Enhancing Community and LTC Rehabilitation Services for Stroke Survivors: Improving the System of Care

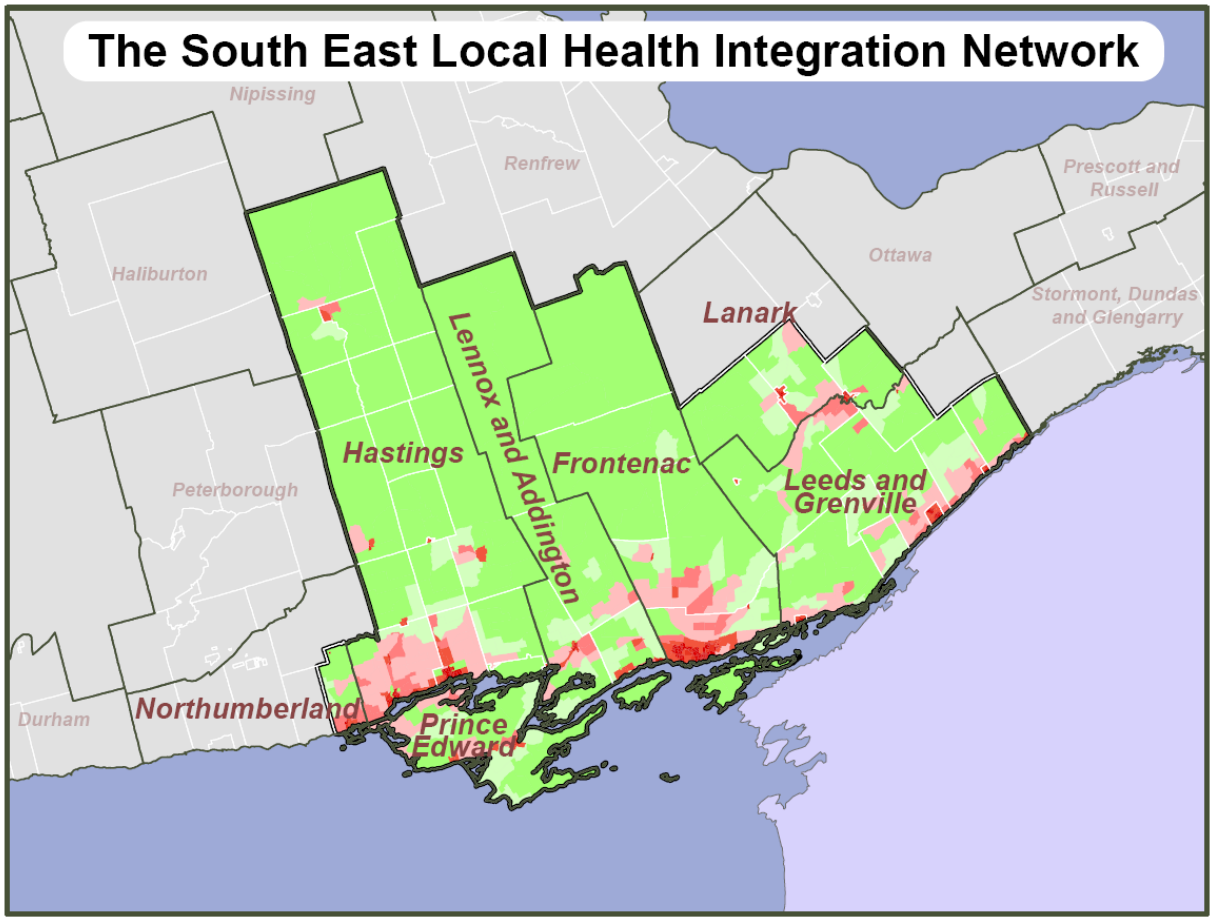
STROKE NETWORK *of* Southeastern Ontario

South East CCAC Community Care Access Centre

CASC Centre d'accès aux soins communautaires du Sud-Est

The Discharge Link
A Cross - Continuum Partnership

South East Ontario



- Population ~ 525,000
- 20,000 km^2

Discharge Link: The Goal

Provide best practice and support health system improvement related to stroke rehabilitation and client transition to the community by:

- enhancing community rehabilitation therapy
  - intensity
  - timeliness
- augmenting provider communication
- building team capacity and stroke expertise

Discharge Link: The Intervention

The* "Discharge Link"** ***provides:

- ***timely enhanced intensity (front-end loading) of community-based rehabilitation for new stroke survivors on transition from hospital to home, a residential setting or a Long Term Care Home;***
- ***Discharge link meeting/conference between community/LTC and hospital providers;***
- ***Development of stroke expertise with an emphasis on interprofessional care.***

2009 Rationale for Project: Evidence and Needs

- SE Regional Rehabilitation Needs Assessment (2001)
- SE Regional Rehabilitation Pilot Project (2002-04)
- Community Stroke Best Practice Guidelines (West GTA Stroke Network 2005)
- Provincial Stroke Rehabilitation Consensus Panel Report (HSFO 2007)
- Community Reintegration Needs Assessment 2007
- Canadian Best Practice Recommendations for Stroke Care (2006, 2008, 2010)
- Ministry of Health priorities and LHIN Integrated Health Services Plan

New MOH directions related to ED-ALC and patient flow provided an opportunity to re-visit original pilot, leading to the LHIN proposal for community stroke rehabilitation

Rationale: Identified Need in SEO

Evaluation findings identified specific regional/local needs:

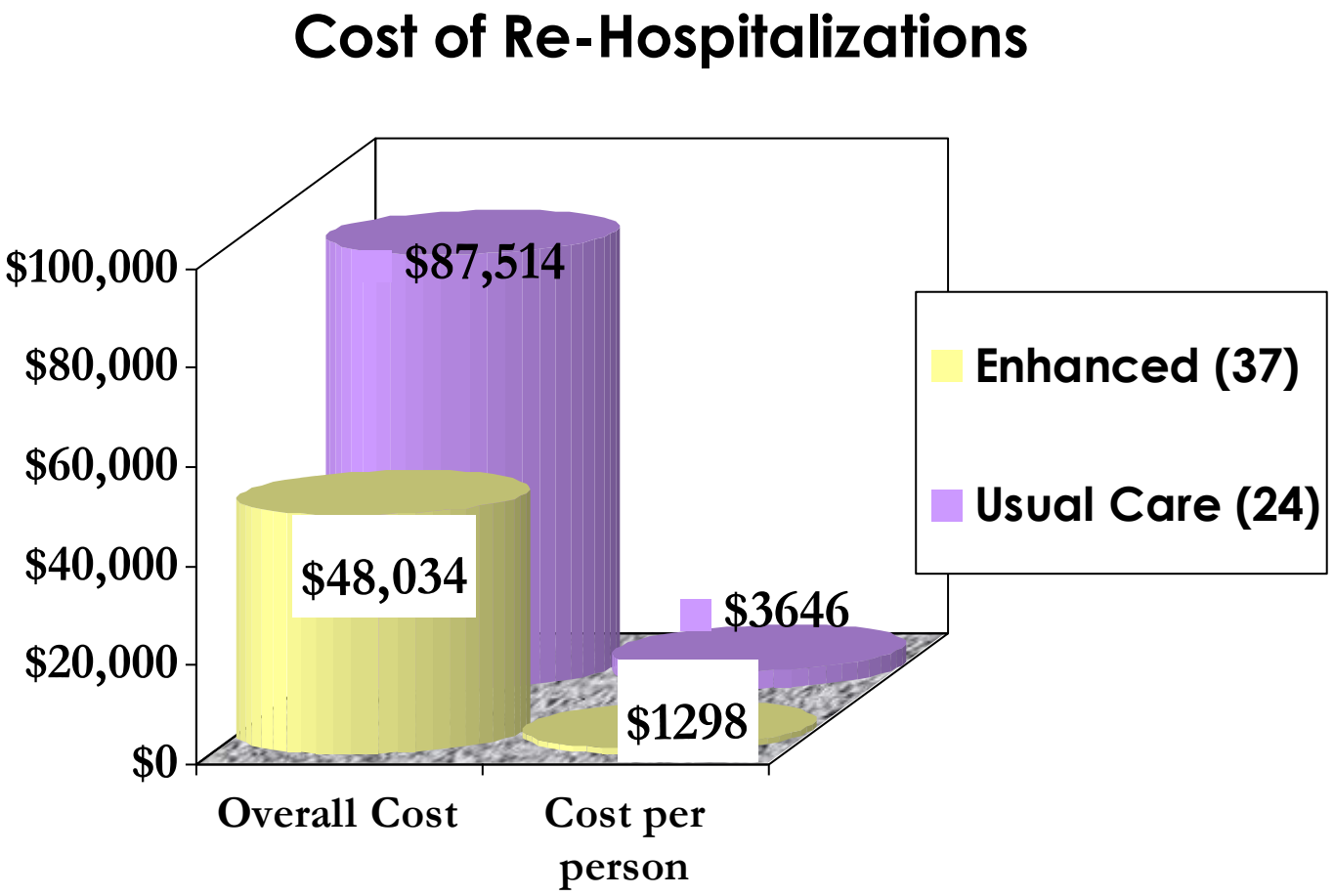
- **High ALC rate and long ALC stays**
- **Large rural geography**
- **Limited and inequitable access to rehabilitation services ESPECIALLY outpatient and community rehab**
- **Stroke survivors/families identified access to rehab as a priority for community reintegration**

Past Work

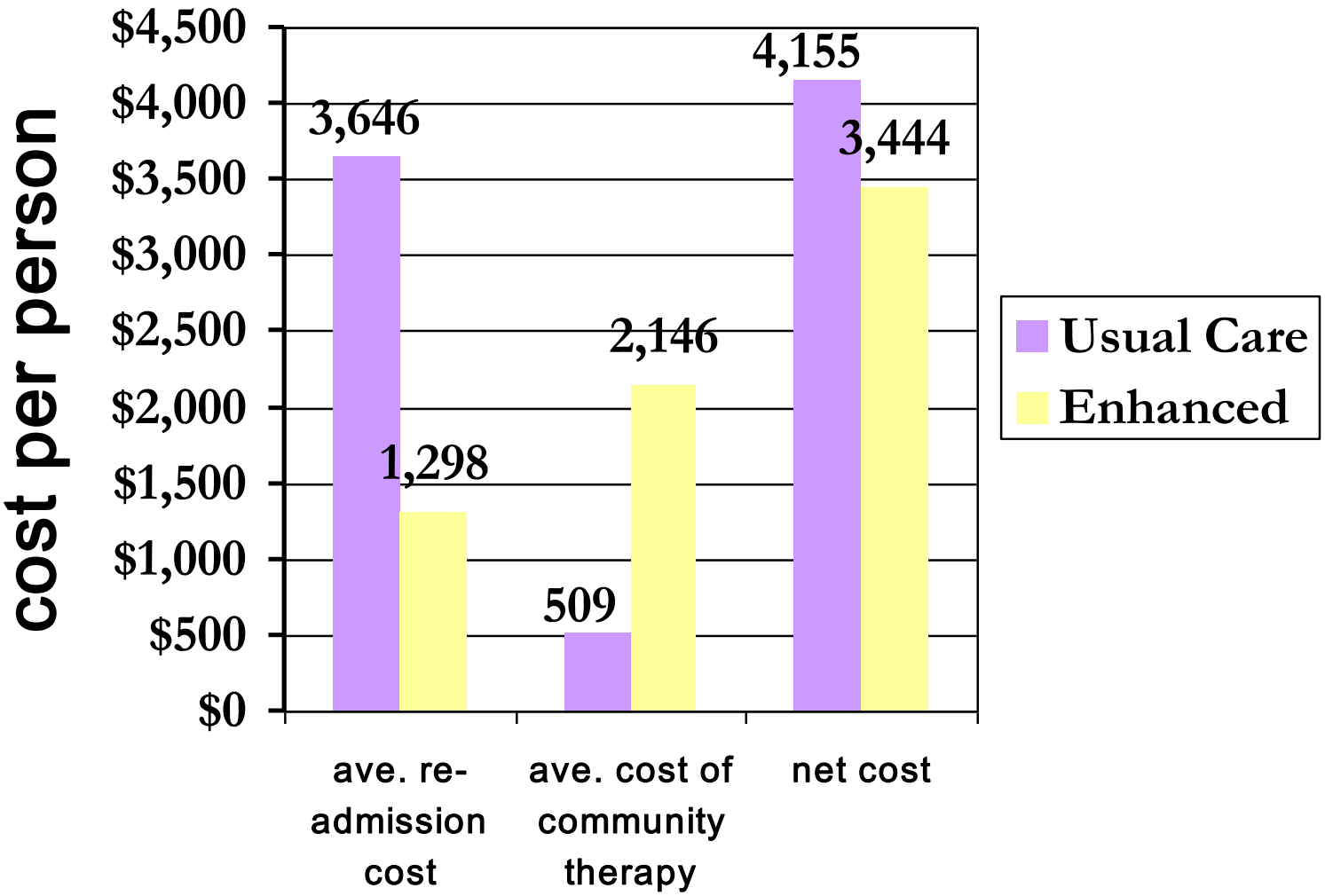
2002-04 Rehab Pilot Project demonstrated success for those with new stroke who received enhanced community rehabilitation on transition home from inpatient rehab:

- **Half the hospital ED visits/readmissions;**
- **Faster change in function on discharge;**
- **Functional change maintained at 1 year;**
- **17% net cost savings associated with decreased readmissions alone.**

Pilot 2002-04: Hospital Readmission Costs



Pilot 2002-04: Cost Comparisons



Key Findings – Pilot (2002-2004)

- Faster improvement in functional outcomes and sustained functional ability at one year
- Decreased length of stay
- Cost savings
- Decreased ED visits and readmissions

