

Influenza vaccination coverage for residents of residential care facilities British Columbia, 2016/17

Background

Immunization coverage assessment is an important part of a quality immunization program and serves three main functions:

- i) Identifying populations with low levels of immunization coverage
- ii) Evaluating the delivery of immunization programs
- iii) Informing program planning

The 2007 Immunize BC Strategic Framework for Immunization target for influenza vaccination for residents of residential care facilities is 90% coverage.¹ Annual influenza vaccination coverage for residents of residential care facilities in British Columbia (BC) ranged from 87% to 91% from the 2008/09 to 2015/16 influenza seasons.

Objective

To quantify the percentage of residents of residential care facilities in British Columbia who were vaccinated against influenza during the 2016/17 influenza season.

Methods

Influenza immunization coverage for residents of residential care facilities was calculated at the facility level, health service delivery area level, health authority level, and for BC. There are five regional health authorities in BC, which are comprised of 16 health service delivery areas.

Residential care facilities were defined as facilities with 50% or more residents aged 65 years and older that are either:

- licensed under the Hospital Act; or
- licensed under the Community Care and Assisted Living Act and provide some health care services.

In BC, licensing of residential care facilities is conducted by regional Health Authority Community Care Facility Licensing programs. A list of the residential care facilities included in the 2015/16 influenza season's vaccination coverage statistics was sent to each health authority for review and updating. Residential care facilities that closed during the previous year were removed and new facilities were added to the list. For each residential care facility, data were collected on the number of residents who were vaccinated against influenza and the total number of residents. Vaccination coverage data were obtained from facilities entered into an online data collection form by health authority staff.

The results were also calculated excluding privately funded facilities. The remaining subset of facilities are health authority owned and operated, and contracted.

1. Immunize BC: a strategic framework for immunization in B.C. 2007. Victoria, BC: British Columbia Ministry of Health. Available at: <http://www.health.gov.bc.ca/library/publications/year/2007/immunizebc.pdf>

Results

Reporting of facilities (table 1 and 5)

- 349/365 (96%) residential care facilities in BC are included in this report, including 251/263 (95%) publicly funded or contracted residential care facilities, and 98/102 (96%) privately funded residential care facilities

2016/17 influenza vaccination coverage (tables 2 and 3; figures 1 to 5)

- 87% (26,977/30,951) of residents of residential care facilities in BC were vaccinated against influenza, unchanged from 2015/16
- 82% to 92% coverage was the range across the five health authorities
- 74% to 95% coverage was the range across the sixteen health service delivery areas
- 35% to 100% coverage was the range across all residential care facilities in BC
- 177/349 (51%) facilities met the 90% immunization coverage target, as in 2015/16

Results excluding privately funded facilities (Table 6)

- 87% (19,156/21,960) of residents were vaccinated against influenza, the same percent as for all facility types

Summary

Influenza immunization data were available for the majority of residential care facilities. Influenza vaccination coverage for residents of residential care facilities in BC was 87%, three percent below the Immunization BC coverage target; only 177/349 (51%) facilities met the 90% coverage target. Influenza immunization coverage was the same (87%) in publicly funded or contracted facilities as in privately funded facilities. Influenza vaccine coverage of residential care residents has declined by two percent for the past two seasons compared to 2014/5, driven by small declines in IHA and NHA despite no change in FHA and VCH, and a small increase in VIHA, with evidence of gradual declines in all regions in the past decade, except VCH.

There was a wide range of influenza vaccination coverage for at the facility level. The reasons for this variation were not assessed.

Tables and Figures

Table 1: Number and percent of residential care facilities for which resident coverage rates were reported, by health authority, 2016/17

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	85	87	98
Fraser	94	103	91
Vancouver Coastal	57	62	92
Vancouver Island	89	89	100
Northern	24	24	100
British Columbia	349	365	96

Table 2: Influenza vaccination coverage for residents of residential care facilities by health authority and health service delivery area, 2016/17

