

Rehabilitation Services at Hospitals

Background

DESCRIPTION OF REHABILITATION

Rehabilitation services in Ontario generally provide support to people after certain types of surgery and to people with injuries, chronic conditions and disabilities, to help them regain, maintain or improve their health and to carry out their daily activities. Rehabilitation services can include, among other things, physiotherapy, occupational therapy, speech-language pathology, social work and nursing. (For definitions of “rehabilitation” and other terms, see the Glossary at the end of this report.)

ELIGIBILITY FOR REHABILITATION

The Ministry of Health and Long-Term Care (Ministry) funds rehabilitation services for eligible Ontarians. This includes all hospital rehabilitation inpatients and hospital-registered outpatients. In terms of community-based services, the Ministry funds physiotherapy only for patients who:

- are 19 and under or 65 years of age and over; or
- have spent at least one night in hospital prior to rehabilitation; or
- require physiotherapy at home or reside in a long-term-care home; or

- are eligible for Ontario Works or the Ontario Disability Support Program.

Publicly funded rehabilitation for eligible persons includes services provided at:

- hospitals—both inpatient and outpatient clinics for registered patients;
- patients’ homes;
- until August 2013, 90 privately owned physiotherapy clinics that had Ontario Health Insurance Plan (OHIP) billing privileges; and
- after August 2013, at privately owned or hospital-based physiotherapy clinics with which the Ministry contracts to provide services.

Individuals not eligible for publicly funded rehabilitation can access private-pay services from community rehabilitation providers and certain hospital-based outpatient programs. These patients pay for the services themselves if they are not covered by a private insurance provider or the Workplace Safety and Insurance Board.

TYPES AND EXTENT OF INPATIENT REHABILITATION

The Ministry funds inpatient rehabilitation services in 61 hospitals through the province’s 14 Local Health Integration Networks (LHINs), which are accountable to the Ministry. Inpatient rehabilitation in Ontario can be shorter-term in nature, with frequent rehabilitation sessions (known as regular

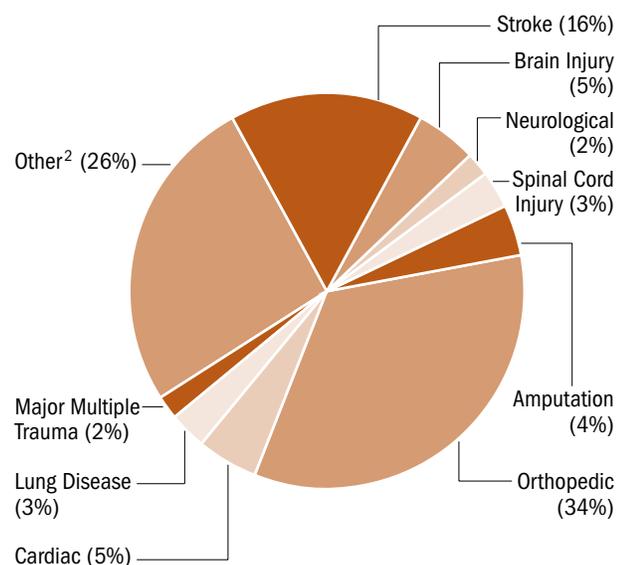
rehabilitation) or longer-term in nature (known as restorative or slow-paced rehabilitation) for people unable to participate in frequent sessions. The 61 hospitals have almost 2,500 regular rehabilitation beds to which more than 30,000 patients were admitted in the 2012/13 fiscal year. As Figure 1 shows, in 2012/13, orthopedic conditions (including hip and knee replacements) and stroke were the most common reasons for admission to regular rehabilitation inpatient programs. The Ministry did not have information available on the total public funding spent on rehabilitation services. Province-wide information was not available on the number of restorative rehabilitation beds and associated admissions. As well, the Ministry did not have information on the total number of patients attending or how often they visited hospital-run outpatient programs.

FUTURE NEED FOR REHABILITATION

In the 2012/13 fiscal year, about half of inpatients admitted to hospital for regular rehabilitation were over 75 years of age. Between 2012 and 2021, a

Figure 1: Percentage of Regular¹ Rehabilitation Inpatient Admissions by Condition, 2012/13

Source of data: Ministry of Health and Long-Term Care



1. Figure excludes restorative rehabilitation beds because province-wide information was not available.
2. Includes various conditions, such as arthritis, burns, infections and spina bifida.

30% increase in this population is expected. An even greater increase is anticipated after 2021, when baby boomers—those born between 1946 and 1964—will start to turn 75. As a result, the demand for rehabilitation services is expected to increase significantly. Rehabilitation can help people who are aging or living with various health conditions maintain the functioning they have.

Audit Objective and Scope

The objective of our audit was to assess whether selected hospitals have effective processes in place to ensure that patients have access to rehabilitation programs, including services and equipment, based on their needs, and that oversight practices are in place to monitor the cost-effectiveness of these programs. Senior ministry and hospital management reviewed and generally agreed to our audit objective and associated audit criteria.

Our audit focused on rehabilitation services provided by hospitals because hospitals provide a large portion of publicly funded rehabilitation services. We conducted our audit work at three different hospitals across the province that provide rehabilitation services: Hamilton Health Sciences Corporation, with 129 regular and 44 restorative rehabilitation beds; The Ottawa Hospital, with 80 regular rehabilitation beds; and Providence Healthcare, a Toronto hospital that provides only rehabilitation services, with 87 regular and 140 restorative rehabilitation beds. The three hospitals offer rehabilitation for a variety of more common patient conditions, which can include joint replacement surgery and stroke. The Hamilton Health Sciences Corporation and The Ottawa Hospital also offer specialized rehabilitation, such as programs for patients with spinal cord injuries and acquired brain injuries.

We did not audit privately owned physiotherapy clinics that are publicly funded or home-based rehabilitation services provided by Community Care Access Centres.

The scope of our audit included the review and analysis of relevant files and administrative policies and procedures, as well as interviews with appropriate hospital and ministry staff. We also reviewed relevant research, including best practices for rehabilitation in other jurisdictions. In addition, we held discussions with senior management at each of the Local Health Integration Networks associated with the three hospitals audited. We also obtained the perspective of the Ontario Hospital Association, which represents Ontario hospitals; the GTA (Greater Toronto Area) Rehab Network, which represents hospitals and community-based organizations involved in planning for and providing rehabilitation services; and the Ontario Physiotherapy Association, which represents Ontario's registered physiotherapists. As well, we engaged the services of two independent experts in rehabilitation services to advise us.

Summary

There is a need for a provincially co-ordinated rehabilitation system. Ontario's population is aging, so there will be an even greater need for rehabilitation services in the future. This is especially true given that two of the main conditions requiring rehabilitation services—stroke and orthopedic conditions, such as knee and hip fractures—are more prevalent in older people. Rehabilitation services across the province have evolved over many years such that there are now significant variations in the availability and type of services provided, which can impact patient access to services.

The lack of a co-ordinated system has led to individual hospitals—some with input from their Local Health Integration Network (LHIN)—generally determining which inpatient and/or outpatient rehabilitation services they will offer, if any. As such, each hospital establishes its own policies and procedures for determining patient eligibility for its services, prioritizing eligible patients and providing

patient care. As a result, a patient deemed eligible for services at one hospital might not be eligible for similar services at another.

Although there are minimal waits for most people determined by hospitals to be eligible for regular inpatient rehabilitation, there is a lack of information on those who are rejected. The one hospital we visited that tracked this information rejected almost 40% of patients referred for regular—that is, shorter-term—rehabilitation and over 20% of applicants referred for restorative—that is, longer-term—rehabilitation. Hospitals have closed many outpatient programs over the last 10 years. Wait times for outpatient programs range from immediate access, to a few days, to a couple of years.

The Ministry has recently begun several initiatives aimed at improving the rehabilitation system, which may help to address some of our recommendations. This includes expanding the role for the Rehabilitative Care Alliance, a group tasked with building on the Rehabilitation and Complex Continuing Care Expert Panel's framework for rehabilitative care planning.

Some of our more significant observations are as follows:

Ministry Co-ordination of Rehabilitation System

- There is a wide variation in the supply of regular rehabilitation inpatient beds across the province—a situation that may require people to travel outside their LHIN for rehabilitation services. The number of beds ranges from 57 per 100,000 people in the Toronto Central LHIN to only six per 100,000 people in the Central West LHIN, with a provincial average of 18 beds per 100,000. Further, according to a 2011 joint report by the Orthopaedic Expert Panel, the Ontario Physiotherapy Association and others, the availability of outpatient programs was inconsistent across LHINs and there was little information on the demand for services, service capacity and service accessibility.

- It is difficult for the Ministry or the LHINs to determine system capacity because there is a lack of system-wide information available for decision-making on restorative inpatient rehabilitation and outpatient rehabilitation. Further, the Ministry had limited information on the actual use of complex continuing care beds in hospitals. Hospitals may use these beds for a wide range of purposes, including restorative rehabilitation. Unlike regular inpatient rehabilitation, there is no system-wide information available to the Ministry or the LHINs on the extent to which restorative inpatients or outpatients improve as a result of the therapy received. Therefore, the effectiveness of inpatient restorative or hospital-based outpatient rehabilitation services provided is not tracked overall.
- Approximately one-third of patients admitted to inpatient rehabilitation at the two hospitals we visited with stroke programs had been assessed by an acute hospital as having mild functional impairment. This suggests that they might have been better served in outpatient programs if these less costly services were available. Further, the Ontario Stroke Network reported in 2012 that implementation of best practices related to stroke, such as serving people with mild functional impairment in an outpatient setting, would have a positive impact on patient outcomes while resulting in savings of about \$20 million per year.
- Patients no longer requiring hospital care may occupy beds needed by other patients. A report by the Ontario Hospital Association indicated that as of March 2013, about 2,300 alternate-level-of care (ALC) patients who were ready to be discharged were waiting in acute-care hospital beds for post-discharge care arrangements. Of these, 25% were waiting for a regular rehabilitation bed or a complex continuing care (which includes restorative rehabilitation) bed. In addition, 13% of beds in post-acute-care facilities, such

as rehabilitation hospitals, were occupied by ALC patients waiting for post-discharge care, such as home-care services or accommodation in a long-term-care home, making these beds unavailable for other patients requiring acute care or rehabilitation.

