A Resident Focussed Model

For Performance Measurement

in Long Term Care

by

Lori M. Lamont

A Thesis Submitted to the Faculty of Graduate Studies in partial fulfilment of the requirements of the Degree of Masters in Public Administration

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A RESIDENT FOCUSSED MODEL FOR PERFORMANCE MEASUREMENT IN LONG TERM CARE

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ABSTRACT

Health care systems have been criticized for their inability to demonstrate results in the face of escalating costs. Many systems worldwide have looked toward performance measurement as a means of articulating their results and demonstrating accountability. None of these models has evolved in their use to the point where this has been achieved nor is there agreement on how to demonstrate this accountability to the various stakeholders of health care systems. What has become clear is a growing consensus over which dimensions and measures are employed, particularly in the acute care system.

This study is concerned with performance measurement in the long term care sector. Traditional approaches to health system performance measurement do not apply in this sector due to the long term, residential nature of the service, which delivers end of life care. As well, none of the existing models for performance measurement adequately reflect the performance expectations of the consumer group, the residents. The model proposed here seeks to address the four themes identified by resident focus groups in one long term care facility. The model also builds on the growing consensus on performance dimensions and measures appropriate to long term care. The dimensions include client focus, effectiveness, efficiency, economy, equity, safety, and workforce. Measures were selected for each of these dimensions that have been included in other measurement systems. Most importantly, some measures were included that provide information related to the themes that were identified by the residents.

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DEDICATION

For Bruce,

who supported and encouraged me in the completion of this work. Thank you for your love, patience, and sense of humour. This would not have been possible without you.

LIST OF ABBREVIATIONS

ABBREVIATIONS	MEANING
AIM	Achieving Improved Measurement
CCHSA	Canadian Council on Health Services Accreditation
CHSRA	Centre for Health Systems Research & Analysis
CIHI	Canadian Institute of Health Information
JCAHO	Joint Commission on Accreditation of Health Care Organizations
MDS	Minimum Data Set
MIS	Management Information System
NHS	National Health Service (Great Britain)
OECD	Organization of Economic Cooperation & Development
RAI	Resident Assessment Instrument
RHA	Regional Health Authority
RHTA	Residents Have the Answers
RUGS	Resource Utilization Groups
VRE/MRSA	Vancomycin Resistant/Methocillin Resistant Staph Aureus
WRHA	Winnipeg Regional Health Authority
WHO	World Health Organization

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Chapter 1 - Introduction

As health care costs in Canada continue to escalate and consume a growing percentage of provincial budgets[1], there is a greater demand from politicians, bureaucrats, and taxpayers for evidence that health care providers are producing efficient, effective, and quality service. Health systems and providers are grappling with how to demonstrate cost effective results and performance measurement is becoming a popular way to attempt to demonstrate effectiveness and quality service. A recent example comes from the birthplace of the Canadian medicare system. The Saskatchewan Commission on Medicare[2] recommends that to sustain a quality health care system, there needs to be continuing development of performance indicators and the information required to support them. The report of this Commission links the concepts of quality and performance in health care and it emphasises the need to change the traditional focus from reporting how much service is provided to a focus on the impact of these services. Thus organizations that are charged with planning and delivering health services need to develop performance measurement systems to focus on the outcomes of care and services rather than the existing focus on the evaluation of structures and processes. All public health care organizations need to develop systems that provide information about the results they are able to achieve with the funds that they receive.

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[1]Health Care expenditures are estimated to be approximately 40 percent of provincial budgets in Canada.

[2]The Commission on Medicare in Saskatchewan, Chapter Four: Getting Results - Quality at the Centre of the System (2001). This reinforces the notion that in health quality and performance are intricately linked.

Background

The recognition that performance measurement is required is widespread, but most systems are still underdeveloped. The World Health Organization (2001) has endorsed the use of performance measurement for use at the national and provider levels in health systems throughout the world. They have devoted significant time and resources to the development of a framework for the use of performance measurement, including guidelines for the selection of performance measures.

Canadian governments at the federal and provincial level have endorsed the use of performance measurement without being very prescriptive or specific as to what a performance measurement system should look like. A communiqué from the First Ministers' Meeting in September 2000 supported the use of performance measurement and reporting and directed Health Ministers to provide regular and comprehensive reporting to the public. The document outlines five purposes for measuring, tracking and reporting on performance including:

- Allowing Canadians to see how we are doing in attaining our goals and objectives
- Assisting individuals, governments, and health care providers to make more informed choices
- Promoting the identification and sharing of best practices within jurisdictions and across Canada, and thus contributing to continuous improvement
- Increasing Canadians understanding of the utilization and outcomes of health services and
- Helping Canadians understand how their publicly funded health services are

delivered.

As part of their description of the Canadian Health System, Health Canada (2001, p. 10) concludes that:

> There is general agreement that in order to make the health care system more responsive and accountable to the public, it is necessary to move toward an integrated, high quality health care system that can provide the needed care in an effective and affordable manner. Canadians expect to be informed of the performance of the health care system and to be involved in the transition of the system to address their needs in the twenty first century and beyond.

While some may not agree that these are the expectations of the average Canadian, these same conclusions are echoed in more recent reports.

The Interim Report of the Romanow Commission[3] reports that despite recent efforts, reliable and valid information on most health services is lacking. He found a lack of hard evidence to guide decisions, although progress had been made in both measuring performance and in providing Canadians and their government with better health information. The Commission recognizes the efforts to create a number of common indicators to measure performance from the national to the individual facility level and the development of health outcome indicators that look beyond measurements of illness and treatment. Lastly, the Commission recognizes the need for integrated information management systems to support these measurement efforts. The final report of the Romanow Commission is not yet available but based on this interim report, calls for the development of performance measurement systems to be one area of recommendation.

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3 The Commission on the Future of Health Care in Canada, commonly referred to as the Romanow Commission was formed in April of 2001 by the Government of Canada to undertake dialogue with Canadians on the future of Canada's public health care system, and to recommend policies and measures required to ensure the sustainability over the long term of a universally accessible, publicly funded system that offers quality service to Canadians.

The delivery of health care in Canada is carried out by a complex system of organizations funded by federal and provincial, as well as private sources. It is not the intent here to provide a comprehensive discussion of this complexity. Health care is constitutionally the jurisdiction of the provinces but there are federal, provincial and local responsibilities. At the federal level, The Canada Health Act provides a framework, which governs the provision of publicly funded health care. The federal government continues to provide funding but at a lower percentage of overall national expenditure in the last decade for publicly funded services. The direct funding of and related decisions regarding health care delivery are the jurisdiction of the provinces. In all Canadian provinces with the exception of Ontario, provincial governments have chosen to appoint regional health authorities (RHA's) that are responsible for the management of health services delivery in sub-provincial regions. These authorities are responsible for the delivery of care and provincial governments are responsible for funding, policy initiatives, and regulations pertaining to the services managed by the RHA's. In Manitoba, there are twelve regional health authorities with the Winnipeg Regional Health Authority (WRHA) being the largest. In Winnipeg, the WRHA has taken ownership of or entered into operating agreements with the facilities that directly deliver the services, including long-term care facilities.

Many provinces and RHA's have chosen to use performance measurement systems to determine how effectively services are being delivered and dollars are being spent. Both Manitoba Health and the Winnipeg Regional Health Authority have followed this trend. In conjunction with the Regional Health Authorities of Manitoba, Manitoba Health has developed Manitoba's Health Performance Measurement

Framework[4] as a corporate approach to performance measurement. In addition, the Winnipeg Regional Health Authority requires that performance measures be identified as a component of the business plan for all programs and services for the year 2001-2002[5], including the acute, community, and long-term care sectors.

Statement of the Problem

Policy makers are advocating the use of performance measurement for health care systems, even at the individual facility level. Much of the published material in Canada and elsewhere has focussed on health outcome measures and measures related to the acute care system. This focus is understandable given that governments need to be concerned with the overall health of the nation and with the acute care sector's consumption of resources since it currently consumes the majority of public health care dollars. There has been less attention directed to performance measures in the other sectors, particularly long term care. The study undertaken here is concerned with performance measurement in the long term care sector.

For the purposes of this study the definition of long term care from Statistics

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[4]Manitoba's Health Performance Framework was developed in a collaborative effort between Manitoba Health and the Regional Health Authorities Planning Network. Performance measurement is promoted as a means to assess outcomes and to aid decision making and future action. The Framework is currently being introduced throughout the province with trials currently underway in the Mental Health and Community Health sectors.

[5] Winnipeg Regional Health Authority guidelines for 2002/2003 recommend a focus on the development of indicators/measures that enhance the organization's and the corresponding program's ability to make informed decisions regarding care and service delivery. Performance measures are expected to demonstrate the effectiveness of programs and services. The Business Planning Workbook provides guidelines for the development of measures and directs programs to select measures that reflect key actions towards meeting the vision and strategic goals of the Authority.

Canada will be used.

> Long Term Care Facilities provide care for clients who can no longer live safely at home. Residential care services provide a safe, protective, supportive environment and assistance with activities of daily living for clients who cannot remain at home due to their need for medication supervision, 24-hour surveillance, assisted meal service, professional nursing care and/or supervision. Clients may have moderate to heavy care needs, which can no longer be safely or consistently delivered in the community. They may suffer from a chronic disease, from a disability that reduces their independence and, generally, can not be adequately cared for in their homes. In some cases, all facility services, including chronic care are provided in Long Term Care facilities. (Hollander & Walker, 1998, p. 7).

This definition adequately describes the long term care sector in Manitoba, including Deer Lodge Centre, which is the facility included in this study.

Historically the long term care sector in North America has been highly regulated and governments have relied heavily on the use of standards and inspections to achieve safe, quality care. There has been limited emphasis on performance measurement in the sector. In general, in spite of its recent prominence, the adoption and use of performance evidence has been slow but this is particularly true in long term care. This may reflect in part, the low priority and limited spending for this type of care by health systems and a general lack of interest in the care of older people. It is also related to the fact that traditional health outcome measurement cannot easily be applied. The long-term care sector is particularly challenging due to the length of time over which the service is provided and residential nature of the service. For the most part, long-term care provides end of life care, which does not lend itself to traditional health outcome measures.

Recently, there has been a great deal of interest in the use of performance measures to assure quality of health care services and to demonstrate accountability of health care providers to public funding bodies. There are unique challenges inherent in

the use of measurement in long-term care, as the goals of care are different from those of other health sectors. A particular challenge is ensuring that the perspective of the frail elderly or disabled residents of long-term care are included. Policy makers, health providers and academics including Manitoba Health and the Winnipeg Regional Health Authority, are proposing the use of outcome measures. This thesis will demonstrate that the views of the consumer, the resident, may not be the same and need to be considered in the selection of the measures.

The purpose of this thesis is to propose a model for performance measurement for the long-term care sector in Winnipeg. This will be done by critically examining how performance measurement has been used in health care, analysing performance measures from other jurisdictions[6] and obtaining stakeholder feedback on what aspects of care and services are most important. Special attention will be given to the client or resident stakeholder group and their perspective on which outcomes are most important to them. This model for performance measurement in long- term care will address the resident's need for quality services and also meet the requirement for reporting and accountability within the wider health care system.

Thesis Statement

The long-term care system is a large and complex system that provides a variety of services to a population of primarily elderly or disabled residents. The population is not homogeneous in their experience and expectations of the services of long-term care.

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[6] Performance measurement systems are mandated for Medicare funding in the United States and the National Health Service in the United Kingdom has also developed a national system of performance measurement for the long-term care sector.

As well, there is a unique challenge to working with this population particularly due to their physical and mental frailty. The recipients of the service are frequently unable to communicate their expectations and needs or their evaluation about the services provided. The nature of the service is also challenging in that traditional health care measures such as morbidity and mortality rates are not the most appropriate when evaluating end of life care. Therefore measures unique to the long-term care sector need to be identified and some means of obtaining resident stakeholder input is put in place. The primary research questions for the purposes of this work are reasonably straightforward.

What indicators should be included in a system for quality and performance measurement for the long term care services provided to the citizens of Winnipeg? What performance information is most important to the residents[7] of long-term care? The following questions will be addressed in the course of this research:

1. What are the performance measures that are currently accepted for use in long term care by other jurisdictions?
2. What performance measures are most meaningful to residents?
3. What information systems need to be in place to support these measures?
4. Are these systems available in Winnipeg care facilities or is it feasible to put them in place?

The answers to these questions will assist in the selection of a set of performance measures that are intended to ensure the effectiveness and quality of services that are

[7] Recipients of service in long term care are commonly referred to as residents rather than the traditional use in health care of the term patient. This reflects the residential and long- term nature of the services provided to this population.

provided. The resources to support a measurement system are relatively limited in our public system, therefore a small number of indicators that can realistically be collected, need to be selected. The selection process must allow for both comparability with other jurisdictions and address the needs of the recipients of the service here in Winnipeg.

Methodology

The methodology for this thesis consists of an extensive review of the literature, the analysis of models from other systems, interviews with experts in the field and focus groups sessions with resident stakeholder groups. The literature review focuses on academic reports, published works, government reports, and reports from national and international bodies interested in health care performance. It will include literature on the use of and rationales for performance measurement systems and their utilization in the public sector, the health care sector and most particularly, the long-term care sector. The focus of the long-term care literature review will be to determine what, if any, consensus exists on a particular set or group of measures. The knowledge gathered in the literature review will be utilized in the analysis of a number of health care performance measurement systems.

There are a number of performance measurement systems currently in use or being developed for use in health systems in other jurisdictions. A number of these systems have been included here and have been critically analysed to determine their congruence with the recommendations from the literature and for their similarities and differences. Included in this analysis are personal interviews two key informants8 from

8 While these interviews provided some insight into the current use of performance measurement in the Canadian system, they were not particularly influential in the model development.

Manitoba Health and the Canadian Council on Health Services Accreditation. These officials were asked a series of questions about their opinions of the role of performance measurement in the health sector and their concerns or hopes for it's future use. Particular attention will be paid to the challenge of ensuring client stakeholder participation in the process.

The final source of data used in the development of the model for use in long term care are the results from the resident focus groups conducted at Deer Lodge Centre in Winnipeg. These groups were held to obtain resident feedback about what aspects of care and services were most important to them and to use this information to provide guidance in the ongoing quality improvement and performance measurement activities at the facility. The use of this material represents a bottom up approach to model development.

Outline

Chapter One provides a general overview of the topic and sets the focus for the work. It includes the background information that demonstrates the growing interest in the use of performance measurement as a means of demonstrating accountability and service quality in health care. The specific area of interest is the long-term care health sector and the inclusion of the perspective of the resident stakeholders in the development of a model for use in Manitoba.

Chapter Two will set the stage for discussion of performance measurement by describing the concept of performance measurement, including how it has been implemented in the public sector. This will include a discussion of the political and public policy considerations involved in defining and using measures. These

considerations will be important as models for health care are outlined in the next chapter.

The third chapter makes the case for the use of performance measurement in health care. It includes an examination of how performance measurement has been used to evaluate the effectiveness of health systems in countries around the world. The chapter describes and critically analyses several systems used in publicly funded health systems, including the one proposed for use in Manitoba.

Chapter Four narrows the focus to the use of performance measurement in the long-term sector. There are two specific areas of discussion. The first examines a number of models that have been proposed for use in long-term care and the systems required to support them. The second looks at the challenges of ensuring that the views of the resident stakeholders are included in the model.

Chapter Five describes a process that was undertaken at Deer Lodge Centre in Winnipeg to solicit resident participation in the organizations quality and performance initiatives. The results of a series of focus groups have provided some qualitative information about what aspects of care are most important to the resident stakeholder group and how this information differs from that recommended by policy makers and academics. This information has been used in the development of the model in the final chapter.

Finally in Chapter Six, a model for performance measurement in long-term care is proposed for use in Winnipeg facilities that includes the themes identified by the resident group. The model provides a framework for categories of output and outcome measures designed to address the performance requirements of the various stakeholder groups.

Again, of particular interest are those measures, which reflect the factors that have been found to be meaningful to the resident stakeholder group.

The concluding chapter outlines the argument in support of the thesis and includes some of the challenges that must be addressed in the implementation of the model. The conclusion also includes suggestions for future investigation of the use of performance measurement in the long-term care sector.

Chapter 2 - Performance Measurement

Introduction

In the 1980's and 1990's public sector organizations were under tremendous pressure to become more efficient, reduce costs, and to become more business-like in the management of public funds. Most prominent in Western nations, these pressures come from many different sectors including politicians, business, the media, and citizens who were calling for lower taxes without significant reductions in access to services. Along with the demands for tax reductions, there were calls for greater responsiveness, better services, and accountability for performance. Public sector organisations were feeling the pressure to provide high quality services with less tax support and in many cases, with fewer employees. There were also calls for the transfer of service delivery to the private sector. These changes were not quickly or easily achieved and for the most part remain a work in progress. What grew out of this change in expectations for public sector organisations was a new approach to public administration with an increased emphasis on accountability.

This new approach to public administration has become known as the new public management. It has changed the way in which government does business, including the way in which public policy is evaluated. Leslie Pal, (1997, p. 265) has described the shift as an emphasis on "links between results and deficit control; performance, service, and clients; decentralisation and evaluation stressing results...defines those results in terms of client satisfaction, thus merging, to some degree, the categories of impact and process evaluations." One of the tools that has become popular in this new approach to evaluation to demonstrate results is performance measurement. Program evaluation and

performance measurement are related but different activities. Performance measurement is not a complete replacement for formal program evaluation. Formal program evaluation seeks to identify the underlying causal relationships between policies and program outcomes. Evaluation is a more systematic, scientific, and in depth investigation of whether programs are achieving their stated goals. This was costly and time-consuming work that often did not have much impact on decision-making. During the period of restraint, formal program evaluation was seen to be expendable and there was more interest in the performance measurement. Performance measurement is a more limited attempt to track the progress of programs based on measures or indicators.

Performance measurement has gained popularity in public sector organisations around the world, particularly in the United States, Europe, Australia, and Canada. It is less costly and does not require the same commitment of resources as formal evaluations. While performance measurement does not provide the same level of information about the outcomes of a program as evaluation potentially does, it can provide an indication of outcomes and is helpful in providing guidance to the management of the program. This distinction between performance measurement and program evaluation will be discussed further in this chapter.

Prior to examining how performance measurement is being employed in the health sector, it is important to gain an understanding of what performance measurement is and what it is intended to do. This chapter will provide a discussion of the basic concepts and application of performance measurement in public sector organisations based on a review of the literature. It will include definitions of some of the key concepts and outline some of the key factors to consider during implementation.

Performance Measurement

As indicated in the introduction, performance measurement is one of the tools associated with new public management. Much of the debate about the need to change the way government operates can be attributed to "Reinventing Government" by Osborne and Gaebler (1996). They suggested that the most successful governments "empower citizens...measure the performance of their agencies focussing not on inputs but on the outcomes. They are driven by their goals - their missions - not by rules and regulations. They define their clients as customers and offer them choices" (Osborne and Gaebler, 1996, p. 533). Mayne and Zapico-Goni (1997, p. 3) describe a reformed public administration as "streamlined and lean, able to innovatively respond to constant changes and challenges, and deliver quality services to its citizens at lower cost." They go on to say "that effective monitoring of the performance of government services and programs is essential to successful public sector reform." This focus on outcomes and measurement has become very popular and is advocated by a wide range of authors with an interest in the public sector (Mintzberg, 1996; Alberta Treasury, 1996). Before discussing how performance measurement can be utilised, it is important to clarify the concept and the practice.

Definitions

Several terms involved in the study and practice of performance measurement require clarification: performance measurement, performance measures or indicators, inputs, outputs, outcomes and benchmarking. We will begin by defining the concept of performance measurement.

The Auditor General of Canada provides this definition of the concept. "The

concept of performance measurement deals with results: were expected results accomplished: were they accomplished within budget and in the most efficient manner; were there undue, unintended consequences? It also deals with whether the performance achieved will continue or improve, or is the organization learning and adapting?" (1997, p. 3). A federal study in the United States defined performance measurement as;

> A process of assessing progress toward achieving predetermined goals including information on the efficiency with which resources are transformed into goods and services (outputs), the quality of those outputs (how well they are delivered to clients and the extend to which clients are satisfied), and outcomes (the results of a program activity compared to its intended purpose), and the effectiveness of government operations in terms of their specific contributions to program objectives (Performance Measurement Study Team, 1997, p. 6).

The State of Utah provides a similar and very simple definition of performance measurement; "Performance measures are the tools or indicators of the state's actions in achieving a given objective or goal." (State of Utah, 1997, p. 6). These definitions describe the ideal, but as will be discussed later in the chapter, most performance measurement to-date has been limited to the documentation of inputs and outputs.

There are three types of measures commonly described in the literature. These include input, output, and outcome measures. Inputs are the resources expended to produce the service. Examples would include the amount of money spent or the number of employees who provide a service. Output measures report the quantity of product provided to service a population, which also includes the amount of effort expended to produce a product. Examples include the number of students who graduate from an educational institution or the number of potholes filled on city streets. Outcome measures focus on results. Examples of outcomes include the number of graduates who are successfully employed in their field of study two years after graduation and customer

feedback such as the number of complaints about potholes. The proponents of performance measurement recommend a balance in the types of measures selected. Historically in the public sector, there has been a focus on reporting inputs but this focus is shifting toward outputs and outcomes or a more results oriented approach.

The final term, which is necessary to understand in relation to performance measurement, is benchmarks or benchmarking. Benchmarks are frequently cited in the discussions of performance measurement, particularly in the health literature, which will be reviewed in the third chapter. The Province of Manitoba's Manitoba Measures Program describes benchmarking as a process of "studying the business processes of companies considered to be best in their fields and adapting those processes, where appropriate, to particular business situations. While benchmarking implies best practices, it does not mean that it can or will be achieved immediately" (Manitoba, 1996, p. 14). The Benchmarking Study Report (1997, p. 29) defines a benchmark as "a standard or point of reference used in measuring and/or judging quality or value" and benchmarking as "the process of continuously comparing and measuring an organization against business leaders anywhere in the world to gain information that will help the organization take action to improve its performance."

Benchmarking also describes the process of determining appropriate goals for each measure. The setting of goals can encourage an organization to "stretch" to exceed its past performance. However, it is necessary to set attainable goals. There is no point in setting a benchmark at 100% if the industry standard is 80%, as the 100% level may never be achievable. Benchmarking in the public sector can be problematic for two reasons. Firstly, there is no recognized "industry standard" for many public sector

services and secondly, measurement activities have not developed to the point where data is collected in a consistent manner and accurate comparisons can be made between organizations.

Not all performance measurement systems rely on benchmarking. This is, in part, because there is not enough performance information available with which to set reliable benchmarks. Although benchmarks are not always included in performance measurement systems, this writer believes that efforts should continue towards the use of benchmarks, as a means of providing for accurate comparisons and measuring progress toward goals.

The terms performance measure and performance indicator will be used interchangeably in this paper, although some distinguish between the two. Measures are seen to be precise measurements of actual results while indicators are measurements of particular outcomes that are representative of results. Measures are precise measurements of actual results where cause and effect can be clearly identified. Indicators are less precise and act as flags or indirect measures of results. Indicators are helpful when direct cause and effect is less clear and they provide an indication of results, which may require further attention and investigation. This distinction is not particularly important for the remainder of this work. As in many public sector organizations, direct cause and effect is difficult to establish in health care, so the majority identified here will be indicators.

There is some variability found in the definitions but these are typical of most found in the literature. For the purposes of this paper, these will be the definitions that will guide the analysis and discussion of performance measurement.

Purpose of Performance Measurement

In the previous section performance measurement was defined, but why would organizations choose to utilise it? It is being touted as a means of demonstrating results and accountability to stakeholders and the general public. Again, there is a great deal of consensus found in the literature about the purposes of performance measurement. These include giving strategic direction (Boivard & Gregory, 1996; Government of Utah, 1997), resource allocation (Boivard & Gregory, 1996; Sorber, 1996), exercising control (Boivard & Gregory, 1996;Sorber, 1996), encouraging learning (Boivard & Gregory, 1996; Sorber 1996) most importantly, improving accountability (Sorber, 1996; Walters, 1998; Greiner, 1996). These aims of performance measurement are ambitious and not always entirely consistent with one another. At times, the goals of an organisation can be contradictory. In most organizations, there is tension between such goals as budgetary control versus encouraging learning and creativity. Performance measurement as a tool does little to resolve this tension; however, having more information about the performance of each area may be helpful or provide some balance in decision-making.

