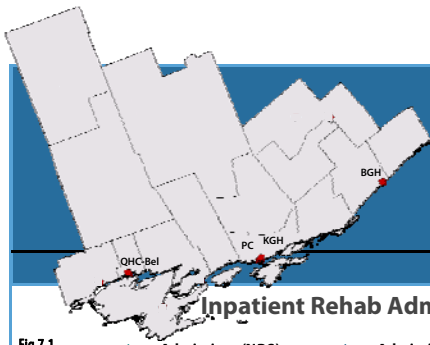
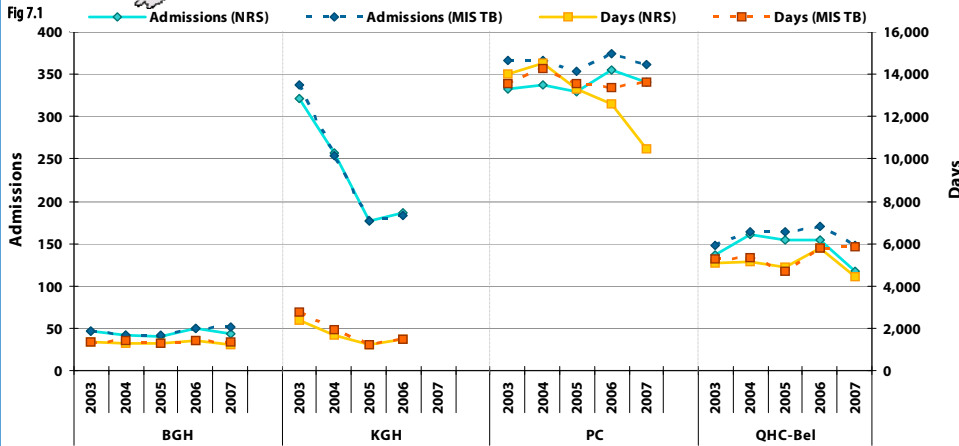


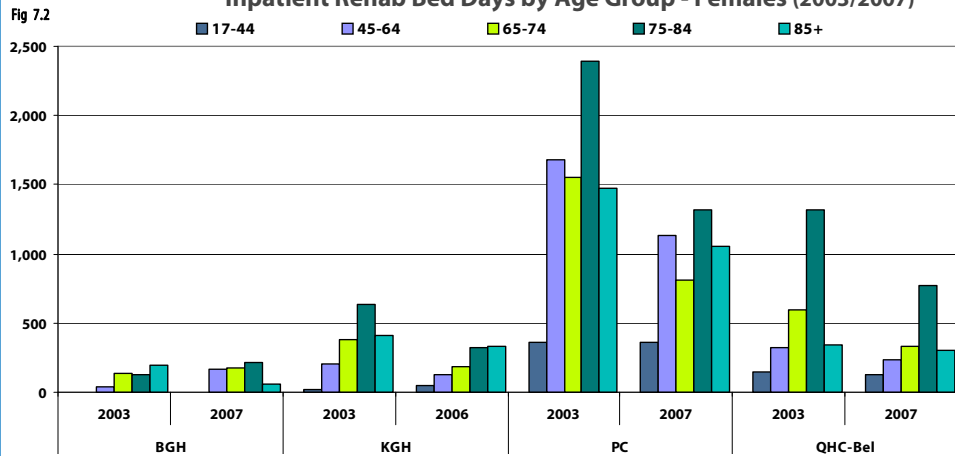
South East Local Health Integration Network Adult Inpatient Rehabilitation Profile



