

Influenza vaccination coverage for residents of residential care facilities British Columbia, 2014/15

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. Influenza vaccination coverage for residents of residential care facilities in British Columbia (BC) ranged from 89% to 93% from the 2005/06 to 2014/15 influenza seasons.

Objective

- i) To quantify the percentage of residents of residential care facilities in British Columbia who were vaccinated against influenza during the 2014/15 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.

A list of the residential care facilities included in the 2013/14 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)

- 319/371 (86%) residential care facilities in BC are included in this report

2014/15 influenza vaccination coverage (tables 2 and 3; figures 1 to 5)

- 89% (24,532/27,707) of residents of residential care facilities in BC were vaccinated against influenza, similar to the 90% (25,317/28,105) coverage in 2013/14
- 86% to 92% coverage was the range across the five health authorities
- 83% to 98% coverage was the range across the sixteen health service delivery areas
- 21% to 100% coverage was the range across all residential care facilities in BC
- 178/319 (56%) facilities met the 90% immunization coverage target, which is down from 202/328 (62%) in 2013/14

Results excluding privately funded facilities (Tables 5 and 6)

- 235/265 (89%) publicly funded or contracted residential facilities were included
- 88% (18,204/20,583) 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 89%, just below the Immunization BC coverage target; 178/319 (56%) facilities met the 90% coverage target. Influenza immunization coverage was the similar (88%) when privately funded facilities were excluded from the analysis.

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 the 89% coverage was achieved for residents of residential care facilities for the 2014/15 season, substantial 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, 2014/15

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	89	97	92
Fraser	78	102	76
Vancouver Coastal	42	62	68
Vancouver Island	86	86	100
Northern	24	24	100
British Columbia	319	371	86

Table 2: Influenza vaccination coverage for residents of residential care facilities by health authority, health service delivery area, 2014/15

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	5437	6308	86
East Kootenay	451	545	83
Kootenay Boundary	666	805	83
Okanagan	3055	3549	86
Thompson/Cariboo/Shuswap	1265	1409	90
Fraser	7727	8543	90
Fraser East	1643	1849	89
Fraser North	2942	3231	91
Fraser South	3142	3463	91
Vancouver Coastal	4316	4675	92
Richmond	252	257	98
Vancouver	3141	3362	93
N Shore/Coast Garibaldi	923	1056	87
Vancouver Island	6051	7063	86
South Vancouver Island	3462	4103	84
Central Vancouver Island	1978	2275	87
North Vancouver Island	611	685	89
Northern	1001	1118	90
Northwest	247	270	91
Northern Interior	534	602	89
Northeast	220	246	89
BC	24532	27707	89

Table 3: Residential care facility resident influenza vaccination coverage by health authority, 2004/05 to 2014/15

Health authority	Influenza immunization coverage (%) for residents of residential care facilities by influenza season									
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Interior	91	90	89	89	88	85	85	84	84	86
Fraser	93	93	93	91	90	90	90	91	91	90
Vancouver Coastal	93	94	93	93	91	92	92	92	93	92
Vancouver Island	90	93	91	91	89	90	88	88	89	86
Northern	95	95	93	92	89	90	87	89	91	90
British Columbia	92	93	92	91	90	90	89	89	90	89

Figure 1: Influenza immunization coverage for residents of residential care facilities, 2005/06 to 2014/15

