

Influenza vaccination coverage for residents of residential care facilities British Columbia, 2015/16

Background

Immunization coverage assessment is an important part of a quality immunization program. Immunization coverage assessment 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 93% from the 2006/07 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 2015/16 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 2014/15 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 collected by health authority staff and entered into an online data collection form.

Results

Reporting of facilities (table 1)

- 352/372 (95%) residential care facilities in BC are included in this report

2015/16 influenza vaccination coverage (tables 2 and 3; figures 1 to 5)

- 87% (26,990/31,145) of residents of residential care facilities in BC were vaccinated against influenza, slightly lower than the 89% (24,532/27,707) coverage reported in 2014/15
- 82% to 92% coverage was the range across the five health authorities
- 80% to 94% coverage was the range across the sixteen health service delivery areas
- 46% to 100% coverage was the range across all residential care facilities in BC
- 179/352 (51%) facilities met the 90% immunization coverage target, which is down from 178/319 (56%) facilities in 2014/15

Results excluding privately funded facilities (Tables 5 and 6)

- 250/266 (94%) publicly funded or contracted residential facilities were included
- 86% (18,907/21,923) of residents were vaccinated against influenza

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; 179/352 (51%) facilities met the 90% coverage target. Influenza immunization coverage was similar (86%) when privately funded facilities were excluded from the analysis. Over the past decade, there has been a progressive downward trend in influenza vaccine coverage of residential care residents at most BC health authorities, with the exception of VCH (Table 3).

There was a wide range of influenza vaccination coverage for residential care facilities within health authorities. The reasons behind the variation in vaccination coverage between facilities were not assessed.

While 87% coverage was achieved for residents of residential care facilities across BC for the 2015/16 season, room for improvement remains for some facilities.

Tables and Figures

Table 1: Number and proportion of residential care facilities for which resident coverage rates were reported, by health authority, 2015/16

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	85	94	90
Fraser	94	102	92
Vancouver Coastal	59	62	95
Vancouver Island	90	90	100
Northern	24	24	100
British Columbia	352	372	95

Table 2: Influenza vaccination coverage for residents of residential care facilities by health authority, health service delivery area, 2015/16

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	5,151	6,162	84
East Kootenay	383	470	81
Kootenay Boundary	477	582	82
Okanagan	3,060	3,689	83
Thompson/Cariboo/Shuswap	1,231	1,421	87
Fraser	8,539	9,703	88
Fraser East	1,456	1,631	89
Fraser North	2,969	3,295	90
Fraser South	4,114	4,777	86
Vancouver Coastal	6,258	6,809	92
Richmond	809	861	94
Vancouver	3,882	4,225	92
N Shore/Coast Garibaldi	1,567	1,723	91
Vancouver Island	6,025	7,332	82
South Vancouver Island	3,512	4,373	80
Central Vancouver Island	1,938	2,278	85
North Vancouver Island	575	681	84
Northern	1,017	1,139	89
Northwest	252	279	90
Northern Interior	558	610	91
Northeast	207	250	83
BC	26,990	31,145	87

Table 3: Residential care facility resident influenza vaccination coverage by health authority, 2006/07 to 2015/16

Health authority	Influenza immunization coverage (%) for residents of residential care facilities by influenza season									
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Interior	90	89	89	88	85	85	84	84	86	84
Fraser	93	93	91	90	90	90	91	91	90	88
Vancouver Coastal	94	93	93	91	92	92	92	93	92	92
Vancouver Island	93	91	91	89	90	88	88	89	86	82
Northern	95	93	92	89	90	87	89	91	90	89
British Columbia	93	92	91	90	90	89	89	90	89	87

Figure 1: Influenza immunization coverage for residents of residential care facilities, 2006/07 to 2015/16