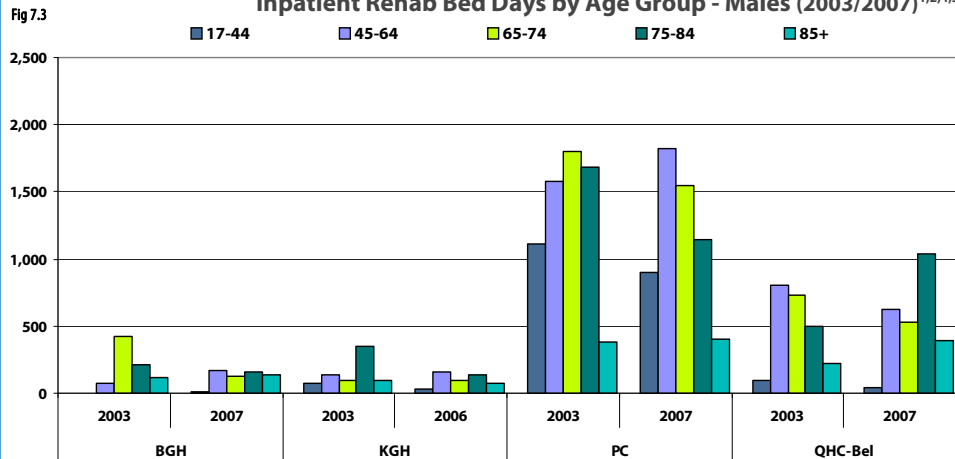
Inpatient Rehab Admissions & Bed Days by Data Source (2003-2007)¹⁻⁵



Inpatient Rehab Bed Days by Age Group - Females (2003/2007)^{1,2,4,5}



Inpatient Rehab Bed Days by Age Group - Males (2003/2007)^{1,2,4,5}



Legend:

BGH-Brockville General Hospital **PC**-Providence Care
KGH-Kingston General Hospital **QHC-Bel**-Quinte Health Care - Belleville

Introduction:

The Regional Capacity Assessment Project (ReCAP) provides a profile, including short-term projections, on the utilization of health care services in the South East LHIN. Results of ReCAP are used to support the recommendations in the Integrated Health Service Plan for the South East region. This short report on Adult Inpatient Rehabi is one in a series of summary analyses from ReCAP that focuses on specific health care services. In the SE LHIN, 4 institutions provide Adult Inpatient Rehab services: BGH, KGH, PC and QHC-Bel.

Summary of Main Findings:

- This report utilizes data from 2 main sources: National Rehabilitation Reporting System (NRS) and the Management Information System (MIS). NRS is applied mainly for evaluating service utilization while MIS is used for general financial and statistical reporting. Although MIS does not contain details required for a comprehensive review of the utilization of rehab services, the data source is consistent with the daily census summary of patient activity and therefore considered to be a more accurate summary of total admissions and bed days than the NRS.
- Compared to MIS, the NRS totals are very similar for both rehab admissions and bed days in all SE LHIN institutions with the exception of PC and QHC-Bel (under-reporting admissions and days in 2006 and 2007). Note that no data was recorded for KGH in 2007 (These data are likely included with acute inpatient data).
- By the end of 2007 most of the rehab admissions in the SE LHIN were seen in PC (>360) followed by KGH (183 in 2006), QHC-Bel (147) and BGH (51). Rehab bed days were also highest in PC (>13,600) but trailed by QHC-Bel with 5,800. KGH which usually has shorter rehab length of stays only had 1,505 bed days (in 2006) while BGH reported 1,369 by the end of 2007.
- For the most part, both admissions and bed days reflect similar trends between 2003 and 2007. BGH, PC and QHC-Bel just recorded minor fluctuations during the period but KGH showed significant reductions, particularly in the number or admissions (337 in 2003 to 183 in 2006).
- Between 2003 and 2007 there was a notable shift in the percentage of adult females utilizing rehab services (54% of bed days) compared to adult males (48%). This pattern was also observed in all of the reporting institutions except BGH (which actually recorded a higher percentage of utilization for females—38% in 2003 to 51% in 2007).
- Females utilize more rehab services when they are older while males do the same at younger age groups. For example in 2007 females 75+ accounted for 54% of overall rehab bed days compared to males in the same age group which only represented 37% of bed days.
- Across institutions, females 75-84 utilized rehab services most frequently while males 45-64 recorded the most rehab bed days. Note that individuals 85+ still accounted for 22% and 11% of bed days in females and males respectively.
- In 2007, rehab admissions originated primarily from acute care facilities either within the same institution (42%) or a different institution (49%). There was however some variation in referral patterns depending on the institution that provided the service. Admissions from within the same institution was the majority in BGH (82%), QHC-Bel (56%) and KGH (99%) while admissions from a different institution was the most in PC (86%) but also high in QHC-Bel (36%). Private practice or other/unknown sources accounted for 5.2% and 3.6% of overall admissions respectively.

