STROKE NETWORK of Southeastern Ontario

Community Stroke Rehabilitation Program
Annual Report – September 2020
Fiscal Year 2019/20

This annual report provides an overview of the Community Stroke Rehabilitation Program (CSRP) since service inception in 2009 and reflects the most recent fiscal year data (April 1, 2019 – March 31, 2020). With this program, eligible stroke survivors following their hospital discharge to either community or long-term care (LTC) receive the appropriate level of therapy to support their ongoing rehabilitation through the provision of: Physiotherapy (PT), Occupational Therapy (OT), Speech-Language Pathology (SLP) and Social Work (SW). Services are provided through the South East Local Health Integration Network (LHIN) Home and Community Care, with the exception of PT in the LTC home (LTCH) setting which is provided by the LTCH. Additionally, patients discharged from acute care are referred to the Rapid Response Nurse Program.
For patients leaving hospital and going to the community, rehabilitation care plans focusing on the patient's goals are developed with the patient and their family/caregivers, hospital interprofessional stroke team and the South East LHIN Care Coordinator. A Community Rehabilitation Planning meeting may occur between the hospital team, community provider and patient/family prior to patient leaving hospital. For patients leaving hospital and going to a LTCH, an interprofessional care planning conference is organized following admission to the LTCH, and involves the patient, their family, community therapist and members of the LTCH care team as determined by the Director of Care or designate.

KEY FINDINGS 2019-20

- ✓ A 14% increase in CSRP patients for this fiscal (n=63); patients discharged from acute care comprised the majority at 56% with 36% coming from rehab sites; the percent of patients admitted from the acute care setting has continued to increase.
- ✓ Over the past 5 years, there has been an **82% increase in number of annual referrals** (from volumes of 281 to 510). There has been a related **increase** in the percent of stroke patients admitted to the CSRP.
- ✓ Median number of days to first therapy visit remains stable at 4 days
- ✓ Average number of visits per patient after acute care: OT 5.6, PT 7.2, SLP 3.6 and SW 2.8. This is an increase in averages for both PT and OT, a decrease for SW and stable SLP. Average number of visits per patient after rehab: OT 6.0, PT 8.5, SLP 3.8 and SW 2.0. This is a decrease for all therapies with the exception of SW which remained stable.
- ✓ Visit totals for all therapies increased for this fiscal (PT↑652, OT↑553, SLP↑129, SW↑37)
- **Social Work Services are frequently underutilized.**
- **The data suggest that equal access to comprehensive outpatient rehab programs might enable more equal access to community based care.**
- **Those living in small population areas averaged one additional day of wait time for services.**
- **Patients residing in large population centres received a higher average number of PT and OT visits as compared to patients residing in the other three population categories.**
- **The largest age category for females admitted to the CSRP is 80 to 89 years of age while for males, 60 to 69 and 70 to 79 years of age comprise the largest categories.**
- **Increase in number of referrals to LTC for this fiscal (n=27).**

What's New?

The onset of in-home visit restrictions in March 2020, in response to the pandemic, introduced a new in-home visit model - the virtual visit. This shift required responsiveness and flexibility on the part of both the South East LHIN Home and Community Care, as well as the in-home therapy providers. Learning continues to evolve as the experience with this approach continues. Collaborative discussions will be held to understand how virtual care might be integrated in the CSRP going forward. Future reports will provide data related to virtual versus in-person visits to help understand and evaluate this change.

Note: Glossary of acronyms can be found on page 12

Ontario

Annual Review of Community Stroke Rehabilitation Program (CSRP)

TABLE 1 - Number of Patients Completing Community Stroke Rehabilitation Program

FISCAL	Total # of Pateints Admitted to CSRP	Year over Year Percent Change (↑ or ↓)	# Discharged to Community	# Discharged to LTC
2009/10	173	-	145	28
2010/11	182	↑5%	153	29
2011/12	236	↑30%	226	10
2012/13	242*	↑2%	228	13
2013/14	271	↑12%	256	15
2014/15	270	-	260	10
2015/16	281	↑4%	276	5
2016/17	329	↑17%	320	9
2017/18	376*	↑14%	364	11
2018/19	447*	↑19%	432	14
2019/20	510*	↑14%	480	28
TOTALS TO DATE	**3317**	**↑195% relative increase from 2009/10 to 2019/20**	**3140**	**172**

***Two unknown destination for fiscal 2019/20**

There was a significant increase in referrals again in this fiscal (n=53).

Note: Analysis of subsequent data within this report **was reported on 12 weeks of CSRP services (standard length of CSRP program)** during the fiscal period (n=449). This is an increase from last FY of 79 patients. Previously, patients were included in the data analysis if they received their first visit within the reporting period even thougth they may not have completed the program. Moving to the current method of only capturing patients who have completed the 12-week program provides more accurate data.

TABLE 2 – Community Stroke Rehab Program Admissions/Acute Stroke Unit Admissions

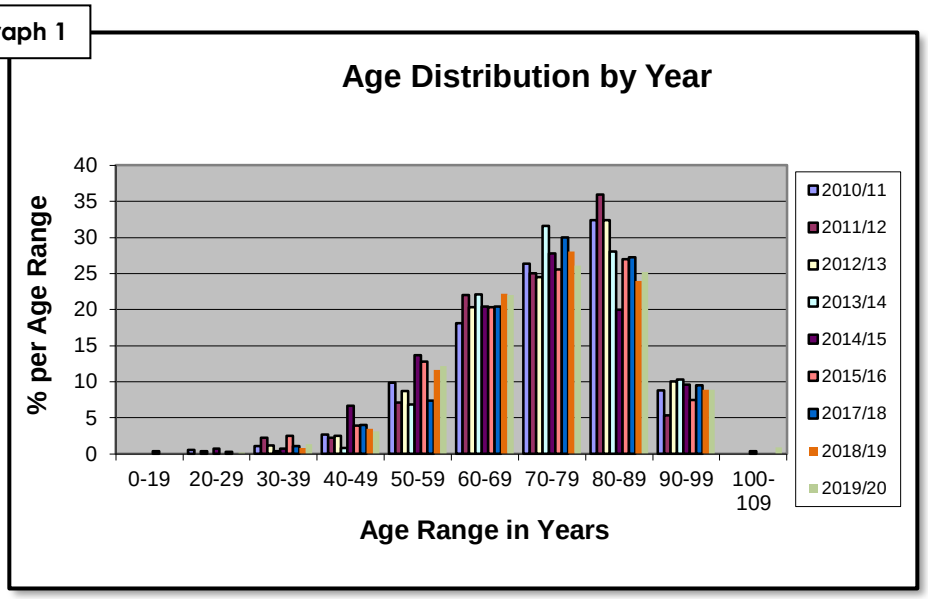
Fiscal	Volume of stroke/TIA patients admitted to acute care hospital	# Admitted to CSRP	% Admitted to CSRP
2016/17	950	329	**34.6**
2017/18	1100	376	**34.1**
2018/19	1148	447	**38.9**
2019/20	1236	510	**41.3**