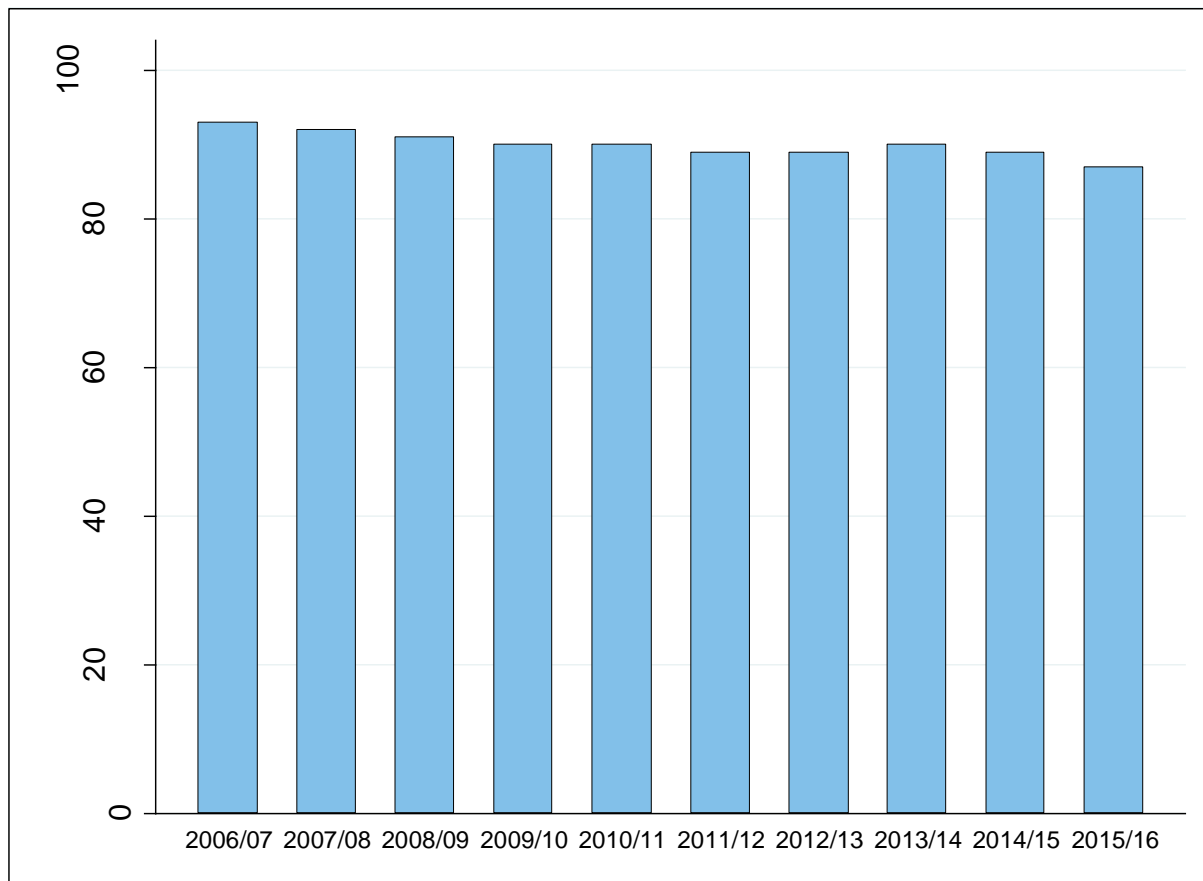


Figure 2: Influenza immunization coverage for residents of residential care facilities by health authority, 2015/16

