

SETTING  
THE STAGE

# CHILDREN'S SURGICAL SERVICES

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# Children's Surgical Services: Setting the Stage for Tiers Development

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### HOW TO CITE THE CHILDREN'S SURGICAL SERVICES:

We encourage you to share these documents with others and we welcome their use as a reference. Please cite each document in the module in keeping with the citation on the table of contents of each of the three documents. If referencing the full module, please cite as:

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## Children's Surgical Services: Setting the Stage for Tiers Development

The Children's Surgical Tiers of Service module is made up of three components:

1. Documents that provide context and were developed to inform the Surgical Tiers module
  - a. *Children's Surgical Services: Setting the Stage for Tiers Development (this document)*
  - b. Summary of the Evidence Volume-Outcome Relationship in Pediatric Surgery<sup>1</sup>
2. Children's Surgical Services: Tiers in Brief to Support System Planning (Provides a high-level overview of key aspects of the module.)
3. Children's Surgical Services: Tiers in Full to Support Operational Planning (Provides significant detail of key aspects of the module: (1) clinical service. (2) knowledge sharing/training; and (3) quality improvement/ research.)

### 1.0 Providers of Children's Surgical Services

Children's surgical services are provided by surgical and anesthesia providers in partnership with nurses, allied health and other members of the health care team.

In BC, surgical and anesthesia providers have one of the following types of qualifications:

1. Royal College of Physicians and Surgeons of Canada (RCPSC)-certified (see Table 1).
  - a) Adult surgery specialists and anesthesiologists:
    - Surgeons and anesthesiologists who have completed a post-graduate specialty residency program and the relevant RCPSC examination. Residencies are usually five years.
    - Surgical and anesthesiology residency programs include a pediatric component.
  - b) Pediatric surgery and anesthesiology specialists:
    - Specialty-trained surgeons and anesthesiologists who have completed additional training in pediatrics.
    - In Canada, pediatric general surgery is the only pediatric surgical subspecialty recognized by the RCPSC. Pediatric general surgery requires completion of a two-year residency program and the RCPSC examination.
    - Pediatric training for other surgical specialties and for anesthesiology occurs through fellowships which range from one to four years in length. No subspecialty RCPSC examination is required.
2. Family practice physicians with specialty training
  - a) Family practice physicians with enhanced surgical skills:
    - Family practice physicians who have completed a College of Family Physicians of Canada (CFPC) approved one-year training program in enhanced surgical skills or equivalent training in a program outside of Canada acceptable to the College of Physicians and Surgeons of BC (CPSBC) and the governing body of the HA.<sup>2</sup>

- In 2011, 40 family practice physicians with enhanced surgical skills were practicing in BC; about two-thirds of these were trained outside of Canada.<sup>3</sup> These surgeons were distributed across 11 communities in BC.<sup>4</sup>

b) Family practice anesthesia providers:

- Family practice physicians who have completed a CFPC accredited one-year training program in family practice anesthesia or equivalent training in a program outside of Canada acceptable to the CPSBC and the governing body of the HA. Training program should have included specific training in pediatric, obstetrical and adult anesthesia.<sup>5</sup>
- In 2011, 500 – 700 GP-anesthetists were practicing in Canada, mostly in Ontario, the West and the North.<sup>6</sup> Specific numbers of GP anesthetists in BC were not available.

**Table 1: BC RCPSC-Certified Anesthesiology & Surgical Specialists**

<b>Surgical Specialty</b>	<b>Pediatric Surgery &amp; Anesthesiology Specialists</b>		<b>Adult Surgery &amp; Anesthesiologists Specialists</b> (see note below)
	<b>BC Children's</b> (Active Members only)	<b>Elsewhere in BC</b>	
Anesthesia	24	3 (Victoria)	484
Cardiothoracic Surgery	2	0	51
Dental	44	8+ (Victoria), 2 (Kelowna)	Unknown
General/Vascular	5	2 (Victoria)	289
Neurosurgery	5	0	47
Ophthalmology	13	1 (Victoria)	199
Orthopedic	7	4 (Kelowna, Surrey, Victoria & Prince George)	234
Otolaryngology	6	2 (Surrey & Victoria)	91
Plastics	6	1 (Victoria)	95
Urology	3	2 (Kelowna & Victoria)	97
<b>Total, excl Obs/Gyne</b>	<b>115</b>	<b>25+</b>	<b>1,587 + dentists</b>
Obstetrics/Gynecology	4 Gyne (BCCH)	1 Gyne (Victoria)	259
<b>Total, incl Obs/Gyne</b>	<b>119</b>	<b>26+</b>	<b>1,846 + dentists</b>

*Sources:*

1. Adult surgery specialists & anesthesiologists: Canadian Medical Association Masterfile, January 2014.
2. Pediatric surgery & anesthesiology specialists: Information provided by Children's Surgical Tiers of Service Working Group.

*Definitions:*

1. Adult surgery & anesthesiology specialist: Physician certified by the RCPSC in surgical specialty or anesthesiology. Training includes a pediatric component.
2. Pediatric surgery & anesthesiology specialist: Physician certified by the RCPSC in surgical specialty or anesthesiology. Has completed a pediatric fellowship in the relevant specialty. Practice may be mixed adults and children or exclusively with children.

*Note:* Many adult surgery and adult anesthesiology specialists do not perform surgery/provide anesthesia on children.

## 2.0 Utilization of Surgical Services by Children

### 2.1 About the Data

Highlights of the data used to inform the development of this module are provided in this section. Detailed data and a visual representation (map) are available in Appendices 1 - 5.

Data is provided for inpatient (including babies in NICU) and day care service utilization. Unfortunately no comparable provincial-level data exists for hospital outpatient or community-based services.

Data is for 2015/16 and children ages 0 - 16.9 years. Surgical procedures were assigned to the surgical specialty of the procedural physician. For example, if a general surgeon performed a thoracic procedure, the procedure was assigned to general surgery (not thoracic surgery).

### 2.2 Inpatient and Day Care Visits/Procedures

In 2015/16, 41,807 visits (114 per day, including NICU visits) were made by children to a BC hospital for medical/surgical reasons (20,707 medical and 21,100 surgical visits for a 49%/51% split, based on the most responsible physician (MRP). Of these, 24,824 (68 per day or 59% of total visits) were inpatient visits (78% medical and 22% surgical visits).

28,674 procedures were performed during the 41,807 visits in 2015/16. Of these, 22,239 (78%) were performed by surgeons.

Of the 22,239 procedures performed by surgeons (refer to Tables 2 - 5 for details):

- 15,653 (70%) were performed on a surgical day care basis and 6,586 (30%) on inpatients.
- The highest number were otolaryngology (22% of total visits), followed by dental (21%), orthopedic (15%) and general surgery (13%).
- 10,107 (45% of the total provincial procedures) were performed at Children's & Women's (C&W), 3,565 (16%) in Island Health, 3,077 (14%) in IH, 2,885 (13%) in FH, 1,745 (8%) in NHA and 860 (4%) in VCH.
- The highest number were performed on children living in FHA (36% of the total provincial procedures), followed by children living in Island Health (19% of total procedures) and IH (18% of total procedures). On a per capita basis, the number was lower in FHA/VCH (55% of the total surgical visits vs 63% of the population) than in the other HAs.
- 66% were performed in a hospital in the HA in which the child was residing.
  - Children living in VCH and VIHA were the most likely to access services in their home HA (95% in VCH and 85% in VIHA). Children living in FHA were the least likely (36%).
  - Children requiring otolaryngology services were the most likely to access services in their home HA (83%), followed by gynecology (82%), oral surgery (79%), orthopedic surgery (73%), dentistry (71%) and general surgery (69%).
  - Services that children were most likely to travel to another HA to receive were cardiac surgery (77% travelled to another HA) and neurosurgery (77% travelled).

