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Hand cleaning compliance in the healthcare facilities, Q3 2015/2016

Prepared by the Provincial Hand Hygiene Working Group of British Columbia (PHHWG) **May 2016**

Mission: To create a comprehensive provincial program that will improve and sustain hand hygiene culture, in order to decrease the transmission of healthcare-associated infections in BC healthcare facilities

What is hand cleaning?

Hand cleaning means using an alcohol-based hand rub or soap and water to kill or remove germs on hand surfaces.

Why is hand cleaning important?

Both patients in acute care facilities and residents in residential care facilities are vulnerable to healthcare-associated infections, a leading cause of death for people receiving care within our healthcare system. Germs can easily be transmitted through direct person-to-person contact, or by touching contaminated shared surfaces or equipment. Hand cleaning is the single most effective way to reduce the spread of germs, and is the responsibility of all individuals involved, including patients/residents, visitors, and healthcare providers.

Why do we measure hand cleaning compliance?

Healthcare providers, including nursing staff, physicians, clinical support services, and others such as housekeeping staff, should lead by example in maintaining good hand hygiene. They move frequently between patients/ residents, and from room to room, while providing care or working in the patient/resident's room. This movement provides many chances for germs to be spread by hands. Monitoring hand cleaning practice is vital to improve compliance and, in turn, reduce infections in healthcare settings.

How do we measure hand cleaning compliance?

Every quarter, trained auditors observe a sample of healthcare providers and record whether they clean their hands at the appropriate times, i.e. before and after touching a patient/resident or the their immediate environment (e.g., changing bed linen, holding a bed rail, clearing a bedside table, etc.). The percentage score reports how often healthcare providers clean their hands when required to do so. Wearing gloves is not a substitute for hand cleaning.

Why is the compliance being publicly reported?

Improving hand cleaning compliance is a key way of reducing healthcare-associated infections. Reporting on performance provides transparency to the public, and assists healthcare facilities in improving their quality of care.

How are we doing?

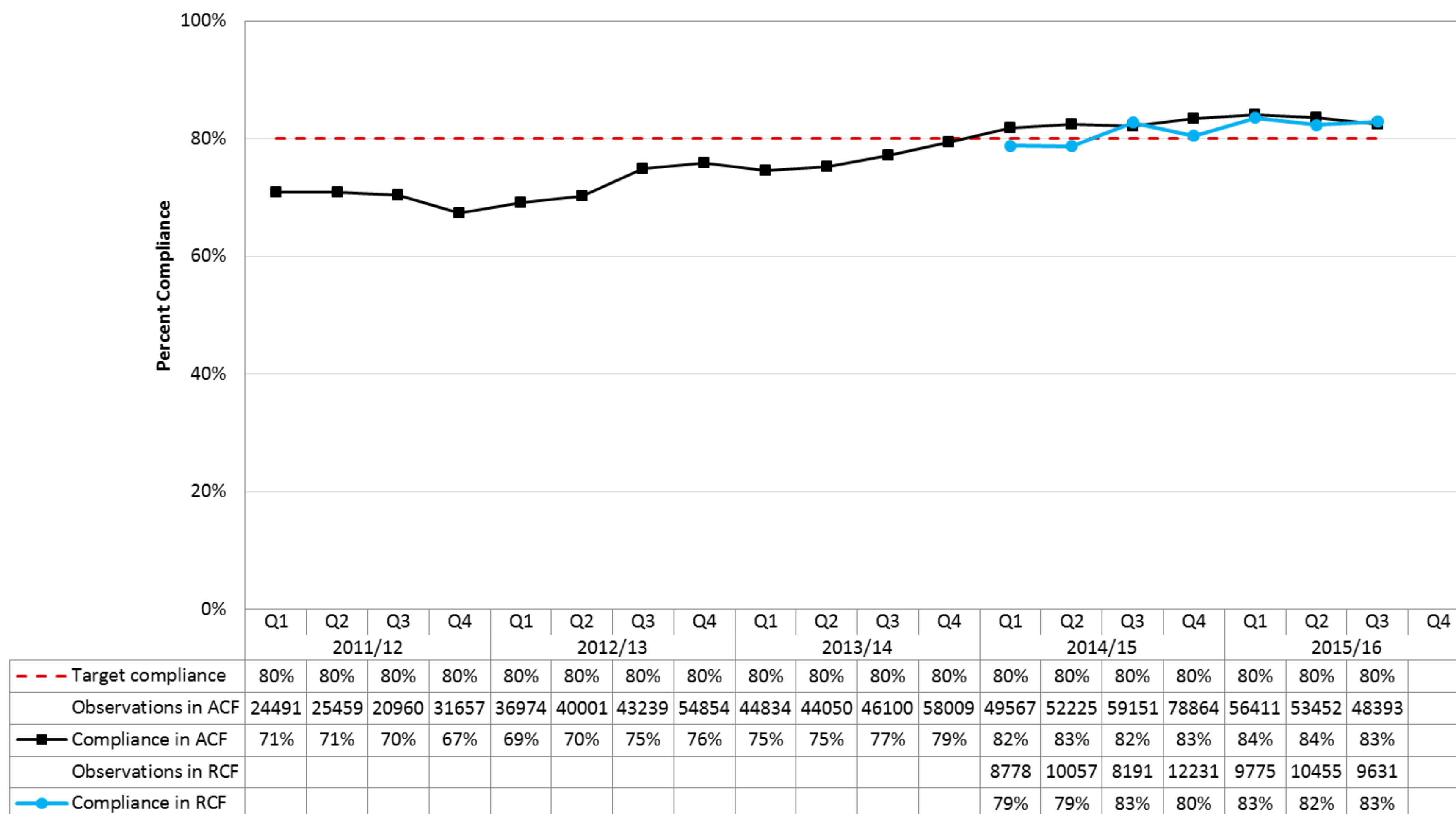
The overall provincial hand cleaning compliance was **83%** in both acute care facilities and residential care facilities during quarter 3 (Q3) of 2015/16, which surpasses the target of 80%. In acute care facilities, compliance before contact is still 10% lower than after contact (77% vs. 87%), and physicians continue to have the lowest compliance among healthcare provider groups, at 76%.