Reported over the last four fiscal years, the percentage of patients being admitted to the CSRP from hospital has increased in 2018/19 and, again, in 2019/20.

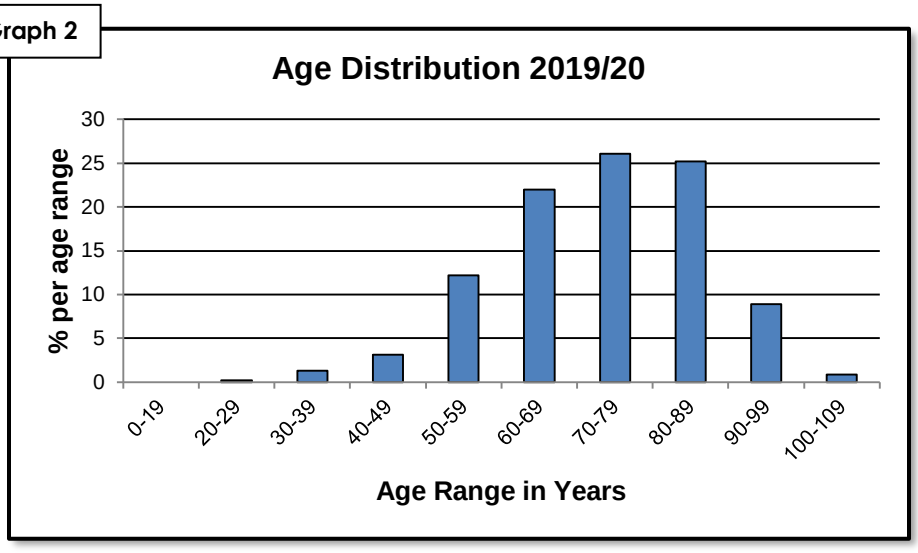
TABLE 3 - Average & Median Ages of Patients Admitted to CSRP

	Fiscal 10/11	Fiscal 11/12	Fiscal 12/13	Fiscal 13/14	Fiscal 14/15	Fiscal 15/16	Fiscal 16/17	Fiscal 17/18	Fiscal 18/19	Fiscal 19/20
Average Age (years)	74	74	74.5	75.5	70.7	71.6	73.6	73.8	72.9	73
Median Age (years)	76	77	77	76	72	73	76	75	73	74

