring efforts.

Indicators are presented for eight domains of performance, adopted from the Canadian Institute of Health Information Health Indicators Framework for health system performance. Domains include acceptability, accessibility, appropriateness, competence, continuity, effectiveness, efficiency, and safety. Input, process, and outcome indicators are included reflecting performance at the system, program, and client level. Given the early stage of performance monitoring in the mental health sector, many of the suggested indicators may be construed as measures that assess compliance with a preferred strategic or policy direction rather than indicators of organizational performance. This is particularly the case in appraisals of the degree to which regional service configurations conform to the best practices checklist of core programs. These criteria are not easily quantified as measurable indicators of performance and require judgement with respect to the extent that key elements are present in a given system of care. It was the view of the

ANMH, nonetheless, that these and other markers of early progress toward mental health reform had a place in the kit given the evolutionary nature of performance measurement in many provinces and territories.

An important aspect of accountability in mental health is a determination of how well priority groups are served. Thus, the focus of the kit is on mental health services and supports to persons with severe mental disorders and those with less severe but socially and economically significant disorders. A section of the document defines these groups in greater detail and estimates their prevalence by province and territory. Many of the suggested indicators are pertinent to the provision of care to these groups.

Introduction

1. Background

The need for mental health reform arose in the 1980s and 1990s when it became evident that despite substantial deinstitutionalization and expansion of community services, individuals with debilitating mental disorders were not receiving adequate support. In many Canadian jurisdictions, the reallocation of resources from the institutional to the community sector was either not sufficient or not targeted to appropriate services and supports for the most vulnerable client groups. At the same time, a considerable knowledge base was accruing on the most effective methods of addressing the complex needs of people with serious mental illness and, in turn, improving their functioning and quality of life. This, along with recognition of the benefits of involving consumers and families in care planning, provided a foundation for identifying best practices in mental health reform.

The reform agenda across the entire system of mental health care occurred in the context of a move toward local governance of health services. Thus, planners at both provincial/territorial and regional health authority levels were jointly involved in the process of implementing reform. Recognizing the need for expertise in this process, the Federal/Provincial/ Territorial Advisory Network on Mental Health (ANMH) commissioned a series of documents to guide reform across the country.

Three documents were developed by the Health Systems Research Unit of the Clarke Institute of Psychiatry: *Best Practices in Mental Health Reform: Situational Analysis* (1997), *Best Practices in Mental Health Reform: Discussion Paper* (1997), and *Review of Best Practices in Mental Health Reform* (1998). These documents established *what can be done* and *what should be done* in a reformed system of care for persons with serious mental illness.

The Best Practices Checklist identified key elements, both core programs and system strategies, necessary for successful reform. The checklist provides a template for change in the following best practice areas.

Core Programs

- Case management/Assertive community treatment
- Crisis response/Emergency services
- Housing
- Inpatient/Outpatient care
- Consumer initiatives
- Family self-help
- Vocational/Educational supports

System Strategies

- Policy
- Monitoring and evaluation
- Governance and funding
- Human resources

The template represents a synthesis of both the scientific evidence and expert opinion on best practices relevant to mental health reform thus providing a framework for implementation. The ANMH therefore recommended that best practices documents be used as guidelines for service planning and criteria for the assessment of performance. Thus, in the Fall of 1999, the ANMH commissioned a subsequent project to address the need for performance monitoring as mental health systems undergo reform. Performance monitoring is critical to improved accountability as it provides a means of determining whether mental health reform policies, plans, and initiatives are being implemented successfully and thereby achieving better outcomes for persons with mental illness.

The current project is designed to provide a resource kit of tools to monitor supports and services within a reformed system of care. The major tool in this manual is a series of indicators for tracking performance at the system, program, and client level. As mental health reform is concerned with improvements in care to adults with serious mental illness, the emphasis in this document is on performance appraisals of care related to that population. This target group includes both individuals with severe mental disorders and those with less severe but socially and economically significant disorders. The mental disorders of the first group are characterized by profound symptom severity and marked disability. The latter group has less severe symptoms and disability but still experiences substantial functional impairment. From this point forward, the term "serious mental disorder" will be used to connote both groups.

2. Project Objectives and Methods

2.1 Project Purpose and Scope

The purpose of this project is to develop a resource kit of indicators for provinces and territories wishing to monitor mental health service and supports as part of regional reform initiatives.

The resource kit is designed to provide indicators of performance related to the provision of care, and outcomes achieved through that care, for persons with serious mental illness. As noted, two client[1] groups are included in this definition:

[1] Throughout this document, the terms client and consumer are used interchangeably. No one term seemed to adequately represent the population of interest. The terms are meant to connote individuals who are living with serious mental illness and apply to both those in contact with formal care services and those not in contact but who could benefit from services and supports.

a) those with severe mental disorders;

b) those with less severe but socially and economically significant disorders.

The focus of the kit is on mental health services and supports that have as their primary function the provision of treatment, rehabilitation, and community support for people with serious mental disorders. This covers the wide-range of health and community support services identified as Best Practice core programs. In addition to these programs, we include two additional best practice components: primary care and early intervention. Given this broad continuum of services, the kit includes indicators which pertain to hospital and fee-for-service sectors as well as the traditional community sector.

The project product may be seen as a "tool kit" of implements or instruments to facilitate performance monitoring. The tool kit provides necessary technical support by identifying key steps in performance appraisals and suggesting measures or markers of performance. The inventory of measures is not a performance monitoring framework by itself. It does not represent a template that can be applied to any mental health system in any jurisdiction. Rather a range of indicators is presented from which a subset may be drawn once a performance or accountability framework has been established.

Regions cannot, and should not, report on all of the indicators identified in the kit. Rather, they will opt to collect and report on information that addresses highest priority issues, these being expected to vary from one region to another. While sufficient effort must be focused on the technical aspects of performance measurement, a sound conceptual approach at the outset will promote performance management over simple monitoring and increase the utility of performance information. Part Two of the tool kit discusses conceptual aspects of accountability and performance monitoring emphasizing that performance indicators must reflect the unique needs and strategic direction of individual jurisdictions. Key terms are also defined. Part Three outlines components of the performance management cycle while Part Four lays out the specific tools for successful monitoring, the majority of this section being devoted to an inventory of possible performance indicators. It should be noted that this inventory is not exhaustive or comprehensive and for any given area of performance, the list of possible indicators is considerable. The indicators presented in this document are representative of the universe of possible indicators, and reflect the thoughts and ideas of consumers, clinicians, researchers, and government officials who were consulted during development of this project.

Suggested indicators reflect both objective and value-based performance (Kamis-Gould, 2000). Objective performance pertains to areas such as cost-containment, utilization, and clinical outcomes. Value-based performance relates to areas of performance considered to be desirable, although not necessarily supported by scientific evidence. These areas include setting priorities for services to certain populations, active consumer/family participation in service planning and treatment, repatriation of clients to home regions, etc.

2.2 Project Approach and Methods

This resource kit has been developed by the Mental Health Evaluation & Community Consultation Unit (Mheccu) at the University of British Columbia (UBC) in partnership with the Canadian Mental Health Association (CMHA) - BC Division.

The Project Team.

The Mheccu project team (listed in Appendix A) combines individuals with complementary health discipline backgrounds and research skill sets who share an interest in the development of system performance indicators with mental health advocates.

Mheccu was established to undertake research to inform systemic improvements in the delivery of mental health services by serving as a bridge between policy makers, service providers, consumers and their families and works in collaboration with government, health authorities, and other agencies. Mheccu is undertaking a primary role in facilitating mental health reform in British Columbia by providing evidence-based information regarding the reconfiguration of mental health services. At UBC, Mheccu operates within the Department of Psychiatry and is linked with the Departments of Health Care and Epidemiology and Family Practice and affiliated with the Centre for Health Services and Policy Research and the Centre for Health Evaluation and Outcome Sciences.

The project has benefitted from its partnership with CMHA which has served to coordinate consumer and family input on the content of the resource kit through its connection to other organizations such as the Schizophrenia Society of Canada, the National Network for Mental Health, and the National Consumer Council. The CMHA established a diverse network of consumer and family reviewers for the kit to ensure a strong emphasis on indicators of importance to users. In addition, the contribution of the BC Division of CMHA in the developmental stages of the project was instrumental in constructing the resource kit.

Gathering Information

A literature search of medical and health journal databases was undertaken as an initial step in this project. This uncovered several studies of mental health program evaluation and reports on consumer outcomes but only a relatively small number of papers on rigorous performance monitoring efforts within the mental health sector. Information on these efforts in Canada and internationally was found primarily through a comprehensive web search of online documents and through interviews with key informants in academe and the public sector. Given the early stage of mental health system performance measurement in Canada, the majority of relevant documents were obtained from the United States, Britain, and Australia.

Our review of relevant documents was concerned with the content and approaches to performance monitoring elsewhere. Special attention was paid to consumer-focused monitoring systems that employ a range of simple to highly sophisticated measures of performance (Mental Health Statistics Improvement Program (MHSIP) 1999; Ohio, 1998; Rose et al., 1998). Such systems rely on statements, experiences and/or

characteristics of the consumer as their primary sources of data in performance appraisals. Other approaches combine both consumer outcomes and system performance and thus reflect different perspectives. One example of this approach is the performance monitoring framework developed in the US by the National Association of State Mental Health (NASMH) Program Directors (1998). This framework and that found in the tool kit developed by Kamis-Gould and Hadley for the Human Services Research Institute are designed to assess the impact of services and systems on the lives of persons with serious mental illness (1996). Of interest in all systems we reviewed were the performance domains and the specific indicators selected to represent those domains. Finally, we examined government publications outside of Canada which formally report mental health system performance (Australia, 1997).

Individuals associated with the initiatives found in our search of the literature were identified and consulted. In Canada, interviews were also conducted with members of the Federal/ Provincial/ Territorial Advisory Network on Mental Health and with key regional contacts named by them. In addition, ANMH representatives were asked to complete a brief survey on the status of mental health reform and monitoring in relation to reform efforts in their jurisdiction (survey questions shown in Appendix B; results in Table 1).

Consultation/Collaboration at the National Level

An important link in this project has been the connection with national organizations concerned with health information and health surveillance, in particular the Canadian Institute on Health Information (CIHI), the Canadian Alliance on Mental Health and Mental Illness (CAMIMH), the Laboratory Centre for Disease Control (LCDC), and the Canadian Council on Health Services Accreditation (CCHSA).

CIHI's mental health and addiction services project, which is part of the Roadmap Initiative, stems from the national need for agreement on, and data collection around, a

Table 1 – ANMH Survey Results

- indicated a range from minimal to substantial progress toward mental health reform across the country;
- most regions have released a formal implementation plan for system reform;
- these plans did not always include specific objectives for change, nor did they necessarily identify strategies for monitoring progress toward reform objectives;
- many jurisdictions have declared an intent to improve accountability within the mental health sector yet few have a concrete plan to achieve this;
- the extent of actual performance monitoring activity within the mental health sector varies widely among provinces and territories as does the degree of reporting to stakeholders;
- no jurisdiction currently releases formal regular reports on mental health sector performance to stakeholders;
- in some cases, a small number of mental health indicators are reported in the context of a ministry or government-wide report on health service performance.

common set of indicators (CIHI, 1999). The project goal is to develop and pilot-test priority indicators required for effective planning, management and evaluation of mental health and addictions services at the regional level. Initial indicator development will focus on areas that are relevant to both mental health *and* addiction services. Identification of indicators will build upon the framework for health indicators that was the result of the National Consensus Conference on Population Health Indicators (CIHI, 1999). The indicators will be relevant to psychiatric and general health care facilities and community-based services whose costs are entirely or partially covered by a national/provincial/territorial health plan. Stakeholder involvement in the project is occurring through a series of activities including a national, targeted survey, a national consultation, and the ongoing collaboration of an expert working group. Indicators will be developed in two phases. Phase 1 will address indicators that can be compiled using current data sources; Phase 2 will focus on developing indicators that will be compiled using new data elements and future data sources.

▲—A related endeavour being coordinated by CAMIMH in conjunction with the Centre for Chronic Disease Prevention and Control is a proposal to develop a mental health surveillance system in Canada. The aim of the system is to provide well-organized, high quality data for use by policy-makers and decision-makers both inside and outside of government (Stewart, 1999). Its overall goal is to collect data which reflect consensus-based health goals and program outcomes that will contribute to improvements in population health. The surveillance system envisaged would include broad descriptive information including prevalence of risk factors and mental health problems, quality of life of individuals with mental health problems, mortality rates and causes, and access to and use of mental health services. At this stage, the project is under review as CAMIMH seeks funding and support to proceed.

▲—The CCHSA, as part of a new accreditation program called AIM (Achieving Improved Measurement), has undertaken a national survey to identify a list of indicators that support quality in accredited organizations. Stakeholders from diverse health service programs were asked to identify the most important indicators for quality monitoring and improvement activities. An initial list of indicators for seven service delivery areas (acute care, cancer care, community health services, home care services, long-term care services, mental health services, rehabilitation services) was developed as well as indicators for support services. CCHSA is currently working with stakeholders to finalize this list. The initial list of Indicators identified for mental health services is shown in Table 2.

