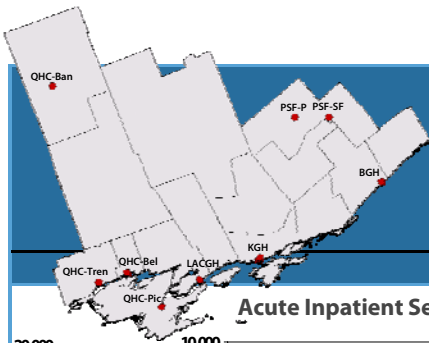


# South East Local Health Integration Network Acute Inpatient Separations Profile



Acute Inpatient Separations by Institution & Age Group (2002/2007)<sup>1,2</sup>

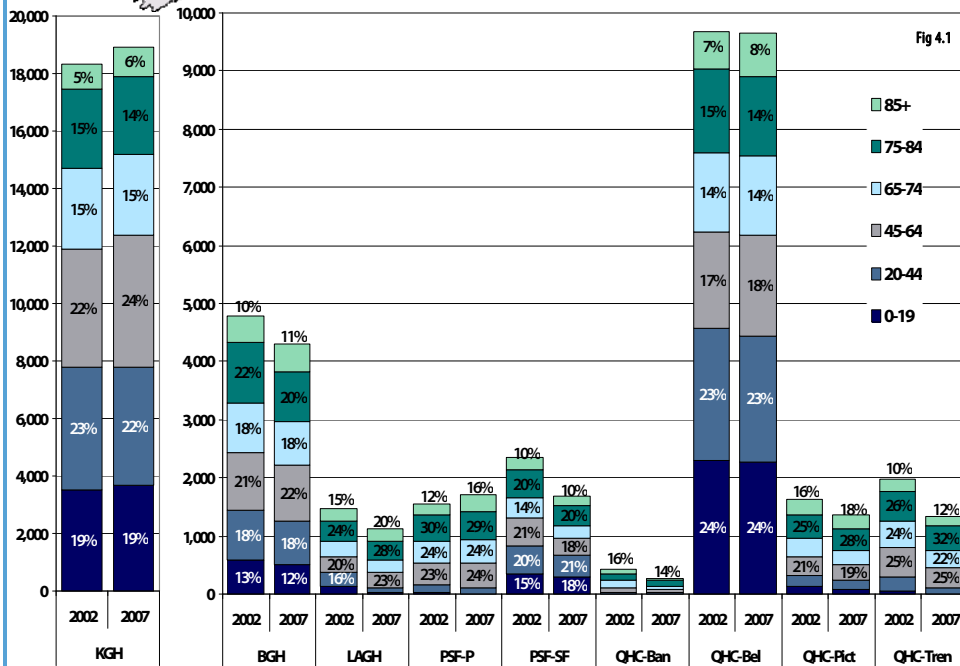


Fig 4.2 Percentage of All Acute IP Separations for South East LHIN & Ontario (2007)<sup>1,2</sup>

Indicator	Category	SE LHIN	Ontario	Most Responsible Diagnosis	SE LHIN	Ontario
Age Group	<1	10.8%	15.1%	Trauma, Coma & Toxic Effects	15.8%	12.2%
	1-19	14.3%	6.4%	Pregnancy/Childbirth/Puerperium	10.8%	13.3%
	20-44	17.6%	24.4%	Factors - Health Status/Services	10.8%	15.1%
	45-64	19.9%	20.2%	Digestive System	9.5%	9.8%
	65-74	14.3%	12.7%	Injury/Poisoning/External Causes	8.2%	7.3%
	75-84	15.6%	14.3%	Respiratory System	7.5%	6.6%
	85+	7.6%	7.0%	Muskuloskeletal System	7.1%	5.3%
Disposition	Discharged without home care	68.6%	73.7%	Neoplasms	6.5%	6.7%
	Discharged with home care	14.8%	10.6%	Kidney & Genitourinary Tract	4.9%	5.1%
	Transferred to continuing care	5.6%	7.0%	Perinatal Conditions	4.7%	3.8%
	Deceased/Stillbirth	5.0%	3.8%	Endocrine/Nutritional/Metabolic	2.3%	2.3%