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	5,491	6,713	82
East Kootenay	453	610	74
Kootenay Boundary	489	663	74
Okanagan	3,230	3,913	83
Thompson/Cariboo/Shuswap	1,319	1,527	86
Fraser	8,651	9,804	88
Fraser East	1,299	1,506	86
Fraser North	2,985	3,409	88
Fraser South	4,367	4,889	89
Vancouver Coastal	5,926	6,470	92
Richmond	692	731	95
Vancouver	3,709	4,031	92
N Shore/Coast Garibaldi	1,525	1,708	89
Vancouver Island	5,911	6,814	87
South Vancouver Island	3,364	3,953	85
Central Vancouver Island	1,958	2,156	91
North Vancouver Island	589	705	84
Northern	998	1,150	87
Northwest	248	273	91
Northern Interior	538	628	86
Northeast	212	249	85
BC	26,977	30,951	87

Table 3: Residential care facility resident influenza vaccination coverage by health authority, 2007/08 to 2016/17

Health authority	Influenza immunization coverage (%) for residents of residential care facilities by influenza season									
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Interior	89	89	88	85	85	84	84	86	84	82
Fraser	93	91	90	90	90	91	91	90	88	88
Vancouver Coastal	93	93	91	92	92	92	93	92	92	92
Vancouver Island	91	91	89	90	88	88	89	86	82	87
Northern	93	92	89	90	87	89	91	90	89	87
British Columbia	92	91	90	90	89	89	90	89	87	87

Figure 1: Influenza immunization coverage for residents of residential care facilities, 2007/08 to 2016/17