The purpose of performance measurement is to provide a systematic means for determining the relative performance of an organization in achieving their goals. In the public sector, Mayne and Zapico-Goni (1997, p. 5) describe "a well-performing public program or service as one that is providing in the most cost-effective manner, intended results and benefits that continue to be relevant, without causing undue unintended effects." They suggest that it is necessary to measure several dimensions to determine the actual performance of the program or service. Most programs and services can be

assessed based on a number of different goals. These goals may be diverse so it is necessary to measure each of these aspects. Different dimensions will be of greater or lesser interest to different audiences that have an interest in the performance of a program or service. This is the major benefit of performance measurement, the ability to use a multi-dimensional approach to evaluation without necessarily drawing any conclusions about the nature of the relationships among the dimensions.

Program Evaluation and Performance Measurement

For many years public sector organisations relied on program evaluation to provide feedback about the services they were providing. There are several different types of evaluative processes, which governments previously undertook. The three most prominent types include formative, impact, and program monitoring. Formative evaluation focussed on processes and was most commonly used to evaluate a new or emerging program. It is intended to provide information for program improvement, modification, and management. Impact evaluation deals with effectiveness or determining program results and effects. This type of evaluation was generally undertaken to assist in making major decisions about program continuation, expansion, reduction, and funding. The final type of evaluation commonly used, was program monitoring. Program monitoring included tracking the services or counting of clients and periodic checks on policy compliance.

The goal of these evaluations was to identify underlying causal relationships between policies and programs and the impact they have on the lives of citizens. The difficulty with the evaluative process was the time and costs required to carry it out. Governments did not always have the time in the electoral cycle to await the results of the

evaluation and there are many examples of where available results were ignored due to political considerations. There were also serious analytical challenges of separating the impacts of programs from the impacts of other factors within the environment of a particular program. A further criticism of formal evaluation was that the time required to gain the information necessary did not allow for timely responses to changing circumstances. Public sector managers were often criticised for their lack of responsiveness while they awaited the results of the evaluation process.

The pubic sector reform movement put a great deal of pressure on managers to manage programs and services. They were to deliver results with fewer resources and to be able to demonstrate these results to both central government and to the public. Performance measurement was being promoted as a tool, which could assist managers in responding to these demands. It is a less costly and less time consuming process than program evaluation. While it does not usually provide the same information about causal relationships and program outcomes, it can provide indicators of program performance. Performance measurement also suffers from attribution problems in separating program impacts from the impacts of other environmental factors and programs. It can provide some general information about the achievement of goals of the program and can indicate areas that require further managerial attention and perhaps the conduct of a formal evaluation. A performance measurement system can be designed to be cost-effective and responsive to the needs of today's public sector organisations.

Quality and Accountability

In addition to being cost-effective and responsive, performance measurement can also be helpful in assisting to demonstrate quality and accountability. In today's public

sector organizations, there is a growing insistence on improving programs and services and to ensure accountability. Politicians and public servants are increasingly obliged to provide evidence that programs work. Part of the appeal of performance measurement may be to provide a symbolic reassurance to a sceptical public that government can be made to work. This section will address how performance measurement can be used to address both quality and accountability.

Many pubic and private sector organisations have become occupied with the desire to demonstrate the quality of the programs and services delivered. They want to be able to tell their customers what to expect and know whether or not what they are getting is meeting their expectations. They have invested a great deal of time and resources in quality assurance, quality management, and quality improvement processes. The focus on quality in organisations can be traced back to the work of Deming (1986). Deming proposed an approach to operations that focussed on quality of the final product and in all the processes to produce a quality product. This has been very successful in the manufacturing industry where the relative quality of an automobile or computer can be fairly easily demonstrated. How can the relative quality of a program or service be determined or measured?

Mayne and Zapico-Goni (1997) and Newcomer and Wright (1997) advocate that performance measurement is a key element in Total Quality Management and quality improvement initiatives. Quality in public sector organizations can be very difficult to define. Generally, how individuals define quality is based on their expectations and how well a product or service meets those expectations. The difficulty that public sector organizations encounter is determining what expectations the various stakeholders may

have. The expectations of politicians, bureaucrats, the media, and citizens will be varied. In the case of health, peer review and professional judgement have been the main bases for determining quality health care. Now the perspective of the patient is being considered. There is a potential tension between professional judgement and patient satisfaction. Programs and services need to anticipate those expectations and develop a means to demonstrate how well they are meeting them. Discussions of quality management and continuous learning point to the importance of measurement and monitoring. Performance measurement is an excellent tool to support this work. Measurement alone won't determine the relative degree of quality but it can provide an indication of the progress toward meeting the expectations that have been articulated. Therefore, it is this author's belief that performance measurement is an essential component in articulating the quality of a program or service.

In addition to quality, public sector organizations are concerned with demonstrating accountability to their various stakeholders. Accountability is a prominent concern in new public management, both within programs and services delivered by government departments and agencies and especially by those private sector organisations that are contracted to provide them. Accountability has become a "buzz word" in current discussions of government and public services. Plumptre (1988, p. 27) defines accountability as follows. "To be accountable implies a formal relationship and ... it also implies a prior act of delegation direct from one party to another." This definition describes a clear, simple relationship between two parties, however this is not the reality in today's public sector. The term accountability may be used to describe: a general subjective sense of responsibility, the upholding of professional values and

standards even in the absence of external scrutiny, a demonstrated responsiveness to particular clients or to the community at large, and to the requirement for openness, a demographic dialogue and public participation in governance (Thomas, 2002, p. 4). It is this dynamic, multi-dimensional notion of accountability that performance measurement efforts seek to support.

The OECD (1994, p. 19) suggests that performance measurement "reinforces efforts toward modernisation and enables an organisation to demonstrate its results and their value to politicians, customers, and the pubic." Sorber (1996), Hikel (1997), and Walters (1998) make the point that performance measurement is particularly effective in improving the accountability of contracted services, which is important to our later discussion in the health sector where not all services are delivered directly by government.

This positive opinion of the role performance measurement in assuring or improving accountability is not universally shared. Mayne (1997) warns that performance information and its use in accountability are the weakest link in performance measurement. He does not believe that performance measurement is incapable of improving accountability, but rather believes that its use must be judicious. Measures must be chosen that reflect the achievement of pre-established expectations of what was to be accomplished. If measures are chosen carefully and reported regularly, public sector organizations do have the potential to demonstrate their accountability.

Will public sector officials always be willing to report their results? While performance measurement can provide a means for public sector officials to demonstrate their accountability, will they be willing to report "bad news"? This fear may be why

most efforts at performance measurement to date have focussed on inputs (resources) and outputs (products) as these are easiest to measure and are generally non-threatening to public sector managers. Accountability reporting demands a focus on outcomes (results) and these measures are the most difficult to design and to predict. What Mayne (1997) suggests is that public sector officials should welcome the opportunity to demonstrate what their programs are achieving and not shy away from those things that have gone wrong. Performance measurement is a means of explaining what has happened and what can be done to improve the situation thus demonstrating their accountability for results. This would be the ideal but officials will only be willing to report such information if they feel assured of support from politicians and the public. Politicians want error free government and do not like to defend the shortfalls in performance. Performance measurement has the capacity to provide a great deal of information but its success will depend on the political climate in which it is practised. Mayne and Zapico-Goni, (1997, p. 17) come to the following conclusion about the role of performance measurement in the public sector:

> Performance information can inform or perhaps guide decision-making and accountability, but it cannot direct and should not replace decision-making and accountability. We need to be realistic about what uses can be made of performance information and not build unreasonable expectations.

The Alberta Treasury (1996) echoes this caution. They warn that measures are only indicators or gauges of performance and are not a substitute for analysis and judgement. In sharing the performance measurement results, information must also be made available to provide context and background to the measures presented. With these considerations in mind, care must be taken to select and report on the best measures possible.

What to Measure?

The preceding section urges the careful selection of measures or indicators that can provide information about the progress towards meeting expectations of quality and accountability. How does an organisation select the most appropriate measures and what is appropriate? The actual selection of the measures is often the most difficult for organisations to accomplish. The selection should be made as part of a systematic process after consideration of the purpose and goals of the organisation. Performance measurement systems are composed of a number of related components. There are a number of steps that need to be in place to provide a framework for performance measurement. The steps are straightforward but they can be challenging for organisations to accomplish.

The first step is for an organization to identify a clear mission or vision statement. A mission or vision statement is a statement about what business they are in and who the customers are that are to be served (Osborne, 1994). Walters, (1998, p. 53), defines a mission statement as "that overarching statement that describes an organization's reason for being." This articulation of a clear vision or mission is not as easy as it may seem, particularly for public sector organisations. In some cases agencies have multiple or even mutually contradictory objectives, which makes the articulation of what they want to accomplish very difficult (Pollitt, 1995). An example of this would be with government agencies that are responsible for natural resources, such as forestry. They are often responsible for both the promotion of the forest industry and also for the regulation of that same industry. The goals for each of these activities could easily be in conflict with one another. This conflict needs to be acknowledged and some balance found between

the opposing goals. It is essential to establish clarity, as without a clear purpose it is impossible to identify objectives, measures, and demonstrate results. The debates required to establish this clarity may be painful for organisations as they will need to question whether to continue with some of the activities that are in contradiction with their reason for being.

Once a vision has been articulated and agreed upon, the next step is the development of a strategic plan. Walters (1998, p.53) suggests that a strategic plan consists of a set of goals that represent the first cut at dividing up the mission into more tangible areas of measurability. These goals should represent the various areas of activities or responsibilities. In their performance measurement program, the State of Utah (1997) divides the establishment of goals into two parts, goals and objectives. They define goals as the general ends towards which the state directs its efforts. The second step is to establish objectives, which are clear targets for specific actions. Objectives are more detailed and have shorter time frames. Objectives deal with the specific activities that are expected to be accomplished within a given period of time. Once these goals and objectives have been articulated, it is possible to begin to identify performance measures that can provide an indication of their accomplishment.

The selection of measures depends on the nature of the goals and objectives and the data available for measurement activities. Again, the terms measures and indicators are being used here interchangeably. There are a number of different types of measures to consider. Several authors (Mayne & Zapico-Goni, 1997; Campbell, 2000) refer to the most common performance measures as the 3Es. These three types of measures are economy, efficiency, and effectiveness.

Economy measures are measures that are intended to minimise the consumption of inputs. Inputs are the resources that are expended in the provision of the program or service. The second category of measures, efficiency measures are concerned with the relationship between inputs and outputs. Outputs are the products or services delivered by the program. Therefore, efficiency measures are those that are related to the amount of resources required to produce the goods or services. The third type of measures are those intended to measure effectiveness. These measures are concerned with the outcome of the program or services. Did they achieve their goals as expected? Table 2-1 shows the types of measures that may be included in each category.

Table 2-1- The 3Es Performance

The 3Es	Type of measures	Examples
Economy	Inputs	Amount of money spent, Number of employees who provide service.
Efficiency	Inputs	As above.
	Outputs	Quantity of product or services provided
Effectiveness	Outcomes	Focus on the end results

The proponents of performance measurement recommend a balance in the types

of measures selected but with an emphasis on effectiveness. Public sector organisations need to demonstrate that they are achieving results with the resources that they are expending. It can be difficult to do this initially, as information related to outcomes is not always readily available.

Historically, governments have focussed almost entirely on inputs and outputs in terms of measurement and accountability. Measurement of how much money was being spent on how many units of service have been relatively easy to do and information systems are well established. Changes in expectations of government services by politicians and citizens have shifted this focus to an emphasis on the accountability for outcomes or results. In their discussion paper on modernising accountability practices in the public sector, the Canadian Office of the Auditor General and the Treasury Board Secretariat (1998) support this shift and suggest that outcomes are the results of main interest, those results of significance and value to Canadians. They go on to suggest that business planning and management in government will need to reflect a results-oriented environment in order to focus the attention on outcomes. They warn that traditional public sector objectives must not be forgotten in the move towards results-oriented management in the public sector. The results achieved need to be consistent with public sector aims.

A consideration in the process of selection of measures is the inclusion of key stakeholders. Osborne (1994, p. 139) believes that employees need to be included as stakeholders because they know the content of the work and that including customers will keep organisations honest about the differences between outputs and outcomes. Employees know what information is available or needs to be available and without their

support, any performance measurement process is sure to fail. Further without the inclusion of customers, there is the danger that the emphasis will continue to be on inputs and outputs, rather than on results. Turner (1995) also advocates inclusion and suggests that the exclusion of certain groups from the design process can breed resentment toward the system within those groups. He warns, however, that over-inclusion can result in a lack of consensus and broad, ineffective measures. Although consultation is a valuable part of measure development, organisations need to be careful that this consultation does not result in an overly large, costly, and ultimately unsupportable measurement system.

Once the decision has been made about what to measure, the measures must be designed carefully. While there is little consensus about what to measure, there is consensus about what elements are required to constitute a good measure. Several authors (Carter, 1991; Mayne, 1997) agree that measures must be valid, reliable, and useful. Valid measures are appropriate to the objective. They represent all of the relevant needs to be met and the related problems to be solved by the organisation. Secondly, measures must be reliable. Reliable measures make it possible to have confidence in high or low values of the indicator. They are not susceptible to manipulation and/or challenge and are based on data provided by an accurate information system. Lastly, measures must be useful. Usefulness is a category that includes a number of characteristics. It includes such attributes as clear, meaningful, and adapted to management needs and capacity. They must be parsimonias, frugal, easily accessible, timely, and financially feasible. Overall, a performance measurement system must itself be cost effective.

Measures need to be designed with these characteristics in mind but it is

important to recognise that there are no perfect measures. Organisations need to strive to design and use the best measures available to them at a given point in time.

Keys to Successful Performance Measurement

Most performance measurement systems are works in progress and are constantly under review and revision. The nature of these systems means that we need to continue to learn from experience. However, there are several conditions that have been found to increase the chances of success. Mayne and Zapico-Goni (1997, p. 19) provide the following summary of the keys to success:

- Involvement of service providers and recipients of public services in selecting meaningful performance measures.
- Selectivity in adopting a parsimonious number of indicators.
- Sampling to reduce costs and balancing of performance indicators to capture a variety of perspectives of stakeholder and to cover multiple or conflicting objectives.
- Consistency and comparability of definitions used to produce indicators.
- Controllability of the measure by the agency being monitored. The measure should represent factors that are not beyond the manager's influence.
- The need to continuously update the performance indicator system. Performance measurement development requires a meaningful review and strategy for changing indicators to maintain their significance when appropriate.

Perhaps the best way to approach design is to learn from the experience of other organisations. Greiner (1996) recommends that organizations should look for similar organizations that have already implemented performance measurement and learn from

their experience. He suggests that organisations should examine successful and unsuccessful efforts to introduce performance measurement. This will help to identify the appropriate readiness criteria and the infrastructure required for successful implementation. Emulating successes may not produce the desired results if care and attention are not paid to the influences that may derail them along the way. Looking at unsuccessful attempts may provide valuable information about obstacles and difficulties with the implementation process.

Obstacles to Performance Measurement

There are many obstacles to the successful implementation of performance measurement in the public sector. A review of the literature finds several that are consistently identified and worthy of discussion. The most commonly cited reason is uncertainty or a lack of knowledge and understanding about the relationship between outputs and outcomes (Mayne & Zapico-Goni, 1997; Thomas 1998; Walters, 1998). This uncertainty is a result of the environment within which public sector programs operate. There are both internal and external forces that influence the outcomes. Walters (1998, p. 30) discusses the concern some feel that performance measures are inherently unfair because organisations have so little control over outcomes. It is often very difficult or impossible to clearly identify the cause and effect relationships of government programs. This concern is articulated by Henry Mintzberg (1996, p. 79) who suggests "many activities are in the public sector precisely because of measurement problems. If everything was so crystal clear and every benefit so easily attributable, those activities would have been in the private sector long ago."

However, proponents of performance measurement, including Walters (1998)

counter that because cause and effect may be difficult to identify, is precisely why governments should start to collect performance data so that some long term analysis of cause and effect can finally begin. As well, he asserts that as performance indicators are developed and begin to become standardised across jurisdictions, there will be a pool of data that will allow for analysis to determine some of these difficult cause and effect relationships. Halachmi (1996) agrees that governments should forge ahead with measurement, recognising that it may only be possible to speculate about the origin of the relationship until after the results are in. The nature of government programs is such that cause and effect may be difficult to determine, especially in the short term. Part of the reason for this is that many programs do not operate in isolation and are dependent on the activities of other programs. However, I would agree that if performance data is collected consistently over time, it might become possible to actually define some cause and effect relationships in the future.

A second potential barrier to performance measurement is a lack of leadership support. Newcomer and Wright (1997) cite leadership support as the most critical element that can make or break strategic planning and performance measurement efforts. Leadership support must come from within the particular program but also from politicians and the strong central agencies within government. One of the key means of demonstrating support of the measurement efforts is the allocation of resources to the process. This includes both budgetary and human resources. Programs cannot carry out their measurement activities without the dedication of some resources, either new resources or the reassignment of existing resources. Thomas (1998a) suggests that government should be careful not to sacrifice the quality of the measurement effort in the

name of cost savings. While it is tempting to focus on only a few measures that draw from existing data sources, there needs to be a comparative component to any performance measurement system. He suggests, "systems should provide "adequate" data at "reasonable" cost but what is adequate and reasonable is a subjective judgement" (Thomas, 1998a, p. 32). Leadership support in making these judgements is essential.

Closely connected to the potential leadership barrier, is the role of politics in derailing or supporting the process. Thomas (1998, p. 18) sums up this role as follows, "Realism requires a recognition that no matter how sophisticated the performance measurement system, it will operate in a political context and will therefore have political implications." Where one would hope that the use of performance information would produce decisions made on more objective criteria and evidence, the reality is that politics and public administration mean that some decisions are made for reasons that often contradict the evidence or are based on other types of evidence.

In order for performance measurement to be effective there must be a significant level of co-operation between the politicians and the public sector managers. Politicians must become more engaged and demonstrate that they believe in setting managers free to get results rather than forcing them to follow the rules (Epstein, 1996, p. 59). Aucoin (1995, p. 127) agrees and suggests a new bargain between politicians and their public servants, which involve management systems that simultaneously let the managers manage, in order to promote economies and efficiencies and make the managers manage in order to achieve effectiveness in serving citizens.

However, can public sector managers trust that such a new relationship will truly exist? Some proponents (Walters, 1998; Performance Measurement Study Team, 1998)

of performance measurement suggest that public sector organisations are reluctant to measure and share their performance results because they fear that this information will be used by politicians to "beat them up." Public servants are less anonymous than they once were and there are examples in the media of politicians publicly criticising programs for their lack of results. Greiner (1996, p. 17) provides the first rule of public sector performance measurement: "If you don't want to know, don't ask," Public servants and politicians must be prepared to accept the results and acknowledge the areas that require improvement. As discussed earlier, one of the purposes of performance measurement is to identify opportunities for improvement and measure the progress towards achieving the improvement goals.

Another area of political concern is the disconnect between strategic planning time lines and political time lines. Political time lines are dictated by the electoral cycle and in many cases it is not possible to clearly establish the processes for successful performance measurement. Closely related to this is the tenure of political appointees in some jurisdictions. Newcomer and Wright (1997) suggest that this discrepancy in time frames inhibits the level of consultation with employees and customers, which is essential to the measurement process. Again, politicians need to find a way to make a longer-term commitment to the process in order for it to continue.

The concerns about political support are legitimate but Walters (1998) suggests that the use of performance reports may in fact be a way to answer political criticism. Most of the recent criticism has focussed on the lack of results. By measuring performance and sharing this information, it may be possible to demonstrate what is being accomplished given the resources available. This information could, as well, be

helpful in the budgetary process and in garnering support for effective programs. It will become possible to compare results with other jurisdictions and to begin to demonstrate program effectiveness to the critics. This may be an overly optimistic viewpoint that sees performance measurement gaining influence over the traditional political considerations in the budgetary process. However, it is a call for politicians to confront and rely upon evidence that they have demanded to guide their decisions. Organisations must learn to live with these barriers and to find ways in which to overcome them for performance measurement to be effective.

Conclusion

In spite of its popularity, performance measurement has not been completely accepted or fully implemented in the public sector. The reasons for this are varied and are most likely related to the barriers discussed in this chapter. This does not mean that the system has no merit and is not worth pursuing.

Performance measurement systems have the potential to provide guidance and direction to organizations in their decision-making processes. The system can help organisations focus on their goals and the achievement of those goals. This emphasis should help to improve both the quality and accountability of the program. The proponents of new public administration are calling for an emphasis on results and being able to demonstrate these results. Formal evaluation processes have the ability to provide this information but are time consuming and very costly. While performance measurement cannot replace the formal evaluative process, it is a means of obtaining meaningful information about a program's outcomes. This information is not necessarily conclusive and must be used judiciously by public sector managers.

Performance measurement is a tool, which can be used effectively by public sector managers. It requires the involvement and commitment of employees, customers, managers and politicians. This involvement may not always exist at a level that would be ideal, but their very involvement is progress. The progress is the ability to articulate and measure the outcomes of a program from the perspective of the various stakeholders. A system such as health care with its multiple stakeholders should be able to use the information made available through performance measures to make real and meaningful improvements to the health care system. Health care organizations can learn from the successes and the difficulties experienced by other public and private sector organizations. The use of performance measurement in the health sector will be the topic covered in the next chapter.

Chapter 3 Performance Measurement in Health Care

Introduction

Perhaps there is no area in the public sector that has been under as much scrutiny and pressure to reform than publicly funded health care systems. The demands for greater efficiency and accountability have been heard in Canada, Australia and Britain, where health care funding has grown to consume an increasing percentage of public finances. It has also been true in the United States where both private and public funders have become concerned with growing costs and have been demanding more information about what they are receiving for their money.

At the same time, health care providers have been asking for more funding to help them to cope with the "crisis" in health care. Physicians and other health care providers continue to demand more funding to keep pace with advances in technology, rising drug costs, to cope with increasing consumer expectations and demographic trends, and to deal with increasing waiting lists. The Thomas Report (Manitoba Health, 2001, p.11) suggests that "advances in medical knowledge and technological capacities, trends and developments within society, changing economic and financial conditions and shifts in public opinion have all combined to make health care probably the most politically sensitive and controversial field of public policy."

The debate created by these factors rages between funders and providers' in most developed countries. However, comparisons between these countries demonstrate that there is not a positive correlation between health care spending and the health of a nation. No country spends a larger portion of its GNP per capita than the United States but the World Health Organization consistently ranks them behind countries like Canada,

Sweden, and Japan in terms of health indicators such as life expectancy and infant mortality rates. This type of information has led most funders and many providers to the belief that the health care system requires better management rather than necessarily more funding.

The unanswered question is how to improve the management of health care systems. Jurisdictions worldwide have been making various changes to the way in which health services are organized and delivered. There have been initiatives to centralize and decentralize services and countries have been looking at the mix between public, not-for-profit, and private-for-profit sector service provision. To this point, few, if any of these initiatives have demonstrated "success" to everyone's satisfaction. The one consistent theme coming from all of these reform initiatives is the need for better information upon which to make decisions. A great deal of attention is being paid to gaining better information about the health care system results or outcomes.

One of the tools that is being promoted as a means of obtaining this information is performance measurement. In both Britain and Australia, performance measurement systems have been established as part of the national health systems. Various provincial, state, and sectoral initiatives have been initiated in Canada and the United States. All of these performance measurement initiatives are in their early stages. The value of the performance information and the ability of these systems to make any meaningful difference in the effectiveness of health care systems management are not yet known.

The purpose of this chapter is to provide background information about the use of performance measurement in health care and to critically examine some of the models currently being used. This will include a review of the literature to identify why

performance measurement holds some promise and why health care managers need to exercise caution when using performance information to make decisions. The second part of the chapter will include a critical analysis of four performance measurement systems currently in use. The systems to be examined include those developed by the National Health Service in Britain, the National Performance Assessment Framework for the Australian Health System, the national standards for performance being proposed by the Canadian Council on Health Services Accreditation and the Canadian Institute of Health Information, and finally the recently announced, Manitoba's Health Performance Measurement Framework.

Review of the Literature

In the last decade there has been increasing interest in health sector performance measurement. Most of this interest is tied very closely with the health quality or quality improvement literature. This focussed review of the literature is intended to highlight some of the reasons why this is occurring, how performance measurement is being utilized, and lastly to demonstrate why reliance on performance measurement information alone is not a reasonable or prudent consideration for health sector managers at the present time.

The Promise of Performance Measurement

Health policy makers and providers around the world have embraced performance measurement in recent years. A message from the Director-General of the World Health Organization (2000), states "Performance assessment allows policy-makers, health providers and the population at large to see themselves in terms of the social arrangements they have constructed to improve health. It invites reflection on the forces

that shape performance and the actions that can improve it" (WHO, 2000, p. 2). The WHO strongly supports the use of performance measurement and starting in the year 2000 has included the measurement of health systems performance as a regular feature of all World Health Reports. They do however, recognize that performance measurement systems are only in their development phases but continue to encourage all nations to pursue their work in this area.

