Integrated Stroke Care in Waterloo-Wellington

Transitions in Stroke Care

Stroke Network of Southeastern Ontario

September 18, 2019

St. Joseph's Health Centre Guelph

Grand River Hospital – Advancing Exceptional Care

Cambridge Memorial Hospital

Guelph General Hospital

St. Mary's General Hospital

North Wellington Health Care

Groves – Groves Memorial Community Hospital

March of Dimes Canada

Waterloo Wellington LHIN

Our Success

- **Stroke Care in Waterloo Wellington**
- **2017/2018**

- All data referenced was abstracted through:
- Discharge Abstract Data (DAD), accessed through Intellihealth Ontario
- National Ambulatory Care Reporting System (NACRS), Accessed through Intellihealth Ontario
- Home Care Database (HCD), Accessed through Intellihealth Ontario

Ontario Stroke 2017/2018 Report Card

Ontario Stroke Report Card, 2017/18:
Waterloo Wellington Local Health Integration Network

CorHealthOntario.ca

● Exemplary performance[1] ■ Acceptable performance[2] ▲ Poor performance[3] ☐ Data not available or benchmark not available

Indicator No.	Care Continuum Category	Indicator[4]	LHIN FY 2017/18 (2016/17)	Variance Within LHIN[5] (Min–Max)	Provincial Benchmark[6]	High Performers[7]	
						Sub-region/Facility	LHIN
1 ■	Public awareness and patient education	Proportion of stroke/TIA patients who arrived at the ED by ambulance.	59.9% (60.3%)	59.0 - 63.5%	65.9%	Western Champlain sub-region	1, 11
2 ▲	Prevention of stroke	Annual age- and sex-adjusted inpatient admission rate for stroke/TIA (per 1,000 population).	1.6 (1.5)	1.4 - 1.7	1.1	Oakville sub-region	7, 8, 6
3§ ☐	Prevention of stroke	Risk-adjusted stroke/TIA mortality rate at 30 days (per 100 patients).	13.4 (12.5)	11.8 - 20.5	-	-	11
4 ▲	Prevention of stroke	Proportion of ischemic stroke/TIA inpatients aged 65 and older with atrial fibrillation who filled a prescription for anticoagulant therapy within 90 days of discharge from acute care.	72.7% (68.1%)	58.7 - 79.0%	85.6%	East Mississauga sub-region	5, 12
5 ●	Prevention of stroke	Proportion of ischemic stroke inpatients who received carotid imaging.	88.1% (86.4%)	42.9 - 91.4%	93.0%	Thunder Bay Regional Health Sciences Centre	14, 3
6 ■	Acute stroke management	Median door-to-needle time among patients who received acute thrombolytic therapy (tPA) (minutes). Target[8]: 30 minutes	54.0 (52.0)	47.0 - 61.5	33.0	Kingston Health Sciences Centre – Kingston General Site	10
7§ ▲	Acute stroke management	Proportion of ischemic stroke patients who received acute thrombolytic therapy (tPA). Target[8]: >12%	11.2% (11.6%)	7.4 - 16.4%	17.7%	London Middlesex sub-region	11, 4
8§ ●	Acute stroke management	Proportion of stroke/TIA patients treated on a stroke unit[9] at any time during their inpatient stay. Target[8]: >75%	80.6% (83.0%)	69.5 - 87.2%	81.8%	Quinte sub-region	3, 10
9 ▲	Prevention of stroke	Proportion of ischemic stroke/TIA patients discharged from the ED and referred to secondary prevention services.	69.6% (64.1%)	0.0 - 88.3%	95.1%	Hamilton Health Sciences Corp - Juravinski	None
10§ ●	Acute stroke management	Proportion of ALC days to total length of stay in acute care.	12.6 (14.2)	0.0 - 60.8%	8.2%	Bluewater Health, Sarnia	3
11§ ▲	Acute stroke management	Proportion of acute stroke (excluding TIA) patients discharged from acute care and admitted to inpatient rehabilitation. Target[8]: >30%	28.6% (34.9%)	23.6 - 30.4%	47.8%	Lambton sub-region	1
12§ ☐	Stroke rehabilitation	Proportion of acute stroke (excluding TIA) patients with mild disability (AlphaFIM > 80) discharged home.	86.6% (84.2%)	84.2 - 91.5%	*	*	14, 3
13§ ■	Stroke rehabilitation	Median number of days between stroke (excluding TIA) onset and admission to stroke inpatient rehabilitation.	8.0 (7.0)	7.0 - 9.0	5.0	Quinte Health Care – Belleville General Site	None
14§ ■	Stroke rehabilitation	Median number of minutes per day of direct therapy received by inpatient stroke rehabilitation patients. Target[8]: 180 minutes/day	83.6 (90.2)	65.4 - 101.0	107.6	West Park Healthcare Centre	None
15§ ■	Stroke rehabilitation	Proportion of inpatient stroke rehabilitation patients achieving RPG active length of stay target.	80.5% (83.9%)	77.8 - 90.0%	86.6%	Providence Healthcare	12
16 ●	Stroke rehabilitation	Median FIM efficiency for moderate stroke in inpatient rehabilitation.	1.7 (1.7)	1.2 - 2.0	1.6	Providence Healthcare	3, 12
17 ●	Stroke rehabilitation	Mean number of home and community care rehab visits provided to stroke patients on discharge from inpatient acute care or inpatient rehabilitation in 2016/17–2017/18.	14.7 (15.7)	-	13.1	South East Home and Community Care	10, 3
18§ ■	Stroke rehabilitation	Proportion of patients admitted to inpatient rehabilitation with severe stroke (RPG 1100 or 1110).	49.1% (58.6%)	42.0 - 52.6%	56.2%	Grand River Hospital Corp-Freeport Site	None
19§ ■	Reintegration	Proportion of stroke/TIA patients discharged from acute care to LTC/CCC (excluding patients originating from LTC/CCC).	2.6% (2.6%)	1.6 - 6.3%	1.9%	Guelph-Puslinch sub-region	None
20§ ☐	Reintegration	Age- and sex-adjusted readmission rate at 30 days for patients with stroke/TIA for all diagnoses (per 100 patients). Target[8]: 10.0	8.1 (9.6)	0.0 - 11.2	-	-	10

*Benchmark has not been specified for this indicator.