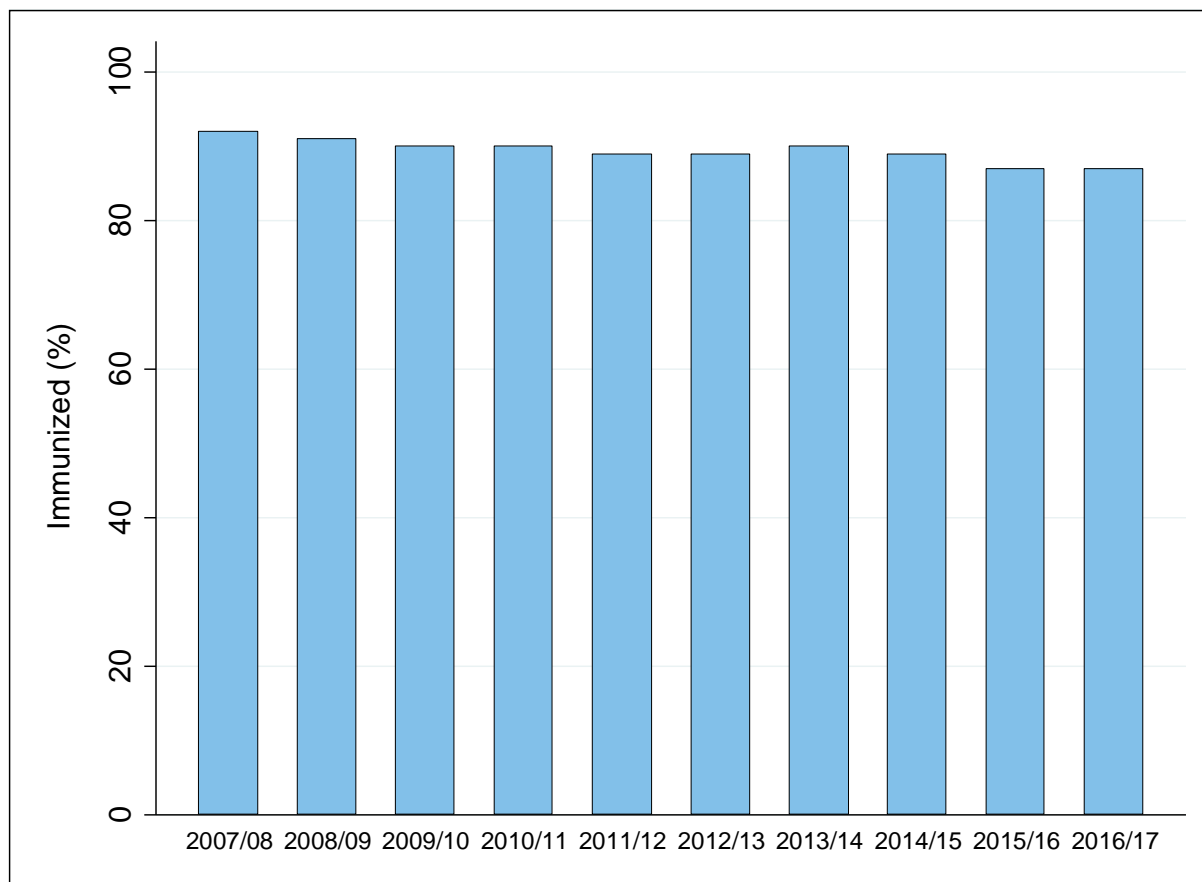


Figure 2: Influenza immunization coverage for residents of residential care facilities by health authority, 2016/17

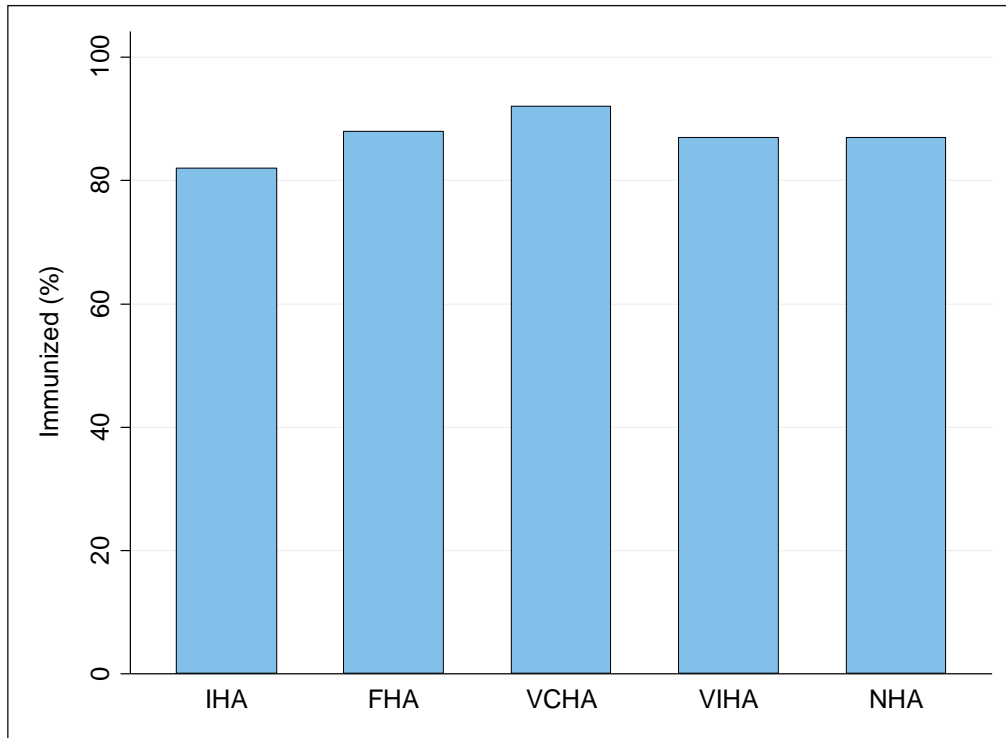


Figure 3: Influenza immunization coverage for residents of residential care facilities by health service delivery area, 2016/17