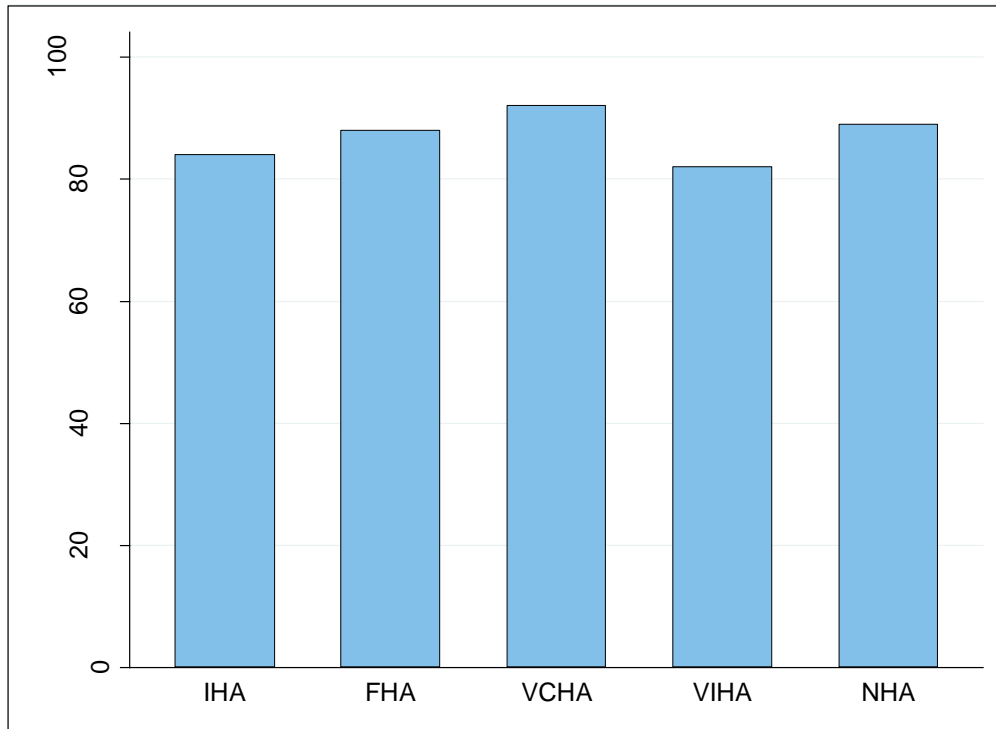


Figure 3: Influenza immunization coverage for residents of residential care facilities by health service delivery area, 2015/16

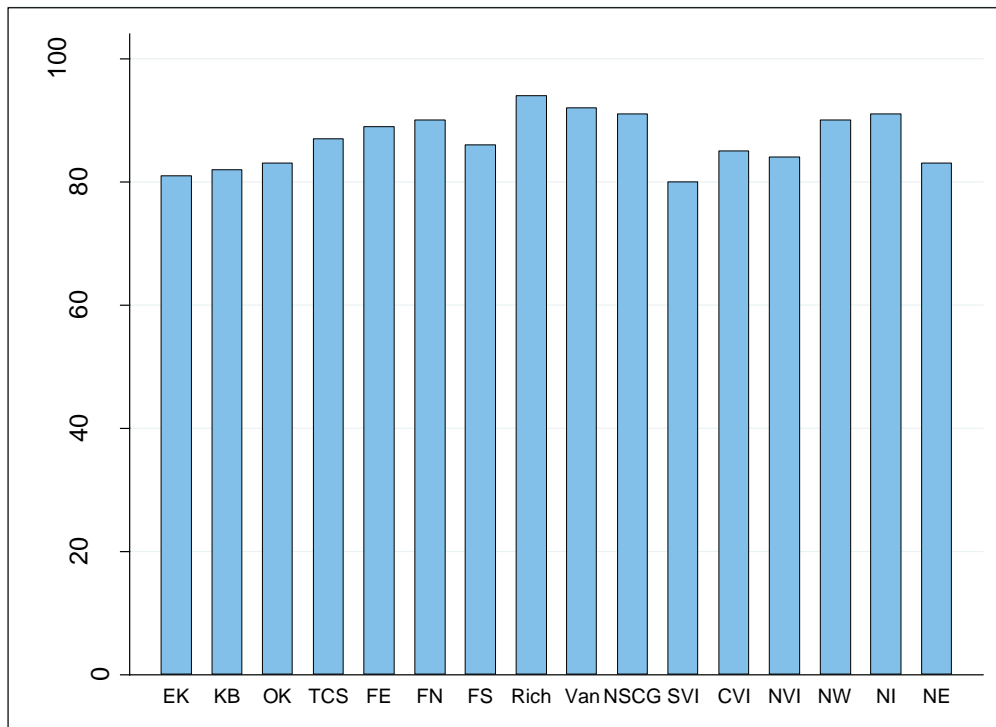


Figure 4: Influenza immunization coverage for residents of residential care facilities by facility size (number of residents), 2015/16