What are we doing to improve compliance?

1. Encouraging all healthcare providers to incorporate hand cleaning into their practice routines
2. Ensuring that hand cleaning products are readily available for all staff, patients, and residents
3. Reporting performance back to unit staff, senior leaders, physicians, and the public
4. Targeting educational and promotional activities to increase hand cleaning awareness
5. Identifying new initiatives and opportunities to improve the compliance before patient contact and to engage physicians more effectively

Expectation	**100%**	while recognizing positive improvement
Performance target	**80%**	of hand cleaning opportunities taken
Performance in Q3 2015/16		
Acute care facilities (ACF)	**83%**	of 48,393 opportunities observed
Residential care facilities (RCF)	**83%**	of 9,631 opportunities observed

Figure 1. Overall provincial hand cleaning compliance in acute care facilities (ACF) and residential care facilities (RCF) by quarter and year[1], 2011/12 – 2015/16

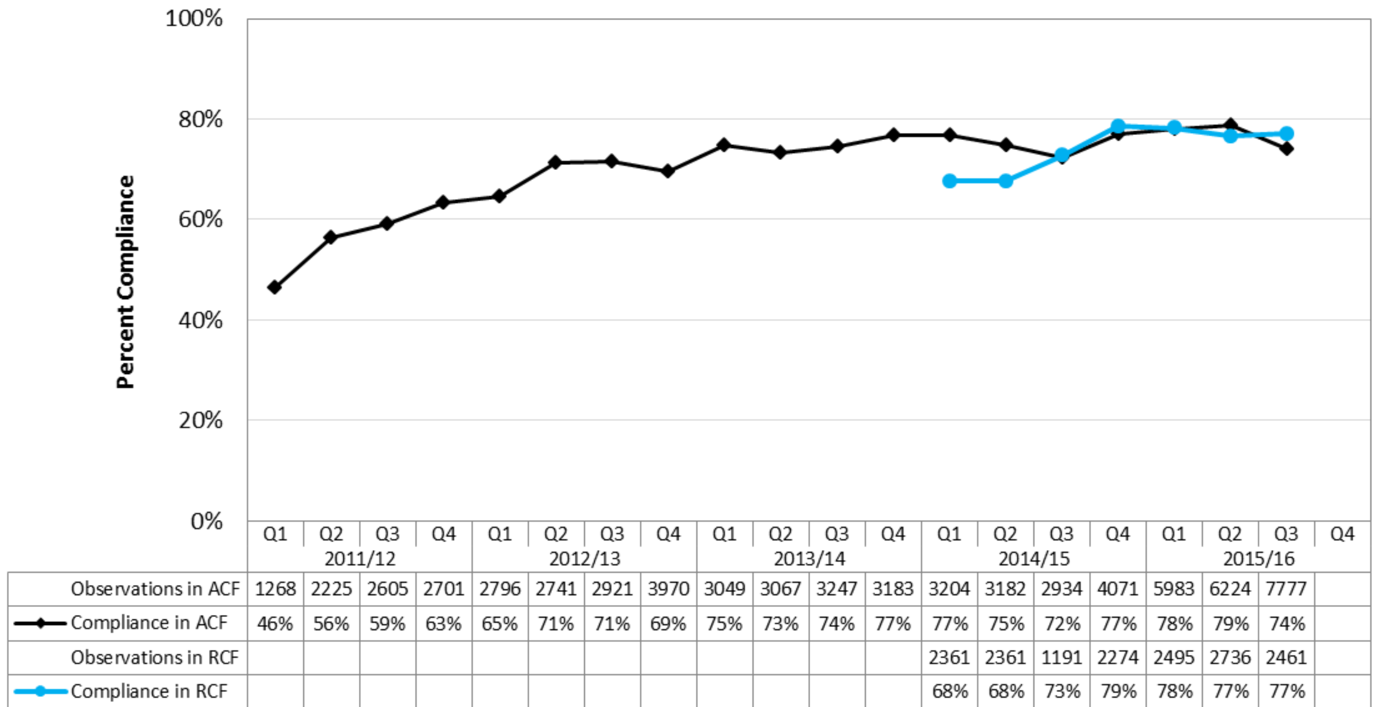


	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Target compliance	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	