Current Service

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February 2009 to April 2014

Current Program – Evaluation Focus

- **Current focus on hospital utilization outcomes aligned with SE LHIN imperative of access to care and efficient health system utilization:**
  - **Length of Stay**
  - **Readmission Rates (09/10 – 10/11)**
  - **FIM Change (06/07 – 10/11) and LOS Efficiency for rehab group (07/08 – 10/11)**

Current Program – Evaluation Focus

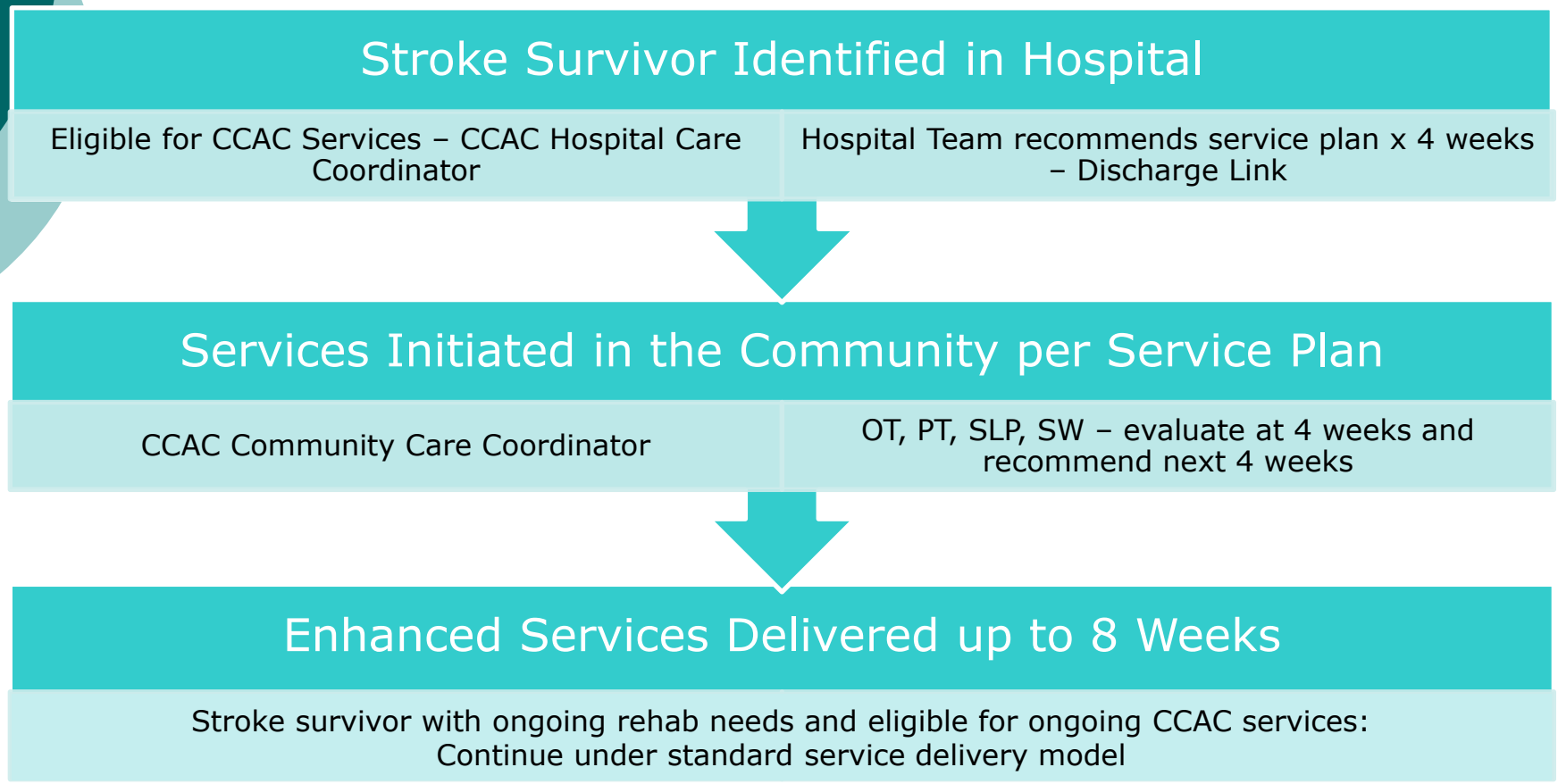
- Current focus also aligned with SE LHIN focus on quality of care:
  - Uptake of Best Practice
  - Advancement of IPC in community and LTC
  - Coordination of Services
  - Capacity Building
  - Patient Perspectives

Methods: Sample

Participant Eligibility:

- **Be 16 years of age or older and live in Southeastern Ontario**
- **Have had a recent stroke or a diagnosis of stroke and be either:**
- **Eligible for CCAC follow up therapy at home or in a residential care facility; or**
- **Eligible for CCAC follow up therapy in a LTC Home**

Methods: Process



Treatment Model: Community

- **Services** ⇨ PT, OT, SLP, SW
- **Time frame** ⇨ 8 weeks (flexibility re SW needs)
- **Front end loaded** ↑↑ services in first 4 weeks
- **Timely first visit:** within 5 days (CCAC 'high priority')

- **Individual Service Plan**
  - **First 4 weeks by Hospital Team;**
  - **Second 4 weeks by Community Therapy Team**

- **Discharge Link meeting**

Treatment Model: Long Term Care (LTC)

- **Services** ⇨ PT, OT, SLP, SW
  - **PT Services in LTC through contracted provider, not CCAC**
- **Time frame** ⇨ 8 weeks
- **Front end loaded** ↑↑ services in first 4 weeks
- **Timely first visit**

- **Individual Service Plan** ⇨ Initial OT assessment with recommendation re care team for first 4 weeks, second 4 weeks by that therapy team

- Therapists to connect with LTC staff (e.g., DOC, contracted PT in LTC)

Methods: Enhancing Service

Enhanced Service	Physio	OT	SLP	Social Work (may extend to 12 weeks)	Total extra Therapy Services
1st 4 wks	Up to 2 / wk X 4 wks	Up to 2 / wk X 4 wks	Up to 1 / wk X 4 wks	Up to 1 / wk X 4 wks	
2nd 4 wks	Up 1/ wk	Up 1 / wk	Up 1 / wk biweekly	Up 1 / wk biweekly	
Total additional visits	12	12	6	6	Total = 36

Process Findings

Referral Numbers

Data collection and analysis are ongoing.