**Legend:**

- BGH-Brockville General Hospital
- KGH-Kingston General Hospital
- LACGH-Lennox & Addington County General Hospital
- PSF-P-Perth & Smiths Falls Hospital-Perth
- PSF-SF-Perth & Smiths Falls Hospital-Smiths Falls
- QHC-Ban-Quinte Health Care-Bancroft
- QHC-Bel-Quinte Health Care-Belleville
- QHC-Pic-Quinte Health Care-Picton
- QHC-Tren-Quinte Health Care-Trenton
- SE LHIN-South East Local Health Integration Network

Fig 4.3 Age-specific Acute IP Utilization Rates (per 1,000) by Sex (2007)<sup>1,2,3</sup>

	Age Group	SE LHIN	Ontario
Female	<1	1,147.9	1,211.3
	1-19	22.4	24.1
	20-44	83.7	92.1
	45-64	60.6	61.2
	65-74	128.1	137.4
	75-84	215.8	233.0
Male	85+	312.5	347.4
	<1	1,138.0	1,241.5
	1-19	18.6	22.7
	20-44	19.7	22.2
	45-64	67.3	69.4
	65-74	160.8	177.8
	75-84	294.2	296.8
	85+	390.7	427.8

**Introduction:**

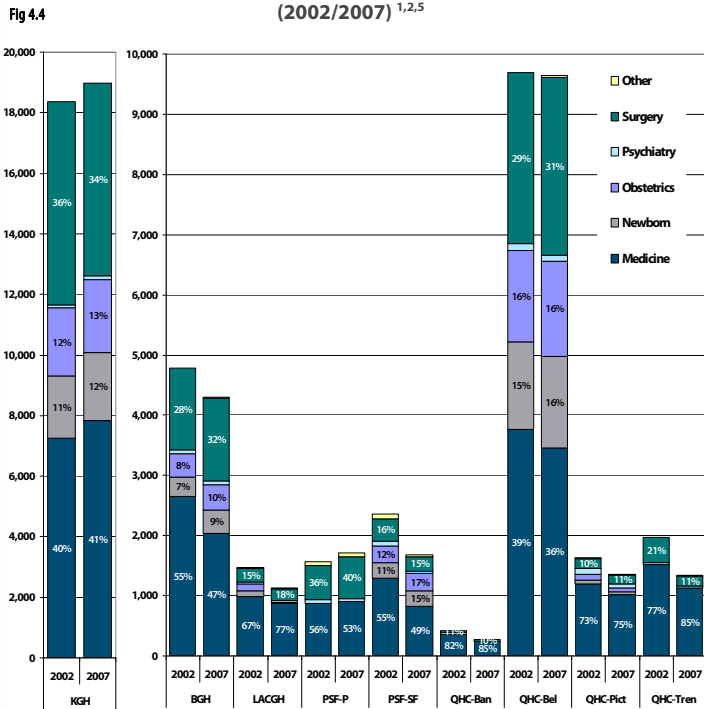
The Regional Capacity Assessment Project (ReCAP) provides a profile, including short-term projections, on the utilization of health care services in the South East LHIN. Results of ReCAP are used to support the recommendations in the Integrated Health Service Plan for the South East region. This short report on Acute Inpatient (IP) separations is one in a series of summary analyses from ReCAP that focuses on specific health care services. In the South East LHIN there are 9 institutions that provide acute inpatient care: 1 teaching hospital (KGH), 1 large hospital (QHC-Bel), 1 medium hospital (BGH), 5 small hospitals (LACGH, PSF-P, PSF-SF, QHC-Pic, QHC-Tren) and 1 very small hospital (QHC-Ban).

