



HEALTH QUALITY & SAFETY
COMMISSION NEW ZEALAND
Kupu Taurangi Hauora o Aotearoa

National hand hygiene compliance report: 1 July 2019 to 31 October 2019

Contents

Introduction	3
Achievements in this audit period.....	3
Auditing requirements updated to ensure sustainability.....	4
Hand hygiene auditing periods.....	4
National hand hygiene compliance data: 1 July 2019 to 31 October 2019	5
Table 1: National aggregated hand hygiene compliance: 1 July 2019 to 31 October 2019.....	5
Table 2: National compliance rates by DHB: 1 July 2019 to 31 October 2019.....	5
Table 3: Hand hygiene compliance by geographic region: 1 July 2019 to 31 October 2019	6
Table 4: Compliance by moment: 1 July 2019 to 31 October 2019	6
Table 5: Department compliance rates: 1 July 2019 to 31 October 2019	7
Table 6: Health care worker compliance rates: 1 July 2019 to 31 October 2019	8
Hand hygiene compliance in glove use	8
National hand hygiene compliance over time	9
Figure 1: Trends in national aggregate and average hand hygiene compliance: October 2012 to October 2019	9
Figure 2: Compliance over time by DHB: 1 July 2012 to 31 October 2019	10
Figure 3: Change in national hand hygiene compliance over time by moment: 1 July 2012 to 31 October 2019	11
Figure 4: Change in national hand hygiene compliance over time for health care workers: 1 July 2012 to 31 October 2019	12
Figure 5: Changes in national hand hygiene compliance by high-risk ward type: 1 July 2012 to 31 October 2019	12

Introduction

This report presents results for national hand hygiene compliance by district health boards (DHBs) for the period 1 July 2019 to 31 October 2019. The data used in this report was extracted on 7 November 2019.

Compliance is measured as part of the Health Quality & Safety Commission's (the Commission's) Hand Hygiene New Zealand (HHNZ) programme.

The HHNZ programme is one of two current programmes that are part of the Commission's infection prevention and control (IPC) programme. These targeted improvement initiatives aim to reduce the harm and cost of healthcare associated infections within New Zealand's health and disability sector.

The HHNZ programme uses the World Health Organization's (WHO's) '5 moments for hand hygiene' framework to drive culture change and establish best hand hygiene practice for every patient, every time.

Achievements in this audit period

- Modifications to the auditing requirements came into effect.
- National compliance was 84.9 percent compared with 85.1 percent in the previous audit period.
- Twelve DHBs achieved at or above the national target of 80 percent compared with 16 in the previous audit period.
- Fourteen DHBs met or were less than 100 moments short of the minimum requirement of moments.

Auditing requirements updated to ensure sustainability

Over the past two years, the HHNZ programme has focused on spread of auditing and improvement throughout all clinical areas so hand hygiene is consistent across all public hospitals. Spreading and sustaining the improvements already achieved in hand hygiene practice is essential to prevent healthcare associated infections and respond to the growing threat of infections caused by multi-drug resistant micro-organisms.

As of 1 July 2019, modifications to some of the auditing requirements have been made. These are related to continuously auditing across all clinical areas throughout each audit period and amending the number of minimum moments required, per hospital ward, per audit period.

Thank you for your continued dedication to hand hygiene compliance across New Zealand hospitals. If you have any questions about the updated auditing requirements, please email HHNZ@hqsc.govt.nz.

Hand hygiene auditing periods

We distributed a survey in July 2019 asking hand hygiene coordinators and gold auditor trainers if they would prefer the audit periods to change to either three four-month or four three-month periods or remain with the current three-, four- and five-month periods. Feedback from stakeholders indicated that three equal audit periods would suit most HHNZ participants. This potential change was discussed and approved by the Strategic Infection Prevention and Control Advisory Group (SIPCAG) in August 2019. The amended audit periods are now July–October, November–February, March–June.

The HHNZ auditing manual has been updated to reflect all these changes and can be found at www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/3762.

Useful resources

[Presentations from the HHNZ workshop \(2017\)](#)

[HHNZ auditing manual \(2019\)](#)

[Other HHNZ resources](#)

National hand hygiene compliance data: 1 July 2019 to 31 October 2019

The nationally aggregated hand hygiene compliance rate for this measurement period was 84.9 percent. The national average performance by DHB was similar, at 82.3 percent. The average rate gives equal weighting to each DHB's result, regardless of size, whereas the aggregate rate is more affected by the performance of large DHBs. The fact that the two rates are within three percentage points indicates performance rates between large and small DHBs are very similar.