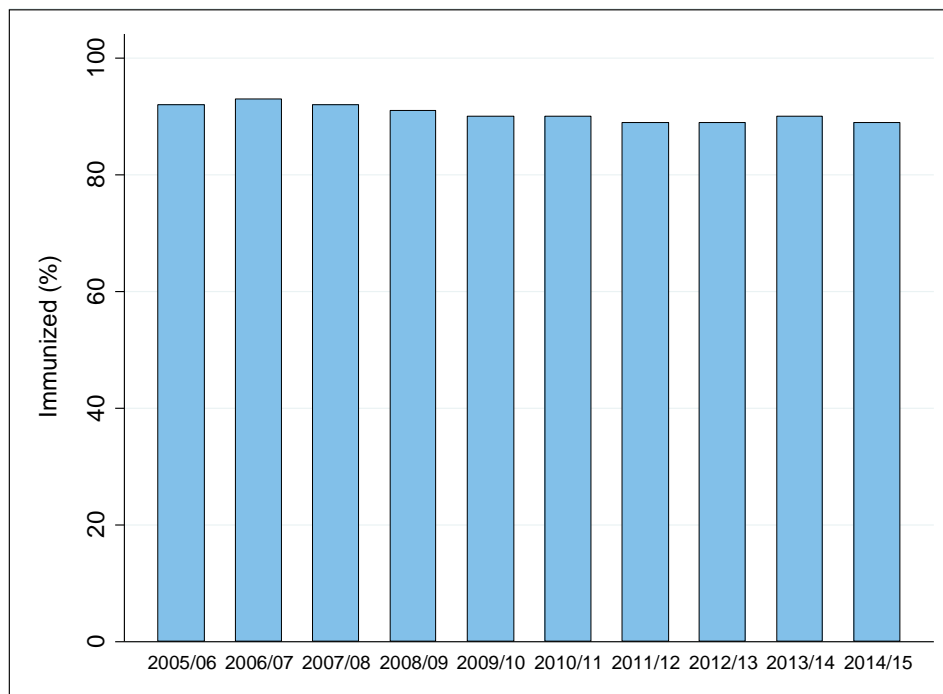


Figure 2: Influenza immunization coverage for residents of residential care facilities by health authority, 2014/15

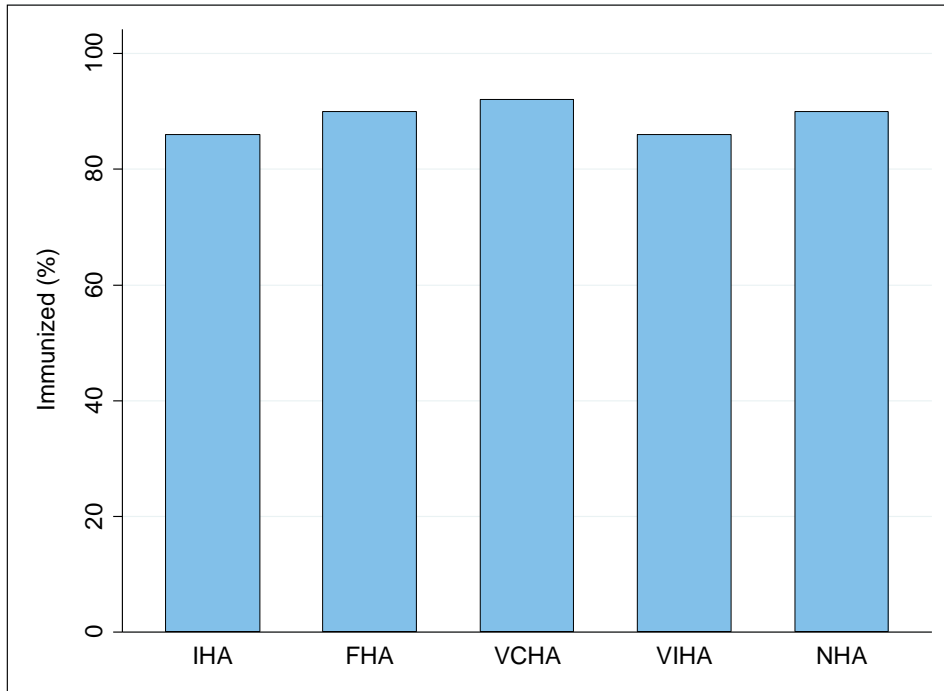


Figure 3: Influenza immunization coverage for residents of residential care facilities by health service delivery area, 2014/15