Hospital Service Accountability Agreement indicator, 2015/16

- Data not available

§ Contributes to QBP performance

Our Path to an Integrated Stroke System

2011/2012

Reports:

1. "Improving Access to Quality Stroke Care in Waterloo-Wellington"

2. "Transitioning to a System of Rehabilitative Care in Waterloo-Wellington"

- Identified Significant Gaps:
  - Access
  - Patient Outcomes
  - System Efficiencies

Aug, 2013

LHIN Integration Order

- Hospital Re-organization
- CCAC To Deliver Best Practice Stroke Care

Apr 1st, 2014

Integration of Stroke Services Across the Continuum

- Waterloo Wellington Stroke Steering Committee
- Stroke Implementation Task Force
- Coordinated Bed Access Steering Committee

Current Integrated Stroke System Committee Structure

Waterloo Wellington Rehabilitative Care Council

- Executive leadership for WW rehabilitative care system

Waterloo Wellington Stroke Implementation Task Force

- Representation from hospital, H&CC, and community
- Monitor stroke volumes and transitions
- Quality improvement

Waterloo Wellington Stroke Community Partners Advisory Committee

- Representation from community partners
- Information sharing
- Quality improvement

Home & Community Care Therapy Working Group

- Representation from LHIN and SPOs
- Stroke specific working group (time limited) reports to this group

CS Regional Stroke Monitoring & Evaluation Committee

- Waterloo Wellington Community Stroke Program report card

TIME IS BRAIN

1.9MM brain cells die each minute the blood supply is cut off to the brain

Hyper Acute & Acute Management

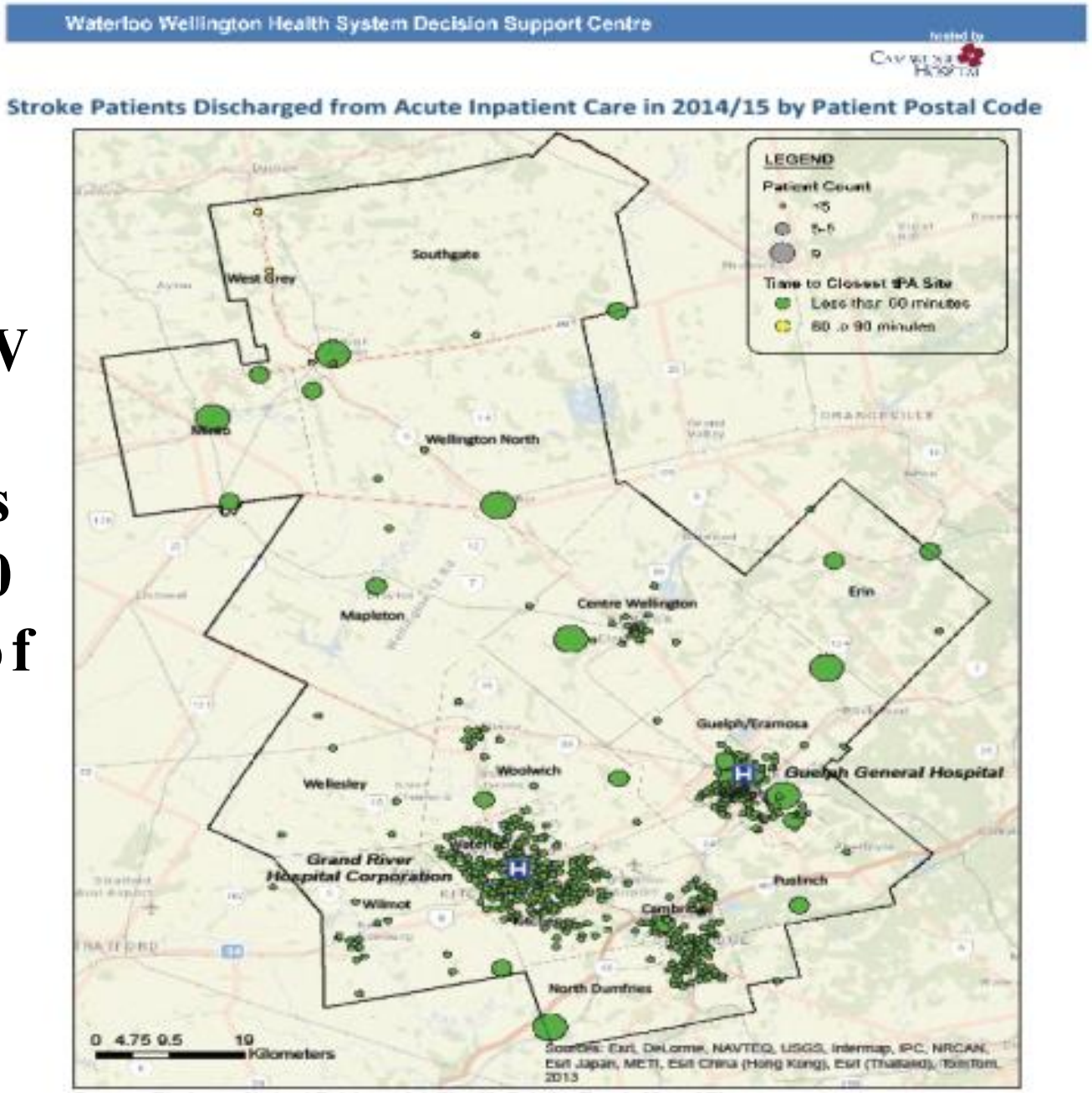
- Hyper acute stroke treatment consolidated at 2 sites – Grand River Hospital (GRH) and Guelph General Hospital (GGH)

- All EMS Directed to nearest site:
  - Waterloo Region to GRH
  - Guelph and Wellington to GGH

- tPA Access at both sites. Use of Telestroke.