**Summary of Main Findings:**

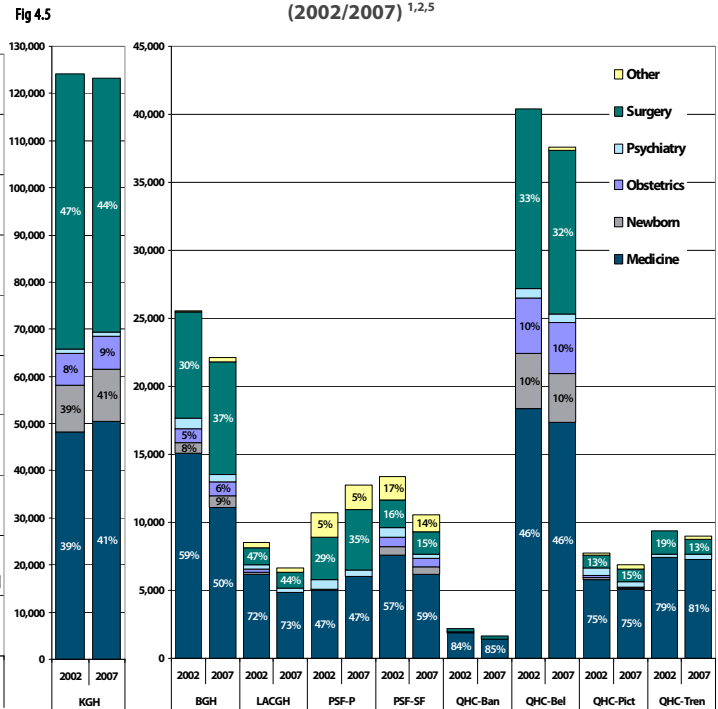
- In 2007, KGH accounted for the majority of acute care separations (18,900) followed by QHC-Bel (9,600) and BGH (4,300). All other institutions recorded less than 2,400 separations in the same year.
- Between 2002 and 2007 KGH and PSF-P were the only institutions that had an increase in the number of separations (annually 0.6% and 1.8% respectively). Notable decreases were observed in LAGH, PSF-SF, QHC-Ban and QHC-Tren (annually declining by >5%).
- Larger institutions (KGH and QHC-Bel) tended to care more for the younger patients: more than 40% of separations were less than 45 years compared to 8%-39% in the smaller institutions. Overall the age distribution did not change by more than 2% in any age group between 2002 & 2007.
- In 2007, medical separations was the largest service group, especially in the smaller institutions (47%-89%) compared to (36%-41%) KGH and QHC-Bel. Acute care for Newborns and Obstetric patients (19%-32%) was only provided at KGH, QHC-Bel and BGH. Less than 15% of separations at PSF-SF, QHC-Ban and QHC-Tren were surgical cases. Similar trends were noted in the acute inpatient bed days by service categories.
- Ambulatory Care Sensitive Conditions (ACSC) is a measure of appropriate medical care assuming that prior ambulatory care would prevent onset of certain conditions. In 2007, the percentage of separations considered to be ACSC cases was higher in QHC-Tren, QHC-Pic and LAGH (>6%) but much lower in KGH and PSF-P (<3%).
- The majority of patients receiving acute care at SE LHIN institutions was treated and discharged without need for additional care (overall 69% but ranged from 37%-79% among all institutions). Separations with further care included 15% for home care, 6% for continuing care (complex continuing, rehab, long term) and 4% for acute care in another institution. At the provincial level, 74% of separations were discharged without home care, 11% with home care and 7% to continuing care.
- Occupancy rates for medical beds were usually between 93%-95% except for PSF-SF (69%). Rates for medical/surgical beds were typically within the 83%-88% range though QHC-Tren and LACGH recorded rates above 93%. KGH and QHC-Bel had surgical beds with occupancy rates of 87% and 71% respectively.

Continued—Page 2

**Acute Inpatient Separations by Institution & Service Type**



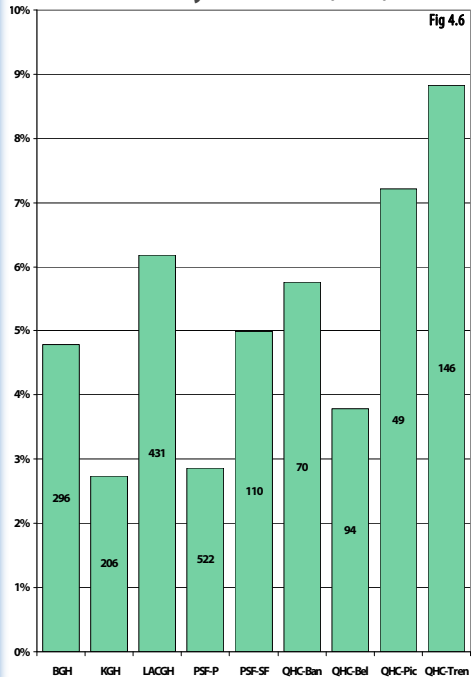
**Acute Inpatient Bed Days by Institutions & Service Type**