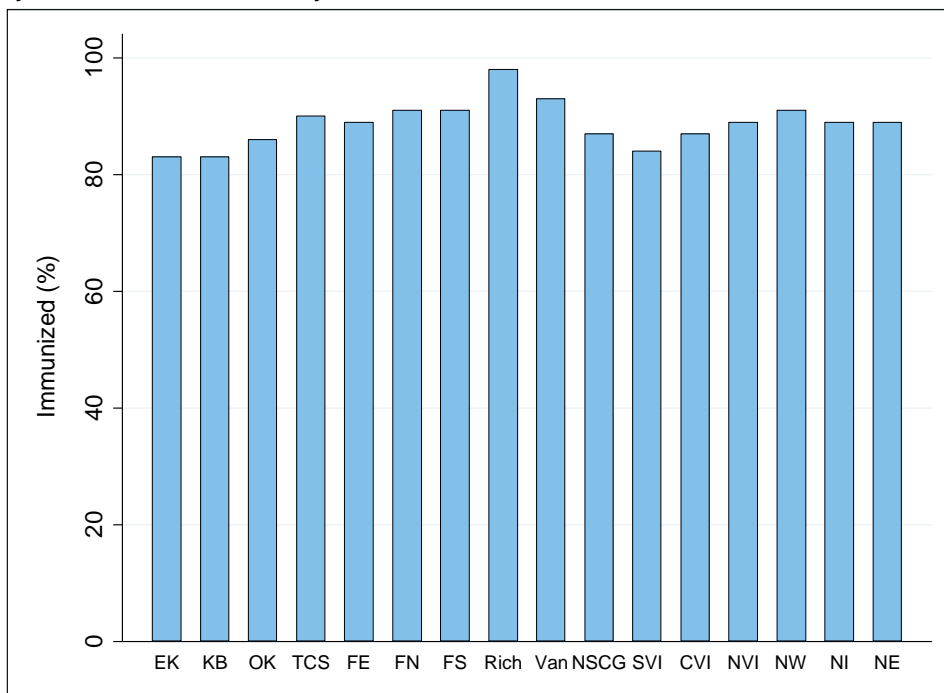


Figure 4: Influenza immunization coverage for residents of residential care facilities by facility size (number of residents), 2014/15

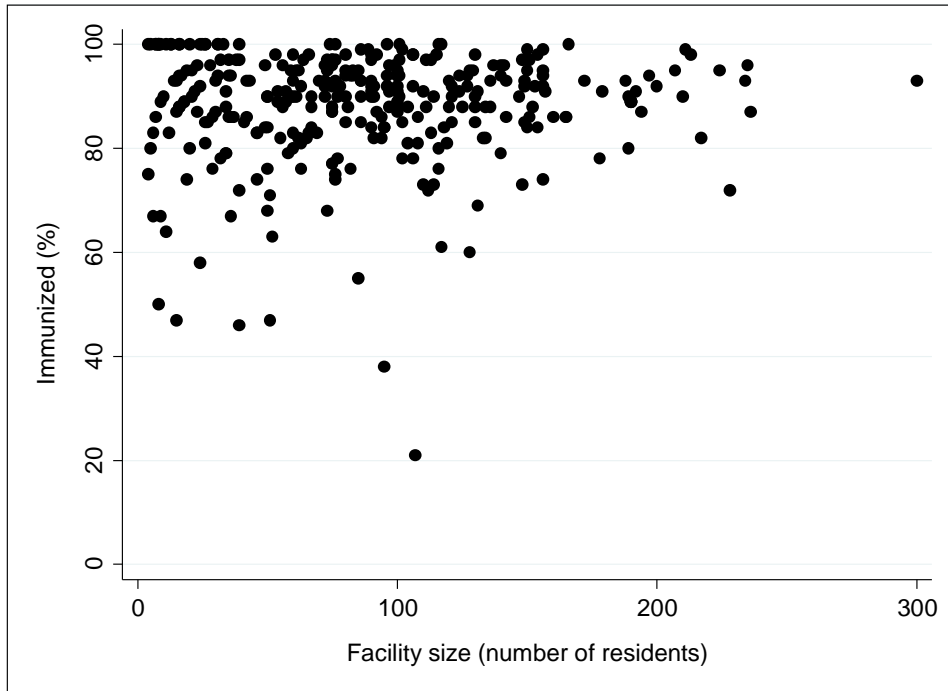


Figure 5: Influenza immunization coverage for residents of residential care facilities by facility within each health authority, 2014/15