As of March 2014, 1104 clients have received enhanced community-based therapy. 1008 referred to community and 95 referred to LTC (1 unklnown destination)

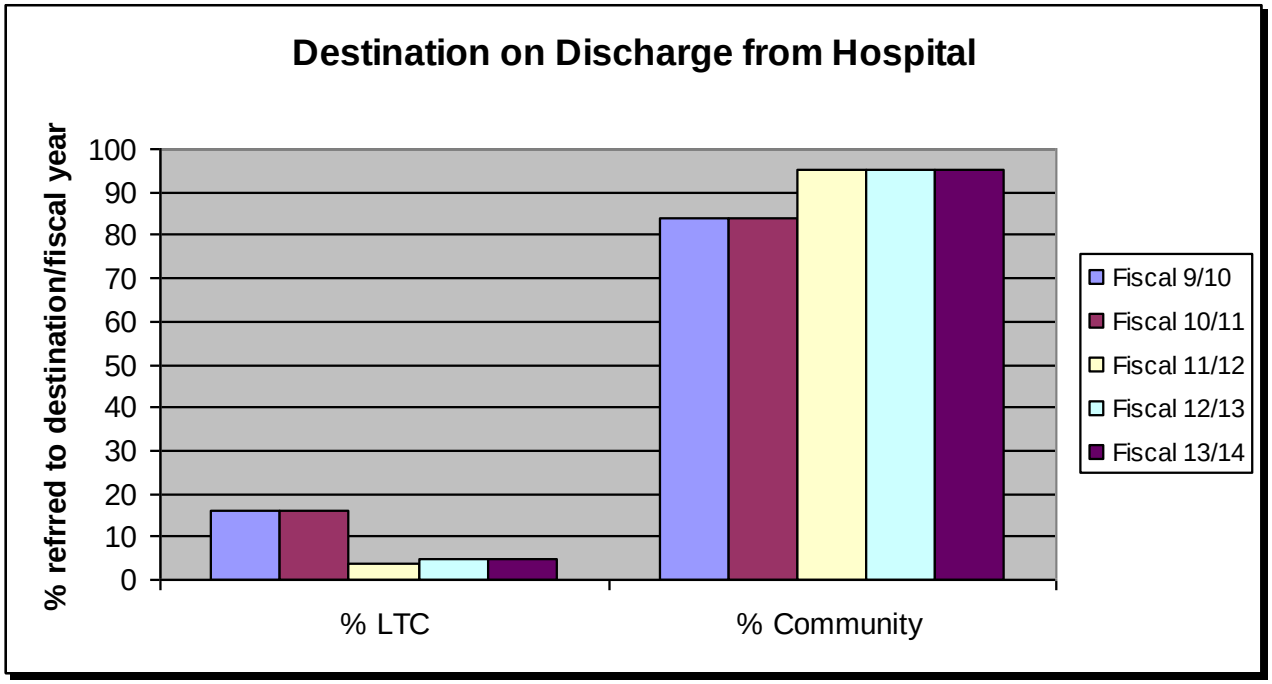
For fiscal years 10/11 to 13/14, the average age of those participating was 75.9 years (median 78) with a range from 21 to 99 years. 52% of referrals (fiscal 09/10 to 11/12) were male

Time to First Scheduled Rehab Visit

Time – Hospital Discharge to First Scheduled Rehabilitation Therapy Visit (days)	Fiscal 10/11	Fiscal 11/12	Fiscal 12/13	Fiscal 13/14
Average	4.9	4.6	4.4	4.3
Median	5	4	4	4

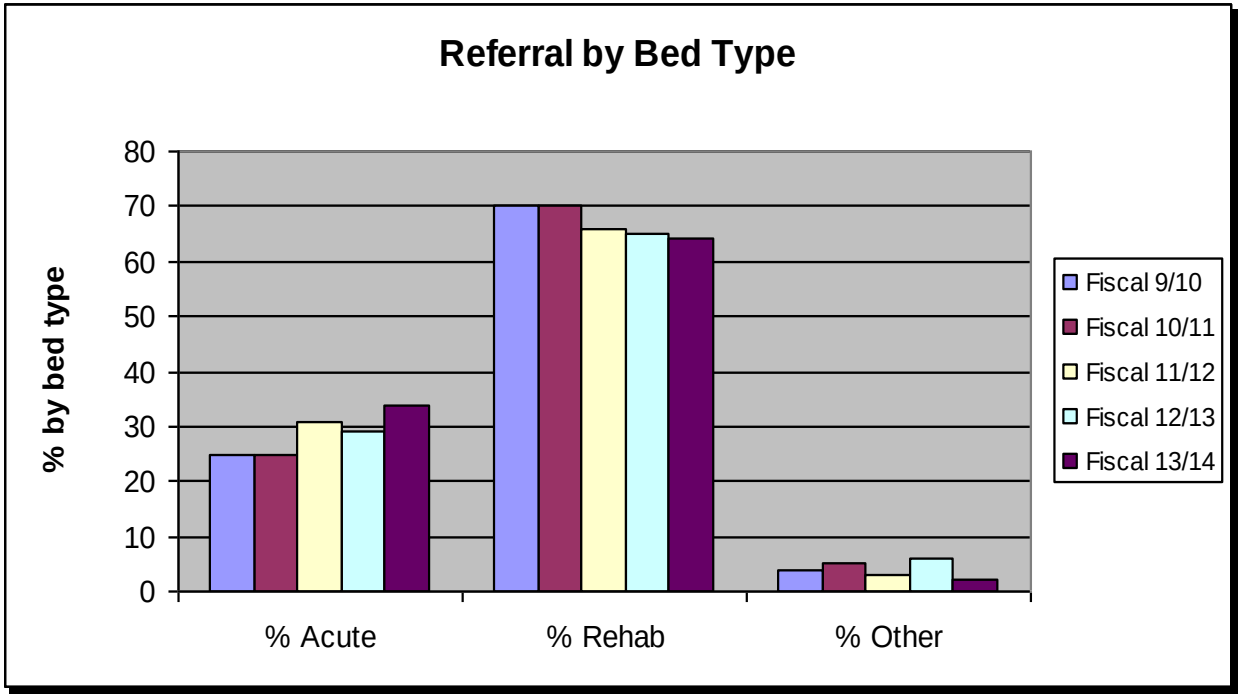
Hospital discharge to first scheduled CCAC rehabilitation therapy provider visit has averaged 4.5 days (median 4) for the last four fiscal years. There has been a gradual decline in this measure since fiscal 10/11. Prior to implementation of the enhanced program, the average time to first scheduled rehabilitation therapy visit was 44 days