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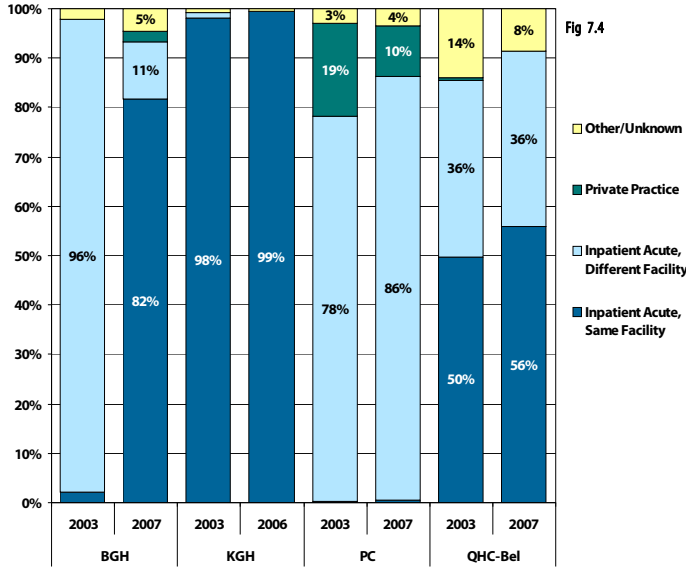


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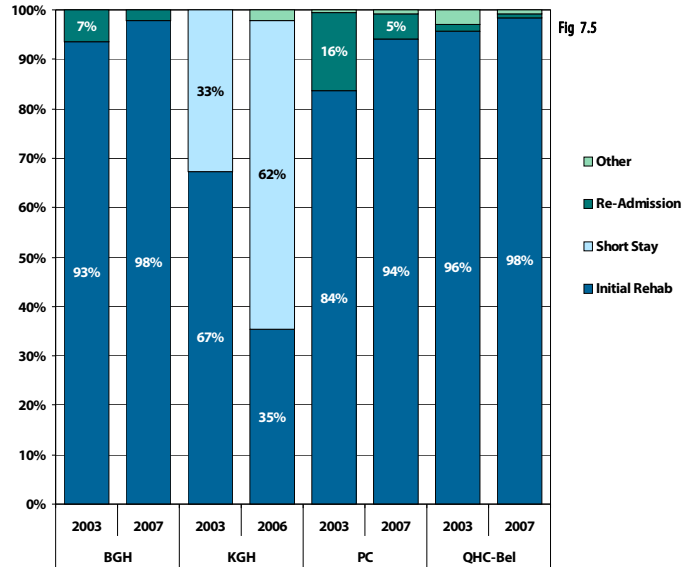
South East Local Health Integration Network Adult Inpatient Rehabilitation Profile



Distribution of Inpatient Rehab Admissions by Institution & Referral Source (2003/2007) ^{1,2,4}



