Outpatient Rehabilitation in the GTA: Understanding the Current State

Final Report

June 2011
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EXECUTIVE SUMMARY

BACKGROUND

Fiscal restraint is an increasingly necessary objective in public healthcare, resulting in frequent debates over what should and should not be included in the ‘basket’ of publicly-funded health care services. Under the Canada Health Act, most community and outpatient hospital-based rehabilitation services are not insured, contributing to the 2005 partial delisting of physiotherapy services and the ongoing competition for internal funds.

Efforts to demonstrate the value of outpatient rehabilitation have been challenged by the limited availability and consistency of information as data collection is not standardized. Available evidence indicates, however, that the demand for rehabilitation appears to exceed the supply in the public sector and that access may be limited by eligibility criteria. In particular, those with chronic conditions have been noted to have difficulties accessing outpatient rehabilitation; this finding is of concern as 78.1% of Ontarians have one or more chronic conditions and the demand for chronic conditions such as diabetes, arthritis, and frailty is expected to increase among seniors.

The Outpatient Rehabilitation Task Group was convened during a time of fiscal restraint and perceived vulnerabilities. To our knowledge, there has not been a comprehensive review of publicly-funded, hospital-based, outpatient rehabilitation programs across professions and populations in the GTA. The GTA Rehab Network led an analysis of the

4 There is currently no standardized tool for data collection in outpatient rehabilitation which includes clinical and administrative indicators. Although the National Ambulatory Care Reporting System (NACRS) includes indicators related to ambulatory care, clinical and administrative data on outpatient rehabilitation is not mandated in Ontario and as a result is not consistently collected.
K. Fong, CHIM, Client Service Representative, National Ambulatory Care Reporting System, Personal Communication, June 10, 2011.
utilization of and access to such programs. The results form a baseline picture of the current and shifting state of outpatient rehabilitation services in the GTA.

INITIATIVE OVERVIEW

The GTA Rehab Network led a three phase initiative to better understand the access to and utilization of current outpatient rehabilitation programs in the GTA and to understand recent changes within the sector.

Phase 1 - Outpatient Rehabilitation Survey: Fifty-seven surveys were returned from interprofessional programs, single services and specialty clinics at acute teaching, acute community and rehabilitation hospitals in the GTA Rehab Network membership with the addition of one non-member. All programs met the inclusion/exclusion criteria outlined in Table 1. The survey questions quantified program characteristics, usage, and potential access issues, among others (Appendix A), based on data from the 2008/2009 fiscal year.

An understanding of the parameters of the analysis is important in reviewing the survey results. The analysis focused on the two most common population groups in rehabilitation: musculoskeletal (MSK) and stroke/neurorehab.9 Given the nature of the survey10 and given that a program could serve both populations, each survey was classified as having access to: (a) MSK rehabilitation; (b) Neuro-Stroke rehabilitation; or (c) both.11 It is also important to note that the survey responses do not represent a comprehensive inventory of available services; in particular, responses from Central West LHIN were notably under-represented.12

Phase 2 - Key Informant Interviews: Even as surveys were being completed, outpatient rehabilitation programs were observed to undergo changes; as such, key informant interviews were completed to better understand the shifting nature of these services. Twenty-one semi-structured interviews were conducted with 27 representatives from outpatient rehabilitation programs which had experienced a recent change (e.g. increase, decrease, closure). Key informants were asked about the types of changes to their programs, as well as the factors leading to and arising from them (Appendix B). Representatives from the rehabilitation department of an Ontario university were also interviewed to capture their perspectives on such changes.

Phase 3 – Information Dissemination: The results of this initiative have been of interest to providers and administrators locally and provincially, as well as from other regions.13 Knowledge sharing has occurred through informal and formal venues, including two workshops at provincial conferences in 2010.

9 The stroke and neurorehab groups were combined throughout the analysis with the understanding that stroke patients may be able to access general neurorehab programs. Furthermore, the combined data set allowed for greater inclusion of the stroke population as some programs could not easily differentiate between the stroke and general neurorehab populations due to constraints in data availability.
10 In some cases, multiple programs were reported through a single survey. This method was used to reasonably balance the demands on respondents with the accuracy of responses, otherwise some respondents would have had to complete up to twelve surveys.
11 Classification was based on meeting a minimum patient volume of 35%. Surveys which met the threshold for both MSK and Neuro Stroke analyses were analyzed with both populations.
12 See pp. 18-21 for a detailed discussion of methods, key decisions and potential limitations.
13 British Columbia and Alberta.
Table 1: Outpatient Rehabilitation Survey - Inclusion and Exclusion Criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
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<tr>
<td>Outpatient rehabilitation programs which are:</td>
<td>Speciality clinics that are primarily medical in nature; and</td>
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<tr>
<td>Publicly-funded (nominal fees acceptable);</td>
<td>Programs which offer a solely self-management or education-based program.</td>
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<tr>
<td>Hospital-based;</td>
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<td>Rehabilitation-focused (rehabilitation is more than consultative);</td>
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<tr>
<td>Located within the GTA; and which</td>
<td></td>
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<tr>
<td>Provide both assessment and treatment, where treatment consists of more than solely self-management or education.</td>
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KEY FINDINGS FROM THE OUTPATIENT REHABILITATION SURVEY

BREAKDOWN OF SURVEY RESPONSES

The survey responses encompassed more than 15 populations and nearly 100 programs. MSK\(^1\) was the largest population/diagnostic group followed by the Neuro-Stroke\(^2\) group, based on reported volumes of admitted patients. This breakdown was consistent with findings that the three most frequently reported inpatient rehabilitation client groups (RCGs) were orthopaedics, stroke and medically complex populations.\(^3\) Of note, hand-related diagnoses comprised the largest single volume of patients admitted for MSK rehabilitation during the 2008/2009 fiscal year (34.9%). The MSK ‘other’, total joint replacement (TJR) and Neuro-Stroke groups formed the next largest groups (19.3%, 12.4%, and 9.5% of admissions, respectively). The remaining populations comprised less than a quarter of the overall volume of patients admitted. This analysis focused on the MSK and Neuro-Stroke populations.

Overview of MSK and Neuro-Stroke Survey Responses

The surveys returned indicated that MSK rehabilitation services were generally available across a wide range of organizations: 67% were located at acute community hospitals and 60% were single services. Conversely, Neuro-Stroke programs were clustered among survey respondents in the Toronto area and primarily delivered through specialized, interprofessional programs at rehabilitation hospitals:\(^4\) 68% of services were located at rehabilitation

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\(^1\) The MSK category included total joint replacements (TJR), hip fractures, hand therapy, and ‘other’ MSK (any MSK related diagnosis other than TJR, hands, or hip fracture).

\(^2\) The stroke and neurorehab groups were combined throughout the analysis with the understanding that stroke patients may be able to access general neurorehab programs. Furthermore, the combined data set allowed for greater inclusion of the stroke population as some programs could not easily differentiate between the stroke and general neurorehab populations due to constraints in data availability.

\(^3\) Canadian Institute for Health Information. (2010). *Demographic Characteristics of Inpatient Rehabilitation Clients*. Ottawa, ON: CIHI.

\(^4\) Specialty clinics were identified based on known information (e.g. program name, description) and the following definition developed by the GTA Rehab Network: *An outpatient rehabilitation service where assessment and/or treatment are offered over a time limited encounter with a goal specific to the limited scope of services offered. Assessment and treatment within specialty clinics may include such services as: (1) Assessment, prescription, and/or fitting/training for a specific equipment assistive device, or orthotic/prosthetic (e.g. seating and positioning, communication device); (2) Assessment and/or intervention for a specific, localized body part/area (e.g. facial retraining, hand therapy); (3) Assessment and/or intervention for a specific functional impairment (e.g. memory, spasticity). Note that for the purpose of this analysis, only those clinics that provided both assessment and intervention were included.*
hospitals and 75% were interprofessional programs. This breakdown aligns with evidence that specialized settings and skills are required for Neuro-Stroke rehabilitation.\(^{18}\)

All MSK specialty clinics were hand therapy programs, primarily at acute community hospitals. In contrast, all Neuro-Stroke specialty clinics were concentrated among rehabilitation hospitals in the Toronto area and provided a greater variety of services (e.g. seating, augmentative communications, spasticity, memory). Although the survey did not analyze the need for services relative to availability, the broader range of specialized services may be reflective of a greater need for specialized cognitive, communication and physical rehabilitation post stroke.

**Availability of Professionals**

Occupational therapists (OT) and physiotherapists (PT) were generally the most commonly available rehabilitation professionals. Single services and interprofessional programs with access to Neuro-Stroke rehabilitation tended to have a more diverse interprofessional team while those with access to MSK rehabilitation were heavily physiotherapy-based services. On average, MSK single services had 4.6 times more physiotherapists than occupational therapists while Neuro-Stroke single services had narrower gaps in staffing ratios with only 1.3 times more occupational therapists than physiotherapists. Among MSK interprofessional programs, there were 2.3 times as many physiotherapists as occupational therapists while Neuro-Stroke programs had 1.3 times as many.

Conversely, MSK specialty clinics (hand clinics) were primarily occupational therapy-based services: hand clinics had 2.5 times more occupational therapists as physiotherapists. Neuro-Stroke specialty clinics still had a more interprofessional team with emphasis on speech language pathology (SLP); although there were similar proportions of occupational therapists and physiotherapists, there was an average of 1.5 times as many speech language pathologists. This analysis did not assess the appropriateness of staffing mix to meet current demands; however, this shift in balance is in keeping with the cognitive, speech and communication issues associated with a stroke.

Gaps in staffing mix were also identified for both populations. None of the services had budgeted FTEs for a geriatrician. Some had a small budgeted FTE for psychologists, but none of the single services or interprofessional programs had budgeted FTEs for a psychiatrist. Given the importance of identifying and appropriately managing depression post stroke\(^ {19}\) and the increased risk of hip fractures with age,\(^ {20}\) it would be of value in future investigations to determine the extent to which the psychosocial and senior-focused needs of the MSK and Neuro-Stroke populations are being met in the absence of these professionals.

**Age Groups Served**

Based on survey responses, programs with access to MSK rehabilitation served the adult and pediatric populations

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more frequently than the Neuro-Stroke programs.\textsuperscript{21,22} Only 10.5% of programs with access to Neuro-Stroke rehabilitation served adult and pediatric populations.\textsuperscript{23}

**Referrals and Admissions**

Both MSK and Neuro-Stroke programs admitted nearly 90% of referrals during the 2008/2009 fiscal year. The volume of referrals and admissions was much higher among MSK programs (nearly 7.5 times more referrals and admissions); the majority of these were reported by respondents from acute community hospitals in the Central LHIN. Survey respondents from the Toronto Central LHIN had the lowest number of referrals and admitted the fewest patients among MSK programs; however, they had the majority of referrals (71.6%) and admissions (67.5%) among Neuro-Stroke programs. The large proportion of referrals and admissions in the Toronto Central LHIN was not surprising given the high concentration of rehabilitation hospitals in this area.

**CHARACTERISTICS OF SERVICE DELIVERY**

**Service Delivery Model**

Survey respondents with access to MSK rehabilitation tended to use group based service delivery models more often than those with access to Neuro-Stroke rehabilitation.

**Average Length of Stay and Visits per Week**

Overall, survey responses from Neuro-Stroke programs had a 2.9 times longer average length of stay (ALOS) and fewer visits than those from MSK programs. Among specialty clinics, Neuro-Stroke also had the longest ALOS (352 days) and the lowest frequency of visits (0.8 visits/week). This finding suggests that Neuro-Stroke specialty services may require a longer lag time between appointments (e.g. to trial equipment) and a much longer period of follow-up. When comparing only single services and interprofessional programs, there was a smaller difference between MSK and Neuro-Stroke programs; however, Neuro-Stroke programs still had a 1.3 times longer ALOS.

**Discharge Criteria**

There were differences in the consistency of use of discharge criteria among MSK and Neuro-Stroke programs. All MSK programs used attainment of discharge goals and clinical discretion as discharge criteria, while 71.4% also used outcome measures. Neuro-Stroke programs, on the other hand, used a combination of attainment of discharge goals (73.7%), clinical discretion (63.2%) and attainment of the allotted length of stay (42.1%).

Further analysis identified that it was the Neuro-Stroke single services and interprofessional programs which used allotted length of stay as a discharge criterion (66.7%), as compared to Neuro-Stroke specialty clinics (0%) and MSK

\textsuperscript{21} Among hospital-based single services, interprofessional programs and specialty clinics at acute teaching hospitals, acute community hospitals and rehabilitation hospitals in the GTA Rehab Network membership and one non-member which met the inclusion/exclusion criteria and responded to the survey. Single services or programs offered at multiple sites were counted separately where possible.

\textsuperscript{22} Hospitals which were not included in the analysis either (1) did not provide outpatient rehabilitation; (2) did not have an outpatient rehabilitation program which met the inclusion/exclusion criteria; (3) did not confirm outpatient rehabilitation program names; or (4) did not submit a survey in time for the analysis. Note that a single survey response may include more than one program. See pp. 18-21 for details.

\textsuperscript{23} Note that the one program offering solely pediatric services was at a community hospital.
single services and interprofessional programs (40%). This may be a reflection of the greater need for long-term rehabilitation post stroke, which may not be realistically completed by the end of an outpatient program.

In addition, relatively few Neuro-Stroke programs used outcome measures as a discharge criterion as compared to the majority of MSK programs, particularly in hand clinics. The results suggest there may be opportunities to develop common discharge processes to maximize available resources and patient flow.

Follow-Up and Re-Entry Processes
Survey respondents were asked if follow-up was provided post discharge and which methods were used. The responses indicated that while most provided follow-up, the patient was often relied upon to initiate contact. Similarly, most respondents indicated that their program had a mechanism for re-entry (75.0% of MSK and 63.2% of Neuro-Stroke programs); however, the majority required another referral from the physician or surgeon for patients to be placed on the waiting list again. These results suggest that once patients are discharged from an outpatient rehabilitation program, that it may take patient initiation and time to go through the referral and waiting process again before services can be re-accessed.

ACCESSIBILITY OF MSK AND NEURO-STROKE REHABILITATION

A major objective of the survey was to understand the access issues faced by patients requiring MSK and Neuro-Stroke outpatient rehabilitation programs in the GTA. To this end, the survey was analyzed for processes related to external referrals, wait times, declined referrals, prioritization and common barriers to access.

External Referral Admissions
The analysis indicated that external referrals would likely face access issues for outpatient rehabilitation. The majority of survey respondents reported that external referrals were accepted (81.0% of MSK programs; 89.5% of Neuro-Stroke programs); nevertheless, most of them also prioritized internal referrals over external ones. Among the two groups analyzed, Neuro-Stroke programs were more likely to admit external referrals, suggesting that external referrals to MSK programs may ultimately have more difficulty accessing services.

Wait Times
Several aspects of wait times were addressed in the analysis. First, external referrals waited longer than internal ones: MSK external referrals waited 1.4 times as long as internal ones while Neuro-Stroke external referrals waited 1.3 times as long. This difference was expected given the finding that external referrals were accepted but often prioritized lower than internal referrals. These results support the analysis that external referrals likely face greater barriers to accessing timely services.

Secondly, on average, Neuro-Stroke referrals waited longer for admission than MSK referrals. External referrals to Neuro-Stroke programs waited 2.4 times as long as those to MSK programs; similarly, internal referrals to Neuro-Stroke programs waited 2.7 times as long as those to MSK programs. The results suggest that on average, patients referred for Neuro-Stroke services would likely face longer wait times to access services, consistent with earlier findings that Neuro-Stroke programs tended to have a longer ALOS.
Thirdly, among MSK programs, the wait time was longer for single services and interprofessional programs, while among Neuro-Stroke programs, the wait time was longer for specialty clinics. MSK external referrals waited 2.3 times longer for single services and interprofessional programs as compared to specialty clinics and internal referrals waited 3.1 times longer. In contrast, Neuro-Stroke external referrals for specialty clinics waited 3.0 times longer as compared to single services and interprofessional programs24 and internal referrals waited 2.0 times longer.