Graph 1

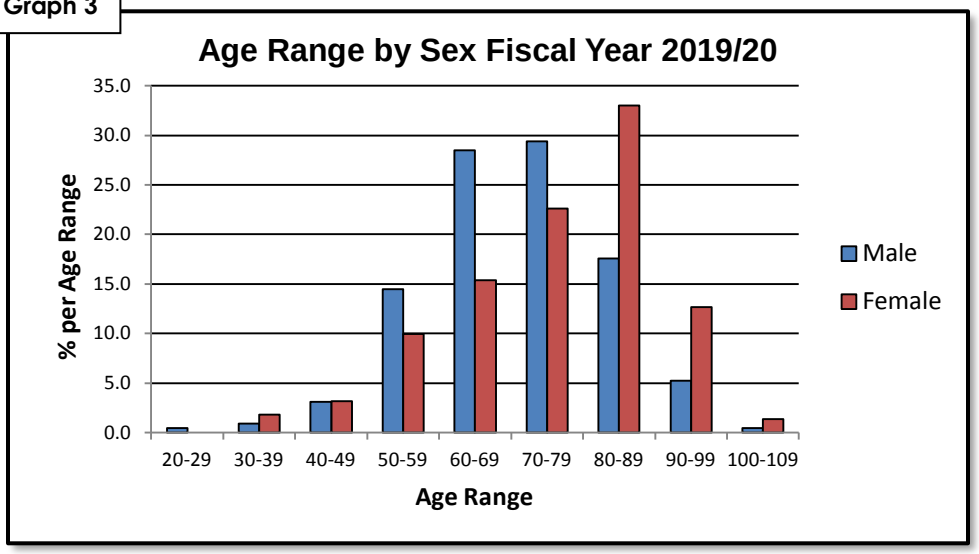


Graph 2



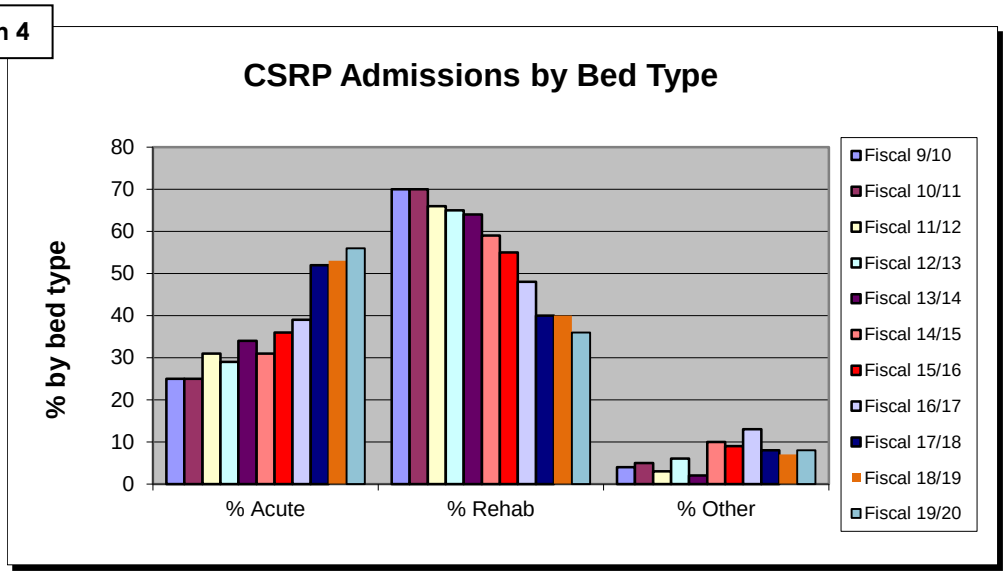
The median age (74) for this fiscal year (FY) increased by one year from the previous FY. When examined by sex, males had an average age of 70.4 years (median 71), and females had an average age of 75.7 (median 78). Males comprised 51% of the cohort.

Graph 3



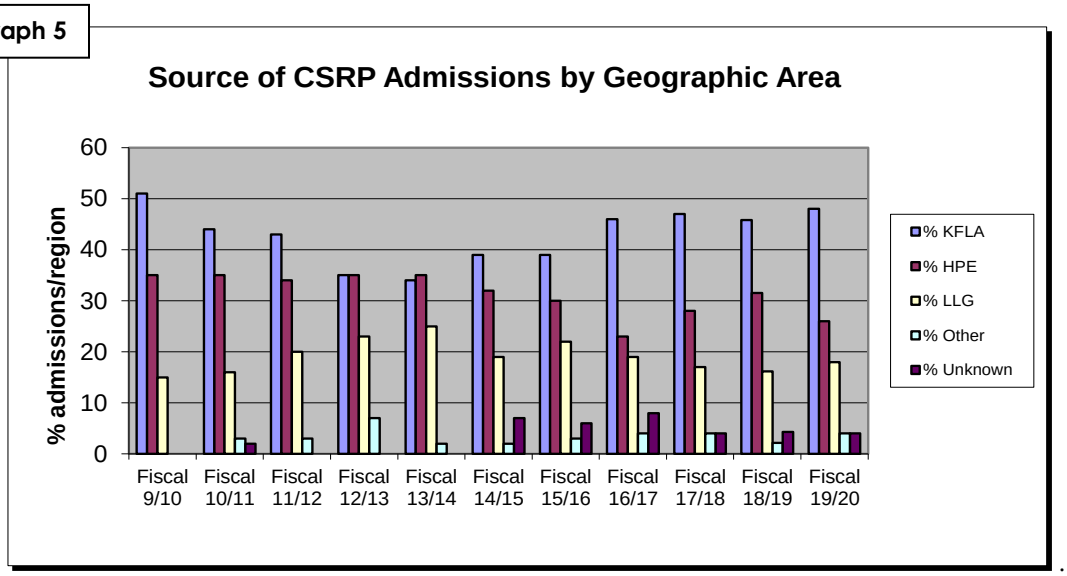
When age range is examined by sex, there are differences in several categories. The largest category for females is 80 to 89 years of age while for males, 60 to 69 and 70 to 79 comprise the largest categories. (Graph 3)

Graph 4



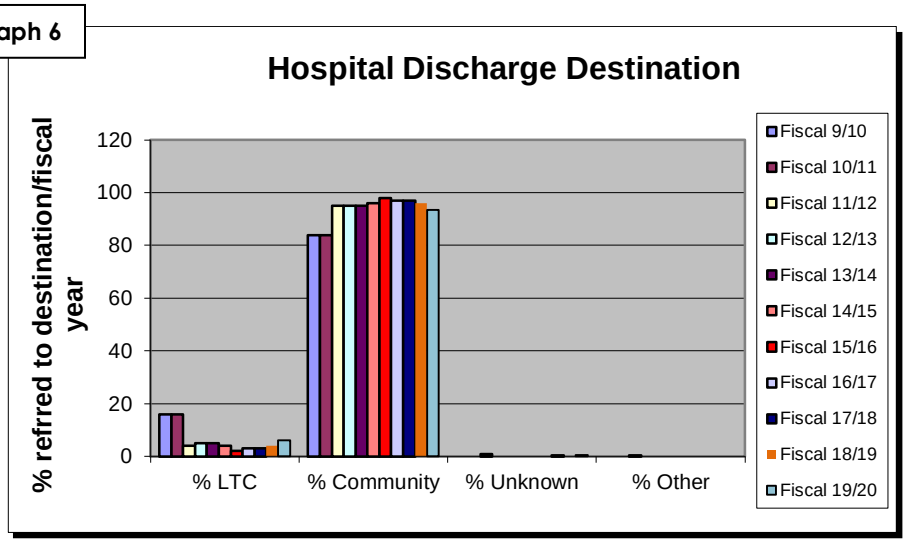
CSRP admissions from acute care beds constituted the majority at 56% (a slight increase from FY 18/19) with 36% coming from rehab (a slight decrease from last FY). Data for rehab versus acute admissions for LLG and HPE are estimated based on historical trends. Data for KFLA are extrapolated using KHSC and PCH identified sites. CSRP admissions from other sources remained relatively stable at 8%. (Graph 4)

Graph 5



Distribution of admissions by geographic area demonstrated a slight increase in KFLA and LLG with a decrease in HPE. (Graph 5)

Graph 6



Hospital discharge destination has remained relatively stable over the previous eight fiscal years with admissions to LTC from hospital constituting a very low proportion of the total. This fiscal did see an increase in those LTC admissions (n=27). Note that 3 of those admissions had been living in LTC prior to their stroke. (Graph 6)