▲—One further important effort has been development of the Canadian version of the IAPSRS tool kit by the Ontario Federation of Community Mental Health and Addiction Programs (1999). IAPSRS represents the International Association of Psychosocial Rehabilitation Services. The tool kit was created to help psychosocial rehabilitation programs collect reliable data that describe client characteristics and psychosocial status, thereby providing evaluative information about programs. The success of the tool kit may be attributed to its use of multiple domains (hospital, residential, employment, education, financial, legal), simplicity of measures, and face validity.

Table 2 – CCHSA Top Indicators Identified for Mental Health: Results of a National Survey

Indicator	Quality Dimension
■ client satisfaction	■ participation/communication/ accessibility
■ length of time from referral/ admission to initial assessment	■ timeliness
■ documentation of client's involvement in care plan	■ participation
■ waiting lists - admission for treatment - diagnostic testing - follow-up care and services	■ timeliness
■ changes in self-reported health status	■ effectiveness
■ average time of waiting lists	■ timeliness
■ documentation of risks and benefits of treatment options discussed with client	■ communication
■ occupancy rates	■ appropriateness
■ client incidents	■ safety
■ average time for complaint resolution	■ respect and caring

A full review of national research and development initiatives that may have an impact on standards for mental health information can be found in a recent CIHI working document entitled *Mental Health and Addictions Services: Review of Health Information Standards: Working Document* (May 2000).

A Look at Health Care Report Cards

Health care reports cards are described by Baker and colleagues as a vehicle to increase accountability in health care through public documentation of performance measures of program or organizational activities (Baker et al., 1998/99) . Their review of report cards in the broader health care context in Canada shows that use varies considerably from province to province. Report cards differ from the balanced score card approach which include a wider range of measures for internal decision-making. The report card concept was developed to provide comparative information on practitioners, hospitals, other health care organizations and systems that could be used by regulators, consumers or patients. The applicability of report cards in the mental

health sector will depend upon the sophistication of performance measurement activities in a given jurisdiction.

2.3 Selecting an Indicator Framework

In an effort to maintain consistency with other national initiatives, a decision was made by the Advisory Network on Mental Health to endorse the CIHI Health Indicators Framework as the conceptual framework for the current resource kit. The CIHI Health Indicators Framework shown in Appendix C, however, is a comprehensive model that includes population health and determinants of health categories. Given that the scope of the resource kit is restricted to indicators relevant to the provision of mental health services and supports, only two of the four tiers of the framework have been adopted. Table 3 illustrates these two tiers, indicator categories, and definitions of each.

Table 3
Appropriate Sections of CIHI Health Indicators Framework Adopted for Resource Kit Development

Health System Performance			
Acceptability	**Accessibility**	**Appropriateness**	**Competence**
Care/service provided meets expectations of community, providers and paying organizations	Ability of clients/patients to obtain care/service at the right place and right time, based on needs	Care/service provided is relevant to client/patient needs and based on established standards	Individual's knowledge/skills are appropriate to care/service provided
Continuity	**Effectiveness**	**Efficiency**	**Safety**
Ability to provide uninterrupted, coordinated care/service across programs, practi-tioners, organizations and levels of care/ service, over time	Care/service intervention or action achieves desired results	Achieving desired results with most cost-effective use of resources	Potential risks of an intervention or the environ- ment are avoided or minimized
Community and Health System Characteristics			
Characteristics of the community and of the health system that, while not indicators of health system performance in themselves, provide useful contextual information.			

Accountability

3. Putting Accountability in Context

Public-sector accountability can be broadly construed as being held accountable for "responsibilities conferred by the public". A more meaningful approach for the mental health sector is to define accountability as "the obligation to demonstrate that policies and programs are achieving intended results". Intended results should be explicit in the agreed upon goals and objectives for the mental health services and supports within a province, territory or defined health region. Performance then is defined as the degree of progress toward stated goals and objectives.

The presence of clear goals and objectives is essential to guide mental health reform and ensure that changes and/or enhancements made through the reform agenda are relevant to the overall strategic aims. Most jurisdictions that have embarked upon mental health reform have developed a policy, or strategic framework, to guide implementation. A fundamental component of such frameworks is accountability for performance.

While accountability for the expenditure of public funds is a requirement in most, if not all, Canadian jurisdictions, reports of financial performance and operational performance are not routinely linked. Queen's Health Policy in its review of accountability practices in the Canadian health system notes that the political and cultural environment will dictate the emphasis placed on accountability and the effort devoted to mechanisms designed to achieve it (MacDonald & Shortt, 1999). It must also be recognized that the effort devoted to performance monitoring involves a significant resource commitment. Decisions about the level of this commitment may also be political, based in part, on the perceived benefits of performance information (MHSIP, 1999).

3.1 Performance Management vs Performance Monitoring: Ensuring Utility

Performance monitoring is a means of tracking progress toward a desired endpoint or target; when it occurs in the context of a clear policy framework or business plan, it represents an important management tool. When indicators are monitored without any obvious link to organizational goals, their utility will be low. Monitoring data which is tangential to key management questions cannot be used to inform decisions regarding the delivery of mental health services and may in fact be useless. Further, unchecked performance monitoring systems can generate enormous amounts of data at significant cost to the organization with little benefit.

While performance monitoring efforts are much more common than they were a decade ago, instances can be found where monitoring has become an end in and of itself. In these

cases the monitoring activities have splintered off from performance management. An example of this at the program level might be tracking and reporting the number of community mental health clients with comorbid substance use disorders in the absence of a program objective to provide concurrent treatment. At the system level, monitoring average length of stay in acute-care without reference to an established benchmark would not assist management decision-making. Such information, however, could serve planning purposes and result in clearer statements of organizational objectives.

Essential Performance Management Activities

The three essential activities in an effective performance management system identified by Sheldon (1998) are:

i. measurement of performance,

ii. interpretation and application of results,

iii. subsequent action in light of the results.

The goals of a system of mental health care are complex and multidimensional, reflecting values of the public, consumers, and a diverse group of stakeholders. Progress toward these goals can be measured readily in some cases but in other cases cannot. The challenge is to find the best measures and indicators possible. However, even the best indicators may not convey a complete picture of how well a system is performing (Audit Commission, UK, 1999). Each jurisdiction, region, or service will want to tailor its indicator set to their unique priorities and circumstances.

Performance data will be put to the greatest use by administrators of mental health systems and services where an earlier commitment has been made to act on these data. Performance monitoring yields critical management information, enabling informed decision- making should the administration choose to apply the results. The results of performance monitoring activities must be routinely brought to the management table when decisions are required regarding resource allocation, policy direction, or any system or program modification.

Clear expectations among stakeholders regarding improvements in the system will increase the likelihood that performance results are used, through demands for action in areas of poor performance. Once results have been interpreted, a plan for action should follow. How will the performance results modify policy direction, resource allocation, or program delivery? Do the results suggest a need to realign strategic directions and policies (Reid, 1999) and/or modify performance objectives or targets? Unfortunately, performance indicators do not always provide clear answers; they sometimes raise new questions.

Subsequent action based on performance results should also include a system of incentives and rewards. Junek and Thompson (1999) stress the importance of devising powerful incentives to keep organizations on course and motivated to improve performance. Incentives and rewards for efficiencies and better outcomes counter the factors that deflect an organization from its stated goals and objectives.

4. Client Outcomes: the Bottom Line

Quality of Life

Decision-makers and providers in the mental health sector must first and foremost be accountable to the populations they serve: consumers and families. The Canadian Mental Health Association states that for the concept of accountability to have meaning it must begin and end with the consumer.

> *The most fundamental issue, though, is that system, program, or individual supports should improve the consumer's quality of life, as defined by him or her. This is the touchstone of any real notion of accountability (CMHA, 1995).*

Also important are improvements in the quality of life of family members who may be under tremendous burden as they support a person with serious mental illness. Improving the quality of life for people with serious mental illness is a fundamental goal of mental health reform (Holley, 1998) and as such represents the collective bottom line for the sum of our efforts from planning and policy through to delivery of services and supports.

The array of health and non-health related client outcomes relevant to the care of persons with serious mental illness are encompassed by the concept of quality of life. Becker defines quality of life as a broad concept, representing a person's sense of well-being that stems from satisfaction or dissatisfaction with areas of life that are important to her/him (Becker, 1998). Consumers see quality of life as the ability to achieve what many others take for granted including housing, social support, meaningful activities, and an adequate standard of living (Carne, 1998).

Dimensions of Consumer Outcomes

Quality of life may be inferred from objective measures of improved functioning in key life areas or derived from scores on subjective measures of well-being. Although generally recognized as a multidimensional, inclusive construct, most evaluations of client outcomes distinguish and measure separately different outcome domains.

Ohio's statewide approach to measuring client outcomes includes four domains (Ohio Mental Health Outcomes Task Force, 1998):

- clinical status
- quality of life
- functional status
- safety and health

Table 4 details the domains and outcomes for consumer monitoring in Ohio's publicly supported community mental health program. It is noteworthy that the process of deciding on domains and measures had significant input from consumers and families.

Table 4 – Domains and Client Outcomes for Measurement in Ohio

Clinical Status

1. Level of symptom distress
2. Number of psychiatric emergencies
3. Ability to understand, recognize and manage/seek help for symptoms both physical and psychiatric.

Quality of Life

1. Satisfaction with areas of life including family relationships, social involvement, financial resources, physical health, control over life and choices, individual safety, participation in community living, life situation, productive activity, and overall satisfaction with life.
2. Feeling a sense of overall fulfillment, purpose in life, hope for the future, and personal empowerment.
3. Attainment of personal goals related to culture, spirituality, sexuality, individuality, developmental stage and liberty.

Functional Status

1. Identifying, accessing, and using community resources to fulfill needs, such as spiritual, social, cultural, recreational, etc. by participation in organizations which are not primarily mental health organizations.
2. Developing and managing interpersonal relationships.
3. Managing money.
4. Managing personal hygiene and appearance, utilizing skills such as use of public transportation, phone books, grocery store, laundromats, etc. to maintain oneself as independently as necessary, and maintaining a home environment in a safe, healthy and manageable fashion.
5. Advocating successfully for self with mental health professionals, landlords, families, public safety personnel.
6. Remaining in a home as measured by stability and tenure.
7. Engaging in meaningful activity, e.g., work, school, volunteer activity, leisure activity.
8. Abiding by the law sufficiently to avoid incarceration.

Safety

1. Does not want to or does not harm self.
2. Does not want to or does not die from suicide.
3. Does not want to or does not harm others.
4. Free from physical and psychological harm or neglect in the individual's social environment to include home, school, work and service settings.
5. Person is physically healthy.
6. Treatment effects, including medication, are more positive than negative.
7. Safety and health is not threatened due to disabilities, being treated with lack of dignity or discrimination in response to lifestyle or cultural differences.
8. Person terminates services safely and planfully.
9. Person who receives little or no service has secure sense that they can obtain more/additional services in a timely manner.

Client Satisfaction

Users' satisfaction with health services of all types is increasingly being used for quality assurance purposes and more recently as a proxy for service outcomes. Like quality of life, satisfaction entails multiple dimensions of experience. While a positive correlation between satisfaction ratings and self-reported treatment outcomes has been documented (Holcomb et al., 1999), controversy remains about methods of measurement and the validity of satisfaction as an indicator of treatment outcome. Standard provider administered client satisfaction scales tend to yield high satisfaction scores, an outcome which is considered by many to be biased (Gill et al., 1998). Thompson and colleagues (1998) warn against confusing client satisfaction measures with measures of effectiveness, noting that;

> *How well someone liked the program, while of great importance, is not an indication of whether it was effective. (p.19)*

Concerns regarding the meaningfulness of traditional satisfaction instruments have led to the advent of trained users of mental health services interviewing other users. The consumer-to-consumer approach is thought by proponents to yield franker responses (Smith, 1999). In this approach, the goal is not so much to document satisfaction as it is to uncover sources of dissatisfaction. A related approach is to inquire about the extent to which a consumer's expected outcomes from the service was achieved.

Again, measures of family satisfaction with services are important indicators in performance appraisals.

Measuring Client Outcomes

An excellent review of client outcome measures appropriate for the mental health field is found in a recent paper by Durbin and her colleagues (2000). They note an evolution from an emphasis on psychiatric symptoms to assessment of functioning in multiple domains and quality of life. The paper provides an inventory of outcome measures that are reliable, valid and widely used, grouped in five broad domains: symptoms, symptoms and functioning, community living status, substance use/abuse, health related quality of life and program satisfaction. User perspectives on the strengths and weaknesses of commonly used instruments are also included. This paper provides an up-to-date reference which will assist in the selection of specific measures for many of the effectiveness indicators presented in Section 12 of this resource kit.

5. Terms and Constructs

While most mental health planners and providers endorse the need for improved accountability, many remain unfamiliar with the technical and practical aspects of performance monitoring. Provided below is an introduction to the basic constructs within performance monitoring and definitions of key terms.

5.1 Definitions

This resource kit includes a number of different indicators to monitor performance within the mental health sector. The term **performance** refers to the degree of progress achieved toward stated goals and objectives, while **monitoring** is the act of observing, recording and reporting performance information. **Goals** are general statements which convey the policy direction or strategic aims of an organization. **Objectives** are more specific, measurable statements of intent.

For example, the mental health reform goal:

> *"to improve access to services for persons with serious mental illness"*

could be translated into the specific objective:

> *"to increase the number of individuals with psychotic illness in receipt of assertive community treatment."*

The latter would represent one measurable aspect of the more general goal. Given the breadth of most organizational goals, they are typically accompanied by several objectives.