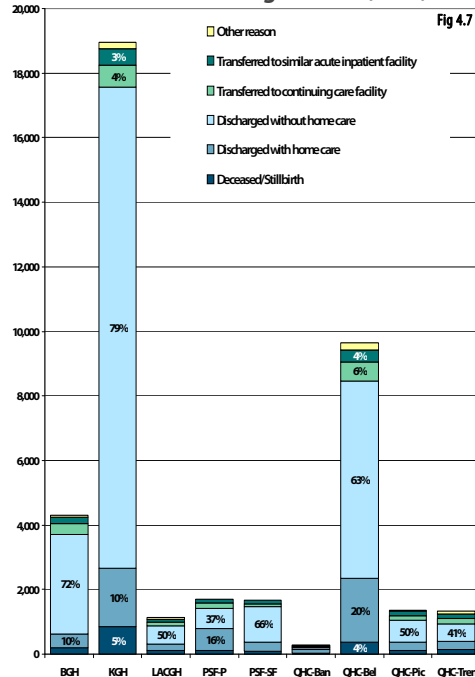
- In most institutions the length of stay for patients receiving medical care increases steadily with age from about 1-3 days for individuals 0-19 years to roughly 7-9 days for persons aged 85+. For surgical patients, KGH consistently recorded longer lengths of stay, (as anticipated due to its tertiary centre role) ranging from 4 days for 0-19 year olds to over 10 days for persons 85+. In the other institutions, the lengths of stay were more variable the older the patient. For example most hospital stays were 1-3 days for patients 0-19 years and 2-4 days for patients 20-44 years. Older surgical patients, those aged 65+, tended to have relatively longer stays in BGH, LACGH, and PSF-SF (6-12 days) than other institutions (4-9 days). Compared provincially, older patients in the SE LHIN receiving medical care tend to have slightly shorter lengths of stay. On the other hand, it was more common for surgical patients to stay longer in SE LHIN institutions than for the province as a whole.
- Apart from KGH, which provided acute care to patients from all SubLHIN areas (Fig 4.10), most institutions had patients from the actual or adjacent SubLHIN of the patient residence. More than 75% of patients residing in Prince Edward County, Tyendinaga/Napanee or Smiths Falls/Perth/Lanark depended almost equally on the 2 closest institutions while the majority of residents in Kingston and surrounding areas visited KGH for acute care. Approximately 3 out of every 4 acute care patients received treatment from either KGH (47%) of QHC-Bel (24%).
- Compared to the province, utilization rates for acute care services were lower in the SE LHIN for all age groups, particularly for individuals aged 75-84 years. Within the LHIN, acute care utilization rates for medical care were notably higher in Prince Edward County, SE Leeds & Grenville and Smiths Falls/Perth/Lanark.

Continued—Page 3

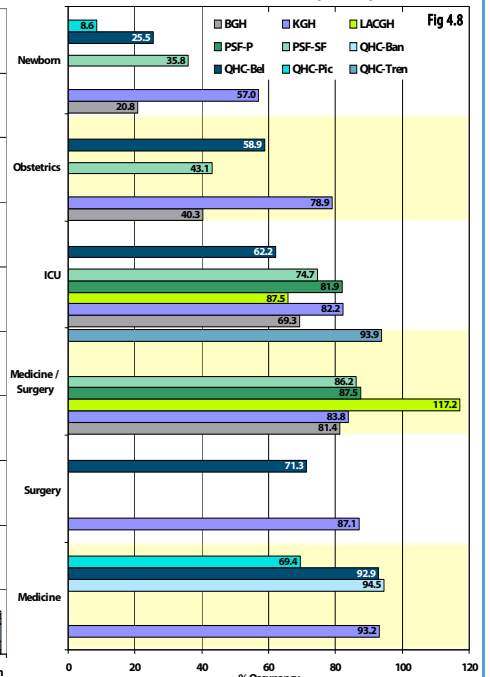
**Percent of Ambulatory Care Sensitive Conditions by Institution (2007)** <sup>1,2,6</sup>