**Table 2: Surgical Procedures, Children Ages 0 – 16.9 Yrs, by Surgical Specialty (CIHI, 2015/16)**

Procedure MD	Procedures			% Total Procedures	% SDC/Total Procedures	C&W	% C&W/Total Procedures
	Inpatient	Day Surgery	Total				
Anaesthesiology	21	25	46	0%	54%	28	61%
Cardiac/Thoracic Surgery	390	17	407	2%	4%	379	93%
Dentistry	35	4,720	4,755	21%	99%	2,192	46%
General Surgery	1,702	1,118	2,820	13%	40%	1,209	43%
Gynaecology	57	115	172	1%	67%	39	23%
Neurosurgery	230	15	245	1%	6%	229	93%
Ophthalmology	50	1,082	1,132	5%	96%	878	78%
Oral Surgery	88	398	486	2%	82%	113	23%
Orthopaedic Surgery	1,452	1,836	3,288	15%	56%	1,081	33%
Otolaryngology	1,134	3,677	4,811	22%	76%	1,046	22%
Plastic Surgery	301	752	1,053	5%	71%	555	53%
Radiology	891	737	1,628	7%	45%	1,459	90%
Urology	235	1,161	1,396	6%	83%	899	64%
<b>Total Procedures</b>	<b>6,586</b>	<b>15,653</b>	<b>22,239</b>	<b>100%</b>	<b>70%</b>	<b>10,107</b>	<b>45%</b>

**Table 3: Surgical Procedures, Children Ages 0 – 16.9 Yrs, by Surgical Specialty & HA of Treating Hospital (CIHI, 2015/16)**

Procedure MD	HA of Treating Hospital								% Total Visits
	Interior	Fraser	Van Coastal	Van Island	Northern	Total, excl C&W	C&W	Total, incl C&W	
Anaesthesiology	2	4	4	4	4	18	28	46	0%
Cardiac/Thoracic Surgery	11	5	8	4		28	379	407	2%
Dentistry	754	197	64	801	747	2,563	2,192	4,755	21%
General Surgery	319	356	141	597	198	1,611	1,209	2,820	13%
Gynaecology	44	31	10	23	25	133	39	172	1%
Neurosurgery	2	8	3	3		16	229	245	1%
Ophthalmology	31	22	27	162	12	254	878	1,132	5%
Oral Surgery	13	158	19	145	38	373	113	486	2%
Orthopaedic Surgery	532	595	239	526	315	2,207	1,081	3,288	15%
Otolaryngology	1,063	1,198	206	953	345	3,765	1,046	4,811	22%
Plastic Surgery	139	122	41	172	24	498	555	1,053	5%
Radiology	34	32	40	62	1	169	1,459	1,628	7%
Urology	133	157	58	113	36	497	899	1,396	6%
<b>Total Procedures</b>	<b>3,077</b>	<b>2,885</b>	<b>860</b>	<b>3,565</b>	<b>1,745</b>	<b>12,132</b>	<b>10,107</b>	<b>22,239</b>	<b>100%</b>
% Total Procedures	14%	13%	4%	16%	8%	55%	45%	100%	

*Note:* Surgical procedures were assigned to the surgical specialty of the procedural physician. For example, if a general surgeon performed a thoracic procedure, the procedure would be assigned to general surgery (not thoracic surgery).

**Table 4: Surgical Procedures, Children Ages 0 – 16.9 Yrs, by Surgical Specialty & HA of Child's Home Residence (CIHI, 2015/16)**

Procedure MD	Child's Home Residence						Other	Total, incl Other
	Interior	Fraser	Van Coastal	Van Island	Northern	Total, excl Other		
Anaesthesiology	5	24	7	6	4	46	0	46
Cardiac/Thoracic Surgery	60	118	59	57	44	338	69	407
Dentistry	831	1,252	596	822	721	4,222	533	4,755
General Surgery	432	907	500	675	271	2,785	35	2,820
Gynaecology	47	56	20	22	26	171	1	172
Neurosurgery	43	85	45	44	23	240	5	245
Ophthalmology	85	554	227	200	52	1,118	14	1,132
Oral Surgery	15	221	52	145	49	482	4	486
Orthopaedic Surgery	603	1,136	515	574	380	3,208	80	3,288
Otolaryngology	1,138	1,611	663	973	387	4,772	39	4,811
Plastic Surgery	189	404	184	203	64	1,044	9	1,053
Radiology	239	646	353	187	160	1,585	43	1,628
Urology	199	620	278	197	90	1,384	12	1,396
<b>Total Procedures</b>	<b>3,886</b>	<b>7,634</b>	<b>3,499</b>	<b>4,105</b>	<b>2,271</b>	<b>21,395</b>	<b>844</b>	<b>22,239</b>
<b>% Total Procedures</b>	17%	34%	16%	18%	10%	96%		
Pop'n, 0 – 16.9 Yrs	116,083	328,497	164,924	115,755	58,611	783,870		
<b>% Pop'n, 0 - 16.9 Yrs</b>	15%	42%	21%	15%	7%	100%		

**Table 5: % Surgical Procedures in Home HA for Children Ages 0 - 16.9 Yrs (CIHI, 2015/16)**

Procedure MD	Child's Home Residence					
	IHA	FHA	VCH (see note below)	VIHA	NHA	Prov Avg
Anaesthesiology	40%	17%	100%	67%	100%	46%
Cardiac/Thoracic Surgery	18%	3%	98%	7%	0%	23%
Dentistry	90%	15%	96%	96%	96%	71%
General Surgery	71%	38%	99%	87%	70%	69%
Gynaecology	94%	55%	95%	95%	96%	82%
Neurosurgery	5%	7%	96%	7%	0%	23%
Ophthalmology	35%	4%	99%	79%	23%	40%
Oral Surgery	73%	67%	92%	97%	73%	79%
Orthopaedic Surgery	82%	50%	95%	87%	80%	73%
Otolaryngology	92%	68%	86%	95%	83%	83%
Plastic Surgery	74%	28%	93%	80%	38%	58%
Radiology	14%	5%	100%	33%	1%	30%
Urology	65%	25%	99%	57%	40%	51%
<b>% Procedures in Home HA</b>	<b>77%</b>	<b>36%</b>	<b>95%</b>	<b>85%</b>	<b>72%</b>	<b>66%</b>

**Notes:**

1. Surgical procedures were assigned to the surgical specialty of the procedural physician. For example, if a general surgeon performed a thoracic procedure, the procedure would be assigned to general surgery (not thoracic surgery).
2. For the purposes of this table, children from VCH that had a procedure at C&W or a VCH hospital were assumed to have received the service in their home HA.



Of the 108 hospitals in BC:

- Surgery was performed on children in 57/108<sup>1</sup> (53%) hospitals in 2015/16 (CIHI).
- Of the 57 hospitals where surgery was performed on children:
  - 23/57 (40%) performed day care surgery only (defined as 5 or less inpatient procedures per year).
  - 26/57 (46%) performed less than 100 procedures, 28 performed between 100 and 1,000 procedures and 3/57 performed more than 1,000 procedures (BCCH, Victoria General and Surrey Memorial).
  - 21/57 (37%) have dedicated pediatric beds (see Appendix 5 for a listing) and collectively performed 86% of the total pediatric surgical volume.

### 3.0 References

1. Hanley G. Summary of the evidence volume-outcome relationship in pediatric surgery. <http://childhealthbc.ca/>. 2013:1-15.
2. BC Medical Quality Initiative. Family practice with enhanced surgical skills clinical privileges. <http://bcmqi.ca/privileging-dictionaries>. 2015: 1-10. (accessed Nov 20, 2016)
3. Grzybowski S et al. The outcomes of perinatal surgical services in rural British Columbia: a population-based study. [www.facturation.net/cjrm/vol-18/issue-4/123](http://www.facturation.net/cjrm/vol-18/issue-4/123). *Can J Rural Med*. 2013;18(4). (accessed Nov 20, 2016)
4. National Working Group on Enhanced Surgical Skills. Enhanced surgical skills training program for family physicians: An integrated modular curriculum. [www.srpc.ca/ess2016/summit/Draft-2-Enhanced-Surgical-Skills-Curriculum-14-01-21.pdf](http://www.srpc.ca/ess2016/summit/Draft-2-Enhanced-Surgical-Skills-Curriculum-14-01-21.pdf). 2014: 1-98. (accessed Nov 20, 2016)
5. BC Medical Quality Initiative. Family practice anesthesia clinical privileges. <http://bcmqi.ca/privileging-dictionaries>. 2015:1-8. (accessed Nov 20, 2016)
6. Society of Rural Physicians of Canada in cooperation with the College of Family Physicians of Canada and the Canadian Anesthesiologists Society. Joint position paper on training for rural family physicians in anesthesia. [www.srpc.ca/pdf/jppeng.pdf](http://www.srpc.ca/pdf/jppeng.pdf). November 2001: 1-21. (accessed Nov 20, 2016)

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<sup>1</sup> 57/76 (75%) if hospitals with no inpatient beds are excluded.