Performance **indicators** are markers or measures which convey quantifiable information about progress toward goals and objectives. When precise measures are unavailable (as they often are), proxy measures must be used. A **proxy** is the closest measure possible to the real thing or a simple measure used to represent a complex construct. An example of a proxy measure would be a count of the number of regional health boards which include consumer/family representatives to indicate consumer and family involvement in service planning. Determining the adequacy of consumer/family involvement is qualitatively complex. While a count of boards with representation is an overly simplistic quantitative measure, it might suffice in the absence of other more relevant information.

Ideally, indicators should be compared to performance targets or benchmarks. **Targets** represent commitments made in advance to achieve a stated level of performance. *Reducing the 30-day readmission rate for psychiatric patients to 10%* is an example of a performance target. A good target is one that clearly relates to an organizational objective and is realistic — that is it is achievable but also presents a challenge for improved performance.

The concept of **bench marking** involves identifying best practice or best performance in a certain area and using this as a standard for comparing local performance. Bench marking can reduce unacceptable variations across regions, programs, and providers and improve performance through continued dissemination of best practice.

5.2 The Mental Health Performance Matrix

A useful conceptual model for performance monitoring is adapted from the two-dimensional matrix described by Thornicroft and Tansella (1999). The two dimensions are level (geographic) of measurement and type (temporal phase) of measurement. The three levels of performance measurement includes system, program and client, while type of measurement includes input, process, and outcome. The level dimension is defined as geographic because it moves from larger to smaller areas of measurement. The second dimension is defined as temporal in that its components are temporally ordered. Inputs precede processes which precede outcomes. The matrix is illustrated below.

Figure 1. Performance Measurement Matrix

Level (geographic) dimension	Type (Temporal) dimension		
	A. Input	B. Process	C. Outcome
1. System	1A	1B	1C
2. Program	1B	2B	2C
3. Client	1C	3B	3C

Level of Performance Measurement Dimension

Performance monitoring may occur at three levels. A comprehensive performance appraisal will include indicators from all levels. The F/P/T Advisory Network on Mental Health (Health Canada, 1999) has defined these levels as follows :

- ***System:***

  System performance measures should provide information about whether the system as a whole is operating with respect to policy, evaluation, governance and funding, and human resource planning.

- ***Program:***

  These indicators should document the critical pathways and processes that take the client from the initiation of the case to its closing. Measures must be related to client outcomes with respect to core programs and services such as case management, crisis response/emergency service, housing, inpatient/outpatient care, consumer initiatives, family self-help and vocational/educational supports.

- ***Client:***

  At the client level, aside from information on clinical and functional conditions, client satisfaction and quality of life are important issues for informing and measuring the effectiveness of programs and services.

Type of Performance Measurement Dimension

Performance indicators for mental health services and supports help convey whether a program, or set of programs, does what it is intended to do and whether it does it well. Efforts at performance monitoring in most jurisdictions are restricted to the measurement and reporting of activities in the form of inputs and processes. The primary input reported and used at the political level is that of spending or what that spending purchases in terms of beds, etc. Yet it is axiomatic that more dollars do not necessarily produce more or better services. An analysis of spending does not indicate what is actually delivered in terms of volume and quality of services, nor does it tell us about the outcomes achieved.

Measured inputs and activities should represent critical stages in a planned sequence of events that will lead toward longer-term outcomes associated with an organization's goals. Ideally, a clear policy logic should link inputs, processes and outcomes. Reporting on indicators within only one category is one-sided and can be misleading, e.g., where investments produce no discernible benefit to the target population (Jenkins, 1996).

- ***Input:***

  Refers to resources put into mental health care and thereby relate to the structural or organizational characteristics of a system or setting. Inputs are often expressed in terms of financial resources or numbers and types of personnel, facilities, etc. Inputs, being relatively straightforward to measure and account for, are the most frequently reported indicators. Their relationship to service quality and outcomes, however, is highly variable.

- ***Process:***

  Relates to the key activities of a service or system in the provision of care to persons with mental illness. Commonly reported process measures are service contacts, in terms of numbers of clients, client visits, admissions, etc. Indicators of whether care is being implemented according to best practice criteria are also important process measures (Burgha & Lindsay,1996). Meaningful process measures are ones where the links to client, program or system outcomes are evident.

- ***Outcome:***

  Is Considered by many to be the most important indicator category yet it is also the most complex and challenging to measure (Lohr, 1988). Outcomes reflect the total contributions of all those who fund, plan, and provide service as well as those of clients and their families (Forth & Nasir, 1996). While outcomes are sometimes inferred from input or process measures, the limitations of this approach are clear. Andrews and colleagues (1994) stress that two common notions; (a) use of services will always lead to a positive outcome, and (b) amount of use is directly related to client severity, are assumptions that cannot be supported.

The outcome category may also include indicators of negative or iatrogenic effects of a policy or intervention. Campbell describes pertinent research examining the detrimental effects of certain mental health treatments on client outcomes (1999). Indicators reflecting adverse outcomes, however, are rarely included in performance appraisals.

5.3 Other Important Constructs

Psychometric Properties

Good indicator data must possess two important characteristics, reliability and validity. **Reliable** measures produce similar results under similar conditions. Differences found in the administration of the same measure should reflect a real change in the phenomenon under study and not be the result of poor reliability. Because performance monitoring involves comparisons of indicator over time or across programs and/or regions, it is essential that the measure applied is reliable. **Validity** is the extent to which an indicator measures what it is supposed to measure. Both content validity and construct validity are important aspects of performance data because they ensure that the measures selected represent the phenomenon of interest. Face validity is the common sense or intuitive value of an indicator — that is the content of the measure appears related to the underlying construct. Unfortunately, many of the measures presented in this document have face validity but lack data to support other forms of validity.

Point of View

Performance appraisals are characterized by a particular perspective or a point of view. This point of view will dictate the content of the appraisal, the specific indicators selected, and the measurement approach. In the United States, performance monitoring is frequently done from the point of view of the managed care entity (Manderscheid, 1999). Yet in some states outcomes are measured primarily from the perspective of consumers (Ohio, 1998). Funders of health care may be more interested in financial indicators while providers and consumers place more emphasis on measures of care quality. Many jurisdictions are attempting to represent multiple stakeholder perspectives through a consensus on goals and objectives and inclusion of a wide range of indicators, both objective and subjective or value-based.

Attributions

Interpretation of performance information may be impeded because of problems with attribution of outcomes. In most performance monitoring applications, outcome indicators are not attributable to one service or program. Mental health outcomes are affected by a number of different variables including social and other factors outside of the control of health services. The extent to which outcomes result from specific policies, programs or interventions usually cannot be determined unless rigorous research methods are employed. Outcome measures provide general status reports and are best used to examine trends over time, variations across regions, etc.

Risk Adjustment

This provides an important statistical control when comparing different client groups. Factors which may bias comparisons are diagnostic mix, severity of illness, socio-demographic characteristics, etc. The assistance of a statistician or a health information specialist may be required to ensure that risk adjustments are made properly.

Cost Benefit Considerations

The costs of collecting data, including the service burden, for the purposes of performance monitoring must be weighted against the potential benefit of using and reporting information. This requires agreement on the data elements, not currently available, that are considered critical to appraising and improving organizational performance.

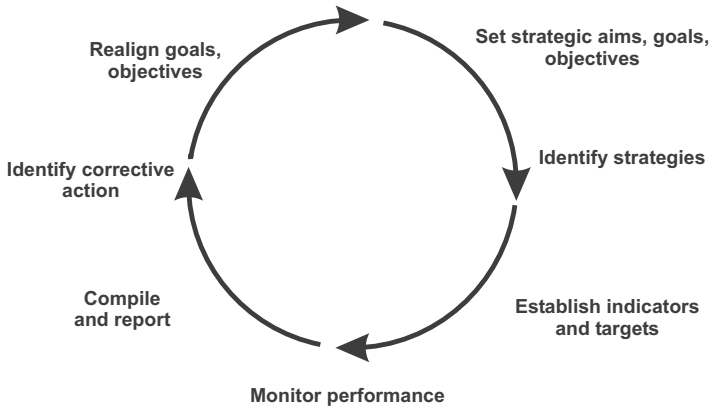
Embarking on a performance monitoring initiative

6. The Performance Management Cycle

A sound performance management system operates cyclically. Steps to conducting a performance review, if followed sequentially, result in a return to the starting point of clarifying organizational goals and the strategies to achieve them. The advantage of this cyclical approach is that every recalibration of goals and objectives will better advance mental health reform through addressing performance gaps in the delivery of services and supports. The approach is consistent with continuous quality improvement initiatives with which most health care and health management professionals are familiar.

As the task of setting up a performance monitoring initiative may seem daunting, Figure 2 helps to provide an overview of the cycle and the flow from one step to the next.

Figure 2
Performance Management Cycle



6.1 Steps in a Performance Review

The following sequence outlines the tasks within each step.

Step One: *Set Strategic Aims, Goals and Objectives*

- Clarify the strategic direction of the system, program or organization, articulate major policy goals, and derive specific measurable objectives against which performance will be gauged.

Step Two: *Identify Strategies to Achieve Objectives*

- Identify the set of activities which need to be implemented to successfully meet goals and objectives. Be sure that a logical connection exists between strategies and intended outcomes. Review the soundness of objectives in light of the available means to achieve them.

Step Three: *Establish Indicators and Targets*

- Select a set of indicators to represent progress toward identified objectives. The indicator set should be large enough to address the most important objectives but small enough to permit meaningful interpretation. Performance targets associated with indicators should not be arbitrary. Targets setting should be based on past performance information, consider comparative performance data from international or national jurisdictions, reflect the input of stakeholders, and challenge the organization to strive for higher quality.

Step Four: *Monitor Performance*

- Collect and aggregate indicator data for the purpose of assessing achievement of objectives. Routinely collected administrative data are the most readily available sources of performance data. Resources should be devoted to collection of new data to address key objectives when no other source of information exists.

Step Five: *Compile and Report Performance Information*

- Organize performance information into a meaningful summary that can be disseminated to stakeholders for an external accounting of the degree to which progress is made toward stated goals and objectives.

Step Six: *Identify Required Action to Address Performance Gaps*

- Identify major performance gaps and subsequent corrective action to improve performance. Performance reports should be followed by a process to address and analyze the reasons for poor performance and to consider incentives to improve future performance. At the same time, reward and/or recognition for good performance should occur.

Step Seven: *Realign Goals, Objectives and Strategies*

- On the basis of the foregoing, determine whether goals and objectives remain appropriate for the next performance cycle. Realignment of the performance framework may be required in both situations of high and low performance. Poor performance resulting from

unrealistic objectives and/or ineffective strategies may necessitate more reasonable targets or renewed efforts to reach those targets. Successful performance, on the other hand, may require setting higher standards for organizational performance.

7. Assessing Organizational Capacity

Sufficient resources and personnel dedicated to all components of the performance management cycle are required in setting up the capacity to conduct meaningful performance reviews.

Management commitment to performance monitoring can be assessed by the presence of the following:

- an identified organizational entity responsible for performance monitoring;
- designated roles and responsibilities within that entity;
- support for a good management information system;
- sufficient resources devoted to retrieve, clean and analyze performance data through an allocated and protected budget for performance monitoring;
- expertise in information technology;
- established policy/protocols on client confidentiality;
- support for regular external reporting of performance results;
- performance monitoring staff members at the executive/ decision-making level;
- mechanism for examining and integrating performance data with sector expenditure information; and
- mechanism for integrating performance data with the operational framework of programs.

A further consideration, in assessing organizational capacity, is whether a lack of resources and technical support at the agency/provider is a barrier to the submission of information to the entity responsible for monitoring. Because many indicators will reflect clinical data aggregated from individual client records gathered by local agencies, this issue is critical to obtaining complete and accurate information.

8. Selecting an Indicator Set

As noted earlier, the set of indicators chosen by a region or organization should be large enough to provide a reasonably comprehensive picture of performance by conveying information about progress toward major goals and objectives. At the same time, the indicator set must be small enough to be manageable for data retrieval purposes and to avoid an overly complicated appraisal which would both obfuscate interpretation of performance information and limit its usefulness in management decision-making.

New performance monitoring initiatives are best to start with one or two indicators for each objective, drawing from available administrative databases. Because selection may be difficult, assessing individual indicators against certain criteria may help with choosing an appropriate set. Criteria should relate to both conceptual relevance and technical properties.

Glover and Kamis-Gould (1996) suggest the following criteria for good performance indicators:

- Conceptual clarity
- Clear link to an organizational goal
- Operationally defined, reliable and valid measures
- Measures derived wherever possible from available management information systems
- Consisting of proportion and ratios rather than raw numbers
- Desired direction for performance is clear
- Indicators suitable for comparison (risk adjusted where necessary)
- Sufficiently universal for comparison with other services
- Decision rules for significant deviations from chance and for establishing high and low performance.

9. Reporting on Performance

Performance monitoring is a meaningful exercise when it facilitates improvements in the quality of mental health service in a region. Performance reports make a system accountable to its users through providing a reckoning, or an explanation, of what has occurred in light of what should have occurred. This requires that performance data is formally conveyed to a broad array of stakeholders, who are then able to view reported results in the context of government's (or regional health authority) previous commitment to core goals and objectives.