- There is no listing, such as on a website, that patients and their families can access of all publicly funded rehabilitation services available in the province, by LHIN or otherwise. The GTA (Greater Toronto Area) Rehab Network has made a good start, listing by hospital and by Community Care Access Centre (CCAC) the rehabilitation services offered across the GTA.

Hospital Services

All three hospitals we visited were managing various processes well for determining patient access to their rehabilitation programs, and all had a range of oversight practices in place. However, all had areas for improvement.

- With the exception of stroke, for most conditions requiring rehabilitation, there are few best practice standards in Ontario for such matters as when therapy should start, how often it should occur and what type of treatment should be provided. Not unexpectedly, the hospitals we visited varied in their practices and, therefore, patient care varied.
- Hospitals generally met ministry requirements to discharge total joint replacement—that is, total hip and knee replacement—patients from acute-care hospitals in 4.4 days, with at least 90% of them returning home and a maximum of 10% sent to inpatient rehabilitation. However, patients might experience waits for associated outpatient rehabilitation.
- At the three hospitals visited, the median time to determine outpatient eligibility ranged from the same day, to five days, to 19 days from the date of referral. This could impact when patients start their outpatient rehabilitation.

- Two of the three hospitals visited did not offer outpatient rehabilitation services during evenings or weekends. Patients who work during the day may not be able to attend.
- At the hospitals we visited, there was generally no replacement coverage for therapists who were absent due to illness or vacation, so at times there were fewer therapists available for the same number of patients. Further, although therapists determine the extent of therapy each patient is to receive and are responsible for providing this level of therapy, we were unable to determine how much therapy patients actually received. This is because, although the hospitals and the therapists' professional colleges required some documentation of therapy, none required documentation of all sessions each patient attended.

OVERALL MINISTRY RESPONSE

The Ministry of Health and Long-Term Care (Ministry) welcomes the advice and recommendations contained in the value-for-money audit of hospital-based rehabilitation services. The audit acknowledges the processes already in place with respect to patient access and oversight practices. A number of initiatives are also being implemented collaboratively by the Ministry, Local Health Integration Networks (LHINs) and Community Care Access Centres to further strengthen the rehabilitation system, with a goal of ensuring that patients receive timely care in the most appropriate setting. For example:

- In the 2012 Ontario Budget, the government increased investments in home care and community services by an average of 4% annually for the next three years to ensure that there is capacity to care for people outside the hospital setting. Ensuring that patients receive the right care in the right place is essential for high-quality service and for managing health-care costs.

- Ontario is investing \$156 million a year to support access to physiotherapy, and to enhance exercise and fall prevention services to more than 200,000 additional seniors and eligible patients.
- The LHINs have established and retain oversight of the Rehabilitative Care Alliance (Alliance). The Alliance will provide a support system for improving access, efficiency, effectiveness, quality, integration, value and equity in the delivery of rehabilitative services across the care continuum. Its mandate includes endorsing or, where absent, developing best practice guidelines to enhance outcomes and increase community capacity.
- The LHINs have also recently undertaken an Integrated Orthopaedic Capacity Planning exercise to identify opportunities for optimizing orthopaedic capacity across settings, including rehabilitation services in hospitals and outpatient clinics.
- Under Health System Funding Reform, the Ministry and LHINs are implementing an Integrated Quality-Based Procedure Scorecard under which providers—including hospitals providing rehabilitation services—will report on indicators of effectiveness, appropriateness, integration, access and value, including for rehabilitation services. To this end, Health Quality Ontario has convened a Hip/Knee Expert Panel to develop additional best practices on targets for total joint replacement procedures.

Detailed Audit Observations

INITIATIVES

In recent years, the Ministry of Health and Long-Term Care (Ministry) has supported a number of initiatives that it indicated are intended to improve,

among other things, the rehabilitation system, including the following:

- *Resource Matching and Referral System.* This system helps match hospital patients to the earliest available bed in the most appropriate setting, including both regular (shorter-term) and restorative (longer-term) rehabilitation beds. At the time of our audit, two LHINs were piloting the system, and the remaining LHINs were expected to begin implementing it by March 2014.
- *Wait Time Strategy.* As part of this strategy, in the 2011/12 fiscal year, the Ministry set targets for acute-care hospitals to discharge patients who have undergone hip or knee surgery within an average of 4.4 days, with at least 90% of people returning home—that is, with a maximum of 10% referred to inpatient rehabilitation. In the absence of best practices, the Ministry based the 4.4 days on performance data from Ontario’s optimally performing hospitals. It based the 90% “returning home” indicator on a 2005 study by the Ontario Health Technology Advisory Committee. This study concluded that there was no advantage for total joint replacement patients to receive inpatient physiotherapy rather than community- or home-based physiotherapy. A related study by the Ministry also noted that having patients receive rehabilitation services outside a hospital setting is generally more cost-effective than having them as inpatients. The Ministry indicated that its Orthopaedic Expert Panel is now developing new targets, which the Ministry plans to link to funding in the future. The Ministry expected that this will help move patients out of acute care more quickly and ensure that acute-care and rehabilitation beds are available for patients who need them the most.
- *Health System Funding Reform.* Commencing in the 2012/13 fiscal year, the Ministry plans to move away from historical global funding for hospitals, and toward, over the next few years, funding based on three components. Thirty percent will be based on historical global funding; 40% on the Health Based Allocation Model, which considers past service levels, demographics and population health information; and 30% on the Quality-based Procedures model based on best practices.
- *Rehabilitative Care Alliance.* (This replaced the Rehabilitation and Complex Continuing Care Expert Panel, which was a sub-committee of the Ministry’s Emergency Room/Alternative Level of Care Expert Panel.) Established in October 2012, the Alliance is to take a system-wide view of rehabilitation in Ontario. It reports to the LHINs and works with the Ministry, CCACs and experts on various projects. Issues the Alliance is focusing on include system accessibility and quality. In this regard, it is also assisting in defining best practices in rehabilitation that are expected to help standardize the definitions of regular and restorative rehabilitation to better track services and costs.
- *Funding for Community Rehabilitation.* The Ministry indicated that OHIP payments to private physiotherapy clinics were one of the fastest-growing expenditures in the health-care system, more than doubling from \$87 million in 2007/08 to \$185 million in 2012/13. Starting in August 2013, the Ministry changed the way it funds some eligible community-based (also known as outpatient) services. This includes ceasing OHIP billing privileges for 90 privately owned physiotherapy clinics and instead contracting with privately owned clinics and other providers (such as hospitals and family health teams) to provide community-based physiotherapy. As well, through the LHINs, the Ministry started funding long-term-care homes to directly acquire physiotherapy services for their residents, and made the CCACs responsible for co-ordinating all in-home rehabilitation. The Ministry noted that the new arrangements

were aimed at serving more people in more areas of the province more cost-effectively.

SYSTEM CO-ORDINATION AND CAPACITY

Stakeholders Call for Co-ordinated System

Many times over the years, stakeholders have called for better provincial co-ordination of rehabilitation programs in order to, among other things, improve patient flow from acute-care hospitals to rehabilitation and ensure that patients receive the rehabilitation they need when required. For example:

- A 2000 report by the Provincial Rehabilitation Reference group, including representatives from rehabilitation hospitals and the Ministry, identified the need for a policy framework aimed at creating a more accessible, equitable and integrated rehabilitation system.
- In 2006, an Ontario Hospital Association report, *Optimizing the Role of Complex Continuing Care and Rehabilitation in the Transformation of the Health Care Delivery System*, recommended that the Ministry and the LHINs work with post-acute-care hospitals, such as those offering rehabilitation and mental health services, to develop a systemic approach to managing and planning rehabilitation services at the local, regional and provincial levels.
- A June 2010 round-table discussion between the Ministry, the Ontario Hospital Association, and the LHINs recommended a “single province-wide vision and conceptual framework to guide the future development of new service delivery models.” The conceptual framework was to include determining access to rehabilitation at a regional level, conducting earlier assessments and treatment of rehabilitation patients, increasing access to and intensity of rehabilitation services for complex patients in hospital, and requiring the use of best-practice guidelines for rehabilitation.

Current Co-ordination of Services and Capacity

At the time of our audit, we noted that the LHIN associated with one hospital we visited was co-ordinating access to restorative rehabilitation across the LHIN and that it planned to do the same with regular rehabilitation in the future. The LHIN associated with another hospital we visited was involved in developing new rehabilitation programs and changing existing ones within its boundaries. The third LHIN was looking primarily at patient flow from acute-care hospital beds to rehabilitation beds. Some LHINs have formed rehabilitation networks consisting of hospitals and community-based organizations involved in the planning and provision of rehabilitation services. These networks look at system-wide issues and cost-effective and efficient strategies for the integration of rehabilitation services to improve patient access to care. The GTA (Greater Toronto Area) Rehab Network, for example, has focused on promoting best practices and knowledge exchange and on developing measures for service planning and performance improvement. Each of the three hospitals we visited belongs to a local rehabilitation network.