**Acute Inpatient Separations by Institutions & Discharge Status (2007)** <sup>1,2</sup>

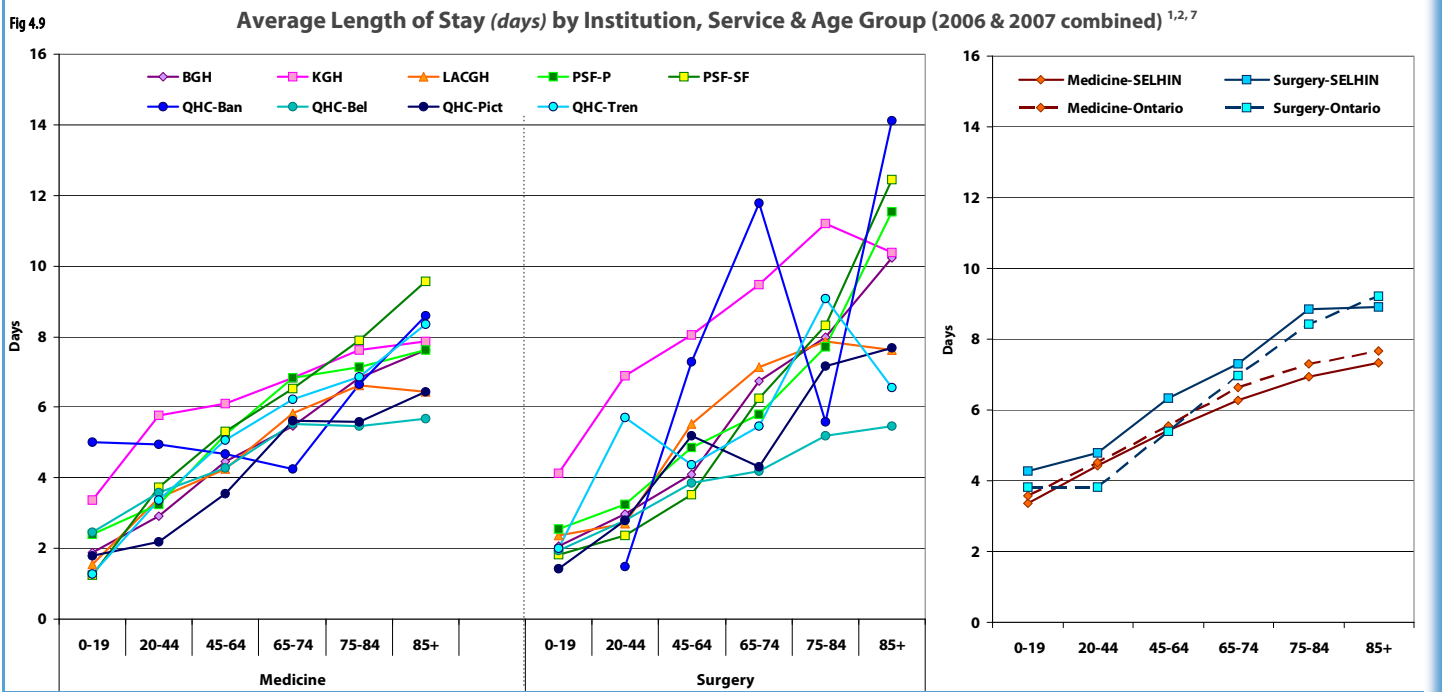


**Bed Occupancy Rates (%) by Institution & Service (2007)** <sup>1,4</sup>



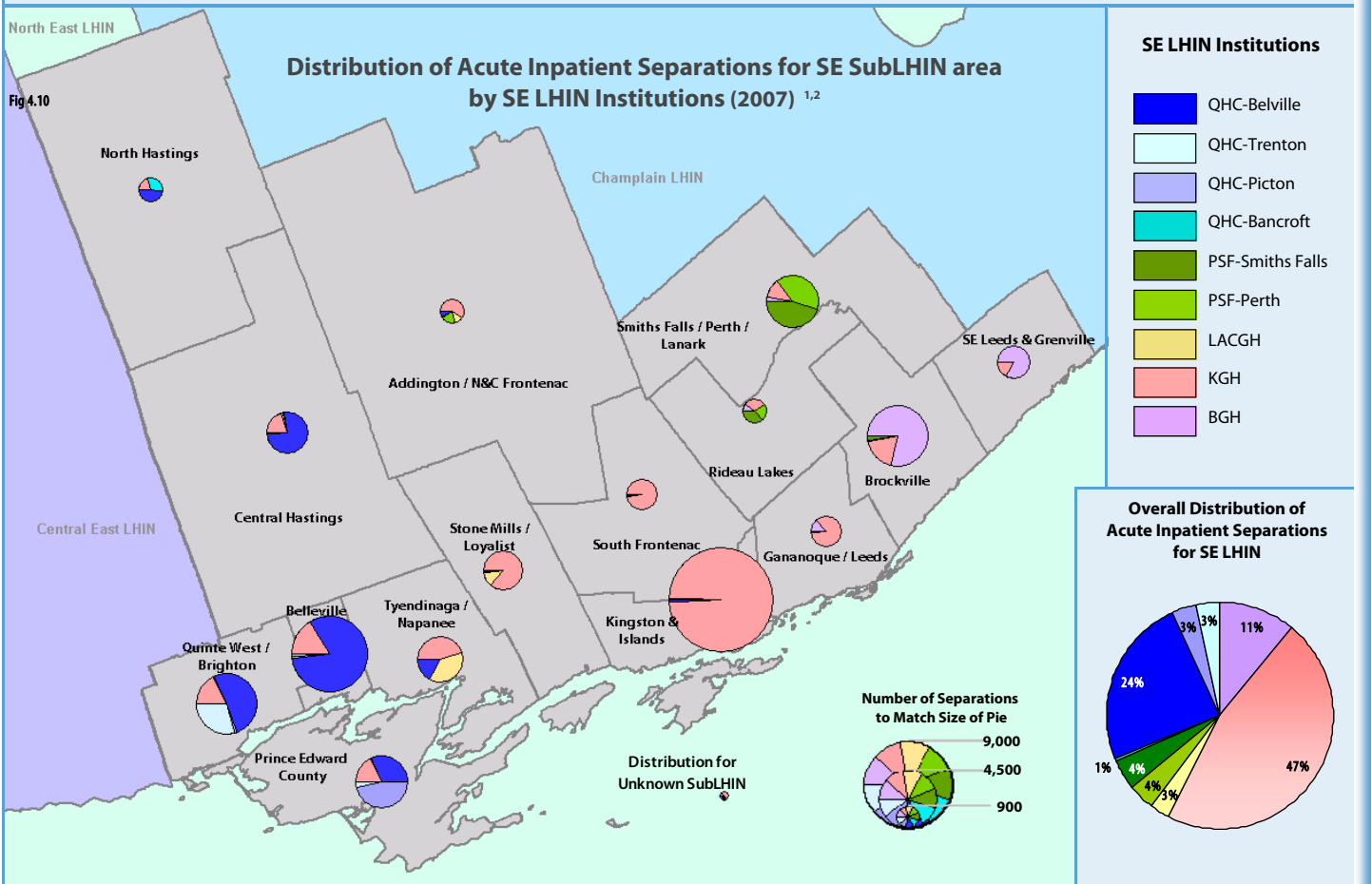
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## South East Local Health Integration Network Acute Inpatient Separations Profile



Assuming that acute care utilization rates and market share for 2006 and 2007 and current occupancy levels stay in effect, and that all other conditions remain constant, the expected annual growth rates for the number of unweighted separations in the LHIN are: 2.3% for Medicine, 1.4% for Surgery, 4.5% for Psychiatry and -0.3% to -1.6% for Pediatrics, Newborns and Obstetrics. For the most part, similar trends were observed for weighted number of separations.

Compared provincially, older patients in the SE LHIN receiving medical care tend to have slightly shorter lengths of stay. On the other hand, it is more common for surgical patients to stay longer in SE LHIN institutions than in the province as a whole.



# South East Local Health Integration Network (LHIN) Acute Inpatient Separations Profile

Age-Specific Acute Inpatient Separation Rates (per 1,000) by SubLHIN & Service (2006 & 2007 combined) <sup>1,2,3,10</sup>