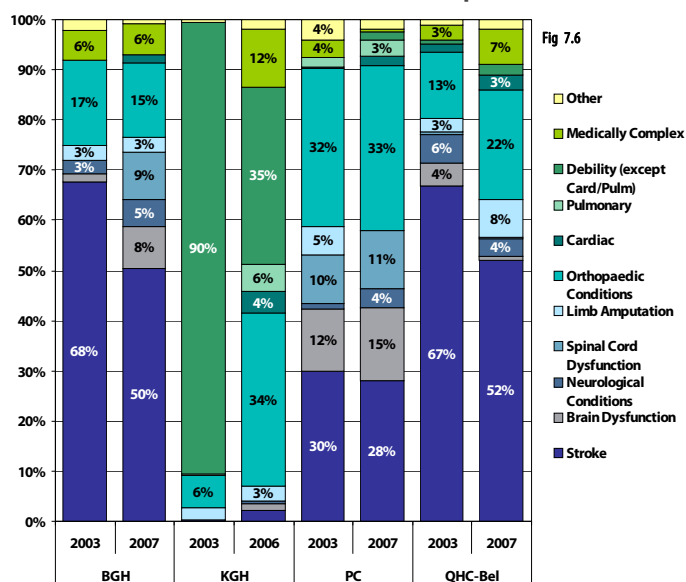
Distribution of Inpatient Rehab Admissions by Institution & Admission Class (2003/2007) ^{1,2,4}



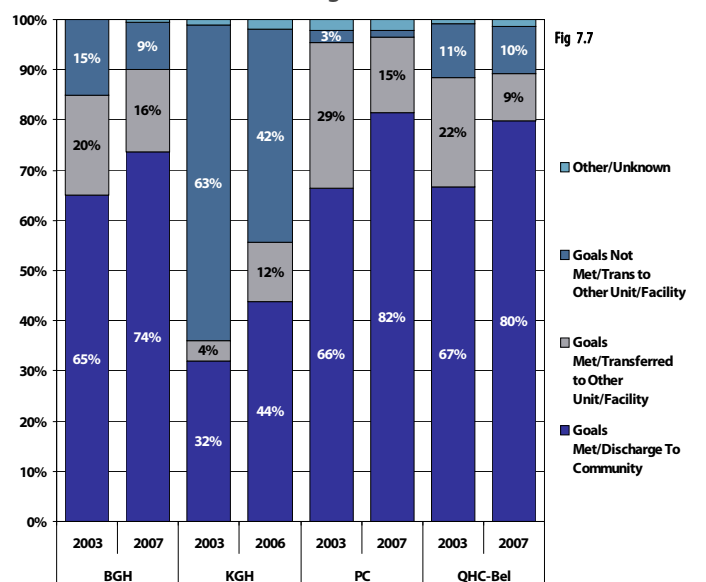
Summary of Main Findings - Continued:

- The class of admission for the vast majority of rehab cases in the SE LHIN is for Initial Rehab care. Only in KGH was the admission class reported as Short Stay for about 62% of all admissions in 2006.
- With the exception of KGH, rehab bed days were mainly utilized for patients recovering from stroke related conditions (28%-52%) followed by pulmonary associated conditions (15%-33%). In KGH most of the bed days were taken up by patients with either debility related (35%) or orthopaedic conditions (34%). Some bed days (12%) were also required for medically complex conditions.
- There were noticeable changes in how rehab beds were utilized between 2003 and 2007. In almost all institutions there was a reduction in the percentage of stroke related conditions but a corresponding increase in orthopaedic conditions. There was also a tendency to accommodate a wider variety of conditions including more brain dysfunctions. In 2003 about 90% of bed days were utilized for debility conditions but in addition to these and orthopaedic conditions, KGH also catered to limb amputations, cardiac, pulmonary and medically complex conditions.
- Nearly all institutions in the SE LHIN achieved set goals and returned rehab patients back to the community (66%-80% of bed days). In other instances the goals were met but patients were transferred to another facility. In KGH 56% of bed days were utilized to meet set goals but for 42% of bed days the goals were not achieved before patients were transferred to another facility.
- Generally for SE LHIN institutions patients stay between 30-40 days in Rehab beds regardless of age group. For patients under 45 years at PC the length of stay approximates 50 days while at KGH is roughly 8 days on average.
- Since 2004 Inpatient Rehab Occupancy rates in PC and BGH have been fairly constant ranging between 70% and 85%. Towards the end of the 2006/2007 period however the highest occupancy rates for Inpatient Rehab were seen in QHC-Bel (94%) and the lowest in KGH (41%).
- For individuals over 65 years, utilization rates for inpatient rehab is lower in SE LHIN than in the province: < 5 per 1,000 for 65-74 and <9 per 1,000 for 75+ in SE LHIN compared to >7 per 1,000 for 65-74 and >17 per 1,000 for 75+ in Ontario. Utilization rates in SE LHIN are similar for both sexes whereas at the provincial level rates are higher for females.
- Across the SE LHIN region utilization rates are commonly below 10 per 1,000 with the exception of Kingston & Islands and Stone Mills/Loyalist where rates are 10 or more per 1,000 for both males and females.
- Projections for adult inpatient rehab services, which have been based only on changes in population growth, point to annual increases of 6.1%, 2.8% and 3.88% in admissions, bed days and beds respectively
- No cases reported for KGH in 2007 so data for 2006 was used as a proxy