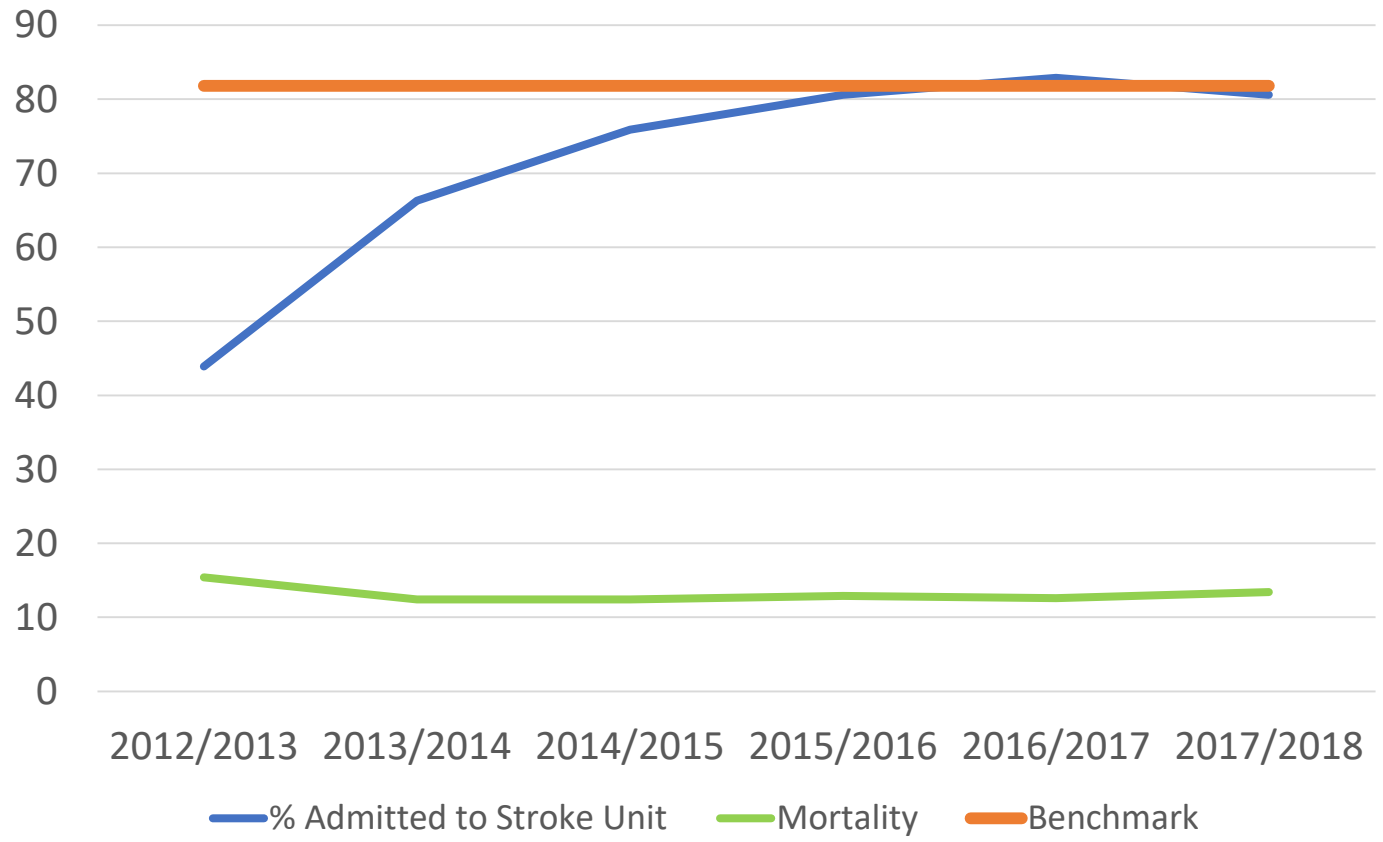
- Access to Endovascular Thrombectomy services at HHSC post evaluation in ED

Almost every WW resident now lives within 60 minutes of a tPA centre



Sources: Discharge Abstract Database, Intellihealth Ontario; Google Maps API

Acute Stroke Unit Care



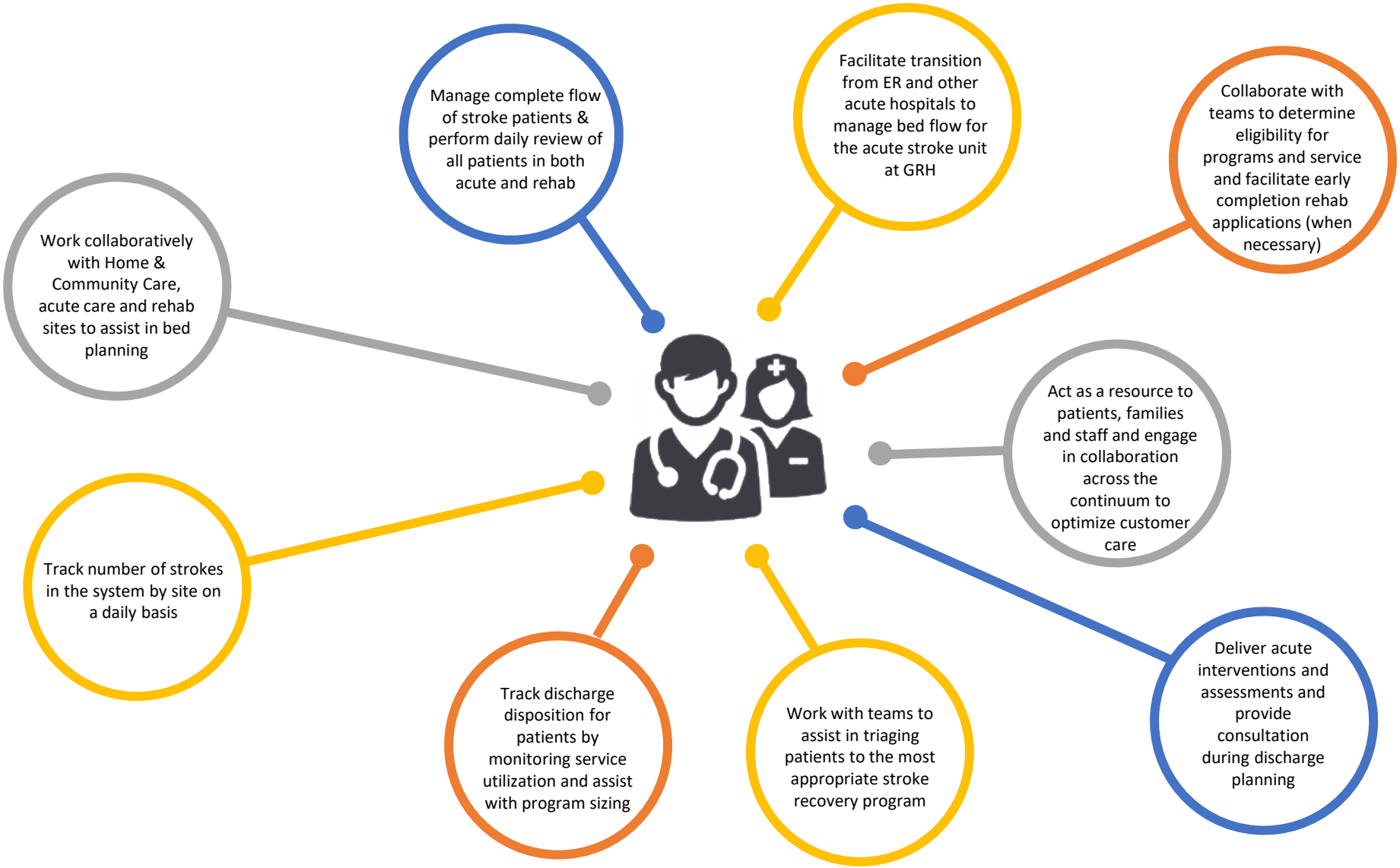
Secondary Stroke Prevention Clinic

The Waterloo Wellington Stroke Prevention Clinic is located at **Grand River Hospital**. It provides **rapid access** to assessments, appropriate **testing** and **stroke specialists** for high risk patients that have experience a recent minor stroke or TIA.