As was suggested in the previous chapter, if performance measurement is a means to respond to criticisms from politicians and the media, it could be a very useful tool for the health care sector. One only has to read the local press on any given day to become aware of the political implications inherent in health and health care spending decisions. In the Winnipeg Free Press on July 28, 2001 the headlines read, "No extra health funds?" The story goes on to describe how the Canadian provinces are pushing the federal government for increased funding for health care services. The response from then federal Health Minister, Alan Rock, is that money is only part of it. He contends that Canadians spends 10 percent of its GNP on health care, which is more than most of the countries that we compare ourselves to. He questions whether the need is for more money or rather are we spending it in the way that gets us the best value for dollars. This statement suggests an emphasis on results and a well-designed performance measurement may be helpful in this regard.

Stoddart (1995) agrees that policy-makers must resist the pressure for increased spending and suggests that one strategy would be to insist on clinical effectiveness measures for both current and future spending. He advocates the use of performance measurement and states "that measurement of health and more importantly the ability to

link such measurement to the outcomes of policies intended to improve health, are critical aspects of population health[9] information systems that require improvement" (Stoddart, 1995, p. 36). He suggests that further study and research must be done in the area. The research needs to be done both in the identification of health outcomes and in the refinements of the measurement systems. The data will need to be collected from the involved sectors in a manner that is consistent and allows for the identification of the cause and effect relationships.

Performance measurement is well suited to the population health model due to its ability to provide an ongoing indication of the achievement of long-term objectives. However, there will be no quick measures in this system. Michael Cesar (1997) believes that if used properly performance measurement can provide a long-term, multi-dimensional perspective, not just a short-term financial one. Patience and commitment will be required from both providers and funders. It will take time to establish the performance measurement systems and longer still to achieve meaningful results. The multisectoral approach raises attribution concerns. If health is impacted by activities in

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9 The population health approach recognizes that the health of a population is influenced by more than health services alone. It focuses on the interrelated conditions that underlie health and then uses what is learned to suggest actions that will improve the well being of all Canadians. The Canadian Population Health model includes income, social status, education, social support networks, employment and working conditions, physical environments, personal health practices and coping skills, biology and genetic endowment, health services, and healthy child development as determinants of health (Advisory Committee on Population Health, 1994). The federal, provincial, and territorial governments of Canada have adopted this multi-sectoral approach to improving the health of Canadians. The approach is based on the belief that intersectoral action makes it possible to join the forces, knowledge, and means to understand and solve complex issues whose solutions lie outside the capacity and responsibility of a single sector.

multiple sectors, is it possible to attribute the outcomes to particular activities or programs? This question will be discussed in further detail in the next section of this chapter.

While some authors advocate a multi-sectoral measurement approach, there are others who advocate the use of performance measurement within individual health sectors. Some (Speake et al, 1995; Ovretveit, 1997; Kim, 1997; Guzman & Casas, 1997) advocate the use of performance measurement both of the health system as a whole and of the individual sectors within health. Measurement activities can be even more specific, down to individual medical procedures like surgical programs. The belief is that more information about the outcomes is required to improve the decisions that are made about and within the health care system as well as to serve a number of aims. The remainder of this work will focus on the use of performance measurement within the health sector.

Health Services Performance Measurement - A Focus on Outcomes

Some of the earliest attempts at performance measurement can be traced back to the work of A. Donabedian in the 1980's. He developed a framework (Donabedian, 1980), which sought to assess quality of care. The framework has three categories; structure (denotes the attributes of the settings in which care occurs), process (what is actually done in giving and receiving care), and outcome (the effects of care on the health status of patients and population). Early attempts at measurement focussed on structure and process. This was in part due to the relative ease with which this information could be collected and the belief that if the right people and materials were made available and the right things were done, this would ensure positive outcomes. Until recently,

accrediting bodies, such as the CCHSA in Canada and JCAHO in the United States focussed almost entirely on structure and process, they now focus on results or outcomes.

Several factors combined to shift the focus towards outcome measurement. It became clear that it was not always possible to establish the link between structure and process factors and patient outcomes. Adherence to standards alone did not guarantee good results and the rise of consumerism in health care brought into question the definition of "good results". Historically it had been the health care professionals who had defined the desired results, but increasingly this is being challenged as consumers of health services become more knowledgeable and participate more actively in their care. This shift occurred in conjunction with a change in emphasis from traditional quality assurance activities to a greater focus on quality improvement in health care.

The shift toward outcome measurement has been challenging and fraught with controversy in health care. This is due in no small part to the multiple aims of outcome measurement in health care. The Thomas Report (Manitoba Health, 2001, p. 68) provides the following aims:

- determine the impacts of medical activities on individual lives
- promote improvement
- monitor provider performance
- compare doctors and programs
- allocate resources
- ensure accountability
- enable better informed patient choices.

He goes on to say that it is unlikely that any one performance measurement system can serve all of these aims well and that there will be disagreement over which aim will be most important. The various stakeholders, providers, funders, and the recipients of health care will all have their own perspective.

Gale (1997) outlines three reasons for the interest in health outcomes: 1) Increasing evidence of wide variation in patient treatment and outcomes that cannot be accounted for by changes in patient severity; 2) Variation in patient treatment and the incidence of adverse occurrences are directly linked to the escalation of costs within the system and; 3) There is an assumption that improved knowledge of outcomes and their causation may lead to more rational decision-making through utilization of objective evidence, the adoption of best practice guidelines, and a standardization of practices.

However, both Gale and Thomas encourage caution in the use of outcome measures. Gale warns that it is wrong to assume that improved knowledge of outcomes and their causation would lead to long-lasting improvements in health care delivery. The knowledge alone is not enough, there needs to be a willingness to change practice. This is not as simple as those outside the health sector might imagine as there is resistance to changes in practice, which is often the result of professional pride or territoriality and inadequate resources to effect the change. The Thomas Report (Manitoba Health, 2001) points to a more fundamental concern. He believes that here are "serious conceptual and analytical challenges in measuring and validly attributing outcomes to the programs under examination. Identifying the relative importance of numerous factors - such as, the severity of illness, the diagnostic skills of the physician, the quality of the institutional facilities, the compliance of the patient with medical advice, etc - is a difficult analytical

and technical challenge" (Manitoba Health, 2001, p. 67).

What to measure?

There is a plethora of health indicators cited in the literature. But as is the case of in all performance measurement systems, indicators need to be selected carefully. Health indicator selection and definition is a very important initiating activity as countries embark upon the redevelopment of national health and service monitoring and evaluation systems (WHO, 2000b, p. 3).

The WHO (2000b) offers the following principles to help guide national selection of health indicators. Health data needed for indicators must be use- and action-oriented, rather than "data- or information led". No data should be requested from a service level, which does not have an actionable use at that level. Efforts should be made to make better use of existing data at all levels of the health system through practical analysis and improved data presentation, and by using the data to analyse and solve important health and service problems. Any changes or developments to data recording and reporting should be made only to improve the provision of health care and implementation of public health action. Priority attention should be given to improving data generation and use at the local (community, facility, and district) levels to support the enhancement of service performance at that level. Countries should chose essential health indicators, which can be measured with the data generated routinely through service processes. Selection of indicators requiring special surveys should be avoided as much as possible. Composite health indicators are usually not relevant for monitoring health or health services, and should be avoided. The indicator should attempt to deal with a single clear idea, which everyone will see as an important measure. Again, composite indicators

should be avoided as aggregation to produce composite indicators involves the loss of information. Yet, there is something unrealistic about trying to isolate outcomes of individual procedures. The indicator should have been proven capable of being recorded across the service with the necessary degree of validity, consistency, and reliability, and be sensitive to short-term changes in the variable of interest. Indicators should be selected that can be a measure of health status or service performance beyond the immediate event or task being reported. Health indicator selection is given special emphasis within efforts to develop national health and service monitoring and evaluation, including indicators of the changing health situation, equity in health, quality of care and efficiency of service. While the WHO provides these guiding principles for use in national health indicator systems, this author believes that these same principles can apply at the local and facility levels as well.

These guiding principles are valuable in the design of a performance measurement system, particularly from a data collection perspective but what approach should this measurement take. In Chapter 2, the 3E's of performance, economy, efficiency, and effectiveness were described. This approach is commonly found in the health performance literature with a heavy emphasis on effectiveness. In the public health sector, a fourth "E" should be added. This fourth "E" would stand for equity. Equity is one of the tenants of Canada's health system along with other publicly funded health systems. A performance measurement system would not be complete without some consideration of how equitably health and health services are distributed amongst the population.

Table 3-1 – WHO Guiding Principles

Guiding Principles-WHO
• use and action oriented data
• use existing data
• focus on improving health care
• data collected and used at the local level
• data generated through service provision
• a single clear idea
• valid, consistent, reliable, and sensitive
• measure beyond immediate event or task
• health status, equity, quality, and efficiency

In addition to the 4E's above, this review found several other factors that were considered to be important. These are appropriateness, informed decision-making, insured services and a number of aspects of care, including continuity of care, patient perspective, safety of the care environment, and timelines (Ross & Deber, 1995; Barnsley, Lemieux-Charles, & Baker, 1996; Oermann & Huber, 1999).

The notion of safety is an important one. While some lists it as a consideration,

and others would argue that it is covered under efficacy, this author believes that it is significant enough to be identified on its own. Two major studies, Quality in Australian Health Care Study (Wilson et al, 1995) and the U.S. Institute of Medicine report To Err is Human (Kohn et al., 2000), highlight the need to include measures related to patient safety in any measurement of a health care system. These studies found that as many as 16% of hospital patients were injured or experienced adverse events[10] as a result of their treatment. These studies focussed on the acute care sector but experts in the field (Baker & Norton, 2001; Leape, 2000) believe that similar issues of safety will be found in other countries and in other sectors of the health care system. Canadian experts Baker and Norton include a measurement system as the first key step in a strategy to address safety. They believe that better information is needed about the numbers and types of errors before effective strategies can be developed to address them (Baker and Norton, 2001, p. 21). Hence, some means to measure safety needs to be included in a performance measurement system for health systems.

This review of the literature finds that benchmarks are cited as being a necessary component of performance measurement systems in the health sector. In Chapter Two benchmarking was defined as studying the processes of companies considered to be best in their fields and adapting those processes to achieve best practice. The health quality literature contains frequent references to benchmarks or best practice. Stefanac (2001)

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Adverse events in health care are those events that occur or nearly occur to the patients that have unintended negative consequences. These events are a result of errors or accidents, which occur during the treatment program. They need to be differentiated from complications or negative consequences that occur directly as a result of the patients' health condition.

believes that healthcare institutions across Canada are beginning to understand the value of benchmarking as a way to identify areas for improvement, set priorities and allocate resources. Both the Canadian Council on Health Services Accreditation (CCHSA) and Canadian Institute for Health Information (CIHI) initiatives encourage the setting of benchmarks and encourage organizations to identify and adopt best practices.

Again, as is the case with all aspects of performance measurement, there is a cautionary note. Wendy Nicklin (2002), President of the Board of CCHSA, warns that to date the information available is not reliable enough for benchmarking to be completely credible. She believes that there remains too much variability in the way in which information is collected and measured for there to be meaningful comparisons between organizations. However, Nicklin does advocate benchmarking on a smaller scale. She advocates the use of benchmarking within an organization or between organizations that have developed similar measurement processes. She states "this is a good place to begin" and that eventually the processes will mature enough to allow for reliable measurement and benchmarking at a national and international level.

The identification of "best practices" must also be done with caution. All measures, no matter how seemingly factual and objective, are profoundly affected by the circumstances in which health care services are delivered. Organizations should not necessarily aim to imitate or replicate what "appears to be the best" in other organizations when the circumstances may be significantly different.

One final consideration before this discussion of measures is concluded is the type of indicator used. There are different types of indicators such as nominal, ordinal, interval, and ratio measures (Van Peursem et al, 1995). Nominal measures are

descriptive and do not imply a ranking or ordering. Ordinal indictors do rank or order one element against another. Interval measures or scales describe equal distances between two points, such as is the case with Likert scales. By far the most popular measures found in health care are ratio or rate-based type of indicators. These include descriptive and volume measures like, bed utilization rates, waiting lists and input and output ratios. This type of indicator is recommended by many experts (CCHSA, 1996; Wilson, 1999, & Van Peursem et al, 1995) in the field as they are felt to be more objective, provide some context, and allow for easier comparisons. This description of rate indicators implies a certain level of scientific integrity in the measures. While this is what most involved in performance measurement activities are striving for, there remains a great deal of subjectivity and potential bias in the measures currently being developed and used. The measures are not yet fully developed and tested but are a place to start along the journey to a better understanding of the performance of health care systems.

Health Performance Frameworks

Many countries around the world have begun to develop and use frameworks to begin to determine the overall performance of their health systems. They use a variety of indicators in their attempts to describe health problems, health care performance and the degree of achievement of their targets. The WHO (2000b, p. 1) suggests that the basic purpose of selecting and defining national health indicators is as follows:

> "First, it is our firm conviction that any health information should be directed towards better functioning of health services, first of all at the most peripheral service level, in health facilities, and in communities. The second point is that in the process of selecting and defining national health indicators it may become

apparent that there is need to change service procedures in order to make them more effective and efficient."

With this purpose in mind, the next section of this chapter will provide a description and analysis of several frameworks currently in use in the health care sectors. They will include the national frameworks from Britain and Australia, the Canadian frameworks proposed by the Canadian Institute of Health Information (CIHI) and the Canadian Council on Health Services Accreditation (CCHSA), and finally closer to home, Manitoba's Health Performance Measurement Framework. The analysis of the frameworks will look for similarities and differences between the models as well as how they conform to the ideas outlined in part one.

National Health Service in Britain

In a White Paper in 1997, the British government announced it's reforms for the National Health Service. It proposed a new system of clinical governance to ensure that clinical standards were met and there were processes to ensure continuous improvement. The White Paper also announced the establishment of a National Performance Framework, which would hold the National Health Service to account. It was to concentrate on six things that really count for patients, their own experience, fair access to services, better quality, the outcome of care and improvements in health, as well as real efficiency gains.

The framework identified six broad areas for data gathering; population health, accessibility, effective delivery of appropriate health care, service efficiency, patient/caregiver satisfaction and outcomes. The framework included a set of high-level indicators and targets for progress in each of the six broad areas.

An extensive on-line resource network supports the use of the framework. There are a number of sources of information about measurement activities, including how to approach improvement processes and measurement along with criteria for the selection of measures. One of their on-line guides called "Measurement for Improvement" lists the following three rationales for measurement:

- Measurement for judgement against performance targets
- Measurement for diagnosis or to understand a process
- Measurement for improvement

In it's Next Steps document (NHS, 2002), the National Health Service acknowledges that the information provided through measurement activities needs to be improved and validated over time but they continue to make a significant investment in measurement activities.

One source of evidence of this investment is that progress towards targets is built into the accountability arrangements that run through all aspects of the way the new National Health Service is managed. Hannigan (1998) suggests that this approach will radically change the way health services were delivered. Health professionals will be challenged to improve their services and managers will need to pay greater attention to clinical concerns, as they become directly responsible for the quality of services delivered. This emphasis on an accountability mechanism is more evident than in the other models being reviewed.

The Australian Health System

The goal for Australia' s national performance framework is to provide a structure

against which government can comprehensively and clearly report on the Australian health system's performance so that consumers, service providers and government can assess progress towards national health policy goals (Government of Australia, 2000). In Australia, the Commonwealth and state governments have been able to address performance measurement issues in a cooperative and collaborative fashion where joint programs exist. This cooperative approach is intended to enable ongoing comparisons to be made of the efficiency and effectiveness of a broad range of services. The goal is not so much to evaluate programs, but rather to assist each government with reform of it's own services. Amongst the objectives for the framework are the ability to benchmark, increasing transparency and accountability, and supporting quality improvement.

The framework is composed of four tiers of performance including health outcomes, determinants of health, health system performance, and health system infrastructure and community capacity. Health outcomes deal with measures of the health of the nation. The determinants of health allow for a focus on non-medical determinants of health such as lifestyle, education and income, consistent with a population health model. Health system performance measures address the performance of the formal health systems. The final tier addresses measures related to appropriateness and sustainability of health infrastructure and the characteristics of the community that contribute to health.

The framework outlines a number of dimensions in the third tier, health system performance measures. These include effectiveness, appropriateness, safety, capability, continuity, accessibility and equity, acceptability, and efficiency. The framework provides a clear definition of each of the dimensions. The Australian Health Service has

set nine criteria for the selection of measures, which include that they must be:

- worth measuring
- measured reliably for relevant populations
- affordable to collect
- understood by people who need to act
- actions that can lead to improvement are known and feasible
- measurement over time will reflect results of actions
- cover the spectrum of health
- be produced on time
- respond to new and emerging issues

These criteria are not as straightforward as they may appear and may be inconsistent in practice. The criteria of worth measuring and affordable to collect may be in conflict as may several of the others. The intent of the framework is to select a limited number of high-level performance indicators that would be reported nationally at regular intervals. Australia is in the process of implementing their framework and has not yet determined all of these measures. As well, it is too early in the process to provide any feedback on the utility and effectiveness of the framework.

Canadian Frameworks

Both Britain and Australia have developed and are implementing a national approach to health performance measurement. This has not occurred at the federal level in Canada and one could speculate that this is in part because of the constitutional split in responsibility for health between the federal and provincial levels. This is not to say that

there has not been some interest in the development of a national framework.

In 1998 Health Canada and the Canadian Medical Association held a workshop entitled "Moving Toward a Quality Health System: Key Challenges and Strategies." The report recommends a set of national standards and a number of performance indicators as part of a monitoring system that is both system-wide and sector specific. They suggested measures such as mortality and morbidity rates, waiting time, and patient satisfaction. Strategies suggested included educating the public about the indicators and regular monitoring of the health system to ensure that changes are made based on evaluation findings. The conclusion of the workshop was a recommendation that a performance measurement initiative move forward at the national level, however there is no evidence to date of any action on the part of the Canadian government.

This is not to say that there is no performance measurement activity at the national level. There have been several recent federal and provincial reports related to performance measurement including Toward a Health Future – Second Report on the Health of Canadians (1999), Report Card Seniors in Canada (2001), and the recently released Health Indicators Report (2002). These reports contain information on the performance of the health system but there is not a national framework that guides these measurement activities. The Health Indicators Report was released by each province and territory in Canada and contained similar performance information, which may well become the blueprint for a national approach.

There are also two significant initiatives that have been undertaken by non-governmental organizations that take a national perspective and have influence across the country. These include the Canadian Council of Health Services Accreditation (CCHSA)

AIM (Achieving Improved Measurement) Program and the Health Indicators Initiative of the Canadian Institute of Health Information (CIHI). Both of these frameworks will be described here in some detail.

CCHSA AIM Program

The AIM Program is currently being utilized by the CCHSA to accredit health care organizations across Canada. Accreditation is a process that organizations use to evaluate their services and to improve the quality of their services. It provides recognition that organizations are meeting national standards. In Canada, accreditation is a voluntary activity but it is becoming required or strongly encouraged by funders across the country. The CCHSA is the major accrediting body in Canada. They are an independent, non-governmental, not-for-profit organization, which is funded through memberships.

The process of accreditation involves a self-assessment by an organization against a set of national standards followed by a survey by a group of peers using the same standards. The CCHSA produces a report based on the survey. Organizations are expected to follow-up on their report, continue to make ongoing improvements to their services and update their self-assessment. The process is a continuous learning and improvement cycle that occurs over a three-year period.

The AIM standards were developed in consultation with health professionals, health organizations, academics, consumers, and other experts. The standards were developed through an extensive consultation and testing process and are now in their second published edition. What is different about the AIM Program versus previous accreditation models is the focus on indicators and measurement. AIM stands for

Achieving Improved Measurement. The program is based on the principles of quality improvement but is also based on three other concepts: the dimensions of quality, a population health approach, and the use of indicators.

The dimensions of quality provide the foundation for a more consistent and accurate measurement of quality. There are four quality dimensions and each dimension has a series of descriptors.

- Responsiveness deals with the need to anticipate and respond to changes in needs and expectations of the client or community. The descriptors include availability, accessibility, timeliness, continuity, and equity.
- System Competency relates to service provision in the best possible way based on best practices. The descriptors are appropriateness, competence, effectiveness, safety, legitimacy, efficiency, and system alignment.
- Client/Community Focus is intended to strengthen the relationship organizations have with their clients and community. The descriptors include communication, confidentiality, participation and partnership, respect and caring, and organizational responsibility in the community.
- Work life provides for a work atmosphere that is conducive to performance excellence, well being, and satisfaction.

The second key concept is the use of a population health approach, which promotes the idea that organizations need to be concerned with the health of the populations that they serve. It places more emphasis on health and wellness, the determinants of health, the involvement of the broader community in planning, better

integration of services across the continuum, and using evidence-based information about health outcomes to make decisions.

The use of indicators is an important component of the AIM Program. Organizations are required to develop and monitor indictors to help improve the quality of their services. CCHSA believes that measurement is important in providing evidence of accountability within the health care system. The Program offers a list of indicators for use in some health sectors although the use of these of these indictors is not mandatory. The list includes both process and outcome measures. These indictors were not developed by CCHSA but rather they were selected because they are considered to be valid and reliable and can be linked to the accreditation process. CCHSA collaborates with other organizations that are heavily involved with indictor development such as the Canadian Institute of Health Information, Inter-RAI, and provincial ministries of health.

Many Canadian health care organizations have undergone one accreditation cycle using the AIM program. It is again, too early in the process to judge whether their efforts have had any meaningful impact on performance. Most organizations that this author is aware of continue to struggle with indicator selection and measurement but continue in their efforts to do so. The AIM Program has made accreditation more relevant to organizations and has been largely successful in strengthening quality improvement efforts within organizations.

Canadian Institute of Health Information

A second Canadian organization that has been influential in promoting a national approach to performance measurement is the Canadian Institute of Health Information. Their Health Indicator initiative began in 1998 by bringing together a large group

consisting of health administrators, researchers, caregivers, government officials, health advocacy groups, and consumers who identified a priority for comparable quality data on key health indicators for health and health services. The CIHI in collaboration with Statistics Canada entered into a collaborative process to identify what measures should be used and then to share this information with Canadians. The measures were refined through consultation with provincial and regional health authorities and a set of indicators were selected. They have been reported on annually since 1999.

The goal of the initiative is not only to inform the public but also to support health regions in monitoring progress in improving and maintaining the health of the population and the functioning of the health care system. CIHI (2002) believes health indicators are relevant to established health goals, based on standard definitions and methods, and broadly available. The indicators are derived from data already collected by Statistics Canada and CIHI through hospital abstracting and other ongoing reporting mechanisms.

The framework is composed of tiers including health status, determinants of health, health system performance, and community and health system characteristics with each having several subcategories. Health status is concerned with the overall health of Canadians and includes health conditions, human function, well being, and deaths. Determinants of health addresses the known factors that affect health and the use of health care, including health behaviours, living and working conditions, personal resources, and environmental factors. The health system performance section has the subcategories of acceptability, accessibility, appropriateness, competence, continuity, effectiveness, efficiency, and safety. The final tier is community and health system characteristics, which is concerned with providing some contextual information about

communities, health systems, and resources.

One of the unique features of the reporting is the comparison made between health region peer groups. CIHI believes that there is a growing need to effectively compare health regions. The peer group method recognizes that simple comparisons between regions across the country would not be equitable. A peer group is defined as a cluster of health regions that have similar social and economic health determinants. CIHI has defined ten such peer groups.

While the CIHI initiative is technically non-governmental, the CIHI is almost completely dependent on federal and provincial funding and both levels of government have been influential in its development. It is very prescriptive in terms of the data being reported and does not respond to local needs for measurement information about particular areas of concern. This is not the intent of the CIHI, their desire was to give a high level report providing a national perspective. They have been successful in this desire and the framework is recognised nationally and internationally. Both Australia and Manitoba have used it as a model.

Manitoba's Health Performance Measurement Framework

This framework has been developed by Manitoba Health in collaboration with the Regional Health Authorities of Manitoba. It recognizes the shared responsibility between the province and regional health authorities to monitor and evaluate quality and effectiveness. The framework was unveiled in the fall of 2001 and is currently being trialed in two health sectors, mental health and community health on a provincial basis. According to their overview document (Manitoba Health, 2001), the purpose of the framework is to provide a common frame of reference within which expectations and

performance measurement indicators/measures will be organized and /or developed. It is intended to provide a "common lens" through which health system performance and population health status can be articulated, enabling a systematic assessment of progress towards outcomes, goals and objectives. A key function will be performance reporting.