Distribution of Inpatient Rehab Bed Days by Institution & Rehabilitation Client Group (2003/2007) ^{1,2,4,5}



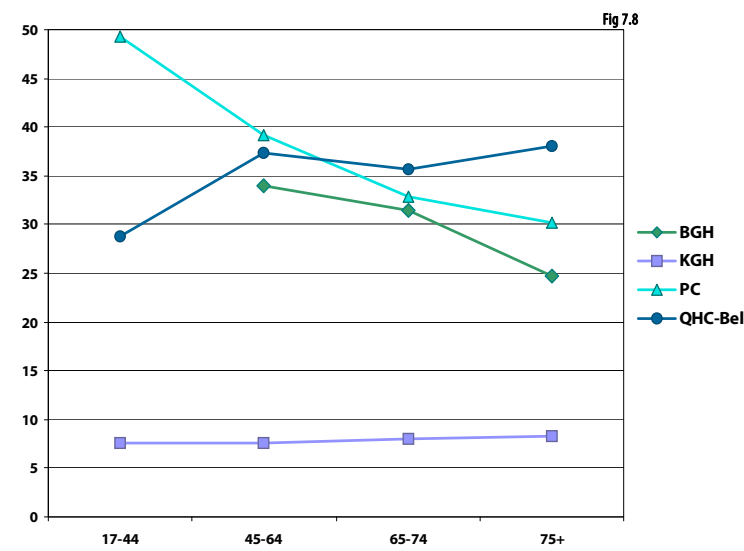
Distribution of Inpatient Rehab Bed Days by Institution & Discharge Status (2003/2007) ^{1,2,4,5}



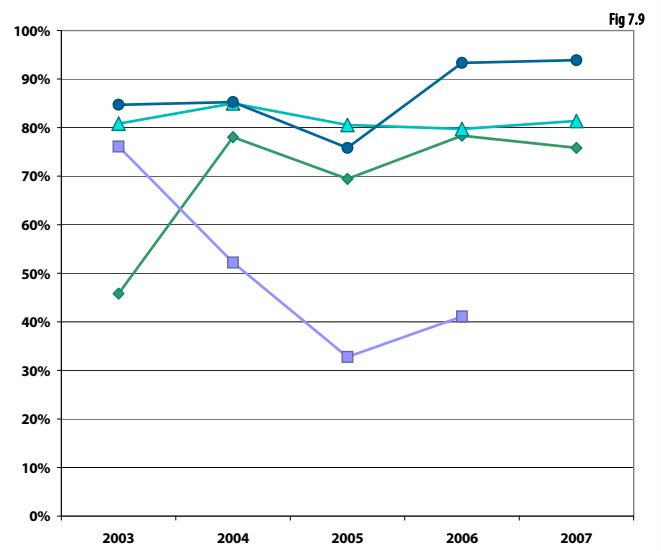
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South East Local Health Integration Network Adult Inpatient Rehabilitation Profile