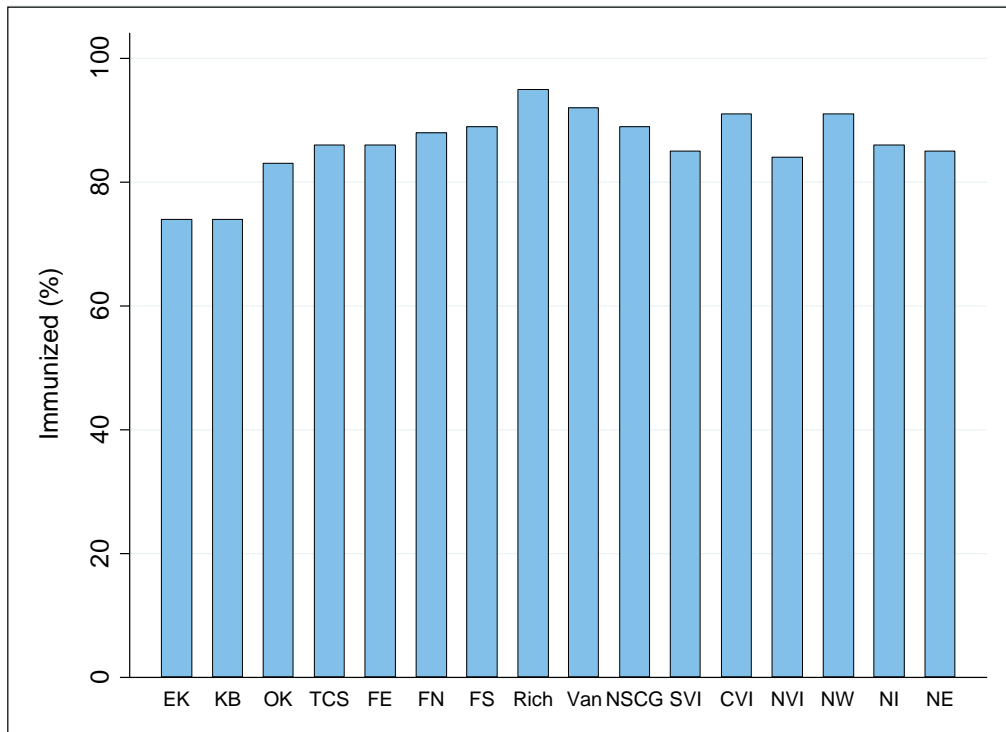


Figure 4: Influenza immunization coverage for residents of residential care facilities by facility size (number of residents), 2016/17



Figure 5: Influenza immunization coverage for residents of residential care facilities by facility within each health authority, 2016/17