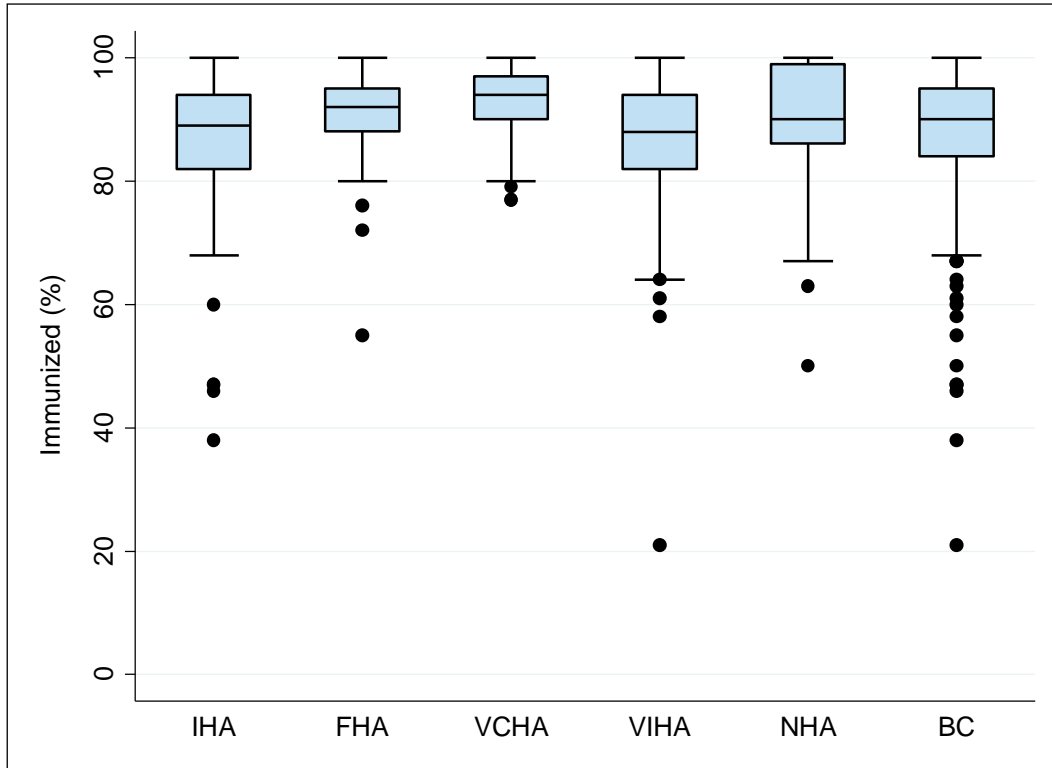


Figure 5 illustrates the range of influenza immunization coverage for residential care facilities in each health authority and for BC for the 2014/15 influenza season. The horizontal line below each box represents the lowest observed coverage value that is greater than or equal to the first quartile 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, 2006/07 to 2014/15

Health region		Influenza season									
		2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15
INTERIOR	immunized	4,341	4,970	4,846	4,968	-	5,081	5,343	4,883	3,717	5,437
	total residents	4,797	5,575	5,443	5,648	-	5,985	6,322	5,843	4,433	6,308
	% immunized	90	89	89	88	-	85	85	84	84	86
East Kootenay	immunized	444	444	343	490	-	544	479	570	416	451
	total residents	467	551	371	572	-	711	573	650	616	545
	% immunized	95	81	92	86	-	77	84	88	68	83
Kootenay Boundary	immunized	552	457	545	391	-	547	650	581	512	666
	total residents	648	589	641	466	-	682	812	809	620	805
	% immunized	85	78	85	84	-	80	80	72	83	83
Okanagan	immunized	2,317	2,770	2,587	2,724	-	2,666	3,203	2,773	1,630	3,055
	total residents	2,553	3,026	2,916	3,159	-	3,124	3,755	3,315	1,929	3,549
	% immunized	91	92	89	86	-	85	85	84	84	86
Thomps Carib Shuswap	immunized	1,028	1,299	1,371	1,363	-	1,324	1,011	959	1,159	1,265
	total residents	1,129	1,409	1,515	1,451	-	1,468	1,182	1,069	1,268	1,409
	% immunized	91	92	90	94	-	90	86	90	91	90
FRASER	immunized	8,034	7,269	7,352	7,703	6,884	7,911	8,041	8,812	8,608	7,727
	total residents	8,615	7,855	8,092	8,571	8,611	8,750	8,935	9,679	9,411	8,543
	% immunized	93	93	91	90	80	90	90	91	91	90
Fraser East	immunized	1,587	1,548	1,471	1,425	1,192	1,478	1,447	1,559	1,543	1,643
	total residents	1,706	1,733	1,629	1,630	1,631	1,640	1,635	1,768	1,721	1,849
	% immunized	93	89	90	87	73	90	89	88	90	89
Fraser North	immunized	2,872	2,663	2,768	2,614	2,422	3,032	3,035	3,052	3,121	2,942
	total residents	3,057	2,846	3,025	2,878	2,826	3,341	3,333	3,334	3,441	3,231
	% immunized	94	94	92	91	86	91	91	92	91	91
Fraser South	immunized	3,575	3,058	3,113	3,664	3,270	3,401	3,559	4,201	3,944	3,142
	total residents	3,852	3,276	3,438	4,063	4,154	3,769	3,967	4,577	4,249	3,463
	% immunized	93	93	91	90	79	90	90	92	93	91