Essential within public sector accountability systems is that information on objectives, and whether they are achieved, is made publicly available. When mental health goals and objectives are developed through a consultative and participatory process, the act of communicating these demonstrates a commitment to focus on the priorities of stakeholders.

9.1 What and to Whom?

Ideally performance indicators convey movement in a particular direction over time. They reflect progress related to key markers of success, and help map out where a region, system, or program is ultimately going. Accountability is achieved when stakeholders receive:

i. full disclosure of results,

ii. acknowledgment of poor performance where it exists, and

iii. commitment to corrective action.

Recipients of performance information include the federal, provincial and territorial governments, various departments and policy makers in those respective governments, regional health authorities, local health services, mental health service providers, clients, families and the general public.

9.2 General Principles

Irrespective of the intended audience for performance information, some general principles of reporting apply:

- the process and content of reports are easily understood.
- the process is transparent.
- the process of reporting has some flexibility – not all regions and/or service sectors will be in the same position to report.
- a regular reporting frequency is established (e.g., annual, bi-annual).
- various methods of reporting are used – such as annual reports, briefing papers, news releases, web sites, and Listservs.
- the reports themselves are clear, straightforward and highlight information relevant to the intended target audience.

9.3 Starting the Reporting Process

Establish a Baseline.

Not all regions will have the resources, or the need, to track and report on a large set of mental health performance indicators. Nor will all regions have the ability to do annual or even bi-annual reports. It is important though that a *baseline* be established — an initial report on how close or how far a region may be to its stated goals and objectives for mental health services and supports. The baseline will convey to stakeholders where there are specific performance gaps and identify areas where new resources or reinvestments may be required to achieve desired endpoints. It will then be up to individual jurisdictions to decide how frequently they should update the baseline report to chart further progress.

Focus on Reporting, Not "Report Cards"

The reporting process should first focus on communicating performance and not necessarily on producing a comprehensive evaluation in the form of balanced scorecard or report card. The latter approaches may exceed the capability of many regions, which do not have complete and/or reliable data sources for many of the indicators they wish to track. Therefore, early performance reports may provide an incomplete picture of progress toward goals and objectives. It is important nonetheless to begin communicating performance information in areas where data is available. Establishing a reporting process will assist with the identification of needed indicators and measures.

Include in Other Reporting Vehicles

The results of mental health monitoring do necessarily need to be compiled in a separate or stand-alone report, particularly in the early stages. The findings can be included in other accountability documents prepared by the region for the general public, for instance, as part of the annual reports of a government, ministry or department. This, in fact, may be a preferable way of integrating mental health performance information with the accountability framework of the larger organization as well as communicating results earlier than would otherwise be possible.

9.4 Methods of Dissemination

The following are some of the suggested methods to disseminate performance information:

A layered, searchable Web site

Stakeholders and others with an interest in mental health monitoring will want to have access to performance available information on a timely basis. They also want to be able to choose areas to examine in further depth. A searchable Web site responds to the desire for transparency and openness, at the same time permitting selectivity. By navigating through layers of information, readers can move from the brief descriptions through to increasing levels of detail. A Web site has the added advantage of establishing links with other jurisdictions.

Listserv/e-mail notification

E-mail notification has emerged as an efficient way to notify interested parties about new results or new information. Regions could establish a Listserv of all individuals and organization interested in updates on mental health performance. The Listserv could be set up to allow stakeholders to indicate the priority areas about which they would like to receive notices. Listserv registration may also provide the option to be removed from the mailing list for printed materials thus eliminating unnecessary duplication of information.

Distribution of hard copy materials

Not everyone uses the electronic media. Therefore, a report, newsletter, bulletin or other print media formats remain the mainstays of communicating performance information. In general, written materials should be short and provide concise summaries with information about where to go for more detailed results or discussion.

Media Releases

Performance information targeted to the public should be disseminated through the general media. A general media release can single-handedly reach a large spectrum of the population. While politicians and administrators may fear the potential of inaccurate reporting, the media plays an important role in shaping public opinion which, in turn, has an impact on public policy. Many of the intended audiences (for results about performance monitoring) access the general media through newspapers, radio and television.

Performance monitoring tools

10. Defining the Target Population

Accountability within the sphere of publicly funded mental health services and supports is determined, in part, by how well priority populations are served. This resource kit is designed to provide indicators of performance related to the provision of care, and outcomes achieved through that care, for persons with *serious mental illness*[2] *(SMI)*. This target group includes both individuals with severe mental disorders and those with less severe but socially and economically significant disorders. The mental disorders of the first group are characterized by profound symptom severity and marked disability that may persist or recur frequently. The latter group has less severe symptoms and disability but still experiences substantial functional impairment. The term "serious mental disorder" will be used to encompass both groups.

10.1 Defining Serious Mental Illness (SMI)

SMI is not a defined term in federal legislation in Canada. An operational definition that is incorporated into public law in the United States (US, Secretary of Health and Human Services) requires the person *to have at least one 12-month DSM disorder other than substance use disorders, and to have serious impairment.*

Investigations of the usage of the term SMI amongst service providers and administrative organizations have found little consistency and no clear definition (Schinnar et al., 1990; Slade et al., 1997). Definitions of SMI are often based on diagnosis, typically including disorders with psychotic symptoms such as schizophrenia and bipolar disorders, and often including certain severe non-psychotic disorders such as major depression, obsessive-compulsive disorder and panic disorder (Slade, 1997; NAMHC, 1993; Barker et al., 1992; NIMH, 1987).

However, definitions that use diagnosis alone as a proxy for SMI are inadequate and lead to errors in sensitivity and specificity. A wide spectrum of symptom severity and functional disability is associated with specific mental disorders; any particular diagnosis (e.g., schizophrenia,

2 The terms *serious mental illness* and *severe mental illness* are often used interchangeably.

anxiety disorder, major depression) does not, in of itself, provide enough information to make a determination regarding the presence or absence of SMI.

In setting out operationalized criteria for SMI, the National Advisory Mental Health Council (NAMHC, 1993) and the U.S. National Institute of Mental Health (NIMH, 1987) and have utilized more than diagnosis alone, adding criteria related to *duration* and *disability*. A review of definitions of SMI extant in the early 1990s by Schinnar and colleagues concluded that the definition published by the U.S. National Institute for Mental Health had the widest consensus and was most representative of the middle range of prevalence (1990). Table 5 summarizes the criteria used by NIMH (1987) to define SMI.

Table 5 – National Institute of Mental Health Criteria for SMI

Diagnosis

A major mental disorder: a schizophrenic, major affective, paranoid, organic, or other psychotic disorder or a disorder that may lead to a chronic disability such as borderline personality disorder

Disability

Severe recurrent disability resulting from mental illness. The disability results in functional limitations in major life activities. Individuals typically meet at least two of the following criteria on a continuing or intermittent basis:

- Is unemployed, is employed in a sheltered setting or supportive work situation, or has markedly limited skills and a poor work history
- Requires public financial assistance for out-of-hospital maintenance and may be unable to procure such assistance without help
- Has difficulty in establishing or maintaining a personal social support system
- Requires help in basic living skills such as hygiene, food preparation, or money management
- Exhibits inappropriate social behaviour which results in intervention by the mental and/or judicial system

Duration

Treatment history meets one or both of the following criteria:

- Has undergone psychiatric treatment more intensive than outpatient care more than once in a lifetime (e.g., crisis response services, alternative home care, partial hospitalization, or inpatient hospitalization)
- Has experienced an episode of continuous, supportive residential care, other than hospitalization, for a period long enough to have significantly disrupted the normal living situation

10.2 Estimating the Size of the Target Population

Definitions such as those described above have been used to estimate numbers of people with SMI. One such estimate in the U.S. adopted in the recent Surgeon General's Report on Mental Health (1999) indicated that 5.4% of the U.S. population aged 18 and older is affected by an SMI and a subgroup consisting of 2.6% of the adult population will have an SMI that is persistent. This estimate was developed by Kessler and colleagues (1996) based upon the operationalized definitions summarized in Table 6 and utilizing findings of the National Combordity Study (Kessler et al., 1994) and the Epidemiological Catchment Area (ECA) Study (Robins & Regier, 1991).

Although the work by Kessler and colleagues constitutes an attempt to estimate numbers of people with SMI using epidemiological information, there are considerable limitations that should signal caution in accepting the given estimates as valid or reliable. It is likely that there has been an *over-estimation* of prevalence due to the nonspecific definitions of serious

Table 6 – Operationalized definitions of Serious Mental Illness and Severe and Persistent Illness (Kessler et al., 1996)

Mental Illness	Severe & Persistent Illness
■ at least one DSM diagnosis other than substance use disorders in a 12 month period AND ONE OR MORE OF THE FOLLOWING: ■ planned or attempted suicide ■ unemployed or working part-time for reasons that did not involve role responsibilities or physical disability ■ living in poverty ■ expected to have at least twice actual income based on own education and parents' education ■ consistently absent from work ■ socially isolated ■ all social relationships devoid of intimacy, the ability to confide, or the sense of being cared for or supported	■ diagnosis of nonaffective psychosis includes schizophrenia, schizoaffective disorders, and related psychotic illnesses) or mania in a 12 month period OR ■ lifetime prevalence of nonaffective psychosis or mania accompanied by evidence that the individual would have been symptomatic if not for treatment received OR ■ DSM major depression or panic disorder in a 12 month period with evidence of severity indicated either by hospitalization or use of major psychotropic medications

disability that were used. Review of the criteria summarized in Table 6 reveals the over-inclusive nature of these definitions of SMI.

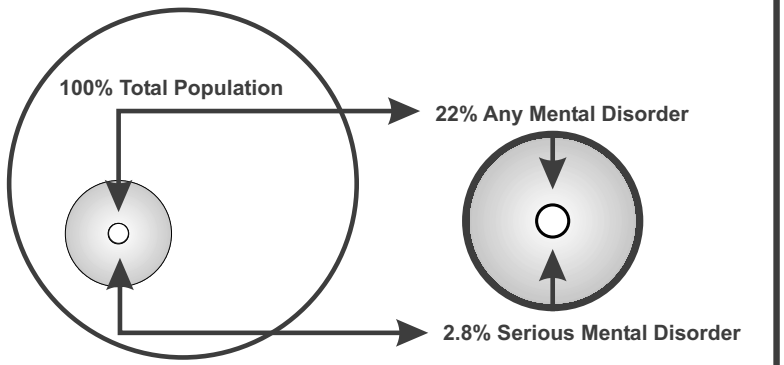
Estimates that were developed using similar methodology (but different definitions of SMI) have produced more conservative approximations. Work by the U.S. National Advisory Mental Health Council (NAMHC), utilizing ECA data estimated that 2.8% of the adult population have SMI (see Figure 3). A 1989 survey conducted by the U.S. National Center for Health Statistics estimated that 2.1-2.6% of U.S. adults have SMI (Barker, 1992).

An alternative method of estimating the prevalence of SMI has recently been undertaken by Rugerri and colleagues (British Journal of Psychiatry, in press). They utilized the Global Assessment of Functioning scale (GAF), a scale used widely to measure levels of symptom severity and functional impairment, to identify individuals with SMI in two communities; one in relatively socially deprived areas of London, England and the other in the city of Verona, Italy. As these two communities have well-developed community outreach mental health services, the authors reasoned that they could validly estimate the numbers of individuals with SMI. Utilizing their contact registries, their estimates indicated that 0.2% - 0.3% of the population could be considered to have SMI that was persistent if operationalizing severe impairment as a GAF < 50. They also produced estimates of SMI by deleting the requirement of duration of illness > 2 years, and estimated SMI rates of 0.3% - 0.4% (GAF < 50).

Figure 3

Estimated Percentages of the US Population with Mental Disorders and Serious Mental Disorders

(Adapted from the Report of the *US National Advisory Mental Health Council*, 1993).



In contrast to the methods of Kessler and colleagues, the rates calculated by Rugerri et al. are likely *under-estimates*. Even the most effective community outreach programs are unlikely to access all individuals with SMI and population studies have indicated that less than 50% of people with any mental disorder have contact with health services (Kessler et al., 1999).

Thus, the two different methods for estimating prevalence rates of SMI described above have yielded highly divergent estimates; rates of SMI calculated using the methodology of Rugerri and her colleagues estimated rates that were more than *tenfold* lower than rates calculated by Kessler and co-workers. It is unlikely that these divergent rates reflect true

differences rates of SMI in the respective communities. Furthermore it is reasonable to conclude that true prevalence rates of SMI fall somewhere in between the high and low estimates produced by the two approaches.

A third approach to estimating the target population has been described by Andrews and colleagues (2000) based on findings of the Australian National Survey of Mental Health and Well Being (Andrews et al., 1999), a large scale epidemiological study of the prevalence and distribution of mental illness that includes methods to measure disability. The study found that 2.1% of the Australian population surveyed met criteria for a mental disorder resulting in disability days *and* consulted health services. Reasoning that this combination indicates serious mental illness and, further, adding estimates for schizophrenia, cognitive impairment and other disorders (these were not included in the 2.1% estimate), the target population was estimated to be 3% of the adult population.