Table 1: National aggregated hand hygiene compliance, 1 July 2019 to 31 October 2019

Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
64,027	75,435	84.9%	84.6%	85.1%

Table 2: National compliance rates by DHB, 1 July 2019 to 31 October 2019

DHB	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Auckland DHB	9,927	11,551	85.9%	85.3%	86.6%
Bay of Plenty DHB	1,605	2,018	79.5%	77.7%	81.2%
Canterbury DHB*	3,683	4,485	82.1%	81.0%	83.2%
Capital & Coast DHB	2,719	3,197	85.0%	83.8%	86.2%
Counties Manukau Health	13,729	16,147	85.0%	84.5%	85.6%
Hauora Tairāwhiti	606	792	76.5%	73.4%	79.3%
Hawke's Bay DHB	1,691	1,891	89.4%	88.0%	90.7%
Hutt Valley DHB*	1,019	1,212	84.1%	81.9%	86.0%
Lakes DHB	785	1,000	78.5%	75.8%	80.9%
MidCentral DHB	1,308	1,715	76.3%	74.2%	78.2%
Nelson Marlborough DHB	1,327	1,676	79.2%	77.2%	81.1%
Northland DHB*	1,295	1,523	85.0%	83.1%	86.7%
South Canterbury DHB	464	604	76.8%	73.3%	80.0%
Southern DHB	2,327	2,820	82.5%	81.1%	83.9%
Taranaki DHB*	223	302	73.8%	68.6%	78.5%
Waikato DHB*	2,657	3,355	79.2%	77.8%	80.5%
Wairarapa DHB	236	264	89.4%	85.1%	92.6%
Waitematā DHB	17,211	19,435	88.6%	88.1%	89.0%
West Coast DHB	676	827	81.7%	79.0%	84.2%
Whanganui DHB*	539	621	86.8%	83.9%	89.2%

* DHB more than 100 moments short of the minimum requirement for this audit period.

Please note: Due to the change in requirements, the minimum number of moments for each DHB is based on the number of areas (departments or wards) and the total number of beds for each hospital. The information for this, currently held by HHNZ, will be reviewed to ensure accuracy prior to the next compliance report.

Table 3: Hand hygiene compliance by geographic region, 1 July 2019 to 31 October 2019

Region	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Northern	42,162	48,656	86.7%	86.3%	87.0%
Midland	5,876	7,467	78.7%	77.7%	79.6%
Central	7,512	8,900	84.4%	83.6%	85.1%
South Island	8,477	10,412	81.4%	80.7%	82.2%

Table 4: Compliance by moment, 1 July 2019 to 31 October 2019

Moment	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
1. Before touching a patient	18,083	22,337	81.0%	80.4%	81.5%
2. Before procedure	7,323	8,365	87.5%	86.8%	88.2%
3. After a procedure or body fluid exposure risk	9,468	10,270	92.2%	91.7%	92.7%
4. After touching a patient	19,707	22,117	89.1%	88.7%	89.5%
5. After touching a patient's surroundings	9,446	12,346	76.5%	75.8%	77.3%

Table 5: Department compliance rates, 1 July 2019 to 31 October 2019

Department type	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Acute aged care	1,970	2,222	88.7%	87.3%	89.9%
Ambulatory care	1,415	1,662	85.1%	83.3%	86.8%
Critical care unit	4,409	5,310	83.0%	82.0%	84.0%
Emergency department	3,384	4,225	80.1%	78.9%	81.3%
Maternity	1,947	2,276	85.5%	84.0%	86.9%
Medical	14,902	17,790	83.8%	83.2%	84.3%
Mental health	1,250	1,335	93.6%	92.2%	94.8%
Mixed	1,667	2,049	81.4%	79.6%	83.0%
Neonatal care	2,712	3,012	90.0%	88.9%	91.1%
Oncology/haematology	2,284	2,554	89.4%	88.2%	90.6%
Other	3,032	3,629	83.5%	82.3%	84.7%
Paediatrics	4,018	4,480	89.7%	88.8%	90.5%
Perioperative	2,216	2,889	76.7%	75.1%	78.2%
Radiology/radiation oncology	617	720	85.7%	82.9%	88.1%
Renal	5,867	6,644	88.3%	87.5%	89.1%
Sub-acute	13	23	56.5%	36.8%	74.4%
Surgical	12,324	14,615	84.3%	83.7%	84.9%