Observations in ACF	24491	25459	20960	31657	36974	40001	43239	54854	44834	44050	46100	58009	49567	52225	59151	78864	56411	53452	48393	
Compliance in ACF	71%	71%	70%	67%	69%	70%	75%	76%	75%	75%	77%	79%	82%	83%	82%	83%	84%	84%	83%	
Observations in RCF													8778	10057	8191	12231	9775	10455	9631	
Compliance in RCF													79%	79%	83%	80%	83%	82%	83%	

1. Data were aggregated by fiscal quarter (Q3 of 2015/2016 was from Sep 11 – Dec 3, 2015) for FHA, PHC, VIHA, and NHA, and by calendar quarter (Oct 1 – Dec 31, 2015) for IHA, VCHA (except PHC) and PHSA. The provincial weighted compliance was calculated using the proportion of inpatient days in the health authorities as the weighting values. The provincial target, established by the provincial Hand Hygiene Working Group (PHHWG) in 2011, was to achieve 80% compliance by the end of fiscal year 2014/15 (March 31, 2015).

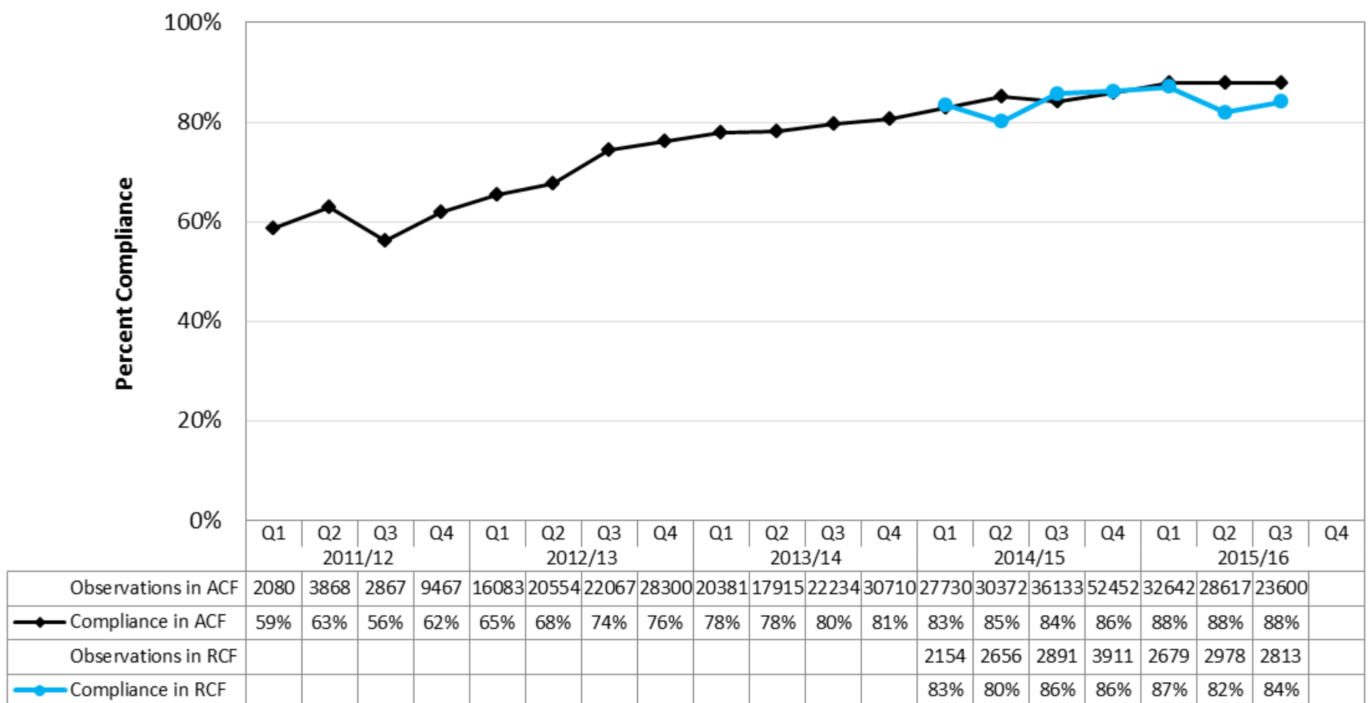
Note: Direct comparison of the percent compliances between health authorities or between ACF and RCF is **NOT** recommended due to the differences in the auditing methodology, sampling strategy, and healthcare services