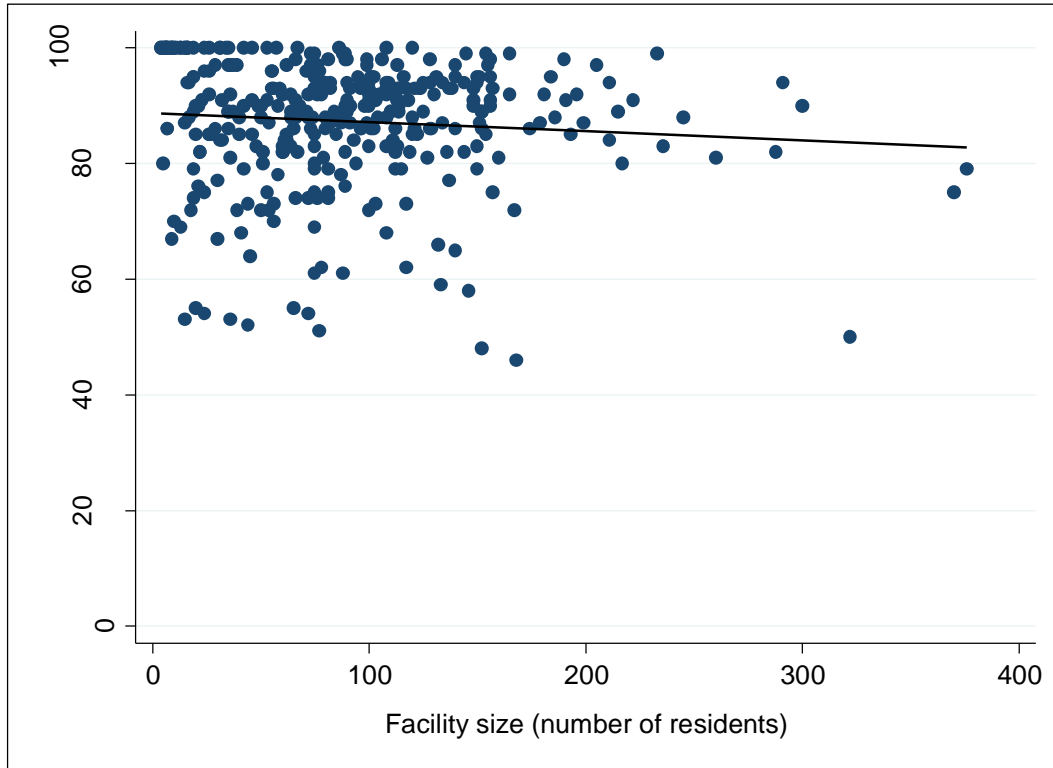


Figure 5: Influenza immunization coverage for residents of residential care facilities by facility within each health authority, 2015/16