Table 6: Health care worker compliance rates, 1 July 2019 to 31 October 2019

Health care worker	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Administrative and clerical staff	177	257	68.9%	63.0%	74.2%
Allied health care worker	2,841	3,334	85.2%	84.0%	86.4%
Cleaner and meal staff	719	1,077	66.8%	63.9%	69.5%
Health care assistant	6,144	7,449	82.5%	81.6%	83.3%
Medical practitioner	8,299	10,725	77.4%	76.6%	78.2%
Nurse/midwife	39,180	44,587	87.9%	87.6%	88.2%
Other – orderly and not categorised elsewhere	1,109	1,684	65.9%	63.6%	68.1%
Phlebotomy invasive technician	2,319	2,509	92.4%	91.3%	93.4%
Student allied health	188	223	84.3%	79.0%	88.5%
Student doctor	336	439	76.5%	72.4%	80.3%
Student health care assistant	2	2	100.0%	34.2%	100.0%
Student nurse/midwife	2,713	3,149	86.2%	84.9%	87.3%

Hand hygiene compliance in glove use

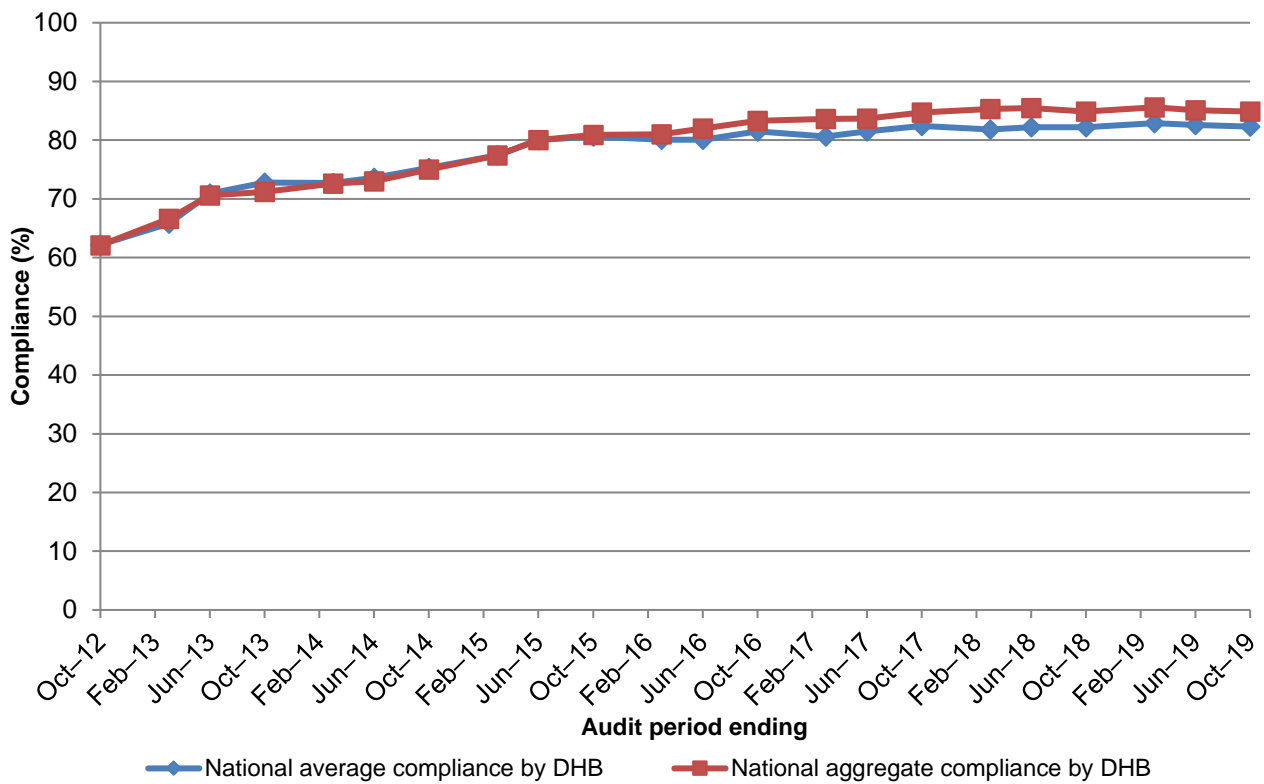
Inappropriate use of non-sterile gloves remains a barrier to excellent hand hygiene practice.