Figure 2. Overall hand cleaning compliance in Interior Health[2], 2011/12 – 2015/16



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Observations in ACF	1268	2225	2605	2701	2796	2741	2921	3970	3049	3067	3247	3183	3204	3182	2934	4071	5983	6224	7777	
Compliance in ACF	46%	56%	59%	63%	65%	71%	71%	69%	75%	73%	74%	77%	77%	75%	72%	77%	78%	79%	74%	
Observations in RCF													2361	2361	1191	2274	2495	2736	2461	
Compliance in RCF													68%	68%	73%	79%	78%	77%	77%	

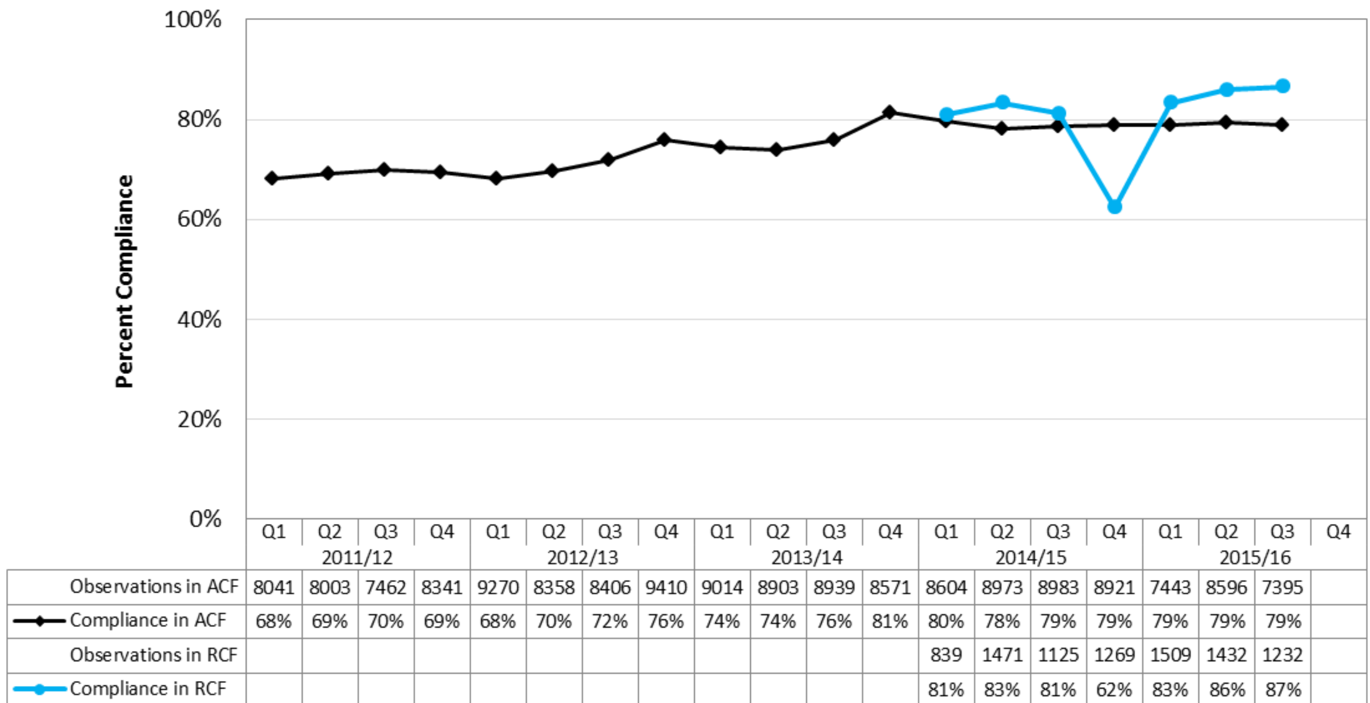
Figure 3. Overall hand cleaning compliance in Fraser Health[3], 2011/12 – 2015/16



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Observations in ACF	2080	3868	2867	9467	16083	20554	22067	28300	20381	17915	22234	30710	27730	30372	36133	52452	32642	28617	23600	
Compliance in ACF	59%	63%	56%	62%	65%	68%	74%	76%	78%	78%	80%	81%	83%	85%	84%	86%	88%	88%	88%	
Observations in RCF													2154	2656	2891	3911	2679	2978	2813	
Compliance in RCF													83%	80%	86%	86%	87%	82%	84%	