In addition, the average referral to Neuro-Stroke clinics waited significantly longer than those to MSK clinic (external Neuro-Stroke referrals: 7.4 times longer; internal Neuro-Stroke referrals: 9.9 times longer). In contrast, there was a much smaller discrepancy between the overall average wait time for referrals to Neuro-Stroke single services and interprofessional programs as compared to MSK ones (external Neuro-Stroke referrals: 1.1; internal Neuro-Stroke referrals: 1.6 times longer).

Furthermore, both MSK and Neuro-Stroke referrals generally waited longer at rehabilitation hospitals than at acute community hospitals. This difference was most prominent among Neuro-Stroke programs at rehabilitation hospitals. Neuro-Stroke external referrals to rehabilitation hospitals waited 5.1 times longer than at community hospitals, while internal referrals to rehabilitation hospitals waited 7.0 times longer. Even when only considering Neuro-Stroke single services and interprofessional programs, referrals still waited an average of 3.5 to 6 times longer at rehabilitation hospitals than at acute community hospitals. As such, it may be more difficult for patients to access timely Neuro-Stroke services at rehabilitation hospitals than at acute community hospitals. Note, however, that this analysis was based on survey responses without adjustment for variables such as patient characteristics.

**Reasons for Declining Referrals**

The survey responses suggest that in 2008/2009, referrals for MSK rehabilitation were frequently declined because it had been too long since the onset of the injury or illness, the requested service was not offered, the patient was externally referred, the patient lived outside of the program catchment area, the patient did not have access to transportation, or the program had a staffing or space shortage. On the other hand, those who were frequently declined for Neuro-Stroke rehabilitation were declined because it had been too long since the onset of the injury or illness, the requested service was not offered, the patient had a psychiatric condition, the patient was medically complex, and/or had access to third party funding, but not to transportation.

For both populations, the time since onset of injury or illness was the most frequent reason for declining a referral across all hospital settings except at acute teaching hospitals. This finding signals a potential gap between patient needs and ongoing access to publicly-funded outpatient rehabilitation for patients with chronic conditions. This is a particular concern as many chronic conditions are MSK-related and the overall prevalence is expected to increase. Similar findings have previously been reported elsewhere.25,26

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24 Note that the internal wait time was slightly higher than the external one due to programs which had a relatively long internal wait time, but which did not accept any external referrals.


MSK and Neuro-Stroke programs identified that referrals were commonly declined because the program did not offer the ‘requested service’. The types of services being requested were not captured in the survey; however, it is possible that this high frequency was impacted by recent reductions to outpatient rehabilitation services, including the narrowing of admission criteria. It is unknown whether those who were declined were subsequently able to access equivalent services and obtain comparable outcomes elsewhere.

This survey also found that external referrals were not only a lower priority for access, but they were also a frequent reason for declining referrals, particularly for MSK programs in acute community hospitals. Interestingly, a referral from an external physician was not identified as a reason for declining referrals among Neuro-Stroke programs in acute community hospitals, but was identified by those in rehabilitation hospitals. Furthermore, the survey analysis found that MSK programs were typically defined by program-based reasons (e.g. referred from the community by an external physician, resides outside of catchment area, staffing/space shortage) whereas Neuro-Stroke programs relied more on patient-based reasons (e.g. medical condition, psychiatric issues). These results suggest that patients’ clinical needs are not the only consideration in determining access and that administrative factors play a role in determining which patients receive outpatient rehabilitation.

Wait List Prioritization
In prioritizing referrals, both MSK and Neuro-Stroke programs placed high priority on referral date, medical condition/complexity and referrals from inpatient rehabilitation (both internal and external). Both population groups also identified time since date of injury/onset as a priority; however, this was a more often noted as a priority among MSK programs. Both types of programs ranked community referrals (both internal and external) as lower than inpatient discharges (both internal and external). It is important to recognize, however, that some of the listed priorities may not necessarily be mutually exclusive.

The reported wait list priorities among survey respondents with MSK programs suggest that patients with more acute injuries referred from internal inpatient programs will likely be among the highest priorities. These priorities support earlier findings that those with longer term, chronic issues are likely to face access issues, particularly if they are referred from external sources, and that administrative factors contribute to outpatient rehabilitation accessibility.

Barriers to Access: Transportation, Hours of Operation and Language
Survey respondents were asked to identify the extent to which accepted patients faced challenges in accessing outpatient rehabilitation due to issues with transportation, hours of operation, or language barriers.

Language was not a commonly reported barrier; however, most MSK and Neuro-Stroke programs identified that some of their accepted patients faced challenges with transportation (76.2% of MSK programs and 84.2% of Neuro-Stroke programs). Nevertheless, the reported volume of patients impacted by transportation barriers was relatively small: most reported that this impacted only 1 to 10% of their accepted patients.

The survey responses also indicated that hours of operation was a barrier for some accepted patients. Hours of operation was more frequently reported as a barrier among MSK programs (52% of MSK programs, 26% of Neuro-Stroke programs). The actual hours of operation across the two population groups were similar; however, MSK

Note that some reasons fit in both categories and were not necessarily mutually exclusive.
programs tended to have slightly more flexibility. Of note, only 17% of MSK programs and 14% of Neuro-Stroke programs offered evening services; none were open on the weekend.

_Catchment Area_

MSK programs in acute teaching hospitals, acute community hospitals and rehabilitation hospitals primarily served patients from within their own LHIN. Programs with access to Neuro-Stroke rehabilitation, however, had larger differences between hospital settings: approximately 30% of admitted patients at rehabilitation hospitals resided outside the LHIN. This difference may have resulted from the high concentration of Neuro-Stroke services in rehabilitation hospitals, particularly within the Toronto area. This geographic concentration of services may have contributed to a larger influx of patients from other LHINs requiring the highly specialized services at rehabilitation hospitals.

Similarly, MSK specialty clinics tended to admit patients from within the organization’s LHIN while the opposite was found with Neuro-Stroke specialty clinics. This finding likely reflects the clustering of Neuro-Stroke specialty clinics within rehabilitation hospitals in the Toronto area, while MSK programs reported in this survey tended to be spread out geographically.

**FINDINGS FROM KEY INFORMANT INTERVIEWS**

Key informant interviews were held with 27 representatives of outpatient rehabilitation programs which had recently experienced changes. These interviews confirmed that there has been an erosion of outpatient rehabilitation services in the GTA. The total number of changes to outpatient rehabilitation services was found to have tripled between 2007 and 2010; the number of changes has been increasing each year with the largest impact on physiotherapy single services. The types of changes varied from complete closures to narrowing of admission criteria to reductions in services offered.

Key informants identified multiple factors contributing to the erosion of services:

*Financial Constraints*. During times of fiscal restraint, key informants reported that hospitals faced a challenge in balancing their budgets. Given limited resources, hospital administrators had to make difficult choices regarding which services to maintain and which to eliminate or reduce.

*Alignment with Government Priorities*: Key informants reported that when plans were made for the retention or reduction of services, organizations considered how their decisions would align with the priorities set out by the Ministry of Health and Long Term Care (MOHLTC) and/or the Local Health Integration Network (LHIN).

*Defining Value: Identifying and Aligning with the ‘Core Business’*: Key informants reported that organizations sought to define their ‘core business’ by determining which services: (a) ‘should be’ provided within their setting; (b) which services the organization ‘did best’; and/or (c) which services supported the work of physicians or core internal programs. Programs meeting one or more of these priorities were perceived to offer more value to the organization.

*Available Alternatives*: Key informants also reported that the decision to reduce or close outpatient rehabilitation programs was influenced by the availability of other community resources. This review was typically undertaken to
determine if the available services were sufficient to meet the needs of their patients.28 However, the extent to which such reviews considered the accessibility, capacity, skill-set, or costs of such services was less clear. Programs which were unique, highly specialized, or otherwise unavailable were perceived to be less vulnerable to reductions and/or closures and more likely to be retained.

Presence of a Champion: Key informants reported that having an organizational champion, particularly a physician, impacted decisions regarding outpatient rehabilitation programs. Programs with strong physician backing were perceived to be less vulnerable to reductions and more likely to be retained.

The ‘Ripple Effect’: The decision to reduce or close an outpatient program was perceived to be supported by past reductions and closures. Key informants reported that once a precedent had been set by other organizations, there appeared to be a ‘ripple effect’ of changes as others followed suit.

Interviews were also held with two organizations that chose to invest in outpatient rehabilitation services:

St. John’s Rehab Hospital improved wait times for outpatient rehabilitation by increasing access to evening therapy for all outpatient rehabilitation programs. These investments were supported by funding from the Central LHIN.

Providence Healthcare improved patient flow and discharges home by investing in their outpatient rehabilitation programs and purchasing enhanced community services for their discharged patients. A Community Health Navigator role was also created to guide patients through the medical and social support systems, starting before discharge and for 12 months afterwards. These investments were supported by a transfer of funds from inpatient rehabilitation programs and one-time cost-savings.

DISCUSSION AND SUMMARY

Given the finite resources of the publicly-funded healthcare system and the relatively low costs of outpatient services,29 it is essential that outpatient rehabilitation be considered as a critical component in health system planning and evaluation. Increased availability of outpatient rehabilitation has already been recommended as an essential component to “improve patient outcomes with greater efficiency of care” within the stroke population.30 The results of this initiative, however, suggest that rather than being enhanced, outpatient rehabilitation services have been increasingly eroded as organizations attempt to mitigate financial challenges.

Furthermore, the outpatient rehabilitation programs that were maintained were not necessarily accessible to all. This analysis identified several examples of limitations in access and differing levels of service delivery. Such differences (e.g. admission criteria, referral source, time since injury/illness onset) created barriers in accessibility for certain sub-

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28 These reviews appeared to vary in breadth and depth based on interviewee reports; note that the quality of these reviews was not analyzed as part of this initiative.
groups, particularly those with non-acute conditions being referred from external sources. The survey results suggest that patients' clinical needs are not the only consideration in determining access and that administrative factors play a role in determining which patients receive outpatient rehabilitation. Although the landscape of outpatient rehabilitation in the GTA appears expansive, it is clear that services and accessibility differ among MSK and Neuro-Stroke outpatient rehabilitation programs in the GTA.

In particular, the barriers noted for patients with chronic needs are of concern as chronic conditions impact 78.1% of Ontarians[^31] and this is expected to increase. Chronic conditions have been associated with 72% of nights spent in hospital[^32] and reported health status[^33] among other measures. As such, there may be an opportunity for system planners to leverage cost effective outpatient rehabilitation services, for example, as part of a coordinated chronic disease management strategy with primary care.

The findings of this initiative also provide context to understand not only the current state of outpatient rehabilitation, but also highlight areas for future development of processes and tools relative to ongoing system access and flow initiatives. For example, in the total joint replacement (TJR) population, evidence indicates that the majority of patients can achieve comparable outcomes in community-based versus inpatient rehabilitation post primary, unilateral hip/knee replacement, provided that adequate therapy resources are available in a timely manner;[^34] as such, a provincial target has recently been set for a 90% (+/- 10%) discharge rate to home from acute care hospitals.[^35] The implementation of this target is expected to increase the demand on outpatient MSK rehabilitation programs. In order to maintain patient flow and access to outpatient rehabilitation services, it will be necessary to ensure that MSK outpatient rehabilitation programs can support this increase in volume and that access to outpatient rehabilitation will be timely. However, indicators such as time to access outpatient rehabilitation post acute care discharge are not readily available due to a lack of standardized data collection across programs.

Similarly, available evidence in stroke rehabilitation suggests that patients with a mild stroke could be redirected to outpatient rehabilitation while inpatient rehabilitation resources would be better utilized by more patients following a severe stroke.[^36] In contrast to this recommendation, available data indicate that there has been an increasing trend for inpatient rehabilitation programs to admit more patients with a mild stroke and fewer patients with a severe


[^35]: Letter to Local Health Integration Network CEOs from A. Bezzina & S. Fitzpatrick (Ministry of Health and Long-Term Care), Re: Orthopaedic Quality Scorecard, June 3, 2011.

stroke.\textsuperscript{37} It has been illustrated that outpatient stroke rehabilitation can contribute to improvements in patient outcomes\textsuperscript{38} and has the potential to be a cost-effective method of delivering rehabilitation for post stroke, particularly for those with a mild stroke who do not need to be admitted to an inpatient rehabilitation program.\textsuperscript{39}

Unlike other sectors of the healthcare system, outpatient rehabilitation has little to no mandated data reporting or use of consistent outcome measures. Development of a standardized framework is needed given the limitations in current data tracking, the forecasted increases in demand\textsuperscript{40} and current initiatives with potential impact on outpatient rehabilitation. The administrative and clinical data collected through the framework will help inform performance evaluation and improvement from a continuum perspective. Opportunities will be explored for collaborative investigations into the development of standardized performance management measures which build on existing tools, particularly for the MSK and stroke populations.


1.0 BACKGROUND

Fiscal restraint is an increasingly necessary objective in the public health care sector, resulting in a constant debate over what should and should not be included in the ‘basket’ of publicly-funded health care services. Under the Canada Health Act, most community and hospital-based rehabilitation services are not insured. The reduction or elimination of 15% of GTA hospital-based, outpatient physiotherapy services between 1995 and 2003 and the partial delisting of physiotherapy services in 2005 raised questions over the impact of policy and operational changes on rehabilitation services. Hospital-based outpatient programs have expressed their concerns over the challenges of competing for funds with other programs in the organization. At the time the Outpatient Rehabilitation Task Group was convened, the outpatient rehabilitation sector was perceived as being particularly vulnerable and in a position where it needed to articulate its value within the larger healthcare system.

Efforts to demonstrate the value of outpatient rehabilitation have been challenged, however, by the limited availability and accuracy of information due to a lack of shared measurement tools and tracking across programs. The importance of access to accurate information on rehabilitation in decision making is obvious and confirmed through key informant interviews with health care leaders, planners and executives. Nevertheless, there are limited sources of information on outpatient rehabilitation as a sector. The Canadian Institute for Health Information (CIHI), which coordinates the collection and analysis of common health information across the country, does not collect clinical and administrative data on outpatient rehabilitation in the GTA through the National Ambulatory Care Reporting System (NACRS); only select ambulatory clinics and emergency services are mandated to do so in Ontario. There are no other known standardized sources of data on outpatient rehabilitation. As a result, it is probable that decision

44 Before 2005, all Ontarians were eligible for 150 physiotherapy visits per year. As of the delisting in 2005, the Ontario Health Insurance Plan (OHIP) pays $12.20 for up to 100 visits for those over 65 and 19 and under and for up to 50 visits for those who are discharged from hospital. Designated physiotherapy clinics accept: (1) Seniors 65 and over; (2) Individuals aged 19 and under; (3) Residents of long-term care homes at any age; (4) Individuals needing physiotherapy services in their home or after being hospitalized at any age; (5) Ontario Disability Support Program, Family Benefits and Ontario Works recipients of any age; (6) Aged 20-64 if they require physiotherapy after an overnight hospitalization, if they require services in their own or if they reside in a long-term care home.
48 K. Fong, CHIM, Client Service Representative, National Ambulatory Care Reporting System, Personal Communication, June 10, 2011.
making and advocacy efforts in outpatient rehabilitation are primarily reliant on individual program data without comparators or benchmarks.