The latest glove statistics are:

- when gloves are taken OFF, the proportion of hand hygiene opportunities missed was 5.9 percent compared with 5.4 percent in the June 2019 audit period
- when gloves are put ON, the proportion of hand hygiene opportunities missed was 13.7 percent compared with 12.6 in the June 2019 audit period
- of all moments where glove use is recorded, health care workers failed to complete hand hygiene 11.8 percent of the time compared with 11.4 percent in the June 2019 audit period.

National hand hygiene compliance over time

Figure 1: Trends in national aggregate and average hand hygiene compliance, October 2012 to October 2019



National target

The national target for hand hygiene compliance has increased over time, as the programme has successfully gained traction in DHBs. The target was set at 64 percent in June 2012, 70 percent in June 2013, 75 percent in June 2014 and 80 percent in June 2015. The programme is now focused on spreading and embedding good hand hygiene practice to support sustained increases in compliance across DHBs.

Figure 2: Compliance over time by DHB, July 2012 to October 2019

Auckland	70	75	75	76	77	76	76	79	78	81	83	84	84	84	85	86	85	85	86	86	86	86
Bay of Plenty	43	59	67	65	75	80	77	77	80	83	83	82	78	81	81	85	83	83	81	76	76	80
Canterbury	60	65	67	68	68	67	62	73	77	78	78	78	79	83	81	80	81	82	81	82	83	82
Capital & Coast	60	62	75	71	75	75	76	72	79	81	80	78	82	79	76	84	82	80	82	83	84	85
Counties Manukau Health	59	70	72	75	72	74	77	81	78	77	81	83	81	84	84	85	87	87	87	87	88	85
Hauora Tairāwhiti	74	73	79	78	81	70	72	69	72	73	73	73	69	72	71	71	64	66		72	72	77
Hawke's Bay	54	65	73	72	70	72	81	81	85	86	90	87	88	89	87	88	89	85	87	88	85	89
Hutt Valley	47	62	73	82	61	50	60	66	78	78	80	80	80	80	82	80	78	79	81	83	86	84
Lakes	62	64	71	68	74	79	86	80	82	77	73	82	80	82	81	84	82	77	81	82	80	79
MidCentral	65	72	70	72	66	72	72	76	78	75	75	81	81	79	81	79	75	79	78	79	81	76
Nelson Marlborough	50	55	64	67	70	71	75	74	80	81	75	76	81	78	81	79	80	81	85	88	79	79
Northland	77	73	68	76	69	66	76	80	84	83	86	87	88	86	87	84	87	88	88	88	88	85
South Canterbury	60	54	63	72	75	86	78	84	84	80	72	67	80	66	76	79	75	82	83	84	83	77
Southern	63	62	59	69	72	75	76	78	85	86	85	83	86	83	86	82	82	82	81	81	83	83
Taranaki	65	64		83	71	68	60	69	77	77	84	78	78	70	72	73	82	78	66	70	70	74
Waikato	67	60	72	66	71	76	79	77	82	79	83	86	87	84	85	82	84	83	78	79	80	79
Wairarapa	71	68	77	78	82	81	80	79	80	81	79	87	81	81	82	93	90	87	82	91	90	89
Waitematā	62	73	74	71	75	79	80	80	80	85	81	83	85	86	86	88	89	90	89	89	90	89
West Coast	66	66	73	71	72	77	80	81	83	86	78	81	79	80	82	79	78	82	81	84	86	82
Whanganui	70	74	75	77	78	79	83	82	84	85	84	84	84	85	86	87	86	88	84	85	86	87
New Zealand	62	67	71	71	73	73	75	77	80	81	81	82	83	84	84	85	85	85	85	86	85	85
	Jul-Oct 2012	Nov 2012-Mar 2013	Apr-Jun 2013	Jul-Oct 2013	Nov 2013-Mar 2014	Apr-Jun 2014	Jul-Oct 2014	Nov 2014-Mar 2015	Apr-Jun 2015	Jul-Oct 2015	Nov 2015-Mar 2016	Apr-Jun 2016	Jul-Oct 2016	Nov 2016-Mar 2017	Apr-Jun 2017	Jul-Oct 2017	Nov 2017-Mar 2018	Apr-Jun 2018	Jul-Oct 2018	Nov 2018-Mar 2019	Apr-Jun 2019	Jul-Oct 2019

■ Upper group
 ■ Middle group
 ■ Lower group

Upper group:	≥ 70 percent before quarter 3, 2014 ≥ 75 percent before quarter 3, 2015 ≥ 80 percent from quarter 3, 2015
Middle group:	percentage is 60 percent to target
Lower group:	percentage < 60 percent

Note: Colours may not accurately represent compliance as rates are rounded to the nearest whole number before colour groups are assigned.