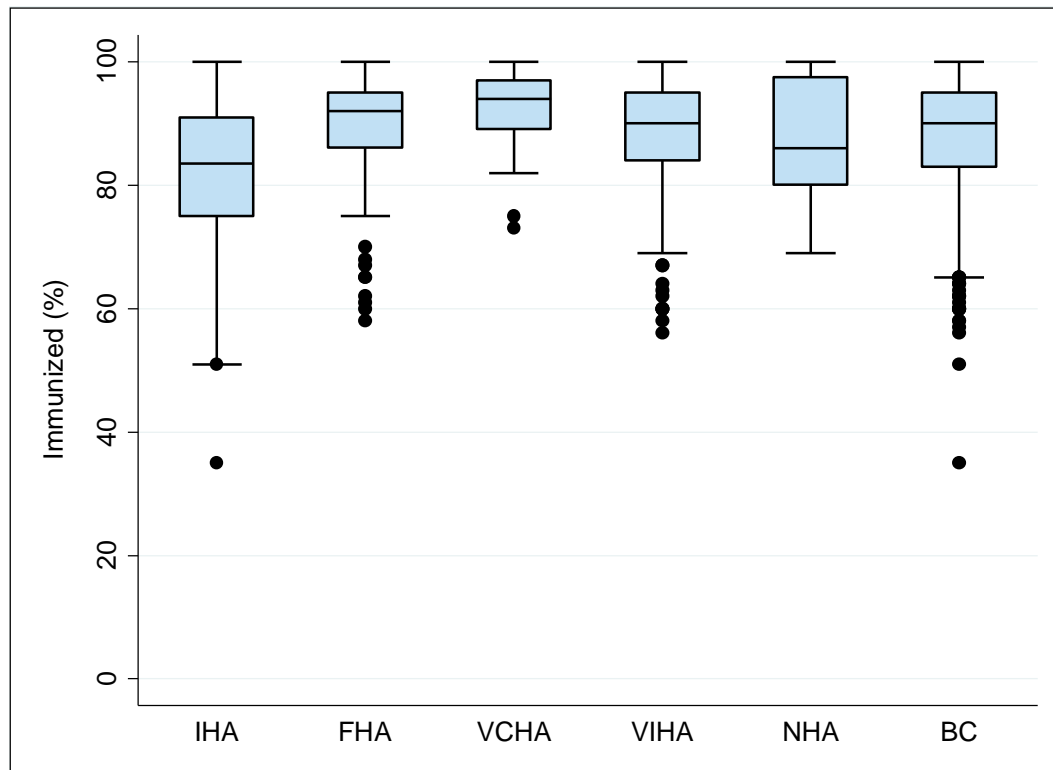


Figure 5 illustrates the range of influenza immunization coverage for residential care facilities in each health authority and for BC for the 2016/17 influenza season. The horizontal line below each box represents the lowest observed coverage value that is greater than or equal to the first quartile minus 1.5 times the interquartile range; the lower edge of each box represents the 25th percentile; the solid horizontal line within each box represent the median coverage value; the upper edge of each box represents the 75th percentile; the horizontal line above each box represents the highest observed coverage value that is less than or equal to the third quartile plus 1.5 times the interquartile range; and the dots represent facilities with unusually high or low coverage values which are outliers.

Table 4: Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health region		2008/09	2009/10	2009/10 H1N1	2010/11	Influenza Season					2016/17
						2011/12	2012/13	2013/14	2014/15	2015/16	
INTERIOR	immunized	4,846	4,968	-	5,081	5,343	4,883	3,717	5,437	5,151	5,491
	total residents	5,443	5,648	-	5,985	6,322	5,843	4,433	6,308	6,162	6,713
	% immunized	89	88	-	85	85	84	84	86	84	82
East Kootenay	immunized	343	490	-	544	479	570	416	451	383	453
	total residents	371	572	-	711	573	650	616	545	470	610
	% immunized	92	86	-	77	84	88	68	83	81	74
Kootenay Boundary	immunized	545	391	-	547	650	581	512	666	477	489
	total residents	641	466	-	682	812	809	620	805	582	663
	% immunized	85	84	-	80	80	72	83	83	82	74
Okanagan	immunized	2,587	2,724	-	2,666	3,203	2,773	1,630	3,055	3,060	3,230
	total residents	2,916	3,159	-	3,124	3,755	3,315	1,929	3,549	3,689	3,913
	% immunized	89	86	-	85	85	84	84	86	83	83
Thomps Carib Shuswap	immunized	1,371	1,363	-	1,324	1,011	959	1,159	1,265	1,231	1,319
	total residents	1,515	1,451	-	1,468	1,182	1,069	1,268	1,409	1,421	1,527
	% immunized	90	94	-	90	86	90	91	90	87	86
FRASER	immunized	7,352	7,703	6,884	7,911	8,041	8,812	8,608	7,727	8,539	8,651
	total residents	8,092	8,571	8,611	8,750	8,935	9,679	9,411	8,543	9,703	9,804
	% immunized	91	90	80	90	90	91	91	90	88	88
Fraser East	immunized	1,471	1,425	1,192	1,478	1,447	1,559	1,543	1,643	1,456	1,299
	total residents	1,629	1,630	1,631	1,640	1,635	1,768	1,721	1,849	1,631	1,506
	% immunized	90	87	73	90	89	88	90	89	89	86
Fraser North	immunized	2,768	2,614	2,422	3,032	3,035	3,052	3,121	2,942	2,969	2,985
	total residents	3,025	2,878	2,826	3,341	3,333	3,334	3,441	3,231	3,295	3,409
	% immunized	92	91	86	91	91	92	91	91	90	88
Fraser South	immunized	3,113	3,664	3,270	3,401	3,559	4,201	3,944	3,142	4,114	4,367
	total residents	3,438	4,063	4,154	3,769	3,967	4,577	4,249	3,463	4,777	4,889
	% immunized	91	90	79	90	90	92	93	91	86	89