There is a need for further epidemiological study of the prevalence and distribution of SMI with the goal of producing valid and reliable estimates. Slade and his colleagues have recently developed a tool that may assist in the assessment of severity of mental illness (TAG, 2000). The Threshold Assessment Grid (TAG) is a brief interviewer-rating tool that has undergone some validity and reliability testing with good initial results. As the TAG has been only recently developed, there is not yet adequate experience to verify its utility and furthermore, clinical norms and anchors have not been determined.

Whereas there are significant limitations in our ability to reliably and validly estimate numbers of individuals with SMI, we can have more confidence in our prevalence estimates of specific diagnostic groups. For example, estimates of the prevalence of individuals with schizophrenic disorders appear to be robust; recent epidemiological studies in Canada, Australia, the United States, and European countries have consistently estimated one-year period prevalence rates in the range of 0.4% of the adult population. Thus, it is possible to estimate the numbers of individuals expected to be affected by schizophrenic disorders.

When estimating the size of target populations in specific jurisdictions (e.g., urban communities, local health authorities) it is important to consider *small area variations.* These variations refer to differences in the prevalence of illness across jurisdictions. As one might predict, the rates of SMI are positively correlated with indicators of poverty and social deprivation (Thornicroft, 1991). It is highly likely that people with mental illness are unequally distributed across regions and districts of Canada. Some communities will have higher prevalence rates than others and this effect is likely to differ across specific diagnostic categories. Thus, when estimating rates of SMI, the sociodemographic characteristics of the jurisdiction of interest should be taken into account.

10.3 Estimating the Number of People with Serious Mental Illness in Canadian Communities

Despite the limitations of current estimations of SMI, they can be useful in describing the "ballpark" for population targets within health authorities and service catchment areas. Table 7 estimates the numbers of people with SMI in Canada's provinces and territories based on Statistics Canada 1999 data for the population 15 years and older.

The prevalence estimates of SMI used in Table 7 utilize a figure of 3%. This figure should be considered a rough estimate based on the current state of the literature. Using this estimate, almost three quarters of a million adults in Canada have SMI, i.e., approximately one in every 35 Canadian adults (age group 15+) is affected by mental illnesses causing serious suffering, and social and economic impairment.

As described earlier, it is unlikely that there is truly an equal distribution of persons with SMI across Canada (implied in Table 7). It is important to interpret the estimates in Table 7 with this under-

Table 7 – Estimated Population Aged 15+ with Serious Mental Illness

Region	1999 Popn.[1] Aged 15+	Total with SMI
Newfoundland & Labrador	444,052	13,320
Prince Edward Island	110,018	3,300
Nova Scotia	765,207	22,950
New Brunswick	616,981	18,510
Quebec	6,009,239	180,270
Ontario	9,241,879	277,260
Manitoba	901,456	27,050
Saskatchewan	801,954	24,060
Alberta	2,332,405	69,970
British Columbia	3,279,737	98,390
Yukon	23,892	720
Nunavut	16,840	510
Northwest Territories	30,269	910
CANADA TOTAL	24,573,929	737,220

[1]*Source: Statistics Canada, CANSIM, Matrices 6367-6379 and 6408-6409.*

standing and view it as a rough guide that would benefit from appropriate adjustments and modifications.

Epidemiological estimates and projections, such as those described above, can assist efforts in performance monitoring by providing information that is useful in interpreting utilization figures.

Clinical and administrative databases can provide important information about various facets of the mental health service system, and, when used in conjunction with epidemiological information, constitute useful tools in performance monitoring.

A robust finding of major epidemiological studies is that the majority of people who meet criteria for mental disorders do not receive health services for these conditions (Robins & Regier, 1991; Kessler et al., 1999; Andrews et al., 1999). Of concern is the additional finding of these studies that a large proportion of those who do receive health services for a mental illness do not meet criteria for any mental illnesses surveyed. These highlight the importance of accountability mechanisms that promote the receipt of mental health services by those individuals who have the greatest need and will receive the most benefit.

11. The Best Practices Checklist

At the most basic level, performance appraisals occurring within the context of mental health reform should address the extent to which the configuration of regional services conforms to nationally identified best practice elements. The work of the Clarke Institute defines what is expected in a reformed mental health system both in terms of services and supports and the infrastructure in which they exist (Health Canada, 1997). The Best Practices Checklist provides a guide to plan, implement, and evaluate reform. Recent thinking has suggested that the Best Practices Checklist would provide a more complete continuum of core programs with the inclusion of two additional components:

- Early Intervention
- Primary Care

A rationale for their inclusion is explained below.

11.1 Additional Best Practice Elements

Early Intervention

The early years in the development and onset of serious mental illness are critical from a social and psychological standpoint, since illness often strikes when young people are forming key social roles and relationships as well as moving toward greater personal identity and independence (McGorry, 1996). There is mounting evidence that duration of untreated illness is associated with poorer outcomes from a number of perspectives. Longer periods of untreated illness are associated with lower rates of symptom remission (Loebel, 1992) and with faster and more frequent relapse, independent of medication compliance (Johnstone et al, 1986). Evidence also suggests that the first few years of mental illness are when people with psychosis experience the greatest decline in functioning, after which deterioration levels off (McGlashan, 1996).

Effective early intervention requires maximum involvement of professionals in the health and social sectors to both recognize early signs and symptoms and to take appropriate action.

Primary Care

The vital role for primary care physicians in the care of persons with serious mental illness has been overlooked in most mental health reform initiatives (Kates et al., 1997). Given the ratio of psychiatrists to general practitioners, the majority of mental health problems are managed in the primary care setting. Unfortunately, many physicians work in isolation from community mental health providers who frequently are the gatekeepers to the array of services and supports required by those with serious mental disorders. Individuals with serious mental illness are also more likely to experience higher rates of infectious disease and other medical disorders due to self-neglect and/or living conditions. Many persons with severe psychiatric conditions, however, are not connected to one general practitioner and receive only sporadic medical attention. Comprehensive medical management of these patients could improve health outcomes and reduce emergency room use by preventing the development of serious health problems through early treatment and monitoring. In addition, better links between general practitioners and community mental health services need to be established.

11.2 A Template for Progress Toward Reform

The best practices elements provide a template for a high level assessment of the gap between the present system and a reformed system through an examination of core programs and system strategies. Ideally, the template can be used as a checklist to determine the extent to which the basic components within a reformed system of care are present. In addition, key criteria associated with each best practice area are intended to help determine whether programs and strategies are attending to critical issues. The Best Practices Checklists of key elements of a reformed system of care are shown in Tables 8, 9, and 10.

The criteria in these tables unfortunately are not yet operationally defined and may be difficult to measure or assess. Assessment of the extent to which key elements are in place and are properly implemented or delivered requires a considerable degree of subjective judgement. Many of the criteria are not easily converted to quantifiable indicators and hence their applica-

Table 8 – Checklist of key elements of a reformed system of care: Core programs

Best Practice Area	Checklist Criteria
Case Management/ ACT	An array of clinical case management programs are in place that follow rehabilitation, personal strengths and Assertive Community Treatment (ACT) models. There is an emphasis on ACT models for those who need intensive support, including special needs groups such as the homeless and persons with dual disorders.
Crisis Response/ Emergency Services	A continuum of crisis programs are in place to help people resolve crises using minimally intrusive options.
Housing	There is a variety of housing alternatives available, ranging from supervised community residences to supported housing, with emphasis on supported housing. Housing needs of the homeless mentally ill are addressed.
Inpatient/ outpatient care	Inpatient stays are kept as short as possible without harming patient outcomes. An array of treatment alternatives to inpatient hospitalization are available, including day hospitalization and home treatment. Long stay patients in provincial psychiatric hospitals are moved into alternative care models in the community. Service delivery models link family physicians with mental health specialists.
Consumer initiatives	Consumer initiatives are in place that have diverse purposes such as mutual aid, skills training and community economic development. Consumer initiatives are supported through funding, consumer leadership training, education of professionals and the public about consumer initiatives, and evaluation using appropriate methods.
Family self-help	Funding is provided to family groups who also participate in planning and evaluation of care delivery.
Vocational/educational supports	There are supported employment programs in place, and plans for implementing and evaluating pilot programs in supported education and social recreation.

Reprinted from: Health Systems Research Unit, Clarke Institute of Psychiatry. (1997). Best Practices in Mental Health: Discussion Paper. Ottawa: Health Canada.

tion is actually an exercise in monitoring compliance with a preferred direction rather than an assessment of performance per se. Assessment of compliance with the best practices checklists may be best undertaken through questionnaires or site-visits. Ideally such appraisals should be conducted by independent personnel to reduce subjectivity and bias.

This type of high-level review has, in fact, been undertaken by many regions at the start of their mental health reform initiatives. The process can provide a valuable overview of deficiencies in the system for planning purposes. While distinct from performance monitoring, this type of monitoring can assist in the identification of targets for change, which then can be measured more objectively. Regions currently unable to support more sophisticated performance monitoring activities may wish to explore valid means of monitoring adherence to the best practices template, as a means of moving toward greater accountability.

Table 9 – Additional Core Program Elements

Best Practice Area	Checklist Criteria
Early Intervention	Early detection activities are in place in multiple settings which apply established risk profiles for "at risk mental state". A well developed referral network for at risk cases exists. There is the capability for initial assessment/treatment to be done on an outreach basis. Early interventions adhere to a biopsychosocial approach.
Primary Care	Formal mechanisms through case management or other coordination mechanism are in place to link persons with SMI with primary care practitioners for regular medical care. Links between general practice offices and community mental health services are established.

Table 10 – Checklist of key elements of a reformed system of care: System strategies

Best Practice Area	Checklist Criteria
Policy	There is a free standing mental health reform policy based on an explicit vision that is shared among various stakeholders, including consumers and families. There is a planned strategy for implementing policy. Policy preserves the mental health envelope, prevents losses due to downsizing institutions, and increases the proportion of funds spent on community care. Policy defines concrete, measurable targets for reform.
Monitoring and Evaluation	Regular monitoring of all services and supports is the basis for program and system accountability, and for continuous quality improvement. Preset goals, performance measures and time lines are established. An information system has common elements for system evaluation (provincial) and local elements for program evaluation (agency level). There is a sufficient, protected evaluation budget.
Governance and funding	At the regional/local level one organizational entity or mental health authority is responsible for mental health care, and is a clear point of accountability for system performance. The authority uses clinical, administrative and fiscal mechanisms to promote cost containment, transfer resources from institutional to community care, implement best practices and increase accountability. Diverse funding sources are consolidated into a single funding envelope that can be used flexibly. Funding allocations to a region or local area are linked with unique characteristics and needs of residents. A consumer-centered information system supports decision-making in planning, funding and managing the system. Administration of mental health care is connected with the broader health system and with generic services.
Human resources	A detailed labour strategy is in place to facilitate redeployment of staff. Strategies enhance consumer involvement as providers and educators.

12. Suggested Performance Indicators

A series of indicators for the eight domains of health system performance are presented below.

- Acceptability
- Accessibility
- Appropriateness
- Competence
- Continuity
- Effectiveness
- Efficiency
- Safety

Each domain is defined and, for each indicator, a rationale for its use is given and a specific measure(s) provided. The placement of indicators within categories was based on "best fit". There is significant conceptual overlap among the performance domains and any one indicator could be construed as a marker of multiple dimensions of performance.

Measures for each indicator are preceded by an arrow showing the preferred direction of change over time. Indicators which are categorical (e.g. present, absent) rather than quantitative are denoted by a square. See chart below.

▲	Positive change in measure desirable
▼	Negative change in measure desirable
■	Categorical data

This inventory of indicators comprises a set of measures, many of which could be compiled from available administrative data sources. In instances where routine data is not available, new information may need to be collected either on a one-time or a regular basis. Individual jurisdictions will need to assess the importance of these measures as indicators of performance and determine whether to create and resource the technical capacity to collect and report such information. The list which follows is not exhaustive as many indicators (although related to important information needs) remain at a developmental stage. Excluded are areas not yet clearly conceptualized and areas lacking specificity with respect to operational definitions or measurement amenability.

Technically, performance indicators should be expressed as ratios, rates or proportions and not as raw numbers (Glover, 2000). Raw numbers are difficult to interpret and susceptible to bias. Some of the indicators that follow do violate the assumptions associated with pure performance indicators. Several are expressed as numbers (e.g., number of complaints) due to a lack of appropriate denominator data. In other cases the suggested indicators are defined in terms of presence/absence estimations (e.g., existence of a patient charter of rights). Again, such categorical data do not conform to the technical definition of a performance indicator. While these quasi-indicators lack operational definitions and quantification, they are nonetheless included because they are considered important markers of progress in the context of mental health reform.

Section 12.9 provides indicators of community and health system characteristics, less for the purposes of gauging performance but more as a means of summarizing useful contextual information for a given region. Finally, Section

12.10 provides a table that identifies key parameters, including the type of indicator, level of measurement, and context for its use.

12.1 Domain: Acceptability

Definition

Care/service provided meets expectations of client, community, providers and paying organizations.

Indicators of Acceptability

- Consumer/family satisfaction with services received
- Formal complaints
- Charter of rights
- Consumer/family involvement in treatment decisions
- Consumer involvement in service delivery and planning
- Cultural sensitivity

12.1.1 Consumer Satisfaction with Services Received

Rationale:

The appraisals of mental health consumers/families are an important source of information regarding users' experiences with services, service providers, and service coordination. Satisfaction is an indication of the extent to which services and supports meets the needs of clients and families, and is considered a key dimension of service quality.