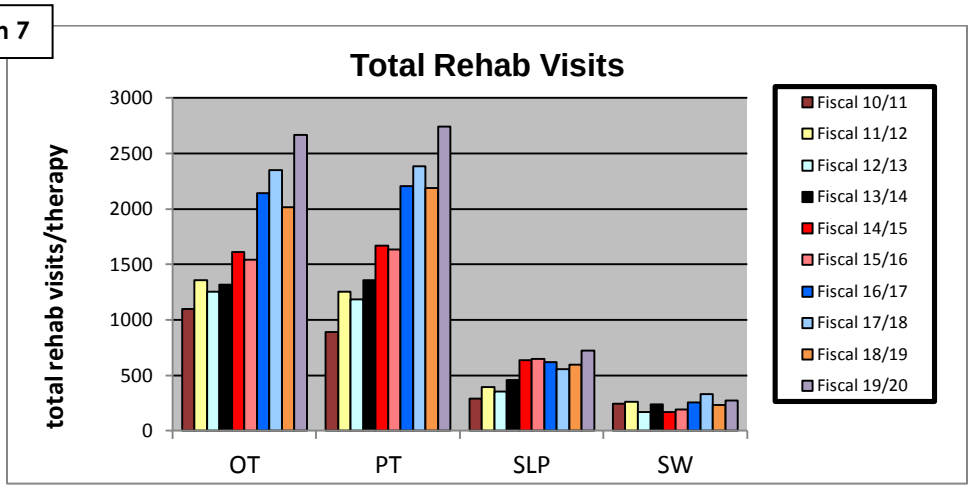
TABLE 4

Average & Median Days Waiting to First Scheduled Rehabilitation Visit

Time – Hospital Discharge to First Scheduled Rehabilitation Therapy Visit (days)	Fiscal 10/11	Fiscal 11/12	Fiscal 12/13	Fiscal 13/14	Fiscal 14/15	Fiscal 15/16	Fiscal 16/17	Fiscal 17/18	Fiscal 18/19	Fiscal 19/20
Average Days Waiting	4.9	4.6	4.4	4.3	4.3	4.5	4.1	4.7	4.15	4.6
Median Days Waiting	5	4	4	4	4	4	4	4	4	4

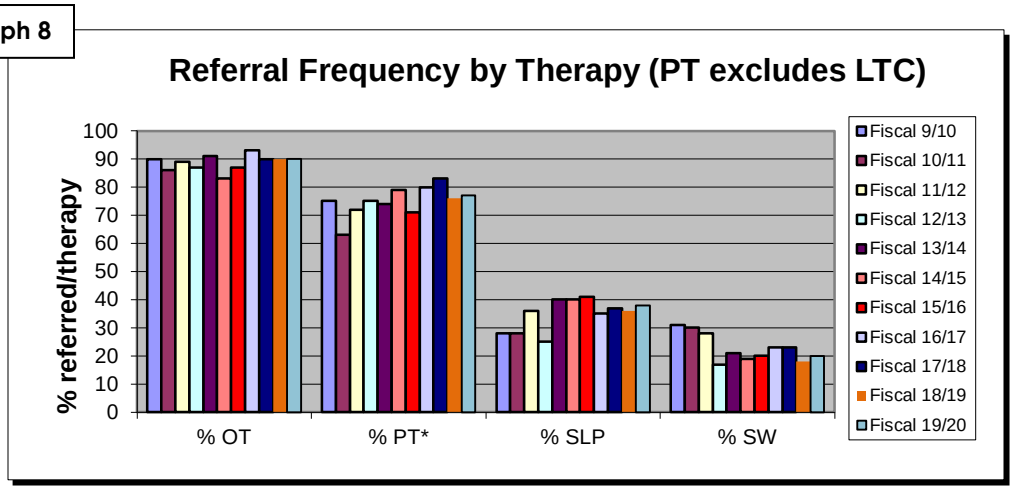
This FY, the median remained stable with a slight increase in the average days waiting.

Graph 7



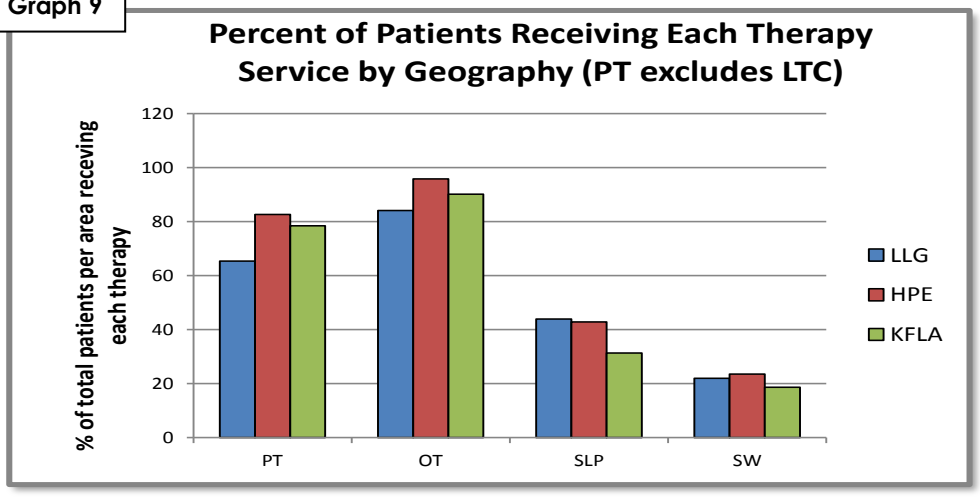
There have been significant increases in the number of visits within this fiscal year for PT and OT as well as increases for SLP and SW. There were 79 more patients for this FY as compared to last FY which would account for a proportion of that increase. (Graph 7)