## Appendix 1: ED and Med/Surg Visits and Days by Facility

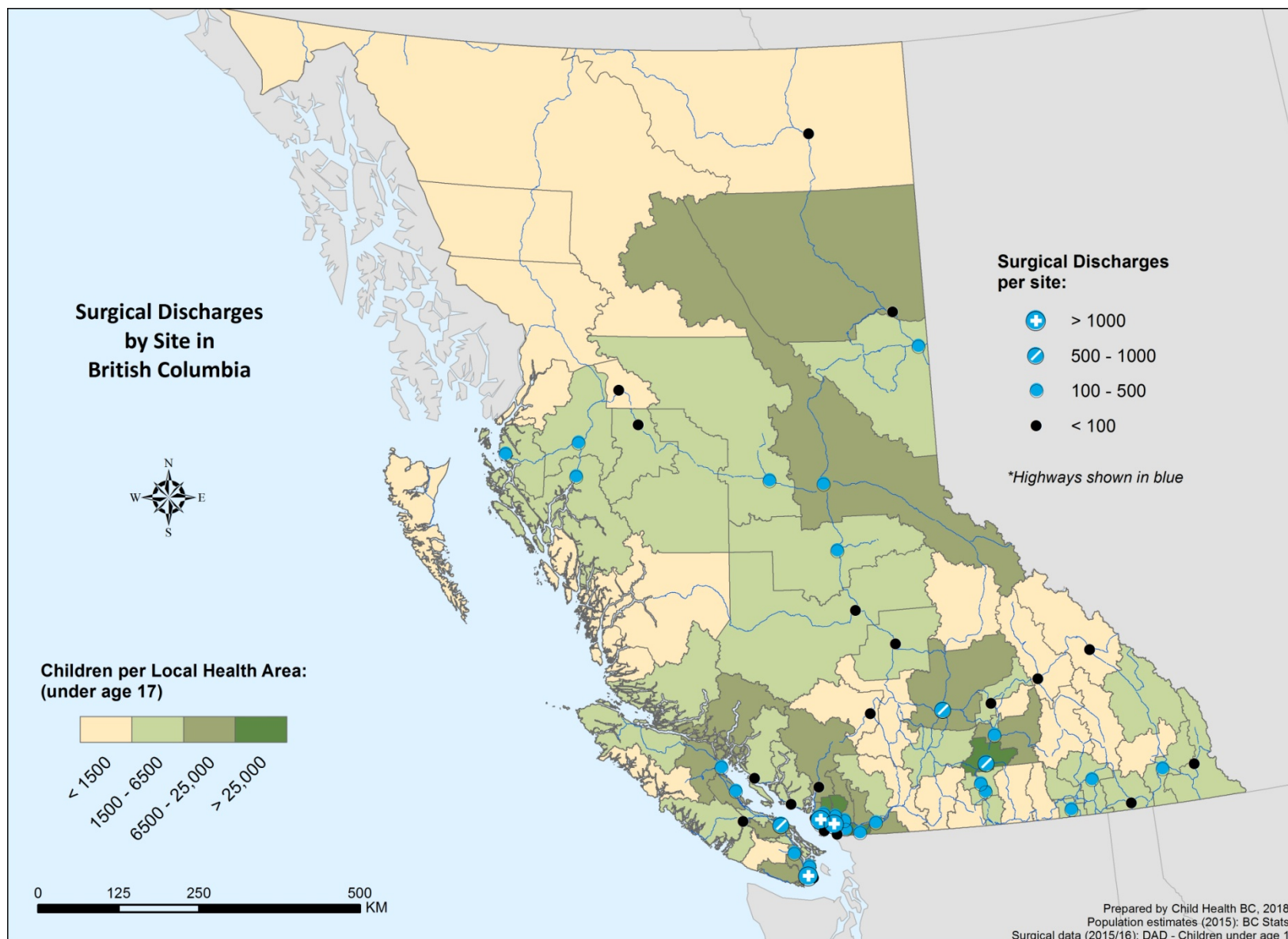
- Includes children ages 0 - 16.9 years.
- Surgical procedures: Procedures performed on children by a surgeon regardless of most responsible physician (MRP). Includes children in NICUs, PICUs, med/surg units and in day care settings.
- Med/surg visits and days: Visits and days sorted by MRP. Includes children in PICUs, med/surg units and in day care settings (excludes children in NICUs).
- Day care visits = Surgical or medical day care visits in which an anesthetic was provided.
- Medical and surgical data is for fiscal year 2015/2016. Source is the BC MoH Discharge Abstract Database.
- Emergency Department (ED) visits: Based on 2015/16 National Ambulatory Care Reporting System (NACRS) data for children ages 0-16.9 for sites that submit to NACRS. Where NACRS data was not available, visits were calculated as 15.48% x total ED visits. 2015/16 MIS data was used for total ED visits.

	Treating Hosp	ED Visits	Surgery							Medical				Med/Surg		Gen Ped Beds
			Day Care Proc's	Inpt Proc's	Total Proc's	Day Care Visits	Inpt Visits	Total Visits	Total Days	Day Care Visits	Inpt Visits	Total Visits	Total Days	Total Visits	Total Days	
Interior HA																
East Kootenay	Creston Valley Hosp	2,391	23		23	23		23	0	5	25	30	38	53	38	
	East Kootenay Reg Hosp (Cranbrook)	3,678	351	61	412	351	69	420	145		81	81	144	501	289	2
	Elk Valley Hosp	2,000	16	1	17	16	1	17	1	2	26	28	37	45	38	
	Elkford H Ctre	199														
	Golden & District Hosp	1,225	9		9	9		9	0	5	12	17	18	26	18	
	Invermere & District Hosp	1,850									16	16	36	16	36	
	Sparwood H Ctre	706														
Kootenay Boundary	Arrow Lakes Hosp	677									3	3	6	3	6	
	Boundary Hosp	2,413									6	6	11	6	11	
	Castlegar H Ctre	1,637														
	Edgewood H Ctre	226														
	Kootenay Bound Hosp	2,475	157	40	197	157	39	196	86		176	176	427	372	513	4
	Kootenay Lake Hosp	2,114	115		115	115	1	116	1		37	37	73	153	74	
	Slocan Comm H Ctre	312														
Okanagan	Victorian Comm H Ctre of Kaslo	156														
	Kelowna Gen Hosp	9,446	449	197	646	464	179	643	355	15	531	546	1,341	1,189	1,696	10
	Penticton Reg Hosp	5,679	106	66	172	104	74	178	128	9	211	220	397	398	525	11
	Princeton Gen Hosp	1,085														
	South Ok Gen Hosp	2,810														
	S Similkameen H Ctre	422														
	Summerland H Ctre		395		395	396		396	0					396	0	
Thompson Cariboo Shuswap	Vernon Jubilee Hosp	6,834	228	72	300	228	80	308	120	7	209	216	512	524	632	5
	100 Mile District Hosp	1,925	6		6	5		5	0	13	12	25	20	30	20	
	Alexis Creek H Ctre	276														
	Ashcroft Gen Hosp	395														
	Barriere H Ctre	229														
	Blue River H Ctre	105														
	Cariboo Memorial Hosp	3,277	80	10	90	80	11	91	28	2	75	77	127	168	155	
	Chase & District H Ctre	653														
	Dr. Helmcken Hosp	570									6	6	6	6	6	
	Lillooet Hosp & H Ctre	833	17		17	17		17	0	1	18	19	27	36	27	
	Logan Lake H Ctre															
	Nicola Valley Hosp	2,077									2	2	2	2	2	
	Queen Victoria Hosp	1,422	3		3	3		3	0	1	9	10	17	13	17	
	Royal Inland Hosp	10,516	449	191	640	447	205	652	323	4	333	337	787	989	1,110	9
	Shuswap Lake Gen Hosp	3,130	25	10	35	25	14	39	21		53	53	69	92	90	
	St. Barth H Ctre	317														
Interior HA Total		74,061	2,429	648	3,077	2,440	673	3,113	1,208	64	1,841	1,905	4,095	5,018	5,303	41