Evidence on the outpatient rehabilitation sector, particularly in hospital-based settings, is limited and primarily focuses on physiotherapy services. Nevertheless, available evidence indicates that the demand for rehabilitation appears to exceed the supply in the public sector\(^{49}\) and that access may be limited by eligibility criteria.\(^{50}\) In particular, those with chronic conditions wait the longest for hospital outpatient physiotherapy services,\(^{51}\) likely as a result of being consistently identified as a lower priority.\(^{52}\) This finding is of particular concern as 69.4% of Ontarians have one or more chronic conditions\(^{53}\) and the demand for chronic conditions among seniors is expected to increase.\(^{54}\)

The feeling of vulnerability felt by outpatient rehabilitation providers and others is supported by Landry, Verrier, Williams, Zakus and Deber (2009), who reported that “all hospital-based physical therapy services located within the Greater Toronto Area were vulnerable to strategic restructuring between 1996 and 2003.”\(^{55}\) To our best knowledge, however, there has not been a comprehensive review of publicly-funded, hospital-based, outpatient rehabilitation programs across professions and populations in the GTA. To this end, the GTA Rehab Network led a comprehensive analysis of the utilization of and access to hospital-based, publicly-funded outpatient rehabilitation programs in the GTA. The results are anticipated to form a baseline picture of the ‘current state’ as well as the changing trends in this sector.


2.0  APPROACH

2.1  PHASE 1: OUTPATIENT REHABILITATION SURVEY

METHODS

The first phase of this initiative focused on developing a clearer picture of the ‘current’ state of hospital-based, publicly-funded outpatient rehabilitation programs. A survey methodology was used to address this objective. Questions were developed and refined by the Outpatient Rehabilitation Task Group and the GTA Rehab Network project staff to maximize the relevance of questions and feasibility of the tool. Pilot testing was completed with external users and a sub-set of Task Group members to improve the clarity and ease of use of the tool. The Project Coordinator/Planner worked with each manager/key contact to identify whether their program(s) met the outlined inclusion/exclusion criteria (Table 2); those who did were invited to complete the survey. Surveys were distributed with an offer for a prize draw to encourage timely responses. The survey was offered in three formats to maximize convenience for respondents: (1) Online (through an electronic survey tool); (2) Paper-based (faxed or mailed in); or (3) By telephone. Respondents were informed that organization-specific survey results would be kept confidential and that only aggregate-level analyses would be shared.

Descriptive statistics were used to summarize the survey results. Where appropriate, survey responses were analyzed to compare the breakdown of and access to services by:

- Hospital type (i.e. acute teaching, acute community and rehabilitation hospitals);
- Service settings (i.e. interprofessional programs, single services and specialty clinics\(^{56}\)); and
- Local Health Integration Network (LHIN).\(^{57}\)

This report represents the final analysis of all survey responses returned by publicly-funded, rehab-focused, hospital-based outpatient rehabilitation interprofessional programs, single services and specialty clinics located at acute teaching hospitals, acute community hospitals and rehabilitation hospitals in the GTA Rehab Network membership plus one non-member. The data entry and analyses were double-checked for accuracy. Validation of preliminary and final survey results was obtained through discussions with key stakeholders and Task Group members.

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\(^{56}\) Specialty clinics were identified based on known information (e.g. program name, description) and the following definition developed by the GTA Rehab Network: An outpatient rehabilitation service where assessment and/or treatment are offered over a time-limited encounter with a goal specific to the limited scope of services offered. Assessment and treatment within specialty clinics may include such services as: (1) Assessment, prescription, and/or fitting/training for a specific equipment, assistive device, or orthotic/prosthetic (e.g. seating and positioning, communication device); (2) Assessment and/or intervention for a specific, localized body part/area (e.g. facial retraining, hand therapy); (3) Assessment and/or intervention for a specific functional impairment (e.g. memory, spasticity). Note that for the purpose of this analysis, only those clinics that provided both assessment and intervention were included.

\(^{57}\) The five LHINs that make up the Greater Toronto Area include: Toronto Central LHIN, Central LHIN, Central East LHIN, Central West LHIN, and Mississauga Halton LHIN.
**SURVEY SAMPLE**

Potential survey respondents were identified through a review of all outpatient rehabilitation programs listed in the GTA Rehab Network *Rehab Finder* tool.⁵⁸ Using purposive sampling, acute teaching hospitals, acute community hospitals and rehabilitation hospitals in the GTA Rehab Network membership were contacted to identify outpatient rehabilitation services and the name of a primary contact, typically a manager. This included one non-member hospital who was known to have outpatient rehabilitation programs and whose data would help create a more complete snapshot of the outpatient rehabilitation sector in the GTA.

In total, 239 potential programs were identified from 26 organizations based on the *Rehab Finder* tool and supplemented by ongoing discussion with organizations; from these, 96 programs were determined to fall outside of the inclusion criteria. Of note, three organizations were excluded from the analysis: one did not have any outpatient rehabilitation programs, the second did not have any outpatient rehabilitation programs which met the inclusion criteria and the third did not complete any surveys by the time of this report.

Ultimately, a total of 90 surveys were sent in December 2009 to 52 managers/representatives from 23 different organizations. Collectively, these surveys represented 143 outpatient rehabilitation programs from the GTA Rehab Network membership as well as one non-member.⁵⁹ Note that single services and programs provided at multiple sites were each counted as a program for the purpose of this analysis.

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
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<tr>
<td>Outpatient rehabilitation programs which are:</td>
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<tr>
<td>Publicly-funded (nominal fees acceptable);</td>
<td>Specialty clinics that are primarily medical in nature;</td>
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<tr>
<td>Hospital-based;</td>
<td>and</td>
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<tr>
<td>Rehabilitation-focused (rehabilitation is more than consultative);</td>
<td>Programs which offer a solely self-management or</td>
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<tr>
<td>Located within the GTA; and which</td>
<td>education-based program.</td>
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<tr>
<td>Provide both assessment and treatment, where treatment consists</td>
<td></td>
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<tr>
<td>of more than solely self-management or education.</td>
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**KEY ANALYSIS DECISIONS**

It is important to view the survey results with an understanding of the key analysis decisions. Although surveys were collected on all populations, this report focuses on the utilization of and access to outpatient rehabilitation services for two of the most common population groups in rehabilitation: musculoskeletal (MSK) and stroke/neurorehab. The stroke and general neurorehab population groups were combined ('Neuro-Stroke') throughout the analysis with the understanding that stroke patients may be able to access general neurorehab programs.

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⁵⁸ [http://www.gtarehabilitationnetwork.ca/RehabilitationFinder.asp](http://www.gtarehabilitationnetwork.ca/RehabilitationFinder.asp)

⁵⁹ One non-member organization took part in the survey. This organization was known to have outpatient rehabilitation programs; as such, their data helped create a more complete snapshot of the outpatient rehabilitation sector in the GTA.
In addition, given the nature of the survey\textsuperscript{60} and given that some programs may offer services to both MSK and stroke populations, each survey response was classified as: (1) a program with access to MSK rehabilitation, (2) a program with access to Neuro-Stroke rehabilitation, or (3) a program with access to both, based on patient volumes admitted. A minimum patient volume of 35% was used to designate programs as MSK and/or Neuro-Stroke. Where a survey met the threshold for both groups, it was analyzed with both population groups; this occurred with only two surveys.

\textbf{POTENTIAL LIMITATIONS}

A potential limitation may result from the decision to designate programs as MSK and/or Neuro-Stroke using a threshold of 35% patient volume. It is possible that bias was created if programs admitted musculoskeletal (MSK) or Neuro-Stroke patients but were not counted as such due to a lower volume, or conversely if some programs were double-counted as a result of the selection of the 35% threshold.

To mitigate this risk, survey responses were cross referenced to ensure that the 35% patient volume threshold maximized inclusion and minimized double-counting of programs. Upon review, very few programs were excluded using the 35% threshold; these programs had relatively low patient volumes (ranging from 2 to 20%). Furthermore, only two programs were double-counted as a result of the 35% threshold. In comparison, a slightly lower threshold (e.g. 20%) resulted in more programs being double-counted while slightly higher thresholds (e.g. 40%) resulted in more programs being unnecessarily excluded. As such, the cross-referencing process suggested that the 35% volume was at or near the optimal threshold to maximize the inclusion of programs in the analysis.

Another potential limitation may arise from having some respondents report on multiple programs through one survey. This method was used to reasonably balance the demands on respondents with the specificity of responses; had all respondents completed one survey per program, some would have had to complete up to 12 surveys due to the number of programs in their portfolio.

Where appropriate, programs within an organization were grouped into a single survey. Consequently, there were instances where program-specific data could not be extracted. When more than one program was rolled into a single survey, the overall population volume was used to determine whether the survey response should be analyzed as a ‘program with access to MSK rehabilitation’ and/or a ‘program with access to Neuro-Stroke rehabilitation’.

Finally, although there was a reasonable overall response rate, it is possible that there is a response bias. It is unclear why the remaining programs did not participate in the survey.

\textbf{RESPONSE RATE}

There was a 63.3\% response rate with 57 of the 90 surveys returned by 18 of the 23 acute teaching hospitals, acute community hospitals and rehabilitation hospitals who had publicly-funded, rehab-focused, hospital-based

\textsuperscript{60} See discussion of potential limitations.
interprofessional programs, single services and specialty clinics.\(^{61}\) As some survey responses included more than one program, the response rate increased to 68.5% when considering that 98 of the 143 programs were encompassed within the surveys responses.

There was a lower response rate among the acute teaching and acute community hospitals (50.0% and 56.8%, respectively; Figure 1) relative to the total number of programs reflected among survey responses, suggesting that these settings may be under-represented in this analysis relative to rehabilitation hospitals. The response rate should be considered in the interpretation of results.

Of note, although Central West LHIN had the lowest response rate of the five GTA LHINs (18.2%; Figure 2), it is important to note that this finding does not necessarily reflect the actual number of outpatient rehabilitation programs available in Central West LHIN. This response rate merely indicates that fewer responses were received from this LHIN compared to the overall number of surveys expected to be returned. Furthermore, it is known that fewer programs and fewer Network members were identified in the Central West LHIN. As such, these factors should be considered carefully in the interpretation of the results.

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\(^{61}\) Hospitals which were not included in the analysis either (1) did not provide outpatient rehabilitation; (2) did not have an outpatient rehabilitation program which met the inclusion criteria; (3) did not confirm outpatient rehabilitation program names; or (4) did not submit their survey in time for inclusion in the analysis.
PHASE 2: KEY INFORMANT INTERVIEWS

Even as surveys were being completed, outpatient rehabilitation programs were observed to undergo changes, particularly at the start of 2010. As such, a series of key informant interviews was completed to better understand the shifting nature of these services.

METHODS

The second phase of the initiative focused on understanding recent changes to the GTA outpatient rehabilitation sector, defined as the period between 2007 and 2010 for the purpose of this initiative. Key informant interviews were used to explore the experiences of those familiar with recent changes to the sector. A semi-structured key informant interview tool was developed with probes. The tool underwent multiple revisions by the Outpatient Rehabilitation Task Group and the GTA Rehab Network to improve the clarity and relevance of the questions.

From May to October 2010, interviews were held to explore key informants’ perspectives on recent changes to outpatient rehabilitation programs, the rationale for the changes and any resultant impacts (Appendix B). In addition, in April 2010, a master list was developed of known reductions or closures to GTA outpatient rehabilitation programs between 2007 and 2010. This list was generated based on input from key contacts within the GTA Rehab Network membership and was validated and supplemented as needed during the key informant interview process.

The Project Coordinator/Planner contacted potential interviewees by e-mail and telephone to provide background information, explain how the information would be used, answer questions and determine interest. The key informants were provided with a copy of the interview tool in advance and informed that the organization and program name may be identifiable, but that individual names would not be used in any reporting.

Interviews were held by teleconference at a convenient time for all and ranged in length from 20 to 40 minutes. The majority of interviews (85.7%) were conducted by two interviewers; three were conducted by one interviewer due to time constraints. For all interviews, detailed notes were taken, transcribed and sent back to each interviewee to check for accuracy. The preliminary and final analyses were also confirmed through a presentation to the GTA Rehab Network Outpatient Rehabilitation Task Group.

KEY INFORMANT SELECTION

Key contacts of the GTA Rehab Network were asked to submit the names of any outpatient rehabilitation program which had experienced a change in service provision since 2007 as well as the name of an appropriate representative. Representatives were targeted at the manager/director level in order to identify staff that would most likely be in a position to discuss the factors leading up to the changes. Additional program/contact names were generated based on informal discussions with members and first-hand knowledge of changes across the GTA.

Potential key informants were purposively selected to maximize the breadth of representation from outpatient rehabilitation programs that had recently experienced a change. Individuals were selected based on similar

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inclusion/exclusion criteria as used for the survey (Table 2). In addition, representatives from the rehabilitation department of an Ontario university were invited to share their experiences with the recent system changes.

Table 3: Key Informant Interview - Inclusion and Exclusion Criteria

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<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
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| Individuals at the manager or director level of an outpatient rehabilitation program which experienced a change between 2007 and 2010, who agree to take part in a telephone-based interview regarding a program which is:  
  - Publicly-funded (nominal fees acceptable);  
  - Hospital-based;  
  - Rehabilitation-focused (where rehabilitation is more than consultative);  
  - Located within the GTA, and which  
  - Provides both assessment and treatment, where treatment consists of more than solely self-management or education. | Specialty clinics that are primarily medical in nature; and  
  Programs which offer a solely self-management or education-based program. |

Furthermore, several stakeholders from one organization that had recently closed an outpatient rehabilitation program were invited to take part in interviews. This series of interviews was designed to understand how the closure of one program directly impacted not only the program itself, but also its primary referral sources and related programs within the organization. However, due to the timing of the interviews shortly after the closure, the impact of the closure could not be determined.

**POTENTIAL LIMITATIONS**

A potential limitation may arise from the purposive selection of key informants. Although participants were chosen based on their involvement and familiarity with the decisions taken during the closure/reductions, it is possible that some aspects of the decision-making process occurred at levels beyond the manager/director. This level of decision-making was not captured through this interview process and may create a bias in the results.

**RESPONSE RATE**

Sixteen of the 21 organizations (76.2% response rate; Figure 3) accepted the invitation to take part in the interviews. Occasionally more than one person participated in an interview or more than one interview was conducted at a particular organization, as needed. Twenty-one interviews were completed with 27 staff, managers and directors.

Figure 3: Response Rate for Key Informant Interviews, by Setting (n=21 organizations)
PHASE 3: INFORMATION DISSEMINATION

Information dissemination has occurred on an ongoing basis. This initiative has been of interest to rehabilitation providers, researchers and administrators locally, provincially and from other regions.\(^{63}\) The findings have been shared in multiple venues, including workshops at two provincial conferences: the Best Practices Day Conference (March 1, 2010) and the Ontario Society of Occupational Therapists’ Conference (September 27, 2010).

Where possible, the GTA Rehab Network supported requests for targeted analyses of the outpatient rehabilitation survey and key informant interviews. The analyses ranged in size and scope and only included aggregated data.\(^{64}\) Specific analyses were completed on behalf of: Central West Local Health Integration Network (2010), the Toronto Stroke Networks (2010), St. John’s Rehab Hospital (2010) and Bridgepoint Hospital (2011).

In 2010, the GTA Rehab Network Outpatient Rehabilitation survey tool was shared with the Ontario Society of Occupational Therapists (OSOT) to help inform their work with the Ontario Physiotherapy Association (OPA) and the provincial Orthopaedic Expert Panel. This provincial survey was developed in response to concerns over the closures of outpatient services and focused on outpatient services for orthopaedic trauma or elective orthopaedic surgeries.\(^{65}\)

Future opportunities will be explored for collaborative investigations into the development of standardized performance management measures which build on existing tools with a focus on the MSK and stroke populations.

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\(^{63}\) British Columbia and Alberta.

\(^{64}\) Exception: Names of programs which recently experienced a closure or reduction to services were shared as this is public knowledge.