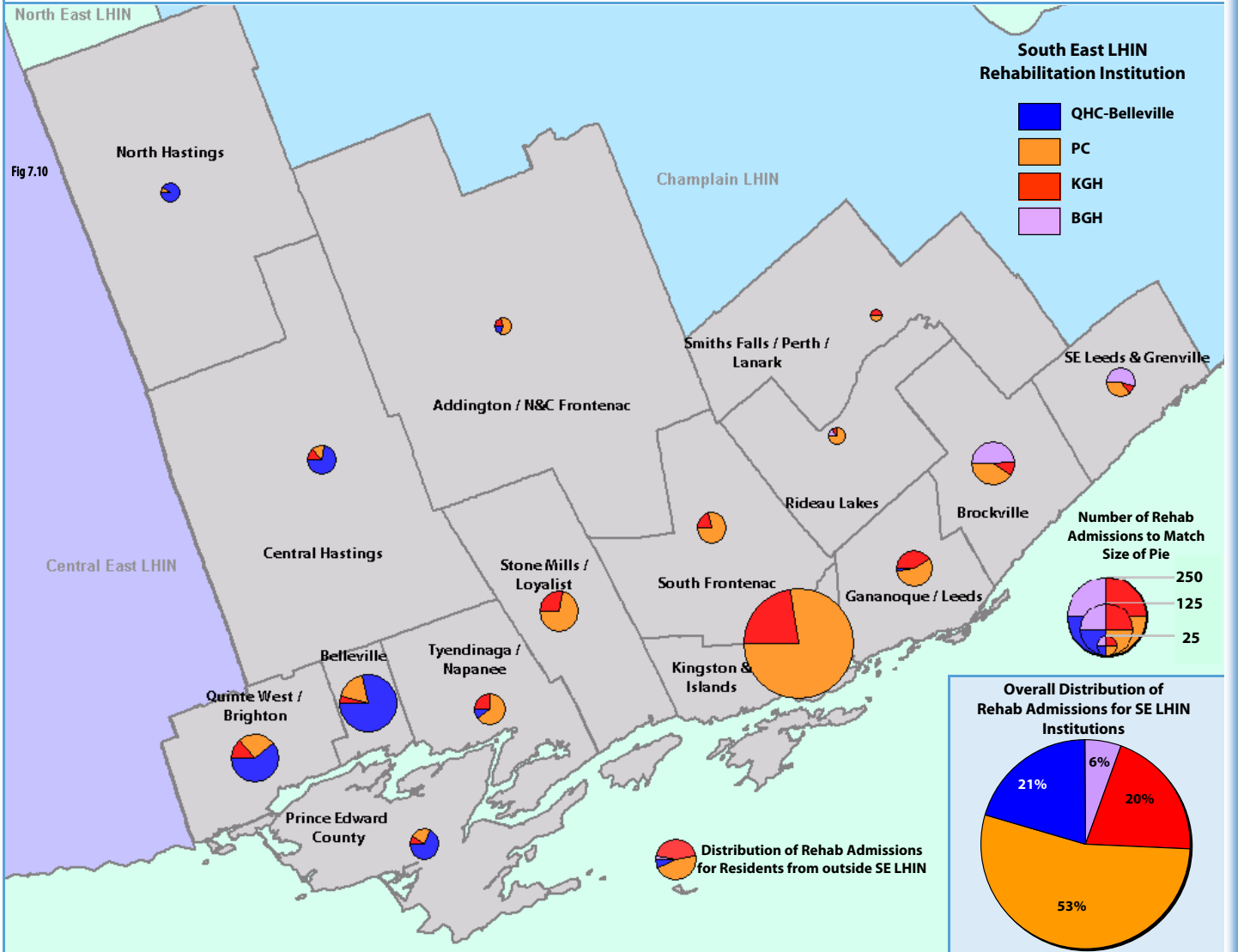
Average Length of Stay (days) for Inpatient Rehab Separations by Age Group & Institution (2006 & 2007 Combined) ^{1,2,4,5}