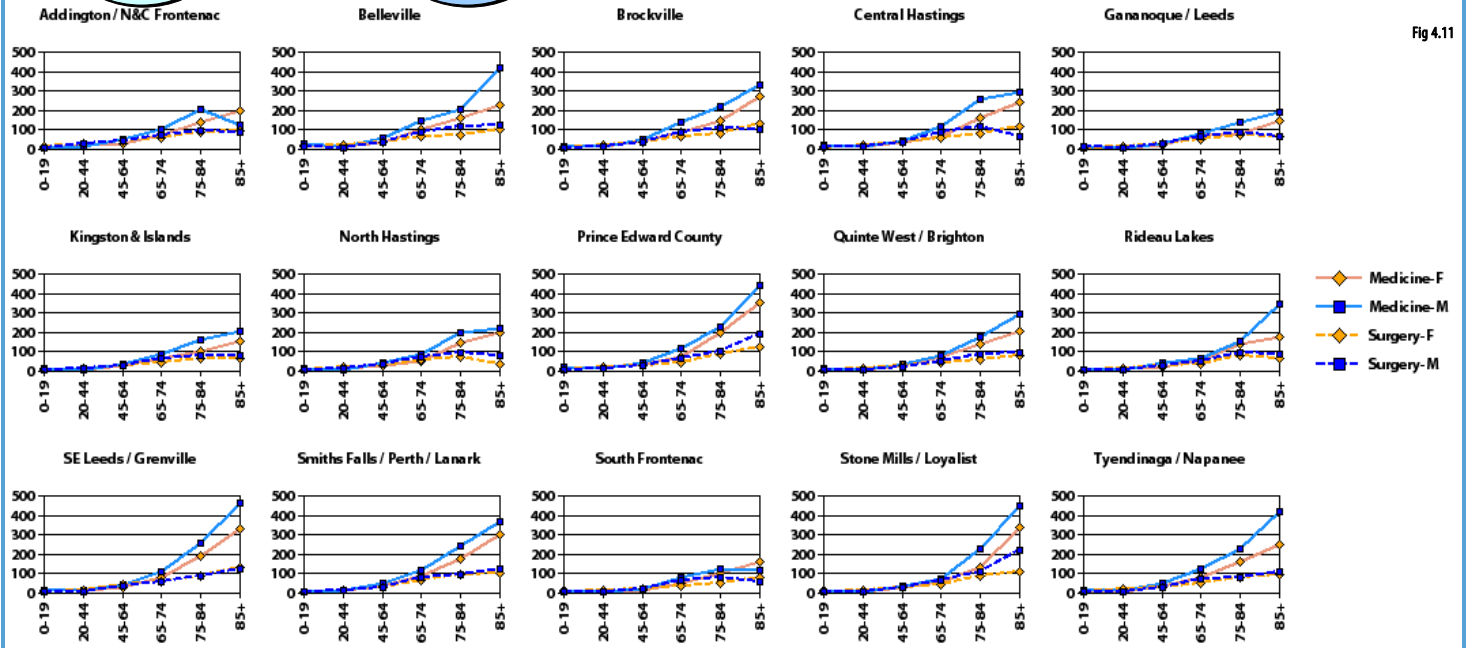


Fig 4.11

Reported and Projected Acute Inpatient Separations and Bed Days by SE LHIN Institution & Year <sup>1, 2, 3, 8-12</sup>