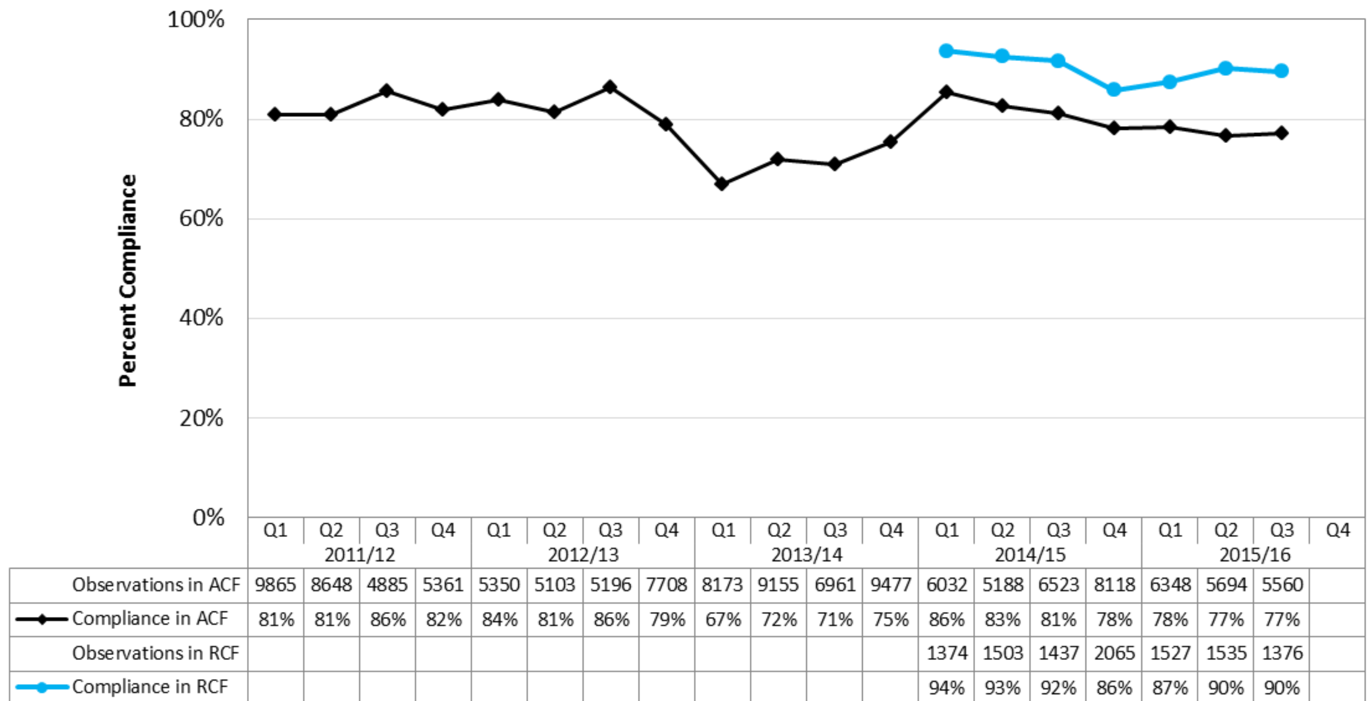
2. Audits in both ACF and RCF in Interior Health were performed by infection control practitioners.
3. Audits in some ACF and all RCF in Fraser Health were performed by staff from the same facilities (self-auditing).

Figure 4. Overall hand cleaning compliance in Vancouver Coastal Health[4], 2011/12 – 2015/16



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Observations in ACF	8041	8003	7462	8341	9270	8358	8406	9410	9014	8903	8939	8571	8604	8973	8983	8921	7443	8596	7395	
Compliance in ACF	68%	69%	70%	69%	68%	70%	72%	76%	74%	74%	76%	81%	80%	78%	79%	79%	79%	79%	79%	
Observations in RCF													839	1471	1125	1269	1509	1432	1232	
Compliance in RCF													81%	83%	81%	62%	83%	86%	87%	