Destination on Discharge



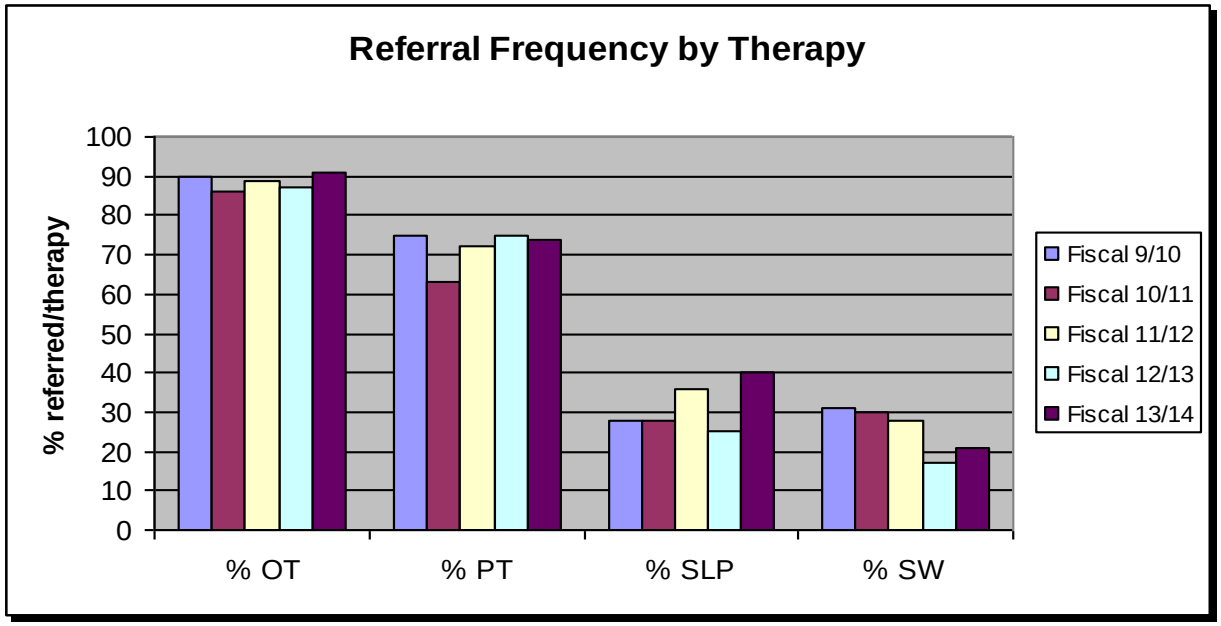
Discharge destination is primarily to the community.

Referral Source by Bed Type



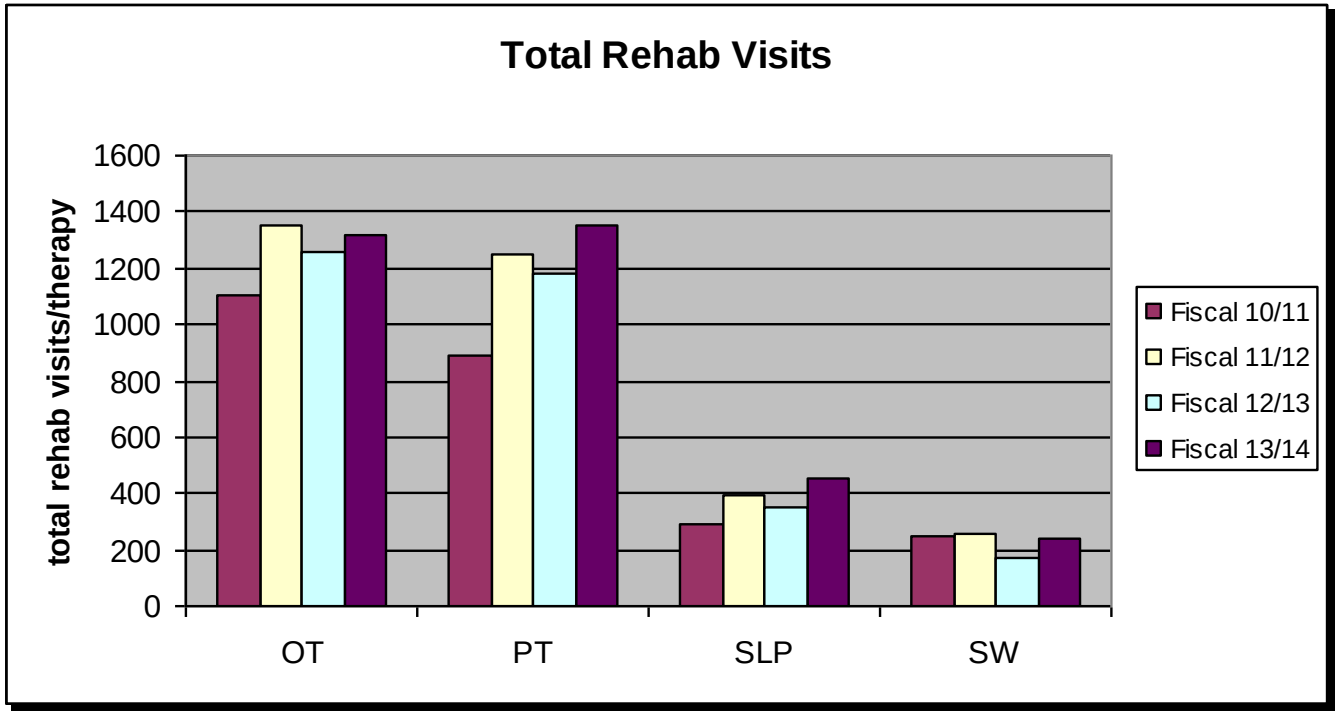
Referrals from the rehab setting constitute the greatest proportion of referrals.

Referral Rates by Therapy



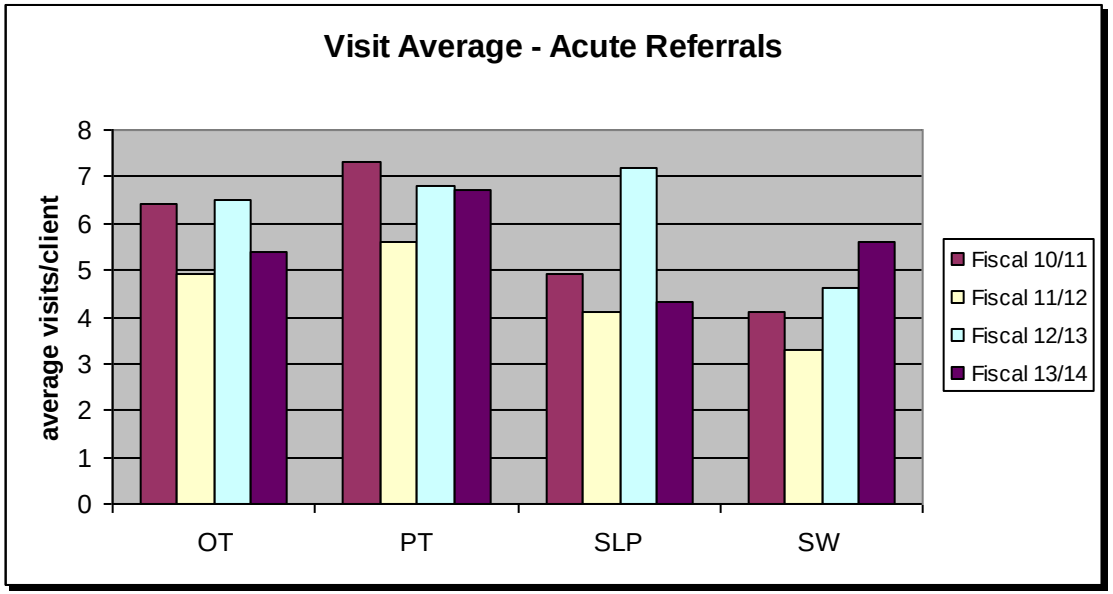
Referral rates to all therapies have remained relatively constant since program inception. OT has consistently been the service most frequently requested followed by PT. Speech language pathology and social work remain much lower at less than half the referral rate to PT and OT.