The framework has four components including strategic direction, expectations, performance dimensions, and performance measurement mechanisms. The relationship among the components is based on the belief that performance measurement should be driven by strategic plans and priorities. In terms of this analysis of performance measurement, it is the third component of the framework that is of most interest.

The performance measurement dimension outlines four broad dimensions across which performance work can be organized and within each dimensions are categories and sub-categories. These are:

- Health status and determinants. Includes health status categories of deaths, health conditions, human factors and well being. The determinants include personal health practices and lifestyle, personal resources, living and working conditions, environmental factors, healthy child development, biology and genetic endowment, culture, and gender.
- Community and health system characteristics. These include population demographics, health service utilization, and expenditures.
- Health system performance is the largest dimension. It has the following four categories of responsiveness, client/community focus, system competency, and work life. These are the same as the CCHSA's categories and the sub-categories

listed in the Manitoba model are the same as those listed above for CCHSA.

- Health system infrastructure. The categories include finances, human resources, leadership, information technology, physical structure and equipment, public health surveillance and research.

The framework document encourages indicator development and use that facilitates benchmarking at national and international levels. It provides a detailed list of considerations for the selection process. In an interview with Laurie Thompson, Manitoba Health, there is a plan to develop a small set of required indictors for reporting at the provincial level but this selection has not yet taken place.

Noticeably absent from the documentation on the framework is the term accountability. Thompson (2001) stated that one of the main reasons for pursuing performance measurement was to develop an accountability mechanism with the regional health authorities. This is however not clearly articulated in the documents and she acknowledged the accountability mechanisms have not been developed. The framework and its development have the support of the deputy minister but since it is still being tested, it does not yet have the support of the Minister. It may be several years before there is a performance measurement framework in place in Manitoba.

Framework Analysis

All of the five frameworks described here are in various stages of their development. While there is a great deal of similarity in the approaches being used, the variation can in part be explained by the differing levels of maturity of the projects. Table 3-2 illustrates the similarities and differences of the frameworks based on their key components.

There are similarities between the frameworks and there is evidence that they have learned from one another in their development. Australia acknowledges both CCHSA and CIHI as sources of information and guidance in the development of their framework. Manitoba credits Australia, CCHSA, and CIHI as sources for model development. The Manitoba framework may suffer from borrowing too much. It contains the largest number of categories and subcategories and risks becoming too large and cumbersome to maintain. Hopefully, the pilot will help to simplify the process.

The Manitoba Framework most closely follows the traditional approach to performance measurement with the clearly articulated link to strategic direction and goals. Britain's measurement process also clearly ties the measurement process to articulated goals. The three government developed frameworks all speak to performance measurement as an accountability tool but only Britain has taken the step to clearly state that service providers will be held accountable for their performance based on the prescribed measures.

All of the frameworks utilize a population health approach recognizing that health is impacted by more than the health system alone. Broad participation has been a key element in the development of each of the frameworks although different methods of stakeholder participation and feedback have been used. The criteria for the selection of measures are articulated by most and there is consistency with the criteria outlined by the WHO, which was provided earlier in this chapter. Benchmarks or benchmarking is a key component of each process with the CIHI system being the most advanced in terms of reporting utilizing benchmarks.

All address health system performance and all but Britain include information about community characteristics. Within health system performance they address many of the same dimensions. Britain's model contains the smallest number of dimensions and Manitoba's by far the largest, which may be its greatest weakness. All with the exception of Britain specifically identify safety as an area for measurement. Table 3-2 summarizes some of the most significant similarities and differences.

Conclusion

This review of the literature and analysis of frameworks was intended to provide information on what the key components of a health performance measurement system are and what ought to be included. Health care is not a single set of homogenous activities, rather it is an agglomeration of very diverse, dynamic, multi-levelled and multi-dimensional activities that are, to a significant extent, interdependent. Long term care represents a distinctive component of the overall health care system. Generic models and frameworks for measurement of performance will have to be adapted in both their conceptualisation and application to the somewhat unique circumstances of long term care. The analysis demonstrates while there is a great deal of similarity, no one performance framework has become recognized as the gold standard. This is likely in part due to the developmental stages of these initiatives and as they mature a preferred model or models may emerge. The purpose of this chapter was to examine how performance measurement is being used in health care and some of the existing models. This will provide the background for the discussion and development of a model for performance measurement in the long-term care sector.

Table 3-2 Performance Measurement Frameworks

Framework	Britain	Australia	CCHSA	CIHI	Manitoba
Categories	Population health, Accessibility Effectiveness Efficiency Satisfaction Outcomes	Health outcomes, Determinants of health, Health system performance Health infrastructure and community capacity	Dimensions of quality, Population health, Use of indicators	Health Status, Non-medical determinants of health, Health system performance, Community and health system characteristics	Health status and determinants, Community and health system characteristics, Health system performance, Health system infrastructure
Criteria for selection	Yes –8	Yes - 9	No	Yes	Yes - 9
Prescribed Measures/Type	Yes/Rate	Yes/Rate	No/Rate	Yes/Rate	No, but intend to/none specified
Benchmarks	Yes	Yes	No	Yes	Yes
Stakeholder Participation	Yes	Yes	Yes	Yes	Yes
Safety	No	Yes	Yes	Yes	Yes
Continuous improvement	Yes	Yes	Yes	No	Not clearly articulated
Accountability	Yes	Yes	No	No	No

Chapter 4 - Performance Management in the Long Term Care Sector

Introduction

The previous chapter provided a detailed description of several models for performance measurement currently being used in the health sector. These models were intended for measurement within public health systems. They can be applied for the health system as a whole or applied to individual sectors within the health system. There is significant similarity in the dimensions to provide guidance in the development of a model for long term care. This chapter will explore the use of performance measurement within the long term care health sector.

Long term care has been a highly regulated sector within the health care system, particularly in North America. Some of the reasons for this will be discussed as well as whether this regulation has been strict enough to ensure quality of care. To anticipate the conclusion, reached in the chapter the author believes that standards and regulation alone cannot ensure quality long term care and that performance measurement offers an important means of continuously monitoring and identifying opportunities for improvement. There are a number of models presently being used in long term care although many remain in the developmental phases. The models included in the analysis are those used by the Joint Commission on Accreditation of Health Care Organizations (JCAHO) in the United States; Great Britain; the Canadian Council on Health Services Accreditation (CCHSA); the Canadian Institute on Health Information (CIHI); the Province of Ontario; and the MDS 2.0 Quality Indicators. The MDS 2.0 Quality Indicators will be described in some detail, because they have been incorporated as a key in several of the other measurement approaches.

The purpose of this chapter will be to examine the utility of the models currently in use. These models will be evaluated based on the criteria identified in earlier chapters and an attempt will be made to identify common themes. The analysis will look specifically at the degree of resident stakeholder involvement in the development and selection of measures. The information gained in this analysis will assist in the development of the model proposed by this study for use in the long term care sector in Winnipeg.

Performance Measurement in Long Term Care

As is the case with performance measurement in the health sector in general, performance measurement in the long term care sector is in its developmental stages. Again, it is closely associated with the quality improvement movement within the sector. In the United States, the Joint Commission on Accreditation of Health Care Organizations (1998, p. 9) states "that the goal of improving a long term care organization's performance is to improve the residents' outcomes and explains that organizations accomplish this goal by designing processes well and systematically measuring and improving its performance."

The Joint Commission (1989) also makes an important distinction in their definition of quality for long term care. In addition to a consideration of desired outcomes of care, the definition of quality for long term care must also address quality of life. This distinction has become widely accepted in the field. The Joint Commission argued that quality of life should include such concepts as the ability to participate in activities of daily living, physical comfort, emotional well-being, and the right to self-determination. It would be impossible due to the long term and residential nature of this

type of care to separate the concepts of quality of care and quality of life. The experience of long term care can take place over many years and is the manner in which a significant number of seniors and the disabled live the last years of their lives.

This added dimension of quality of life further complicates the setting of standards and selection of measures. The use of the traditional health outcome measures of morbidity and mortality demonstrate this difficulty. Most residents enter the long term care system requiring care that results from living with multiple chronic illnesses and remain there until their death. This trajectory makes it very difficult to determine desired outcomes. Historical information regarding resident dependency and the expected illness trajectory for diseases that cannot be cured is not available. Chronic illnesses have many possible outcomes and diverse levels of acuity. This raises the question of when acute exacerbations of the disease or even death are inevitable outcomes and when are they indicators of poor quality or inadequate care delivery?

An additional complication in long term care is the right to self determination. Residents and families ideally are active participants in the decisions about their care and may make conscious and individualized decisions to refuse or alter treatment plans that may prolong life. Residents and families are often more concerned with the quality of life rather than simply prolonging it. The complexities of chronic illness and unpredictability of health outcomes make measurement efforts very difficult.

In spite of these difficulties there are a number of significant efforts being undertaken to measure performance in long term care. These models are being developed by government, non-governmental and academic research groups. Most models are in relatively early stages of development but one measurement system is gaining acceptance

worldwide. These are the MDS 2.0 Quality Indicators that have been developed at the University of Wisconsin by the InterRAI[11] research group. These indictors have been developed through an extensive research and consultation process and are emerging as a standard measurement system. They are being used alone and in conjunction with other measures in several of the models (Ontario, CCHSA, & JCAHO) that will be examined in this chapter. In the next section of this chapter there will be a complete description and analysis of this quality indicator package including the reasons for its popularity.

These measurement efforts are a result of the level of interest in long term care quality and performance. Health care funders, primarily governments but also private sector funders are very concerned about the quality of care and services provided to this frail and vulnerable population. As well, family members and residents themselves are becoming more interested and demand information about the quality and performance of long term care organizations. There are a number of websites that provide consumer focussed information about the quality and performance of care centres for both current and prospective clients. These websites include those developed by governments such as Nursing Home Compare by the Centres for Medicare & Medicaid Services and the

[11]InterRAI is an international consortium of researchers that is developing a series of instruments for use in many sectors in health care. They represent researchers from over 17 countries worldwide, including Canada. The most well developed and widely used of these tools is MDS 2.0 for Long Term Care. This tool was initially developed as an assessment and a Medicare funding mechanism for the Health Care Financing Administration (HCFA) in the United States (Morris et al, 1995 & Hawes et al, 1995). The Resident Assessment Instrument (RAI) is a powerful tool that can serve many purposes. For researchers it provides a common language to describe the needs and strengths of the elderly receiving care in institutions. For clinicians it provides information they need to structure plans of care. For funders it provides a case-mix index of the resources required to provide care to specific populations. Finally, for all of these groups as well as residents themselves, it provides valuable information about the quality of care and the quality of life in institutions.

Department of Health and Human Services in the United States and others such as the Agency for Health Care Policy and Research and the Joint Commission on Accreditation of Health Care Organizations in the United States. The Province of British Columbia (2002) has recently launched a web-site designed to help users to select a care facility or home. The public presentation of this information underlines the need to ensure that the measures being reported are valid and reliable and provide an accurate indication of performance.

Organizations that are collecting, utilizing, and publicizing performance data such as the Government of Ontario (2001) caution against making decisions about health care quality based on the available performance information. The information to date only provides an indication of the level of performance but in most cases has not been adequately validated. The National Council on Aging (2001) in Canada stated that from the data available to date, it is not possible to assess whether seniors are receiving the right kind and frequency of care. Clearly there is a need to build on the work that has been done and to continue to develop a means to measure performance and more clearly define the expected standards of quality in long term care.

Standards for Long Term Care

Much of the early work in the area of quality has been to develop standards by which the quality of care can be judged. The Canadian Council on Health Services Accreditation (2002) defines a standard as "a desired and achievable level of performance against which actual performance can be compared." In health care, standards have been developed by funders, national accrediting bodies and by professional regulatory organizations. Historically, these standards have focussed on the process and structure of

care provision. Structure and process standards have been the most easily identified and quantified and the assumptions have been made that if the process and structure of care meet the standard then a positive outcome can be assured. Health care professionals and academics have developed standards with little or no input from consumers. They have been based on professional judgements and research findings.

After using these accreditation standards for more than a decade, it has become clear that meeting the standards for process and structure does not necessarily result in appropriate outcomes and the desired quality of care. At the same time consumers became more active participants in the health care system. These two factors resulted in a shift in emphasis toward the outcome of care. The more recent sets of standards, including the AIM (Achieving Improved Measurement) Standards from CCHSA (2002), focus on the outcomes of care and make the reverse assumption that if the outcomes achieve the standards then the quality of the process and structure can be assumed. This is not to say that process and structure can be taken for granted or ignored entirely. In the previous chapter there was discussion about the difficulty in identifying outcomes in health care or ascribing particular outcomes to a set of activities. The difficulty remains that in some cases, all that can be measured is process and structure and outcomes can only be inferred from these measures.

The establishment of standards and regulations by funders, especially public sector funders, has been an area of significant activity in long term care. Canadian and American governments have established standards for long term care and have created direct relationships between standards and funding levels. To a large extent, long term care has been singled out in this regard. The Province of Manitoba provides a prime

example of this special treatment. While acute care consumes the largest share of health care funds and that share has continued to grow in size, the provincial government has not established any standards for the acute care sector. Instead they seem satisfied to rely on accrediting bodies such as CCHSA and health care professional bodies to establish these standards. In contrast, long term care, specifically personal care homes, have been subject to provincial standards since the early 1970's. Manitoba (1974) established these standards related to the provision of care and services in personal care homes and licensure and funding became dependant on meeting these standards. When asked, a provincial health official (Thompson, 2001) could not specifically identify why long term care has received this special treatment. She speculates that it likely the result of three factors that existed at the time that personal care homes came under provincial jurisdiction and direct funding. These factors included;

- residents of personal care homes were seen to be a particularly vulnerable client population who had few other options.
- the vast majority of care was provided by unregulated, non-professional workforce that in the 1970's had no accepted standard for training and education thus making the reliance on the standards of health professional bodies inadequate.
- the significant involvement of the private for profit health sector in the delivery of these services.

The government of the day was attempting to provide some assurance that there would be a minimum standard of care provided in all personal care homes in the province.

The standards established in 1974 for personal care homes remain in effect today although a new draft set of standards is in the final stages of testing. These standards were developed by officials within the health department based on those developed by CCHSA, in consultation with health professionals and academics. There has been no consultation with residents.

By early 2003, all personal care homes in Manitoba will have undergone a series of standards reviews based on these draft standards. The results of these reviews will be incorporated into the standards before they become finalized. Resident groups have been involved in each of these standard reviews but the focus of this involvement has been for them to provide feedback about the quality of care, not about the standards themselves. The standards contain process, structure and outcome measures although there is not the same emphasis on outcomes that one might expect given the current trend towards these types of measures. Thompson (2001) acknowledged that the driving force behind the development of new standards was the fact that the 1974 standards were no longer relevant and were badly in need of an update.

Initially in Manitoba, there was a plan to establish similar types of standards for other sectors of the health care system. However, this plan was abandoned in favour of the current efforts to develop a performance measurement framework. This approach encouraged a focus on outcomes and was consistent with initiatives in other jurisdictions. While the use of performance measurement has not been completely adopted by Manitoba Health, Thompson (2001) indicated that this is where efforts are being concentrated and no further sectoral-based standards are being developed. So it would seem that long term care will continue to be one of few health sectors that is subject to

provincial standards.

Will the establishment and enforcement of these standards assure the quality of care and more importantly, the quality of life for residents in long term care? Part of the thesis of this work is that standards alone will not accomplish this. Standards are prescriptive and are intended to describe the minimum level of care expected. Standards tend to focus on the structures and processes that organizations are expected to have in place. They have been enforced through routine inspections. However, standards and inspections alone cannot assure quality of care and quality of life. The development and implementation of a framework for measuring performance on an ongoing basis may not fully provide assurance either but it will support ongoing efforts to improve quality and performance. Performance measurement can provide information about the outcomes of care. Measurement activities can provide an indication of what has been achieved. The remaining portion of this chapter will examine models that are currently being used and particularly the set of indictors, which is gaining prominence in the field.

Dimensions of Quality and Measures for Long Term Care

In the previous chapter, five prominent health system performance measurement frameworks were described and analysed. There is significant similarity in many of the dimensions utilized to build the frameworks and there is evidence that the designers of these models have borrowed heavily from one another. This is true again when one looks at the performance measurement frameworks being developed for use in the long term care sector. In this next section, a number of models will be described and analysed to identify any significant similarities and differences that exist. The models have been developed by governments, non-governmental organizations, and groups of researchers

and academics interested in the area of long term care.

MDS 2.0 Quality Indicators

The most widely used and accepted (Kane, 1995; Hirdes et al, 1996; Wagner, 1999; Mor et al, 1998; Rantz et al, 1999) set of performance indicators currently in use in long term care is the MDS 2.0 Quality Indicators (CHSRA, 2002a). They have been accepted for use by federal and state agencies in the United States, accrediting bodies in both Canada and the United States, and national and provincial organizations in Canada. These organizations include CIHI and the Province of Ontario along with the provinces of Alberta, Saskatchewan, and Manitoba who are in the process of implementing MDS 2.0 in their long term care systems.

The MDS 2.0 Quality Indicators are part of a series of instruments that have been developed by the InterRAI research consortium. InterRAI is interested in assessment, care planning, improving, and funding services in long term care. The entire system is based on a comprehensive assessment that is conducted on each resident in long term care at the time of admission and on a prescribed basis thereafter (CHSRA, 2002h). According to Karon and Zimmerman (1996), the systematic use of resident assessment data can aid in the identification of quality of care problems and the determination of the nature of these problems. The development of computer software to support the use of MDS has greatly improved the ease of use by both health care providers and funders.

The Quality Indicators were developed by the Centre for Health Systems Research and Analysis (Zimmerman et al, 1995) at the University of Wisconsin-Madison. Researchers sought to improve long term care and acute health systems by creating performance measures and developing information and decision support systems. They

are also strongly committed to identifying, developing and testing techniques and methods for long term care providers to improve care delivery to their residents.

The indicators were developed in response to growing interest among health care professionals, consumers, policy makers, and advocates about issues related to the quality of care and quality of life of residents. The work was funded by the Health Care Financing Administration under the Multistate Nursing Home Case Mix and Quality Demonstration (Zimmerman et al, 1995). Clinical and research staff at the University of Wisconsin- Madison developed an initial draft based on an extensive review of the clinical research literature and care planning guidelines. Several national panels of health care professionals, resident advocates, and administrators provided critique and assisted in refining some, deleting others, and developing new indicators. The result was the identification of 175 quality indicators, which underwent initial empirical testing. They were assessed for clinical validity, feasibility or usefulness of information, and empirical analysis. This process reduced the number to 30 indicators in 12 domains, which has been further reduced to 24 quality indicators in 11 domains. These indicators were validated and are currently in use (CHSRA, 2002d). Table 4-1 outlines the 11 domains and their associated quality indicators. A complete definition for each indicator is available in Appendix A.

The quality indictors are designed to be used at either the individual resident or facility level. The resident level provides information about the presence or absence of a particular condition. The facility analysis is an aggregation of the data for all residents across the facility and demonstrates trends. The types of indicators include prevalence (at a single point in time) and incidence (developed over time) and they address both process

and outcomes.

The CHSRA (2002e) cautions that their indicators are only that, indicators of the quality of care. They are pointers that indicate potential problem areas that need further investigation and review. The final decision as to whether or not there is a quality problem requires careful and skilled investigation by clinical experts. A simple example that illustrates the need for more information would be the use of the indictor for the prevalence of tube feeding. Tube feeding is not routinely done in all long term care facilities and in many cases it is an admission criteria for particular types of facilities. Therefore a high or low measure could be a reflection of the admission criteria versus the quality of the care provided. It is essential that where comparisons are being made that the basis for that comparison has been validated.

In the development and use of the quality indicators researchers (CHSRA, 2002h) identified several methodological challenges including different assessment types, measuring and adjusting for risk, identifying and applying performance standards or thresholds, and ensuring a balance between sensitivity and specificity. Within the MDS system, there are requirements for assessments at various points in time and the comprehensiveness of the assessment varies. For this reason, the Quality Indicators have been developed to rely on information from specific types of assessments and others are excluded when used for comparison purposes. This would be done because it would be unfair to completely attribute changes found on a readmission assessment, done at time of readmission after an acute care admission, to the care provided within the facility.

The researchers have also adjusted the indicator calculations based on risk factors. The risk factors are health or functional conditions that either increase or decrease the

resident's probability of having a specific quality indicator. The researchers have distinguished between the identification of clinical risk and the identification of differences in facility populations that could influence the results. The focus is on excluding those conditions that are not amenable to clinical interventions such as the prevalence of cognitive impairment. There is little that a facility can do to alter the fact that a percentage of residents are cognitively impaired.

The use of quality performance thresholds or standards is another area of methodological concern. These thresholds are used to identify facilities with potential quality of care problems by setting a level of expected performance. Both absolute or peer based thresholds have been used. Absolute thresholds are single numbers by which all performance is judged, while peer group standards are based on comparisons with similar facilities. The CHSRA prefers the use of peer thresholds and has set a standard of the 90th percentile for most quality indicators. They have identified a few indicators, which they treat as sentinel events, so that any occurrence should be cause for investigation. These include prevalence for fecal impaction, the prevalence of dehydration, and the prevalence of pressure ulcers among residents at low risk of pressure ulcers. These thresholds are intended to be targets for performance but some have advocated their use to rank organizations. This should not be done at this time as these types of comparisons would not necessarily be valid or fair. There are many aspects of organizations that influence their overall achievement of the performance goals. The setting of thresholds or standards continues to be a significant part of the research work that is ongoing.

The final concern is the specificity and sensitivity of the quality indicators, or the

reduction of the number of false positives or negatives. The measures continue to be refined and the researchers encourage the use of the indicators in conjunction with either an internal or external review process. These reviews can provide immediate verification of the indicator and seek to answer the question of why a particular indicator is showing poor performance. The specificity and sensitivity of the measures are essential as they become more widely used to measure performance in long term care.

The MDS Quality Indicators have been developed based on an extensive research and testing process. They continue to be studied and revised as necessary and have proved to be reliable and valid. They have the distinct advantage that they do not require the collection of additional data purely for measurement purposes. All data is derived from the resident assessment process, which is a key component of care. The system is very complex and requires the appropriate software to manage the data and provide reporting. As this technology becomes more widely available in long term care facilities, it seems likely that this set of indicators will be used as the standard part of performance measurement systems. They primarily focus on the clinical domain and would need to be used in conjunction with other measures, such as satisfaction and financial indicators, to provide a framework that addresses overall performance. Although resident advocates have been involved in their development, no work has been done to determine how these indicators reflect the resident's perspective on quality of care and quality of life.

Table 4-1 MDS 2.0 Quality Indicators

Domain	Indicators
Accidents	Incidence of new fractures
	Prevalence of falls
Behavioural & Emotional Patterns	Prevalence of behavioural symptoms affecting others
	Prevalence of symptoms of depression
	Prevalence of depression without antidepressant therapy
Clinical Management	Use of nine or more different medications
Cognitive Functioning	Incidence of cognitive impairment
Elimination & Incontinence	Prevalence of bladder or bowel incontinence
	Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan
	Prevalence of indwelling catheters
	Prevalence of fecal impaction
Infection Control	Prevalence of urinary tract infections
Nutrition & Eating	Prevalence of weight loss
	Prevalence of tube feeding
	Prevalence of dehydration
Physical Functioning	Prevalence of bedfast residents
	Incidence of decline in late loss ADLs
	Incidence of decline in ROM
Psychotropic Drug Use	Prevalence of antipsychotic use in the absence of psychotic and related conditions
	Prevalence of antianxiety/hypnotic drug use
	Prevalence of hypnotic use more than two times in the last two weeks
Quality of Life	Prevalence of daily physical restraints
	Prevalence of little or no activity
Skin Care	Prevalence of stage 1-4 pressure ulcers

One other set of measures related to MDS is important to the discussion here, the Resource Utilization Groups (RUGS). Resource Utilization Groups are clusters of nursing home residents, defined by resident characteristics, that explain resource use. According to Fries et al (1994), the system design is based on grouping residents with similar resource use and the classification is only by resident characteristics and services provided and ignores facility characteristics. There are seven broad categories with 44 individual groups identified by this classification system. This provides significantly more information about the resources required than the current 4 categories included in the Manitoba classification system.

Again, the information used to determine the RUGS score is the same information collected through the resident assessment process and is used to plan care, determine resource use, and determine the quality indicators. In a study by Botz et al, (1993), it was found that the RUGS system provided more credit for the use of resources in the higher acuity type residents. This had been a criticism of other classification systems that did not necessarily equate acuity with additional resources required. The use of RUGS has been found to provide better information about the relative cost of the care required by residents in long term care facilities (Botz et al, (1993); Wodchis & Nytko, 1998).