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health region		Influenza Season									
		2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
VANCOUVER COASTAL	immunized	6,713	6,171	5,325	6,800	6,487	6,387	6,178	4,316	6,258	5,926
	total residents	7,208	6,794	6,794	7,375	7,047	6,960	6,631	4,675	6,809	6,470
	% immunized	93	91	78	92	92	92	93	92	92	92
Richmond	immunized	729	832	601	798	789	664	774	252	809	692
	total residents	752	882	882	841	834	705	818	257	861	731
	% immunized	97	94	68	95	95	94	95	98	94	95
Vancouver	immunized	4,240	3,968	3,566	4,224	4,073	4,013	3,896	3,141	3,882	3,709
	total residents	4,580	4,372	4,372	4,592	4,418	4,345	4,178	3,362	4,225	4,031
	% immunized	93	91	82	92	92	92	93	93	92	92
N Shore/Coast Garibaldi	immunized	1,744	1,371	1,158	1,778	1,625	1,710	1,508	923	1,567	1,525
	total residents	1,876	1,540	1,540	1,942	1,795	1,910	1,635	1,056	1,723	1,708
	% immunized	93	89	75	92	91	90	92	87	91	89
VANCOUVER ISLAND	immunized	5,384	5,606	-	5,617	5,605	5,579	5,792	6,051	6,025	5,911
	total residents	5,896	6,291	-	6,264	6,404	6,370	6,502	7,063	7,332	6,814
	% immunized	91	89	-	90	88	88	89	86	82	87
South Van Island	immunized	2,850	2,996	-	2,988	2,928	2,974	3,109	3,462	3,512	3,364
	total residents	3,107	3,355	-	3,301	3,415	3,424	3,471	4,103	4,373	3,953
	% immunized	92	89	-	91	86	87	90	84	80	85
Central Van Island	immunized	2,030	2,020	-	2,034	2,066	1,993	2,058	1,978	1,938	1,958
	total residents	2,248	2,299	-	2,300	2,308	2,262	2,326	2,275	2,278	2,156
	% immunized	90	88	-	88	90	88	88	87	85	91
North Van Island	immunized	504	590	-	595	611	612	625	611	575	589
	total residents	541	637	-	663	681	684	705	685	681	705
	% immunized	93	93	-	90	90	89	89	89	84	84

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health region		2008/09	2009/10	2009/10 H1N1	2010/11	Influenza season					2016/17
						2011/12	2012/13	2013/14	2014/15	2015/16	
NORTHERN	immunized	931	950	694	971	956	1,123	1,022	1,001	1,017	998
	total residents	1,009	1,072	1,075	1,079	1,103	1,257	1,128	1,118	1,139	1,150
	% immunized	92	89	65	90	87	89	91	90	89	87
Northwest	immunized	242	216	146	243	241	233	244	247	252	248
	total residents	260	263	264	273	277	283	284	270	279	273
	% immunized	93	82	55	89	87	82	86	91	90	91
Northern Interior	immunized	475	520	378	506	503	556	551	534	558	538
	total residents	516	569	571	562	583	597	594	602	610	628
	% immunized	92	91	66	90	86	93	93	89	91	86
Northeast	immunized	214	214	170	222	212	334	227	220	207	212
	total residents	233	240	240	244	243	377	250	246	250	249
	% immunized	92	89	71	91	87	89	91	89	83	85
BC	immunized	25,226	25,398	-	26,380	26,432	26,784	25,317	24,532	26,990	26,977
	total residents	27,648	28,376	-	29,453	29,811	30,109	28,105	27,707	31,145	30,951
	% immunized	91	90	-	90	89	89	90	89	87	87

Coverage excluding privately funded residential care facilities

Table 5: Number and percent of residential care facilities reporting resident coverage, by health authority, 2016/17
(excluding privately funded residential care facilities)

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	53	55	96
Fraser	84	92	91
Vancouver Coastal	19	21	90
Vancouver Island	73	73	100
Northern	22	22	100
British Columbia	251	263	95

Table 6: Influenza vaccination coverage for residents of residential care facilities by health authority and health service delivery area, 2016/17
(excluding privately funded residential care facilities)

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	2,987	3,682	81
East Kootenay	276	378	73
Kootenay Boundary	240	322	75
Okanagan	1,441	1,822	79
Thompson/Cariboo/Shuswap	1,030	1,160	89
Fraser	7,918	8,913	89
Fraser East	1,226	1,425	86
Fraser North	2,843	3,228	88
Fraser South	3,849	4,260	90
Vancouver Coastal	1,982	2,201	90
Richmond	232	250	93
Vancouver	937	1,010	93
N Shore/Coast Garibaldi	813	941	86
Vancouver Island	5,394	6,161	88
South Vancouver Island	2,935	3,405	86
Central Vancouver Island	1,870	2,051	91
North Vancouver Island	589	705	84
Northern	875	1,003	87
Northwest	248	273	91
Northern Interior	415	481	86
Northeast	212	249	85
BC	19,156	21,960	87