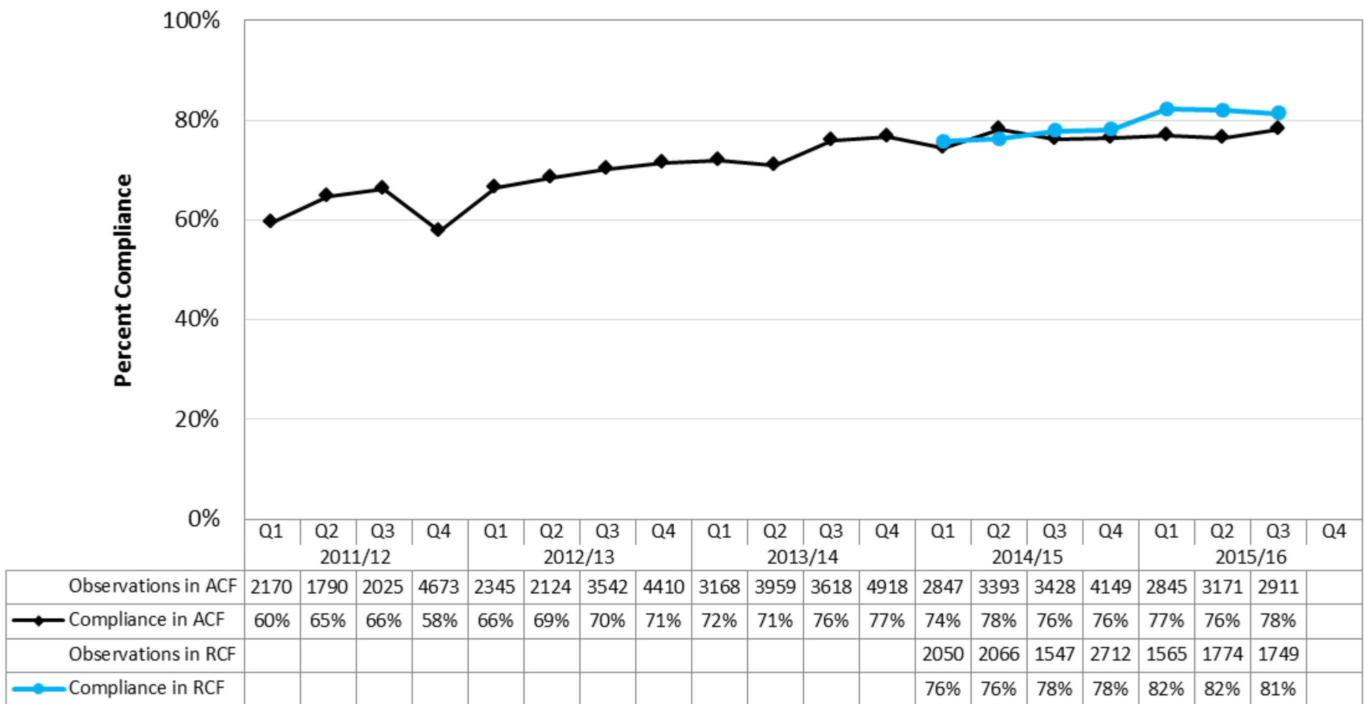
Figure 5. Overall hand cleaning compliance in Island Health[5], 2011/12 – 2015/16



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Observations in ACF	9865	8648	4885	5361	5350	5103	5196	7708	8173	9155	6961	9477	6032	5188	6523	8118	6348	5694	5560	
Compliance in ACF	81%	81%	86%	82%	84%	81%	86%	79%	67%	72%	71%	75%	86%	83%	81%	78%	78%	77%	77%	
Observations in RCF													1374	1503	1437	2065	1527	1535	1376	
Compliance in RCF													94%	93%	92%	86%	87%	90%	90%	

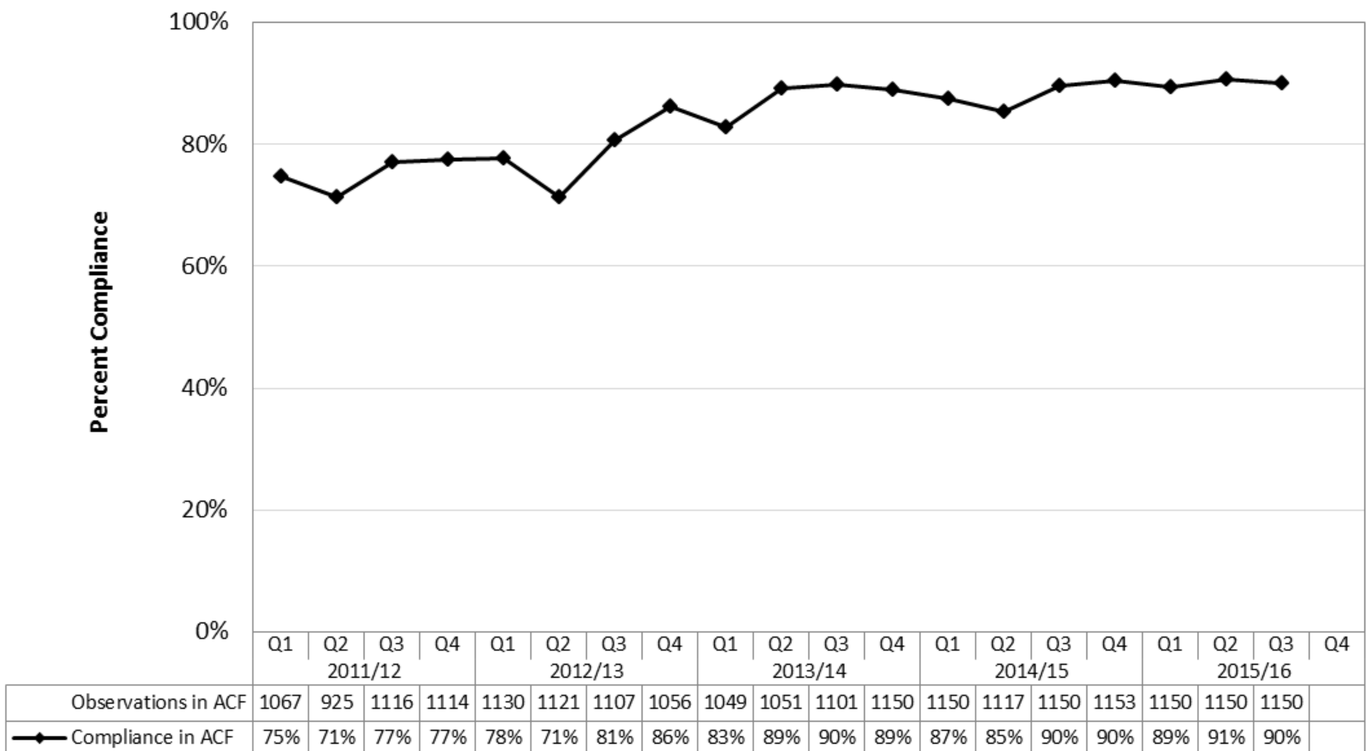
4. The data include Providence Health Care (PHC), which audits were performed by infection control practitioners and the audits data were aggregated by fiscal quarter. The audits in some small ACF and all RCF in Vancouver Coastal Health were performed by staff from the same facilities (self-auditing).
5. Audits in some ACF and all RCF in Island Health were performed by staff from the same facilities (self-auditing). Dedicated auditors were employed to perform auditing in some acute care facilities as of Q1 of 2013/2014