United States - Joint Commission on Accreditation of Health Care Organizations

The Joint Commission on Accreditation of Health Care Organizations (JCAHO, 2002) endorses the use of performance measurement by health care organizations and believes that it is essential to the credibility of any modern evaluation of health care organizations. The primary mission of JCAHO is to continuously improve the safety and

quality of care provided to the public through the provision of health care accreditation and related services that support performance improvement. In 1997, JCAHO announced the ORYX initiative, which integrates outcomes and other performance measurement data into the accreditation process.

Rather than developing its own performance measures, the approach used by JCAHO is to enter into agreements with other organizations that have developed performance measures. They have set specific requirements for inclusion on their lists. Organizations undergoing accreditation are expected to select six measures and to submit measurement information related to them prior to their survey. The health organization must include the rationale for their selection of the particular measure. During the survey, surveyors will look for evidence that organizations can collect the data reliably, conduct credible analysis, and initiate appropriate system and process improvements.

The performance measures endorsed by JCAHO for long term care are the MDS 2.0 Quality Indicators (CHSRA, 2002c). These indicators meet the screening standards for inclusion including validity and reliability. They were also selected, in part, to reduce duplication in reporting requirements as long term care organizations in the United States are already required to submit the MDS 2.0 data to the federal Centres for Medicare and Medicaid Services (formerly Health Care Financing Administration). This is an important recognition of the value of using performance data that is already being collected and that organizations have limited resources to undertake measurement activities. The limitation of this approach, as discussed earlier, is that these measures do not reflect the performance of all aspects of the organization.

Great Britain - National Service Framework for Older People

Great Britain has taken a slightly different approach to performance measurement in the long term care sector. The approach used there was to develop a framework that addresses the care for Older People rather than the long term care sector specifically. In 2000, the Government of the United Kingdom published the National Service Framework for Older People. It was aimed at driving up quality and reducing variation in services for older people. It set national standards and defined service models for the health and social care older people receive. Programs were established to support implementation and included the establishment of milestones and performance indicators to measure progress. The framework included standards in relation to fair access to services and an integrated systems approach. Each of the local health authorities was expected to implement these programs.

An analysis of the local charters by the Nuffield Institute (2000) found that there were six key areas, which were being addressed. These include:

- helping users and carers to find out about services (access)
- finding a suitable place to live (access and appropriateness)
- helping people to stay independent (client focus)
- getting the right health care (system competency)
- helping carers to care (workforce)

Local initiatives were to develop means to measure how well they were performing in each of these areas. As directed by the National Health Service, a key part of that measurement process was to develop a means to illicit feedback from the consumers of

service. Although much of this work is being done at the local level, there are measures and benchmarks being established at the national level. The national role will include the publishing of materials that make it clear what the public is entitled to and the standards of performance. There will be a national system of assessment and quality standards. As well, the National Health Service will monitor quality through an easily comprehensible set of output measures. At the time of this writing, these measures are not yet available.

Canada - Canadian Council on Health Services Accreditation

In Canada, there are three performance measurement initiatives that are worthy of analysis. These include those being developed by the Canadian Council on Health Services Accreditation (CCHSA), the Canadian Institute of Health Information (CIHI), and the Province of Ontario. The CCHSA framework was extensively discussed in the previous chapter and will not be repeated here. In 1997, CCHSA conducted a national survey, which asked member organizations to identify the indicators that they viewed as most important in various health sectors. Table 4-2 contains a number of indicators that were widely in use in long term care. In addition to these indicators, CCHSA has also endorsed the use of the MDS 2.0 Quality Indicators.

Again, the selection of indicators has been the result of consultation with health professionals and administrators to determine their relevance and appropriateness. There has been no consultation with resident stakeholders. As well, CCHSA cautions that the measures in Table 4.2 lack nationally accepted definitions, and research has yet to be conducted to demonstrate their validity and reliability. CCHSA is presently working with other national partners including CIHI in addressing some of these concerns.

TABLE 4-2 – CCHSA National Survey List

CCHSA National Survey List - Long Term Care
Prevalence of daily physical restraint
Client satisfaction
Prevalence of stage 1-4 pressure ulcers
Medication incidents
Client/family complaints
Prevalence of urinary tract infections
Nosocomial infection rates
Prevalence of weight loss
Advance care directives
Outbreaks of infectious diseases
Falls
Immunizations rates of long term care staff
Prevalence of VRE/MRSA

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Canada - Canadian Institute for Health Information

CIHI has brought together an expert working group for long term care to select indicators to measure the performance of long term care facilities. The membership of this expert working group include researchers, federal and provincial officials, academics, health professionals, and health organizations. The group selected a series of indicators for which there was a primary data source and the availability of longitudinal data. The sources of data included the discharge abstract data base[12], Statistics Canada's residential care facilities survey database, annual hospital surveys database, and the databases of Registered Nurses, Occupational Therapists, and Physiotherapists. The facilities included in the project include those where the costs are partially or entirely covered by public funding. The indicators selected are outlined in Table 4-3.

The expert working identified a rationale for each of the indicators selected. It is clear from examining this rationale that the indicators are designed to identify potential areas of concern rather than measuring actual performance. The rationale for selection includes efficiency, effectiveness, utilization, and quality of care. They are also intended to provide an indication of the influence of other services along the continuum of care on the rate at which Canadians receive institutional care. Members of the expert working group are obviously very interested in the actual costs and the cost efficiency of the services being provided. With growing health care expenditures, this is a significant area of concern for public sector funders and as such, it is not surprising that these types of

[12]CIHI maintains a national database based on discharge abstract information. Hospitals and long term care facilities across Canada submit defined data elements related to care received on all clients at the time of discharge.

indicators have been included by the expert working group.

Table 4-3 CIHI Performance Indicators

Proposed Indicators	Rationale
Rate of Unplanned Acute Care Hospital Admission	May indicate levels of acuity, health maintenance activities, and advance directive planning.
Influenza Outbreaks	Effectiveness of prevention programs.
Per Capita LTC Admissions	Measures utilization and related to length of stay.
Average Length of Stay	Provides indication of trends such as use of respite services or impact of other services along the continuum of care.
Occupancy Rate	Measures utilization and efficiency.
Portion of Population who are LTC Residents	Indicates the services available across the continuum of care and the level of health of the population in each age group.
Ratio of Professional Staff to LTC Bed Staffed and in Operation	May be associated with quality of care, costs, and efficiency.
Revenue by Source per LTC Bed Staffed and in Operation	Quantifies resident and public burden of payment.
LTC Operating Expenses as Percent of Regional Health Expenditures	Indication of value attributed to LTC services.
Per Capita Public Expenditures for Facility-Based LTC	Evaluate public expenditures per person to provide LTC service.
Portion of LTC Residents over 85 Years of Age and Female	Used for trending purposes and to allow for better understanding of resident prevalence by gender and age.
Portion of LTC Beds Staffed and in Operation in Small and Proprietary Facilities	Examining trends related to size and the role of the proprietary sector.

These indicators are currently being collected and tested by CIHI and will

undoubtedly undergo a number of revisions and additions before a final set of indictors is selected. While these indicators may meet the information needs of policy makers, funders, and some health professionals, there is little that would inform residents or potential residents about the quality of care or quality of life they would expect to receive in long term care. They focus more on structure and process but do not reflect the outcomes of the services provided with the exception of the influenza indictor[13]. Clearly, this model for performance assessment is not adequate to meet the information needs of all of the stakeholders in long term care and would need to be used in collaboration with other measures.

Ontario - Hospital Report Complex Continuing Care

The Province of Ontario has invested the greatest effort and resources in assessing and reporting on the performance of their health system of all Canadian jurisdictions. Since 1998, they have funded a group of researchers, The Hospital Report Research Collaborative, to develop the methodological foundations for measuring the performance of various sectors within the health care system. In 2001, a report card was developed and published for the long term care sector for the first time. The report focuses on a specific area of long term care, the complex continuing care sector, but the same model could be used for all of long term care. According to the Ontario Minister of Health and Long Term Care, the Honourable Tony Clement (Government of Ontario, 2001), to improve hospital care and services, it is necessary first to understand how well those

[13]The influenza measure provides an indication of the effectiveness of influenza prevention programs. It will provide an indication of effectiveness but it may well be the effectiveness of the vaccine itself rather than an outcome of care and prevention practices.

services are performing. With performance information it is possible to create better, more efficient and more effective ways to plan and provide complex continuing care services. As this was the first report of its kind, only time will tell if this performance measurement approach can live up to these expectations.

The performance measurement approach used by Ontario was developed by the Hospital Report Research Collaborative. This collaborative is made up of researchers from public sector organizations including CIHI, universities, and health care organizations. Their purpose was to provide a set of performance measures that complex continuing care programs can use to describe, evaluate, and compare their performance. The approach was to compare the results at provincial, regional, and peer group levels but they encourage organizations to apply them at their own facility level as well. The report describes the measures as screening tests, or a means of identifying problems that may need to be investigated more closely. The principles employed in the development of the framework and the measures include:

- Ensure the scientific soundness of the measures by using the best standard of evidence available.
- Promote the relevance of the measures so that most hospitals may use them for quality improvement and accountability
- Select indicators for which data collection is feasible and doe not impose a burden on providers.

These principles are in keeping with those outlined by the WHO (2000) in their recommendations on the development of performance measurement systems.

The framework developed for use in Ontario has four quadrants, which include, system integration and change, clinical utilization and outcomes, patient and family satisfaction, and financial performance and condition. The first quadrant of system integration and change describes the processes and innovations used by organizations to support their quality improvement and their efforts to integrate care provided along the continuum. The consortium surveyed nearly 100 organizations to assist in the development of the indicators in this area. The second quadrant of clinical utilization and outcomes is concerned with evaluating the quality of care. The indicators selected for use are the MDS 2.0 Quality Indicators. The third sector is patient and family satisfaction. The information in this sector was collected through a large satisfaction survey which was conducted both in person with residents, and by mail with family members. The final sector is financial performance and condition, which describes the efficiency, productivity, and sustainability of programs. The measures are based on financial information, which is collected for the Management and Information System (MIS)[14] and MDS Resource Utilization Groups (RUGS)[15].

The methodology used in each of these measurement activities has strengths and weaknesses. The first and third sectors rely on the use of surveys or questionnaires. The

[14]Management and Information Systems (MIS) is a data base supported by CIHI. Canadian health care organizations must submit annual financial information based on defined parameters. This data is frequently used for financial comparisons of health systems across Canadian jurisdictions.

[15]Resource Utilization Groups (RUGS) are the classification system within InterRAI MDS upon which funding allocations are determined. The groups define the relative number of resources required to provide the care required by a group of residents with similar requirements.

WHO (2000) recommends against the use of surveys solely for the purpose of collecting performance data. There are two main reasons for avoiding this type of measurement process, the first is the difficulty of independently verifying the accuracy of the information provided and secondly the costs associated with conducting the survey. In the development of the 2001 report, Ontario expected individual facilities to bear the costs associated with the patient and family satisfaction survey. Less than half of those organizations included in the report actually participated in this quadrant.

The data required to support the measures in the other two quadrants is collected routinely by organizations for other operational purposes. The MDS data is collected as part of the care process and the MIS data is already a requirement for all health care organizations. This is a very positive attribute of these indicators but it assumes that the information technology is available to facilitate the use of this information. The MIS system is well established within Canada and is fully automated. The automation of MDS has been occurring over the last decade and has greatly increased the utility of the data but the cost of computer technology is a barrier for many long term care facilities.

The conclusion of the Ontario 2001 report emphasizes a need to improve information technology and information use. There is a need for the development of both infrastructure and knowledge for the effective utilization of information to guide decision-making at the clinical and management levels. The second recommendation promotes a renewed emphasis on "resident-centredness." The report concludes that organizations need to do more to encourage and ensure the resident is at the centre of the care team and that they are active participants in their care where able. This is an important recommendation for facilities but the research collaboration could benefit from

its own advice. While resident feedback is one of the measures included, resident stakeholders have not been intrically involved in identifying the measures used to determine performance. There is not a resident or resident advocacy group involved in the advisory or steering committees. Other stakeholders such as policy makers, funders, and health professionals are well represented but residents are notably absent. The measurement approach used by Ontario is the most comprehensive and addresses the overall performance of the organization and the opportunities for improvement. It is consistent with the models described in chapter three and there is a balance in the domains utilized.

Conclusion

There is no consensus on a performance measurement framework for long term care. However, the use of MDS 2.0 Quality Indicators is becoming recognized as an essential component in the measurement process. The use of these measures alone does not adequately reflect the overall performance of health care organizations. They are becoming standard measures in the clinical domain but must be used in conjunction with other types of measures to obtain a picture of overall performance.

At this time there is no consensus as to what these measures should be. Public officials will always be interested in financial indicators and the availability of MIS data in Canada offers an opportunity for the development of further measures. What is clear based on this analysis is that more work needs to be done to include the voice of resident stakeholders in the measurement process.

While a number of performance measurement systems are beginning to be used in the long term sector, none of them demonstrates an adequate level of client or resident

participation in the development and selection of the measures. There are challenges inherent in achieving meaningful resident participation in the development of models and selection of indicators and this perhaps explains their exclusion to date. The next chapter will outline these challenges and describe a project that was undertaken to hear the voice of resident stakeholders.

Chapter Five - The Residents' Voice in Performance Measurement

Introduction

The development and selection of goals and performance indicators are key steps in the use of a performance measurement system. It is highly desirable to involve all of the various stakeholders in the process. In long term care there are many stakeholders who have an investment in quality and performance and in the Canadian context, the stakeholder groups include public policy makers, administrators, health care professionals, support staff, families and residents. The analysis of the performance measurement approaches outlined in Chapter Four demonstrated that the views of policy makers, administrators, and health care professionals have been well represented. Support staff, family, and resident groups have not been consulted sufficiently. This may be understandable given the developmental nature of these approaches but it is the opinion of this author that it is a major flaw of present systems.

Different groups may provide distinctive perspectives on quality and performance. The purpose of this work is to include the voice of one of these groups, the residents, in a model for performance measurement for long term care. The rationale for choosing the resident group is that this writer believes they should be the primary stakeholders as they are the direct recipients of the service.

In quality improvement language, residents are the customer and as such understanding the needs and expectations of this customer is essential in assessing quality and performance Leaders in health care quality, such as JCAHO (2000) and CCHSA (2002) have been advocating a client centred approach to quality care delivery. Keating et al (1997) found that in the 1990's there has been a shift in philosophy concerning care

for frail seniors, away from a provider-driven, medical model to a more social and client centred approach to long term care. Unfortunately while there has been significant movement in this direction, it is evident that more effort must be made to ensure that the voice of residents is present in the evolving approaches to performance measurement. The previous chapter provided evidence that resident stakeholders have largely been excluded from the development of performance measurement approaches and this chapter will explore the second part of the research question. What are the expectations and needs of residents in terms of quality and performance?

If this question were easily answered, perhaps resident groups would have already been included. A resident based definition of quality and performance has been elusive. Determining a means to have meaningful resident participation is challenging. This chapter will begin with a discussion of the difficulties related to resident participation and explore some of the approaches that have been used by other researchers. The second part of the chapter will describe a resident centred approach to quality improvement, which attempts to overcome these challenges and was undertaken in a long term care facility in Winnipeg, Deer Lodge Centre. The project was designed to obtain meaningful feedback from residents of the facility about their perceptions related to the quality of care and aspects of care that they would like to see improved. In the final chapter, this feedback will be used to include the resident's perspective in the formulation of a performance measurement model for long term care.

Why Resident Participation?

Why is it important to include the voice of resident stakeholders in the design of a performance measurement approach? Are residents interested in performance data and

what type of information do they want? These are the questions that are currently being debated in the literature. Some (Lubalin & Harris-Kojetin, 1999; Horning, 2001) suggest that consumers do not understand the complexities of health care delivery and are generally not interested in clinical performance data. They are only interested in service quality and issues related to access to care. Kizer (2001) believes this perspective represents an overly simplistic view of consumer concerns. His research has found that consumer attitudes and expectations about health care have changed in recent years, with consumers increasingly being interested in clinical performance and public accountability. Consumers are becoming activists, demanding and using information about medical treatments and health care standards. Kizer believes it must be recognized that the stakeholders include everyone including patients and that the new rules of engagement are still being worked out as to how these views can be incorporated.

The move toward client centredness and consumerism in health care are relatively recent phenomena, and health care organizations have slowly been adjusting to this new reality. Historically, the relationships between health care professionals and "patients" was based on a belief by both sides in the superior knowledge of the professionals and resulted in complete deference to their recommendations. The general public has become more knowledgeable and have demanded a more equal partnership in health care decision-making. Not all health care professionals have readily embraced this change and the ultimate goal of a client centred approach has not yet been reached. This is true in all health care sectors but is particularly so in long term care, where the residents are not just interested in the quality of the health care services but also their quality of life.

The lack of client centredness is evident in the review of performance

measurement models examined in the previous chapters. One of the building blocks in the recommendations for the development of models is stakeholder participation in the development and selection of indicators. According to Swindell and Kelly (2000), this is not unique to health care. They found that in the public sector in general, proponents of performance monitoring assume that public servants know what constitutes good performance and can measure it accurately. This type of measurement is seen to be more objective than the subjective evaluation done by client groups through surveys or other means. The purpose of this work is to demonstrate that the views of resident stakeholders are valuable and need to be included in performance measurement activities.

Residents and Performance Measurement

Many of the long term care quality experts (Kane & Kane, 1988; Leonard et al, 2001; Rantz et al, 1999; Raynes, 2000; Roberts et al, 1987; Wilde et al, 1995) have long advocated resident participation. They believe that systems need to include quality indicators that are meaningful to residents, reflecting structures and processes that they value, and the outcomes that they desire. The residents' viewpoints are particularly important because the institution is also their home. Great Britain's (2001) approach to performance measurement requires that the consumer be represented. They suggest several ways to accomplish this such as monitoring complaints, providing opportunities for older consumers to voice their opinions on the various types of care, and making sure that there is information readily available to seniors to make informed decisions.

If the views of the experts, health care professionals and administrators, are included, how are the views of residents different? According to Bliesmer and Earle (1993), achieving an understanding of what are truly indicators of quality for long term

care residents is necessary to ensure that their needs and preferences - not the needs of staff are met. Their study found only minimal to moderate congruence between resident and staff perceptions of the importance and occurrence of indicators of quality. Kane (1995) found that it was very important for staff to see some indication that their work makes a difference in the lives of the residents, so resident focussed indicators provide valuable feedback to staff as well.

The MDS Quality Indicators described in the previous chapter are becoming widely used and accepted in long term care. Kane (1995) cautions that they should not be used in isolation, as they do not give a complete picture. The primarily clinical indicators found in the MDS focus on problems or complications of therapy. He argues that the absence of bad events does not equal good care. There is a great deal more to long term care than simply safe, harm-free care. Good long term care should make a positive contribution to the well being of those it serves and at the very least it should not reduce the quality of resident's lives. Additional measures need to be included to address the dimensions of well being and quality of life and residents need to be included in their development. This will not be easily done, while clinical indicators tend to be quantitative and collected fairly easily, quality of life indicators are more qualitative in nature and therefore are not easily assessed.

Challenges to Resident Participation

There is growing consensus that the voice of residents needs to be represented in the selection of performance measures, so why is there so little evidence that this has occurred? The simple answer is that it is not as easy to do, as it might seem. There are characteristics of both the long term care system and the resident population that create

barriers to their participation. The barriers will be discussed here in some detail as well as some of the strategies that are being used to overcome them.

Some of the reasons for limited participation are the paternalistic attitudes of health care professionals, the nature of the relationship between resident and care provider and most particularly, the physical and mental frailty of the client group. In long term care, judgements of quality are made not only about medical care, but more often they are made about the interpersonal relationships with staff who provide the care and the environment in which it is provided (Leonard et al, 2001). Residents may give prejudiced responses due to these relationships and choose not to make negative comments about their care for fear of retaliation (Bliesmer & Earle, 1993). As well, frail elderly who live in long term care facilities suffer from multiple chronic illnesses and as it is unlikely that they will be cured, this may impact on their perception of their care. Quality of life is of paramount importance to these individuals, as they cope with losses in the areas of independence and physical or mental acuity. These characteristics of long term care make resident participation challenging.

A group of policy makers and professionals (New England States Consortium, 2001) got together to attempt to address these concerns by designing effective survey methods for frail elders. Their work was based on the assumption that these consumers have more at stake since decisions made on their behalf influence not only their health, but also frequently, how or where they spend their lives and what life opportunities are facilitated or precluded. Their work sought to obtain resident feedback that would assess accountability, evaluate services, provide guidance for quality improvement activities, and educate consumers about various service delivery options. They have focussed on

the use of survey methodology, which has become a popular way of seeking resident input. The following analysis of the difficulties inherent in the use of satisfaction surveys with this population demonstrates not only the difficulties with the use of this methodology but also highlights the special challenges with this population.

Satisfaction Surveys

Satisfaction surveys have become a very popular means of obtaining customer feedback. Larrabee & Bolden, (2001) and Owens and Batchelor (1996) found that surveys were being used successfully as an outcome measure by many long term care facilities. They have become almost a universal approach to gathering information from clients about service quality. According to Meister and Boyle (1996, p. 41), "patient satisfaction is a measurable outcome indicator of quality care. Satisfaction may be defined as the degree of congruency between a patient's expectations or ideal care and his or her perception of the actual care received."

Not everyone agrees with the use and value of satisfaction surveys. Hirdes et al (1996) argue that the resident perspective is not necessarily the "correct" perspective. They propose that residents are only able to assess the interpersonal interactions they have with health care staff but they lack the technical expertise to assess the adequacy of clinical procedures that are performed. They go on to suggest that as residents are only able to assess one aspect of care and that may not be the most important one to consider in all cases. This represents the distinction between "affective" orientation (subjective, opinion-based, attitudinal) versus a "cognitive" orientation (based on information and knowledge). There is some validity to this position but it could be argued that this is just further evidence of the paternalistic attitudes of health care professionals. A balance

must be struck between the views of the professionals and the residents. Regardless of the outcome of this argument, satisfaction surveys will continue to be used and it is important to consider some of the difficulties associated with them. According to Castle (1999), these difficulties include potential cognitive limitations of the resident population, a stable cohort, and the necessity of examining social rather than medical factors. These are all factors, which need to be addressed in research with resident groups regardless of methodology.

Social Desirability Bias

Social desirability bias is a common problem in survey and some qualitative research. Hirdes et al (1996) suggest that this is an even more serious problem in the health care industry. In addition to the bias created by wanting to get along and provide the expected responses that can influence results, patients or residents are particularly vulnerable. The "sick role" requires them to seek out and comply with expert care from physicians or other health care providers. This has been found (Stevenson et al, 2000) to be particularly true with the elderly population. Residents feel a degree of pressure to be seen in a positive light and not to be seen to be complaining or ungrateful. This disparity in power in the relationship between resident and provider may prevent the resident from providing truthful responses.

Fear of Retaliation

Even more serious for residents than the desire to be seen in a positive light, is the fear of retaliation. Residents in long term care facilities are particularly vulnerable to the threat of retaliation for giving negative ratings (Hirdes et al, 1996; New England Consortium, 2001). Frail elders generally feel grateful for the care they receive and are

not inclined to say anything critical. They fear that if they "complain" there will be negative consequences for their care or the potential loss of access to services (Forbes & Neufeld, 1997). Unfortunately, it is true that retaliation may actually occur but often it is a perception on the part of the resident. In response to a complaint, the provider may become more cautious in their approach to care and this caution is perceived by the resident as the "cold shoulder". It has been this writer's experience that even when the provider is unaware of the complaint, the resident already perceives a change in the relationship.

Sample Bias

In most long term care facilities only a small portion of residents are able to participate in surveys. Various authors (Hirdes et al, 1996; Mitchell & Koch, 1997; New England Consortium, 2001) have cited that anywhere from fifty to eighty percent of the residents in facilities are affected by moderate to severe dementia and are unable to participate. Another portion of the population has physical disabilities such as paralysis and dysphasia, which makes it difficult for them to communicate effectively enough to participate in the survey process. Physical frailty and fatigue also impact on residents' willingness to participate, they may choose not to use their limited energy to participate in survey activities. Therefore the number of residents who are willing and able to participate represents only a small portion of the overall population and is not necessarily representative of the entire population. Often the assumption is made that those who are able to participate speak for those who are unable to speak for themselves. Hirdes et al (1996) and the New England States Consortium, (2001) caution against this assumption. The experience of those who are able to communicate and participate may be

significantly different from the experience of those that cannot.

Another source of sample bias is the fact that the cohort in long term care tends to remain relatively stable. The same group is surveyed repeatedly. Residents generally live at the facility for several years, so the same group is surveyed repeatedly. Surveying any more than annually would place an onerous burden on a small number of residents. Even annual surveys mean that the cohort would be made up of the same group of residents. If surveys are used they may need to be done less frequently than annually which is the industry norm.