However, with the exception of a few provincially co-ordinated specialty rehabilitation programs—such as those for spinal cord injuries and acquired brain injuries—each hospital generally determines (some with LHIN input) which inpatient and/or outpatient rehabilitation services it will offer, if any at all. As a result, since services vary, each hospital generally establishes its own policies and procedures for admitting rehabilitation patients, determining patient eligibility, prioritizing patients for services, managing patient wait lists and providing patient care.

This approach to service delivery has resulted in differences in the types and levels of inpatient and outpatient services provided by hospitals across the province. As a result, a patient might be eligible for services at one hospital but not eligible for the same services at another hospital. We also noted a

wide variation in the supply of regular rehabilitation inpatient beds across the province, ranging from 57 beds per 100,000 people in the Toronto Central LHIN to only six per 100,000 people in the Central West LHIN, as shown in Figure 2. The provincial average was 18 beds per 100,000 people. The Ministry indicated that the location of rehabilitation beds across the province was set before the LHIN boundaries were developed, and therefore some patients may receive rehabilitation outside their LHIN.

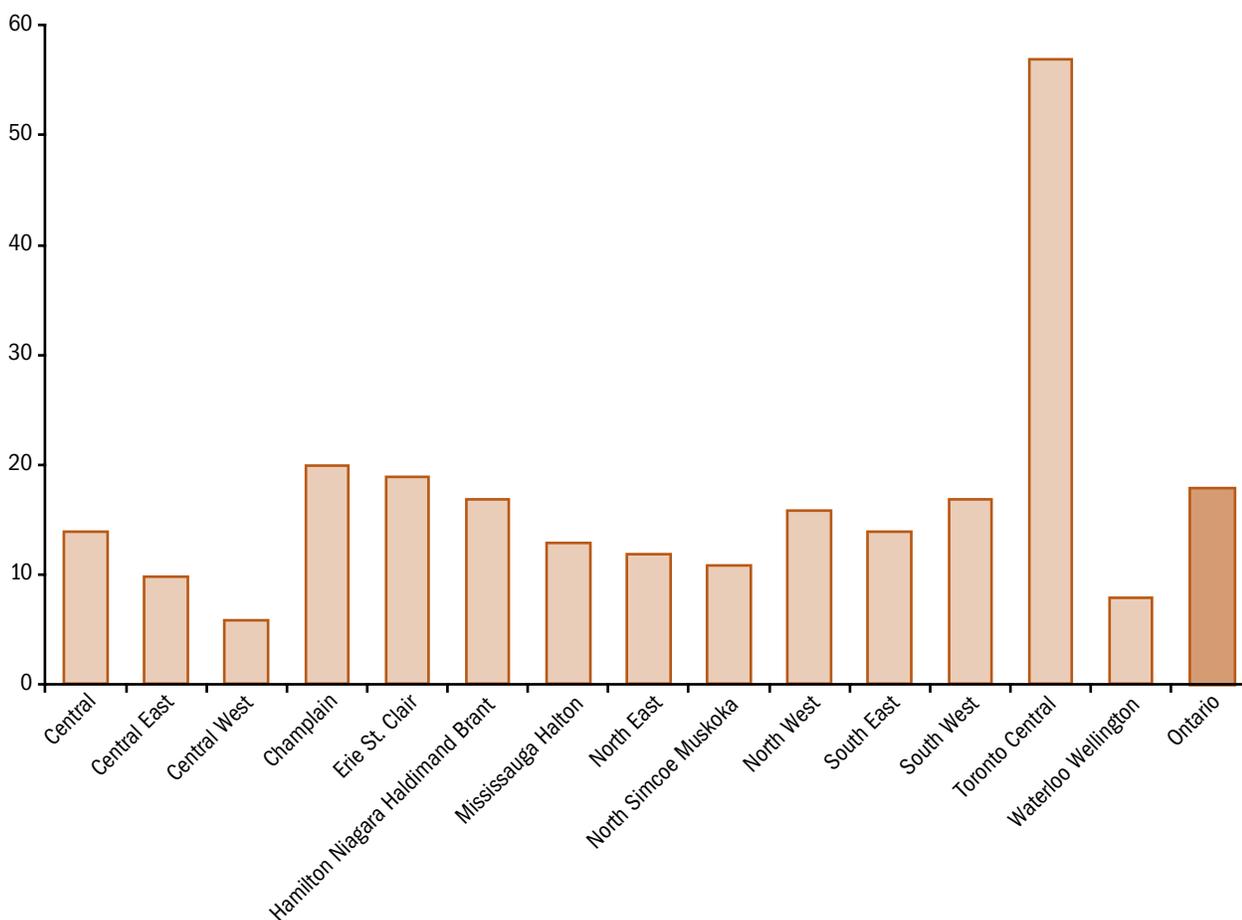
Information Available on Inpatient Services

Since 2002, the Ministry has required all hospitals to submit data on their regular rehabilitation beds

through the Canadian Institute for Health Information's National Rehabilitation Reporting System. This included the number of beds and number of admissions. However, the Ministry does not have access to similar information on restorative rehabilitation, such as the number of restorative rehabilitation beds and associated admissions. Each hospital's accountability agreement with its LHIN contains performance targets. The main rehabilitation targets relate to the number of regular rehabilitation inpatients each hospital is expected to serve and the total number of days restorative patients stay in hospital. Without complete information, it is difficult for the Ministry or the LHINs to determine system capacity and utilization.

Figure 2: Number of Regular* Rehabilitation Beds per 100,000 People as of September 2010, by Local Health Integration Network

Source of data: Toronto Central LHIN Commissioned Report



* Figure excludes restorative rehabilitation beds because province-wide information was not available.

Information Available on Outpatient Services

With respect to outpatient services, according to various stakeholder reports—including a 2011 report by the GTA Rehab Network and a 2011 joint report by the Orthopaedic Expert Panel, the Ontario Physiotherapy Association and other partners—there has been a reduction in publicly funded outpatient services. This includes the closure of many hospital-based outpatient clinics starting more than 10 years ago. In fact, according to the 2011 joint report, 50% of Ontario hospital sites responding to a survey said they had reduced outpatient rehabilitation services over the past two years; 16% indicated that even more reductions were planned for the following year. This report also noted that the availability of outpatient programs was inconsistent across the LHINs and that there is little information on the demand for services, service capacity and service accessibility. The 2011 report by the GTA Rehab Network, while confirming the lack of information on outpatient rehabilitation services, did note that demand for publicly funded outpatient rehabilitation services appears to exceed supply.

We noted that, although the Ministry has information on outpatient rehabilitation visits to hospital physicians and nurses, it does not have information on the number of rehabilitation visits to hospital physiotherapists or occupational therapists—the clinicians whom outpatients primarily deal with. Nor does it have information on the unique number of patients (individuals generally make multiple visits). The LHINs overseeing the hospitals we audited also did not have this information. Further, none of the hospitals we audited had determined their outpatient service capacity—that is, the maximum number of patients they could serve given their currently available outpatient resources, such as the number of therapists and rooms or equipment available for therapy.

The Ministry also did not have information on the types of hospital-based and other outpatient rehabilitation services available. However, the GTA

Rehab Network had on its website a user-friendly “Rehabilitation Finder” that helps people find rehabilitation programs provided by hospitals and CCACs in their area, including program descriptions, eligibility information and how to apply. We also noted that two other LHINs in the province had on their websites some information about publicly funded rehabilitation services available in their area.

Impact of Aging Population

As the population ages, the need for rehabilitation services is expected to increase, which will also increase the importance of a well co-ordinated system. Rehabilitation programs can help seniors in a number of ways: they help seniors return home after a hospital stay instead of requiring a long-term-care home, decrease their visits to emergency departments and their hospital readmission rates, and maintain their mobility in long-term-care homes. According to a 2010 report from the Canadian Orthopedic Care Strategy Group, musculoskeletal disease, such as knee and hip fractures, affected 11 million Canadians over the age of 12 in 2007 and is predicted to increase with the aging baby boomer population to 15 million in 2031. This anticipated increase in cases is expected to put pressure on the demand for rehabilitation because orthopedic conditions are the most common reason for rehabilitation. Similar trends can be expected for patients suffering from stroke, the second-most-common reason for inpatient rehabilitation, given the aging population and that most strokes occur in people over 65.

RECOMMENDATION 1

To better ensure that Ontarians requiring rehabilitation have equitable access to services, the Ministry of Health and Long-term Care (Ministry) should work with the Local Health Integration Networks to:

- establish a province-wide co-ordinated system for rehabilitation, including both regular (shorter-term) and restorative (longer-term)

inpatient services and all community-based outpatient services; and

- provide the public with detailed information on programs available, eligibility and how to apply, such as through a public website.

In order to have good information for current and future decision-making, the Ministry should establish, in conjunction with its shareholders, what information should be collected on restorative inpatient and outpatient services and how best to collect the data.

MINISTRY RESPONSE

The Ministry supports this recommendation and will continue to explore options regarding LHIN-led provincial co-ordination of the rehabilitation system, including rehabilitation best practices and associated data-reporting requirements. Leading this work will be the Rehabilitation Care Alliance (Alliance). With the Ministry's participation and support, the Alliance is investigating and developing recommendations that will help guide provincial standards for rehabilitative care programs and services across the care continuum. The additional deliverables of this expert body will include:

- descriptions of level of care across the rehabilitative care continuum;
- eligibility (including restorative and/or rehabilitative potential) and discharge criteria for each level of care across the rehabilitative care continuum;
- tools for determining eligibility;
- standardized patient outcomes and/or performance measures criteria for each level of care across the rehabilitative care continuum;
- tools to support optimal management of transition points;
- standardized definitions that describe rehabilitative care resources across the care continuum, including a system-wide

assess-and-restore approach to provide clarity for patients, families and referring professionals regarding the focus and clinical components of rehabilitative care programs.