	Treating Hosp	ED Visits	Surgery							Medical				Med/Surg		Gen Ped Beds
			Day Care Proc's	Inpt Proc's	Total Proc's	Day Care Visits	Inpt Visits	Total Visits	Total Days	Day Care Visits	Inpt Visits	Total Visits	Total Days	Total Visits	Total Days	
Fraser HA																
Fraser East	Abbotsford Reg Hosp	13,572	288	185	473	285	189	474	321	6	834	840	1,983	1,314	2,304	12
	Chilliwack Gen Hosp	9,541	176	9	185	175	11	186	22		29	29	47	215	69	4
	Fraser Canyon Hosp	1,481														
	Mission Memorial Hosp	2,683														
Fraser North	Burnaby Hosp	9,120	2	3	5	2	8	10	8		89	89	127	99	135	
	Eagle Ridge Hosp	8,495	198		198	198		198	0		101	101	101	299	101	
	Ridge Meadows Hosp	6,269	186	41	227	186	54	240	83	2	5	7	6	247	89	4
	Royal Columbian Hosp	10,213	110	176	286	110	186	296	526	5	505	510	1,246	806	1,772	12
Fraser South	Delta Hosp	3,383	35	1	36	35	4	39	4		47	47	48	86	52	
	Jim Pattison Outpt Ctre		1		1	1		1	0	10		10	0	11	0	
	Langley Memorial Hosp	6,587	196	81	277	196	90	286	152		378	378	961	664	1,113	9
	Peace Arch District Hosp	6,300	7	9	16	7	13	20	15		71	71	71	91	86	
	Surrey Memorial Hosp	36,649	762	419	1,181	758	422	1,180	687		1,184	1,184	3,069	2,364	3,756	16
Fraser HA Total		114,293	1,961	924	2,885	1,953	977	2,930	1,818	23	3,243	3,266	7,659	6,196	9,477	57
Vancouver Coastal HA																
North Shore/Coast Garibaldi	Bella Coola Gen Hosp	456									27	27	64	27	64	
	Lions Gate Hosp	8,240	188	139	327	180	144	324	236	22	408	430	832	754	1,068	10
	Pemberton H Ctre	813														
	Powell River Gen Hosp	2,852	24	3	27	24	3	27	9		13	13	30	40	39	
	R.W. Large Mem Hosp	431									5	5	9	5	9	
	Squamish Gen Hosp	2,237	64	5	69	23	2	25	2	41	17	58	34	83	36	
	Sechelt Hosp	2,445	25	8	33	25	5	30	8		22	22	35	52	43	
	Whistler H Ctre	3,330														
Richmond	Richmond Hosp	6,949	128	44	172	128	48	176	75	3	222	225	422	401	497	4
Vancouver	Mount Saint Jo (Providence)	1,104	13	2	15	13	2	15	3			0		15	3	
	St. Paul's Hosp (Providence)	1,646	39	4	43	38	4	42	8	5	74	79	127	121	135	
	U.B.C. H Sciences Ctre	1,838	76	15	91	74	15	89	18	1		1		90	18	
	Vancouver Gen Hosp	136	49	34	83	48	29	77	161	35	5	40	8	117	169	
Vancouver Coastal HA Total		32,478	606	254	860	553	252	805	520	107	793	900	1,561	1,705	2,081	14
Vancouver Island HA																
Central Van Island	Bamfield H Ctre	213														
	Chemamus Health Ctre	934														
	Cowichan District Hosp	5,118	258	36	294	258	33	291	42	3	173	176	377	467	419	4
	Ladysmith Comm H Ctre	2,476														
	Nanaimo Reg Gen Hosp	8,376	652	175	827	652	184	836	294	1	341	342	705	1,178	999	8
	Oceanside H Ctre	3,889														
	Tofino Gen Hosp	946									9	9	34	9	34	
	West Coast Gen Hosp	4,070	16	6	22	16	7	23	17		43	43	68	66	85	
Northern Van Island	Campbell River Hosp	2,916	180	25	205	180	25	205	39		67	67	119	272	158	1
	Cormorant Island H Ctre	252														
	Gold River H Ctre	467														
	Kyuquot H Ctre	137														
	Port Alice Hosp	113														
	Tahsis H Ctre	396														
	Port Hardy Hosp	1,221									14	14	31	14	31	
	Port McNeill Hosp	723									4	4	20	4	20	
Southern Van Island	Comox Hosp	3,236	194	25	219	193	34	227	44		89	89	159	316	203	4
	Lady Minto/Gulf Islands Hosp	1,552									4	4	5	4	5	
	Royal Jubilee Hosp	2,434	45	4	49	45	3	48	12	1		1	0	49	12	
	Saanich Peninsula Hosp	2,431	186		186	186		186	0					186	0	
Victoria Gen Hosp		12,546	1,174	589	1,763	1,176	487	1,663	999	4	1,155	1,159	3,621	2,822	4,620	16
Vancouver Island HA Total		54,444	2,705	860	3,565	2,706	773	3,479	1,447	9	1,899	1,908	5,139	5,387	6,586	33

	Treating Hosp	ED Visits	Surgery							Medical				Med/Surg		Gen Ped Beds
			Day Care Proc's	Inpt Proc's	Total Proc's	Day Care Visits	Inpt Visits	Total Visits	Total Days	Day Care Visits	Inpt Visits	Total Visits	Total Days	Total Visits	Total Days	
Northern HA																
North-east	Chetwynd Gen Hosp	1,428									14	14	21	14	21	
	Dawson Creek Hosp	3,842	112	8	120	112	9	121	22	40	60	100	116	221	138	
	Fort Nelson Gen Hosp	1,023	4		4	4		4	0	1	20	21	34	25	34	
	Fort St. John Gen Hosp	4,276	84	7	91	84	8	92	19	23	98	121	220	213	239	
	Hudson's Hope H Ctre	50														
	Tumbler Ridge H Ctre	362														
Northern Interior	Burns Lake Hosp (Lakes District)										12	12	24	12	24	
	Fraser Lake H Ctre	867														
	GR Baker Mem Hosp	2,827	250	11	261	251	18	269	24	9	11	20	30	289	54	
	Lakes District Hosp	2,063														
	Mackenzie Hosp	928									5	5	6	5	6	
	McBride & District Hosp	325														
	St. John Hosp	1,689	72	3	75					46	63	109	116	109	116	
	Stuart Lake Hosp	916				72		72	0		14	14	33	86	33	
	The Univ Hosp of N BC	7,271	347	106	453	347	100	447	227	10	491	501	1,549	948	1,776	12
	Valemount H Ctre	474														
North-west	Atlin H Ctre	393														
	Bulkley Valley Hosp	2,342	19	3	22	19	2	21	3	35	67	102	123	123	126	
	Houston H Ctre	687														
	Kitimat Gen Hosp	1,817	126	5	131	126	5	131	16	2	44	46	102	177	118	
	Mills Memorial Hosp	4,085	291	40	331	290	42	332	54	2	116	118	382	450	436	
	N Haida Gwaii Hosp	427									9	9	22	9	22	
	Prince Rupert Reg Hosp	3,487	158	14	172	158	15	173	33		62	62	119	235	152	
	Queen Charlotte Is Hosp	589									8	8	19	8	19	
	Stewart Gen Hosp	226														
	Stikine H Ctre	214														
	Wrinch Memorial Hosp	1,282	85		85	86		86	0	1	24	25	40	111	40	
Northern HA Total		43,891	1,548	197	1,745	1,549	199	1,748	398	169	1,118	1,287	2,956	3,035	3,354	12
PHSA HA																
PHSA	BC Children's Hosp	47,673	6,401	3,409	9,810	6,528	2,484	9,012	10,165	879	3,700	4,579	21,981	13,591	32,147	97
	BC Women's Hosp		3	294	297	3		3	0		167	167	234	170	234	
PHSA HA Total		47,673	6,404	3,703	10,107	6,531	2,484	9,015	10,165	879	3,867	4,746	22,215	13,761	32,380	97
Grand Total		366,841	15,653	6,586	22,239	15,732	5,358	21,090	15,556	1,251	12,761	14,012	43,625	35,102	59,181	254

## Appendix 2: Map of Pediatric Surgical Discharges in BC



## Appendix 3: Surgical Procedures, Children Ages 0 – 16.9 Yrs, by Treating Hospital

- Includes children ages 0 - 16.9 years. Source is the BC MoH Discharge Abstract Database
- Procedures by procedural physician regardless of most responsible physician (MRP). Includes children in NICUs, PICUs, med/surg units and day care settings.
- Surgical procedures are assigned to the surgical specialty of the procedural physician. For example, if a general surgeon performed a thoracic procedure, the procedure is assigned to general surgery (not thoracic surgery).