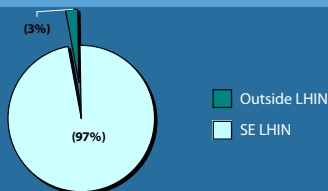


Occupancy Rate for Inpatient Rehab Beds by Year & Institution (2003-2007) ^{1,3,4,5}



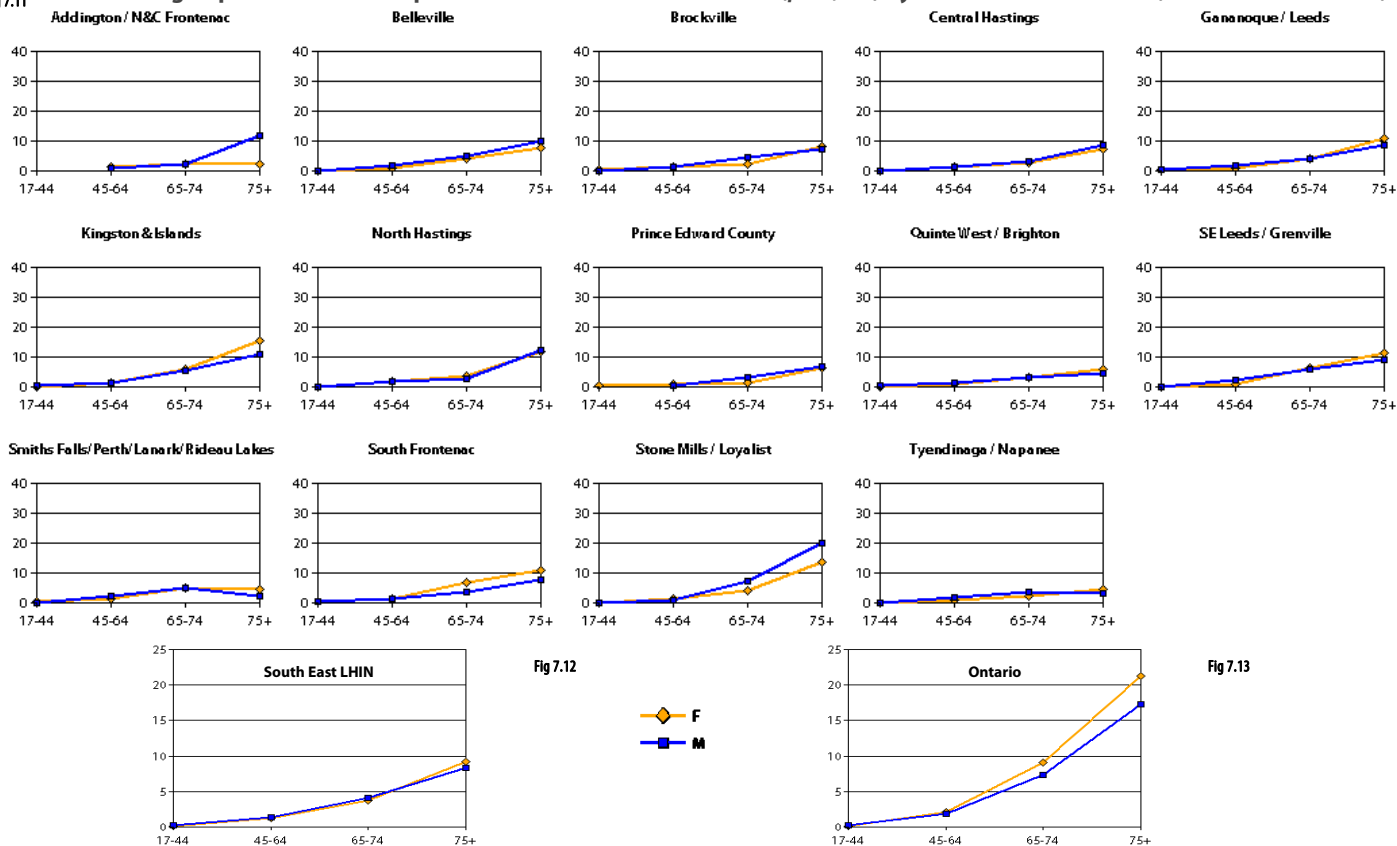
Distribution of Inpatient Rehabilitation Admissions for SE SubLHIN areas by SE LHIN Institutions (Average of 2006/2007) ^{1,2}