A **physician referral is required**, with most coming from the ED or family physicians that require support from stroke experts.

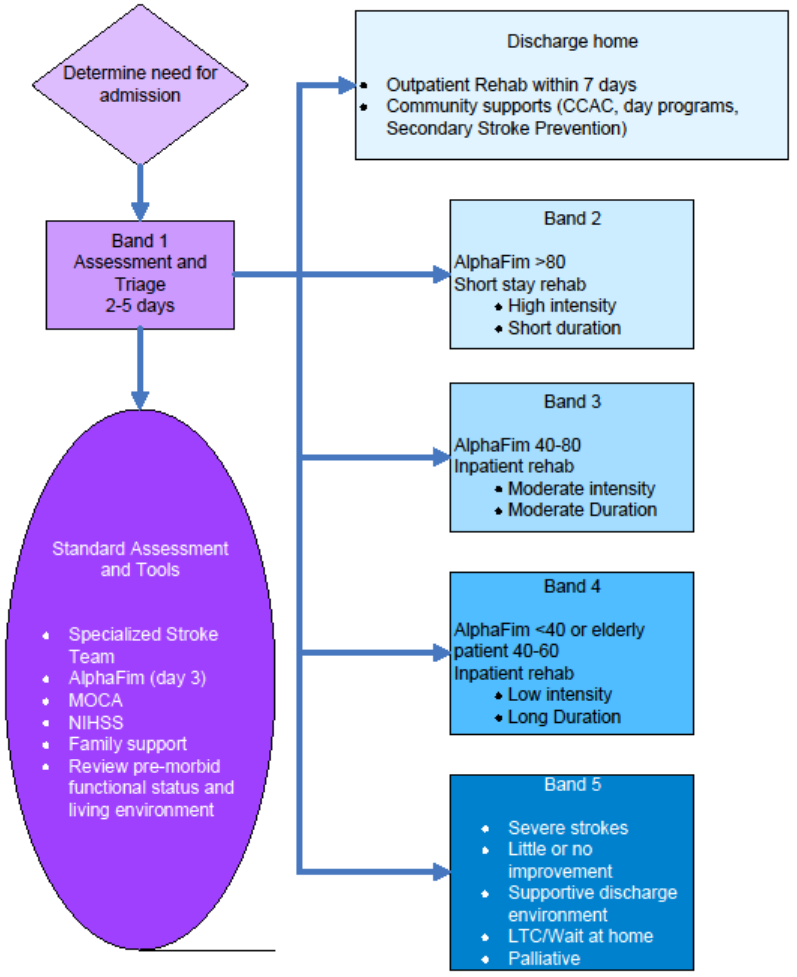
The clinic also provides **lifestyle and risk factor counseling** as well as **educational training** from RN's.

Stroke Navigator Role



Waterloo-Wellington Stroke Banding Model

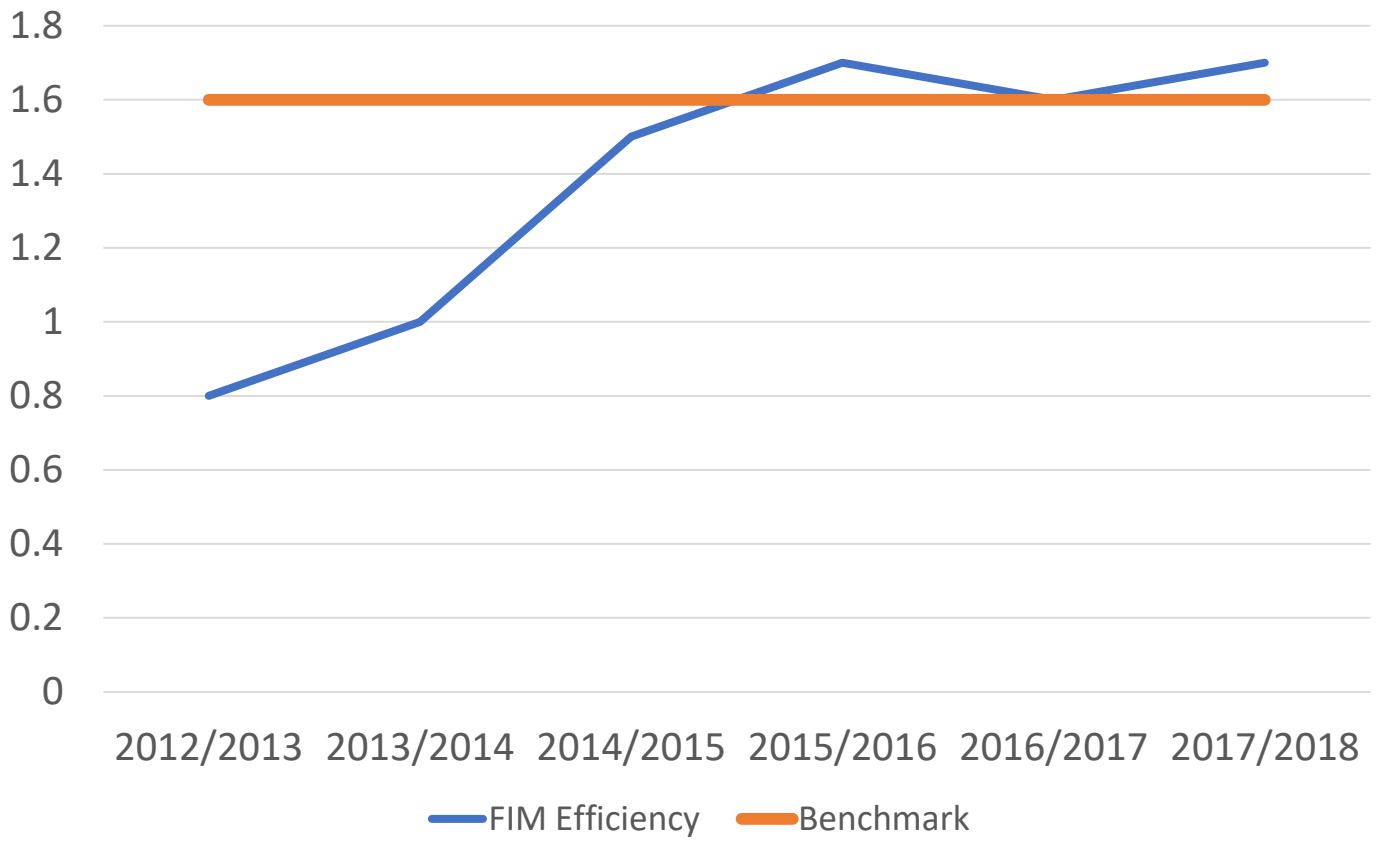
The banding model is a framework that assists in triaging patient to the most appropriate level of care