The Ministry's physiotherapy reforms include the expansion of provincial capacity to deliver physiotherapy in publicly funded community physiotherapy clinics. Under the transfer-payment agreements, physiotherapy clinics are required to report on patient volumes and outcome measures such as average pain/mobility scores when patients begin treatment against average pain/mobility scores when patients complete their course of care. Community Care Access Centres (CCACs) are also receiving funding to provide increased one-on-one in-home physiotherapy services. These changes will result in services being available in more places across the province. They also recognize that "rehabilitation" is a care continuum that extends beyond the hospital into the community.

The Ministry appreciates the Auditor General's recommendation regarding the availability of public information on rehabilitation programs and services and will review possible enhancements to web-based communication materials. At present, if an individual needs in-home physiotherapy or would like a list of where clinic-based services are available, he or she can contact the local CCAC by visiting thehealthline.ca or www.310CCAC.ca or by calling 310-CCAC (2222) (no area code required). Additionally, information on the August 2013 changes to publicly funded physiotherapy services can be found on the Ministry's website, including a list of frequently asked questions, clinic locations and other resources.

Working through the LHINs and other provider groups, the Ministry will explore data collection requirements that are meaningful and useful in terms of informing the delivery of rehabilitation services.

INPATIENT SERVICES

Referral Process

People are generally referred by a physician or a registered nurse for inpatient rehabilitation programs. At one hospital we visited, referrals were also accepted from any member of the interdisciplinary team caring for the patient being referred. Over 90% of patients are already hospitalized for an acute condition, such as a stroke or fractured hip, when they are referred for inpatient rehabilitation.

The hospitals we visited varied in how they received patient referrals. One hospital we visited received most of its patient referrals via electronic systems, including a Resource Matching and Referral system. Physicians and nurses unable to access these systems referred patients by fax. However, even though most of the information was electronically received, this hospital still had to manually re-enter all patient information into its own information system—an inefficient process that increases the risk of data entry errors. At the other two hospitals, most patients were referred internally for rehabilitation after, for example, surgery or stroke care. One hospital received notification of internal referrals electronically, while the other received these referrals by phone or fax. However, in both cases, patient information was electronically accessible on the hospitals' systems and therefore did not have to be re-entered. As a result, only patient information related to external referrals, which were generally received by fax, had to be manually entered in these two hospitals' systems.

Eligibility and Wait Times

Each hospital generally has its own eligibility criteria for accepting or declining patients referred to it for rehabilitation. The hospitals we visited varied in how they determined eligibility for similar programs. For example, one of the two hospitals offering an orthopedic rehabilitation program required that patients be able to participate in therapy five days per week, for at least one hour

per day. The other hospital required patients to be able to participate in therapy for 30 minutes to an hour three times per day. In another example, for its amputee rehabilitation program, one hospital required patients with single limb amputations to have a prosthesis that fits adequately, while another required the patient to be able to tolerate 60 minutes or more of therapy five days per week, and a third hospital had various requirements, including the patient's being able to sit for two hours and having a discharge destination within the hospital's LHIN.

The actual process for determining eligibility also varied between hospitals we visited. At one hospital, patient-flow co-ordinators—physiotherapists or occupational therapists—made the admission determination. At another hospital, eligibility was generally determined by a psychiatrist—a medical doctor specializing in physical medicine and rehabilitation. At the third hospital, a nurse determined eligibility in consultation with a physiatrist. At one hospital, it took a median of four days between April and December 2012 to determine patient eligibility. The other two hospitals determined patient eligibility within a day.

Although a ministry report indicates that, province-wide, 55% of patients considered ready for regular inpatient rehabilitation were admitted within one day in the 2012/13 fiscal year, certain rehabilitation programs do have wait lists. For example, at the two hospitals we visited that had an acquired-brain-injury program, the wait time at both was a median of 21 days.

If a space is not immediately available in a particular rehabilitation program, individuals are added to the hospital's wait list. Neither the province nor the LHINs have established a standardized prioritization policy for hospitals to follow, so each hospital decides how to prioritize its own patients. One of the hospitals we visited generally did not have wait lists. Of the two with wait lists, one prioritized individuals based on who had been waiting the longest. The other considered length of wait plus factors such as the patient's medical condition.

These two hospitals prioritized internally referred patients over those waiting elsewhere if the hospital needed to free up acute-care hospital beds for other patients.

One hospital we visited tracked the number of patients who were declined and the reason they were declined. This hospital told us that it declined 39% of applicants referred for regular rehabilitation and 22% of applicants referred for restorative rehabilitation during the first nine months of the 2012/13 fiscal year. The most common reason for declining applicants was that they had not established rehabilitation goals, such as being able to walk up stairs or dress oneself. At this hospital, acute care therapists would generally determine any initial goals as part of the referral process. Another hospital generally accepted all patients referred, declining few applicants overall. The third did not track the overall number of patients declined service or the reasons they were declined.

Assessment and Extent of Therapy Provided

Assessment of Therapy Needs

Once a patient has been admitted to a rehabilitation facility, he or she is assessed by an inter-professional team that generally includes a physiotherapist, an occupational therapist and a nurse. All patients referred for regular rehabilitation are assessed using a standardized tool called the Functional Independence Measure (FIM), which measures the level of a patient's disability. The FIM assessment also indicates how much assistance is required to carry out various activities of daily living, such as eating, washing, dressing and toileting. According to the Canadian Institute for Health Information (CIHI), the FIM assessment is to be completed within 72 hours of admission. (The CIHI maintains the National Rehabilitation Reporting System containing patient data collected from participating adult inpatient rehabilitation facilities and programs across Canada.) One hospital we visited tracked this information and indicated that in the 2012/13 fiscal year, the FIM assessments were

completed, on average, in nine days. This hospital noted that it had reduced the time to five days by June 2013. The other two hospitals did not track this information.

The CIHI also collects assessment information on patients in restorative rehabilitation programs using the Continuing Care Reporting System. Patients are to be given a Resident Assessment Instrument—Minimum Data Set assessment, which measures a patient's needs and strengths with regard to cognition, communication, behaviour, toileting and other criteria.

As well, both regular and restorative rehabilitation patients receive additional assessments, conducted by each type of therapist, in order to develop an individualized plan of care based on their needs. It is important that these assessments be completed promptly so that therapy can begin as soon as possible after admission. We noted that the time frames for assessment varied at the three hospitals we audited. At one hospital, therapists were allowed 48 hours from admission to complete their assessments; another allowed seven days, and the third allowed 14 days. Our review of a sample of files indicated that two of the hospitals generally completed assessments within their required time frames. However, at the third hospital, 16% of the assessments were not completed within the required seven days.

Extent of Patient Therapy

With the exception of stroke (discussed in the Stroke section later in this report), there are few best-practice standards in Ontario for the amount, type and frequency of inpatient therapy that patients should receive for specific conditions. At the hospitals we visited, the amount and type of therapy that each patient is to receive is based on the professional judgment of his or her therapists and on the resources available.

A 2010 report resulting from a round-table discussion between the Ministry, the LHINs and the Ontario Hospital Association noted that providing more therapy is less expensive than having patients

spend more time in the hospital. In this regard, a 2012 study by a Toronto rehabilitation hospital compared the results of its programs providing rehabilitation seven days per week with those providing rehabilitation five days per week. It noted that patients in its seven-days-per-week program got similar results and were able to go home one day earlier than those in the five-days-per-week program. However, the report concluded that it was too early to evaluate the cost-effectiveness of the seven-days-per-week program. We noted that one of the hospitals we visited did not provide any inpatient rehabilitation services on weekends, one of the other two offered some therapy on Saturdays for one unit, and the third offered some therapy on weekends for two of its many programs. One of these hospitals indicated that weekend therapy was not offered on most units because weekends were a time for patients to rest, recover and practice new skills. A common complaint noted in patient satisfaction surveys at one of the hospitals was the lack of therapy available on weekends.

It was difficult to determine how much therapy was actually provided to each patient at the three hospitals we visited. Although all three of the hospitals, as well as the therapists' professional colleges, require some documentation of therapy, none required documentation of all sessions each patient attended. None of the hospitals was documenting all rehabilitation provided to each patient. Two hospitals did track the specific days on which therapy was provided to each patient, but not the actual amount of therapy provided per day. Although the hospitals required the therapists to document electronically how they spend their time each day on various tasks, such as time spent with patients, this information was collected at the therapist level only and was not being used to determine how much therapy each patient received. In the United States, for Medicare-eligible rehabilitation inpatients, therapists are required to record face-to-face interactions with patients in 15-minute increments, and managers must ensure that patients receive three hours of therapy each day.

The number of patients seen by each therapist—that is, patient caseload—varied at each of the hospitals we visited. Some therapists were seeing patients with different needs from more than one program, and others worked in both inpatient and outpatient programs. Therefore, it was difficult to compare among hospitals. However, at all three hospitals, we noted that there was generally no coverage for therapists who were sick or on vacation, so at times there were fewer therapists available for the same number of patients. One hospital indicated that it had piloted providing coverage for therapists who were away during peak vacation periods and was evaluating the impact.

Impact of Patient Therapy

Before discharging a patient, hospitals complete another FIM assessment of him or her, which is compared to the results of the initial FIM assessment to determine the extent of the patient's improvement. Patients in regular rehabilitation beds at all three hospitals had improved FIM assessment scores when discharged. The FIM improvement is the result of the rehabilitation received combined with the natural healing process and the passage of time. Further, the percentage of regular rehabilitation inpatients returning home ranged from 85% to 87% at the hospitals we visited. FIM assessments are not required for patients in restorative beds, so the extent to which they improve after rehabilitation is generally not known. However, one of the hospitals we visited was conducting these assessments on its restorative rehabilitation patients, and noted a significant improvement in patient functionality.