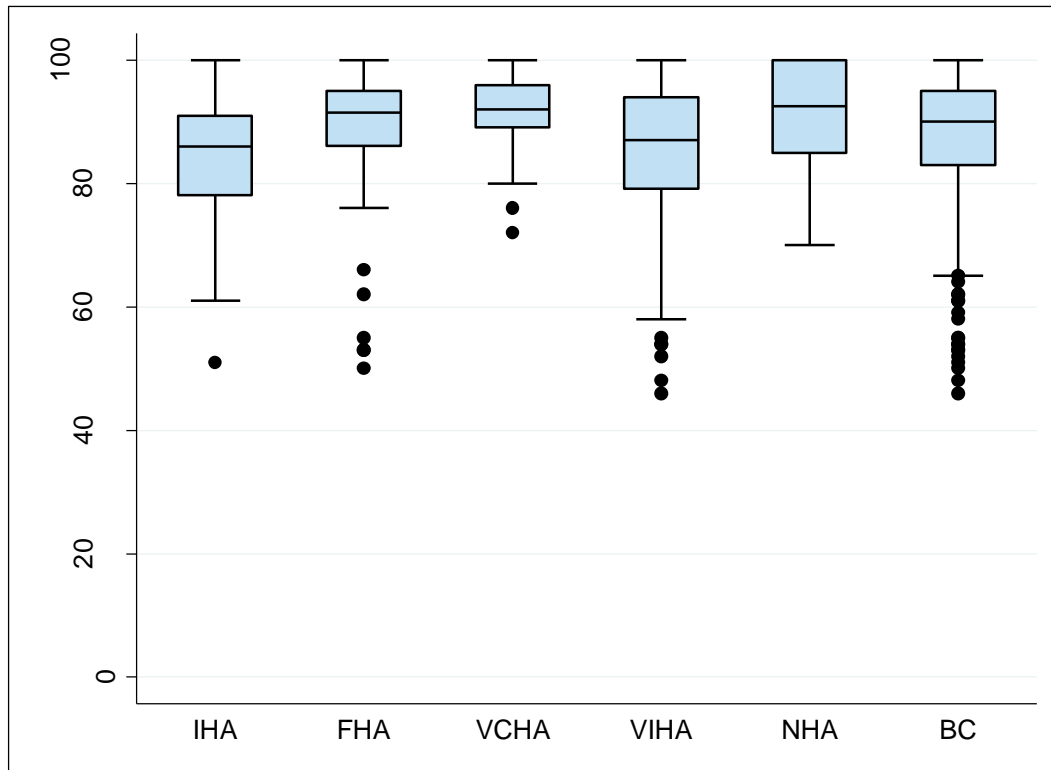


Figure 5 illustrates the range of influenza immunization coverage for residential care facilities in each health authority and for BC for the 2015/16 influenza season. The horizontal line below each box represents the lowest observed coverage value that is greater than or equal to the first quartile 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 the interquartile range; and the dots represent facilities with unusually high or low coverage values which may be outliers.

Table 4: Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2007/08 to 2015/16

Health region		Influenza Season									
		2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
INTERIOR	immunized	4,970	4,846	4,968	-	5,081	5,343	4,883	3,717	5,437	5,151
	total residents	5,575	5,443	5,648	-	5,985	6,322	5,843	4,433	6,308	6,162
	% immunized	89	89	88	-	85	85	84	84	86	84
East Kootenay	immunized	444	343	490	-	544	479	570	416	451	383
	total residents	551	371	572	-	711	573	650	616	545	470
	% immunized	81	92	86	-	77	84	88	68	83	81
Kootenay Boundary	immunized	457	545	391	-	547	650	581	512	666	477
	total residents	589	641	466	-	682	812	809	620	805	582
	% immunized	78	85	84	-	80	80	72	83	83	82
Okanagan	immunized	2,770	2,587	2,724	-	2,666	3,203	2,773	1,630	3,055	3,060
	total residents	3,026	2,916	3,159	-	3,124	3,755	3,315	1,929	3,549	3,689
	% immunized	92	89	86	-	85	85	84	84	86	83
Thomps Carib Shuswap	immunized	1,299	1,371	1,363	-	1,324	1,011	959	1,159	1,265	1,231
	total residents	1,409	1,515	1,451	-	1,468	1,182	1,069	1,268	1,409	1,421
	% immunized	92	90	94	-	90	86	90	91	90	87
FRASER	immunized	7,269	7,352	7,703	6,884	7,911	8,041	8,812	8,608	7,727	8,539
	total residents	7,855	8,092	8,571	8,611	8,750	8,935	9,679	9,411	8,543	9,703
	% immunized	93	91	90	80	90	90	91	91	90	88
Fraser East	immunized	1,548	1,471	1,425	1,192	1,478	1,447	1,559	1,543	1,643	1,456
	total residents	1,733	1,629	1,630	1,631	1,640	1,635	1,768	1,721	1,849	1,631
	% immunized	89	90	87	73	90	89	88	90	89	89
Fraser North	immunized	2,663	2,768	2,614	2,422	3,032	3,035	3,052	3,121	2,942	2,969
	total residents	2,846	3,025	2,878	2,826	3,341	3,333	3,334	3,441	3,231	3,295
	% immunized	94	92	91	86	91	91	92	91	91	90
Fraser South	immunized	3,058	3,113	3,664	3,270	3,401	3,559	4,201	3,944	3,142	4,114
	total residents	3,276	3,438	4,063	4,154	3,769	3,967	4,577	4,249	3,463	4,777
	% immunized	93	91	90	79	90	90	92	93	91	86