Figure 6. Overall hand cleaning compliance in Northern Health[6], 2011/12 – 2015/16



	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3	Q4
Observations in ACF	2170	1790	2025	4673	2345	2124	3542	4410	3168	3959	3618	4918	2847	3393	3428	4149	2845	3171	2911	
Compliance in ACF	60%	65%	66%	58%	66%	69%	70%	71%	72%	71%	76%	77%	74%	78%	76%	76%	77%	76%	78%	
Observations in RCF													2050	2066	1547	2712	1565	1774	1749	
Compliance in RCF													76%	76%	78%	78%	82%	82%	81%	

Figure 7. Overall hand cleaning compliance in Provincial Health Services Authority[7], 2011/12 – 2015/16

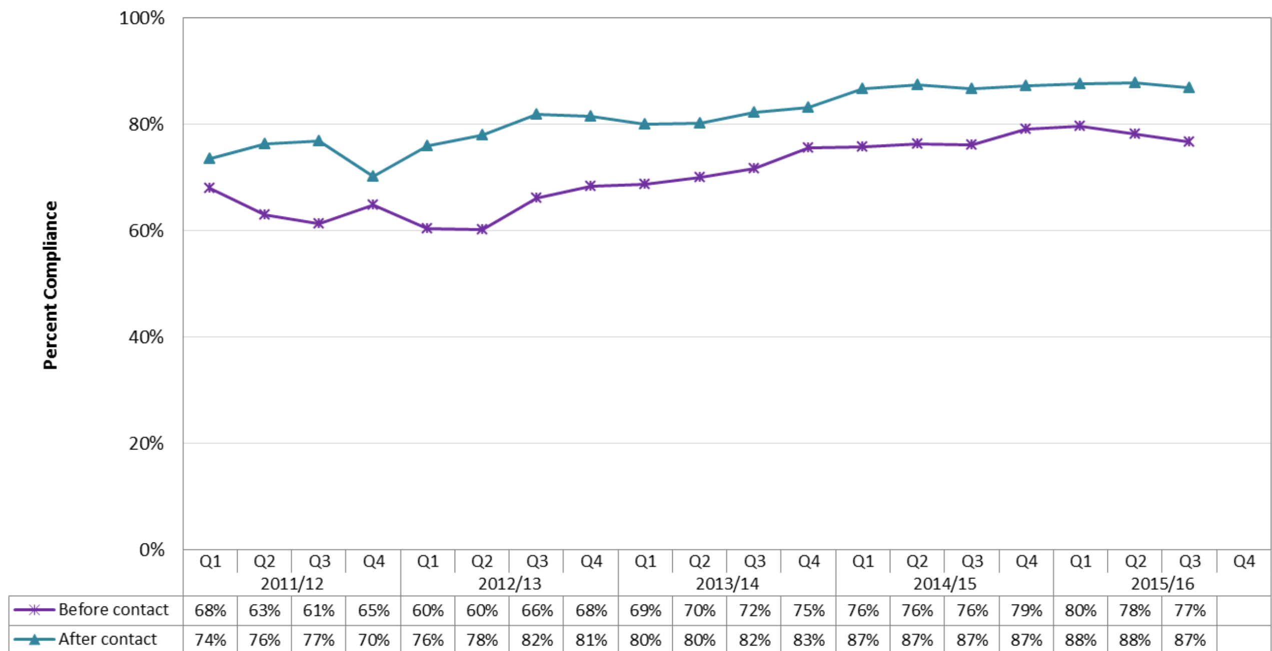


	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3	Q4
Observations in ACF	1067	925	1116	1114	1130	1121	1107	1056	1049	1051	1101	1150	1150	1117	1150	1153	1150	1150	1150	
Compliance in ACF	75%	71%	77%	77%	78%	71%	81%	86%	83%	89%	90%	89%	87%	85%	90%	90%	89%	91%	90%	

Please note: There are no residential care facilities operated by PHSA.