3.0 KEY FINDINGS FROM THE OUTPATIENT REHABILITATION SURVEY

3.1 OVERALL UTILIZATION OF OUTPATIENT REHABILITATION SERVICES

This survey provided an overview of the current state of publicly-funded, hospital-based outpatient rehabilitation in the GTA based on 2008/2009 data. The responses depicted a broad sector encompassing over 15 patient diagnoses and nearly 100 programs; however, despite the breadth of programs, many survey responses indicated that most patients admitted had musculoskeletal (MSK) or the stroke/neurorehab diagnoses. The breakdown of populations seen in GTA outpatient rehabilitation programs (Figure 4) is generally consistent with findings that the three most frequently reported inpatient rehabilitation client groups (RCGs) were orthopaedics, stroke and medically complex populations.66 This report focuses on the distribution of services for the MSK and Neuro-Stroke groups, which comprised more than three-quarters of all patients admitted in 2008/2009.

The vast majority of patients admitted had MSK related diagnoses (67.9%; Figure 4). This category included patients seen for total joint replacements (TJR), hip fractures, hand therapy and other types of MSK diagnoses. Of note, hand-related diagnoses comprised the largest single volume of patients admitted during the 2008/2009 fiscal year (34.9%; Figure 4). The large volume of hand therapy patients may be reflective of a population which likely experiences a faster flow through of patients. The MSK ‘other’67 and TJR populations formed the next largest MSK sub-groups (19.3% and 12.4% of admissions, respectively).

Figure 4: Breakdown of Patients Admitted in F08/09, by Population Group (n=59 surveys*)

*Notes: Each survey response may include more than one program. Two programs were counted as both an MSK and a Neuro-Stroke program. Numbers do not add up exactly to 100% due to rounding.

The stroke and general neurorehab populations formed the next largest group of admitted patients in the 2008/2009 fiscal year (9.5%). A typically higher degree of complexity and longer recovery time for neurological impairments as

66 Canadian Institute for Health Information. (2010). Demographic Characteristics of Inpatient Rehabilitation Clients. Ottawa, ON: CIHI.
67 In the survey, ‘MSK other’ was defined as any MSK related diagnosis which was not TJR, hands, or hip fracture.
compared to orthopaedic ones was hypothesized to contribute to a slower throughput and smaller volume of patients.\textsuperscript{68} The cardiac population was also a notably large group (7.3%); however, given the focus on the MSK and stroke populations, the cardiac population will not be specifically addressed in this report.

The remaining populations comprised less than a quarter of the overall volume of patients admitted. The smallest proportions of patients admitted in the 2009/2009 fiscal year were the burns, pulmonary, and oncology populations. This survey did not directly measure the alignment of supply and demand for rehabilitation services; however, the Canadian Institute of Health Information’s National Rehabilitation Reporting System (NRS) data indicated that burns and pulmonary disorders were also among the smallest rehabilitation client groupings (RCGs) in inpatient rehabilitation.\textsuperscript{69} It is possible that these highly specialized programs experienced a lower demand compared to other populations; however, it is also important to note that these results are based on survey responses and do not comprise a comprehensive inventory.

Of note, the survey was not structured to support specific extrapolation of the prevalence of chronic conditions.\textsuperscript{70} It is likely, however, that they were captured through the other population groups since nearly 78.1\% of Ontarians have at least one chronic condition\textsuperscript{71} and/or that they were not admitted into the program, given that they are known to be a low priority group for outpatient rehabilitation.\textsuperscript{72}

\section*{3.2 UTILIZATION OF MSK AND NEURO-STROKE REHABILITATION SERVICES}

Programs which had access to either MSK or Neuro-Stroke rehabilitation were analyzed in-depth to describe their current utilization. The analysis compared key characteristics, including the type of program setting, location, age groups served, available professionals and number of referrals and admissions to publicly-funded, hospital-based outpatient rehabilitation programs during the 2008/2009 fiscal year. Differences were observed between the MSK and Neuro-Stroke population groups in the breakdown of survey responses.

\textsuperscript{68} Stroke and general neurorehab population groups were combined (‘Neuro-Stroke’) throughout the analysis with the understanding that patients with a stroke may be able to access general neurorehab programs.
\textsuperscript{69} Canadian Institute for Health Information. (2010). Demographic Characteristics of Inpatient Rehabilitation Clients. Ottawa, ON: CIHI.
\textsuperscript{70} Exception: ‘chronic pain’.
\textsuperscript{71} Based on 2008-2009 data from the Canadian Community Health Survey, Healthy Aging.
OVERALL BREAKDOWN OF SURVEY RESPONSES

Overall, there was a relatively even breakdown of survey responses between programs with access to MSK rehabilitation and those with access to Neuro-Stroke rehabilitation (Figure 5).\(^73\)

21 surveys reflected ‘programs with access to MSK rehabilitation’, including six specialty clinics;
19 surveys reflected ‘programs with access to Neuro-Stroke rehabilitation’, including seven specialty clinics;
and 19 remaining surveys reflected ‘programs with access to other types of rehabilitation’ (e.g. amputee, burns, cardiac), including five specialty clinics.

Figure 5: Breakdown of Responses, by Population Group (n=59 surveys*)

The surveys returned indicated that MSK rehabilitation services were generally available across a wide range of organizations: 67% (14/21 surveys) were located at acute community hospitals in different regions (Figures 6, 7) and 43% (9/21 surveys) were single services. Conversely, Neuro-Stroke programs were clustered among survey respondents in the Toronto area and were delivered primarily through specialized, interprofessional programs at rehabilitation hospitals.\(^74\) 68% (13/19 surveys) of services were located at rehabilitation hospitals and 47% (9/19 surveys) were interprofessional programs.

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\(^73\) Based on a minimum threshold patient volume of 35% comprised of MSK-related diagnoses (e.g. TJR, hip fractures, ‘other MSK’), or 35% comprised of Neuro-Stroke-related diagnoses (e.g. stroke or other neurologically related diagnoses; excluding ABI and SCI). Inclusive of interprofessional programs, single services and specialty clinics. See pp. 18-21 for details.

\(^74\) Specialty clinics were identified based on known information (e.g. program name, description) and the following definition developed by the GTA Rehab Network: An outpatient rehabilitation service where assessment and/or treatment are offered over a time-limited encounter with a goal specific to the limited scope of services offered. Assessment and treatment within specialty clinics may include such services as: (1) Assessment, prescription, and/or fitting/training for a specific equipment, assistive device, or orthotic/prosthetic (e.g. seating and positioning, communication device); (2) Assessment and/or intervention for a specific, localized body part/area (e.g. facial retraining, hand therapy); (3) Assessment and/or intervention for a specific functional impairment (e.g. memory, spasticity). Note that for the purpose of this analysis, only those clinics that provided both assessment and intervention were included.
Single Services and Interprofessional Programs

An analysis isolating single services and interprofessional programs found a similar breakdown of survey responses: MSK rehabilitation was generally evenly distributed across acute community hospitals in various LHINs while Neuro-Stroke rehabilitation was clustered in rehabilitation hospitals within the Toronto area (Figures 8, 9). This analysis suggests there may be multiple access points for obtaining MSK outpatient rehabilitation and fewer ones for Neuro-Stroke services outside of the highly specialized services available in the Toronto area.

This breakdown aligns with evidence that specialized settings and skills are required for Neuro-Stroke rehabilitation while MSK rehabilitation tends to require less specialization. Note, however, that there are many other factors, such as location of rehabilitation hospitals and survey response rate which need to be considered.

Of note, based on survey responses, less than 10% of MSK and Neuro-Stroke single services and interprofessional programs were offered in acute teaching hospitals. However, these responses do not necessarily represent the breadth of programs available, but rather the distribution based on the responses received.

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Specialty Clinics

Specialty clinics represent a unique and very specific service setting; as such, another layer of analysis was conducted to compare the distribution of survey responses for specialty clinics (Figures 10, 11). All MSK specialty clinics were hand therapy programs, primarily at acute community hospitals. In contrast, Neuro-Stroke specialty clinics were concentrated among rehabilitation hospitals in the Toronto area and provided a greater variation in services (e.g. seating, augmentative communications, spasticity, memory). Although the survey did not analyze the need for services relative to availability, the broader range of specialized services may be reflective of a greater need for specialized cognitive, communication and physical rehabilitation post stroke.

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76 Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.

77 Specialty clinics were identified based on known information (e.g. program name, description) and the following definition developed by the GTA Rehab Network: An outpatient rehabilitation service where assessment and/or treatment are offered over a time-limited encounter with a goal specific to the limited scope of services offered. Assessment and treatment within specialty clinics may include such services as: (1) Assessment, prescription, and/or fitting/training for a specific equipment, assistive device, or orthotic/prosthetic (e.g. seating and positioning, communication device); (2) Assessment and/or intervention for a specific, localized body part/area (e.g. facial retraining, hand therapy); (3) Assessment and/or intervention for a specific functional impairment (e.g. memory, spasticity). Note that for the purpose of this analysis, only those clinics that provided both assessment and intervention were included.
Similar to the distribution of single services and interprofessional programs, MSK specialty clinics (hand therapy programs/clinics) were relatively evenly distributed across GTA Rehab Network member responses in various LHINs. All Neuro-Stroke clinics were in the Toronto Central LHIN and specialty clinics alone represented 53.8% of all survey responses from Toronto Central LHIN. In addition, the breakdown by hospital type indicated a clear weighting of Neuro-Stroke specialty clinics within rehabilitation hospitals while the MSK clinics were primarily in community hospitals. Acute teaching hospitals had one of each the MSK and the Neuro-Stroke clinics.

Note that these responses do not necessarily represent the breadth of programs available, but rather the distribution based on the responses received from GTA Rehab Network members meeting the inclusion/exclusion criteria for the survey.

Figure 10: Breakdown of Specialty Clinics, by Hospital Type

![Bar chart showing the distribution of responses for MSK Rehabilitation Specialty Clinics and Neuro-Stroke Rehabilitation Specialty Clinics across hospital types.]

Figure 11: Breakdown of Specialty Clinics, by LHIN

![Bar chart showing the distribution of responses for MSK Rehabilitation Specialty Clinics and Neuro-Stroke Rehabilitation Specialty Clinics across LHINs.]

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78 Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.

79 Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.
AVAILABILITY OF PROFESSIONALS

Differences emerged in budgeted staffing mix among Neuro-Stroke and MSK programs, based on the analysis of survey responses. Programs with access to Neuro-Stroke rehabilitation tended to have a more diverse interprofessional team while those with access to MSK rehabilitation were heavily physiotherapy-based services. Gaps in staffing mix were identified for both populations.

Single Services

Overall, occupational therapists (OT) and physiotherapists (PT) were the most common professionals available through single services (Figure 12). On average, MSK single services were characterized by a high proportion of budgeted physiotherapists relative to occupational therapists (4.6 times more PT than OT). Neuro-Stroke single services had narrower gaps in staffing ratios with only 1.3 times more occupational therapists than physiotherapists. Neuro-Stroke single services also had a higher average full time equivalent (FTE) of speech language pathologists. Although this analysis did not indicate whether the reported staffing mix was sufficient to meet current demands, this shift in balance is in keeping with the cognitive, speech and communication issues associated with a stroke.

Gaps in staffing mix were also identified for both populations. None of the services had budgeted FTEs for a geriatrician. Some had a small budgeted FTE for psychologists, but none of the single services or interprofessional programs had budgeted FTEs for a psychiatrist. Given the importance of identifying and appropriately managing depression post stroke and the increased risk of hip fractures with age, it would be of value in future investigations to determine the extent to which the psychosocial and senior-focused needs of the MSK and Neuro-Stroke populations are being met in the absence of these professionals in single services. Although this was not addressed specifically through the survey, given the nature of single services, it is possible that these needs were dealt with on a consultative basis with non-budgeted staff and that some respondents may have excluded physicians (e.g., physiatrist, geriatrician) as their wages do not necessarily go through the program’s operating budget.

Figure 12: Average Budgeted Full Time Equivalents (FTEs) Among Single Services in F08/09

<table>
<thead>
<tr>
<th>Average Budgeted FTE</th>
<th>Single Services with Access to MSK Rehabilitation (n=9)</th>
<th>Single Services with Access to Neuro-Stroke Rehabilitation (n=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>1.5</td>
<td>0.1</td>
</tr>
<tr>
<td>0.4</td>
<td>2.3</td>
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<td>6.9</td>
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<td>0.9</td>
<td>1.6</td>
<td>0.1</td>
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<tr>
<td>1.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>0.1</td>
<td>1.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

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Interprofessional Programs

Among interprofessional programs, physiotherapy was still the most commonly available profession (Figure 13). Among MSK interprofessional programs, there were 2.4 times as many physiotherapists as occupational therapists while Neuro-Stroke programs had 1.3 times more physiotherapists than occupational therapists.

Based on typical impairments post stroke, one may have expected a greater need for staffing to manage speech, communication and psychosocial needs. Interestingly, among survey responses from interprofessional programs, MSK programs had an average of nearly 20% more speech language pathologists; however, a deeper review of the responses found that the only MSK interprofessional program with SLP services was a mixed population program which also served the neurological population. Among MSK interprofessional survey responses, there were also 40% more psychologists than in Neuro-Stroke interprofessional programs. A closer look at the responses identified that the MSK programs which had psychological services also dealt with more complex MSK cases, such as oncology.

Similar to the single services, there was an absence of several professionals within interprofessional programs. Neither a geriatrician nor a psychiatrist was available through either MSK or Neuro-Stroke interprofessional rehabilitation programs. In addition, social workers were not available in interprofessional MSK programs. As previously noted for single services, the extent to which the psychosocial and senior-focused needs of the MSK and Neuro-Stroke populations are being met in the absence of these professionals in interprofessional programs is not clear. This is of concern as the importance of identifying and appropriately managing depression post stroke has been established and the increased risk of hip fractures with age is known. As previously noted, it is possible that these needs were dealt with on a consultative basis with non-budgeted staff and that some respondents may have excluded physicians (e.g., physiatrist, geriatrician) as their wages do not necessarily go through the program’s operating budget.

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Figure 13: Average Budgeted FTEs Among Interprofessional Programs in F08/09

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Specialty Clinics

As previously noted, all MSK specialty clinics (n=6) were hand therapy programs, while services were highly varied among the Neuro-Stroke specialty clinics (n=7), including seating and mobility, augmentative and alternative communications, spasticity management, memory clinics and other specialized services.

Occupational therapy (OT) had the highest average FTE among specialty clinics with access to MSK rehabilitation; this finding is not surprising as these were all hand therapy clinics (Figure 14). Communication disorders assistants (CDAs) had the highest average FTE among specialty clinics with access to Neuro-Stroke rehabilitation, followed by nurses, physicians and speech language pathologists (SLPs). Note that none of the following professionals were available through specialty clinics for either MSK or Neuro-Stroke rehabilitation programs: geriatrician, dietitian, physiotherapy assistant (PTA), and therapeutic recreationist (TR).

Figure 14: Average Budgeted FTEs Available Among Specialty Clinics in F08/09

<table>
<thead>
<tr>
<th>Specialty Hand Clinics (n=6)</th>
<th>Specialty Clinics with Access to Neuro-Stroke Rehabilitation (n=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>0.7</td>
</tr>
<tr>
<td>OT</td>
<td>1.2</td>
</tr>
<tr>
<td>OTA</td>
<td>0.5</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>0.6</td>
</tr>
<tr>
<td>Physician</td>
<td>1.0</td>
</tr>
<tr>
<td>PT</td>
<td>0.6</td>
</tr>
<tr>
<td>RA</td>
<td>0.6</td>
</tr>
<tr>
<td>Psychologist</td>
<td>0.4</td>
</tr>
<tr>
<td>SLP</td>
<td>0.0</td>
</tr>
<tr>
<td>CDA</td>
<td>0.0</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>0.0</td>
</tr>
<tr>
<td>SW</td>
<td>0.0</td>
</tr>
</tbody>
</table>

AGE GROUPS SERVED

Survey responses with access to MSK rehabilitation served the adult and pediatric populations more frequently than those with Neuro-Stroke rehabilitation (Figure 15). Only 10.5% of Neuro-Stroke programs served both the adult and pediatric populations, as compared to 61.9% of MSK programs. In addition, 4.8% of MSK programs exclusively served the pediatric population while 89.5% of the Neuro-Stroke ones exclusively served adults.