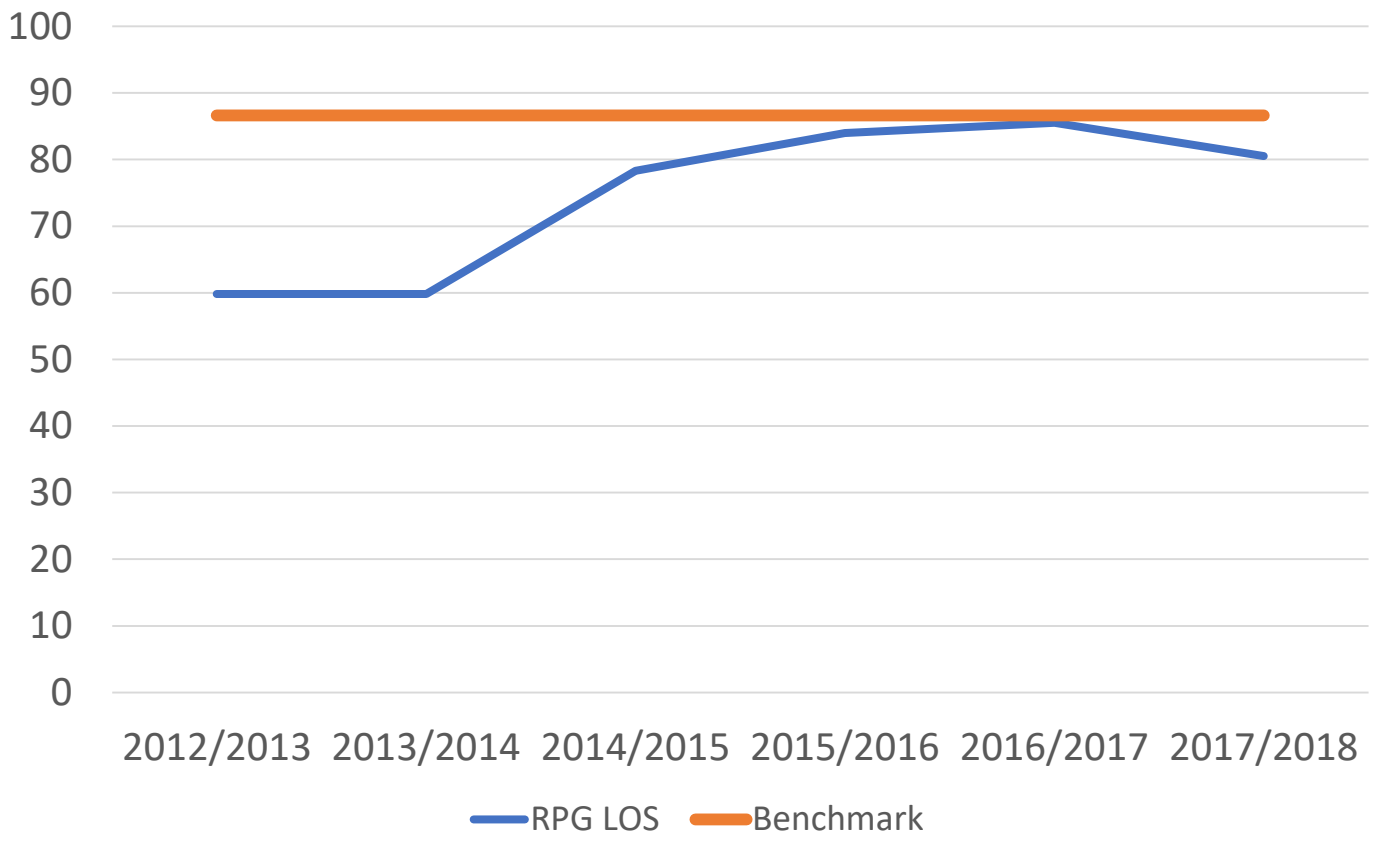
Inpatient Rehab

- With the LHIN Integration Order, stroke rehab units were created at GRH – Freeport Campus, SJHC-Guelph and Cambridge Memorial Hospital.
  - Volume to support best practice
  - Care closest to home
- Access facilitated by the WW Stroke Banding Model and Coordinated Bed Access
  - Preferred stroke access based on rehab ready date
  - First available bed
- Teams are creative in the delivery to rehab to meet 3 hour therapy intensity.
- FIM scores measured across the rehab journey.
- RPG is used to establish patient length of stay.