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Interior HA</b>	<b>105</b>	<b>1,025</b>	<b>1,316</b>	<b>631</b>	<b>3,077</b>
<b>100 Mile District General Hospital</b>		<b>3</b>	<b>2</b>	<b>1</b>	<b>6</b>
Dentistry		3	2		5
Radiology				1	1
<b>Cariboo Memorial Hospital</b>		<b>34</b>	<b>43</b>	<b>13</b>	<b>90</b>
Dentistry		33	20		53
General Surgery		1	23	13	37
<b>Creston Valley Hospital</b>		<b>16</b>	<b>6</b>	<b>1</b>	<b>23</b>
Dentistry		16	5	1	22
General Surgery			1		1
<b>East Kootenay Regional Hospital</b>	<b>8</b>	<b>130</b>	<b>192</b>	<b>82</b>	<b>412</b>
Dentistry	1	18	4		23
General Surgery		4	15	20	39
Gynaecology		1	4	8	13
Ophthalmology			1		1
Orthopaedic Surgery		4	36	32	72
Otolaryngology	7	93	125	22	247
Urology		10	7		17
<b>Elk Valley Hospital</b>		<b>8</b>	<b>8</b>	<b>1</b>	<b>17</b>
Dentistry		8	6		14
General Surgery			2	1	3
<b>Golden and District Hospital</b>		<b>4</b>	<b>2</b>	<b>3</b>	<b>9</b>
Dentistry		3	2		5
General Surgery		1		2	3
Orthopaedic Surgery				1	1
<b>Kelowna General Hospital</b>	<b>54</b>	<b>151</b>	<b>274</b>	<b>167</b>	<b>646</b>
Anaesthesiology	1				1
Cardiac/Thoracic Surgery	1	2	1	6	10
Dentistry	3	14	13	1	31
General Surgery	2	9	37	30	78
Gynaecology	1		1	9	11
Neurosurgery				1	1
Ophthalmology	6	12	7	2	27
Oral Surgery		1	6	6	13
Orthopaedic Surgery	4	14	47	51	116
Otolaryngology	11	75	94	21	201
Plastic Surgery	11	8	38	31	88
Radiology	1	9	15	3	28
Urology	13	7	15	6	41

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Kootenay Boundary Regional Hospital</b>	<b>3</b>	<b>49</b>	<b>95</b>	<b>50</b>	<b>197</b>
Dentistry		3	1		4
General Surgery	1	4	12	6	23
Gynaecology		1	3	3	7
Orthopaedic Surgery	1	6	35	25	67
Otolaryngology		32	31	8	71
Plastic Surgery	1	2	9	4	16
Urology		1	4	4	9
<b>Kootenay Lake Hospital</b>	<b>1</b>	<b>72</b>	<b>38</b>	<b>4</b>	<b>115</b>
Dentistry	1	71	36	1	109
General Surgery			1		1
Gynaecology				3	3
Ophthalmology		1	1		2
<b>Lillooet Hospital And Health Centre</b>		<b>12</b>	<b>5</b>		<b>17</b>
Dentistry		11	5		16
General Surgery		1			1
<b>Penticton Regional Hospital</b>	<b>6</b>	<b>41</b>	<b>79</b>	<b>46</b>	<b>172</b>
General Surgery	1	4	13	14	32
Gynaecology				1	1
Orthopaedic Surgery		6	33	20	59
Otolaryngology	4	28	27	7	66
Radiology	1		1		2
Urology		3	5	4	12
<b>Queen Victoria Hospital</b>		<b>1</b>	<b>2</b>		<b>3</b>
General Surgery		1	2		3
<b>Royal Inland Hospital</b>	<b>18</b>	<b>192</b>	<b>285</b>	<b>145</b>	<b>640</b>
Cardiac/Thoracic Surgery				1	1
Dentistry	1	81	90	12	184
General Surgery	2	4	27	12	45
Gynaecology		1	2	3	6
Neurosurgery			1		1
Orthopaedic Surgery	3	15	55	68	141
Otolaryngology	5	79	79	25	188
Plastic Surgery		2	13	20	35
Radiology		1	1		2
Urology	7	9	17	4	37
<b>Shuswap Lake General Hospital</b>	<b>1</b>	<b>8</b>	<b>12</b>	<b>14</b>	<b>35</b>
Anaesthesiology	1				1
Dentistry		6	4		10
General Surgery		1	7	10	18
Gynaecology				1	1
Ophthalmology			1		1
Orthopaedic Surgery		1		3	4
<b>Summerland Memorial Health Centre</b>		<b>217</b>	<b>152</b>	<b>26</b>	<b>395</b>
Dentistry		177	95	5	277
Otolaryngology		40	57	21	118
<b>Vernon Jubilee Hospital</b>	<b>14</b>	<b>87</b>	<b>121</b>	<b>78</b>	<b>300</b>
Dentistry			1		1
General Surgery	1	2	17	15	35
Gynaecology			1	1	2
Orthopaedic Surgery	2	6	27	37	72
Otolaryngology	11	72	73	16	172
Radiology		1			1
Urology		6	2	9	17

Procedure MD	Age of Child				Total
	< 2 yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Fraser HA</b>	<b>32</b>	<b>733</b>	<b>1,373</b>	<b>747</b>	<b>2,885</b>
<b>Abbotsford Regional Hospital and Cancer Centre</b>	<b>3</b>	<b>124</b>	<b>245</b>	<b>101</b>	<b>473</b>
Dentistry		39	31	6	76
General Surgery	2	6	44	19	71
Gynaecology			1	7	8
Oral Surgery		1	6	5	12
Orthopaedic Surgery		24	71	40	135
Otolaryngology		45	66	14	125
Plastic Surgery		1	7	8	16
Radiology		1	2	2	5
Urology	1	7	17		25
<b>Burnaby Hospital</b>	<b>1</b>		<b>1</b>	<b>3</b>	<b>5</b>
General Surgery	1				1
Gynaecology				1	1
Otolaryngology			1		1
Urology				2	2
<b>Chilliwack General Hospital</b>		<b>61</b>	<b>81</b>	<b>43</b>	<b>185</b>
General Surgery				6	6
Gynaecology			1	2	3
Oral Surgery				1	1
Orthopaedic Surgery			6	21	27
Otolaryngology		61	72	12	145
Radiology				1	1
Urology			2		2
<b>Delta Hospital</b>				<b>36</b>	<b>36</b>
General Surgery				12	12
Gynaecology				2	2
Ophthalmology				8	8
Oral Surgery				6	6
Orthopaedic Surgery				4	4
Otolaryngology				1	1
Plastic Surgery				3	3
<b>Eagle Ridge Hospital</b>		<b>32</b>	<b>75</b>	<b>91</b>	<b>198</b>
Dentistry		8	7	1	16
General Surgery				13	13
Gynaecology			1		1
Oral Surgery			5	2	7
Orthopaedic Surgery			8	56	64
Otolaryngology		20	37	6	63
Plastic Surgery		4	11	6	21
Urology			6	7	13
<b>Jim Pattison Outpatient Care and Surgery Centre, Surrey</b>				<b>1</b>	<b>1</b>
Radiology				1	1
<b>Langley Memorial Hospital</b>	<b>1</b>	<b>30</b>	<b>134</b>	<b>112</b>	<b>277</b>
Anaesthesiology	1				1
General Surgery		2	30	21	53
Gynaecology			1	5	6
Oral Surgery		4	54	48	106
Orthopaedic Surgery		1	16	25	42
Otolaryngology		22	33	9	64
Urology		1		4	5



Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Peace Arch District Hospital</b>			<b>2</b>	<b>14</b>	<b>16</b>
General Surgery				3	3
Gynaecology				1	1
Oral Surgery			1	2	3
Orthopaedic Surgery			1	4	5
Otolaryngology				1	1
Plastic Surgery				1	1
Urology				2	2
<b>Ridge Meadows Hospital And Health Care Centre</b>		<b>80</b>	<b>112</b>	<b>35</b>	<b>227</b>
Dentistry		66	31	1	98
General Surgery		1	15	6	22
Gynaecology			1		1
Oral Surgery			3		3
Orthopaedic Surgery		7	47	23	77
Urology		6	15	5	26
<b>Royal Columbian Hospital</b>	<b>1</b>	<b>31</b>	<b>140</b>	<b>114</b>	<b>286</b>
Anaesthesiology	1				1
General Surgery		1	35	20	56
Gynaecology			2	4	6
Neurosurgery				8	8
Oral Surgery			1	2	3
Orthopaedic Surgery		28	68	42	138
Otolaryngology		1	2		3
Plastic Surgery		1	20	29	50
Radiology			8	6	14
Urology			4	3	7
<b>Surrey Memorial Hospital</b>	<b>26</b>	<b>375</b>	<b>583</b>	<b>197</b>	<b>1181</b>
Anaesthesiology			1	1	2
Cardiac/Thoracic Surgery			1	4	5
Dentistry		6		1	7
General Surgery		8	68	43	119
Gynaecology		1		1	2
Ophthalmology		1	8	5	14
Oral Surgery		1	5	11	17
Orthopaedic Surgery	1	21	48	33	103
Otolaryngology	24	317	389	65	795
Plastic Surgery	1	6	13	11	31
Radiology		1	5	5	11
Urology		13	45	17	75
<b>Vancouver Coastal HA</b>	<b>13</b>	<b>143</b>	<b>302</b>	<b>402</b>	<b>860</b>
<b>Lions Gate Hospital</b>	<b>5</b>	<b>70</b>	<b>138</b>	<b>114</b>	<b>327</b>
Anaesthesiology		1			1
General Surgery		3	32	28	63
Gynaecology				1	1
Ophthalmology		1			1
Oral Surgery			1	1	2
Orthopaedic Surgery		10	50	45	105
Otolaryngology	5	54	44	21	124
Plastic Surgery			2	8	10
Radiology		1	5	3	9
Urology			4	7	11