Figure 15: Breakdown of Age Groups Served in F08/09

Only Adults | Only Pediatrics | Both
---|---|---
7 | 1 | 0
6 | 13 | 2

Note that the one program offering solely pediatric services was located at a community hospital.

84  Among hospital-based single services, interprofessional programs and specialty clinics at acute teaching hospitals, acute community hospitals and rehabilitation hospitals in the GTA Rehab Network membership and one non-member which met the inclusion/exclusion criteria and responded to the survey. Single services and programs offered at multiple sites were counted separately where possible.
85  Hospitals which were not included in the analysis either (1) did not provide outpatient rehabilitation; (2) did not have an outpatient rehabilitation program which met the inclusion/exclusion criteria; (3) did not confirm outpatient rehabilitation program names; or (4) did not submit a survey in time for the analysis. Note that a single survey response may include more than one program. See pp. 18-21.
REFERRALS AND ADMISSIONS

Both MSK and Neuro-Stroke programs admitted nearly 90% of referrals during the 2008/2009 fiscal year (Figure 16). The volume of referrals and admissions (Figures 17, 18) was much higher among MSK programs (nearly 7.5 times more referrals and admissions); the majority of these were reported by respondents from acute community hospitals (90% of MSK referrals, and 89% of MSK admissions) and primarily in the Central LHIN (47.0% of MSK referrals; 47.6% of MSK admissions). Acute teaching and rehabilitation hospitals each received and admitted only 5% of MSK referrals and admissions. Of note, 41.4% of all MSK referrals and 46.7% of all MSK admissions were for hand therapy clinics, the vast majority of which were in Central LHIN.

Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.
Patients referred for MSK rehabilitation were referred more often for single services and interprofessional programs (58.6% of referrals, 53.3% of admissions) (Figure 19) than for hand therapy programs/clinics (41.4% of referrals, 46.7% of admissions).

Figure 19: Total Number of Referrals and Admissions to MSK Rehabilitation Programs in F08/09, by Service Setting (n=20, 1 incomplete response)

Survey respondents from the Toronto Central LHIN had the lowest volume of referrals and admitted the fewest patients among MSK programs; however, they had the majority of referrals (71.6%) and admissions (67.5%) among Neuro-Stroke programs (Figures 20, 21). Survey responses from the Central East LHIN had the next largest volume of referrals and admissions; responses from the remaining LHINs accounted for approximately 6% or less of all Neuro-Stroke referrals and admissions.

The large proportion of referrals and admissions in the Toronto Central LHIN was not surprising given the high concentration of rehabilitation hospitals in the Toronto area, and given that 68% of Neuro-Stroke referrals and 67% of Neuro-Stroke admissions were in rehabilitation hospitals. Survey responses from acute community hospitals had the next largest volume of referrals and admissions. Acute teaching hospitals accounted for less than 4% of Neuro-Stroke referrals and admissions.

Most of the referrals for Neuro-Stroke rehabilitation were for single services or interprofessional programs (Figure 22): 63.1% of Neuro-Stroke referrals and 61.8% of admissions were for such services.

Figure 20: Total Number of Referrals and Admissions to Neuro-Stroke Rehabilitation Programs in F08/09, by Hospital Type (n=18; 1 incomplete response)
Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.
3.3 CHARACTERISTICS OF SERVICE DELIVERY: MUSCULOSKELETAL AND NEURO-STROKE PROGRAMS

Programs which had access to MSK or Neuro-Stroke rehabilitation were analyzed to describe the characteristics of current service delivery in outpatient rehabilitation. The analysis compared models of service, intensity and frequency of rehabilitation, discharge criteria, follow-up processes, and re-entry processes. Publicly-funded, hospital-based outpatient rehabilitation programs provided survey responses based on the 2008/2009 fiscal year. Note that the results do not necessarily represent the breadth of programs available, but rather the responses received.\(^{89}\)

3.3.1 SERVICE DELIVERY MODELS

Programs with access to Neuro-Stroke rehabilitation provided more individualized and less group-based therapy than those with access to MSK rehabilitation (Figure 23). Among Neuro-Stroke programs, 36.8% used group therapy as compared to 76.2% of those with access to MSK rehabilitation.

Figure 23: Service Delivery Models Utilized in F08/09

3.3.2 INTENSITY AND FREQUENCY OF REHABILITATION

Overall, survey responses from Neuro-Stroke programs had a 2.9 times longer average length of stay (ALOS) and fewer visits than those from MSK programs (Figure 24).

Figure 24: Average Length of Stay (ALOS)* and Number of Visits per Week in F08/09

*Length of stay was measured from date of first therapy appointment to date of last therapy appointment.

\(^{89}\) Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.
**SPECIALTY CLINICS**

Specialty clinics, such as seating clinics, communication clinics and others, were the largest contributors to the longer ALOS for Neuro-Stroke patients. Specialty clinics for Neuro-Stroke rehabilitation had a nearly four times longer ALOS and fewer visits per week than all other types of Neuro-Stroke programs (Figure 25). MSK programs, on the other hand, had a shorter ALOS for the specialty clinics and no difference in the number of visits per week. While this was not addressed specifically in the survey, it is possible that the low frequency of visits over a longer length of stay in Neuro-Stroke clinics may be reflective of a purposeful planning of appointments to meet patient needs (e.g. trialing equipment).

Figure 25: Average Length of Stay* and Number of Visits per Week Among Specialty Clinics in F08/09

![Graph showing ALOS and visits per week among specialty clinics](image)

*Length of stay was measured from date of first therapy appointment to date of last therapy appointment.

**SINGLE SERVICES AND INTERPROFESSIONAL PROGRAMS**

When comparing only single services and interprofessional programs (Figure 26), there was a smaller difference between MSK and Neuro-Stroke programs. Excluding the specialty clinics lowered the Neuro-Stroke ALOS from 186 days to 89 days; however, Neuro-Stroke programs still had a 1.3 times longer ALOS. These findings likely reflect the differences in complexity of rehabilitation needs between the populations.

Figure 26: Average Length of Stay* and Number of Visits per Week Among Single Services and Interprofessional Programs in F08/09

![Graph showing ALOS and visits per week among single services and interprofessional programs](image)

*Length of stay was measured from date of first therapy appointment to date of last therapy appointment.

**DIFFERENCES ACROSS HOSPITAL SETTINGS**

In comparison to MSK programs, Neuro-Stroke programs (including specialty clinics) had a longer ALOS in rehabilitation hospitals and acute teaching hospitals, but a slightly shorter one in acute community hospitals; these variances were primarily accounted for by the presence of specialty clinics with a long ALOS (Figures 27, 28).
3.3.3 DISCHARGE CRITERIA AND POLICIES

A comparison of discharge criteria across MSK and Neuro-Stroke programs found inconsistencies in their use (Figure 29). Among MSK programs, more than two-thirds (66.7%) reported that established criteria were used in the discharge process, as did nearly half (47.4%) of those with access to Neuro-Stroke rehabilitation. Nevertheless, all respondents identified that one or more criteria were used to make discharge decisions.

All MSK programs used attainment of discharge goals and clinical discretion as discharge criteria, while 71.4% also used outcome measures. Neuro-Stroke programs, on the other hand, used a combination of attainment of discharge goals (73.7%), clinical discretion (63.2%) and attainment of the allotted length of stay (42.1%). Note that these options were not necessarily mutually exclusive.

Further analysis identified that it was the Neuro-Stroke single services and interprofessional programs (Figures 30, 31) which used allotted length of stay as a discharge criterion (66.7%), as compared to Neuro-Stroke specialty clinics (0%) and MSK single services and interprofessional programs (40.0%). This may be a reflection of the greater need for long-term rehabilitation post stroke, which may not be realistically completed by the end of an outpatient program.

In addition, relatively few Neuro-Stroke programs used outcome measures as a discharge criterion while the majority of MSK programs did, particularly in hand clinics. The results suggest there may be opportunities to develop common discharge processes to maximize available resources and patient flow.
Figure 29: Frequency of Use of Discharge Criteria in F08/09

*Other includes: client deceased/moved away; no contact for more than one year after initial assessment; client decides not to attend; non-compliance with attendance/participation; clients are never discharged.

Figure 30: Use of Discharge Criteria Among Single Services and Interprofessional Programs in F08/09

Figure 31: Use of Discharge Criteria Among Specialty Clinics in F08/09
3.3.4 FOLLOW-UP AND RE-ENTRY PROCESSES

Survey respondents were asked if follow-up was provided post discharge and if so, which methods were used (Figures 32, 33). The responses indicated that although most provided follow-up, the patient was often relied upon to initiate contact. Although 65.0% of MSK programs provided follow-up, only 15.0% took full responsibility for the follow-up; 20.0% relied entirely on the patient to initiate contact and 30.0% used a combination of program and patient-initiated contact. Similarly, although 63.2% of Neuro-Stroke programs provided follow-up, none of them took full responsibility for its initiation; 26.3% of them relied entirely on the patient to initiate contact and 36.8% used a combination of program and patient-initiated follow-up.

Similarly, most respondents indicated that their program had a mechanism for re-entry (75.0% of MSK and 63.2% of Neuro-Stroke programs); however, the majority required another referral from the physician/surgeon for patients to be placed on the waiting list again (Figures 34, 35). One program reported that the patient could call the program to make a request for a case-by-case review for re-entry while another reported that only a medical update would be required for those who missed appointments or who experienced challenges in vocational rehabilitation.
These results suggest that once patients are discharged from outpatient rehabilitation, they may have to initiate contact and take the time to follow through with the referral and waiting process again before services can be re-accessed.

*Other: Call to request re-entry on a case-by-case basis; If a patient misses 2 or more weeks, they can be readmitted to complete a block of therapy with only a medical update; if experiencing challenges in vocational rehab, patient can be readmitted.

*Other: If a patient misses 2 or more weeks, they can be readmitted to complete a block of therapy with only a medical update; if experiencing challenges in vocational rehab, patient can be readmitted.
3.4 CHALLENGES TO ACCESSIBILITY: MSK AND NEURO-STROKE REHABILITATION

A major objective of the survey was to understand the access issues faced by patients requiring MSK and Neuro-Stroke outpatient rehabilitation programs in the GTA. To this end, the survey was analyzed for processes related to external referrals, wait times, declined referrals, prioritization and common barriers to accessing MSK and Neuro-Stroke outpatient rehabilitation. Publicly-funded, hospital-based outpatient rehabilitation programs provided survey responses based on the 2008/2009 fiscal year. Note that the results do not necessarily represent the breadth of programs available, but rather the responses received.90

3.4.1 ACCEPTANCE AND PRIORITIZATION OF EXTERNAL AND INTERNAL REFERRALS

The analysis indicated that external referrals would likely face access issues for outpatient rehabilitation (Figures 36, 37). The majority of survey respondents reported that external referrals were accepted (81.0% of MSK programs; 89.5% of Neuro-Stroke programs). Nevertheless, most of them also prioritized internal referrals over external ones: although 80% to 90% of MSK and Neuro-Stroke programs accepted external referrals, nearly 70% of these same programs prioritized internal referrals over external ones.

Among the two groups analyzed, Neuro-Stroke programs were more likely to admit external referrals, suggesting that external referrals to MSK programs may ultimately have more difficulty accessing services. An analysis of patient

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90 Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.
volumes and percentages of external referrals (Figure 38) indicated that less than half of the MSK programs had more than 25% external referrals (out of all admitted patients). In contrast, the majority of Neuro-Stroke programs had more than 25% external referrals (out of all admitted patients). The analysis suggests that external referrals face access barriers to both MSK and Neuro-Stroke programs, and potentially more so with MSK programs.

Figure 38: Proportion of the Total Patient Volume which is Comprised of External Referrals in F08/09

<table>
<thead>
<tr>
<th>Percentage of Total Patient Volume</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-24%</td>
<td>11</td>
</tr>
<tr>
<td>25-49%</td>
<td>3</td>
</tr>
<tr>
<td>50-74%</td>
<td>7</td>
</tr>
<tr>
<td>75-100%</td>
<td>7</td>
</tr>
</tbody>
</table>

Percentage of Total Patient Volume which is Comprised of Externally Referred Patients

- Number of MSK Rehabilitation Programs (n=21)
- Number of Neuro-Stroke Rehabilitation Programs (n=19)

### 3.4.2 WAIT TIMES

Several aspects of wait times were addressed in the analysis. First, external referrals generally waited longer than internal ones: MSK external referrals waited 1.4 times as long as internal ones while Neuro-Stroke external referrals waited 1.3 times as long (Figure 39). This difference was expected and supports earlier findings that external referrals are accepted but often prioritized lower than internal referrals. These results suggest that external referrals likely face greater barriers to accessing timely outpatient rehabilitation.

Secondly, on average, Neuro-Stroke referrals waited longer for admission than MSK referrals (Figure 39). External referrals to Neuro-Stroke programs waited 2.4 times as long as those to MSK programs; similarly, internal referrals to Neuro-Stroke programs waited 2.7 times as long as those to MSK programs. Some difference by population group was expected, given the likelihood of a faster patient throughput in MSK rehabilitation programs as compared to more complex and lengthier neuro-based rehabilitation.

This finding was particularly noticeable among responses from the Toronto Central LHIN and was attributed to the heavy concentration of Neuro-Stroke programs and rehabilitation hospitals (Figures 40, 41). The results suggest that on average, patients referred for Neuro-Stroke services would likely face longer wait times to access services, consistent with earlier findings that Neuro-Stroke programs tended to have longer average lengths of stay.

Figure 39: Overall Wait Times for Referrals in F08/09 (Note: each response may include more than one program)

- Wait Time for Internal Referrals
  - Programs with Access to MSK Rehabilitation (n=19; 2 incomplete responses)
  - Programs with Access to Neuro-Stroke Rehabilitation (n=18; 1 incomplete response)
Thirdly, among MSK programs, the wait time was longer for single services and interprofessional programs, while among Neuro-Stroke programs, the wait time was longer for specialty clinics (Figures 42, 43). MSK external referrals waited 2.3 times longer for single services and interprofessional programs as compared to specialty clinics and internal referrals waited 3.1 times longer. In contrast, Neuro-Stroke external referrals for specialty clinics waited 3.0 times longer as compared to single services and interprofessional programs and internal referrals waited 2.0 times longer.

Note that the internal wait time was slightly higher than the external one due to programs which had a relatively long internal wait time, but which did not accept any external referrals.
In addition, the average referral to Neuro-Stroke clinics waited significantly longer than those to MSK clinic (external Neuro-Stroke referrals: 7.4 times longer; internal Neuro-Stroke referrals: 9.9 times longer). In contrast, there was a much smaller discrepancy between the overall average wait time for referrals to Neuro-Stroke single services and interprofessional programs as compared to MSK ones (external Neuro-Stroke referrals: 1.1; internal Neuro-Stroke referrals: 1.6 times longer).

Furthermore, both MSK and Neuro-Stroke referrals generally waited longer at rehabilitation hospitals than at acute community hospitals (Figures 44, 45). This difference was most prominent among Neuro-Stroke programs at rehabilitation hospitals. External referrals to rehabilitation hospitals waited 5.1 times longer than at community hospitals, while external referrals to rehabilitation hospitals waited 7.0 times longer. This difference was primarily contributed by specialty clinics in rehabilitation hospitals, which have been shown to have long wait times and a longer ALOS. Nevertheless, after excluding the specialty clinics, Neuro-Stroke single services and interprofessional programs referrals still waited an average of 3.5 to 6 times longer at rehabilitation hospitals than at acute community hospitals (Figure 45). As such, it may be more difficult for patients to access timely Neuro-Stroke services at rehabilitation hospitals than at acute community hospitals. Note, however, that this analysis was based on survey responses without adjustment for variables such as patient characteristics.