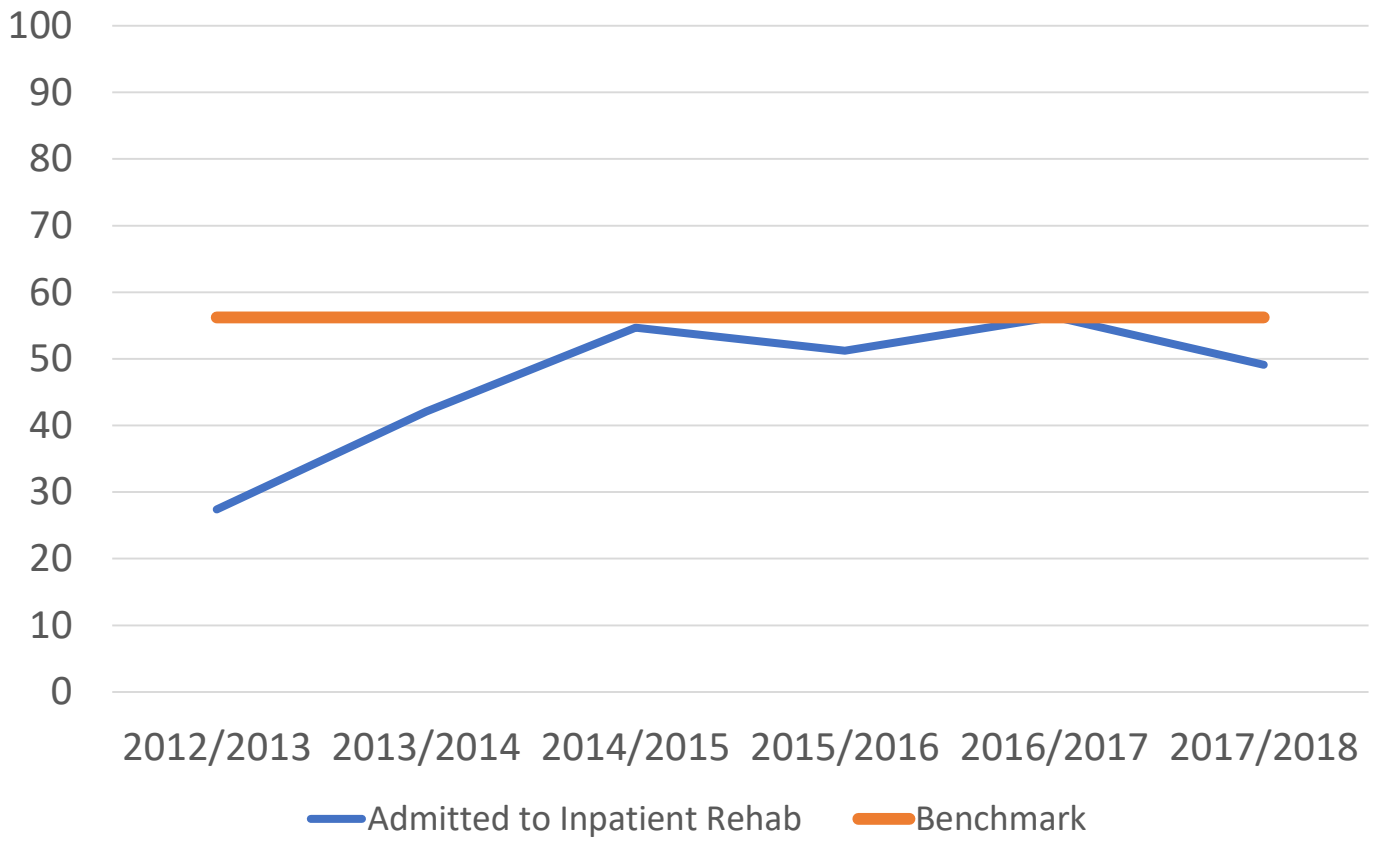
WW Inpatient Stroke Rehab FIM Efficiency



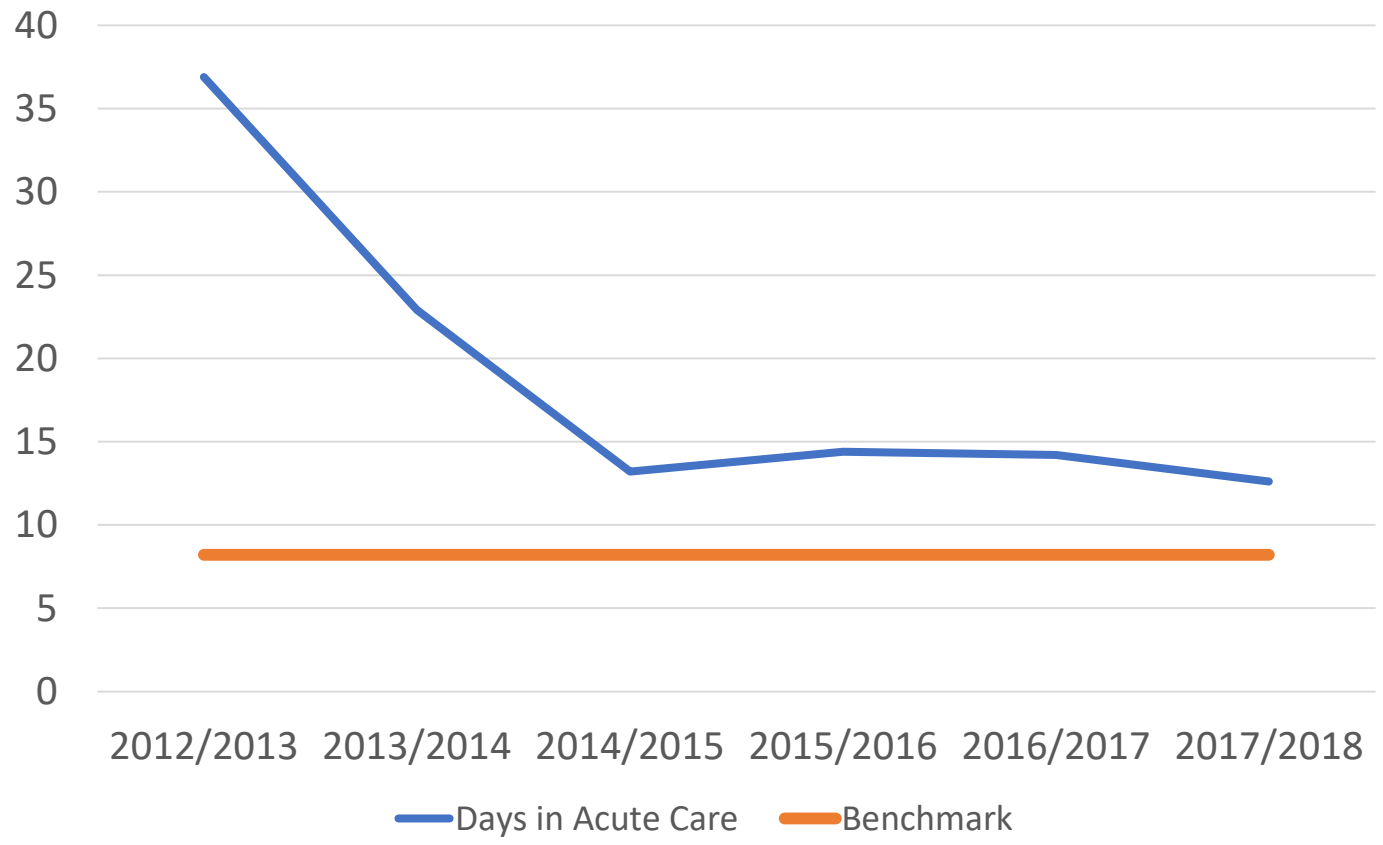
Inpatient Stroke Rehab RPG Length of Stay