Co-payment for Restorative Rehabilitation

Regular rehabilitation generally takes place in beds that have been designated by the Ministry as rehabilitation beds, and restorative rehabilitation takes place in beds designated as complex continuing care (CCC) beds. Historically, CCC beds were occupied on a permanent basis by, for example,

patients who could not be managed at long-term-care homes. However, these beds are now generally used for other purposes, including restorative rehabilitation and palliative care. With the current wide range in the services provided for patients in CCC beds, the Ministry has limited information on the actual use of these beds. As well, two of the three LHINs associated with the hospitals we visited did not have this information.

Under the *Health Insurance Act*, hospitals may charge a co-payment fee to their long-term CCC patients who have effectively become permanent residents of the hospital or who are awaiting discharge to a long-term-care facility, but not to those returning to the community. The co-payment charge is intended to eliminate any financial incentive for patients to stay in hospital, where a patient would normally pay nothing, rather than move to a long-term-care home, where payment is normally required. The hospital co-payment charge is usually the same as the basic rate charged in long-term-care homes, and, similar to this charge, can be reduced for people with low incomes. One of the two hospitals we visited that had CCC beds charged a co-payment fee only to the approximately 20% of its CCC patients who were not expected to return home. However, the other charged the co-payment to all of its CCC patients, including the restorative rehabilitation patients, regardless of whether they were expected to return home.

Alternate-level-of-care Patients

Alternate-level-of care (ALC) patients are patients who are ready to be discharged but need to wait in hospital for post-discharge care, such as home-care services or placement in a long-term-care home. Some ALC patients are waiting in an acute-care hospital bed for placement in a rehabilitation bed. The potential risks of staying in an acute-care hospital longer than medically necessary include hospital-acquired infections, such as *C. difficile*, and a decline in physical and mental well-being due to the lack of physical activity. Further, the

Ontario Hospital Association and the provincial Rehabilitative Care Alliance have both recognized that rehabilitation beds can be a valuable resource for the health-care sector, by helping to keep ALC patients out of acute-care hospitals, relieving pressure on emergency departments and allowing for an efficient flow of patients through the system. However, ALC patients may be difficult to place if they have a complex medical condition. The rehabilitation hospitals we visited said that costs for their ALC patients were usually only marginally less than for other patients because ALC patients still required some therapy to ensure that their condition does not decline.

The Ministry's Rehabilitation and Complex Continuing Care Expert Panel (Expert Panel), which comprised rehabilitation experts and stakeholders from across Ontario, issued a report in June 2011 providing advice and guidance to the Ministry's Emergency Room/Alternative Level of Care Expert Panel. This report focused on how best to reduce ALC lengths of stay throughout the system by properly utilizing the regular and restorative rehabilitation resources for stroke, hip- and knee-replacement, and hip-fracture patients. The Expert Panel made 30 recommendations, grouped on the basis of urgency. The more time-sensitive recommendations included introducing best practices, aligning financial incentives with best practices, and enhancing the role for hospital-based outpatient rehabilitation. In mid-2013, the Rehabilitative Care Alliance, which replaced the Expert Panel, began refining the 30 recommendations for implementation.

A report by the Ontario Hospital Association indicated that about 2,300 ALC patients occupied acute-care beds in the province as of March 2013. Of these, 16% were waiting for a regular rehabilitation bed and 9% for a CCC bed (CCC beds include restorative rehabilitation beds). Province-wide in the 2012/13 fiscal year, 7% of patients in an acute-care bed waited there over a week for a regular rehabilitation bed, as shown in Figure 3. This percentage varied across the LHINs, from a

low of 1% in the Central and Central East LHINs to a high of 35% in the North Simcoe Muskoka LHIN. Despite the higher percentage of people waiting, the North Simcoe Muskoka LHIN had a similar number of beds per 100,000 people as the Central East LHIN, as shown in Figure 2. Further, the Champlain LHIN was experiencing longer-than-average waits despite having 20 beds per 100,000 people, the second-most of all LHINs.

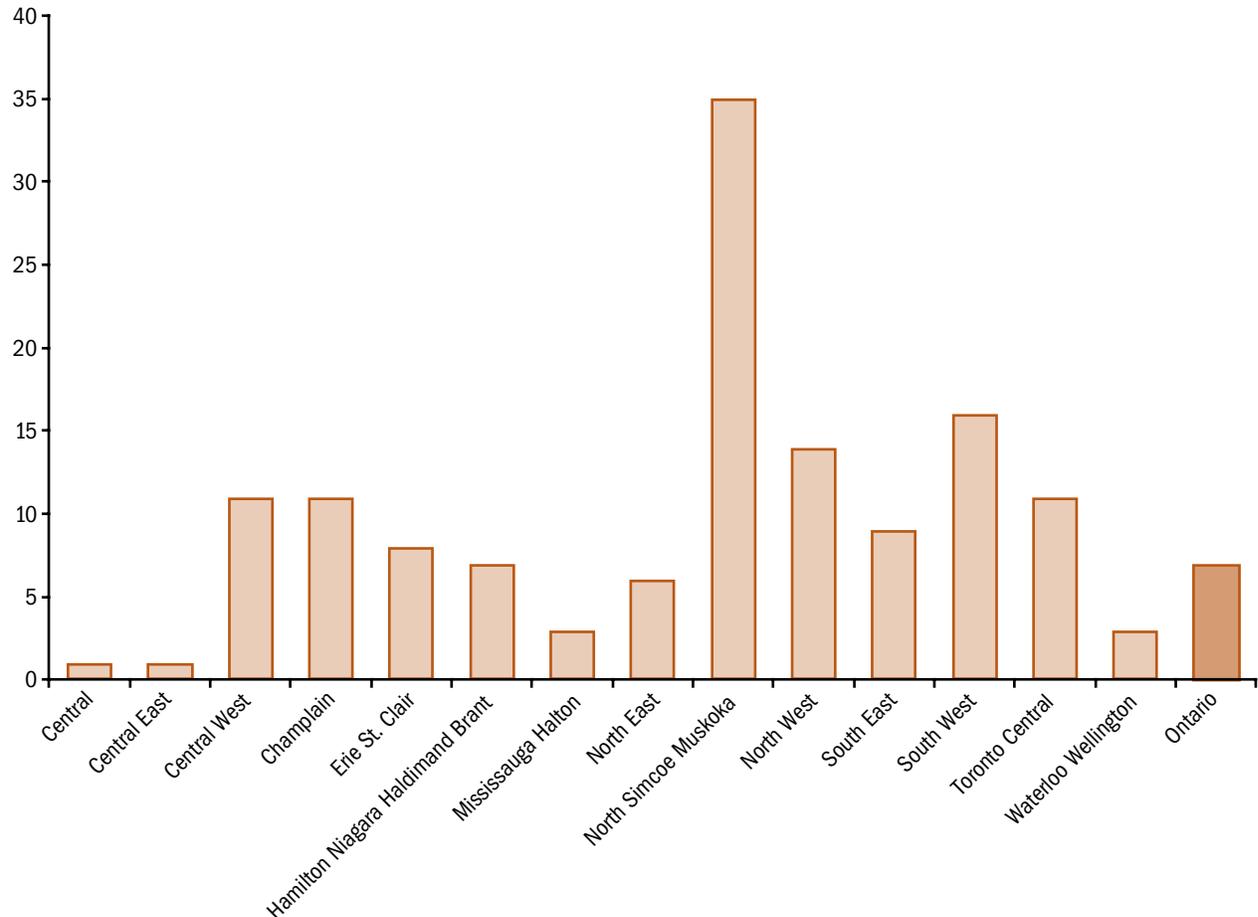
Other people are waiting in rehabilitation beds for post-discharge care. The Ontario Hospital Association report indicated that, while waiting for care elsewhere, ALC patients occupied 13% of beds in post-acute-care facilities, such as regular rehabilitation, CCC and mental-health institutions. This percentage varied significantly across the province, from fewer than 1% of post-acute-care beds in the Mississauga Halton LHIN to 20% in the Toronto

Central LHIN. About 5% of regular rehabilitation beds and 14% of CCC beds at the audited hospitals were occupied by ALC patients as of March 31, 2013. Most of these patients were waiting for a long-term-care home, supervised/assisted living or home-care services.

Turnaround time—the time to clean a room and admit a new patient—for rehabilitation beds is important because a patient in the emergency department awaiting an acute-care bed could have a lengthy wait while a patient in the acute-care bed is waiting to be moved to a rehabilitation bed. None of the hospitals we visited tracked the time it took to fill a vacated rehabilitation bed. However, they all indicated that it normally took less than a day because discharge dates are estimated beforehand, allowing for the admission of a new patient to be planned for the same or next day.

Figure 3: Patients Waiting Over One Week in an Acute-care Hospital Bed for Rehabilitation in 2012/13, by Local Health Integration Network (%)

Source of data: Ministry of Health and Long-Term Care



RECOMMENDATION 2

To better ensure that inpatient rehabilitation meets patients' needs as efficiently and equitably as possible, hospitals should:

- implement systems for accepting patient referrals and uploading associated patient data electronically;
- in conjunction with the Ministry of Health and Long-term Care (Ministry) and the Local Health Integration Networks (LHINs), develop standardized practices regarding patient eligibility for similar programs, prioritization of patients based on patient need, and the frequency and duration of therapy;
- track and monitor information on the amount of therapy actually provided to patients, the number of patients declined and the associated reasons, and the time it takes to fill a bed after a patient is discharged; and
- consistent with the *Health Insurance Act*, charge a co-payment only to restorative rehabilitation patients who are not expected to return home.

RESPONSE FROM HOSPITALS

The hospitals we visited all agreed with having systems in place to accept patient referrals and upload patient data electronically. One of the hospitals commented on the need for funding to implement such a system.