These results suggest that externally referred patients awaiting MSK or Neuro-Stroke services at rehabilitation hospitals will likely wait longer than their counterparts at acute community hospitals. Note however, that these results are based on survey results and do not account for differences in patient characteristics.
Note also that the wait times at one Neuro-Stroke program, located within an acute teaching hospital, was particularly long (Figure 45); this large difference is likely explained by the highly specialized and unique nature of the services offered.

![Figure 45: Average Wait Times for Neuro-Stroke Rehabilitation, by Hospital in F08/09 (n=18; 1 incomplete response)](chart)

![Figure 46: Average Wait Time for Neuro-Stroke Single Services and Interprofessional Rehabilitation Programs, by Hospital in F08/09 (n=12; 1 incomplete response)](chart)

### 3.4.3 REASONS FOR DECLINING REFERRALS

Survey respondents were asked to identify the most common reasons for declining referrals during the 2008/2009 fiscal year. It is important to consider that some of these reasons may fit into both categories and are not necessarily mutually exclusive.

For both populations, the most frequent reason for declining referrals across all hospital settings except at acute teaching hospitals was due to the length of time since the onset of injury or illness (Figures 47, 48). The emphasis on the length of time since onset signals a potential gap between patient needs and ongoing access to publicly-funded outpatient rehabilitation for patients with chronic conditions. This is a particular concern as many chronic conditions are MSK-related and the overall prevalence is expected to increase. Similar findings have previously been reported elsewhere.\(^{92,93}\)


Similarly, for both populations, the second most frequent reason for declining referrals was that the requested service was not offered. The types of services requested were not captured in the survey; however, it would be of interest to determine the extent to which these unavailable services had been recently reduced (e.g. by narrowing of admission criteria). It is unknown whether those who were declined were subsequently able to access equivalent services and obtain comparable outcomes elsewhere.

This survey also found that external referrals were not only a lower priority for access, but they were also a frequent reason for declining referrals, particularly for MSK programs in acute community hospitals. Interestingly, referral from an external physician was not identified as a reason for declining referrals among Neuro-Stroke programs in acute community hospitals, but was identified by those in rehabilitation hospitals. Furthermore, the survey analysis found that MSK programs were typically defined by program-based reasons (e.g. referred from the community by an external physician, resides outside of catchment area, staffing/space shortage) whereas Neuro-Stroke programs relied more on patient-based reasons e.g. medical condition, psychiatric issues).

The survey responses suggest that in addition, referrals for MSK rehabilitation were frequently declined because the patient lived outside of the program catchment area, the patient did not have access to transportation, or the program had a staffing or space shortage. On the other hand, those who were frequently declined for Neuro-Stroke rehabilitation were also declined because the patient had a psychiatric condition, the patient was medically complex, and/or had access to third party funding, but not to transportation. Specifically, Neuro-Stroke programs in rehabilitation hospitals were more likely to consider psychiatric issues and lack of access to transportation, whereas acute community hospitals were more likely to consider catchment area and access to third party funding.

The reasons for declining referrals were categorized as ‘patient-based’ or ‘program-based’; program-based reasons are denoted by an asterisk (*) in the graphs below. In general, when identifying the top reasons for declining referrals, MSK programs tended to cite program-based reasons more frequently (e.g. referred from the community by an external physician, resides outside of the catchment area, staffing/space shortage) while Neuro-Stroke programs cited patient-based reasons more often (e.g. medical condition, psychiatric issues). As such, the survey results suggest that patients’ clinical needs are not the only consideration in determining access. Based on survey responses, administrative factors are also influential in determining which patients receive outpatient rehabilitation.

While program-based characteristics such as catchment area and referral source may help individual programs to manage wait lists, they may also create access barriers from a system perspective; for example, Toronto Central LHIN is known to accept many patients from outside of its boundaries. These findings raise the question of the extent to which patients receiving rehabilitation in Toronto Central LHIN are subsequently able to access timely outpatient services in their home LHIN, particularly with recent reduction and closures.
Figure 47: Frequency of Reasons for Declined Referrals for MSK Rehabilitation, by Hospital Type in F08/09 (n=21) 94

- Wandering issues
- Wait list is too long to keep adding patients*
- Referred from the community by a physician in this organization*
- Discharged inpatient from another organization*
- Continence issues
- Cognitive issues
- Behavioural issues
- Medical condition/Complexity
- Psychiatric issues
- Access to third party funding
- Staffing/space shortage*
- Inability to access transportation
- Resides outside of this program's/service's catchment area*
- Referred from the community by a physician outside of this organization*
- Program does not offer the requested service*
- Time since date of onset/injury is too long*

Note: The following were not cited as reasons for declining referrals: referred from an outpatient program within this organization*; discharged inpatient from this organization*; infection control issues.

Figure 48: Frequency of Reasons for Declined Referrals for Neuro-Stroke Rehabilitation, by Hospital Type in F08/09 (n=19) 95

- Wait list is too long to keep adding patients*
- Referred from the community by a physician in this organization*
- Discharged inpatient from another organization*
- Continence issues
- Resides outside of this program's/service's catchment area*
- Behavioural issues
- Referred from the community by a physician outside of this organization*
- Cognitive issues
- Access to third party funding
- Inability to access transportation
- Medical condition/Complexity
- Psychiatric issues
- Program does not offer the requested service*
- Time since date of onset/injury is too long*

Note: The following were not cited as reasons for declining referrals: referred from an outpatient program within this organization*; discharged inpatient from this organization*; staffing/space shortages*; wandering issues; infection control issues.

94 Note that some reasons fit in both categories and were not necessarily mutually exclusive.
95 Note that some reasons fit in both categories and were not necessarily mutually exclusive.
3.4.4 WAIT LIST PRIORITIES

Several factors were considered in prioritizing referrals (Figures 49, 50). Both MSK and Neuro-Stroke programs placed high priority on referral date, medical condition/complexity and referrals from inpatient rehabilitation (both internal and external). Both population groups also identified time since date of injury/onset as a priority; however, this was a more often noted as a priority among MSK programs. Both types of programs ranked community referrals (both internal and external) as lower priority than inpatient discharges (both internal and external). In general, the reported wait list priorities among survey respondents with MSK programs suggest that patients with more acute injuries referred from internal inpatient programs will likely be among the highest priorities. These priorities support earlier findings that those with longer term, chronic issues are likely to face access issues, particularly if they are referred from external sources. It is important to recognize, however, that some of the listed priorities may not necessarily be mutually exclusive.

Referral date was the top priority for Neuro-Stroke programs at acute community and rehabilitation hospitals; however, there were differences in the remaining priorities. In rehabilitation hospitals, patients discharged from internal programs were a higher priority on the wait list than patients referred from external sources, while acute community hospitals did not make a distinction between internal and external referral sources.

Of note, acute community hospitals placed priority on whether patients were receiving other community services while this was not even ranked for rehabilitation hospitals; as such, it is possible that patients requiring greater personal care through community services may be prioritized differently at acute community hospitals than those who are more independent. Catchment area was also not a priority for wait lists in rehabilitation hospitals, but was among the top priorities in acute community hospitals. Furthermore, medical complexity was ranked as a higher priority in rehabilitation hospitals than in acute community hospitals.

Wait list priorities for MSK programs were also relatively similar across survey responses from different LHINs. One exception was that survey responses in the Central East LHIN placed higher priority on whether patients were receiving other community services (e.g. CCAC) while the responses from the other LHINs placed higher priority on internal inpatient discharges. Similarly, Neuro-Stroke programs had similar priorities across survey responses from different LHINs. All survey responses ranked discharged internal inpatients among their top three priorities except for those from Central East LHIN. Survey responses from the Central East LHIN reported that internal inpatient discharges were prioritized lower than all of the following: (1) whether patients were receiving other community services, (2) whether there were behavioural issues, and (3) catchment area. Also of note was the high prioritization of medical condition/complexity among survey responses in the Toronto Central LHIN whereas all other LHINs ranked it low or did not rank it at all. This latter finding is likely reflective of the more specialized care available at rehabilitation hospitals in the Toronto area.
Figure 49: Frequency of Wait List Priorities for MSK Rehabilitation, by Hospital Type in F08/09 (n=21)

Note: The following were not cited as priorities for wait listing: access to third party funding, psychiatric issues, continence issues, cognitive issues, infection control issues, wandering issues, inability to access transportation.

Figure 50: Frequency of Wait List Priorities for Neuro-Stroke Rehabilitation, by Hospital Type in F08/09 (n=19)

Note: The following were not cited as priorities for wait listing: access to third party funding, psychiatric issues, continence issues, cognitive issues, infection control issues, wandering issues, inability to access transportation.
3.4.5  BARRIERS TO ACCESS

Survey respondents were asked to identify the extent to which their accepted patients faced challenges in accessing outpatient rehabilitation due to issues of language, transportation and hours of operation.

LANGUAGE

Language was not a commonly reported barrier. Based on survey responses, language was reported to impact no more than approximately 10% of MSK programs and Neuro-Stroke programs (Figure 51).

TRANSPORTATION

Most MSK and Neuro-Stroke programs identified that some of their accepted patients had difficulties with transportation (76.2% of MSK and 84.2% of Neuro-Stroke programs). The reported volume of patients impacted by transportation issues, however, was relatively small: most reported that only 1% to 10% of their accepted patients were affected (Figure 52). About 10% to 15% of MSK and Neuro-Stroke programs reported that 11% to 30% of patients were unable to access services due to transportation; none of the programs reported percentages over 30%.

HOURS OF OPERATION

Survey respondents were also asked to identify whether patients who were accepted for services subsequently faced challenges due to the hours of operations of programs (Figure 53). The responses indicated that hours of operation was a barrier for some accepted patients and was more frequently reported as a barrier among MSK programs (52% of MSK programs, 26% of Neuro-Stroke programs).
The actual hours of operation across the two population groups were similar (Figure 54); however, MSK programs tended to have slightly more flexibility. Programs with access to MSK rehabilitation were open an average of five days a week and although 50% were open only during typical business hours, 33% also provided early morning services. In comparison, Neuro-Stroke programs were open an average of 4.8 days a week and 86% offered services only during typical business hours. Of note, 17% of MSK programs and 14% of Neuro-Stroke programs offered evening services; none were open on the weekend.

The survey results suggest that despite less flexibility in hours, patients in Neuro-Stroke programs were reportedly less impacted by hours of operation. Conversely, despite greater flexibility in hours, patients in MSK programs were more likely to be impacted by hours of operation. Although it was not specifically addressed in the survey, this finding may suggest that additional factors other than the actual hours of operation may have impacted these results; for example, patients with MSK rehabilitation needs may be more likely to return to work during the outpatient phase of their rehabilitation, thus requiring more early morning, evening or weekend hours.

3.4.6 CATCHMENT AREA

MSK programs across settings primarily served patients from within their own LHIN. Rehabilitation hospitals and acute community hospitals served slightly more patients from outside their LHIN as compared to the acute teaching hospitals (Figure 55). In contrast, programs with access to Neuro-Stroke rehabilitation had larger differences in catchment area (Figure 56): approximately 30% of admitted patients at rehabilitation hospitals resided outside the LHIN compared to 5% at acute community hospitals.
Despite findings that some Neuro-Stroke programs at rehabilitation hospitals declined referrals from external physicians, the survey results suggested that rehabilitation hospitals generally admitted more patients from outside their organization’s LHIN. In particular, the geographic concentration of services in the Toronto Central LHIN may have contributed to a larger influx of patients from other LHINs who needed to access the highly specialized services often found in rehabilitation hospitals.

Similarly, MSK specialty clinics tended to admit patients from within the organization’s LHIN (Figure 57) while Neuro-Stroke specialty clinics tended to admit more referrals from outside the LHIN. This finding reflects the earlier finding that MSK hand clinics appeared to be broadly distributed while Neuro-Stroke specialty clinics were concentrated within rehabilitation hospitals, particularly in the Toronto Central LHIN.

*Data from GTA Rehab Network members in the Central West LHIN is not reflected because none of the surveys submitted met the 35% threshold patient volume for designation as a program with access to MSK or Neuro-Stroke rehabilitation. It is important to note that this is not necessarily a reflection of program availability within the LHIN, but simply a reflection of the types of survey responses received.*
4.0 KEY FINDINGS FROM KEY INFORMANT INTERVIEWS

The GTA Rehab Network led a three phase initiative to better understand the current state of outpatient rehabilitation. The first phase consisted of a comprehensive survey, completed by nearly 100 publicly-funded, hospital-based, outpatient rehabilitation programs within the GTA Rehab Network membership and one non-member. Even as surveys were being completed, however, outpatient rehabilitation programs were observed to undergo changes; as such, key informant interviews were completed to better understand the shifting nature of these services.

The second phase of this initiative focused on understanding recent changes to the GTA outpatient rehabilitation sector, specifically between 2007 and 2010. Semi-structured interviews were conducted with 27 representatives of programs which had experienced recent changes. These representatives were typically at the manager or director level. In addition, representatives from the rehabilitation department of an Ontario university were invited to take part in an interview to capture the impact of system changes on the academic sector.

4.1 REPORTED CHANGES TO OUTPATIENT REHABILITATION SERVICES, 2007-2010

Multiple reductions and closures were identified as having occurred in the GTA between 2007 and 2010 (Figure 58). A broad comparison of the total number of changes (reductions and closures) in outpatient rehabilitation indicated that the number of affected programs more than tripled between 2007 and 2010. During this time period, a total of 19 reductions (e.g. in service delivery, in staffing, in scope) and 12 closures occurred across 12 organizations in the GTA. Furthermore, the frequency of changes was noted to have increased gradually between 2007 and 2010.

A 2005 provincial survey identified that most of Ontario’s 41 hospitals with designated rehabilitation beds had some degree of outpatient rehabilitation, primarily through PT services; similarly, the GTA Rehab Network’s Outpatient Rehabilitation survey found that PTs were among the most available single service providers. The key informant interviews provided context for this finding; although physiotherapy had one of the highest FTEs across programs, it was also the profession most frequently cited as having experienced a reduction or closure. Of the 31 reductions or closures reported between 2007 and 2010, approximately 30% (10/31) impacted physiotherapy services.

This observation was further supported by the academic sector; representatives from the rehabilitation department of an Ontario university identified that the reductions and closures to the outpatient rehabilitation sector had had a greater impact on student placements in physiotherapy, as compared to occupational therapy and speech language pathology. A total of 23.5 physiotherapy placement opportunities were reported to have been lost through the combined closures at six different hospitals in the GTA within the last few years.

96 Note that two changes occurred within the same program.
97 Note that although the Hospital Report 2005 was a provincial survey, nearly half of the hospitals with designated rehabilitation beds were located within the GTA.

These findings also reinforced concerns over the increasing vulnerability of outpatient rehabilitation services in the GTA and its capacity to meet current and future patient needs. These concerns align with a provincial health policy case study which suggested that the current supply of outpatient services may not be able to meet the current demand, particularly with a forecasted increase in demand for general outpatient rehabilitation by 23% and an increase in demand for physiotherapy by 26% in Ontario.

4.2 REPORTED FACTORS IN THE SURVIVAL OF OUTPATIENT REHABILITATION SERVICES

Key informants identified multiple factors contributing to the erosion of services. Six themes emerged in the analysis: financial constraints; alignment with government priorities; being able to define value; alternative community resources; presence of a champion; and the ‘ripple effect’.

Note: All programs listed above experienced a reduction, except those marked with an asterisk (*) which were closed.

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FINANCIAL CONSTRAINTS

When asked why changes had occurred to their outpatient rehabilitation programs, key informants inevitably began by identifying that hospitals faced a challenge in balancing their budgets during times of fiscal restraint. Given limited resources, hospital administrators had to make difficult choices regarding which services to maintain and which to eliminate or reduce.