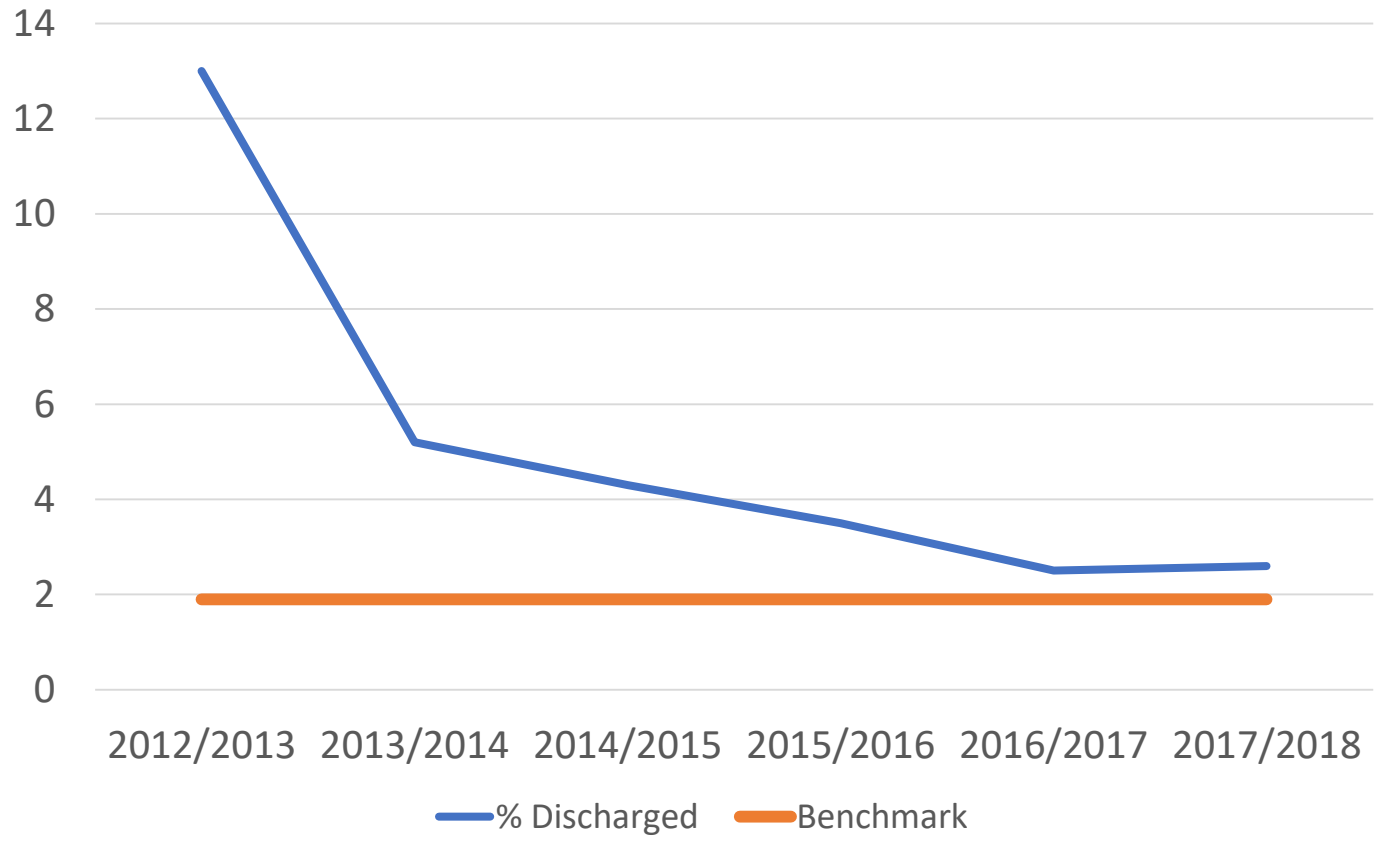
Severe Strokes Admitted to Inpatient Rehab



Proportion (%) of ALC Days in Acute Care



Proportion (%) of Stroke Inpatients Discharged from Acute Care to LTC/CCC

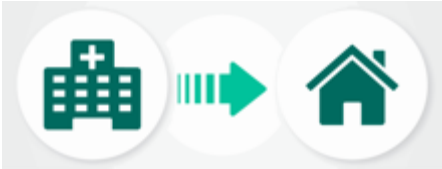


Waterloo-Wellington Community Stroke Program

Developed from Canadian Stroke Best Practice Guidelines

12 Week Program

Access at Time of Discharge from Hospital: Acute or Inpatient Rehabilitation



Supported Transition from Hospital to Home

Waterloo-Wellington Community Stroke Program

Includes therapy, education, and support to achieve rehabilitation goals.

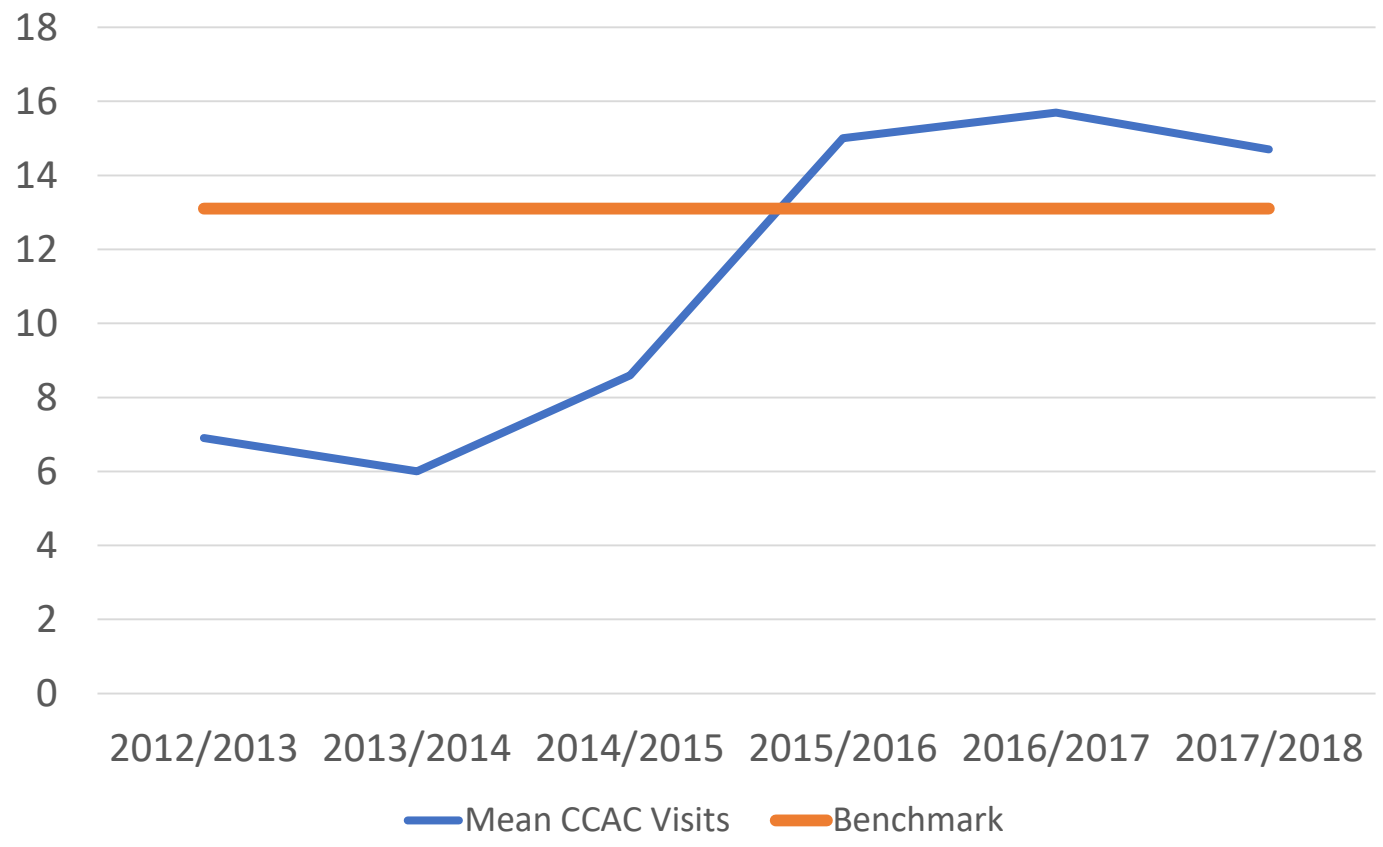
Stroke Team includes: Care Coordinator, Occupational Therapist, Physiotherapist, Speech Language Pathologist, Social Worker, Dietitian & Rehabilitation Assistants