Two of the hospitals generally agreed with implementing standardized practices in the recommended areas, and one indicated that this should also be done in conjunction with the Rehabilitative Care Alliance as well as clinician-led condition-specific networks. The third hospital suggested developing best practices in these areas instead, because standardized practices may reduce the hospital's flexibility.

Although the hospitals generally agreed on the importance of tracking and monitoring

this information, one hospital indicated that it would not be beneficial to track the amount of therapy actually received by each patient, because outcome measures—such as the patient's discharge destination and the change in the each inpatient's Functional Independence Measure (FIM) score—are more meaningful. Another hospital suggested that information on the amount of therapy provided to patients be tracked in conjunction with the Ministry of Health and Long-Term Care, to help ensure that the information is consistently collected across the province.

One of the two hospitals with restorative rehabilitation patients was already following the practice of charging a co-payment only to patients who were not expected to return home. The other hospital thought that the Ministry should clarify the intent of the legislation, to prevent having it interpreted differently by hospitals across the province.

MINISTRY RESPONSE

Although this recommendation was directed toward the hospitals, the Ministry will also review the tracking and monitoring recommendation and explore opportunities to refine standardized practices. This work will be undertaken in consideration of the work being conducted by the LHIN-led Rehabilitative Care Alliance (Alliance). The Alliance is uniquely positioned to propose tools that can be applied across the province to assist health-care providers in consistently determining patient eligibility, and to create tools that support the optimal management of transition points.

The Ministry will also provide a clarification on co-payment requirements, which will be issued through the LHINs to appropriate health-service providers.

OUTPATIENT SERVICES

Outpatient rehabilitation services are commonly used by patients with milder functional impairments, including after discharge from an acute-care or rehabilitation hospital. They are usually provided at hospital-based or other clinics or at the patient's home, including retirement homes and long-term-care homes, with a goal of improving patient functionality and, therefore, quality of life. However, other than for stroke programs, there are few best practice standards in Ontario for when therapy should start, how much therapy should be provided, what type of therapy should be provided, the length of therapy sessions and the number of weeks therapy should be provided.

Determining Eligibility for Outpatient Services

Most of the outpatient programs at the three hospitals we visited required patients to have a referral from a hospital physician. Two of the hospitals also accepted referrals from community physicians, such as family physicians, for some of their programs. When a referral is received at a hospital outpatient program, the application is reviewed by hospital staff—such as a triage nurse, a therapist or a group of therapists—to determine eligibility according to the hospital's criteria. There are no standardized provincial or LHIN-wide eligibility criteria for admission to outpatient programs in Ontario. At the three hospitals we visited, we noted that the eligibility criteria varied for similar programs. For example, one hospital's outpatient stroke program required external applicants to have a FIM score indicating only a mild functional impairment, which is consistent with the Expert Panel's suggestion. At another hospital, however, there was no requirement for a specific FIM score. We also found that there was no standardized tool used by the hospitals we visited to document the hospital's decision on whether to accept or reject the patient. At the three hospitals we visited, we found that

the median time to determine outpatient eligibility from the date of referral ranged from the same day to five days to 19 days.

Waiting for Outpatient Services

After being deemed eligible, an applicant might not receive rehabilitation services right away if the location has a wait list. Two of the hospitals we visited had wait lists; the third did not have any patients waiting. Only one of the two hospitals with wait lists tracked wait times. At this hospital, the overall wait time from referral to rehabilitation was a median of 33 days. For one outpatient clinic location at the other hospital, our file review noted a median wait time of five days. This hospital told us that, at its other outpatient clinic location, patients had a wait time of about two years or more for some programs, such as for ongoing back and neck problems.

There is no provincial or LHIN-wide policy for prioritizing patients on wait lists: each hospital follows its own procedures. The policy at two of the hospitals we visited was to prioritize on the basis of who had been waiting the longest. The third hospital told us that its policy was to also consider factors such as the patient's medical issues and risk of falling, although the rationale to support decisions was not required to be documented. One of the hospitals prioritized internally referred patients over referrals from the community. Similarly, the 2011 GTA Rehabilitation Network report noted that 70% of orthopedic and stroke programs—the programs with the most patients—prioritized internal referrals over external ones, meaning that externally referred patients might wait longer.

Attending Outpatient Services

Once reaching the top of the wait list, patients can face challenges in attending outpatient services. These challenges include a lack of transportation to and from the outpatient facility, and few or no evening or weekend services for clients not able to attend

programs on weekdays. Two of the three hospitals we visited did not offer outpatient rehabilitation services during evenings or on weekends. The third hospital offered some services at one of its two clinics until 7 p.m. from Monday to Thursday.

All three hospitals had information on the number of outpatients served and the total number of times patients saw rehabilitation staff. However, only one tracked information, at one of its two clinics, on whether each therapist was fully booked, how many appointments were cancelled by patients, and the extent of patient no-shows. This information was not summarized on an overall basis, but we noted that, from February 2012 to January 2013, cancellations per therapist ranged from 1% to 13% of appointments, and no-shows ranged from none to 6%.

Determining Impact of Outpatient Services

Whereas regular rehabilitation inpatients are assessed by FIM scoring at the beginning and end of treatment to determine their functional improvement, rehabilitation outpatients are not similarly assessed using a standardized measure. Therefore, there is little information on whether outpatient programs are effective. The Ministry indicated that the Rehabilitative Care Alliance is developing a standardized data set for Ministry-funded outpatient programs.

RECOMMENDATION 3

To better ensure that patients have timely access to required outpatient services, hospitals should:

- prioritize eligible patients based on need, rather than on other factors such as whether they were referred from the hospital's inpatient program or externally;
- assess the need for, and the costs and benefits of, providing evening and weekend services; and
- in conjunction with the Ministry of Health and Long-Term Care (Ministry) and Local

Health Integration Networks (LHINs), develop standardized practices for common patient conditions, such as total joint replacements, regarding when to begin outpatient therapy, as well as the type and duration of therapy.

Further, hospitals should collect information to better ensure that available outpatient resources are utilized efficiently and effectively, such as information on the number of appointment cancellations and patient no-shows, and on the change in patient functionality between when outpatients start and when they complete outpatient rehabilitation.

RESPONSE FROM HOSPITALS

Although two of the hospitals agreed with prioritizing patients for outpatient services based on need, the third hospital indicated that this recommendation would be difficult to implement because patient need is not currently defined.

All three of the hospitals agreed with assessing the need for, and the costs and benefits of, providing evening and weekend outpatient services.

The three hospitals generally agreed with developing standardized outpatient practices for common patient conditions. One hospital indicated that this should also be done in conjunction with clinician-led condition-specific networks. Another hospital expected the Rehabilitative Care Alliance to conduct work in this area.

Although the hospitals agreed with the importance of collecting most of this outpatient information, two of the hospitals expressed concerns regarding monitoring the change in outpatient functionality. Both of these hospitals used various measures for monitoring this change, but one of these hospitals cautioned that it may be difficult to find one measure to capture this change. The other hospital thought that no such indicator currently existed and

that it was more important to monitor whether outpatients achieved their goals.

MINISTRY RESPONSE

Although this recommendation was directed toward the hospitals, the Ministry is also committed to improving quality. One example of its efforts in this regard is the provincial assess-and-restore policy for frail older adults that is currently under development. In addition, the Rehabilitative Care Alliance (Alliance) is actively engaged in establishing a rehabilitative care approach for frail senior/medically complex populations to support “operationalization” of priority elements of the “Essential Elements of Assess and Restore Framework.” As part of the work plan, the Alliance is developing a standard process for identifying and supporting timely navigation and entry of high-risk older adults with restorative potential to the most appropriate level of rehabilitative care.

Further, the Ministry will work with the LHINs, using an evidence-based approach, to assess the demand for and benefits of providing evening and weekend services.

COMMON CONDITIONS REQUIRING REHABILITATION

As part of our audit, we focused particularly on two specific conditions requiring rehabilitation—stroke and total joint replacement, including hip and knee replacements—because they account for the largest number of admissions to inpatient rehabilitation services, at 15% and 18%, respectively.

Stroke

Stroke is the leading cause of adult disability in Canada. A stroke can affect various basic functions such as speech, sight, memory and the ability to walk. According to the Ministry, over 90,000 Ontarians currently live with the effects of stroke, and

stroke survivors are usually left with some degree of disability.

The Ontario Stroke Network (OSN), created in 2008, receives funding from the Ministry to provide leadership and co-ordination for Ontario’s 11 Regional Stroke Networks, including stroke prevention clinics and Ontario Stroke centres, which are hospitals specializing in stroke treatment. All have a goal of decreasing the incidence of stroke; ensuring that Ontarians have access to appropriate, quality care in a timely way; and improving care and outcomes.

In 2011, the OSN established the Stroke Reference Group, which recommended a series of stroke-rehabilitation and patient-flow best practices, including those shown in Figure 4. The recommendations were accepted in November 2011 by the Rehabilitation and Complex Continuing Care Expert Panel. In January 2013, the Stroke Clinical Advisory Expert Panel at Health Quality Ontario—a provincial government agency that, among other things, evaluates the effectiveness of new health-care technologies and services—made similar recommendations with respect to the timely transfer of patients and greater intensity of therapy.

The OSN’s 2012 report, *The Impact of Moving to Stroke Best Practices*, estimated that savings in the acute-care and inpatient rehabilitation sectors arising from full implementation of these best practices could reach \$20 million per year. This report also indicated that incorporation of these best practices would have a positive impact on patient outcomes. Hospitals can decide whether to follow all, some or none of these best practices. We noted that both of the hospitals we visited that had stroke programs were implementing some of these best practices.