Graph 8



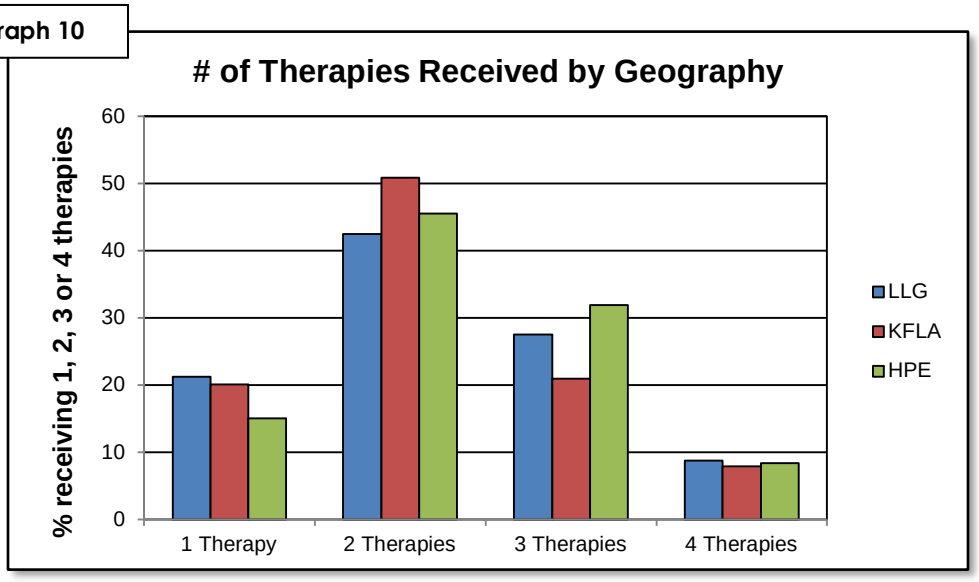
The percentage of individuals referred to each of the disciplines remained relatively stable as compared to last FY with a slight increase in PT, SLP and SW. (Graph 8)

Graph 9



When looked at by geography, there is relative consistency across the region with the exception of a lower precentage of patients receiving PT and OT in LLG and SLP in KFLA. (Graph 9)

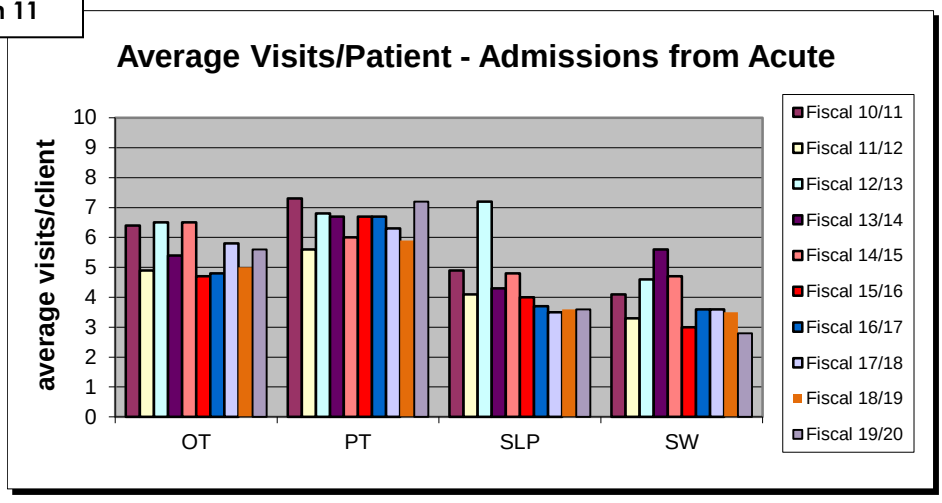
Graph 10



In reviewing the percentage of patients receiving 1, 2, 3 or all 4 therapies by geography, HPE has the lowest percentage of patients receiving only one therapy and the highest receiving 3 therapies. Relatively few patients receive all 4 therapies in any of the geographic areas. Of note, when breaking down KFLA into those patients discharged from KHSC (acute) and those discharged from PCH (rehab), there are (expected)differences. Of the patients admitted to the CSRP from PCH, 5.7% receive only 1 therapy as compared to 30.2% of those admitted to the CSRP from KHSC. Looking at the other categories, 45.5% from PCH and 54.8% from KHSC received 2 therapies with more divergence in the remaining categories; 33% from PCH received 3 therapies, KHSC 12.7% and 15.9% from PCH receive all four therapies as compared to 2.4% from KHSC. (Graph 10)

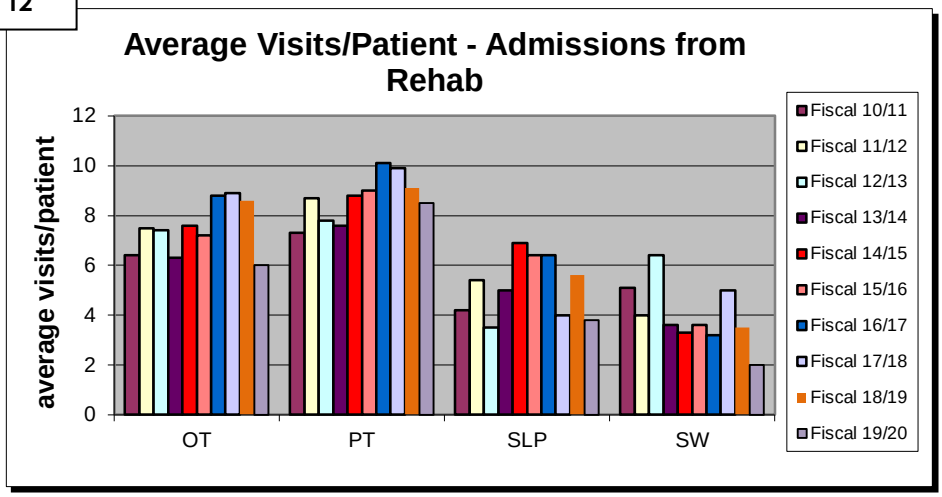
ADMISSIONS TO THE COMMUNITY STROKE REHAB PROGRAM

Graph 11



The average visit rate per patient for those discharged from acute beds increased for OT and PT with a decrease for SW and SLP remaining stable. (Graph 11) Data for average visits for admissions from acute for LLG and HPE is estimated based on historical trends. Data for KFLA is extrapolated using KHSC and PCH identified sites.