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2005/06 to 2014/15

Health region		Influenza season									
		2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2014/15
VANCOUVER COASTAL	immunized	6,547	6,824	6,741	6,713	6,171	5,325	6,800	6,487	6,387	4,316
	total residents	7,034	7,268	7,256	7,208	6,794	6,794	7,375	7,047	6,960	4,675
	% immunized	93	94	93	93	91	78	92	92	92	92
Richmond	immunized	810	856	830	729	832	601	798	789	664	252
	total residents	844	888	861	752	882	882	841	834	705	257
	% immunized	96	96	96	97	94	68	95	95	94	98
Vancouver	immunized	4,293	4,320	4,202	4,240	3,968	3,566	4,224	4,073	4,013	3,141
	total residents	4,669	4,627	4,559	4,580	4,372	4,372	4,592	4,418	4,345	3,362
	% immunized	92	93	92	93	91	82	92	92	92	93
N Shore/Coast Garibaldi	immunized	1,444	1,648	1,709	1,744	1,371	1,158	1,778	1,625	1,710	923
	total residents	1,521	1,753	1,836	1,876	1,540	1,540	1,942	1,795	1,910	1,056
	% immunized	95	94	93	93	89	75	92	91	90	87
VANCOUVER ISLAND	immunized	5,224	4,963	5,107	5,384	5,606	-	5,617	5,605	5,579	6,051
	total residents	5,783	5,361	5,614	5,896	6,291	-	6,264	6,404	6,370	7,063
	% immunized	90	93	91	91	89	-	90	88	88	86
South Van Island	immunized	2,979	2,836	2,931	2,850	2,996	-	2,988	2,928	2,974	3,462
	total residents	3,283	3,065	3,215	3,107	3,355	-	3,301	3,415	3,424	4,103
	% immunized	91	93	91	92	89	-	91	86	87	84
Central Van Island	immunized	1,783	1,649	1,707	2,030	2,020	-	2,034	2,066	1,993	1,978
	total residents	2,005	1,796	1,897	2,248	2,299	-	2,300	2,308	2,262	2,275
	% immunized	89	92	90	90	88	-	88	90	88	87
North Van Island	immunized	462	478	469	504	590	-	595	611	612	611
	total residents	495	500	502	541	637	-	663	681	684	685
	% immunized	93	96	93	93	93	-	90	90	89	89

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2005/06 to 2014/15

Health region		Influenza season									
		2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2014/15
NORTHERN	immunized	997	934	936	931	950	694	971	956	1,123	1,001
	total residents	1,051	986	1,005	1,009	1,072	1,075	1,079	1,103	1,257	1,118
	% immunized	95	95	93	92	89	65	90	87	89	90
Northwest	immunized	325	250	239	242	216	146	243	241	233	247
	total residents	340	264	258	260	263	264	273	277	283	270
	% immunized	96	95	93	93	82	55	89	87	82	91
Northern Interior	immunized	479	487	498	475	520	378	506	503	556	534
	total residents	494	499	521	516	569	571	562	583	597	602
	% immunized	97	98	96	92	91	66	90	86	93	89
Northeast	immunized	193	197	199	214	214	170	222	212	334	220
	total residents	217	223	226	233	240	240	244	243	377	246
	% immunized	89	88	88	92	89	71	91	87	89	89
BC	immunized	24,235	25,096	25,023	25,226	25,398	-	26,380	26,432	26,784	24,532
	total residents	26,278	27,027	27,305	27,648	28,376	-	29,453	29,811	30,109	27,707
	% immunized	92	93	92	91	90	-	90	89	89	89

Coverage excluding privately funded residential care facilities

Table 5: Number and proportion of residential care facilities reporting resident coverage, by health authority, 2014/15
(excluding privately funded residential care facilities)

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	55	59	93
Fraser	72	93	77
Vancouver Coastal	16	21	76
Vancouver Island	70	70	100
Northern	22	22	100
British Columbia	235	265	89

Table 6: Influenza vaccination coverage for residents of residential care facilities by health authority and health service delivery area, 2014/15
(excluding privately funded residential care facilities)

Health authority	Residential care facility staff		
	Immunized	Total	%
Interior	3,143	3,599	87
East Kootenay	231	278	83
Kootenay Boundary	391	449	87
Okanagan	1,561	1,814	86
Thompson/Cariboo/Shuswap	960	1,058	91
Fraser	7,370	8,154	90
Fraser East	1,643	1,849	89
Fraser North	2,860	3,140	91
Fraser South	2,867	3,165	91
Vancouver Coastal	1,334	1,506	89
Richmond	-	-	-
Vancouver	809	883	92
N Shore/Coast Garibaldi	525	623	84
Vancouver Island	5,487	6,352	86
South Vancouver Island	3,069	3,621	85
Central Vancouver Island	1,807	2,046	88
North Vancouver Island	611	685	89
Northern	870	972	90
Northwest	247	270	91
Northern Interior	403	456	88
Northeast	220	246	89
BC	18,204	20,583	88