South East Local Health Integration Network Adult Inpatient Rehabilitation Profile

Fig 7.11 Age-Specific Rates for Inpatient Rehabilitation Admissions (per 1,000) by Sex and SubLHIN area (2006 & 2007 combined) ^{1,2,9}



Reported and Projected Inpatient Rehab Admissions and Bed Days by SE LHIN Institution and Year (Average of 2006 & 2007) ¹⁻¹¹

Institution Name	Statistic	Reported		Projected					Avg. Annual % Growth 2007-2012
		2006	2007	2008	2009	2010	2011	2012	
Brockville General Hospital	Seps	48	51	51	52	54	55	56	1.9
	Days	1,430	1,369	1,444	1,478	1,514	1,551	1,589	3.0
	Beds	5	5	5	5	5	6	6	3.7
	Occ.	78.40%	75.70%	77.10%	77.10%	77.10%	77.10%	77.10%	
Kingston General Hospital ¹⁰	Seps	190	363	98	99	101	103	105	-9.4
	Days	1,505	13,646	775	791	808	825	843	-9.2
	Beds	10	46	5	5	5	5	6	-8.2
	Occ.	41.20%	81.30%	41.20%	41.20%	41.20%	41.20%	41.20%	
Providence Care	Seps	380	363	383	391	399	408	417	2.8
	Days	13,371	13,646	13,883	14,164	14,452	14,749	15,054	2.0
	Beds	46	46	47	48	49	50	51	2.1
	Occ.	79.60%	81.30%	80.50%	80.50%	80.50%	80.50%	80.50%	
Quinte Health Care-Belleville	Seps	169	146	162	165	169	172	176	3.8
	Days	5,788	5,829	5,980	6,109	6,243	6,381	6,528	2.3
	Beds	17	17	18	18	18	19	19	2.2
	Occ.	93.30%	93.90%	93.60%	93.60%	93.60%	93.60%	93.60%	
South East LHIN	Seps	787	560	694	707	723	738	754	6.1
	Days	22,094	20,844	22,082	22,542	23,017	23,506	24,014	2.9
	Beds	78	68	75	76	77	80	82	3.8

General Notes and Limitations:

- All estimates are reported for fiscal periods, e.g. 2007 is April 2007 - March 2008.
- Data Source: National Rehabilitation Reporting System (NRS) developed by the Canadian Institute for Health Information (CIHI) and the Ministry of Health and Long-Term Care of Ontario. NRS is an admission based system so incomplete or open cases are also included; total separations and corresponding lengths of stay may not necessarily match separations and inpatient days obtained from MIS.
- Data Source: Management Information System (MIS), Ministry of Health and Long Term Care.
- For trending purposes St. Vincent de Paul, transferred from Providence Continuing Care Centre to Brockville General Hospital in October 2006, is shown as BGH.
- In order to compute the number of bed days and length of stay, records without discharge dates are assumed to be current patients.
- Projections of the health care utilization are primarily based on changes in population growth (including mortality, fertility and migration).
- Market share and utilization rates for 2006 and 2007 combined are assumed to remain constant until 2012.
- South East SubLHIN, sex and age group (17-44, 45-64, 65-74, 75-84, 85+) are assumed to be independent strata.
- Population estimates at the SubLHIN and LHIN levels were accessed from the Provincial Health Planning Database, MOHLTC. Population projections at the SubLHIN level were generated by the South East LHIN based on cohort component methodology.
- Since KGH did not report rehab beds in 2007, only data for 2006 (representing half of rehab activities for the 2006/2007 period) were incorporated in the projections
- Projections of health care utilization do not incorporate program realignments or enhancements, changes in service demand, technological or clinical developments, or changes in disease prevalence.