Measure:

- ▲ Percentage of consumers/families satisfied with services as measured by valid method.

(Note: Communities with high aboriginal clientele have stressed the need to replace culture-bound paper and pencil measures of satisfaction with other culturally appropriate modes of user appraisals)

12.1.2 Formal Complaints

Rationale:

Complaints received may indicate a lack of acceptability concerning mental health services and supports not only among consumers and their families, but within the broader community.

Measure(s):

- ■ Existence of a clear process for filing complaints.
- ▼ Number of complaints received by Complaints Commissioner, Mental Health Advocate, Ombudsperson (or equivalent offices), consumer advocacy associations, regional health authority, etc. concerning mental health services and supports. (Nature of complaints received should also be reported).

- ▼ Average time between receipt of complaint and satisfactory resolution.
- ▲ Percentage of consumer (and families) satisfied with resolution of complaints.

12.1.3 Charter of Rights

Rationale:

The explicit description of client and family expectations of mental health services by way of a formal charter of rights can facilitate the development of a care system and standards within that system that meet the needs of consumers.

Measure:

- ■ Existence of a consumer/family charter of rights that has been endorsed by the appropriate health authority and/or government body.

12.1.4 Involvement of Consumers and Families in Treatment Decisions and Plans

Rationale:

The involvement of clients and their families in treatment planning fosters collaboration and trust leading to better engagement in care, treatment compliance, illness self-management and treatment outcomes.

Measure:

- ▲ Proportion of consumers and families within a service provider population of persons with serious mental illness who actively participate in decisions concerning their treatment.

(Note: Active participation in treatment is hard to measure. In the UK, consideration is being given to having patients sign their care plan to indicate they have been consulted and are satisfied with the plan (Friedman et al., 1999). Others have noted that a sheer signature on a care plan is not evidence of active participation (Kamis-Gould, 2000).

12.1.5 Involvement of Consumers in Service Delivery and Planning

Rationale:

Meaningful involvement of persons with mental illness and family members is a fundamental component of mental health reform. Mechanisms that facilitate the input and participation of consumers in decision-making can maintain the focus on service priorities and improve service outcomes.

Measure(s):

- ▲ Proportion of communities within region with established regional consumer advisory groups.
- ▲ Total amount of resources allocated to support consumer advisory structures and their activities as a percentage of total mental health budget.

- Proportion of regional health authorities within province/territory that have a designated person at the management level to facilitate partnerships and involvement of consumers and families.
- Number of consumer/family self-directed initiatives.

12.1.6 Cultural Sensitivity

Rationale:

Cultural barriers to treatment may exist in communities with a strong aboriginal population or with high representation of one or more ethno-cultural minorities. Cultural sensitivity in service delivery respects language preference, accommodation of cultural beliefs in treatment, and an understanding of ways in which culture affects service utilization.

Measure:

- Proportion of consumers within service provider population of persons with serious mental illness who report that staff are sensitive to their language and ethnic/cultural background.
- Proportion of service staff who are culturally "literate"; i.e. knowledgeable about the history, traditions and beliefs of ethno-cultural minorities.

12.2 Domain: Accessibility

Definition

Ability of clients/patients to obtain care/service at the right place and right time based on needs.

Indicators of Accessibility

- Service reach to persons with SMI
- Service reach to the homeless
- Access to psychiatrists
- Access to primary care
- Wait-times for needed services
- Availability of after-hours care/transportation
- Denial of service
- Early intervention
- Consumer/family perception of accessibility

12.2.1 Service Reach to Adults with Serious Mental Illness

Rationale:

There is believed to be a considerable degree of unmet need among the seriously mentally ill. While close to half appear to be receiving some support, less than one third saw a mental health specialist over a one year period (Kessler et al., 1996).

Measure(s):

- Treated prevalence of serious mental illness (proportion of individuals receiving at least one insured health service compared to the estimated number of persons with SMI in the region - see Section 9 on estimating the target population[3]).

or

- Treated prevalence of schizophrenia (proportion of individuals receiving at least one insured health service for this diagnosis compared to estimated number of individuals in the region with this disorder).

or

- Treated prevalence of bipolar disorder (proportion of individuals receiving at least one insured health service for this diagnosis compared to estimated number of individuals in the region with this disorder).

12.2.2 Service Reach to the Homeless

Rationale:

A very high prevalence of mental illness is found among the homeless population. Many homeless individuals do not actively seek treatment nor do they avail themselves of other critical supports. This group is hard to engage in services and require assertive community treatment and aggressive outreach to ensure their needs are met.

Measure:

- Number of homeless clients receiving assertive community treatment as a proportion of the estimated number of homeless people with SMI.

12.2.3 Access to Psychiatrists

Rationale:

Psychiatry services are a core component of care for persons with serious mental illness. Limited access to psychiatry services in rural and remote geographic areas is a common yet serious problem for most provinces/ territories. This situation creates inequities in access to care and in the quality of care provided.

Measure(s):

- Dollars spent per 10,000 population on psychiatry services including fee-for-service, sessional services, outreach services by local health region.
- Services per 10,000 population by region.

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[3] Given that most regions do not collect standardized data on the degree of disability for persons receiving mental health services and supports, it is not possible to determine the treatment prevalence for the combined category of serious conditions among the estimated entire adult population with SMI. These two diagnostic groups are selected because most individuals with psychotic disorders may be considered “serious” (see Section 10).

12.2.4 Access to Primary Care

Rationale:

Persons with SMI have poorer health status and a higher rate of premature mortality than the general population. Through self-neglect and poor access to general health care, the medical needs of this group are often not met.

Measure(s):

- ▲ Proportion of persons with SMI who had at least one physician visit for non-psychiatric reasons during the last year.
- ▲ Proportion of persons with SMI registered with a primary care physician.
- ▲ Number of primary care outreach services provided to persons with SMI.
- ▲ Proportion of consumers within a mental health service provider population of persons with SMI who are screened for physical health problems.
- ▼ Number of emergency room presentations for medical problems which could be managed in primary care setting.

12.2.5 Wait-times for Needed Services

Rationale:

Temporal access or waiting time is one important dimension of access (Adair et al., 1999). Prompt intervention can avert mental health crises and avoid the need for more intensive forms of care. Delays in service can result in harm to persons with SMI and their families as well as discouraging future treatment seeking behaviour.

Measure(s):

- ▼ Average time (in days) from expression of desire for service by the client, or referral from another provider, to first face-to-face contact by mental health provider.
- ▼ Average wait-time (in days) from referral to admission to inpatient facility (acute and tertiary care).
- ▲ Proportion of urgent referrals that are assessed within 48-hours.

12.2.6 Availability of After-Hours Care and Transportation

Rationale:

The capacity to respond round the clock to the needs of persons with serious mental illness removes further barriers to access for this client group.

Measure(s):

- ▲ Proportion of communities within a region with 24-hour mental health coverage.
- ▲ Proportion of communities within a region with extended hours (evenings, weekends) mental health coverage.
- ▲ Services that arrange transportation for clients and their families.

12.2.7 Denial of Service

Rationale:

Denial of service to persons with SMI in an important indicator in the context of mental health reform as it reflects a region's inability to respond to the needs of a priority population. This may be due to insufficient capacity (e.g., lack of skilled staff) or admission policies which inadvertently discriminate against persons with SMI (e.g., compliance, attendance requirements, etc.).

Measure(s):

- ▼ Number of persons with SMI requesting community mental health service who are refused service.
- ■ Reasons why clients are refused service documented and addressed at a planning level.

12.2.8 Early Intervention

Rationale:

Early diagnosis and treatment avoids unnecessary suffering and frustration among patients and their families and prevents the social deterioration associated with severe mental disorders, particularly those associated with psychosis.

Measure(s):

- ▼ Duration of untreated symptoms (self and/or family defined).
- ▼ Mean age at first treatment contact for persons with psychotic disorders.
- ▼ Proportion of clients whose first contact with the system is through emergency departments.
- ▲ Dissemination of information to public about symptoms of mental illness and available resources.

12.2.9 Consumer/Family Perception of Access

Rationale:

While the above measures are good systemic indicators of access, the subjective appraisals of service users can identify particular problems and/or barriers ((NASMH, 1998).

Measure:

- Proportion of consumers with SMI satisfied with access to services and supports. May be measured as one component of client satisfaction.

12.3 Domain: Appropriateness

Definition

Care/service provided is relevant to client/patient needs and based on established standards.

Indicators of Appropriateness

- Existence of best practice core programs
- Fidelity of best practices to established model
- Receipt of best practices services/supports among persons with SMI
- Treatment protocols for co-morbidity
- Hospital readmission rate
- Involuntary committal rate
- Average length of stay
- Use of seclusion/restraints
- Least restrictive setting
- Appropriate spending
- Consumer/family perception of appropriateness

12.3.1 Existence of Best Practices Core Programs

Rationale:

The Best Practices continuum of core programs tells us what works and what should be present in a reformed system of care for persons with SMI. The Best Practices checklist is a guide for system planning and implementation and can be used to evaluate the presence of appropriate service and supports for those with SMI. (See Section 10)

Measure:

- Existence of, or access to (if unavailable in smaller communities), the following continuum of core programs:
  - Case management/assertive community treatment
  - Crisis response/emergency services
  - Housing
  - Inpatient/outpatient care
  - Supported consumer initiatives
  - Family self-help programs
  - Vocational/educational programs
  - Early intervention
  - Primary care

12.3.2 Fidelity of Best Practices to Established Model

Rationale:

Care that is implemented based on the best available evidence will lead to improved client outcomes. This indicator reflects whether mental health service and supports adhere to best practice criteria established through scientific evidence and/or expert consensus.

Measure(s):

- Evidence of a process for establishing, adopting, and maintaining best practice core programs and system strategies
- Program audit against established criteria.

12.3.3 Receipt of Best Practices Services/Supports Among Persons with SMI

Rationale:

It is one thing to show that the best practice service structure exists; it is another to indicate that these programs are appropriately targeted to the priority population of persons with SMI.

Measure(s):

- Percentage of persons with SMI (or selected diagnoses) receiving assertive community treatment.
- Percentage of persons with SMI (or selected diagnoses) receiving supported housing.
- Percentage of persons with SMI (or selected diagnoses) in receipt of paid employment, supported employment, or other vocational/educational support.

12.3.4 Treatment Protocols for Co-morbidity

Rationale:

Serious mental illness shows a high co-morbidity with substance use disorders. Untreated substance abuse can exacerbate mental health problems and interfere with treatment.

Measure(s):

- Number of community mental health programs that screen for substance use disorders and have an appropriate protocol for treatment and/or referral.
- Proportion of SMI patients with identified substance misuse receiving addictions treatment.

12.3.5 Hospital Readmission rate

Rationale:

Although partly due to the refractory nature of SMI, a high rate of hospital readmission within a relatively short period may indicate poor quality care, premature discharge or an inadequate level of community supports (Ashton et al., 1998).

Measure:

- Number of acute-care readmissions occurring within 30 days of discharge as a proportion of the total number of psychiatric separations per year.

12.3.6 Involuntary Committal Rate

Rationale:

The need to minimize unnecessary detention but provide appropriate treatment, supervision and protection for persons with serious mental illness is a key system goal.

Measure(s):

- Rate of involuntary committals as a percentage of all hospitalizations per annum.
- Proportion of involuntary committals with extended leave provision.

12.3.7 Average Length of Stay in Acute-Care

Rationale:

Higher than average lengths of hospital stay for persons with serious mental illness may reflect inadequate community services and supports.

Measure:

- Average length of stay for separations with a primary mental health diagnosis by region.

12.3.8 Use of Seclusion/Restraints

Rationale:

Overuse of highly restrictive treatments (e.g., physical/chemical restraints) indicates a lack of more appropriate, less restrictive therapies or services/staff that lack respect for client dignity (NASMH,1998).

Measure(s):

- Percentage of clients admitted for inpatient psychiatric care who experience seclusion per facility per year.
- Hours of seclusion as a percent of total client hours during admission per facility per year.
- Percentage of clients admitted for inpatient psychiatric care who were restrained at least once per facility per year.
- Hours spent in restraint as a percent of total client hours during admission per facility per year.

12.3.9 Least Restrictive Setting

Rationale:

The goal to shift service emphasis from institutions to the community entails provision of the service in the least restrictive setting.

Measure:

- Ratio served in inpatient care to outpatient care.

12.3.10 Appropriate Spending

Rationale:

Resource allocation patterns may be viewed as appropriate or inappropriate based on systemic goals endorsed by stakeholders. New monies should be invested to the committed policy directions of mental health reform including targeting persons with serious mental illness and investing in best practice models of core programs and system strategies.

Measure(s):

- Proportion of total expenditures on service recipients with SMI relative to total expenditures on all persons who have received any insured health service for a mental health problem.
- Proportion of funds spent on preventing crises to funds spent on reacting to crises.
- Proportion of investment in informal and consumer-run supports to the investment in formal supports.
- Proportion of mental health sector expenditures on best practice programs to total sector expenditures.

12.3.11 Consumer/Family Perception of Appropriateness

Rationale:

Subjective appraisals of the appropriateness of services and supports are needed to complement other indicators within this domain.