Rehab Visit Volumes



Total rehabilitation visits have remained relatively constant over the last three fiscal years.

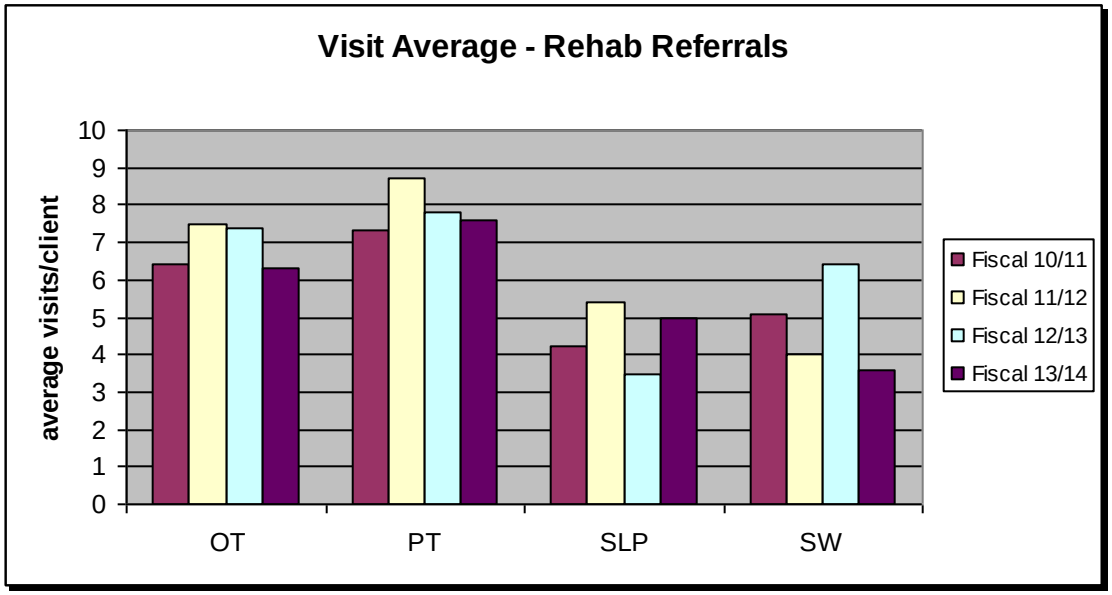
Acute Referrals – Average Visits/Client



Average visits/client for each rehabilitation discipline for clients discharged from acute beds have remained relatively stable with exception of fiscal 11/12.

SLP tends to show the greatest variation in average visits per client which is likely a reflection of the intensive needs of individual clients as well as the lower overall numbers (refer to previous graph which illustrates a relative stability of overall SLP total visits).