ALIGNMENT WITH GOVERNMENT PRIORITIES

Given financial restrictions, interviewees identified multiple factors influencing decisions to maintain, reduce or close programs. One such factor was the current priorities of the government. Interviewees reported that the decisions made by hospital administrators were often made strategically to align with the priorities of the Ministry of Health and Long Term Care (MOHLTC) and/or the LHIN. As such, during a time when issues of balanced budgets, emergency room wait times and alternate level of care (ALC) numbers were critical to the government, these also became priorities for local organizations.

DEFINING VALUE: ALIGNING WITH THE CORE BUSINESS OF THE ORGANIZATION

With the focus on government priorities and particularly given limited resources, interviewees identified that hospital administrators sought to define their ‘core business’. In doing so, existing services were re-evaluated to determine the extent to which they fell within or directly supported the newly defined ‘core business’.

Identification of core businesses varied and included:
- Services which ‘should be’ provided within that particular setting;
- Services which the organization ‘did best’; and
- Services which supported the work of surgeons/physicians or other ‘core’ internal programs.

One example of this process was reported where an acute community hospital had shifted away from outpatient rehabilitation because it was perceived to fall outside of the core business of an acute care hospital. The interviewee reported that this was in contrast to previous years where the emphasis had been on being a community hospital for the local area. A second interviewee identified that during a shift to a program management model, some of its outpatient rehabilitation services were eliminated as they no longer fit within the new structure. On the other hand, other interviewees noted that their programs were considered ‘core services’, likely due to the close affiliation with surgeons (notably cardiac and hand therapy), and thus were preserved.

Consequently, it appeared that defining the core business of the hospital became intertwined with defining value for the hospital; those services which could contribute towards the hospital’s core business were perceived as offering value. As such, some interviewees reported that their programs worked to align themselves with the strategic directions of their organization, to link with patient flow initiatives, and help organizational leaders understand the role and value of outpatient rehabilitation services.
AVAILABLE ALTERNATIVES

Key informants also reported that the decision to reduce or close outpatient rehabilitation programs was influenced by the availability of other community resources. Interviewees reported that decisions regarding changes to outpatient rehabilitation services considered not only the services that should be offered elsewhere, but also the ones that could be offered elsewhere. As one interviewee reported, “in times of tight fiscal constraints, the hospital needs to concentrate on what it does best and the areas which other facilities don’t provide.”

To this end, organizational decision-making reportedly included formal and/or informal reviews of programs in the surrounding areas, through mechanisms such as:

- Consultation with neighbouring organizations;
- Discussion with the LHINs;
- Survey and/or other engagement of stakeholders; and
- Environmental scans of community services (e.g. designated physiotherapy clinics (DPC), private clinics).

Interviewees reported that the environmental scans completed indicated that existing community-based services were generally sufficient to meet the needs and volumes of their patients. The extent, however, to which such reviews considered the accessibility, capacity, skill-set and costs of alternate community-based services is less clear.

Outcome evaluations on the impact of these reductions and closures were not consistently available. Some interviewees reported that the changes were too new to assess the impact while others did not have an evaluative component in place.

There were, however, individual anecdotal reports of case examples, such as those listed below, which suggest that further analysis of accessibility, capacity, skill-set and costs of community-based services is warranted:

An orthopaedic surgeon frustrated that a patient with a ruptured Achilles tendon was unable to work, did not have access to health benefits, was ineligible for designated physiotherapy clinics and had to pay out of pocket or suffer poor outcomes.

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100 Designated physiotherapy clinics (DPCs) are private physiotherapy clinics which are designed by the government to provide publicly insured services for those who are aged 65 or older, aged 19 or younger, who reside in a long term care home, who need physiotherapy in their home or after an overnight hospitalization at any age, or who are on the Ontario Disability Support Program, Family Benefits or Ontario Works at any age.


101 It is unclear whether these environmental scans used the same definition of ‘community-based services’; as such, it is possible that some scans included only hospital-based programs while others included designated physiotherapy clinics and other private clinics. The scope and quality of these environmental scans, however, was not analyzed as part of this initiative’s mandate.

102 These reviews varied in breadth and depth based on interviewee reports; however, the quality of these reviews was not analyzed as part of this initiative’s mandate.
Surgeons who suspected that an increase in ‘stiff knees’ was due to limited availability of physiotherapy in the community and the quality of interventions (e.g. consultative vs. therapeutic), potentially resulting in a need for manipulation under anaesthetic.

Observations by orthopaedic surgeons and managers that those who were most affected by the reductions and closures of outpatient rehabilitation programs were those in the ‘productive’ working age group (e.g. 21-64 years of age). These were reportedly patients who had been injured as a result of manual work (e.g. repetitive strain injuries), not eligible for OHIP coverage, not eligible for Workplace Safety and Insurance Board (WSIB) or automobile insurance compensation, did not have private insurance and were either not able to afford or not willing to pay for private physiotherapy. As one interviewee stated, “we are making a class system on who can and can’t get better.”

An orthopaedic surgeon reporting that if they do not feel their patients will get adequate outpatient rehabilitation post-surgery within their hospital, they will refer their patients to another surgeon at another hospital with access to outpatient rehabilitation.

Comments that referrers (e.g. family physicians) may stop referring patients to existing programs with the anticipation that they would be a low priority and not be admitted.

Frozen shoulders resulting from delayed access to outpatient rehabilitation, contributing to an increased length of stay on a caseload.

Conversely, there were examples of organizations which ultimately retained their outpatient rehabilitation programs if they were identified as unique, highly specialized, or not otherwise available in the community.

**PRESENCE OF A CHAMPION**

Interviewees also identified that an important factor in the retention of an outpatient rehabilitation program was having a champion figure during discussions regarding the value of an outpatient rehabilitation program, in particular if the champion was a physician/surgeon. One interviewee reported anecdotally that advocacy by the surgeon in an acute teaching hospital had successfully resulted in the retention of hand therapists. Conversely, the lack of physician support for a cardiac rehab program was identified as one of several factors contributing to its closure. Another interviewee observed that the outpatient rehabilitation programs which survived seemed to be the ones which were physician-driven.

**THE ‘RIPPLE EFFECT’**

Interestingly, interviewees reported that reductions and closures in outpatient rehabilitation seemed to perpetuate more of the same changes. Interviewees identified that decisions regarding reductions or closures to programs tended to be justified in part by the fact that other organizations had already made similar changes, creating a ‘ripple effect’ of changes across organizations. Key informants noted that this perspective was likely in contrast to that of therapists, who would likely use reductions/closures in other programs to further justify the continuation of their program.
4.3 GOING AGAINST THE GRAIN

Two organizations were identified through this initiative as being notably different in that they chose to invest in outpatient rehabilitation services rather than reducing or closing them.

**PROVIDENCE HEALTHCARE**

Providence Healthcare invested in outpatient rehabilitation as part of a larger system redesign to improve patient flow and system navigation while attaining improved outcomes. Providence Healthcare’s strategic plan aims to provide high quality care while increasing throughput, decreasing length of stay and facilitating increased discharges home as opposed to long term care, and demonstrating long term outcomes of improved levels of independence.

Several strategies were employed to realize these goals:

- One inpatient unit was closed by attrition and by supporting appropriate patient discharge;
- Other units are being redesigned to create ideally sized units for infection control and patient experiences;
- Savings from inpatient rehabilitation programs were transferred to outpatient rehabilitation programs;
- A portion of the realized savings was transferred to the Central East CCAC to purchase enhanced community services above and beyond typical service maximums; and
- A new role was created through the Community Health Navigator, whose purpose is to ‘shepherd’ patients through the medical and social support systems (e.g. transportation, medication). This role begins pre-discharge and continues with regular follow-up phone calls up to 12 months post-discharge.

In order to increase throughput, the decrease in the inpatient ‘footprint’ was offset by an increase in the outpatient ‘footprint’ with the support and approval of the Toronto Central LHIN. These strategic initiatives were reported to have resulted in positive outcomes in an independent review, including a rate of 78% of patients discharged home, positive post-discharge outcomes, and high satisfaction scores from patients and caregivers.

**ST. JOHN’S REHAB HOSPITAL**

A need was identified at St. John’s Rehab Hospital to decrease the wait time from inpatient rehabilitation discharge to outpatient rehabilitation admission. During this wait time, therapists found that patients were getting deconditioned, forgetting skills learned and losing gains made in inpatient rehabilitation. In addition, the hours of the outpatient rehabilitation program made it challenging for some patients to attend if they were working, or if they were relying on a working caregiver for transportation.

As such, LHIN funding was received to support increased access to outpatient rehabilitation for patients and their caregivers through evening therapy. Evening therapy was added to all outpatient rehabilitation programs to support this goal and was successful at reducing wait times for outpatient orthopaedic patients from six to seven months to zero. For other patients, the wait time was reduced from eight to nine months to one.
5.0 DISCUSSION AND SUMMARY

Fiscal restraint is an increasingly necessary objective in public healthcare, resulting in frequent debates over what should and should not be included in the ‘basket’ of publicly-funded health care services. Under the Canada Health Act, most community and outpatient hospital-based rehabilitation services are not insured, which has contributed to vulnerabilities during times of fiscal restraint.

Efforts to demonstrate the value of outpatient rehabilitation have been challenged by the lack of standardized data collection. Available evidence indicates, however, that the demand for rehabilitation may exceed the supply in the public sector and that access may be limited, particularly for those with chronic conditions.

In order to describe the current and changing state of outpatient rehabilitation in the GTA, the GTA Rehab Network led a three phase initiative involving a comprehensive survey, key informant interviews and information dissemination. In total, 57 survey responses were returned from nearly 100 programs, 21 key informant interviews were completed with managers/directors from 16 organizations, and two workshops were led at provincial conferences to share the results of this initiative.

The results indicated that there is a broad landscape of outpatient rehabilitation services in the GTA, spanning the five GTA LHINs, multiple population groups and various service settings. The results also confirmed, however, that outpatient rehabilitation services have been increasingly eroded as organizations attempt to mitigate financial challenges, a pattern that was also observed more than 10 years ago.

Key informants identified multiple factors contributing to the erosion of services including financial constraints, alignment with government priorities, being able to define value, the presence of champions and a ‘ripple effect’. The

105 There is currently no standardized tool for data collection in outpatient rehabilitation which includes clinical and administrative indicators. Although the National Ambulatory Care Reporting System (NACRS) includes indicators related to ambulatory care, clinical and administrative data on outpatient rehabilitation is not mandated in Ontario and as a result is not consistently collected.
types of changes to outpatient rehabilitation programs varied from complete closures of programs to narrowing of admission criteria to reductions in services offered. The frequency of reported changes to outpatient rehabilitation in the GTA tripled from 2007 to 2010.

Key informants also reported that the decision to reduce or close outpatient rehabilitation programs was influenced by the availability of other community resources; as such, when admission criteria were narrowed and programs closed, those who were no longer eligible for hospital-based outpatient rehabilitation programs were redirected to alternate community services. These services likely included designated physiotherapy clinics (DPCs) and/or fee-for-service clinics, both of which have been known to create access issues for some Ontarians. DPCs, for example, are only available to Ontario residents who meet the eligibility criteria and are predominantly located in the GTA, while fee-for-service clinics shift the financial burden of care to the patient, particularly if they do not have private insurance.

In 2005 the government partially de-listed physiotherapy services. Under the Health Insurance Act, the Ontario Health Insurance Plan (OHIP) provides limited coverage for physiotherapy services to the following eligible individuals:

- Seniors 65 and older;
- People aged 19 and younger;
- Long-term care residents of all ages; and
- People of all ages needing short-term physiotherapy in their home or after overnight hospitalization.

All other people aged 20 to 64 are not eligible for coverage under OHIP for physiotherapy services.110

A previous study identified that 17.7% of participants (n=113) who required physiotherapy did not access services because they did not qualify for OHIP coverage, did not have private insurance, or were unable to afford the fee.111 Although it was not part of this initiative, the results suggest a need for further investigation into understanding the impact of recent closures and particularly, whether the redirected patients were subsequently able to access equivalent services and achieve comparable outcomes.

Furthermore, the outpatient rehabilitation programs that were maintained were not necessarily accessible to all. The analysis found several examples of limitations in access and differing levels of service delivery. Such differences (e.g. admission criteria, referral source, time since injury/illness onset) created barriers in accessibility for certain sub-groups, particularly those with non-acute conditions being referred from external sources. The survey results suggest that patients’ clinical needs are not the only consideration in determining access and that administrative factors play a role in determining which patients receive outpatient rehabilitation. Although the landscape of outpatient rehabilitation in the GTA appears expansive, services and accessibility differ among MSK and Neuro-Stroke outpatient rehabilitation programs in the GTA.

In particular, the barriers noted for patients with chronic conditions are of concern as these conditions impact 78.1% of Ontarians\textsuperscript{112} and the numbers are expected to increase. Chronic conditions have been associated with 72% of nights spent in hospital\textsuperscript{113} and reported health status,\textsuperscript{114} among other measures. Furthermore, recent data indicate that it is the number of chronic conditions, rather than age, which determines the number of healthcare services used by seniors.\textsuperscript{115} As such, there may be an opportunity for system planners to leverage cost effective outpatient rehabilitation services, for example, as part of a coordinated chronic disease management strategy with primary care.

The findings of this initiative also provide the context to highlight areas for future development in outpatient rehabilitation, particularly with regard to a common framework for data collection (both administrative and clinical) relative to ongoing system access and flow initiatives. For example, in the total joint replacement (TJR) population, evidence indicates that the majority of patients can achieve comparable outcomes in community based versus inpatient rehabilitation post primary, unilateral hip/knee replacement, provided that adequate therapy resources are available in a timely manner,\textsuperscript{116} as such, a provincial target has recently been set for a 90% (+/- 10%) discharge rate to home from acute care hospitals.\textsuperscript{117} The implementation of this target is expected to increase the demand on outpatient MSK rehabilitation programs. In order to maintain patient flow and access to outpatient rehabilitation services, it will be necessary to ensure that MSK outpatient rehabilitation programs can support this increase in volume and that access to outpatient rehabilitation will be timely. However, indicators such as time to access outpatient rehabilitation post acute care discharge is not readily available due to a lack of standardized data collection across programs.

Similarly, available evidence in stroke rehabilitation suggests that patients with a mild stroke could be redirected to outpatient rehabilitation while inpatient rehabilitation resources would be better utilized by more patients following a severe stroke.\textsuperscript{118} In contrast to this recommendation, available data indicate that there has been an increasing trend for inpatient rehabilitation programs to admit more patients with a mild stroke and fewer patients with a severe stroke.\textsuperscript{119} It has been illustrated that outpatient stroke rehabilitation can contribute to improvements in patient


\textsuperscript{117} Letter to Local Health Integration Network CEOs from A. Bezzina & S. Fitzpatrick (Ministry of Health and Long-Term Care), Re: Orthopaedic Quality Scorecard, June 3, 2011.


outcomes\textsuperscript{120} and has the potential to be a cost-effective method of delivering rehabilitation for post stroke, particularly for those with a mild stroke who do not need to be admitted to an inpatient rehabilitation program.\textsuperscript{121}

Given the finite resources of the publicly-funded healthcare system and the relatively low costs of outpatient services,\textsuperscript{122} it is essential that outpatient rehabilitation be considered as a critical component in health system planning and evaluation. Increased availability of outpatient rehabilitation has already been recommended as a key factor to improve patient outcomes and efficiencies within the stroke population.\textsuperscript{123} The strategic use of outpatient rehabilitation services has the potential to positively impact patient experiences and help meet urgent priorities of wait times and alternate-level-of-care (ALC) issues.

Unlike other sectors of the healthcare system, outpatient rehabilitation has little to no mandated data reporting or use of consistent outcome measures. Development of a standardized framework is needed given the limitations in current data tracking, the forecasted increases in demand\textsuperscript{124} and current initiatives with potential impact on outpatient rehabilitation. The administrative and clinical data collected through the framework will help inform performance evaluation and improvement from a continuum perspective.