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Mount Saint Joseph Hospital</b>			<b>4</b>	<b>11</b>	<b>15</b>
General Surgery				4	4
Ophthalmology			3	4	7
Otolaryngology				2	2
Plastic Surgery				1	1
Urology			1		1
<b>Powell River General Hospital</b>		<b>2</b>	<b>11</b>	<b>14</b>	<b>27</b>
Dentistry			3	8	11
General Surgery		2	8	3	13
Gynaecology				2	2
Ophthalmology				1	1
<b>Richmond Hospital</b>	<b>3</b>	<b>36</b>	<b>78</b>	<b>55</b>	<b>172</b>
Anaesthesiology	2				2
General Surgery		1	15	10	26
Gynaecology			2		2
Ophthalmology				1	1
Orthopaedic Surgery		4	15	29	48
Otolaryngology		17	19	10	46
Plastic Surgery			4	5	9
Radiology	1				1
Urology		14	23		37
<b>Sechelt Hospital</b>		<b>7</b>	<b>15</b>	<b>11</b>	<b>33</b>
Dentistry		5	4	3	12
General Surgery		1	11	7	19
Gynaecology		1			1
Radiology				1	1
<b>Squamish General Hospital</b>		<b>28</b>	<b>27</b>	<b>14</b>	<b>69</b>
Dentistry		19	19	3	41
Orthopaedic Surgery			1	9	10
Otolaryngology		9	7	2	18
<b>St. Paul's Hospital</b>	<b>3</b>		<b>3</b>	<b>37</b>	<b>43</b>
Anaesthesiology	1				1
Cardiac/Thoracic Surgery				2	2
General Surgery				2	2
Gynaecology	1			1	2
Orthopaedic Surgery			3	17	20
Otolaryngology	1			4	5
Plastic Surgery				10	10
Radiology				1	1
<b>UBC Health Sciences Centre</b>			<b>4</b>	<b>87</b>	<b>91</b>
Cardiac/Thoracic Surgery				1	1
Gynaecology				1	1
Ophthalmology				1	1
Oral Surgery			1	16	17
Orthopaedic Surgery			2	43	45
Otolaryngology				10	10
Plastic Surgery			1	6	7
Radiology				8	8
Urology				1	1

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Vancouver General Hospital</b>	<b>2</b>		<b>22</b>	<b>59</b>	<b>83</b>
Cardiac/Thoracic Surgery			1	4	5
General Surgery			3	11	14
Gynaecology				1	1
Neurosurgery			1	2	3
Ophthalmology			4	12	16
Orthopaedic Surgery			1	10	11
Otolaryngology				1	1
Plastic Surgery				4	4
Radiology	2		7	11	20
Urology			5	3	8
<b>Vancouver Island HA</b>	<b>282</b>	<b>1,315</b>	<b>1,353</b>	<b>615</b>	<b>3,565</b>
<b>Campbell River Hospital</b>	<b>1</b>	<b>55</b>	<b>90</b>	<b>59</b>	<b>205</b>
Dentistry			6	2	8
General Surgery			7	12	19
Gynaecology	1			1	2
Oral Surgery		4	9	12	25
Orthopaedic Surgery		7	20	16	43
Otolaryngology		42	37	9	88
Plastic Surgery		2	8	7	17
Urology			3		3
<b>Cowichan District Hospital</b>	<b>1</b>	<b>110</b>	<b>120</b>	<b>63</b>	<b>294</b>
Dentistry		59	29	5	93
General Surgery			10	12	22
Gynaecology				1	1
Ophthalmology		1			1
Oral Surgery			5	1	6
Orthopaedic Surgery		5	22	19	46
Otolaryngology	1	42	47	14	104
Plastic Surgery		1	2	7	10
Urology		2	5	4	11
<b>Nanaimo Regional General Hospital</b>	<b>9</b>	<b>369</b>	<b>318</b>	<b>131</b>	<b>827</b>
Anaesthesiology	1				1
Dentistry	6	260	118	4	388
General Surgery		1	22	28	51
Gynaecology			2	2	4
Ophthalmology		2	3	1	6
Oral Surgery		1	14	27	42
Orthopaedic Surgery		19	38	31	88
Otolaryngology	2	76	90	23	191
Plastic Surgery		8	20	11	39
Radiology		1	1	1	3
Urology		1	10	3	14
<b>Royal Jubilee Hospital</b>			<b>9</b>	<b>40</b>	<b>49</b>
Cardiac/Thoracic Surgery				2	2
General Surgery				2	2
Ophthalmology			3	3	6
Orthopaedic Surgery				7	7
Otolaryngology				1	1
Plastic Surgery			6	25	31

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>Saanich Peninsula Hospital</b>		<b>97</b>	<b>71</b>	<b>18</b>	<b>186</b>
Dentistry		93	58	5	156
Gynaecology				1	1
Ophthalmology		2			2
Orthopaedic Surgery		1	13	10	24
Plastic Surgery		1		2	3
<b>St. Joseph's General Hospital</b>		<b>75</b>	<b>108</b>	<b>36</b>	<b>219</b>
Dentistry		30	16	2	48
General Surgery		1	4	7	12
Gynaecology				2	2
Ophthalmology		3	3	1	7
Orthopaedic Surgery		9	28	12	49
Otolaryngology		28	53	7	88
Urology		4	4	5	13
<b>Victoria General Hospital</b>	<b>271</b>	<b>604</b>	<b>629</b>	<b>259</b>	<b>1763</b>
Anesthesiology	2		1		3
Cardiac/Thoracic Surgery		1	1		2
Dentistry	8	48	45	7	108
General Surgery	120	134	160	66	480
Gynaecology		2	6	4	12
Neurosurgery			1	2	3
Ophthalmology	16	57	56	11	140
Oral Surgery	2	54	11	5	72
Orthopaedic Surgery	5	39	128	97	269
Otolaryngology	63	213	161	44	481
Plastic Surgery	19	23	22	8	72
Radiology	28	13	16	1	58
Urology	8	20	21	14	63
<b>West Coast General Hospital</b>		<b>5</b>	<b>8</b>	<b>9</b>	<b>22</b>
General Surgery		1	4	6	11
Gynaecology				1	1
Radiology			1		1
Urology		4	3	2	9
<b>Northern HA</b>	<b>41</b>	<b>700</b>	<b>728</b>	<b>276</b>	<b>1,745</b>
<b>Bulkley Valley District Hospital</b>		<b>9</b>	<b>9</b>	<b>4</b>	<b>22</b>
Dentistry		7	5	1	13
General Surgery		1	2	3	6
Otolaryngology		1	2		3
<b>Dawson Creek and District Hospital</b>	<b>2</b>	<b>49</b>	<b>49</b>	<b>20</b>	<b>120</b>
Dentistry		36	18	1	55
General Surgery	2	8	11	8	29
Orthopaedic Surgery		5	20	11	36
<b>Fort Nelson General Hospital</b>		<b>3</b>	<b>1</b>		<b>4</b>
Otolaryngology		3	1		4
<b>Fort St. John General Hospital</b>	<b>1</b>	<b>50</b>	<b>31</b>	<b>9</b>	<b>91</b>
Dentistry		26	10		36
General Surgery		12	14	4	30
Gynaecology	1			1	2
Ophthalmology		3	1	1	5
Orthopaedic Surgery		1	1	2	4
Otolaryngology		8	5	1	14