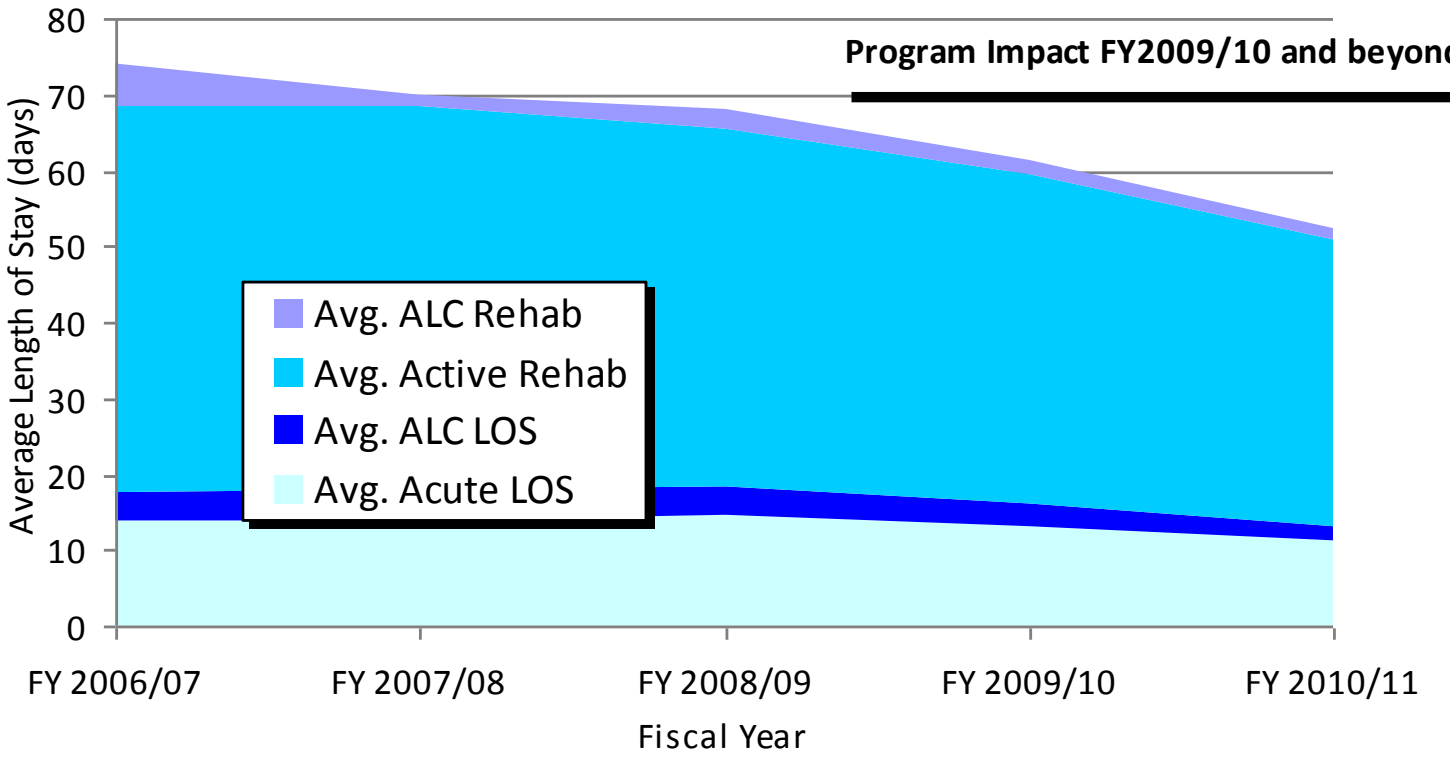
Rehab Referrals – Average Visits/Client



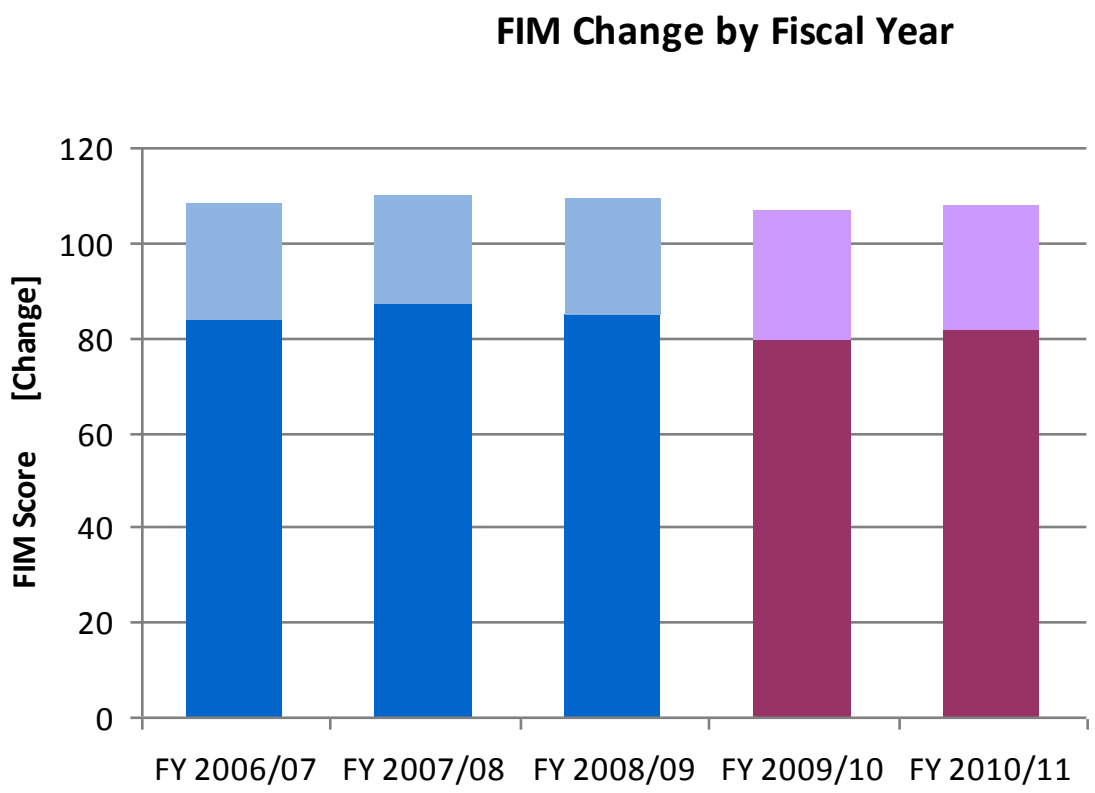
Visit rates for clients referred from rehabilitation beds show a greater stability than those referred from acute care.