Measure:

- Proportion of consumers with SMI who believe the service and supports provided are appropriate to their needs. May be measured as one component of client satisfaction.

12.4 Domain: Competence

Definition

Individual's knowledge skills are appropriate to care/service provided.

Indicators of Competence

While appraisal of competencies among mental health practitioners is a critical aspect of ensuring quality mental health care, the state of definition and measurement within this performance domain is very much at a developmental stage. Given this, it is not possible to identify precise indicators reflecting measurable knowledge, skills, and abilities in this

section. Instead we list some of the required key competencies and/or desirable attributes for direct care staff. Note that these are generic, not discipline-specific, competencies.

- Knowledge of relevant health and community resources
- Knowledge of mental health legislation, particularly related to committals and protection of rights
- Ability to engage people who reject services
- Ability to view consumers/families as partners in planning and providing service
- Knowledge of core roles and tasks in a multi-disciplinary team
- Ability to undertake and document a comprehensive assessment
- Knowledge and skill in risk assessment
- Competence in the use of standardized assessment instruments
- Knowledge of side-effects of psychotropic medication
- Knowledge and skills in crisis intervention theory and practice
- Knowledge and skills in the assessment and management of combined problems of mental illness and substance abuse
- Knowledge of the bio-psycho-social approach to mental illness
- Knowledge and application of evidence-based practice
- Awareness of strategies to ensure staff preservation and prevent burnout

12.5 Domain: Continuity

Definition

Ability to provide uninterrupted, coordinated care/services across programs, practitioners, organizations, and levels of care/service, over time.

Indicators of Continuity

- Continuity mechanisms
- Emergency room visits
- Community follow-up after hospitalization
- Physician reimbursement mechanism for case consultation
- Documented discharge plans
- Cases lost to follow-up
- Repatriation of SMI clients
- Single point of accountability

12.5.1 Continuity Mechanisms

Rationale:

Continuity mechanisms such as case management assist with coordination of a fragmented system of care and access to multiple providers for patients with complex needs. Case managers provide a constant source of support even though service needs may change.

Measure:

- ▲ Percentage of persons with SMI in contact with health care system in receipt of some form of case management.

12.5.2 Emergency Room Visits

Rationale:

Poor coordination of care is a major reason for service failures. A high rate of emergency room visits by persons with serious mental illness can be used as an indicator of a breakdown, or lack of continuity, in community support arrangements.

Measure:

- ▼ Number of emergency service contacts for persons with SMI per annum.

12.5.3 Community Follow-up after Hospitalization

Rationale:

A responsive outpatient support system for persons who have experienced an acute psychiatric episode requiring hospitalization is essential to maintain clinical and functional stability and to prevent readmission to hospital.

Measure(s):

- ▲ Percentage of hospital separations for primary mental diagnoses who have received at least one community mental health service contact within 30 days of discharge.
- ▲ Percentage of hospital separations for primary mental diagnoses who have received at least one psychiatry service contact within 30 days of discharge.
- ▼ Average number of days between hospital discharge and service contact for primary mental health separations.

12.5.4 Physician Reimbursement Mechanism for Case Consultation

Rationale:

Given the pivotal role of general practitioners in the management of persons with SMI, it is essential that there is communication around care planning between physicians and other providers. Fee schedules which do not reimburse physicians for case consultation limit the ability of these practitioners to coordinate their role with community mental health service personnel and provide effective care to patients with multiple needs. Alternate physician reimbursement mechanisms (contract, salary) may also provide practitioners with more opportunities to coordinate care with other care providers.

Measure(s):

- ■ Existence of a fee-item within the fee-for-service schedule that reimburses physicians for case consultation/case management activities.
- ▲ Proportion of physicians reimbursed through non-fee-for-service mechanisms.

12.5.5 Documented Discharge Plans on Hospital Separation

Rationale:

Patients leaving hospital after a psychiatric admission with a formal discharge plan, involving linkages with community services and supports are less likely to need early readmission.

Measure:

- ▲ Percentage of patients discharged from acute-care facilities (excluding those discharged against medical advice) who have a documented discharge plan.

12.5.6 Cases Lost to Follow-Up

Rationale:

Clients with SMI may be difficult to engage in treatment and should be actively followed so that their needs can be monitored. Low follow-up rates suggest poor tracking of the most vulnerable client groups.

Measure:

- ▼ Proportion of persons with SMI lost to follow-up by community mental health services at six months and one year.

12.5.7 Repatriation of SMI Clients

Rationale:

The return of persons with SMI to their home communities after transfer to out-of-territory facilities is a key element of continuity and patient stability in rural and remote regions. The repatriation of these clients is an important indicator because it reflects the community's capacity to provide the needed community support for maintenance of these clients and facilitates co-management which serves the best interests of the consumers.

Measure:

- ▲ Percentage of clients transferred out of region for acute- or tertiary care who return to home community upon discharge.

12.5.8 Single Point of Accountability

Rationale:

Establishment of one organizational entity or mental health authority at the regional/local level responsible for program and fiscal accountability facilitates an integrated care continuum.

Measure:

- ■ Existence of single mental health authority at local level.

12.6 Domain: Effectiveness

Definition

Care/services, intervention or action that achieve desired results.

Indicators of Effectiveness

- ◆ Community tenure
- ◆ Mortality
- ◆ Criminal justice system involvement
- ◆ Clinical status
- ◆ Functional status
- ◆ Employment status
- ◆ Housing status
- ◆ Financial status
- ◆ Quality of life
- ◆ Patients not diagnosed

12.6.1 Community Tenure

Rationale:

Improved support and maintenance of persons with SMI would be evident through an increase in community tenure through a reduction in days hospitalized or in custody.

Measure(s):

- ▲ Aggregated number of days hospitalized for psychiatric reasons plus number of days in custody or incarcerated for service recipients with SMI per annum subtracted from 365.
- ▼ Number of persons with SMI removed from the community for more than 90 days.

12.6.2 Mortality

Rationale:

Evidence suggests that persons with SMI die at higher rates and at younger ages than the general population (Evaluation Centre, HSRI, 1999). Efforts to improve their health status can result in decreased mortality among this group.

Measure(s)

- ▼ Crude mortality rate for persons with SMI (or specific diagnostic groups).
- ▼ Standardized mortality ratio for persons with SMI (or specific diagnostic group).
- ▼ Average number of years of life lost for persons with SMI who died in the past year, defined as the difference between age at death and current life expectancy.

(Note: While mortality is more commonly reported as a population health indicator than as an effectiveness indicator, its inclusion is warranted here given its importance as a health outcomes and an overall marker of system impact. Important in the use of mortality as an indicator is: a) determination of the extent to which excess mortality in this population is attributable to mental illness versus socio-economic status and b) the extent to which these phenomena can be separated.)

12.6.3 Criminal Justice System Involvement

Rationale:

Persons with SMI are more likely to come into conflict with the law as a result of transgressions stemming from impaired judgement inappropriate/ aggressive behaviour and insufficient community placements.

Measure(s):

- ▼ Rate of service provider population with SMI apprehended or incarcerated compared to rate for general population.
- ▼ Change in number of arrests within 30 days prior to admission to number of arrests at six and twelve months post-admission.
- ▼ Number of mental health related police calls.

12.6.4 Clinical Status

Rationale:

A major objective of mental health services is relief of clinical symptoms, the associated distress, and the degree of interference in daily life.

Measure:

- ▲ Percentage of service recipients with SMI experiencing reductions in the number and severity of symptoms between admission and follow-up. There are a wide range of clinical instruments available for the measurement of symptomatology.

(Note: see Durbin et al (2000) for specific instruments to measure symptomatology)

12.6.5 Functional Status (Global)

Rationale:

Improving functional ability among service recipients with SMI is a central outcome objective for mental health service and supports. Functional status can be measured through global functioning measures or by the manifest level of independence in a number of life areas (e.g., employment status, housing status, financial status).

Measure:

- ▲ Percentage of service recipients with improved (or maintained) functioning as measured by a standardized global functioning instrument.

(Note: In individuals with SMI, maintenance of a client at a given level of functioning may be an appropriate outcome. See Durbin et al for specific instruments to measure client functioning.)

12.6.6 Employment Status

Rationale:

People with psychiatric illness have the capacity to work and consumers identify the need to engage in meaningful daytime activities as central to their self-worth and well-being. While paid employment represents the ultimate functional level in this area, there are a number of different supported employment options which can provide a sense of independence and involvement.

Measure(s):

- ■ Percentage breakdown of service recipients with SMI classified according to employment status categories defined by the IAPSRS Toolkit.
- ▲ Percent of service recipients with SMI attaining independent competitive (paid) employment.

12.6.7 Housing Status

Rationale:

Safe, decent, and affordable housing is essential to community stability and integration of persons with SMI. Supported housing for this client group is key element of mental health reform. Thus the numbers of clients with satisfactory accommodation is a key reform objective.

Measure(s):

- ■ Percentage breakdown of service recipient with SMI classified according to residential status categories defined by IAPSRS PSR Toolkit.
- ▲ Percent of service recipients with SMI in independent or supported housing.
- ▼ Number of persons with SMI on housing wait lists.

12.6.8 Financial Status

Rationale:

Adequate income can make an immense difference in the quality of life for persons with SMI.

Measure(s):

- ▲ Percentage of service recipients with SMI living above the poverty line.
- ▲ Percentage of service recipients with SMI receiving disability benefits.

12.6.9 Quality of Life

Rationale:

Quality of life (QoL) is an important indicator of service benefits derived by consumers with SMI and their families, as a basis for evaluating program effectiveness and the progress of mental health reform (Thornicroft & Tansella, 1999). QoL is a relevant indicator for services and supports. It should not solely be inferred from other client outcomes (e.g.,reductions in symptom severity, improvements in functioning) but measured in its own right.

Measure:

- ▲ Percent of service recipients with SMI reporting improvements in quality of life as determined by a valid measure (Lehman, 1988).

(Note: see Durbin et al (2000) for specific instruments to measure quality of life).

12.6.10 Patients Not Diagnosed

Rationale:

Prerequisite to effective interventions for persons with mental illness is accurate assessment and diagnosis. Nonetheless, community mental health outpatient records contain a substantial number of records with no diagnosis or diagnosis deferred.

Measure:

- ▲ Percent of active clients of community mental health clinics with a formal psychiatric diagnosis recorded in the administrative and clinical record.

(Note: In some circumstances, lack of diagnosis is not indicative of poor quality care. Early intervention specialists note the instability of the presenting picture in young adults and the need to defer diagnosis until after a thorough assessment and period of monitoring.)

12.7 Domain: Efficiency

Definition

Achieving desired results with the most cost-effective use of resources.

Indicators of Efficiency

- ◆ Mental health spending per capita
- ◆ Labour overhead
- ◆ Needs based resource allocation strategy
- ◆ Community/institutional balance
- ◆ Resource intensity planning tool
- ◆ Unit costs and cost per client
- ◆ Budget for evaluation and performance monitoring

12.7.1 Mental Health Spending per capita

Rationale:

Per capita spending provides a basis of comparisons with other jurisdictions to determine whether the overall resourcing of the mental health system is adequate. This indicator when tracked over time can also illustrate whether mental health spending is protected.

Measure:

- ▲ Total sector costs (including all health services: physician services, drug benefit plan costs, community mental health services and supports, and inpatient care) divided by the current total population of the region.

12.7.2 Labour Overhead

Rationale:

The proportion of staff costs associated with non-direct patient care in community mental health programs is one measure of efficiency and cost containment (Kamis-Gould, 1996).

Measure:

- ▼ Proportion of dollars spent on administrative and support full-time employees (FTEs) to dollars spent on total FTEs.

12.7.3 Needs Based Resource Allocation Strategy

Rationale:

Resource allocation based on psychiatric epidemiology, associated morbidity and disability, mortality and socio-demographic factors results in more equitable distribution of resources in relation to local need than funding strategies based on service-utilization and population size alone.

Measure:

- Existence of a regional mental health funding formula reflecting a needs-based resource allocation strategy.

12.7.4 Community/Institutional Balance

Rationale:

A key element of mental health reform is the shift toward greater investments in community over institutional services assuming that the level of mental health resources overall is adequate.

Measure:

- ▲ Ratio of spending on community mental health services to institutional mental health services.

12.7.5 Resource Intensity Planning Tool

Rationale:

Methods of matching the needs of the client population with the continuum of service/resource intensity is an important system planning tool. This requires a means of categorizing clients according to need, a method of ordering programs according to resource intensities, and a procedure for determining required capacity at each point on the continuum.

Measure:

- Evidence of an explicit process for systematically incorporating client population levels of need into resource intensity estimates.

12.7.6 Unit Costs and Costs per Client

Rationale:

Unit costs by mental health program area are a measure of the relative efficiency of services. Similarly, an understanding of the costs per clients served on an annual basis is a reliable measure of productivity that is useful for comparing costs across similar services. Both cost indicators must be case-mix adjusted and are most useful in conjunction with program outcome data.

Measure(s):

- ▼ Total costs divided by total units of service by program.
- ▼ Total costs divided by the total number of clients served by program.

12.7.7 Annualized Budget for Evaluation and Performance Monitoring

Rationale:

Monitoring and evaluating mental health reform initiatives cannot occur in the absence of adequate financial support. Routine performance appraisals are essential to system and program accountability and for continuous quality improvement.