Traffic light approach

The red–amber–green figures (Figures 3–5) use a ‘traffic light’ approach. A cell is coloured green if the 80 percent target was achieved, amber if within 5 percent of the target, and red if more than 5 percent from the target. Every year’s rate until 2018 has been averaged.

Figure 3: Change in national hand hygiene compliance over time by moment, July 2012 to October 2019

Key

< 75%	75–80%	≥ 80% target achieved
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Moment	2012	2013	2014	2015	2016	2017	Mar 18	Jun 18	Oct 18	Mar 19	Jun 19	Oct 19
Before touching a patient	55.5	64.7	69.1	75.6	78.1	79.9	80.9	81.9	80.7	82.0	81.4	81.00
Before a procedure	55.6	62.6	69.7	78.2	81.9	84.4	87.5	88.1	87.7	87.8	88.1	87.50
After a procedure or body fluid exposure risk	69.4	74.1	78.3	84.2	88.8	90.7	91.3	91.8	92.5	92.8	92.3	92.20
After touching a patient	71.9	76.5	80.0	85.9	87.1	88.7	89.8	89.5	88.4	89.4	89.3	89.10
After touching a patient's surroundings	54.9	64.6	69.0	75.7	76.6	77.9	78.7	78.3	78.6	78.0	76.5	76.5

Figure 4: Change in national hand hygiene compliance over time for health care workers, July 2012 to October 2019

Key

< 75%	75–80%	≥ 80% target achieved
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Health care worker	2012	2013	2014	2015	2016	2017	Mar 18	Jun 18	Oct 18	Mar 19	Jun 19	Oct 19
Allied health care worker	62.7	66.7	73.0	78.8	80.5	83.5	86.4	86.5	83.9	85.0	83.6	85.2
Health care assistant	61.5	71.7	74.1	76.4	79.2	81.4	83.8	84.1	83.8	83.2	83.6	90.8
Medical practitioner	55.0	60.1	64.5	72.7	75.5	75.5	77.5	78.5	78.2	79.6	77.5	77.4
Nurse/midwife	65.0	72.0	76.2	82.4	85.7	87.1	88.0	87.8	87.5	88.3	88.1	87.9
Phlebotomy invasive	70.4	74.7	81.5	81.6	88.2	89.6	90.3	90.5	90.2	90.9	91.1	92.4
Student allied health	46.7	65.2	70.3	79.7	83.1	80.9	86.5	84.7	80.4	86.0	84.0	84.3
Student doctor	42.6	53.7	63.9	78.9	77.6	79.9	67.2	71.7	75.5	77.8	82.7	76.5
Student nurse/midwife	61.2	69.0	70.6	78.4	82.1	83.5	83.9	86.2	84.8	83.6	82.5	86.2

Figure 5: Changes in national hand hygiene compliance by high-risk ward type, July 2012 to October 2019

Key

< 75%	75–80%	≥ 80% target achieved
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Ward type	2012	2013	2014	2015	2016	2017	Mar 18	Jun 18	Oct 18	Mar 19	Jun 19	Oct 19
Critical care	61.0	67.1	71.0	76.3	80.7	84.0	82.1	83.0	82.6	84.0	83.0	83.0
Emergency department	34.1	56.3	66.5	70.0	75.1	77.0	77.3	79.8	77.8	80.9	80.1	80.1
Neonatal intensive care	70.1	73.2	81.3	85.0	87.2	88.4	91.1	89.4	91.5	91.7	91.2	90.0
Oncology/haematology	68.7	72.2	78.2	84.3	88.3	87.0	86.5	86.9	87.4	87.6	88.1	89.4
Renal	64.7	73.5	79.7	81.3	87.0	88.6	90.2	90.3	89.0	89.8	87.9	88.3