Outcomes

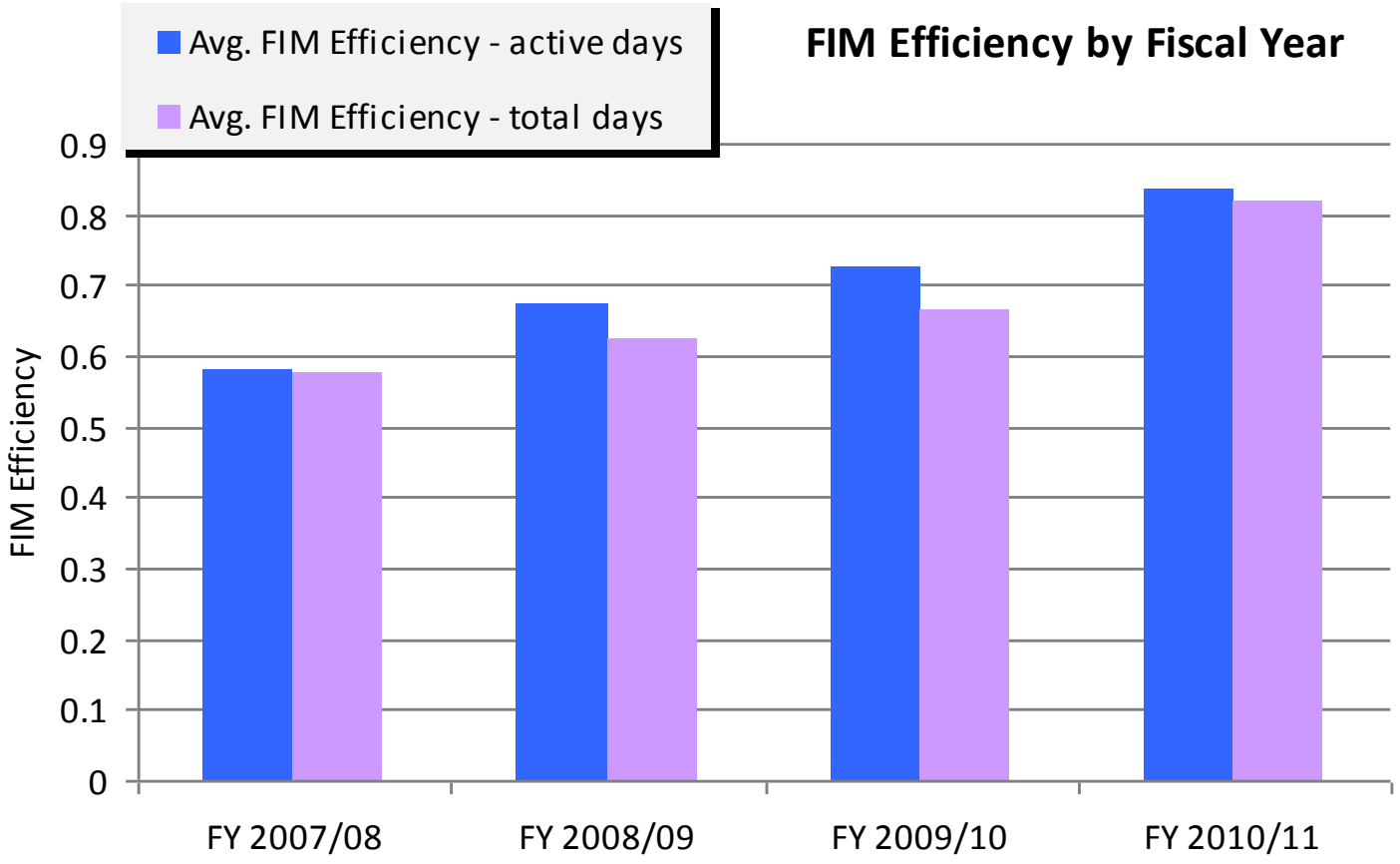
Pilot 2002-04: Length of Stay



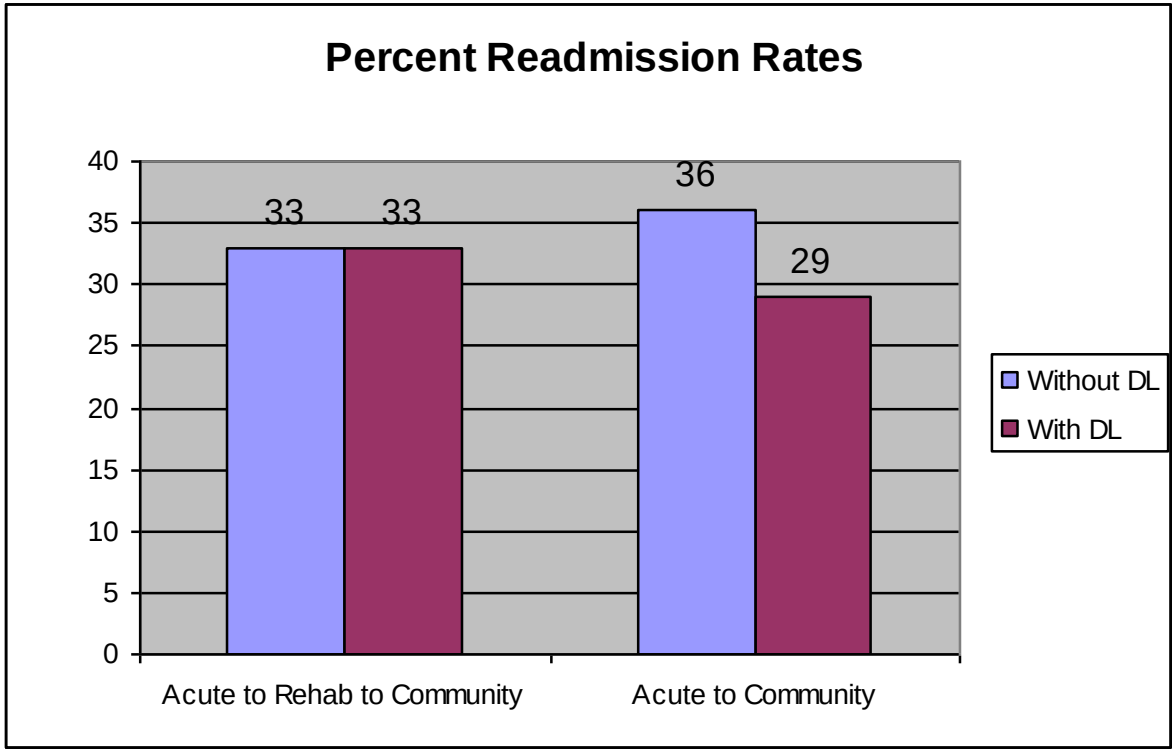
Outcomes: FIM Change for Rehab Group - Consistency



FIM Efficiency by Fiscal Year

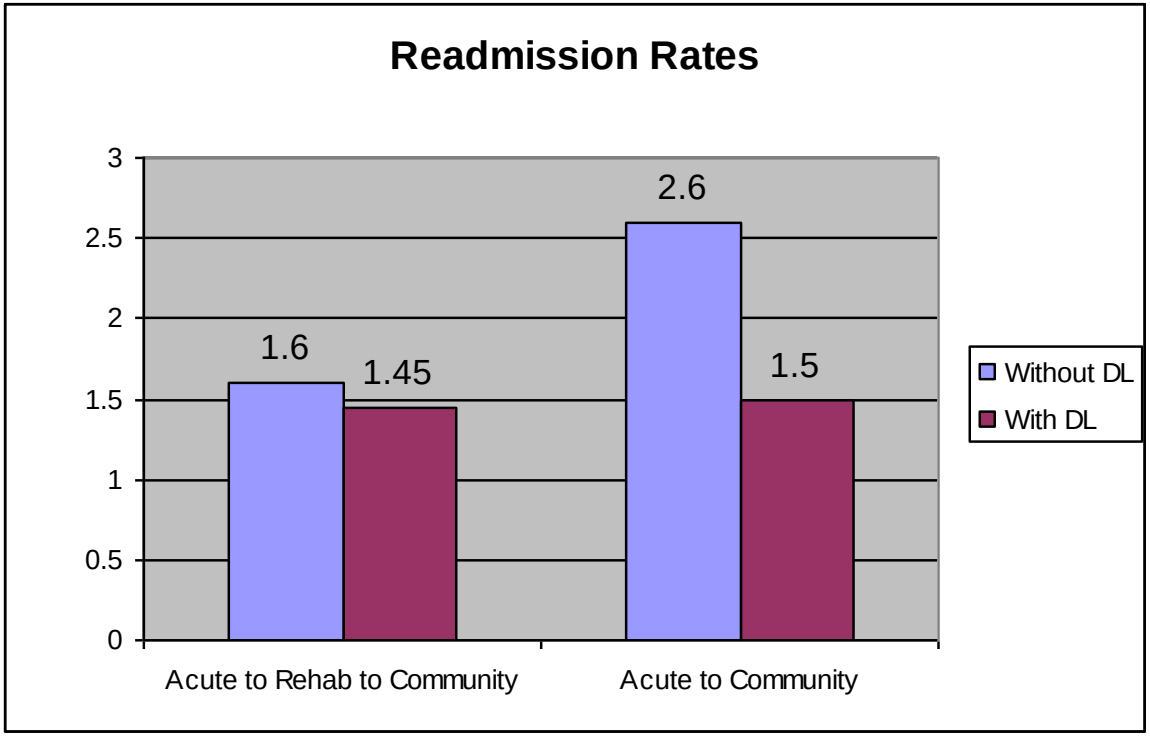


Readmission Rates (9/10 to 10/11)



% with at least one readmission within 1 yr of index stroke event

Readmission Visits (9/10 to 10/11)



Average visits per follow up client within 1 year after index stroke event

Summary – Quantitative Findings

- 15.7-day decrease in mean total hospital length of stay
- FIM change scores remain stable
- Substantially improved FIM LOS Efficiencies
- Decreased readmission rates and visits per client for those receiving enhanced community service
- Decreased wait time to first scheduled rehab visit (44 days pre-implementation to median of 4 days)

Qualitative Findings

In fiscal 2010/11, the Stroke Network Regional Rehabilitation Coordinator conducted interviews with clients who had received the enhanced therapy services. A sampling of their comments speaks to the value of this program:

- "You tend to work a little bit better for somebody out of your home, a professional, more than you would for family or for yourself"
- "SW set me up with the stroke support group, Queen's University… access bus… helpful in linking me to places"
- "[OT] had enough material to give a wide range of mental and physical exercises".
- "[The client] really valued the [PT} exercise training programs and shoulder rehab".
- "This [SLP] therapy is so valuable for [stroke survivor] and our entire family."

In other comments, clients and families spoke to an overall desire to increase rehab intensity and duration. There were also some comments about varied stroke expertise of therapists providing care.

CQI & Discharge Link

Semi-annual review of data. Recommendations emerging from the last data analysis (fiscal 13/14):

- All providers/CCAC Care Coordinators consider referrals to **Social Work**
- Care providers consistently connect through Discharge Link meetings and other interprofessional meetings
- Considered referral to program for all discharges to LTC
- Advance stroke care expertise and skills through **Shared Work Days** funding

Publication

Enhancing Community-Based Rehabilitation for Stroke Survivors: Creating a Discharge Link

Langstaff C, Martin C, Brown G, Mather J et al

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