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2007/08 to 2015/16

Health region		Influenza Season									
		2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
VANCOUVER COASTAL	immunized	6,741	6,713	6,171	5,325	6,800	6,487	6,387	6,178	4,316	6,258
	total residents	7,256	7,208	6,794	6,794	7,375	7,047	6,960	6,631	4,675	6,809
	% immunized	93	93	91	78	92	92	92	93	92	92
Richmond	immunized	830	729	832	601	798	789	664	774	252	809
	total residents	861	752	882	882	841	834	705	818	257	861
	% immunized	96	97	94	68	95	95	94	95	98	94
Vancouver	immunized	4,202	4,240	3,968	3,566	4,224	4,073	4,013	3,896	3,141	3,882
	total residents	4,559	4,580	4,372	4,372	4,592	4,418	4,345	4,178	3,362	4,225
	% immunized	92	93	91	82	92	92	92	93	93	92
N Shore/Coast Garibaldi	immunized	1,709	1,744	1,371	1,158	1,778	1,625	1,710	1,508	923	1,567
	total residents	1,836	1,876	1,540	1,540	1,942	1,795	1,910	1,635	1,056	1,723
	% immunized	93	93	89	75	92	91	90	92	87	91
VANCOUVER ISLAND	immunized	5,107	5,384	5,606	-	5,617	5,605	5,579	5,792	6,051	6,025
	total residents	5,614	5,896	6,291	-	6,264	6,404	6,370	6,502	7,063	7,332
	% immunized	91	91	89	-	90	88	88	89	86	82
South Van Island	immunized	2,931	2,850	2,996	-	2,988	2,928	2,974	3,109	3,462	3,512
	total residents	3,215	3,107	3,355	-	3,301	3,415	3,424	3,471	4,103	4,373
	% immunized	91	92	89	-	91	86	87	90	84	80
Central Van Island	immunized	1,707	2,030	2,020	-	2,034	2,066	1,993	2,058	1,978	1,938
	total residents	1,897	2,248	2,299	-	2,300	2,308	2,262	2,326	2,275	2,278
	% immunized	90	90	88	-	88	90	88	88	87	85
North Van Island	immunized	469	504	590	-	595	611	612	625	611	575
	total residents	502	541	637	-	663	681	684	705	685	681
	% immunized	93	93	93	-	90	90	89	89	89	84

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2007/08 to 2015/16

Health region		Influenza season									
		2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
NORTHERN	immunized	936	931	950	694	971	956	1,123	1,022	1,001	1,017
	total residents	1,005	1,009	1,072	1,075	1,079	1,103	1,257	1,128	1,118	1,139
	% immunized	93	92	89	65	90	87	89	91	90	89
Northwest	immunized	239	242	216	146	243	241	233	244	247	252
	total residents	258	260	263	264	273	277	283	284	270	279
	% immunized	93	93	82	55	89	87	82	86	91	90
Northern Interior	immunized	498	475	520	378	506	503	556	551	534	558
	total residents	521	516	569	571	562	583	597	594	602	610
	% immunized	96	92	91	66	90	86	93	93	89	91
Northeast	immunized	199	214	214	170	222	212	334	227	220	207
	total residents	226	233	240	240	244	243	377	250	246	250
	% immunized	88	92	89	71	91	87	89	91	89	83
BC	immunized	25,023	25,226	25,398	-	26,380	26,432	26,784	25,317	24,532	26,990
	total residents	27,305	27,648	28,376	-	29,453	29,811	30,109	28,105	27,707	31,145
	% immunized	92	91	90	-	90	89	89	90	89	87

Coverage excluding privately funded residential care facilities

Table 5: Number and proportion of residential care facilities reporting resident coverage, by health authority, 2015/16
(excluding privately funded residential care facilities)

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	52	58	90
Fraser	83	91	91
Vancouver Coastal	19	21	90
Vancouver Island	74	74	100
Northern	22	22	100
British Columbia	250	266	94

Table 6: Influenza vaccination coverage for residents of residential care facilities by health authority and health service delivery area, 2015/16
(excluding privately funded residential care facilities)

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	2,865	3,429	84
East Kootenay	217	270	80
Kootenay Boundary	288	360	80
Okanagan	1,437	1,740	83
Thompson/Cariboo/Shuswap	923	1,059	87
Fraser	7,723	8,711	89
Fraser East	1,392	1,552	90
Fraser North	2,709	2,980	91
Fraser South	3,622	4,179	87
Vancouver Coastal	1,937	2,140	91
Richmond	351	384	91
Vancouver	936	1,008	93
N Shore/Coast Garibaldi	650	748	87
Vancouver Island	5,503	6,643	83
South Vancouver Island	3,165	3,920	81
Central Vancouver Island	1,763	2,042	86
North Vancouver Island	575	681	84
Northern	879	1,000	88
Northwest	252	279	90
Northern Interior	420	471	89
Northeast	207	250	83
BC	18,907	21,923	86

Reference

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>