We noted the following with respect to the Stroke Reference Group’s recommendations.

Timely Transfer

According to the *Ontario Stroke Evaluation Report 2013* prepared by the Ontario Stroke Network, the Canadian Stroke Network and the Institute

Figure 4: Selected Best Practices for Stroke Rehabilitation and Patient Flow

Source of data: Ontario Stroke Network

Timely transfer	Timely transfer of appropriate patients from acute-care facilities to rehabilitation: Ischemic stroke patients should be transferred to rehabilitation within five days of their stroke on average and hemorrhagic stroke patients within seven days on average. (Ischemic strokes, accounting for 80% of all cases, are caused by an interruption of blood flow to the brain. Hemorrhagic strokes, accounting for the remaining 20%, occur when blood vessels in the brain rupture.)
Greater-intensity therapy	Provision of greater-intensity therapy in inpatient rehabilitation: Stroke patients should receive three hours of therapy a day—one hour each of physiotherapy, occupational therapy and speech language pathology—seven days per week.
Timely outpatient (hospital- or community-based) rehabilitation	Timely access to outpatient (either hospital- or community-based) rehabilitation for appropriate patients: This includes two to three outpatient visits or visits by CCAC health professionals per week per required discipline for eight to 12 weeks.
Equitable access	Equitable access to all necessary rehabilitation for all rehabilitation candidates.

for Clinical Evaluative Sciences, in the 2011/12 fiscal year, province-wide, it took a median of 10 days from the time of a patient's stroke for him or her to be transferred to rehabilitation. One of the two hospitals we visited that had a stroke program reported a median of 16 days in 2011/12, while the other's median time was 13 days. Both hospitals told us that timing of transfers was affected by the acute-care hospital's reluctance to transfer patients earlier because they were considered to be medically unstable.

In March 2013, Health Quality Ontario released its review of the available research on the optimal time to access rehabilitation after a stroke. The report concluded that, until better evidence is available, rehabilitation ought to be initiated as soon as the patient is ready for it. However, the report noted that 19% of stroke patients remained in an acute-care hospital longer than necessary while waiting for access to an inpatient rehabilitation bed.

Greater-intensity Therapy

Although there is expert consensus recommending that stroke inpatients receive three hours of rehabilitation per day, the research currently available on the intensity of stroke rehabilitation is mixed. In fact, Health Quality Ontario's March 2013 review of related research concluded that

the functional recovery of patients is not greater with more rehabilitation per day than with the standard amount of rehabilitation. However, the review recognized that there was some discrepancy between these results and the opinions of some experts in the field of stroke rehabilitation. For this reason, Health Quality Ontario planned to undertake a full analysis of this topic. The OSN has noted that increasing therapy intensity may shorten the patient's length of stay in hospital, and thereby decrease costs.

Similar to other types of rehabilitation, at the hospitals we visited, the amount and type of stroke therapy that each patient receives is based on the professional judgment of his or her therapists. Neither of the hospitals we visited that had a stroke program tracked how much therapy each patient received. However, one hospital had begun to track the total hours of therapy provided to all stroke patients—though not the hours per patient. It told us that it was not yet meeting its goal to provide three hours of therapy per patient per day. The other hospital had no such goal. A 2010 report by the GTA Rehab Network included the results of a province-wide survey of stroke programs. We noted that only three of the 12 regular rehabilitation stroke programs and three of the five restorative rehabilitation stroke programs that responded to the survey provided the recommended amount of therapy.

One Ontario stroke expert noted in 2008 that leaving the amount of therapy each patient is to receive and the delivery of that therapy to the therapist's discretion appears to result in less direct patient-therapy time and tends to produce less-than-optimal outcomes. As mentioned earlier, in the United States, for Medicare-eligible rehabilitation inpatients, therapists are required to record face-to-face interactions with stroke patients in 15-minute increments, and managers ensure that patients receive three hours of therapy per day. On the basis of 2011/12 data in the Ontario Stroke Evaluation Report and 2012 US eRehab data, we noted that even though the Medicare-eligible rehabilitation inpatients' increase in functionality was similar to that of Ontario stroke inpatients, their length of stay in hospital was only about half that of the Ontario patients. (The U.S. patients generally had a lower functionality when they started inpatient rehabilitation compared to the average for Ontario stroke patients, which might influence their rate of increased functionality over that time period.)

Timeliness of Outpatient (Hospital- or Community-based) Rehabilitation

We found that there is a general lack of information available about access province-wide to stroke outpatient and/or community-based rehabilitation. According to the *Canadian Best Practice Recommendations for Stroke Care*, the suggested best practice for outpatient rehabilitation for stroke is to start any needed rehabilitation within 48 hours of discharge from an acute care hospital or within 72 hours of discharge from inpatient rehabilitation. One of the two hospitals we visited that had a stroke program reported that it took an average of 31 days from referral until the patient started his or her outpatient rehabilitation. The other hospital did not have a wait list for its outpatient stroke program.

The *Ontario Stroke Evaluation Report 2013* found that the extent of services provided through the CCACs was low and likely inadequate to help those

having difficulty living independently. The CCACs provided, on average, only about four sessions of rehabilitation for each patient over an eight-week period, as compared to the two to three visits per week per type of therapy over an eight- to 12-week period recommended by the Expert Panel.

Neither of the two hospitals we visited that had stroke programs monitored whether it was providing two to three visits per week by each type of therapist—such as physiotherapist, occupational therapist and speech language pathologist—for eight to 12 weeks.

We noted the existence of a successful program in Calgary called the Early Supported Discharge Program, which was implemented as part of the Calgary Stroke Program in 2011. The goal of the program is to discharge patients with mild or moderate strokes directly to the patient's home, with the same rehabilitation therapy at home—starting within one or two days of discharge—as they would have otherwise received in hospital. The program estimated savings of about \$1.8 million annually for about 160 patients. In Ontario, one LHIN proposed in May 2013 to pilot a new Community Stroke Rehabilitation Model that will provide early supported discharge from hospital. It will focus on transitioning patients to their homes, which could reduce the length of acute-care hospital stays after a stroke.

Equitable Access

According to the OSN report *The Impact of Moving to Stroke Best Practices in Ontario*, data suggests that many patients are unable to access the rehabilitation services they need. The best available estimates suggest that approximately 40% of stroke patients are candidates for inpatient rehabilitation when discharged from acute care, yet less than 25% were discharged to inpatient rehabilitation in the 2010/11 fiscal year.

Further, although the Stroke Reference Group estimated that all patients discharged from an inpatient rehabilitation program would require

outpatient rehabilitation, the *Ontario Stroke Evaluation Report 2013* states that approximately 33% of these patients were sent home without outpatient services in 2011/12.

The OSN reports also noted that “perhaps the most troubling finding in this report was the extent to which patients with very high levels of function are admitted to, or remain in, inpatient rehabilitation in Ontario.” The *Ontario Stroke Evaluation Report 2013* noted that approximately 19% of all inpatient rehabilitation admissions are patients with mild functional impairment from their stroke, who, according to the Expert Panel and other research, can generally be cared for in an outpatient setting. The report suggested that the reason these patients were admitted to inpatient rehabilitation might be the low number of outpatient and community-based rehabilitation resources. The Expert Panel recommended that patients with an initial FIM score of 80 or more (indicating mild functional impairment) go directly from acute care to outpatient rehabilitation, rather than to an inpatient rehabilitation program. However, at the two hospitals we visited that had stroke programs, we noted that approximately one-third of patients admitted to inpatient rehabilitation had been assessed by the acute-care hospital as having mild functional impairment, suggesting that they might have been better served as outpatients. One hospital told us that this was because of a shortage of available outpatient services, as well as because certain patients with dementia are better served as inpatients.

RECOMMENDATION 4

To better ensure that stroke patients receive rehabilitation services that address their needs and that rehabilitation resources are used efficiently, the Ministry of Health and Long-term Care (Ministry) should work with the Local Health Integration Networks (LHINs) to implement, at least on a pilot basis, the stroke-rehabilitation and patient-flow best practices, including those relating to timely access and

the extent of therapy, accepted by the Ministry’s Rehabilitation and Complex Continuing Care Expert Panel.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and will explore opportunities, where appropriate, to examine best practices for patient flow. The Ministry is an active partner of the Rehabilitative Care Alliance (Alliance)—a group that is endorsed and funded by the 14 LHINs, and that is tasked with building on the Rehabilitation and Complex Continuing Care Expert Panel’s Conceptual Framework for rehabilitative care planning.

In addition, through Health System Funding Reform, quality-based procedures for stroke and total joint replacement have been defined as part of best practices for the continuum of care, including the rehabilitation phase.

Total Joint Replacement

Total joint replacements—that is, total hip and knee replacements—are among the most commonly performed surgical procedures in Ontario. In the 2010/11 fiscal year, more than 17,000 hip-replacement and almost 22,000 knee-replacement surgeries were performed in the province. Following surgery, physiotherapy rehabilitation or exercise programs are a standard treatment to maximize a person’s functionality and independence. They generally consist of various exercises, including transfer training—such as getting on and off a chair, or in and out of a car—walking training and instruction in activities of daily living. As with most other types of rehabilitation, there are no commonly accepted best practices province-wide; therapists treat patients on the basis of their professional judgment. As the Ministry expressed it in a 2012 report: for total joint replacement, “practice variation in community rehabilitation is widespread with limited evidence-based standards for determining a successful community rehabilitation episode.”

We noted that the number of regular rehabilitation inpatient admissions for total joint replacement has decreased from about 9,700 in 2007/08 to 3,900 in 2012/13. In addition, as of December 31, 2012, acute-care hospitals across the province were generally meeting the Ministry's 4.4-day target for discharging patients after hip and knee surgery, and over three-quarters had met the target of at least 90% of these patients returning home. One of the hospitals we visited indicated that it closed six rehabilitation beds as a result of more patients being discharged home for rehabilitation instead of to inpatient rehabilitation. The other two hospitals had not closed rehabilitation beds; rather, these beds were available for patients with other conditions who needed them.