Survey Design

Client satisfaction in long term care needs to be a measure of both quality of care and quality of life. Surveys mean that respondents must fit their responses into categories set by administrators. This means that there is a relative dependent status for respondents. The items included in the survey need to address the aspects of care and life that are important to the resident group. Again, it would be important to have resident participation in the development of survey tools. In their evaluation of survey tools being used in this sector, Meister & Boyle (1996) and Leonard et al (2001) found that the indicators used within satisfaction surveys have not had consumer input into their development. Yet again, it brings into question whether the tools are measuring satisfaction with the aspects of care, which are truly important for residents.

The popularity of satisfaction surveys does not mean that they are the most effective means of obtaining resident based outcome indicators. Surveys are popular because they can be conducted for a relatively low cost and the use of surveys demonstrates to accrediting bodies that the organization has solicited customer feedback.

The experience of this author is that they do not necessarily yield information that can be used to guide or measure the quality improvement process. The long term care facility, Deer Lodge Centre,[16] involved in this study had used a resident satisfaction survey as part of their quality improvement program for more than a decade. It provided feedback on the general level of satisfaction with services and as such was used as an outcome measure. The survey provided limited information about dissatisfaction with services but the results failed to provide feedback about which outcomes were most important to residents. There was a desire on the part of the facility to find another way to obtain resident feedback that could be used to make meaningful decisions and improvements.

Resident Centred Quality Improvement Initiative

The group charged with the task of improving resident participation was the Integrated Quality Council. They were interested in finding a better method of obtaining resident feedback and participation in the quality improvement process. The previous experience with the use of satisfaction surveys had been found to be inadequate and each of the program areas had experienced difficulty in maintaining ongoing resident

[16]This study has been conducted in Winnipeg in conjunction with the quality improvement program of Deer Lodge Centre. The facility is a 471 bed facility located in Winnipeg, Manitoba, which provides specialized services to a number of specific client populations who require long term care. The Centre was established as a federal Veterans hospital following World War I and became a provincial long term care facility in the early 1980's. There remains a strong association with Veterans with 155 beds dedicated for priority access through Veterans Affairs Canada. The Centre formally merged with the Winnipeg Regional Health Authority in August 2002. The overall project was under the leadership of the Integrated Quality Council and this study only addresses the performance measurement component of the overall project. The author was responsible for the development and the supervision of the approach and provided the staff support to the work of the Integrated Quality Council.

participation on their quality improvement teams. Resident participation was impacted by their physical and mental frailty and the resident's discomfort in being a small number speaking on behalf of their fellow residents. The residents on the teams clearly did not feel that they had enough information to represent the entire group. It was also somewhat intimidating to be the only resident in a group of a dozen or so health care professionals. The desire of the Council was to find a better way to facilitate their participation.

A review of the literature supported this desire. According to Mitchell and Koch (1997), residents in personal care homes need to have more influence and choice over the matters that affect them. Sixma et al (2000, p. 173) recommend the development of instruments that "(i) produce specific data on the performance of health care services, (ii) produce data related to individuals' needs and expectations and (iii) contain items formulated in collaboration with elderly people." The goal of the Resident Focussed Quality Improvement Initiative project was to obtain meaningful resident participation in the quality improvement process. The hope was that it would be possible to obtain feedback that would guide improvement activities, including the selection of performance measures. Based on the previous experience with satisfaction surveys and the difficulties associated with them, the Council sought a different method.

Following the review of the literature, a decision was made to proceed based on the program, *Residents Have the Answers: Improving the Quality of Life in Long Term Care* developed by the Nursing Home Community Coalition of New York State and the Coalition of Institutionalized Aged and Disabled (2001). This program had been developed with the goal of improving the measurement process by addressing both quality of care and quality of life. The process had been extensively used and tested in

New York City. The key elements of the process include:

- the use of two proven techniques in the nursing home setting, focus groups and targeted interviews to identified quality of life areas. The process can be tailored to be facility specific.
- residents themselves provide the information.
- reliance on sampling of a diverse but representative part of the population.
- can be managed within existing resources.
- can be used repeatedly and modified to meet changing needs.

The program provides a short video and manual, which can be used both to describe the process to a variety of audiences and to provide staff training for the focus groups and targeted interviews. The package also provides suggested focus group questions and sample questionnaires for the targeted interviews. A significant reason for selecting this process was the author's recommendations that the process should be modified to fit the unique characteristics and needs of each facility.

The primary question being researched by the initiative was what are the aspects of care and quality of life that are important to the residents of the facility? The secondary question is what aspects of care and quality of life could be improved? The answers to these questions will be used to inform the ongoing quality improvement process and provide direction for further study. A third component and the focus of this work, is what are the measures of long term care quality and performance that could be derived from this consumer perspective. The information gained from residents will be used to provide a resident stakeholder perspective in the development of a performance

measurement model for long term care.

Method

The approach used here is qualitative in nature. According to Jackson (1999), qualitative research emphasizes verbal descriptions of human behaviour and attempts to understand how participants experience and explain their world. This approach was chosen here to derive useful and usable knowledge about problems and what could be done to fix them. It allows for the collection of more in-depth, concrete evidence of both patient perceptions and ideas for improvement. Another rationale for the selection of a qualitative approach here is that the representativeness of the sample is less important which is significant given the earlier discussion of the difficulty of obtaining a representative sample in a long term care environment.

The *Residents Have the Answers* (RHTA) approach recommends using resident focus groups as a first step in the process. Krueger (1988) recommends the use of focus groups for exploring complex concepts because it taps into human tendencies, attitudes, knowledge, and perceptions related to services or programs. Focus groups are intended to promote disclosure among the participants through discussion. The focus group method has been used successfully by other researchers (Rantz et al, 1999) interested in quality of life issues.

Sample

The sample was selected from the resident population of the facility. Nurse Managers from all program areas were asked to provide the names of residents who were physically and cognitively able to participate in the discussion. The group included those with mild cognitive impairment but generally represented the most cognitively well

residents. Residents had resided in the facility for several months to several years. All of the residents identified in sample were sent written invitations asking them to participate (see Appendix C). Residents were invited to attend the session to talk about the things that are most important to their living a good quality of life. The confidentiality of the sessions was assured and the list of names of the participants was destroyed at the end of the project . In all seven resident focus groups were held with a total of 40 residents participating in the project. This number represented 8.5 % of the entire population which is slightly lower than the 10% recommended by RHTA but the sample did include residents from all program areas. The sessions were scheduled for one hour but the discussion was so enthusiastic that they generally extended to approximately 90 minutes. Participants were informed that their participation was completely voluntary and they were free to leave the session at any time.

Procedure

Facilitators and recorders were selected from the staff at the facility who had expertise in interpersonal communication and interviewing techniques. The facilitators were social workers and care was taken to ensure that they were not assigned to a group where residents from their areas of practice would be attending. The facilitators and recorders attended a training program conducted by the project coordinator and watched the video from RHTA. The recorders documented the actual comments of the residents on flip charts. In addition to the written record, each resident focus group was asked it they would agree to be audiotape for the purpose of documentation. At least one member of each group declined and therefore none of the sessions were audio taped.

The sessions were held in a private space located away from the resident care

units. Each group consisted of between three and eight residents. The ideal size for discussion purposes was found to be six residents. Residents were seated in a circle with the facilitator and the recorder was located just outside the circle with the flipchart. Participants were welcomed to the group and made to feel comfortable. Group members were introduced and the ground rules for the sessions were outlined.

The facilitators used a series of questions recommended by RHTA that were intended to promote discussion about quality of care and quality of life. The questions are outlined in Table 5-1. The same questions were used for each group and worked effectively in generating discussion amongst participants. The first question was used to help put the participants at ease as people generally feel more comfortable expressing their positive ideas and this question helped to get the groups talking.

Table 5-1 Focus Group Questions

Focus Group Questions
What do you like about being here?
What would you change if you could?
What could be improved?
What would the ideal long term care centre look like?
Would you recommend us to a friend or loved one? Why or why not?
Is there anything that you would like to say on behalf of residents who can't communicate themselves?

The project coordinator and facilitator group developed the final question on the list. It

was hoped that this might shed some light on the quality of care and quality of life for those who were unable to participate. While the participating residents could not speak directly on behalf of others, they were in a unique position to observe the care and services provided to others. This question generated a great deal of discussion.

Analysis

The comments documented on the flow sheets were transcribed and shared with the resident participants at the end of each session to ensure that they accurately reflected their comments. As much as possible, the recorders used the exact words of the participants. Once all of the focus groups results were available, the statements were sorted and thematically grouped by conceptual similarity by the project coordinator and the facilitators. The transcripts were reviewed to identify information and categories that assisted in answering the research questions. The words of the residents were then grouped around the themes identified. Once these themes were articulated, the focus group data was reviewed again by the project coordinator, facilitators, and recorders to ensure that the themes were a valid representation of the focus group discussions.

Findings and Discussion

Four distinct themes emerged from the analysis of the residents' responses. These themes included independence, staff relationships, individualized care, and helping others. Within each theme there were a number of concepts and issues identified.

The first theme was the perceived relationship between quality of life and quality of care and level of independence. Residents who are mobile and able to communicate perceive that they and others like them enjoy an enhanced quality of life over those residents who are not.

Table 5-2 Focus Group Themes

Focus Group Themes	
Independence	Perceived quality of life and care are related to level of independence
Staff relationships	People make the difference
Individualized care	Treat me as an individual
Helping others	Care and concern for others

Responses from resident included:

- "I enjoy the freedom to come and go where I like - only thing that stops me is the weather"
- "the freedom to move around - the staff aren't chasing and harassing you"
- "flexibility in care...have the freedom to do it myself"
- "be as independent as you can if you want things done"
- "feel taught to be dependent."

Independence or well being has been widely identified in the literature (Guse & Masesar, 1999; Aller & Van Ess Coeling, 1995; Raynes, 2000; Wilde et al, 1995) as being important to residents. This theme was readily identified in relation to a wide variety of issues including involvement in activities, choice, routine, and staff-resident interaction. Residents valued their independence and felt more should be done to maintain or promote

it. Those who were mobile and can speak for themselves felt that they were more able to participate in activities that they enjoyed, had more choice in how their care was delivered, were able to establish their own routines, and generally had better relationships with the staff.

Staff and relationships with staff were the focus of the second theme, people make the difference. Residents identified that it was the staff who have the most significant impact on their quality of life. In general residents spoke highly of staff, noting that many "staff go the extra mile", however, where there were concerns and conflicts, these significantly permeate the residents' overall impressions. Resident responses included:

- "Need regular staff - particularly evening staff - staff need to know patient and routine"
- We might have the odd staff who is too rough or whatever, but you can't throw them all out for one rotten apple"

The importance of staff and relationships with staff were evident in the comments and issues raised. These included communication, staffing levels, continuity and staff turnover, and staff training. All of these factors were seen to be important to the experience of the resident. The impact of staff and their relationships with residents is widely recognized as a significant aspect of quality of life and quality of care (Bliesmer & Earle, 1993; Higgs et al, 1998; Kane, 1995; Meister & Boyle, 1996; Rantz et al, 1999; Raynes, 2000).

The third theme was that residents identified being valued and treated as individuals. These are some of their comments:

- "Waking me up - not considering my preference"
- "On Main Street staff will say hello and recognize you and ask how you are"
- "It's not an institution - if it was an institution we'd all be dressed in blue gowns and we wouldn't be allowed to go anywhere"
- "Overheard staff and resident arguing over choice"

Bliesmer and Earle (1993), Higgs et al (1998), and Rantz et al (1999) all found a similar emphasis on the need to receive individualized care and to be recognized as a being unique. Regardless of their personality or personal situation, residents articulated a desire to be treated as an individual and be accorded a high level of dignity, respect and responsiveness. They suggested that staff put themselves in the shoes of the resident and think about the care provided and interaction in that context.

The final theme was related to care and concern for others. Residents expressed concern for residents who appear to have no visitors, families or social support, which cannot express their needs and wishes themselves, and clearly feel that these individuals need their support and advocacy. Some of the residents' comments included;

- "Some residents are depressed - need to take time to find out what they need to get help"
- "If a resident can't speak I will use the call bell to ask for help"

This theme is not widely noted by other researchers interested in residents' perceptions of quality. It was found by Aller and Van Ess Coeling (1995) and Raynes (2000) who note that friendship with other residents and the ability to help others were important factors for resident groups. It is noteworthy that this theme was also found by previous research

done at this same facility. Guse and Masesar (1999) found that being helpful to others was an important factor in residents' perceptions of quality of life and successful aging in long term care.

In conjunction with these themes, the analysis of the focus group results also identified a number of issues that were important to the resident group. In most cases these issues could be related directly to one or more of the themes. The issues and potential opportunities for improvement are outlined in Table 5-3. There were no surprises in terms of the issues that were identified. They had been identified in previous satisfaction surveys, the analysis of complaints data and previous research activities at the facility. However, the focus group information provided greater detail and context around these themes, which will be helpful in the improvement process. These issues may be helpful in the selection of performance measures as the themes identified are very broad and it will likely be necessary to undertake measurement activities related to the issues identified within the themes.

The real value in the identification of the issues is the opportunities that they afford for the ongoing quality improvement program. While it is not the focus of this work, the facility's Integrated Quality Council will be using this information in providing direction for a variety of improvement activities in the coming year. Their next step will be to conduct program based focussed interviews to obtain a clearer understanding of the needs of the residents.

Table 5-3 Opportunities for Improvement

Theme	Issues	Areas for Improvement
Independence	Rehabilitation	Providing hope versus despair, focus on maintaining or improving function
Staff Relationships	Staffing	Communication, staffing levels, staff turnover, training
Individualized Care	Admissions	Support during initial period
	Routine	Resident-centred versus institutionally driven
	Choice	Ensuring resident can exercise choice
Other	Activities	Access and variety
	Facilities and services	Multi-bed rooms, spousal accommodation, equipment, laundry, food, housekeeping, security

Implications

Quality and performance in long term care are multi-dimensional and no single model or approach will fit for all stakeholders. Understanding what is meaningful to the various groups of stakeholders is an important step in developing a framework. Although

there are a number of stakeholder groups in long term care, the group that has been most ignored in previous model development has been the resident group. The results of this focus group work suggest that residents have very distinct ideas about what is most meaningful to them.

The qualitative nature of this work does not allow for broad generalizations as it represents the views of only forty individuals within a single facility. Further study with more residents in other types and sizes of facilities is required to validate the findings. However, the themes were consistent in the discussions from each of the seven focus group sessions. It is also noteworthy that some other researchers in the field have identified all of the major themes identified from the focus groups. Each of the first three themes has been identified in the literature for over a decade as being important in measuring quality from the resident perspective. The fourth theme, while less widely noted, continues to be significant to this group of residents. The residents of the facility have identified it as an important concept on two separate occasions. This series of focus groups did not find major themes related to activities or the environment as has been the case in other studies. This may mean that there is a general level of satisfaction with these areas but they did emerge as issues for some of the residents were concerned with.

The four themes identified focus on both quality of care and quality of life, as one would expect. If these themes are representative of the values of all long term care residents, they pose challenges to both facilities and policy makers. The value attached to independence could be in direct conflict with the emphasis on care. Caregivers desire to help and protect residents from risk, which is often in direct conflict with the residents' desire to increase their independence even if it results in an increased risk to their safety.

This creates tension between the needs of the staff and residents. Long term care facilities have limited resources dedicated to rehabilitation services, which promote or maintain independence. Front-line care providers are generally more inclined to do "for" residents rather than promoting their independence. The reality of the chronic and debilitating diseases which often produce the need for long term care placement would seem at odds with the residents' desire for independence. Providers will need to strive to find ways to promote independence wherever possible.

The importance of staff and relationships with staff is not surprising. This supports the earlier argument made by Hirdes et al (1996) that residents are focussed more on the interpersonal versus the technical aspects of care. Again, balance needs to be found in the value and resources committed to them both. This theme will be challenging to any measurement approach. It will not lend itself to quantitative approaches but will likely require ongoing qualitative approaches.

Treating everyone as an individual will be a challenge in the institutional setting. In spite of a strong commitment to a resident centred approach, the reality will always be that the facility provides shared services and accommodations. It may not always be possible to meet residents' unique needs in the manner they desire without compromising the care of others. The resources are not there and compromises will need to be made. This does not mean that every effort should not be made to individualize care whenever possible. A further challenge is the fact that many residents are unable to communicate with staff about how they would like their care provided.

The final theme is perhaps the most challenging. Residents have always been considered the recipients of care and their desire to help others flies in the face of this.

Institutional practices and routines will need to be examined for opportunities for residents to help others. Care will need to be taken to minimize risks to all residents involved and to ensure that this desire to help is not exploited.

Future Directions

While there is support for the themes identified, more work will need to be done to validate the significance of these themes with a wider sample of residents from a variety of long term care facilities. Quantitative studies should be undertaken to test these themes and their relative importance to residents as compared to other major themes identified in the literature. Efforts will also need to be undertaken to solicit feedback from other stakeholder groups. The organization in this study has identified more than a dozen stakeholders who are affected by or who affect the facility. Two other stakeholder groups who are important and who have not been addressed here, are the families of the residents and front line care giving staff of long term care. Particularly for those residents who are unable to speak for themselves, families will provide a unique perspective on quality and performance. As well, more needs to be known about the views of front line care giving staff and how they compare to those of the residents. The relationship between staff and residents has been identified as key to the residents' experience and knowing how the views of these two groups compare would provide valuable information about how this relationship could be improved.

Conclusion

Obtaining the residents' perspective on quality and performance can be a challenging undertaking. There are many barriers to having meaningful resident participation. However, this work has demonstrated that residents do have a unique

perspective and are very willing to share their point of view.

While the themes identified here cannot be relied upon to conclusively provide the voice of residents, they do represent the views of one group of residents and as such are significant and will be used to provide a resident perspective in the development of the performance measurement model for long term care. It may be possible to use some of the existing measures as indicators of performance for some of the themes while others will be more difficult and may take time to establish valid and reliable indicators. This challenge will be addressed in the model development in the following chapter.

Chapter Six - A Resident Centred Performance Measurement Model

Introduction

The use of a resident centred approach to care and services has become widely accepted in the health sector and particularly in long term care. Unfortunately this has not been well reflected in the performance measurement models that have been proposed or implemented to date. This is likely because these efforts are in their early stages but as well there are significant obstacles inherent in resident participation. While the resident group at the institution under study has not been directly involved in the model development, residents have contributed indirectly to the dimensions of performance to be measured.

A theoretical discussion of performance measurement and indicator selection would not be well understood and received by residents. However, the focus group work described in the previous chapter demonstrates that residents are very enthusiastic about having an opportunity to share their ideas about what is important to them in relation to the quality of care and their quality of life. It is the belief of this author that these ideas can be incorporated into the measurement process and that residents will be very interested in the performance information generated through the use of such a model. Other stakeholders such as policy makers, administrators, and health professionals will also benefit from having a greater sense of the customers' needs in the interpretation of the performance data.

This chapter will outline the development of the model including how the knowledge gained through the literature search and model analysis has been utilized in the construction of the model. This will be followed by a description of the model

including the objectives, framework, and the measures being proposed. The description of the measures will include a discussion of the information systems requirements to support their use. As with all performance measurement initiatives, the ability to manage the data required for measurement is a key factor in the successful implementation. Even more essential to the success of the measurement effort is the eventual use of the data to improve quality and service performance.

Construction of the Model

The previous chapters illustrated that none of the existing models for performance measurement adequately address the concerns of the resident stakeholder group. This is not to say that the components of these other models are not worthy of consideration. The model will be developed and measures selected based on the previous analysis of other models and the guiding principles provided by the World Health Organization (2000b) as described in Table 3-1.

Objectives

The resident centred performance measurement framework is designed to provide a mechanism for the ongoing measurement and reporting of performance and quality in organizations within the long term care sector. The Thomas Report (Manitoba Health, 2001) suggests that the aims of a performance measurement system in health care include determining the impact of activities on individual lives, promoting improvement, monitoring provider performance, allocating resources, ensuring accountability, and enabling better informed patient choices. Based on these suggestions, those included in other models (Australia, 2000; CCHSA, 2001; Ontario, 2002), and themes identified by

the resident groups, the model will attempt to serve the following objectives:

- Enable strategic performance indicators to be used in a consistent way for comparison and benchmarking within organizations and between organizations.
- Increasing accountability by highlighting what the organization is achieving in relation to improving residents' quality of life and the provision of high quality, effective and efficient health care.
- Support quality improvement across the health system by using performance indicators to measure effective practice and flag the need for action to improve the outcomes or processes of health care.
- Enable change and progress over time to be measured
- Promote the use of a common language and consistent technical standards in the selection and development of performance indicators.
- Ensuring that the themes identified as being important to the residents are incorporated into the measures selected.
- Providing information about organizational performance to residents, families and prospective residents.
- To demonstrate the efficient use of resources in providing the care required by residents.

Performance Measurement Framework

The analysis of the frameworks being proposed and in use by public health systems and non-governmental health organizations undertaken in Chapter Three demonstrated a high degree of congruence in the main parameters for the frameworks.

The model proposed for use in Manitoba, Manitoba's Health Performance Measurement Framework (Manitoba Health, 2001) is currently being tested. The model is intended for use by health regions at a global level and within particular health sectors. It is very similar to other models described earlier. However, given its system-wide purpose, the Manitoba model is too broad and complex. It needs to be simplified and modified for use within a particular organization, region or sector. It is based on this belief that the following model is being proposed.

A Resident-Centred Model for Performance Measurement

The model proposed here is meant to provide a developmental framework for measuring organizational performance within the long term care sector that incorporates themes that have been found to be important to the clients of long term care, the residents. It is designed to capture seven dimensions of performance. Within each dimension a number of core measures will be included for use by all long term care organizations but the framework will allow for flexibility in the measurement approach so that each organization can select measures to monitor quality improvement initiatives which may be unique to the organization. It is important that the measurement efforts are meaningful for the organization and use of the framework will promote a consistent approach to measurement while allowing for individual differences between organizations.

The framework being proposed here is based on the basic structure of Manitoba's Health Performance Measurement Framework (2001). The framework is outlined in Appendix D. The rationale for this choice is twofold. Firstly, the Resident-Centred

Model for Performance Measurement is proposed for use by long term care facilities within Manitoba and there is merit in consistency with the provincial approach. However, as discussed in Chapter Four, the Manitoba model is too ambitious for a single organization to successfully implement. The following section on the components of the model will provide further explanation of the decision for the modifications.

The second rationale and the more important reason for choosing Manitoba's framework derives from the analysis presented in Chapter Three. That analysis demonstrated that the Manitoba model reflected principles used by CCHSA, CIHI, and Australia. While no "best performance measurement approach" for health care has yet been acknowledged, the analysis done earlier in this work demonstrated a significant consensus on which aspects of performance are most deserving of coverage in any model.

Components of the Framework

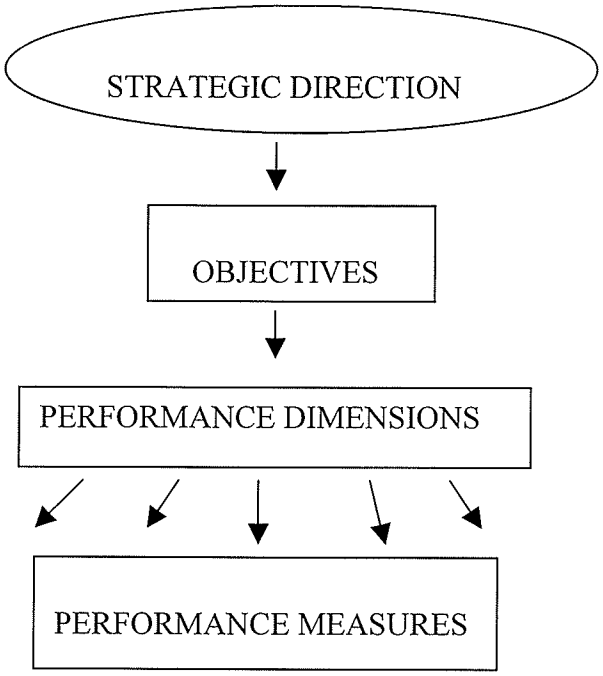
The Resident Focussed Performance Measurement Model is composed of four levels and is illustrated in Figure 1. These levels are strategic direction, objectives, performance measurement dimensions, and performance measures. Each of these components is described below.

Strategic Direction

The strategic direction provides a vision for the organization and needs to be reflected in the performance activities. Walters (1998) recommends that the articulation of this vision needs to be the first step in the measurement process. The vision describes the organizations reason for being and the customers that its serves. Each organization must develop its own vision and it will be somewhat unique based on the services provided and the client groups served. However, based on the literature reviewed earlier

and this author's experience in long term care, this vision should generally include a commitment to providing quality care and promoting quality of life. In Manitoba, each long term care organization's vision will also be influenced by the role given it by the regional health authorities and the vision of the authority. Included in the strategic direction would be some general statements about the goals of the organization.