Graph 12



The average visit rate per patient for those discharged from rehabilitation settings decreased significantly for OT, SLP and SW with a lesser decrease for PT. The data for fiscal year 2019/20 indicates that patients referred from rehab settings are getting relatively less rehab intensity as compared to previous fiscal years while those discharged from acute are receiving higher intensity. Causation is difficult to determine however, in future, more equitable access to outpatient rehab throughout the southeast could help to moderate this. Data for average visits for admissions from rehab for LLG and HPE are estimated based on historical trends. Data for KFLA are extrapolated using KHSC and PCH identified sites. (Graph 12)

Graph 13

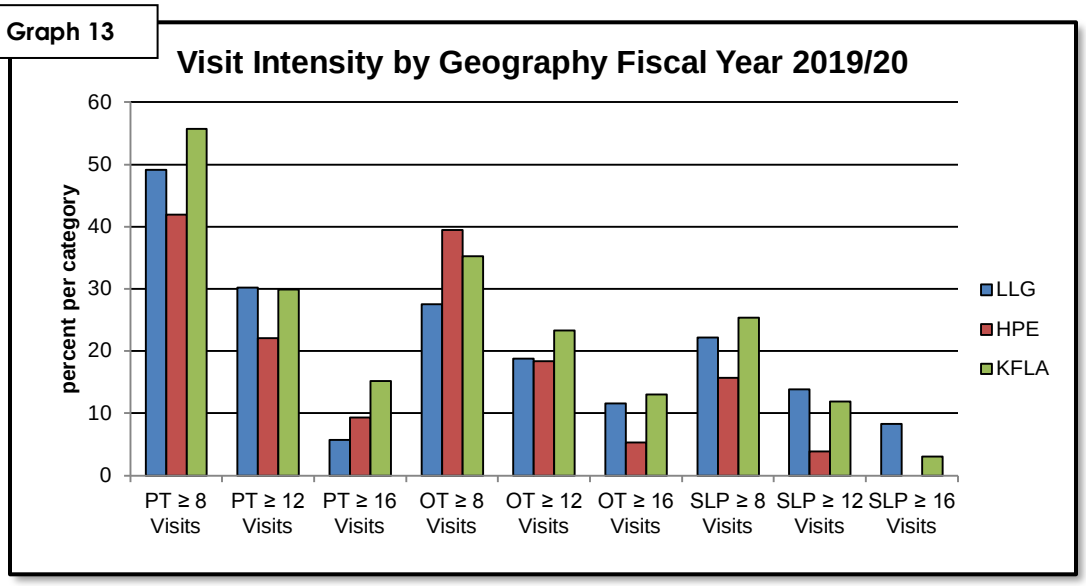


TABLE 5 – Visit Intensity for Patients Admitted from KHSC and PCH

	PT PCH Rehab Discharges (n=87))	OT PCH Rehab Discharges (n=96)	SLP PCH Rehab Discharges (n=41)	PT KHSC Acute Discharges (n=86)	OT KHSC Acute Discharges (n=109)	SLP KHSC Acute Discharges (n=30)
% receiving 8 or more visits (last FY)	64% (58%)	54% (59%)	39% (36%)	38% (23%)	19% (19%)	10% (13%)
% receiving 12 or more visits (last FY)	45% (42%)	35% (27%)	20% (19%)	15% (8%)	13% (6%)	3% (0%)
% receiving 16 or more visits (last FY)	22 (28%)	21% (21%)	5% (7%)	7% (5%)	5 % (3%)	0% (0%)

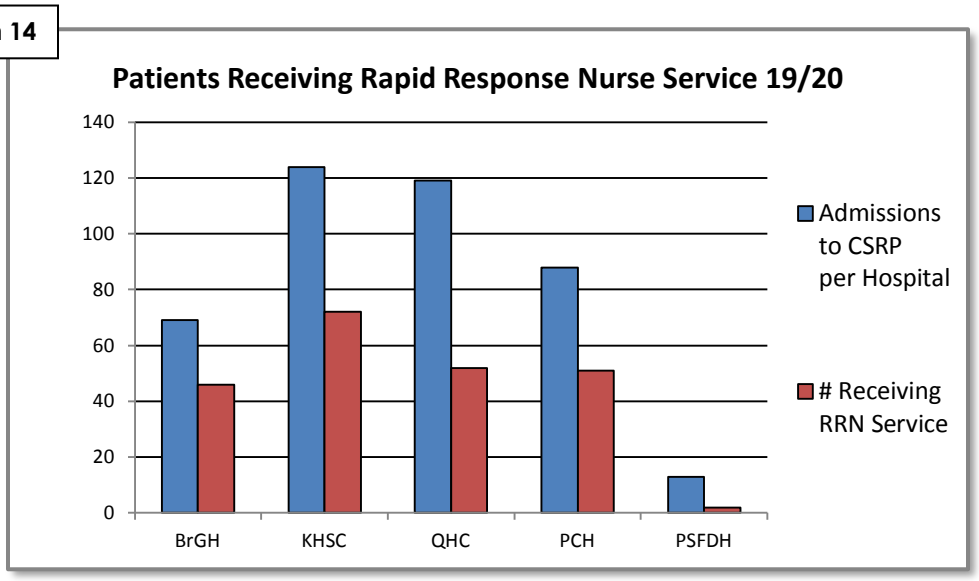
Best practice recognizes that rehab intensity early in the recovery period positively impacts patient outcomes. When looked at by geopgraphy (Graph 13), patients in KFLA received greater intensity in seven out of the nince categories, HPE provided the lowest intensity in six of the nine categories. One might hypothesize that for Belleville and Perth Smiths Falls areas some of the intensity is picked up by available outpatient neuro rehab services. Table 5 demonstrates higher intensity of service post-rehabilitation when compared to post-acute. From this available data, there has been an increase in the percent of patients receiving 12 or more visits for both acute and rehab discharges. Note: data do not include patients with unknown or out of area referral sources nor do the data include Quinte Health Care (QHC) or Brockville which cannot be accurately segregated by acute and rehab (i.e. table only includes KHSC and PCH data). (Graph 13 and Table 5)

TABLE 6 - Total Community Rehab Planning Meetings/Total Admissions by Geographic Region

	Total Admits 16/17	# (%) CoRP Meetings 16/17	Total Admits 17/18	# (%) CoRP Meetings 17/18	Total Admits 18/19	# (%) CoRP Meetings 18/19	Total Admits 19/20	# (%) CoRP Meetings 19/20
BGH	56	0 (0)	49	3 (6)	59	2 (15)	69	5(7)
PSFDH	7	0 (0)	15	1(7)	12	1(8)	13	0(0)
QHC	75	29 (39)	100	43 (43)	95	46(48)	119	48(40)
PCH	78	28 (36)	88	41(47)	80	52 (65)	88	59(67)
KHSC	72	0(0)	83	2(2)	78	0(0)	124	4(3)

The Community Rehab Planning Meeting is an integral component of the CSRP, particularly for more complex patients transitioning to the community with a focus on those patients being discharged from a rehab setting.