One of the hospitals we visited had established a new outpatient program to help address the expected increase in outpatients. The other two hospitals we visited had wait lists for their associated outpatient programs.

PERFORMANCE MONITORING

All three hospitals we visited monitored their performance and maintained oversight of their services through two committees that reported to their boards of directors. Their medical advisory committees, composed of medical staff, have the goal of ensuring the quality of care provided by physicians. Their quality of care committees, composed of several members of their boards of directors and senior hospital staff, monitor the quality of patient care, resolve issues and make recommendations to improve the quality of care.

As well, all three hospitals had established performance measures for their rehabilitation services and had systems in place to monitor and report on this information to senior management and their boards of directors. At two of the hospitals, this performance information was also available on the intranet.

The performance measures tracked at each hospital varied, and included information such as

the number of inpatient rehabilitation cases, the percentage of patients discharged home, and the average change in regular inpatients' functional score from admission to discharge. This variation in performance measures limits the ability of hospitals, the LHINs and the Ministry to compare performance and thereby identify better rehabilitation practices.

Each hospital also had performance measures and processes in place related to patient safety, including incident reports and the number of patient falls. However, although all the hospitals we visited required incidents to be followed up on, the hospitals had different interpretations of incidents and reporting requirements. One of the hospitals appeared to take incident reporting quite seriously: it identified more than 800 falls and a total of almost 1,500 incidents in the course of the year. At one hospital we visited, 35% of the incidents sampled either were not reviewed within a week as required at that hospital, or the review date was not documented, so it was not possible to determine how long it took to complete the review. Another hospital had no time requirement for reviewing incidents, leaving the time frame up to the rehabilitation manager's professional judgment. At this hospital, we found that from April 2011 to September 2012, management usually took a median of eight days for review. At the third hospital, the time for management to review an incident was required and documented only for medication incidents. We noted that most medication incidents sampled at this hospital were not reviewed by senior management within a maximum of six days, as required by this hospital's policies. Subsequent to our fieldwork, this hospital implemented an electronic system for tracking incidents, which the hospital indicated has addressed this issue.

Another important factor in performance monitoring is determining the level of patient satisfaction. Doing so can help hospitals identify areas that need improvement. The *Excellent Care for All Act, 2010* (Act), requires that this be done annually. Each of the hospitals we visited had processes in place to survey inpatient satisfaction, and two also conducted surveys of outpatients. Survey results

were generally positive. One hospital also contacted caregivers to determine how well they were managing after the patient returned home. However, none of the three hospitals surveyed patients' caregivers who had contact with the hospital in order to determine their satisfaction in connection with the services provided to the patient, which is also a requirement of the Act.

RECOMMENDATION 5

In order to enhance the performance of hospitals providing rehabilitation services, hospitals should:

- in conjunction with the Ministry of Health and Long-term Care (Ministry), develop standardized performance measures that will provide hospitals with useful and comparative information, such that they can benchmark their performance against other hospitals and better identify areas, if any, requiring improvement; and
- survey patient caregivers, as required under the *Excellent Care for All Act, 2010* (Act), and conduct outpatient satisfaction surveys.

RESPONSE FROM HOSPITALS

All three of the hospitals agreed with developing standardized performance measures that can be used to benchmark Ontario hospitals against

each other. One of the hospitals was already comparing certain performance information with selected hospitals in Ontario and other provinces. Another hospital indicated that hospitals within its Local Health Integration Network (LHIN) are now comparing some performance information.

Although all three hospitals generally agreed with surveying caregivers, as required under the Act as well as outpatients, one commented that this was not a priority.

MINISTRY RESPONSE

Although this recommendation was directed toward hospitals, the Ministry supports the Rehabilitative Care Alliance in developing a standardized rehabilitative care evaluation framework and set of tools, which will include a list of indicators that can be used by organizations to evaluate rehabilitative care system performance. This undertaking will incorporate standardized patient outcome and/or performance measure criteria for each level of care across the rehabilitative care continuum.

As well, the Ministry and the LHINs will work together to ensure that appropriate accountability processes are followed with regard to compliance with the Act.

Glossary

alternate level of care (ALC)—ALC patients are ready to be discharged but are waiting in hospital for post-discharge care. This can include waiting in an acute-care hospital for a rehabilitation bed, and waiting in a rehabilitation bed for home-care services or placement in a long-term-care home.

Canadian Institute for Health Information (CIHI)—CIHI develops and maintains comprehensive and integrated health information, including information collected from the National Rehabilitation Reporting System for rehabilitation hospitals.

Community Care Access Centres (CCACs)—Among other things, CCACs co-ordinate services for seniors, people with disabilities and people who need health-care services to help them live independently in the community. They also co-ordinate long-term-care home placement and may determine eligibility for certain complex continuing care and rehabilitation beds. There are 14 CCACs across the province, one for each Local Health Integration Network.

complex continuing care (CCC)—CCC is hospital-based care that includes continuing, medically complex and specialized services, such as restorative rehabilitation.

Functional Independence Measure (FIM)—The FIM measures the level of a patient’s physical and cognitive disabilities, and also indicates how much assistance is required to carry out various activities of daily living, such as eating, washing, dressing and toileting.

GTA (Greater Toronto Area) Rehab Network—The GTA Rehab Network’s membership consists of publicly funded hospitals and community-based organizations from across the GTA that are involved in the planning and provision of rehabilitation services. One area of focus is promoting best practices and knowledge exchange.

Health Quality Ontario (HQO)—HQO is a provincial agency that evaluates the effectiveness of new health-care technologies and services, reports to the public on the quality of the health-care system, supports quality improvement activities and makes evidence-based recommendations on health-care funding.

Local Health Integration Networks (LHINs)—LHINs are responsible for prioritizing and planning health services and for funding certain health-service providers, including hospitals and CCACs. There are 14 LHINs, representing 14 different geographic areas of Ontario; each LHIN is accountable to the Ministry of Health and Long-Term Care. Each hospital and CCAC is directly accountable to its LHIN, rather than to the Ministry, for most matters.

National Rehabilitation Reporting System (NRS)—The NRS collects data from participating adult inpatient rehabilitation facilities and programs across Canada, including specialized facilities, hospital rehabilitation units and hospital rehabilitation programs.

Ontario Disability Support Program (ODSP)—ODSP, also known as social assistance, provides income and employment assistance to people with disabilities who are in need. This may be longer-term in nature. Financial assistance is provided to help pay for living expenses, such as food and housing. Employment assistance is provided to help people who can work prepare for, find and keep a job.

Ontario Hospital Association (OHA)—The OHA advocates on behalf of its members, including about 150 hospitals. Among other things, it strives to deliver high-quality products and services, to advance and influence health-system policy in Ontario, and to promote innovation and performance improvement of hospitals.

Ontario Stroke Network (OSN)—The OSN, created in 2008, receives funding from the Ministry of Health and Long-Term Care to provide leadership and co-ordination for Ontario’s 11 Regional Stroke Networks, whose membership includes stroke prevention clinics and Ontario stroke centres. All have a goal of decreasing the incidence of stroke and ensuring that Ontarians have access to quality care.

Ontario Works—Also known as social assistance, Ontario Works provides financial and employment assistance for people who are in temporary need. Financial assistance is provided to help pay for living expenses, such as food and housing. Employment assistance is provided to help people prepare for and find a job.

physiatrist—A medical doctor specializing in physical medicine and rehabilitation.

regular rehabilitation—Inpatient rehabilitation that is shorter term, with frequent rehabilitation sessions. It is also known as high tolerance short duration rehabilitation.

rehabilitation—While definitions of rehabilitation vary, the Rehabilitative Care Alliance is working on establishing a provincial definition. According to the GTA Rehab Network, “Rehabilitation helps individuals to improve their function, mobility, independence and quality of life. It helps individuals live fully regardless of impairment. It helps people who are aging or living with various health conditions to maintain the functioning they have.”

Rehabilitative Care Alliance (Alliance)—Taking a system-wide view of rehabilitation in Ontario, the Alliance reports to the LHINs and works with the Ministry of Health and Long-Term Care, the CCACs and experts on various projects, such as improving system accessibility and defining best practices. Established in October 2012, the Alliance replaced the Rehabilitation and Complex Continuing Care Expert Panel, a sub-committee of the Ministry’s Emergency Room/Alternate Level of Care Expert Panel.

Rehabilitation and Complex Continuing Care Expert Panel—This Expert Panel comprised rehabilitation experts and stakeholders from across Ontario. Formed to re-think the delivery of rehabilitation and complex care across the continuum, it provided advice and guidance to the Ministry’s Emergency Room/Alternate Level of Care Expert Panel on how best to reduce ALC lengths of stay throughout the system. The Rehabilitative Care Alliance replaced this Expert Panel.

Resident Assessment Instrument—Minimum Data Set (RAI-MDS)—A standardized common assessment instrument used to assess and monitor the care needs of restorative rehabilitation patients in areas such as cognition, communication, behaviour and toileting.

Resource Matching and Referral System—A system developed to help match hospital patients to the earliest available bed in the most appropriate setting, including both regular and restorative rehabilitation beds, as well as beds in long-term-care homes.

restorative rehabilitation—Inpatient rehabilitation that is longer term in nature for people unable to participate in frequent sessions. It is also known as slow-paced rehabilitation or low tolerance long duration rehabilitation.

Stroke Reference Group—Established by the Ontario Stroke Network, the Stroke Reference Group consists of rehabilitation experts and stakeholders from across the province.