Figure 6-1: Resident Focussed Performance Measurement Model



Objectives

This stage of the model provides a more tangible direction to the measurement efforts. The objectives of the organizations are more detailed and have a shorter time frame than a mission or vision statement. They will provide clear direction for the measurement activities. Manitoba's Framework (2001) describes this component as expectations and suggests the inclusion of legislation, policy and standards. Given the

emphasis on the use of standards in long term care and particularly the development of new standards in Manitoba, they could be used to provide guidance to organizations in the selection of their short term goals and objectives.

Dimensions

The dimensions represent a means to organize the measurement efforts and to provide some level of consistency. The dimensions provide categories for measurement and provide a framework that encourages the inclusion of all service areas in the measurement efforts. Hopefully this will provide a balanced approach to performance evaluation.

It is at this level that the model will significantly differ from that proposed by Manitoba. While Manitoba's Framework proposes four dimensions, the model proposed for use in long term care will include only one of these dimensions, health system performance, which will then be further subdivided. Long term care organizations are service providers and as such need to concentrate their efforts in that area. This is not to say that Manitoba's other dimensions are unimportant. Health status and determinants, community and health system characteristics and health system infrastructure need to be addressed on a larger scale than a single organization. They should be the focus of the measurement efforts by the policy makers and planners at Manitoba Health and regional health authorities. The Australian Framework (2000) acknowledges this distinction in the measurement responsibilities between policy makers, planners, and providers. They recommend that the health care sector be responsible for measurement in the health sector performance dimension. The dimensions selected for generation, analysis, and use of data will reflect the tasks of the organization and the aims of the performance

measurement system.

Therefore, this model contains seven dimensions, all of which fall under the category of health system performance. The dimensions include client focus, efficiency, effectiveness, economy, equity, safety, and work force. It is the aggregate outcome of successful performance on all seven dimensions. Figure 6-2 details these dimensions and the definitions are listed below.

Figure 6-2 Performance Dimensions

Performance Dimensions						
Client Focus	Effectiveness	Efficiency	Economy	Equity	Safety	Workforce

- Client focus - the relationship the organization has with its clients and whether the organization is meeting the expectations of the client group.
- Effectiveness - focuses on the outcomes of care and services and whether they are achieving the desired results.
- Efficiency - achieving desired results with the most cost-effective use of resources
- Economy - the inputs or resources utilized by the organization to deliver the services, including financial and human resources.
- Equity - whether services are equitably distributed to the population served and the ability of residents to obtain the care and services based on their needs.
- Safety - potential risks of an intervention or the environment are avoided or

minimized to reduce adverse events for residents.

- Workforce - the degree to which it is available, trained, and motivated to provide the care and services required by the residents.

These dimensions were selected for use in the model based on the review of the literature, the analysis of other models, and the feedback received from the resident focus groups. Client focus is concerned specifically with the perspective of the resident group and addressing whether or not their expectations are being met. The inclusion of the resident voice has been the primary reason behind this work and this dimension has also been recognized in the models described earlier from CCHSA, Ontario, and Great Britain.

Chapters Two and Three provide the support for the use of the "four E's", effectiveness, efficiency, economy, and equity as categories for measurement activity. These dimensions are generally accepted in the performance measurement literature. They are also found in the models in use in Manitoba, Australia, Great Britain as well those proposed by CCHSA and CIHI. Each of these models includes most if not all of the "four E's".

Safety has been included in recognition of the significant impact of adverse events on clients within the health care system. Chapter Three provides a brief explanation of why safety is of concern within health care and safety has been included as a dimension in the models from Australia, CCHSA, CIHI, and Manitoba. While the types of adverse events may be limited within long term care due to the low technology, limited intervention approach, there are some events that have a significant impact on residents of long term care and bear monitoring.

Finally, the inclusion of work force acknowledges the importance of front line care providers and their impact on residents' quality of life and the quality of care. Both CCHSA and Great Britain recommend the inclusion of this dimension. This is further supported by the results of the resident focus groups, which identified staff and relationships with staff as a major theme for those residents participating. Work force includes attention to the investment that the organization makes in it's staff which is ultimately reflected in the quality of care.

These dimensions are intended to provide a comprehensive and balanced approach to the measurement activities within the organization. The challenge for the organization is to operationalize these dimensions through the selection measures or indicators. While the measures selected need to be meaningful to each organization, this author proposes the inclusion of a number of standard indicators that will eventually allow for comparisons or benchmarking within and between organizations.

Measures

The final component of the model is the performance measures or indicators. The selection of indicators will focus the measurement efforts and they need to be selected to provide meaningful information that will guide organizational decision making. The measures need to reflect whether the organization is making progress towards its goals and supporting quality improvement. What is being proposed in the model is a small number of standardized measures in each of the seven performance dimensions.

Reliance on a number of measures reflects the practical problems of balancing comprehensiveness with parsimony in light of costs (time, money, staff, analytical capacity, etc.) of generating, storing, analysing, and using performance data within a

relatively small organization that expects to devote the bulk of scarce resources to direct patient care. The collection of these standardized measures will accomplish two of the longer term objectives of the performance exercise. Firstly, the use of these measures over time and by a number of organizations will assist in validating them and testing their reliability. The other objective will be to build a database for the measures, which will support benchmarking activities in the future. If organizations continue to develop and use their own unique measures, the data will never be available to use as benchmarks. The recommendation here is the consistent collection of this measurement data over time while encouraging organizations to develop a few of their own unique measures to address particular areas of concern.

Selection Criteria

The majority of the measures being recommended will be rate based indicators. Experts in the measurement field such as Wilson (1995) and CCHSA (2001) recommend this type of indicator as they provide context and allow for comparisons between organizations of varying size. A second type of measure that will be used are sentinel measures. These types of measures encourage organizations to identify when a single or small number of events indicate a concern that requires further investigation.

The final two considerations in the selection of the measures are the guidelines from the WHO listed earlier in the chapter and the themes identified from the resident focus groups outlined in the Chapter Five. The WHO (2000b) guidelines of particular interest include:

- use and action oriented data

- use of existing data
- data collected and used at the local level
- data generated through service provision

The themes identified by the resident focus groups will also be incorporated into the measurement selection including:

- independence
- staff relationships
- individualized care

Dimensions and Associated Measures

The criteria outlined in the previous section have been used to select a small number of measures for use within each of the performance dimensions. These measures are listed in Table 6-1. The rationale for the selection of each of the measures will be outlined as well as some of the implications of their use.

Client Focus - This will perhaps be the most challenging area to select reliable and valid measures, as those that are suggested tend to be qualitative in nature. Based on the feedback from the clients in this study, the relationships with staff and individualized care are of great importance to them. These are very difficult to measure quantitatively as they reflect the perceptions or opinions of the residents. In spite of the concerns outlined in the previous chapter related to the use of client satisfaction surveys, they are being recommended for use here. The surveys will need to be carefully designed to ensure that the areas of concern for residents are reflected in the survey tool. There are commercially available surveys such as the one used in Ontario but this author urges the participation of

client groups in either the selection or development of a tool.

Table 6-1 Dimensions and Associated Measures

Dimension	Measures
Client Focus	Satisfaction surveys
	Complaint rates and trends
Effectiveness	MDS Quality Indicators
Efficiency	MDS RUGS III per overall costs
Economy	Staffing ratios
	Financial statements
Equity	Average length of waiting list
Safety	Fall rates
	Medication error rates
	Sentinel events
Workforce	Education and training rates
	Employee retention rates

In order to overcome the difficulties with obtaining a representative sample and

the small cohort available in long term care, the use of the survey every two years is recommended. A biannual approach will also reduce the costs associated with conducting a large survey. While use of surveys is inconsistent with the WHO guidelines that caution against the collection of data for measurement purposes alone, a well designed tool may provide valuable information from residents that will inform quality improvement activities. There will need to be ongoing evaluation as to whether the value of the information is worth the time and resources required to conduct the survey.

The survey information would be relevant to residents, staff, administrators, and funders as they all are concerned with whether or not the residents are satisfied with the services provided. The survey results need to be widely distributed across the organization and directly to residents and families. The survey results should guide the development of quality improvement activities that address areas of concern identified in the survey. Along with the results of the survey, these quality improvement plans and their results need to be communicated widely. Residents need to expect that the information gained from one survey will be acted on before they are asked to respond again.

The second measure is the analysis of client complaints. Rates can be monitored using the number of complaints per resident care day, which would allow for comparison across programs within an individual institution and between similar organizations. Perhaps more important than the rates are the trends related to the nature and types of complaints. The local regional health authority is in the final stages of implementing a system to track this data across the region. The analysis of trends will provide information to inform the quality improvement process. Some complaints, such as those

of resident abuse, will need to be treated as sentinel events, which will require further investigation and action.

Again, information about the nature and outcomes of the complaints needs to be shared widely. Residents and families need to know that their concerns have been taken seriously and that there has been appropriate action as a result of the concerns. Administrators, funders, and policy makers also need to be attentive to the trends in the complaint data. These trends can help to identify an individual organization that may be having some difficulty or identify areas where the public feels greater attention needs to be paid.

Effectiveness - There is a growing consensus within the long term care sector about the use of the MDS Quality Indicators to measure the outcomes of care. This system of indicators was described in Chapter Four and the individual indicators are outlined in Appendix A. These indicators have been extensively researched and have been found to be reliable and valid. As well, the indicators are based on data that is collected and used in the day to day care of the residents. While the indicators are designed to provide information about the quality and the outcomes of care, some of the indicators including elimination/continence, physical functioning, and quality of life do provide an indication of whether or not resident independence is being promoted in care provision. These particular indicators could be used to provide information related to the residents' theme of independence.

Manitoba Health has indicated support for the use of MDS for long term care in Manitoba. A pilot project has been completed and regional health authorities are preparing estimates for the cost of implementation. The majority of the cost is related to

the computerization of the long term care sector. For MDS to be a relevant and useful tool in the delivery of care it must be automated. The software that supports the use of MDS manipulates the data collected through resident assessment into useful information for care planning and resource planning as well as the quality indicators. To date, long term care has not been highly automated and the costs associated with networks, hardware, and staff training will be significant initially. There seems to be political support at present to proceed.

MDS has the potential to provide powerful information about the outcomes of care to a wide audience. It can be used to identify individual care needs, concerns that are specific to a particular unit within an organization, or an entire organization that may be experiencing difficulty or conversely demonstrating exemplary service. Policy makers and regulators should use this information to monitor the standard of care provided and to assist organizations in achieving the desired level. The Quality Indicators provide very specific information about the clinical care provided and as such this information should be widely available for use and comparison.

Efficiency - This dimension is concerned with measuring whether the organization is achieving desired results with the most cost-effective use of resources. Many organizations have used a variety of workload measurement systems as efficiency measures. While these have measured the use of resources they have not reflected whether or not the desired results have been achieved. The primary result desired in long term care is the provision of quality care so the efficiency measures need to relate the care needs of the residents with the costs of delivering care.

The efficiency measures being recommended for use here utilize the RUG III

classification and financial information to develop indicators as described in the Ontario model (2001). These indicators are the total cost per RUG III weighted patient day and the percent above/below expected cost per equivalent case. As described in Chapter 4, the RUG III scores reflect the human resources required to provide the care based on the actual care requirements of the residents. The data is derived from the clinical assessment done using the MDS and therefore does not require additional data collection. The RUG III data has been well tested and validated. It has been widely used and over time, the collection of these types of indicators will allow for comparison with other jurisdictions.

RUGS III data is relevant both to the clinical and administrative divisions of the organization, as well as funders. Because the information is based on actual care required and provided to the resident group, it can be used for planning purposes at all levels. It provides information about who is actually in the facility, or waiting to be admitted, and what resources are required to provide the required care. The use of this information would allow for the reallocation of funds and staff resources as the care requirements shift within the facility. It will also demonstrate over time whether in fact the needs of residents in care are changing as many administrators argue.

Economy - Long term care has historically collected and reported economy or input measures and have used these measures in the decision making process. While the recent emphasis in performance measurement has been on the development of outcome measures, this model will continue to include these input measures. The reason for their inclusion is that they still provide valuable information, as well as, an historical context. Administrators are familiar and comfortable with their use. The measures to be used

include financial statements and staffing ratios per program area.

The information systems are currently in place to collect this information and the historical trends are available. As well, regional and provincial requirements for their reporting have been in place for decades and allow for comparisons between organizations. What has been missing in their use is information about what the impacts on care, services, or resident outcomes have been when the inputs have been adjusted. This information is of particular interest to funders and administrators. The collection of the other performance data along with these input measures will hopefully provide for better informed decision making. Once a track record has been established with the other outcome measures, it is hoped that the current reliance on these measures in the decision making process will diminish.

Equity - The equity measures included in the model are related to the concept of accessibility. Access to long term care is a concern for both those who require the care and other sectors within the health care system. Often people who require long term care must wait significant periods of time before that care is available. In some cases, this waiting time puts a large burden on both formal and informal care givers who provide this care in the home environment. In other cases, the care is provided within the other sectors of the health system, often acute care, which has a negative impact on access to that service. In Winnipeg, long term care residents who await placement in acute care beds have been a significant contributing factor in so-called "hallway medicine."

The indicators being suggested for use within the model are the measurement of the average waiting time for placement in long term care and an evaluation of the length of time based on the location of the resident while waiting, either in acute care or in the

community. These measures will provide information about the assessed need for long term care beds and the impact of the wait on other sectors within the health care system. The information systems and processes to establish, maintain and monitor waiting times are already in place within the system.

Policy makers and planners at both the regional and provincial level need to be attentive to this information. This will provide valuable information about the resources required and the impact on other sectors within the system. The information would be helpful in decisions about the allocation of resources between these sectors.

Safety - There are two particular areas of safety concern that are of interest in long term care, medication errors and injuries' resulting from falls. As well, there are sentinel events such as missing residents and injuries related to resident aggression that need to be monitored. Medication errors are a common concern throughout health care but in long term care they can be very serious. Frail elders are often on a large number of drugs and interactions are common which, along with failing body systems, place residents at a higher risk of serious consequences related to drug errors.

Falls and injuries related to falls are the single biggest safety concern in the long term care sector. They reflect the difficult balance and risk between promoting safe care and promoting resident independence. Medical conditions and reduced physical strength increase the risk of falls and reduced bone density increases the risk of serious injury. Monitoring fall and injury rates will provide feedback on the success of fall and injury prevention activities. While the goal would not be to eliminate falls as this would have a negative impact on independence, hopefully the numbers could be reduced along with the severity of injuries.

In addition to falls and medication errors, the measurement system would need to identify other serious occurrences, which require investigation and follow-up. Incidents of resident abuse by staff or others are one example. These incidents require reporting under provincial law (The Protection for Persons in Care Act) and must be followed-up to ensure safety and promote dignity and respect for residents. Two other examples are related to the high level of cognitive impairment found in most facilities. Cognitively impaired residents are at risk for wandering away from the institution with potentially serious consequences. Organizations need to have security systems in place to prevent these occurrences and should they occur these systems would need to be reviewed immediately.

Another second concern is related to resident aggression. While not true in all cases, aggression is another consequence of large numbers of cognitively impaired residents living together. This aggression may be directed toward other residents or toward staff and is often related to the misinterpretation of events within the environment. Again, plans of care need to be established to prevent or reduce the occurrence of aggression and serious episodes of aggression need to be investigated further.

The collection of safety data is supported by an occurrence or incident reporting system. While these systems have been in place in most health care organizations for many years, a more systematic approach needs to be adopted. Again, the local regional health authority is addressing this concern and a regional reporting and information system will be implemented in the fall of 2002. This will improve the consistency of reporting and data analysis. Hopefully this regional approach will improve the reliability and validity of the data collected through occurrence reporting.

The primary audiences for safety information are staff, administrators, and regional policy makers. This data provides information about how the safety of residents could be improved and when viewed at a systems level, may result in systemic changes that improve the quality of care. Residents and families may also be interested in this information, however, it may be frightening for some and it may be more important to share with them what is being done to improve safety, rather than reporting on the actual incidents.

Workforce - The first dimension in the model is client focus and this last dimension represents another major stakeholder group, the long term care staff. The importance of staff is highlighted in the results of the resident focus groups, which found that staff and relationships with staff are important factors in the quality of life and quality of care. This belief is based on the knowledge and experience gained in working with staff who generally desire to do the "right' things and are willing to change practice, albeit slowly at times, when presented with the evidence. This finding supports this authors belief that organizations need to invest in the development of their staff to promote quality organizational performance.

The measures for this dimension include indicators of education and staff development provided to employees and employee retention rates. Ongoing education and staff development support quality improvement efforts and prepare staff to meet the changing requirements of resident care. The provision of training demonstrates the organization's commitment to both the employee group and to continuous improvement.

Employee retention rates provide an indicator of two different aspects of organizational performance. Firstly, while it does not directly measure employee

satisfaction in the workplace, it does provide some insight into how employees feel about their work. High retention rates may be an indication of satisfaction in the workplace and conversely, low retention rates would be a signal to initiate a closer examination of the reasons that staff are choosing to leave. Secondly, retention rates have a direct impact on the residents' perception of quality of care. Residents reported that establishing relationships with staff and not being cared for by strangers was important to their quality of life. Frequent employee turnover would negatively impact on their quality of life.

The information to support these measures is currently available but is not being collected in a consistent fashion. Common definitions need to be developed to improve the reliability and validity of the measures. As well, the data will need to be collected over a period of time to identify trends and eventually establish standards or benchmarks. This information is important to administrators and to staff. In this time of staff shortages, prospective staff may be very interested in knowing about the organizations commitment to their workforce and whether staff tend to continue working within the organization. Staff often try to determine this information through informal means and by asking these types of questions at employment interviews but publicizing this information could become an effective recruitment strategy.

Conclusion

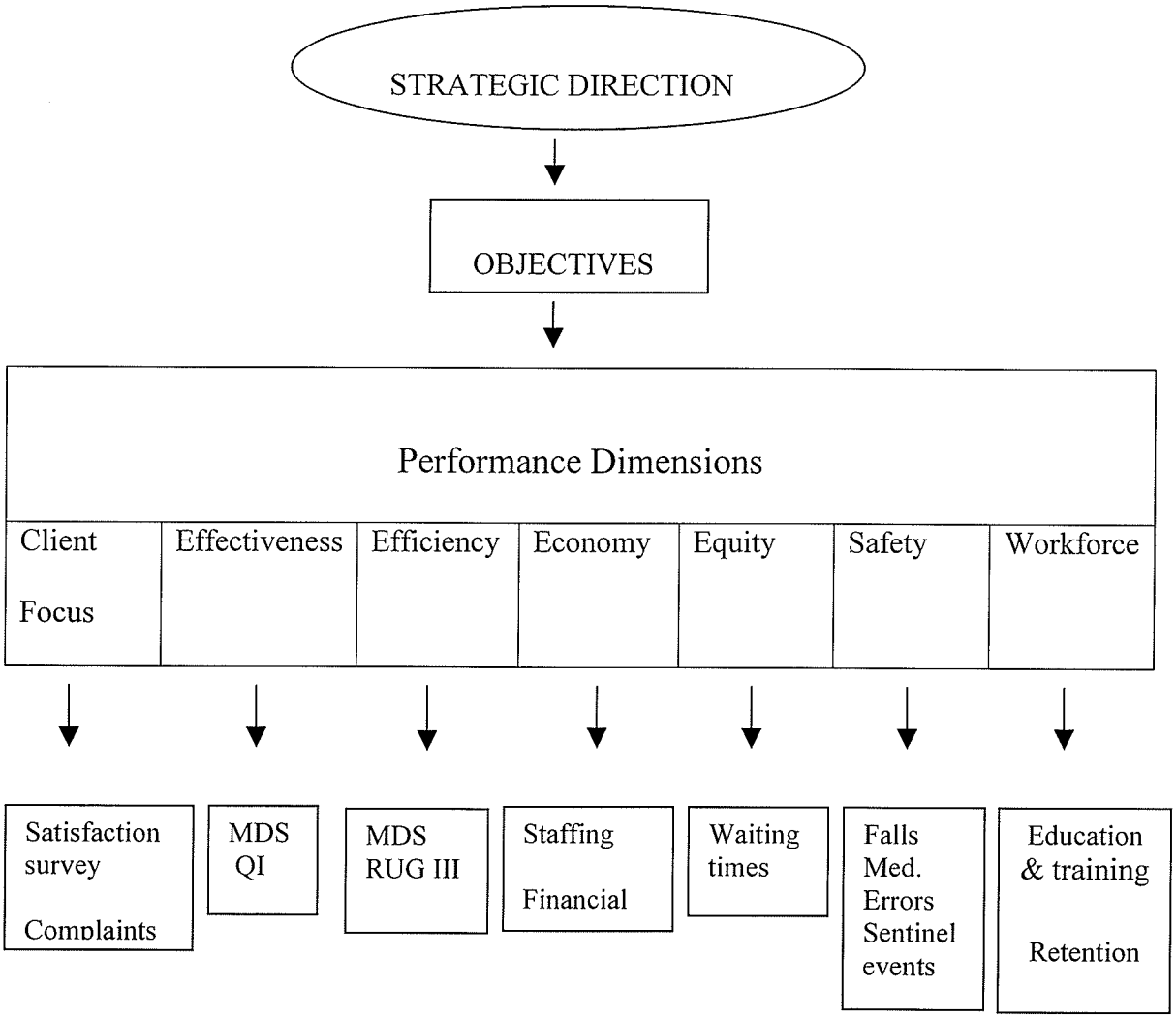
All of the measures proposed in this model are merely indicators of organizational performance. They have the potential to identify how the organization is performing in relation to other organizations as well as identifying aspects of their performance, which

require improvement. This list is not intended to be exhaustive and organizations should add indicators that are intended to measure progress in areas of specific organizational concern.

The components of the model are based on principles found in an extensive review of the literature and the analysis of other models. The need for strategic direction and objectives to guide the measurement process is recognized in the literature and is consistently included in the other models examined. The dimensions selected reflect a balance of the interests of the various stakeholders in long term care, including residents, and are based on those incorporated in other models. While many of the measures are already being used in other jurisdictions and supported in the literature, they will need to be evaluated over time to ensure that they are providing useful and valid information about organizational performance.

The dissemination and use of performance information will be the greatest challenge in the use of the model. Organizations must distribute the information regularly and demonstrate that it is being used to improve the decision making process. Too often residents and staff are asked for their opinions or to collect data, which never seems to be used to affect any change. By both asking for the information and demonstrating it's use, a robust performance measurement system is possible.

Figure 6-3: Resident Focussed Performance Measurement Model



Chapter 7 - Conclusion

Performance measurement is a complex process and inherently subjective, which is intended to provide information about the outcomes and performance of systems and organizations. This information is used to demonstrate results, improve accountability, and report on quality improvement activities. Although much has been written about it and many public policy makers and politicians are demanding proof of results, performance measurement has not been widely implemented. Even where it has been in place for several years, there is little evidence that the information generated has been used to improve the decision making process. While this may be the future of performance measurement in the health care sector, it has much to offer and should be pursued. While funders or policy makers may choose to ignore all or some of the information provided by a performance measurement, it is a system that can be used to provide information to a variety of stakeholders who have an interest in both the quality and performance of the health system.

Canadian health care is a large and diverse system where decisions are made at a variety of levels across multiple jurisdictions. As it has consumed a greater proportion of public finances during the past decade, critics have demanded evidence that this spending is actually making a difference in the health of Canadians. Comparisons with other nations demonstrate that spending more money does not necessarily equal improved health. There is considerable interest in determining what factors and actions actually produce desired health outcomes and efficiencies in health spending.

According to the concept of population health, more than the health system alone influences health. Good health is a result of the interaction of many factors. How then

can one establish a cause and effect relationship between health spending and health outcomes? It is precisely this difficulty with determining cause and effect that leads this author to advocate the use of performance measurement. Performance measurement is not intended to demonstrate cause and effect but it can provide information about possible relationships between health system activities and the outcomes that are achieved. Such evidence provides an indication of whether or not desired outcomes are being achieved and may suggest possible opportunities for improvement.

While performance measurement is being promoted for use in all areas of health care, this study is concerned with its use in the long term care sector. Long term care is perhaps the most highly regulated of all health sectors but regulation alone cannot ensure quality and performance. Regulation has been put in place to protect what is considered to be a frail and vulnerable population, however all stakeholders in long term care need information about the outcomes of care. The difficulty is determining what to measure; traditional health outcome measures do not apply in long term care. Long term care provides end of life care and the trajectory of care is unknown although it is generally measured in terms of years. Recipients of long term care are concerned with both the quality of care and their quality of life while they reside in the institution. The proponents of performance measurement in this sector have focussed their attention on identifying and measuring the outcomes, which could provide valuable information about these two important issues.