The aggregated findings of this initiative have been and will continue to be shared with stakeholders for use in system planning. Opportunities will be explored for collaborative investigations into the development of standardized performance management measures which build on existing tools, particularly for the MSK and stroke populations.

\textsuperscript{120} Stroke survivors who receive outpatient rehab have been found to have greater improvement in key outcomes compared with stroke survivors in the community who do not participate in outpatient rehab.


APPENDIX A: OUTPATIENT REHABILITATION SURVEY

The GTA Rehab Network Outpatient Task Force is engaged in an initiative to better understand, measure, and quantify publicly-funded hospital outpatient rehabilitation programs and the role that these services play in supporting patient flow relative to other areas of the healthcare system.

Instructions

Please ensure that the most appropriate manager/director completes one survey for each outpatient program in their portfolio, as specified in the original email.

INCLUSION CRITERIA: Any publicly-funded, hospital-based, rehab-focused outpatient service which offer both assessment and treatment where treatment is not solely self management (e.g. Outpatient Neuro Rehab, Day Hospital, Outpatient Orthopaedic Hand Therapy, Seating Clinic, AAC Clinic).

EXCLUSION CRITERIA: This survey is not intended for specialty clinics that are primarily medical in nature or programs which offer solely self management (e.g. outpatient plastic surgery clinic which assesses medical needs and has an OT consultant).

CONFIDENTIALITY: Organization-specific results will be kept confidential; only aggregate data will be shared.

Contact Information

Please provide some information about yourself.

Name of the person completing this survey: ____________________________

Job title: ____________________________________________________________

Phone number: ______________________________________________________

Email: ______________________________________________________________

Please provide some information about your program/service and organization.

Organization name: ____________________________

Name of outpatient rehab program/service (please provide full name): ____________________________

If you are filling out this survey on behalf of more than one program/service, please list all programs/services.

_____________________________________________________________________________________________
**Hours of Operation and Ages Served**

How many days per week is your program/service open? __________________________________________

Do you offer services outside of typical business hours? Check all that apply.

- ✔ Early morning services are offered
- ✔ Evening services are offered
- ✔ Weekend services are offered
- ✔ Services are only offered during typical business hours

Which age category do you serve?

- ✔ Adults
- ✔ Children/Adolescents
- ✔ Both

**Description of Program/Service**

Please provide a percentage to represent the volume of populations/diagnostic groups served within this program/service. Percentages must total 100%. Where data is not available, please estimate.

| ___ ABI | ___ Geriatric | ___ Oncology |
| ___ Amputee | ___ MSK (THR/TKR) | ___ Pulmonary |
| ___ Burns | ___ MSK (Hip#) | ___ Spinal Cord |
| ___ Cardiac | ___ MSK (Other) | ___ Stroke |
| ___ Chronic Pain | ___ Neuro (Other) | ___ Trauma |
| ___ Other (please specify): _________ |

Which description best fits this program/service?

- ✔ Single service\(^{125}\)
- ✔ Mixed interprofessional team\(^{126}\) in outpatient rehab (e.g. general day hospital)
- ✔ Dedicated interprofessional team\(^{127}\) in outpatient rehab (e.g. ortho outpatient program)
- ✔ Other (please specify) __________________________________________________________________

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\(^{125}\) "SINGLE SERVICE (Outpatient)”: An outpatient rehab service located in acute care hospitals, rehab hospitals and community health centres/clinics that is suitable for individuals who are in need of an outpatient rehabilitation service in a single specialty area/profession. Clients may receive more than one rehab service; however, the services are not provided by way of a coordinated rehab approach. Services may include assessment only or assessment and treatment. Services may be provided during a one-time visit or multiple visits. [GTA Rehab Network, Rehab Definitions]

\(^{126}\) "DEDICATED INTERPROFESSIONAL TEAM (Outpatient Rehab)”: Outpatient rehab provided by an interprofessional team with expertise in the treatment and assessment of a particular patient population. Outpatient dedicated interprofessional teams are located in acute care hospitals, rehab hospitals and community health centres/clinics. They provide rehab to patients who require more than one rehab service and a coordinated rehab approach. [GTA Rehab Network, Rehab Definitions]

\(^{127}\) "MIXED POPULATION INTERPROFESSIONAL TEAM (Outpatient Rehab)”: Outpatient rehab that is provided by an interprofessional team, which typically assesses and treats patients from a variety of patient population groups. Outpatient mixed population interprofessional teams are located in acute care hospitals, rehab hospitals and community health centres/clinics. They provide rehab to patients who require more than one rehab service and a coordinated rehab approach. [GTA Rehab Network, Rehab Definitions]
Which professionals can be accessed as a single service? Check all that apply.

- Geriatrician
- Nurse
- Nutritionist/Dietitian
- Occupational Therapist
- Physiatrist
- Physician
- Physiotherapist
- Psychiatrist
- Psychologist
- Speech Language Pathologist
- Social Worker
- Other (specify): ________________

Professionals cannot be accessed as a single service; 2 or more professionals must be needed.

- Occupational Therapist
- Psychologist
- Physiotherapy Assistant (PTA)
- Communication Disorders Assistant (CDA)

How many FTEs were budgeted for this program/service in 2008/2009?

- Geriatrician__
- Physiatrist__
- Psychologist__
- Nurse__
- Physician__
- Therapeutic Recreationist__
- Nutritionist/Dietitian__
- Physiotherapist__
- Speech Language Pathologist__
- Occupational Therapist__
- Physiotherapy Assistant (PTA)__
- Communication Disorders Assistant (CDA)__
- Occupational Therapy Assistant (OTA)__
- Psychiatrist__
- Rehab Assistant__
- Social Worker__

If your program/service includes staff not listed above, please specify the name of the profession and budgeted FTE in 2008/2009: __________________________________________________________

What is the typical model of service delivery for this program? Check all that apply.

- Individualized therapy
- Group therapy
- Other (please specify) __________________________________________________________

On average, what percentage of patients ONLY participate in group therapy? Where data is not available, please estimate.

- 1-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 51-60%
- 61-70%
- 71-80%
- 81-90%
- 91-100%

External Referrals

Do you accept external referrals to this program/service?

- Yes
- No

If you answered yes to the above question ...

On average, what is the percentage of internal vs. external referrals of ADMITTED patients? Percentages must total 100%. Where data is not available, please estimate.

- Internal Referrals__
- External Referrals__
Please provide a percentage to represent the volume of most common external referral sources to this program/service. Percentages must total 100%. Where data is not available, please estimate.

____ Acute Care  ____ CCAC  
____ Inpatient Rehab  ____ Other (e.g. family physician/specialist)

**Utilization**

How many new referrals were received by this program/service in the 2008/2009 fiscal year? Where data is not available, please estimate. ______________________________________________________________

How many clients were admitted to this program/service in the 2008/2009 fiscal year? Where data is not available please estimate. ______________________________________________________________

On average, what percentage of admitted patients reside in this program/service’s LHIN? Percentages must total 100%. Where data is not available, please estimate.

____ Within LHIN of program/service location  ____ Outside program/service LHIN

What was the average length of stay (in days, as measured from date of first therapy appointment to date of last therapy appointment) for patients in this program/service during the 2008/2009 fiscal year? Where data is not available, please estimate. ______________________________________________________________

What is the average number of times that patients came to this program/service per week in the 2008/2009 fiscal year? Where data is not available, please estimate. ______________________________________________________________

**Access**

Of the ACCEPTED patients (not admitted) that meet this program/service’s admission criteria, are there some patients who are unable to access the program/service due to LANGUAGE BARRIERS?

☐ Yes  ☐ No

*If you answered yes to the above question ...*

In the 2008/2009 fiscal year, what percentage of ACCEPTED patients (not admitted) were unable to access the program/service due to language barriers?

☐ 1-10%  ☐ 11-20%  ☐ 21-30%  ☐ 31-40%  ☐ 41-50%

☐ 51-60%  ☐ 61-70%  ☐ 71-80%  ☐ 81-90%  ☐ 91-100%

Of the ACCEPTED patients (not admitted) that meet this program/service's admission criteria, are there some patients who are unable to access the program/service due to TRANSPORTATION ISSUES?

☐ Yes  ☐ No

*If you answered yes to the above question ...*

In the 2008/2009 fiscal year, what percentage of ACCEPTED patients (not admitted) were unable to access the program/service due to transportation barriers? Where data is not available, please estimate.

☐ 1-10%  ☐ 11-20%  ☐ 21-30%  ☐ 31-40%  ☐ 41-50%

☐ 51-60%  ☐ 61-70%  ☐ 71-80%  ☐ 81-90%  ☐ 91-100%
Of the ACCEPTED patients (not admitted) that meet this program/service's admission criteria, are there some patients who are unable to access the program/service because they cannot attend during this program/service's HOURS OF OPERATION?

☐ Yes  ☐ No

If you answered yes to the above question ...

In the 2008/2009 fiscal year, what percentage of ACCEPTED patients (not admitted) were unable to access the program/service they could not attend during this program/service's hours of operation? Where data is not available, please estimate.

☐ 1-10%  ☐ 11-20%  ☐ 21-30%  ☐ 31-40%  ☐ 41-50%

☐ 51-60%  ☐ 61-70%  ☐ 71-80%  ☐ 81-90%  ☐ 91-100%

Are there any other reasons why patients cannot access this program/service?

☐ Yes  ☐ No

If you answered yes to the above question ...

Please list the reason: ____________________________________________________________

What percentage of ACCEPTED patients (not admitted) are unable to access the program/service because they cannot attend due to the above listed reason? Where data is not available, please estimate.

☐ 1-10%  ☐ 11-20%  ☐ 21-30%  ☐ 31-40%  ☐ 41-50%

☐ 51-60%  ☐ 61-70%  ☐ 71-80%  ☐ 81-90%  ☐ 91-100%

If there are still other reasons why patients cannot be admitted to this program/service, when they otherwise meet the admission criteria, please explain: ____________________________________________________________

**Declined Referrals**

Please specify the top five (5) reasons why referrals to this program/service are declined, based on the most recent data available. Where data is not available, please estimate.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Top Reason</th>
<th>2nd reason</th>
<th>3rd reason</th>
<th>4th reason</th>
<th>5th reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric issues</td>
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<tr>
<td>Continence issues</td>
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<tr>
<td>Medical Condition/Complexity</td>
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<td>Behavioural issues</td>
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<tr>
<td>Cognitive issues</td>
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<tr>
<td>Infection control issues</td>
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<tr>
<td>Wandering issues</td>
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<tr>
<td>Inability to access transportation</td>
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<tr>
<td>Staffing/space shortage</td>
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<tr>
<td>Program does not offer the requested service</td>
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<tr>
<td>Wait list is too long to keep adding patients</td>
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<tr>
<td>Access to third-party funding</td>
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</tbody>
</table>
### Prioritization

Please specify the top five (5) priorities in which a patient is prioritized on this program/service's wait list. Where data is not available, please estimate.

<table>
<thead>
<tr>
<th>Top Reason</th>
<th>2nd reason</th>
<th>3rd reason</th>
<th>4th reason</th>
<th>5th reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral date (i.e. first come, first served)</td>
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<tr>
<td>Date of injury/onset</td>
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<tr>
<td>Access to third-party funding</td>
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<tr>
<td>Receiving other community rehab services (e.g. CCAC)</td>
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<tr>
<td>Psychiatric issues</td>
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<td>Continence issues</td>
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<tr>
<td>Medical condition/complexity</td>
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<tr>
<td>Wandering issues</td>
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<tr>
<td>Inability to access transportation</td>
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<tr>
<td>Discharged inpatient from this organization</td>
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<tr>
<td>Discharged inpatient from another organization</td>
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<tr>
<td>Referred from an outpatient program within this organization</td>
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<tr>
<td>Referred from the community by a physician in this organization</td>
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<tr>
<td>Referred from the community by a physician outside of this organization</td>
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<tr>
<td>Catchment area of this program/service</td>
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<tr>
<td>Other reason #1 (please specify)</td>
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<td>Other reason #2 (please specify)</td>
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<tr>
<td>Other reason #3 (please specify)</td>
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</tr>
</tbody>
</table>

Do you prioritize internal referrals over external referrals?

- [ ] Yes
- [ ] No
- [ ] Do not take external referrals
**Wait Times and Wait Lists**

On average, what is the estimated wait time (in days, from referral date to date of first therapy appointment) for EXTERNAL referrals? 

Comments 

On average, what is the estimated wait time (in days, from referral date to date of first therapy appointment) for INTERNAL referrals? 

Comments 

For the top three (3) professions with the longest wait times, estimate the average wait time for service. Where data is not available, please estimate.

Profession with the longest wait time:
- General Medicine
- Physiatry
- Speech Language Pathology
- Geriatrics
- Physician
- Social Work
- Nursing
- Physiotherapy
- Therapeutic Recreation
- Nutrition
- Psychiatry
- Other (please specify): __________
- Occupational Therapy
- Psychology

Estimated average wait time (in days, from referral date to date of first therapy appointment) for the above listed profession: _______________

Profession with the second longest wait time:
- Not applicable
- Occupational Therapy
- Psychology
- General Medicine
- Physiatry
- Speech Language Pathology
- Geriatrics
- Physician
- Social Work
- Nursing
- Physiotherapy
- Therapeutic Recreation
- Nutrition
- Psychiatry
- Other (please specify): __________
- Other (please specify): __________

Estimated average wait time (in days, from referral date to date of first therapy appointment) for the above listed profession (if not applicable, please enter “n/a”): _______________

Profession with the third longest wait time:
- Not applicable
- Occupational Therapy
- Psychology
- General Medicine
- Physiatry
- Speech Language Pathology
- Geriatrics
- Physician
- Social Work
- Nursing
- Physiotherapy
- Therapeutic Recreation
- Nutrition
- Psychiatry
- Other (please specify): __________

Estimated average wait time (in days, from referral date to date of first therapy appointment) for the above listed profession (if not applicable, please enter “n/a”): _______________
**Discharge Criteria**

Does this program/service have established discharge criteria?

- Yes  
- No

How do you determine when a patient in this program/service is discharge ready? Check all that apply.

- When the patient has reached their functional goal
- When the client has reached the end of the allotted length of stay according to policy
- Based on outcome measures
- Based on professional clinical discretion
- Other (please specify): __________________________

**Follow-up and Re-entry**

What methods, if any, are used for follow-up post-discharge? Check all that apply.

- No follow-up services are provided
- Phone call to patient
- Follow-up if/when the patient calls
- Based on provider's discretion
- Other (please specify)

If you have comments regarding this program/service's follow-up services, please write them here: ______________

Is there an established mechanism for re-entry to this program/service after discharge?

- Yes  
- No

Please describe the method(s) of re-entry to this program/service after discharge: __________________________

**Thank you**

Thank you for taking the time to complete the GTA Rehab Network Outpatient Rehab Survey.
APPENDIX B: KEY INFORMANT INTERVIEW TOOL

A semi-structured interview tool was developed for use with representatives from outpatient rehabilitation programs which had experienced a recent change (e.g. increase, decrease, closure). The tool underwent multiple revisions to improve the clarity and relevance of questions prior to its implementation. The tool was used as a guideline for the interviews and probes were used as needed.

Key informants were asked about their experiences with recent changes to their outpatient rehabilitation programs, as well as the factors leading to and arising from these changes. Note that representatives from the rehabilitation department at an Ontario university were also interviewed with a modified version of the tool focusing on the impact on opportunities for learning and student placement.

- What services did this program provide?
- What services are currently provided?
- What factors led to the enhancement of / closure to / reduction of this program?
- Who was anticipated to serve this program’s patients once it was closed or reduced?
- Who were the primary referrers to the program?
- How has this change impacted patient outcomes, referral patterns and access to services?
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