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>G.R. Baker Memorial Hospital</b>		<b>132</b>	<b>108</b>	<b>21</b>	<b>261</b>
Dentistry		67	20	10	97
General Surgery			3	3	6
Orthopaedic Surgery			1	2	3
Otolaryngology		63	81	4	148
Plastic Surgery				1	1
Urology		2	3	1	6
<b>Kitimat General Hospital</b>	<b>3</b>	<b>34</b>	<b>62</b>	<b>32</b>	<b>131</b>
Dentistry		18	18		36
General Surgery	3	2	3	4	12
Orthopaedic Surgery		7	25	28	60
Otolaryngology		7	16		23
<b>Mills Memorial Hospital</b>	<b>6</b>	<b>156</b>	<b>144</b>	<b>25</b>	<b>331</b>
Dentistry		115	88	5	208
General Surgery	3	2	12	7	24
Gynaecology			2	2	4
Ophthalmology		1	2		3
Otolaryngology	3	36	40	11	90
Urology		2			2
<b>Prince George Regional Hospital</b>	<b>24</b>	<b>103</b>	<b>199</b>	<b>127</b>	<b>453</b>
Anaesthesiology			3	1	4
Dentistry		36	34		70
General Surgery	5	10	25	27	67
Gynaecology		1	2	10	13
Ophthalmology	1	3			4
Oral Surgery	8	9	13	8	38
Orthopaedic Surgery	3	17	86	60	166
Otolaryngology	4	15	14	7	40
Plastic Surgery	2	5	5	11	23
Radiology	1				1
Urology		7	17	3	27
<b>Prince Rupert Regional Hospital</b>	<b>3</b>	<b>72</b>	<b>68</b>	<b>29</b>	<b>172</b>
Dentistry		56	32		88
General Surgery	2	2	10	9	23
Gynaecology		1		5	6
Orthopaedic Surgery	1	4	16	15	36
Otolaryngology		9	10		19
<b>St. John's Hospital</b>		<b>40</b>	<b>29</b>	<b>6</b>	<b>75</b>
Dentistry		39	22		61
Orthopaedic Surgery			4	6	10
Otolaryngology		1	3		4
<b>Wrinch Memorial Hospital</b>	<b>2</b>	<b>52</b>	<b>28</b>	<b>3</b>	<b>85</b>
Dentistry	2	51	28	2	83
General Surgery				1	1
Urology		1			1

Procedure MD	Age of Child				Total
	<1.9 Yrs	2.0 - 5.9 Yrs	6.0 - 13.9 Yrs	14.0 - 16.9 Yrs	
<b>PHSA HA</b>	<b>2,161</b>	<b>3,495</b>	<b>3,432</b>	<b>1,019</b>	<b>10,107</b>
<b>B.C. Children's Hospital</b>	<b>1,867</b>	<b>3,495</b>	<b>3,432</b>	<b>1,016</b>	<b>9,810</b>
Anaesthesiology	2	9	9	8	28
Cardiac/Thoracic Surgery	221	64	58	18	361
Dentistry	58	1,361	707	65	2,191
General Surgery	314	280	339	142	1,075
Gynaecology		5	15	15	35
Neurosurgery	67	40	77	39	223
Ophthalmology	152	328	328	57	865
Oral Surgery	1	9	76	27	113
Orthopaedic Surgery	41	201	548	290	1,080
Otolaryngology	145	391	413	80	1,029
Plastic Surgery	195	159	144	53	551
Radiology	413	394	403	154	1,364
Urology	258	254	315	68	895
<b>B.C. Women's Hospital</b>	<b>294</b>			<b>3</b>	<b>297</b>
Cardiac/Thoracic Surgery	18				18
Dentistry	1				1
General Surgery	134				134
Gynaecology	1			3	4
Neurosurgery	6				6
Ophthalmology	13				13
Orthopaedic Surgery	1				1
Otolaryngology	17				17
Plastic Surgery	4				4
Radiology	95				95
Urology	4				4
<b>Total Surgical Procedures</b>	<b>2,634</b>	<b>7,411</b>	<b>8,504</b>	<b>3,690</b>	<b>22,239</b>
<b>% Total Surgical Procedures</b>	<b>12%</b>	<b>33%</b>	<b>38%</b>	<b>17%</b>	<b>100%</b>

## Appendix 4: Surgical Procedures, Children Ages 0 – 16.9 Yrs, by HA of Treating Hospital & Child's Home Residence

- Includes children ages 0 - 16.9 years. Source is the BC MoH Discharge Abstract Database, 2015/16.
- Procedures by procedural physician regardless of most responsible physician (MRP). Includes children in NICUs, PICUs, med/surg units and day care settings.
- Surgical procedures are assigned to the surgical specialty of the procedural physician. For example, if a general surgeon performed a thoracic procedure, the procedure is assigned to general surgery (not thoracic surgery).

Procedure MD	HA of Treating Hospital	Child's Home Residence							
		Interior	Fraser	Van Coastal	Van Island	Northern	Total, excl Other	Other	Total, incl Other
Pop'n, 0 - 16.9 Yrs		116,083	328,497	164,924	115,755	58,611	783,870		
Anaesthe- siology	Interior	2					2		2
	Fraser		4				4		4
	Vancouver Coastal		2	2			4		4
	PHSA	3	18	5	2		28		28
	Vancouver Island				4		4		4
	Northern					4	4		4
	<b>Total</b>	<b>5</b>	<b>24</b>	<b>7</b>	<b>6</b>	<b>4</b>	<b>46</b>	<b>0</b>	<b>46</b>
	% treated in home HA	40%	17%	100%	67%	100%	46%		
	Per 1,000 pop'n children	0.0	0.1	0.0	0.1	0.1	0.1		
Cardiac/ Thoracic Surgery	Interior	11					11		11
	Fraser		4	1			5		5
	Vancouver Coastal		2	5	1		8		8
	PHSA	49	112	53	52	44	310	69	379
	Vancouver Island				4		4		4
	Northern						0		
	<b>Total</b>	<b>60</b>	<b>118</b>	<b>59</b>	<b>57</b>	<b>44</b>	<b>338</b>	<b>69</b>	<b>407</b>
	% treated in home HA	18%	3%	98%	7%	0%	23%		
	Per 1,000 pop'n children	0.5	0.4	0.4	0.5	0.8	0.4		
Dentistry	Interior	746	1	2		5	754		754
	Fraser	3	193	1			197		197
	Vancouver Coastal			64			64		64
	PHSA	34	1,056	508	36	27	1,661	531	2,192
	Vancouver Island	1	2	12	786		801		801
	Northern	47		9		689	745	2	747
	<b>Total</b>	<b>831</b>	<b>1,252</b>	<b>596</b>	<b>822</b>	<b>721</b>	<b>4,222</b>	<b>533</b>	<b>4,755</b>
	% treated in home HA	90%	15%	96%	96%	96%	71%		
	Per 1,000 pop'n children	7.2	3.8	3.6	7.1	12.3	5.4		
General Surgery	Interior	306	3	4		1	314	5	319
	Fraser	2	344	2		2	350	6	356
	Vancouver Coastal		18	114	8		140	1	141
	PHSA	123	538	379	81	76	1,197	12	1,209
	Vancouver Island		4	1	586	1	592	5	597
	Northern	1				191	192	6	198
	<b>Total</b>	<b>432</b>	<b>907</b>	<b>500</b>	<b>675</b>	<b>271</b>	<b>2,785</b>	<b>35</b>	<b>2,820</b>
	% treated in home HA	71%	38%	99%	87%	70%	69%		
	Per 1,000 pop'n children	3.7	2.8	3.0	5.8	4.6	3.6		
Gynaecology	Interior	44					44		44
	Fraser		31				31		31
	Vancouver Coastal		3	7			10		10
	PHSA	3	22	12	1	1	39		39
	Vancouver Island			1	21		22	1	23
	Northern					25	25		25
	<b>Total</b>	<b>47</b>	<b>56</b>	<b>20</b>	<b>22</b>	<b>26</b>	<b>171</b>	<b>1</b>	<b>172</b>
	% treated in home HA	94%	55%	95%	95%	96%	82%		
	Per 1,000 pop'n children	0.4	0.2	0.1	0.2	0.4	0.2		