While a number of long term care performance measurement models have been developed, the analysis demonstrates that none have had sufficient input from the recipients of this service, the residents. Policy makers, administrators, health care

professionals and academics have developed the existing models. They do provide an indication what is being achieved in the sector. The goal here was to use data gathered about a variety of models and to include the feedback from residents about what factors are most important to them in terms of quality of care and quality of life to develop a more resident centred approach to performance measurement.

The study's sequence and structure were based on two premises: 1) performance measurement is an effective tool that has the potential to help to improve the quality and performance of health care organizations and 2) an essential component of any performance measurement system includes indicators that address the needs of all stakeholders including the customers. The first chapter introduced the scope of the problem, the thesis and the methodology employed in conducting the study.

The second chapter was dedicated to describing performance measurement and specifically how it has been applied in the public sector. Performance measurement systems have the potential to provide information, which is helpful for organizations as they make decisions. It can help to focus organizations on their goals and measuring whether they are achieving these goals. Performance measurement has become popular but there is insufficient evidence to date that the information generated is actually being used as intended. The barriers that exist were enumerated but are not insurmountable. Performance measurement is not a replacement for formal evaluation but it is a means of identifying, on an ongoing basis, whether the outcomes are being achieved. The measures are merely indicators that direct organizations to further explore the impact of their services, perhaps by undertaking more systematic, in depth evaluations.

While performance measurement has been inconsistently adopted in the public

sector, it is getting a great deal of attention in the health care sector. The third chapter provided a comprehensive review of the literature on health care performance and an analysis of several frameworks that have been developed. The analysis showed that there is a great deal of similarity in the components of the frameworks but to date no preferred model has emerged. It was however, this analysis and the similarities found that provided a basis for the development of the model.

The objective of this work was to develop a performance measurement model for use in long term care. In the fourth chapter there was an analysis of those models currently being used in the sector and again, no consensus on a preferred model was found. The analysis was more specific for long term care and focussed more on the dimensions and actual measures proposed for use by long term care institutions. However, there was a growing trend toward the use of the quality indicators and resource utilization data produced by the MDS instruments. These measures, which focus on the clinical domain, have been extensively researched and are widely in use. Again, the conclusion based on the analysis was that none of these models has had adequate levels of client involvement in their development and selection of measures. The information needs of others such as health professionals and administrators were well represented. The challenge was to find a means of resident participation taking into consideration the physical and cognitive frailty of this client group.

Chapter Five outlines these challenges, both the challenges related to the characteristics of the resident group and the nature of the long term care environment. A number of barriers were identified including the relatively small number of residents who are able to participate and the fact that residents may be reluctant to be completely honest

due to a desire to appear cooperative or a fear of retaliation. In spite of these difficulties, a number of strategies have been successfully employed to garner resident participation and feedback.

The second portion of the fifth chapter described a project that was undertaken by one long term care facility to solicit resident input into their quality improvement and measurement initiative. The project found that the resident group did have a unique perspective and were enthusiastic about sharing their point of view. Specifically as it relates to performance measurement, the goal was to find out what was meaningful to residents and to use this information to assist in building the model and the selection of measures. The approach taken was a bottom up approach. This approach was preferred as it was unlikely that residents would not be particularly interested in discussions about performance measurement but would be willing to discuss what is important to them in terms of the quality of their care and quality of life.

The results of this study were qualitative in nature and were based on a small sample so as such are not generalizable. This group of residents clearly articulated three distinct themes that impact on their quality of care and quality of life which include:

- Independence is positively correlated with quality of life;
- Staff and relationships with staff have a direct impact on both quality of life and quality of care and;
- Quality care means individualized care, which considers the unique needs of each resident.

While these themes are similar to those found by other studies, further research needs to

be conducted over time to determine the reliability and validity of the results.

In spite of the qualitative nature of the results of the resident focus groups, these results have been used in the development of a resident centred model for performance measurement for long term care. Chapter Six constructs the model based on the previous analysis of other models both for health care in general and specifically for long term care. The WHO guiding principles for performance measurement in health care were also applied to the model development.

The Resident Focussed Performance Measurement Model has been designed based on a traditional approach to performance measurement. The measurement activities are guided by the organization's strategic direction and the objectives that they hope to achieve. While the strategic direction and objectives of each organization will vary, all long term care organizations share a requirement to be concerned with both the quality of care provided and the quality of the lives of the residents. This model has been developed to address both of these essential components.

The model was composed of seven performance dimensions that have been selected based on the health systems dimensions included in the models from CIHI, Australia and Manitoba. The health systems dimension of performance was chosen to simplify the measurement approach and focus the organization's efforts on the actual delivery of the service. This simplified approach was chosen over the Manitoba model, which was found to be complex and broad; in general better suited for use by the provincial health department or regional health authorities. The Resident Focused model was designed to be consistent with Manitoba's approach. For each of the seven performance dimensions, a number of measures or indicators has been suggested. The

measures were intended to address a variety of aspects of organizational performance and to provide results to the various stakeholders. They were not intended to be exclusive and each organization will need to add individual measures that provide feedback on specific areas of organizational concern. Some of the measures are well accepted and established measures within the long term care sector, while others will require further developmental work.

The model proposed here has met most of the objectives set out for it's development but other objectives will only be achieved through the implementation and ongoing use of the model. Many of the measures, particularly those related to the MDS, will allow consistency in reporting and comparisons within and between organizations. Several of the indicators including the safety measures provide support to quality improvement initiatives and were intended to flag areas of risk and concern. The MDS related, safety, and financial measures are based on common language and consistent technical standards that are becoming more widely accepted within the long term care sector.

The client focussed and work force measures remain the most problematic as they will require further development and testing over time. Historically, these types of measures have been more organizationally specific and the language and technical standards applied have not been consistent. Tools to support these measures will need to be developed with attention to common language and application so that reliable data can be collected and used.

It is only through the implementation and use of the model that one can evaluate the value of the information provided through it's adoption. One of the goals of the model

was to increase accountability by long term care organizations to both their funders and to their customers. Hopefully, they will be able to demonstrate the achievement of the desired results. This will be difficult to demonstrate in the short term and will require an ongoing commitment to the use of the model and the dissemination of the information gathered. There will need to be evidence that this information is being used in organizational decision-making and regularly shared with stakeholder groups. There will need to be ongoing consultation with resident groups to determine whether the information collected through the use of the model is relevant to residents, families, and prospective residents.

The successful adoption of the model will be dependent on careful implementation and availability of the information systems required to provide the performance data. With one major exception, MDS, all of the measures selected are based on data available from existing information systems or systems that are currently being developed. What is missing is the implementation of the information system to support the use of the MDS measures.

Research Questions

This study sought to answer four specific questions, intended to provide the foundation for the formulation of the model. First, there was the question of what performance measures were currently accepted for use in long term care in other jurisdictions. The search of the literature and the analysis of models from other jurisdictions indicate that while there is not an established preferred measurement model for this sector, the use of MDS related measures is becoming widely accepted as a basis for measurement efforts. Second, was the question of how to incorporate resident

perspective into the model? This was done through small focus groups. While the results reflect the themes expressed by a relatively small group of residents and are not generalizable, they do indicate that additional measures are required to address the residents' themes. The information provided by the MDS related and other measures do not adequately address what is important to this particular group of residents. While the themes cannot be used conclusively, they are consistent with previous findings in the resident satisfaction literature. Further work needs to be done to develop valid and reliable measures that address these themes.

The last two research questions are related to the information required to support the measurement efforts, including the availability of the systems. One of the reasons for the acceptance of the MDS related measures was that they are based on a well designed and reliable information support system. The system is based on the consistent collection of information, which is relevant to the day to day care of residents. This information is then used to develop the quality and resource utilization measures. The computerization of this data collection and manipulation greatly facilitates its use and reliability. While the information system is available it has yet to be implemented in Manitoba. There has been a commitment to proceeding with the use of MDS in Manitoba but the funds to support the computerization of the long term care sector have not yet been allocated. For this performance measurement model to be fully implemented, these funds need to be made available. The other suggested measures require less extensive information systems, some of which, such as occurrence reporting and complaints are already available through the regional health authority. It is the measures that require development such as the satisfaction survey, which will require the development of

information systems to support their use.

Although the implementation of the model was not addressed by this study, there are a number of considerations besides the information systems that the organization must address. Organizational readiness must be addressed. Is the organization able and willing to produce, listen to, and use the performance information provided by the model? Will the information be seen as helpful or punitive? Managers and staff must feel safe in reporting negative results as part of the quality improvement process.

As performance measurement is a relatively recent approach in long term care, education of administrators, managers, and staff must be provided. This training must include the purpose of performance measurement in general and the rationale for the selection of the measures outlined in the model. This process of education may highlight others areas of performance that are of concern within the organization and the model may need to be modified. While governments and regional health authorities may desire more information on organizational performance, individual organizations will need to gain experience with the system and hopefully learn to trust that the results can lead to organizational improvement.

Opportunities for Further Investigation

In the course of this study, a number of areas requiring more attention came to light, but were outside the scope of the study. They were identified but not discussed in any great detail but are offered here as areas that require further work or as potential for further examination.

- Work is required to build the infrastructure to support the implementation of the model, particularly the information systems required to reliably collect the

performance measurement data.

- The model needs to be tested throughout the implementation process. It is likely that implementation will highlight areas where the model may require modification and these will need to be considered carefully as implementation proceeds.
- The model will need to be implemented and used over time. This will allow for the collection of a sufficient body of data to establish trends and hopefully meaningful information upon which organizational decisions can be based.
- The use of a satisfaction survey to measure the client focus dimension requires the development of a measurement tool. While there are a number of surveys that are commercially available, caution needs to be exercised in their use. Organizations need to be sure that the items included in the survey are consistent with the needs and expectations of the resident population being served. There is no point asking for the opinions or satisfaction with aspects of care and service that are not of particular interest to the resident group or about which they have no direct knowledge or first-hand experience.
- Resident input is an area for further investigation. The limitations of the process used here to solicit resident input have been well documented. Additional focus group or survey work will need to be done with larger samples both within the individual organization but also across the long term care sector to test the validity and reliability of the findings used to develop the model.
- Methods will need to be put in place to provide for ongoing resident feedback as the needs and desires of the resident population are likely to change over time.

- While the resident stakeholder group has been the focus of this work, there are a number of other stakeholder groups whose interests need to be addressed. There are two specific groups that have also not been well represented in the literature reviewed here. These groups are the families of the residents and the front line health care providers.
- Finally, the model needs to be tested by other long term care organizations both here in Winnipeg and in other jurisdictions to determine whether it is applicable to the sector as a whole.

Much work remains to be done before this model can be fully implemented in long term care. The potential exists for its implementation and the current popularity of the use of performance measurement bodes well for its future. While some of the building blocks are in place others require further commitment from the organization in collaboration with the regional health authority for their development. The model does provide a resident focussed approach, which the organization has committed to, and it also provides a blueprint for the future development work.

APPENDIX A – GLOSSARY

Accountability	A general subjective sense of responsibility, the upholding of professional values and standards even in the absence of external scrutiny, a demonstrated responsiveness to particular clients or to the community at large, and to the requirement for openness, a demographic dialogue and public participation in governance (Thomas, 2002, p. 4).
Benchmarking	The act of comparing the results of one services' evaluation to the results of other services, interventions, programs, or organizations; and the act of examining one organization's processes against the processes of other organizations that are recognized as excellent, as a way of making improvements (CCHSA, 2002).
Incidents	Events that are unusual, unexpected, may have an element of risk, or that may have a negative effect on clients, groups, staff, or the organization. (CCHSA, 2002).
Indicators	Performance measurement tool, screen, or flag that is used as a guide to monitor, evaluate, and improve quality. (CCHSA, 2002).
Long Term Care	Long Term Care Facilities provide care for clients who can no longer live safely at home. Residential care services provide a safe, protective, supportive environment and assistance with activities of daily living for clients who cannot remain at home due to their need for medication supervision, 24-hour surveillance, assisted meal service, professional nursing care and/or supervision. Clients may have moderate to heavy care needs, which can no longer be safely or consistently delivered in the community. They may suffer from a chronic disease, from a disability that reduces their independence and, generally, cannot be adequately cared for in their homes. In some cases, all facility services, including chronic care are provided in Long Term Care facilities (Statistics Canada, 1998).
Measures	Precise measurements of actual results.
Outcome measures	Outcome measures focus on results.

Performance Measurement	A process of assessing progress toward achieving predetermined goals including information on the efficiency with which resources are transformed into goods and services (outputs), the quality of those outputs (how well they are delivered to clients and the extend to which clients are satisfied), and outcomes (the results of a program activity compared to its intended purpose), and the effectiveness of government operations in terms of their specific contributions to program objectives" (Performance Measurement Study Team, 1997, p. 6).
Quality	The degree of excellence; the extent to which an organization meets clients' needs and exceeds their expectations (CCHSA, 2002).
Quality Improvement	Organizational philosophy that seeks to meet clients' needs and exceed their expectations by using a structured process that selectively identifies and improves all aspects of service (CCHSA, 2002).
Quality of Life	Extent to which a client's circumstances meets their needs and expectations. It includes personal, family, and community aspects and is determined by each client (CCHSA, 2002).
Resident	Recipient of service in long term care. This reflects the residential and long term nature of the service provided.
Safety	The degree to which the potential risk and unintended results are avoided or minimized (CCHSA, 2002).
Risk	Chance or possibility of danger, loss, or injury. For health services organizations this can relate to the health and well-being of clients, staff, and the public; property, reputation, environment; organizational functioning, financial stability, market share, and other things of value (CCHSA, 2002).
Stakeholders	Individuals, organizations, or groups that have an interest or share, legal or otherwise in services. Stakeholders may include referral sources, service providers, employers, insurance companies, or payors (CCHSA, 2002).
Standard	Desired or achievable level of performance against which actual performance can be compared (CCHSA, 2002).

Strategic Direction	Formalized, ongoing, long-range plan which defines the goals of an organization. The strategic plan responds to seven questions: Who are we? Where are we now? What is the environment? Where do we want to go? How should we get there? What will our path look like? How will we measure progress? (CCHSA, 2002).
Validity	Extent to which a measure truly measures only what it is intended to measure (CCHSA, 2002).

APPENDIX B – MDS QUALITY INDICATORS

The MDS Quality Indicators are listed in the table below. They are calculated based on the data collected using the Resident Assessment Instrument on a quarterly basis. They are intended to provide an indication of quality of care in the clinical domain. The descriptions listed below are contained on the Centre for Health Systems Research and Analysis website (CHSRA, 2002g).

DOMAIN	INDICATOR	DESCRIPTION
Accidents	Incidence of fractures	Residents who have had a fracture on the most recent assessment. The denominator is the number of residents who did not have a fracture on the previous assessment.
	Prevalence of falls	Residents who had falls on the most recent assessment. The denominator is all residents on the most recent assessment.
Emotional/Emotional Patterns	Prevalence of behavioural symptoms affecting others	Residents who have displayed any type of problem behaviour toward others on the most recent assessment. Behavioural symptoms include verbal abuse, physical abuse, or socially inappropriate / disruptive behaviour. The denominator is all residents on most recent assessment.
	Prevalence of symptoms of depression	Residents with symptoms of depression on the most recent assessment. Residents are considered to have this QI if they have a sad mood and two or more symptoms of functional depression. The denominator is all residents on the most recent assessment.
	Prevalence of depression without antidepressant therapy	Residents with symptoms of depression and no antidepressant therapy on the most recent assessment. The denominator is all residents on the most recent assessment.
Clinical Management	Use of 9 or more different medications	Residents who receive 9 or more different medications on the most recent assessment. The denominator is all residents on the most recent assessment.
Cognitive Patterns	Incidence of cognitive impairment	Measures the incidence of cognitive impairment between the most recent and previous assessments. It identifies those residents who were not cognitively impaired on the previous assessment but who are on their most recent assessment. Cognitive impairment is defined as having impaired decision-making abilities and impaired short-term memory problems. The

		denominator is only those residents who were not cognitively impaired on the previous assessment.
Elimination / Incontinence	Prevalence of bladder and bowel incontinence	Residents who were incontinent or frequently incontinent of either bladder or bowel on the most recent assessment. The denominator excludes residents who were comatose or had indwelling catheters or ostomies at the most recent assessment.
	Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan.	Residents who are incontinent, either occasionally or frequently, and who do not have a toileting plan noted on their most recent assessment. The denominator is residents with frequent or occasional incontinence in either bladder or bowel on the most recent assessment.
	Prevalence of indwelling catheters	Residents who are noted to have an indwelling catheter on their most recent assessment. The denominator is all residents on most recent assessment.
	Prevalence of fecal impaction	Residents who have been noted with a fecal impaction on their most recent assessment. This QI is considered to be a sentinel health event, meaning if even if one person flags on this QI, it is of a serious nature and should be investigated. The denominator is all residents on the most recent assessment.
Infection control	Prevalence of urinary tract infection	Residents identified on the most recent assessment as having had a urinary tract infection. The denominator is all residents on the most recent assessment.
Nutrition and eating	Prevalence of weight loss	Residents noted with a weight loss (5% or more in 30 days or 10% or more in last 6 months) on the most recent assessment. The denominator is all residents on the most recent assessment.
	Prevalence of tube feeding	Residents noted to have feeding tubes on the most recent assessment. The denominator is all residents on the most recent assessment.
	Prevalence of	Residents who have either been coded

	dehydration	with the condition dehydration or with a diagnosis of dehydration. The denominator is all residents on most recent assessment.
Physical functioning	Prevalence of bedfast residents	Residents who have been determined to be bedfast on the most recent assessment. The denominator is all residents on the most recent assessment.
	Incidence of decline in late loss ADLs	This QI measures decline in ADL functioning (self performance) over two assessment periods. Late loss ADLs are those which are considered the "last" to deteriorate – i.e., bed mobility, transferring, eating, and toileting. The resident has experienced a gradual decline in two or more areas or a rather significant decline in one. The denominator does not include residents who already were determined to be totally dependent or comatose on the previous assessment.
	Incidence of decline in ROM	Residents with increased functional limitation in Range of Motion (ROM) between previous and most recent assessment. This QI includes only residents with the previous and most recent assessments on file with the exclusion of residents with maximal loss of ROM on the previous assessment.
Psychotropic drug use	Prevalence of antipsychotic use in the absence of psychotic and related conditions	This QI identified those residents who are receiving antipsychotics on the most recent assessment. The denominator excludes those residents with psychotic disorders, schizophrenia, Tourette's, Huntington's or those with hallucinations.
	Prevalence of antianxiety/hypnotic drug use	Residents who receive antianxiety medications or hypnotics on the most recent assessment. The denominator excludes those with psychotic disorders as listed above.
	Prevalence of hypnotic use more	Residents who received hypnotics more than twice in the last week on the most

	than two times in the last week	recent assessment. The denominator is all residents on the most recent assessment.
Quality of life	Prevalence of daily physical restraint	Residents who were restrained (trunk, limb, or chair) on a daily basis on the most recent assessment. The denominator is all residents on the most recent assessment.
	Prevalence of little or no activity	Residents who, on the most recent assessment, were noted with little or no activity. The denominator includes all residents except those who are comatose.
Skin care	Prevalence of stage 1-4 pressure ulcers	Residents who have been assessed with any stage pressure ulcer(s) on the most recent assessment. The denominator is all residents on most recent assessment.

APPENDIX C – INVITATION TO RESIDENTS

Help us to make things better -

We need to hear from you!

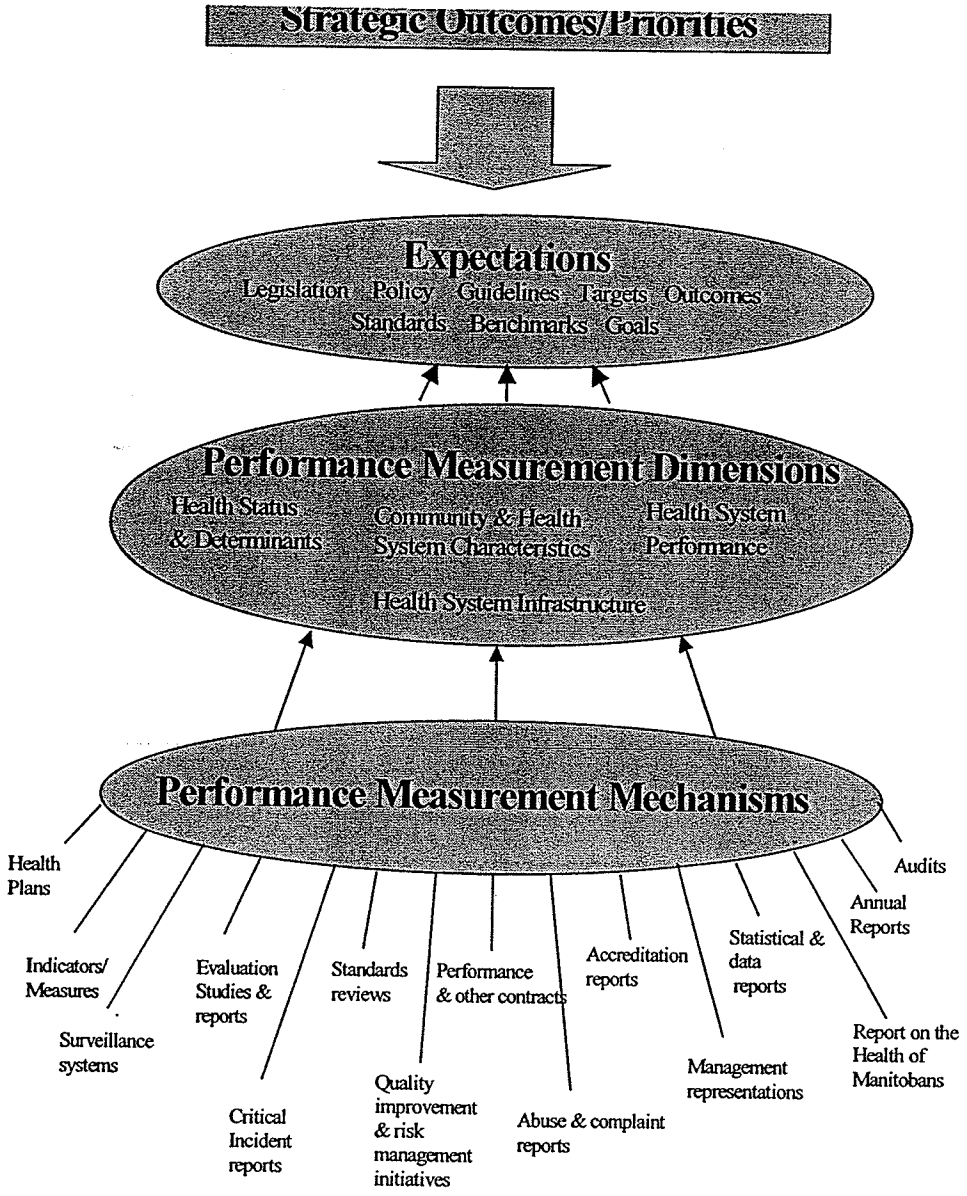
Please join us in the small meeting room (Spirit Room) in the Worship Centre on **Friday May 10th, at 2:00 p.m.** to talk about the things that are most important to you in living a good quality of life at Deer Lodge Centre. The Integrated Quality Council is inviting small groups of Deer Lodge Centre residents and patients to get together to discuss what means the most to your enjoyment of your life here. The meetings will be approximately an hour to an hour and a half in length. Drinks and snacks will be provided. The discussion groups are designed to get your open and honest opinion about things. They will be completely confidential.

Please let us know if you will be able to attend by calling Judy Inglis in the Crane Library at 831-2107. This will be the final opportunity to participate in one these focus groups for this session. Your input is essential to help us to try and improve the things we do for you. If you will need transport to attend the meeting, please let Judy know and this will be arranged for you.

If you have any questions, or need more information, please call me.

Thank you for considering helping us with this important work.

APPENDIX D – MANITOBA'S HEALTH PERFORMANCE FRAMEWORK



The **Performance Measurement Dimensions Template** (Figure 2) gives a detailed description of the "Performance Measurement Dimensions" bubble in Figure 1. It outlines the four broad dimensions across which performance measurement work can be organized, i.e. health status & determinants; health system performance; health system infrastructure; and, community & health system characteristics. Each dimension is divided into categories and sub-categories that will assist in the development, collection and/or reporting of more detailed information. The dimensions reflect the complexity and broad scope of the health care system and facilitate the development of expectations, such as policy, as well as indicators/measures.

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