Supported transition to community based programs to continue recovery

Stroke Best Practices

Multi-disciplinary team with knowledge and expertise in stroke care	Saint Elizabeth & Care Partners Stroke Teams	Designated Stroke Care Coordinators	RRN
Rehab intensity: 45 min-3hours, 3-5x/week ; 8-12 weeks	12 week program	Use of OTA, PTA, CDA	Visit volume and sharing
Timely access	First visit within 48 hours of discharge home	Access for all residents of Waterloo Wellington	
Supported transition from hospital team to community team	Transition of care meeting/ notes	Link to primary care	
Integrated, patient-centered functional goals and treatment	Three week case conference	Team rounds and planning	Integrated report and communication with Care Coordinator
Community reintegration	10 week communica-tion to plan next phase of rehabilitation	Patient transition communication tool	Community based stroke rehab programs

Mean Number of Home & Community Care Rehab Visits



Community Stroke Report Card

- Report card established in partnership with Central South Regional Stroke Network and HNHB LHIN
- Standard indicators upon which HNHB and WW report
- Data is shared quarterly at the RSMEC

Referrals to Stroke Pathway*

*Data reflects new referrals to the stroke pathway in the reporting quarter

Total referrals to stroke pathway
Cambridge Memorial:
Guelph General:
Freeport:
Grand River:
St. Joseph's:
Other:

Service Utilization**

** Data based on patients who completed stroke pathway in the reporting quarter

patients who completed stroke pathway in quarter
LOS days
Average length of stay on pathway (days)
Median length of stay on pathway (days)
Average # of days to first therapy visit (Target: Within 2 days)
Median # of days to first therapy visit
Average # of days to first Care Coordinator visit
Median # of days to first Care Coodinator visit
Total therapy visits provided
Average # therapy visits per patient who completed pathway
patients who received PT
PT visits provided
Proportion of patients who received Physiotherapy (PT)
Average # PT visits (of those who received PT)
Average # PT visits (all patients who completed pathway)
patients who received OT
OT visits provided
Proportion of patients who received Occupational Therapy (OT)
Average # OT visits (of those who received OT)
Average # OT visits (all patients who completed pathway)
patients who received SLP
SLP visits provided
Proportion of patients who received Speech Language Therapy (SP)
Average # SLP visits (of those who received SLP)
Average # SLP visits (all patients who completed pathway)

** Data based on patients who completed stroke pathway in the reporting quarter

Outpatient Rehabilitation

- Rehab is a philosophy of care, not a physical place and a patients journey extends well beyond the walls of a hospital.
- Wait times reduced from 6 weeks to 1 week
- Stroke care pathway mirrors best practice recommendations.
- Clinics located at GRH-Freeport and SJHC Guelph

Community Rehabilitation & Integration

- Formal and informal partnerships with providers to build community capacity.

- Current community based programs:
  - Waterloo Wellington Regional Aphasia Program
  - YMCA programs – Neuro Fit, Fitness for Function
  - SMART/Gentle Exercise Programs
  - Low Vision Supports
  - March of Dimes – Stroke Recovery Canada, Linking Survivors with Survivors
  - Stroke Recovery Chapters
  - University of Waterloo: Optometry Clinic and Centre for Community, Clinical and applied Research Excellence

Strong Stroke Recovery Chapters

Waterloo Wellington has **four** strong and active Stroke Recovery Chapters

- Kitchener/Waterloo
- Cambridge
- Guelph
- Wellington

These Chapters support the **"Linking Survivors with Survivors"** program at acute and rehab sites, with **over 1058 hospital visits** from the 2017/2018 volunteers!

"Linking Survivors with Survivors" celebrated their **10th Anniversary** in Waterloo-Wellington in 2018.

MARCH OF DIMES CANADA

Waterloo Wellington Regional Aphasia Program (WWRAP)

- Community based aphasia services was a significant gap.
- WWRAP launched in 2013.
- The program offers therapeutic conversation groups and family support groups.
- The WWRAP team includes SLP, CDA and Social Worker.
- WWRAP is funded by the LHIN, with SJHC being the HSP.
- The program has partnered with existing adult day program sites to offer groups across Waterloo Wellington.
- 14 groups operated weekly.

Lessons Learned

Regionally integrated programs can work!

Break down silos to care for the patient all across their journey

Standardizing care across hospitals reduces variation in outcomes across WW

Base decision making on the evidence!

Dream big – but don't wait until its perfect to start

Data, data, data!

Streamlined & supported transitions = better for the patient and system

Dedicated focus on improvement – measure, monitor and share!

Thank You!

Contact Information:
Tammy Tebbutt – tammy.Tebbutt@grhosp.on.ca
Maria Fage - maria.fage@lhins.on.ca