Procedure MD	HA of Treating Hospital	Child's Home Residence							
		Interior	Fraser	Van Coastal	Van Island	Northern	Total, excl Other	Other	Total, incl Other
Neuro-surgery	Interior	2					2		2
	Fraser		6	2			8		8
	Vancouver Coastal	1	2				3		3
	PHSA	40	77	43	41	23	224	5	229
	Vancouver Island				3		3		3
	Northern						0		
	<b>Total</b>	<b>43</b>	<b>85</b>	<b>45</b>	<b>44</b>	<b>23</b>	<b>240</b>	<b>5</b>	<b>245</b>
	% treated in home HA	5%	7%	96%	7%	0%	23%		
Ophthalmology	Interior	30	1				31		31
	Fraser	1	20	1			22		22
	Vancouver Coastal		14	11		2	27		27
	PHSA	53	519	213	43	36	864	14	878
	Vancouver Island	1		2	157	2	162		162
	Northern					12	12		12
	<b>Total</b>	<b>85</b>	<b>554</b>	<b>227</b>	<b>200</b>	<b>52</b>	<b>1,118</b>	<b>14</b>	<b>1,132</b>
	% treated in home HA	35%	4%	99%	79%	23%	40%		
Oral Surgery	Interior	11					11	2	13
	Fraser		147	2		9	158		158
	Vancouver Coastal		11	8			19		19
	PHSA	3	63	40	4	2	112	31	113
	Vancouver Island			2	141	2	145		145
	Northern	1				36	37	1	38
	<b>Total</b>	<b>15</b>	<b>221</b>	<b>52</b>	<b>145</b>	<b>49</b>	<b>482</b>	<b>4</b>	<b>486</b>
	% treated in home HA	73%	67%	92%	97%	73%	79%		
Orthopaedic Surgery	Interior	497	7	1		6	511	21	532
	Fraser	2	565	17	1	1	586	9	595
	Vancouver Coastal	4	51	161	8	4	228	11	239
	PHSA	94	507	327	61	65	1,054	27	1,081
	Vancouver Island	1	6	9	502	1	519	7	526
	Northern	5			2	303	310	5	315
	<b>Total</b>	<b>603</b>	<b>1,136</b>	<b>515</b>	<b>574</b>	<b>380</b>	<b>3,208</b>	<b>80</b>	<b>3,288</b>
	% treated in home HA	82%	50%	95%	87%	80%	73%		
Otolaryngology	Interior	1,047	5		1	5	1,058	5	1,063
	Fraser	5	1,101	76	2	3	1,187	11	1,198
	Vancouver Coastal	1	37	163	2	1	204	2	206
	PHSA	60	467	404	39	56	1,026	20	1,046
	Vancouver Island	1		20	929	2	952	1	953
	Northern	24	1			320	345		345
	<b>Total</b>	<b>1,138</b>	<b>1,611</b>	<b>663</b>	<b>973</b>	<b>387</b>	<b>4,772</b>	<b>39</b>	<b>4,811</b>
	% treated in home HA	92%	68%	86%	95%	83%	83%		
Plastic Surgery	Interior	139					139		139
	Fraser	1	113	5	2		121	1	122
	Vancouver Coastal	2	12	24	1		39	2	41
	PHSA	46	279	147	38	40	550	5	555
	Vancouver Island	1		8	162		171	1	172
	Northern					24	24		24
	<b>Total</b>	<b>189</b>	<b>404</b>	<b>184</b>	<b>203</b>	<b>64</b>	<b>1,044</b>	<b>9</b>	<b>1,053</b>
	% treated in home HA	74%	28%	93%	80%	38%	58%		
	Per 1,000 pop'n children	1.6	1.2	1.1	1.8	1.1	1.3		

Procedure MD	HA of Treating Hospital	Child's Home Residence							
		Interior	Fraser	Van Coastal	Van Island	Northern	Total, excl Other	Other	Total, incl Other
Radiology	Interior	33	1				34		34
	Fraser		32				32		32
	Vancouver Coastal	6	13	14	5	1	39	1	40
	PHSA	200	600	339	120	158	1,417	42	1,459
	Vancouver Island				62		62		62
	Northern					1	1		1
	<b>Total</b>	<b>239</b>	<b>646</b>	<b>353</b>	<b>187</b>	<b>160</b>	<b>1,585</b>	<b>43</b>	<b>1,628</b>
	% treated in home HA	14%	5%	100%	33%	1%	30%		
Urology	Interior	129		1		2	132	1	133
	Fraser		154	2	1		157		157
	Vancouver Coastal	2	26	27	2	1	58		58
	PHSA	68	440	248	82	50	888	11	899
	Vancouver Island				112	1	113		113
	Northern					36	36		36
	<b>Total</b>	<b>199</b>	<b>620</b>	<b>278</b>	<b>197</b>	<b>90</b>	<b>1,384</b>	<b>12</b>	<b>1,396</b>
	% treated in home HA	65%	25%	99%	57%	40%	51%		
All Procedures	Interior	2,997	18	8	1	19	3,043	34	3,077
	Fraser	14	2,714	109	6	15	2,858	27	2,885
	Vancouver Coastal	16	191	600	27	9	843	17	860
	PHSA	776	4,698	2,718	600	578	9,370	737	10,107
	Vancouver Island	5	12	55	3,469	9	3,550	15	3,565
	Northern	78	1	9	2	1,641	1,731	14	1,745
	<b>Total</b>	<b>3,886</b>	<b>7,634</b>	<b>3,499</b>	<b>4,105</b>	<b>2,271</b>	<b>21,395</b>	<b>844</b>	<b>22,239</b>
	% treated in home HA	77%	36%	95%	85%	72%	66%		
	Per 1,000 pop'n children	33.5	23.2	21.2	35.5	38.7	27.3		

## Appendix 5: HA Operated Pediatric Inpatient Beds in BC

HA	Hospital	General Pediatric Beds	Pediatric Observati on Beds	Ped ICU Beds <sup>ii</sup>	Child & Youth MH Beds	Youth SU Beds <sup>iii</sup>	Total Ped Beds	NICU Beds
IHA	Kelowna General	10			8		18	12
	Kootenay Boundary (Trail)	4					4	
	Penticton Regional	11					11	
	East Kootenay (Cranbrook)	2					2	
	Vernon	5					5	
	Royal Inland	9			2		11	8
	Ashnola (Keremeos)					22 <sup>iv</sup>	22	
FHA	Abbotsford Regional	12					12	10
	Langley Memorial	9					9	
	Chilliwack General		4				4	
	Royal Columbian	12					12	24
	Ridge Meadows		4				4	
	Surrey Memorial	16			20		36	28 <sup>v</sup>
	Burnaby							8
	Creekside Withdrawal Management Centre					6	6	
	Last Door Recovery Centre					10 <sup>vi</sup>	10	
VCH	Lions Gate & Carlile Centre	10			10		20	9
	Richmond		4				4	6
	St Paul's							9
	Peak House					8	8	
	Young Bears Lodge					5	5	
Island H	Nanaimo Regional	8					8	9
	St Joseph's General	4					4	
	Victoria General	16		5			21	22
	Cowichan District (Duncan)	4					4	
	Campbell River	1					1	
	Ledger House				14 <sup>vii</sup>		14	
NHA	University Hospital of Northern B.C.	12 <sup>viii</sup>			6		18	9
	Nechako Centre					8 <sup>ix</sup>		
PHSA	B.C. Children's Hospital	97		22	54 <sup>x</sup>		173	
	BC Women's							60
<b>TOTAL</b>		<b>242</b>	<b>12</b>	<b>27</b>	<b>114</b>	<b>59</b>	<b>446</b>	<b>214</b>

Source: Survey of health planners & ED working group in each HA and internet.

**Note: Several hospitals in BC do not have dedicated pediatric beds but admit children to beds on an adult inpatient unit(s). These hospitals are not included on the list above.**

<sup>ii</sup> Beds have the capacity for invasive monitoring, inotropic drugs and mechanical ventilation.

<sup>iii</sup> Excludes beds in home-based settings.

<sup>iv</sup> Includes beds for ages 17 - 24.

<sup>v</sup> Plan to increase to 48 beds in the future.

<sup>vi</sup> Contracted beds and number of beds fluctuates.

<sup>vii</sup> 14 beds: 5 child, 6 youth & 3 special care beds.

<sup>viii</sup> 4 beds have the capacity for more intensive monitoring, up to and including continuous cardiorespiratory monitoring.

<sup>ix</sup> Includes 1 detox bed.

<sup>x</sup> Includes 14 beds at Looking Glass (up to age 24), a residential eating disorders program operated by PHSA (BC Mental Health & Substance Use Services and BCCH) in collaboration with the Looking Glass Foundation.