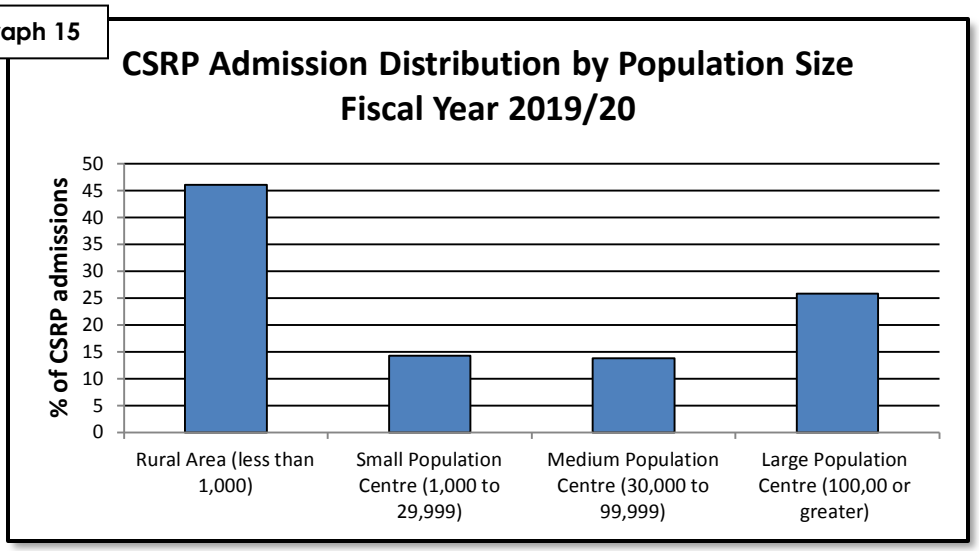
Graph 14



Data for patients receiving an RRN visit have been reported by organization. It should be noted that RRN visits are particularly recommended for patients discharged from the acute care setting however, with the exception of KHSC and PCH, data cannot be segregated by acute and rehab. (Graph 14)

RURAL/URBAN CSRP ADMISSION DISTRIBUTION

Graph 15



Graph 16

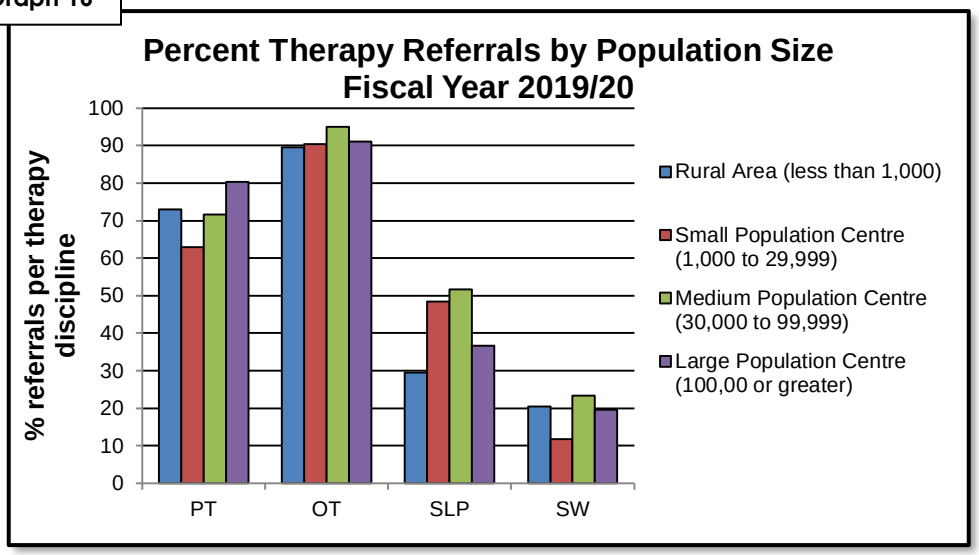
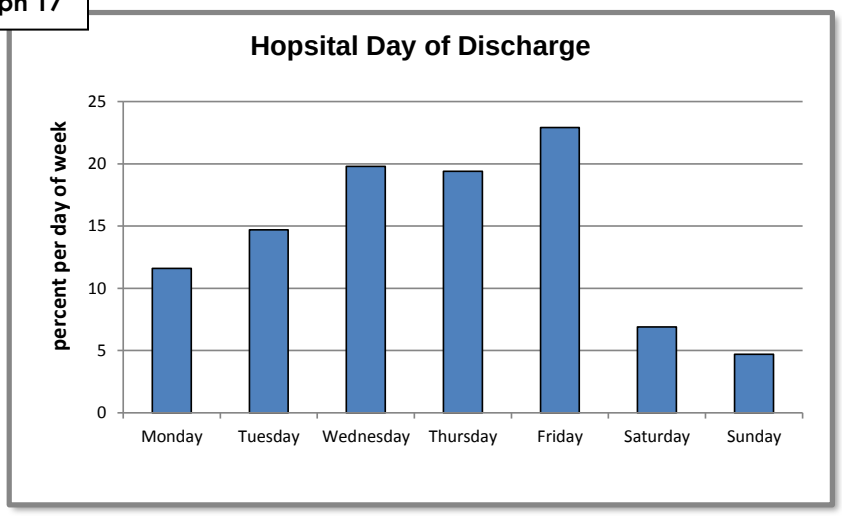