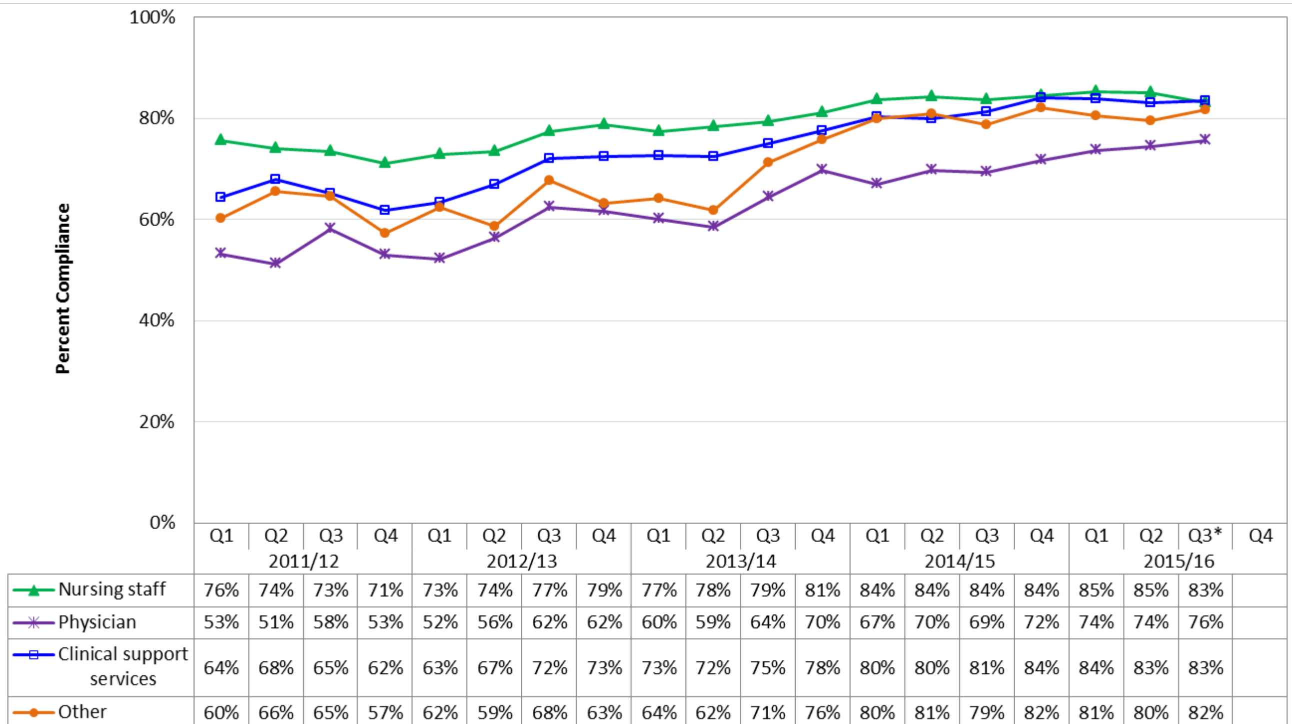
6. Audits in some ACF and all RCF in Northern Health were performed by staff from the same facilities (self-auditing).
7. Audits in Provincial Health Services Authority (PHSA) were performed by the medical students and include BC Children's Hospital, BC Women's Hospital, and BC Cancer Agency Vancouver Center.

Figure 8. Provincial hand cleaning compliance in acute care facilities by moment of contact[8], 2011/12 – 2015/16



	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3	Q4
Before contact	68%	63%	61%	65%	60%	60%	66%	68%	69%	70%	72%	75%	76%	76%	76%	79%	80%	78%	77%	
After contact	74%	76%	77%	70%	76%	78%	82%	81%	80%	80%	82%	83%	87%	87%	87%	87%	88%	88%	87%	

Figure 9. Provincial hand cleaning compliance in acute care facilities by healthcare provider group, 2011/12 – 2015/16



	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3*	Q4
Nursing staff	76%	74%	73%	71%	73%	74%	77%	79%	77%	78%	79%	81%	84%	84%	84%	84%	85%	85%	83%	
Physician	53%	51%	58%	53%	52%	56%	62%	62%	60%	59%	64%	70%	67%	70%	69%	72%	74%	74%	76%	
Clinical support services	64%	68%	65%	62%	63%	67%	72%	73%	73%	72%	75%	78%	80%	80%	81%	84%	84%	83%	83%	
Other	60%	66%	65%	57%	62%	59%	68%	63%	64%	62%	71%	76%	80%	81%	79%	82%	81%	80%	82%	

*Compliance by healthcare provider for Q3 of 2015/2016 does not include data from Providence Health Care

8. Before contact includes the moments before contact with the patient or the patient's immediate environment (e.g. around their bedside). After contact includes the moments after contact with the patient or the patient's immediate environment (e.g. around their bedside)

This report was created by the
Provincial Hand Hygiene Working Group of British Columbia (PHHWG)

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