Fig 4.12

Institution Name	Measure	Medicine			Surgery			Pediatrics			Newborn			Obstetrics			Psychiatry			Other		
		2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth	2007	2012	Avg. Annual % Growth
BGH	Seps	1,971	2,236	2.6	1,358	1,473	1.6	90	109	3.8	377	339	-2.1	428	355	-3.7	59	61	0.7	16	16	0.1
	Seps-PAC	2,341	2,834	3.9	2,162	2,348	1.7	54	67	4.3	84	77	-1.7	258	217	-3.4	168	169	0.1	46	37	-4.2
	Bed days	10,977	12,869	3.2	8,234	8,842	1.4	168	207	4.2	820	755	-1.6	994	852	-3.0	571	539	-1.1	315	323	0.5
KGH	Seps	7,090	7,961	2.3	5,923	6,357	1.4	1,201	1,191	-0.2	2,251	2,224	-0.2	2,384	2,327	-0.5	108	202	13.3	<5	<5	
	Seps-PAC	11,773	13,380	2.6	15,803	17,034	1.5	1,267	1,195	-1.2	1,481	1,471	-0.1	1,546	1,534	-0.1	205	381	13.2	3	<5	
	Bed days	48,053	53,733	2.3	51,858	55,814	1.5	4,469	4,410	-0.3	10,933	11,090	0.3	6,901	6,875	-0.1	990	1,896	13.9	8	14	12.4
LACGH	Seps	878	969	2.0	201	213	1.1										35	44	4.9	15	16	0.9
	Seps-PAC	1,069	1,216	2.6	287	307	1.3										91	130	7.3	38	48	4.6
	Bed days	4,837	5,472	2.5	1,191	1,332	2.3										310	384	4.4	314	242	-5.1
PSF-P	Seps	908	898	-0.2	692	661	-0.9										52	45	-3.1	56	49	-2.6
	Seps-PAC	1,137	1,107	-0.5	1,303	1,249	-0.9										84	77	-1.8	163	125	-5.2
	Bed days	6,020	5,769	-0.8	4,478	4,171	-1.4										442	383	-2.8	1,784	1,417	-4.5
PSF-SF	Seps	829	1,011	4.0	247	268	1.7				258	216	-3.5	280	219	-4.8	32	47	8.1	36	36	0.0
	Seps-PAC	1,120	1,231	1.9	370	399	1.5				44	36	-3.6	167	130	-4.8	85	113	5.9	116	106	-1.8
	Bed days	6,184	6,753	1.8	1,623	1,641	0.2				505	433	-3.1	632	500	-4.6	347	463	5.9	1,225	1,047	-3.1
QHC-Ban	Seps	235	214	-1.9	28	31	2.1										6	6	-0.1			
	Seps-PAC	426	386	-1.9	32	39	4.0										18	14	-3.9			
	Bed days	1,416	1,264	-2.2	222	252	2.5										19	25	5.9			
QHC-Bel	Seps	3,054	3,397	2.2	2,788	3,001	1.5	628	588	-1.3	1,523	1,458	-0.9	1,536	1,377	-2.2	94	96	0.4	27	26	-0.4
	Seps-PAC	3,609	3,890	1.5	4,386	4,671	1.3	405	374	-1.6	427	391	-1.7	965	853	-2.4	213	220	0.7	43	33	-4.8
	Bed days	16,331	16,986	0.8	11,719	12,510	1.3	1,505	1,357	-2.1	3,580	3,307	-1.6	3,648	3,185	-2.7	601	571	-1.0	229	179	-4.8
QHC-Pict	Seps	1,019	1,095	1.5	143	173	3.9				44	45	0.3	65	55	-3.4	66	65	-0.4	19	29	8.9
	Seps-PAC	1,100	1,246	2.5	224	229	0.4				7	7	0.6	29	26	-2.3	86	105	4.2	32	71	17.1
	Bed days	5,101	5,516	1.6	994	1,060	1.3				68	74	1.8	104	95	-1.9	316	354	2.3	260	387	8.3
QHC-Tren	Seps	1,129	1,420	4.7	151	194	5.2										38	46	3.9	15	15	0.2
	Seps-PAC	1,586	1,856	3.2	280	305	1.7										204	171	-3.4	38	31	-4.2
	Bed days	7,280	8,787	3.8	1,128	1,241	1.9										359	339	-1.1	210	189	-2.1
SE LHIN	Seps	17,113	19,201	2.3	11,531	12,372	1.4	1,919	1,888	-0.3	4,453	4,282	-0.8	4,693	4,333	-1.6	490	612	4.5	188	192	0.4
	Seps-PAC	24,161	27,144	2.4	24,847	26,580	1.4	1,727	1,636	-1.1	2,042	1,982	-0.6	2,965	2,760	-1.4	1,153	1,380	3.7	478	453	-1.1
	Bed days	106,199	117,149	2.0	81,447	86,864	1.3	6,142	5,973	-0.6	15,906	15,660	-0.3	12,279	11,506	-1.3	3,955	4,955	4.6	4,345	3,798	-2.7

**General Notes and Limitations:**

1. All estimates are reported for fiscal periods, e.g. 2007 is April 2007 - March 2008.
2. Data Source: "Hospital Inpatient Separations, Provincial Health Planning Database - from Discharge Abstract Database. (Includes data for completed/discharged cases only; excludes adult mental health cases).
3. Rates are based on population estimates and projections from Ministry of Finance and the SE LHIN.
4. Data Source: Management Information System, Ministry of Health and Long Term Care.
5. Categories based on a modified Health Services Restructuring Commission (HSRC) grouping of acute care services.
6. ACSC includes Grand mal status and other epileptic convulsions, Chronic Obstructive Pulmonary Disease (COPD), Acute bronchitis or Pneumonia when COPD is secondary, Asthma, Congestive heart failure, Hypertension or Angina with selected procedures, Diabetes; Excludes patients 75+ or with death as discharge status.

**Notes on Projections of Acute Inpatient Separations:**

8. Two types of projections are presented in this profile: unweighted (actual number of Acute IP separations) and weighted (according to the PAC-10 weights). PAC (Prospective Complexity Adjustment) represent the relative cost of care between different patient types; adjusts for patient co-morbidities, age and length of stay.
9. Projections of the health care utilization are primarily based on changes in population growth (including mortality, fertility and migration).
10. Market share, utilization rates and length of stay for 2006 and 2007 combined are assumed to remain constant until 2012. Occupancy rates for 2007 are also assumed to remain constant for the projection period. Note that medical and surgical utilization rates by region, sex and age group are based on 5 or more Acute Inpatient separations.
11. South East SubLHIN, sex and age group (0-19, 20-44, 45-64, 65-74, 75-84, 85+) are assumed to be independent strata.
12. 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.