TABLE 7 - Wait Times and Average Visits by Population

	Large Population Centre (n=112)	Medium Population Centre (n=60)	Small Population Centre (n=62)	Rural Area (n=200)
Median Wait Time to First Visit (days) (average)	4 (4.1)	4 (3.9)	5 (5.4)	4 (4.6)
Average PT Visits	10	8.1	8.5	7
Average OT Visits	8	6.8	7.6	5.8
Average SLP Visits	4.3	3.9	3.9	4.8
Average SW Visits	3	3.4	3.2	2.9

Many admissions to the CSRP are for patients identified as living in rural areas. Those living in small population centres averaged one additional day of wait time for services. Patients residing in large population centres (e.g. Kingston) received a higher average number of PT and OT visits as compared to patients residing in the other three population categories. There are no outpatient services available in Kingston (i.e. large population centre) which may be impacting on this finding (Graphs 15, 16 and Table 7). (Note: 15 patients did not have population size noted in data)

Graph 17



The highest percent of admissions to the CSRP occur on a Friday which can produce resource challenges for community providers and may impact on how quickly they receive their initial therapy visit. (Graph 17)

LONG-TERM CARE (LTC) ADMISSIONS

TABLE 8 - Total Admissions to LTC by Fiscal Year

Fiscal 10/11	Fiscal 11/12	Fiscal 12/13	Fiscal 13/14	Fiscal 14/15	Fiscal 15/16	Fiscal 16/17	Fiscal 17/18	Fiscal 18/19	Fiscal 19/20
23	8	12	15	10	5	9	11	14	27

There was a significant increase in admissions to LTC this fiscal. There may be several factors impacting this including an increased need for a LTC setting due to severity of stroke impacts, enhanced understanding by hospital teams referring to the CSRP, South East LHIN and LTCHs regarding eligibility of LTC residents for the CSRP, improved data quality and/or referrals to the CSRP directly from LTCHs (n=3).

TABLE 9 - Admissions to Enhanced Rehab program for Patients Transitioning to LTC

Referring Organization	# Patients Referred	Total # Visits OT	Total # Visits SLP	Total # Visits SW
Quinte	15	63	32	1
Brockville General.	1	3	0	4
KHSC	6	6	4	0
LTCH	3	16	7	0
Other/Unknown	2	7	3	0

Quinte had the majority of referrals to LTC this fiscal. The referral distribution to LTC raises a question as to whether referral to LTC is related to patient or system factors.

GLOSSARY OF ACRONYMS

ALC	Alternate Level of Care
BGH	Brockville General Hospital
CC	Care Coordinator
CIHI	Canadian Institute of Health Information
CoRP	Community Rehab Planning Meeting (formerly Discharge Link Meeting)
CSRP	Community Stroke Rehabilitation (Rehab) Program
ED	Emergency Department
FY	Fiscal Year
HPE	Hastings & Prince Edward
KFLA	Kingston, Frontenac, Lennox & Addington
KHSC	Kingston Health Sciences Centre
L&A	Lennox & Addington
LHIN	Local Health Integration Network
LLG	Lanark, Leeds & Grenville
LTC	Long-Term Care
LTCH	Long-Term Care Home
OT	Occupational Therapy
PCH	Providence Care Hospital
PSFDH	Perth Smith Falls District Hospital
PT	Physiotherapy
SLP	Speech Language Pathology
SW	Social Work

REMINDERS

1. All patients who have experienced a new stroke should be considered for referral to the CSRP prior to discharge including patients transitioning to LTC. **Hospital teams need to complete the South East LHIN Referral Form a minimum of 24-48 hours prior to discharge.** The form should clearly indicate **"**Community Stroke Rehab Program**"** and include suggested therapy plan with focus of intervention. For all patients discharged from acute, a referral to the Rapid Response Nurse should be included. The table below outlines CSRP therapy services. Note that for LTC, PT is provided by the LTCH.

Community Stroke Rehab Program		
	Weeks 1-4	**Weeks 5-12**
OT	**Up to 12 visits over 4 weeks**	**Up to 16 visits over 8 weeks**
PT	**Up to 12 visits over 4 weeks**	**Up to 16 visits over 8 weeks**
SLP	**Up to 8 visits over 4 weeks**	**Up to 8 visits over 8 weeks**
SW	**Up to 4 visits over 4 weeks**	**Up to 4 visits over 8 weeks**

2. **Community Rehab Planning (CoRP) meeting** should be considered for all discharges from rehab. The CoRP ideally occurs within 72 hours prior to discharge but planning for this meeting could start as early as two weeks prior to discharge. Note that it may take 4-5 days to arrange the CoRP meeting. The Hospital OT typically coordinates the CoRP meeting however another therapist may be more appropriate in some circumstances as determined by the Access Care Coordinator and based on recommendations from the hospital team. The most appropriate therapy discipline supports the **Care Planning Meeting in LTCH** in lieu of the CoRP meeting.

3. An extended stay in hospital (e.g. waiting for LTC) does **NOT** preclude the patient from being eligible for the CSRP.

4. Referral to Social Work (SW) should be considered during discharge planning **and throughout the patient's recovery journey.**. SW can assist with psychosocial supports, links to vocational support services and assistance with applications for financial support **at any time** post-stroke.

5. Consider referral to **Stroke Survivor and Caregiver Support Groups**, **Stroke Specific Exercise Programs** and **Aphasia Supportive Conversation Groups** where available and to other community exercise programs and supports when appropriate. A community visit may be used by the community provider to connect the patient with any community support/program prior to discharge from the CSRP.

6. Information on various community programs is available through the Community Supports page on the Stroke Network of Southeastern Ontario website under Community Supports and through the South East Health Line under Stroke Resources. A Patient Journey Map co-developed by stroke survivors and caregivers is a recommended education and navigation resource.

7. Funding for education is available through the Stroke Network of Southeastern Ontario (SNSEO) in the form of **Shared Work Days** to link with stroke experts. For shared work day applications visit http://strokenetworkseo.ca/events-registration

Need additional information? Please contact:
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