Measure:

- ▲ Percentage of mental health sector budget devoted to supporting the organization capacity to conduct performance monitoring.

12.8 Domain: Safety

Definition

Potential risks of the intervention or the environment are avoided or minimized. For the purposes of this report, the concept is extended to the safety of mental health staff and public safety.

Indicators of Safety

- ◆ Complications associated with ECT
- ◆ Medication errors/side effects
- ◆ Critical incidents involving inpatients
- ◆ Suicides
- ◆ Homicides

12.8.1 Complications Associated with ECT

Rationale:

Adverse events associated with electroconvulsive therapy include medical complications such as myocardial infarction, damage to teeth, bone fracture, aspiration, arrhythmia, CVA, or a serious anaesthetic complication (Royal Australian & New Zealand College of Psychiatrists, 1998).

Measure:

- Percentage of patient undergoing ECT who experience a major medical complication.

12.8.2 Medication Errors/Side Effects

Rationale:

Safe effective pharmacotherapy requires achieving a balance in favour of therapeutic benefit over medication side effects which are common with neuroleptics and other stronger psychotropic medications. Medication errors also occur through errors in prescribing, dispensing, administration and non-compliance.

Measure(s):

- Number of medication errors/adverse effects reported by clients with SMI to case managers.
- Number of medical services and/or hospital services required as a direct result of psychotropic medication problems.

12.8.3 Incidence of Critical Incidents Involving Inpatients

Rationale:

Tracking of major critical incidents of patients who suffer significant injury while admitted to an inpatient facility is an indicator of the system's ability to provide custodial and protective care. Similarly, the harm or injury to staff should be recorded in critical incident reports.

Measure(s):

- Incidence of any physical injury requiring medical attention to psychiatric patients and staff by inpatient facility per year.
- Incidence of substantiated reports of sexual assaults on inpatients.

12.8.4 Suicide

Rationale:

The risk of suicide undoubtedly poses the most serious threat to the safety of persons with SMI. Rates of suicide and attempted suicide among persons with SMI are high. A significant proportion have been in contact with the mental health service system in the preceding year. While a number of factors, some beyond the control of health services, affect suicide, it is considered a preventable event. Several international jurisdictions have set specific targets for

reduction in suicide rates (National Health Service, UK,1999). Suicide rates for specific populations illustrate priority areas for suicide prevention efforts.

(Note: UK combines official suicides and undetermined deaths into a single rate because of the finding that the latter in retrospect are nearly always determined to be suicides: Jenkins, 1998).

Measure(s):

- Suicide rate per 1000 for general population by age and sex.
- Suicide rate per 1000 for persons with SMI (or specific diagnostic groups).
- Suicide rate per 1000 for aboriginal persons.
- Parasuicide rate from emergency service contact data.

12.8.5 Homicides by Persons with SMI

Rationale:

A small number of individuals with SMI are dangerous and a threat to public safety.

Measure:

- Number of homicides committed by persons with SMI.

12.9 Community and Health System Characteristics

The social, demographic, geographic, and economic characteristics of an area describe the social landscape and unique features of this country's many cities and smaller communities. Knowledge of these factors is essential to provide a context in which to interpret indicators of the performance of mental health services and supports.

Socio-demographic indicators

Some communities because of their socio- demographic characteristics are likely to have higher overall deprivation levels and, as a result, disproportionately higher mental health service needs. In Britain, the mental illness needs index (MINI), a regression model using census variables, was developed to predict admission patterns by region (Glover et al., 1998) Indicators of this nature which should be tracked and reported are:

- Proportion of homeless individuals
- Unemployment rates
- Population age distribution
- Ethnic mix
- Social isolation
- Single parent households
- Urbanicity (e.g., presence of inner core areas with endemic poverty)

Social-economic factors

The economic climate in a given community is strongly related to the well-being and mental health of its residents. Many smaller communities with resource-based economies are dependent upon one industry, and sometimes one corporation, for their livelihood. Events which affect these industries (e.g., mill, mine closures) have significant implications for the social stability and health of that community. Some indicators of importance in this regard are:

- Average household income
- Proportion of workforce employed in resource based industry
- Recent layoffs
- Environmental changes affecting local natural resources (e.g., oil spills depleting fish stocks)
- Company downsizing, closures

Unusual/catastrophic occurrences

From time to time events occur which send a community into crisis. These events can range from natural disasters (e.g., earthquake, flooding, etc), to industrial accidents affecting members of the community, to social disasters such as an outbreak of suicides among aboriginal youth. Events which can have a significant impact on the need for mental health services include:

- Natural disasters
- Industrial and other accidents
- Homicides/rates of dangerous crime
- Increases in child apprehension, suicides, etc.

Health system characteristics

The configuration of health services and other related resources in a given community must be considered in appraisals of mental health care. Basic indicators include:

- Physician/patient ratio
- Number of designated psychiatric acute-care beds
- Distance to nearest acute-care hospital
- Availability of emergency services
- Number of resident psychiatrists and other mental health specialists
- Existence of specialized mental health in-patient facilities in the area
- Availability of residential facilities (e.g., supported housing options, specialized residential treatment programs)

12.10 Indicator Parameters

Acceptability

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.1.1 Consumer satisfaction	outcome	program, client	program, clinical
12.1.2 Formal complaints	process	system, program	policy
12.1.3 Charter of rights	process	system	policy, program
12.1.4 Consumer/family involvement in treatment	process	program, client	clinical
12.1.5 Consumer/family involvement in planning/delivery	process	system	policy
12.1.6 Cultural sensitivity	process	program	program, clinical

Accessibility

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.2.1 Service reach to persons with SMI	process	system, program	policy, program
12.2.2 Service reach to homeless	process	system, program	policy, program
12.2.3 Access to psychiatrists	input, process	system	policy
12.2.4 Access to primary care	process	system, program	policy, program, clinical
12.2.5 Wait-time for needed services	process	program	policy, program
12.2.6 Availability of after-hours care & transportation	process	program	policy, program, clinical
12.2.7 Denial of service	process	system, program	policy
12.2.8 Early intervention	process	system, program	program, clinical
12.2.9 Consumer perception of access	process	program, client	program

Appropriateness

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.3.1 Existence of Best Practice programs	process	system, program	policy, program
12.3.2 Evidence-based implementation of BP	process	system, program	policy, program
12.3.3 Receipt of BP programs	process	client	program, clinical
12.3.4 Treatment protocol for co-morbidity	process	program	clinical
12.3.5 Hospital readmission rate	process	system	policy
12.3.6 Involuntary committal rate	process	system	policy
12.3.7 Average length of stay	process	system	policy, program
12.3.8 Use of seclusion/restraints	process	program	program, clinical
12.3.9 Least restrictive setting	process	system	policy, clinical
12.3.10 Appropriate spending	input	system	policy
12.3.11 Consumer perception of appropriateness	process	system	policy, program

Competence

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
	see section 12.4		

Continuity

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.5.1 Continuity mechanisms	process	system, program	policy, program
12.5.2 Emergency room use	process	system	policy
12.5.3 Community follow-up	process	system, program	policy, program
12.5.4 Physician reimbursement for case consultation	input, process	system	policy
12.5.5 Documented dx plans	process	program, client	program, clinical
12.5.6 Cases lost to follow-up	process	program	program
12.5.7 Repatriation	process	system	policy
12.5.8 Single point of accountability	process	system	policy

Effectiveness

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.6.1 Community tenure	outcome	system, program	program, clinical
12.6.2 Mortality	outcome	system	policy
12.6.3 Criminal justice system involvement	outcome	system	policy
12.6.4 Clinical status	outcome	program, client	clinical
12.6.5. Functional status	outcome	program, client	clinical
12.6.6 Employment status	outcome	program, client	clinical
12.6.7 Housing status	outcome	program, client	clinical
12.6.8 Financial status	outcome	program, client	clinical
12.6.9 Quality of life	outcome	program, client	clinical
12.6.10 Patients not diagnosed	process	program	policy, program, clinical

Efficiency

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.7.1 Per capita spending	input	system	policy
12.7.2 Labour overhead	input	program	program
12.7.3 Needs-based resource allocation strategy	process	system	policy
12.7.4 Community/institutional spending balance	input	system	policy
12.7.5 Resource intensity tool	process	system	policy
12.7.6 Unit costs/costs per client	input	program	program
12.7.7 Budget for performance monitoring	input	system	policy

Safety

Indicator	Indicator Type (input, process, outcome)	Level of Measurement (system, program, client)	Utility Context (policy, program, clinical)
12.8.1 Complications associated with ECT	outcome (adverse)	program, client	program, clinical
12.8.2 Medication errors/side effects	outcome (adverse)	client	clinical
12.8.3 Critical Incidents	Outcome (adverse)	program	program
12.8.4 Suicides	Outcome (adverse)	system	policy, program
12.8.5 Homicides	Outcome (adverse)	system	policy

13. Final Checklist

The following questions provide a check to determine whether important steps and processes have been followed in developing a performance monitoring plan.

- ✓ Have clear goals and objectives for services and supports within the regional context of mental health reform been established?
- ✓ Were key stakeholders, especially consumers and families, involved in establishing goals and objectives?
- ✓ Do the identified objectives concerning services and outcomes reflect expectations made explicit in a user and/or family charter of rights?
- ✓ Do identified objectives reflect the best practice criteria for core programs and system strategies?
- ✓ Has a performance monitoring framework or plan been developed that identifies a discrete number of priority objectives, and where possible targets for performance, for this reporting cycle?
- ✓ Is this plan feasible?
- ✓ Has the performance monitoring framework been made public with a commitment to a regular reporting process?
- ✓ Have indicators to measure progress toward objectives and targets been identified?
- ✓ Do the selected indicators provide a representative set of performance information appropriate to the system or program being evaluated?
- ✓ Are the chosen indicators reliable and valid?
- ✓ Is indicator information available from existing administrative data sources? Where does the data reside? Is there ready access to this data? Is the data complete?
- ✓ If a data source is not available for a key indicator, how, and at what cost, will new information be collected?
- ✓ What office/staff have been designated as responsible for collecting, analyzing, compiling, and reporting performance information? Does the appropriate technical expertise exist? Are resources adequate to support the work required?
- ✓ Have the data been risk adjusted or standardized to control for systematic sources of variation or bias which do not reflect actual differences in performance?
- ✓ Have consumer and family groups been involved in the interpretation of performance data?
- ✓ Is there full disclosure of performance information in a manner/form that is easy to access and understand?
- ✓ Have performance gaps and strategies to address these gaps been communicated?
- ✓ Has the mechanism for which performance information will drive mental health policy and decision-making been made clear?
- ✓ Is there a forum for involving key stakeholders in the realignment of goals, objectives and strategies for the next performance cycle?

APPENDIX A

Accountability and Performance Indicators for Mental Health Systems and Supports

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APPENDIX B

Survey of Advisory Network on Mental Health Members Information Required for Development of Performance Indicator Resource Kit

Please indicate response by ticking appropriate box

1. How would you rate the progress of mental health reform in your province or territory?
   - ❍ minimal progress/early stages of implementation
   - ❍ moderate progress/implementation well underway
   - ❍ substantial progress/advanced stages of implementation

2. Has your province/territory released a formal operational or implementation plan for mental health reform?
   - ❍ yes (year_____)
   - ❍ no

3. Did that operation plan include specific measurable objectives for change?
   - ❍ yes
   - ❍ no

4. Did that plan include strategies for performance monitoring in relation to those objectives?
   - ❍ yes
   - ❍ no

5. Does formal performance monitoring in the mental health sector (at the system, program or client level) occur in your province/territory?
   - ❍ yes
   - ❍ no

6. How are the results of this monitoring activity reported to stakeholders?
   - ❍ formal reports released externally on annual, or other, regular basis
   - ❍ informal reporting
   - ❍ results not reported externally
   - ❍ n/a

APPENDIX C

Health Indicators Framework

Health Status

Health Conditions	Human Function	Well-Being	Deaths
Alterations of health status, which may be a disease, disorder, injury or trauma, or reflect other health-related states	Alterations to body functions/ structures (impairment), activities (activity limitation), and participation (restrictions in participation)	Broad measures of physical/ mental/social well-being of individuals	Age or condition-specific mortality rates and other derived indicators

Determinants of Health

Health Behaviours	Living and Working Conditions	Personal Resources	Environmental Factors
Aspects of personal behaviour and risk factors that influence health status	Socio-economic characteristics and working conditions of population that are related to health	Measures the prevalence of factors, such as social support and life stress, that are related to health	Environmental factors that can influence health

Health Indicators Framework (continued)

Health System Performance

Acceptability	Accessibility	Appropriateness	Competence
Care/service provided meets expectations of client, community, providers and paying organizations	Ability of clients/patients to obtain care/service at the right place and right time, based on needs	Care/service provided is relevant to client/patient needs and based on established standards	Individual's knowledge/skills are appropriate to care/service provided
Continuity	**Effectiveness**	**Efficiency**	**Safety**
Ability to provide uninterrupted, coordinated care/service across programs, practitioners, organizations, and levels of care/service, over time	Care/service, intervention or action achieves desired results	Achieving desired results with most cost-effective use of resources	Potential risks of an intervention or the environment are avoided or minimized

Community and Health System Characteristics

Characteristics of the community or the health system that, while not indicators of health status or health system performance in themselves, provide useful contextual information.

Source: CIHI (1999)

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