



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

**National hand hygiene compliance report:
1 April 2017 to 30 June 2017**

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Introduction

This report presents results for national hand hygiene compliance by district health boards (DHBs) for the period 1 April 2017 to 30 June 2017.

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

The HHNZ programme is one of two programmes that are part of the Commission's infection prevention and control 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) '5 moments for hand hygiene' framework to drive culture change and establish best hand hygiene practice for every patient, every time.

Auckland DHB delivered the HHNZ programme on behalf of the Commission between 2011 and 2015. In February 2016 the programme was transitioned to the Commission.

Achievements in this audit period

- DHBs achieved the national hand hygiene compliance target of 80 percent set in June 2015 for the seventh consecutive audit period.
- Compliance among many health care worker categories continued to improve. Particularly pleasing is the continued improvement among nurses and midwives, and allied health care workers.
- There are continual improvements being made in the areas where patients at high risk of infection are cared for.
- Fifteen DHBs maintained or improved their compliance rate compared with the previous audit period.
- Sixteen DHBs achieved at or above the national target of 80 percent compared with fifteen in the previous audit period.

Continuing to drive improvement

A key focus for the HHNZ programme in 2017 is to encourage the spread of auditing and other improvement activities across the clinical areas in public hospitals. Spreading and sustaining the improvements already achieved in hand hygiene practice is essential to prevent healthcare associated infections and to respond to the growing threat of infections caused by multi-drug resistant microorganisms. A separate report will be sent to DHBs outlining the progress with spread in their organisation in August, once we are confident the data is accurate. This is the first time this has been prepared. In future reports this information will be included as an appendix starting with the November 2017 report.

The updated HHNZ auditing manual will be published in July.

World Hand Hygiene Day was on 5 May 2017. The theme this year was 'Fight antibiotic resistance – it's in your hands'. The day is coordinated by the World Health Organization. The theme of the day aligns with the aim of the HHNZ programme, which is to reduce healthcare associated infections and prevent the spread of antibiotic resistance microorganisms within health settings. DHBs celebrated the day in a number of innovative ways. The Commission will be publishing a summary of those submitted to us in August on our website.

Half-day hand hygiene workshop, 15 October 2017, Auckland

The HHNZ programme will be facilitating a half-day interactive workshop on building a strong platform for infection prevention as part of the Infection Prevention and Control (IPC) Nurses College Conference on 15 October 2017. The workshop coincides with the WHO global handwashing day and marks the start of international infection prevention week. You can register via the [IPCNC conference registration page](#).

Useful resources

[Frontline ownership having a positive impact on hand hygiene compliance](#)

[Frontline ownership workshop with Dr Michael Gardam](#)

[Additional HHNZ resources](#)

National hand hygiene compliance data: 1 April 2017 to 30 June 2017

The nationally aggregated hand hygiene compliance rate for this measurement period is 83.7 percent. The national average performance by DHB is similar at 81.5 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 that performance rates between large and small DHBs are very similar.

Table 1: Aggregated hand hygiene compliance, 1 April 2017 to 30 June 2017

Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
49,222	58,822	83.7%	83.4%	84.0%

Table 2: National compliance rates by DHB, 1 April 2017 to 30 June 2017

DHB	1 April 2017 to 30 June 2017			Lower 95% confidence interval	Upper 95% confidence interval
	Correct moments	Total moments	Compliance rate		
Hawke's Bay DHB	1872	2146	87.2%	85.8%	88.6%
Northland DHB	2296	2645	86.8%	85.5%	88.0%
Southern DHB	2520	2947	85.5%	84.2%	86.7%
Waitemata DHB	13,902	16,143	86.1%	85.6%	86.6%
Whanganui DHB	696	809	86.0%	83.5%	88.3%
Auckland DHB	7456	8784	84.9%	84.1%	85.6%
Waikato DHB	2846	3362	84.7%	83.4%	85.8%
Counties Manukau Health	4286	5128	83.6%	82.5%	84.6%
Hutt Valley DHB	1460	1787	81.7%	79.8%	83.4%
Wairarapa DHB	165	201	82.1%	76.2%	86.8%
West Coast DHB	400	486	82.3%	78.7%	85.4%
Bay of Plenty DHB	1711	2124	80.6%	78.8%	82.2%
Canterbury DHB	2557	3169	80.7%	79.3%	82.0%
Lakes DHB	795	985	80.7%	78.1%	83.1%
MidCentral DHB	1374	1697	81.0%	79.0%	82.8%
Nelson Marlborough DHB	1310	1613	81.2%	79.2%	83.0%
Capital & Coast DHB	1926	2532	76.1%	74.4%	77.7%
South Canterbury DHB	467	617	75.7%	72.2%	78.9%
Taranaki DHB	606	838	72.3%	69.2%	75.2%
Hauora Tairāwhiti	577	809	71.3%	68.1%	74.3%

Table 3: Hand hygiene compliance by geographic region, 1 April 2017 to 30 June 2017

Name	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Northern region	27,940	32,700	85.4%	85.1%	85.8%
Midland region	6535	8118	80.5%	79.6%	81.3%
Central region	7493	9172	81.7%	80.9%	82.5%
South Island region	7254	8832	82.1%	81.3%	82.9%

National compliance rates by each of the WHO ‘five moments for hand hygiene’

Table 4: Compliance by moment, 1 April 2017 to 30 June 2017

Moment	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
1. Before touching a patient	13,814	17,292	79.9%	79.3%	80.5%
2. Before procedure	4885	5870	83.2%	82.2%	84.2%
3. After a procedure or body fluid exposure risk	6991	7742	90.3%	89.6%	90.9%
4. After touching a patient	15,475	17,491	88.5%	88.0%	88.9%
5. After touching a patient's surroundings	8057	10,427	77.3%	76.5%	78.1%

National compliance rates by health care worker category

Table 5: Health care worker compliance rates, 1 April 2017 to 30 June 2017

Health care worker	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Phlebotomy invasive technician	1922	2122	90.6%	89.3%	91.7%
Nurse/midwife	30,633	35,273	86.8%	86.5%	87.2%
Student allied health	122	145	84.1%	77.3%	89.2%
Allied health care worker	2244	2693	83.3%	81.9%	84.7%
Student nurse/midwife	1934	2367	81.7%	80.1%	83.2%
Health care assistant	4018	5030	79.9%	78.8%	81.0%
Administrative and clerical staff	140	176	79.5%	73.0%	84.8%
Student doctor	234	302	77.5%	72.4%	81.8%
Medical practitioner	6681	8905	75.0%	74.1%	75.9%
Cleaner and meal staff	669	928	72.1%	69.1%	74.9%
Other (orderly and not categorised elsewhere)	623	879	70.9%	67.8%	73.8%

Hand hygiene compliance in glove use

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

However, it is good to see that ongoing improvement in better glove use and hand hygiene performance has continued during this measurement period: before gloves are put on, when they are taken off and at the appropriate times during patient care.

The latest glove statistics are as following.

- When gloves are **taken off**, the proportion of hand hygiene opportunities missed was 6.4 percent compared with 6.2 percent in the March 2017 audit.
- When gloves are **put on**, the proportion of hand hygiene opportunities missed was 17.2 percent compared with 17.8 percent in the March 2017 audit.
- Of all moments where glove use is recorded, health care workers failed to complete hand hygiene 14.4 percent of the time, compared to 15.0 percent in the March 2017 audit.

Figure 1: Trends in national aggregate and average hand hygiene compliance, October 2012 to June 2017

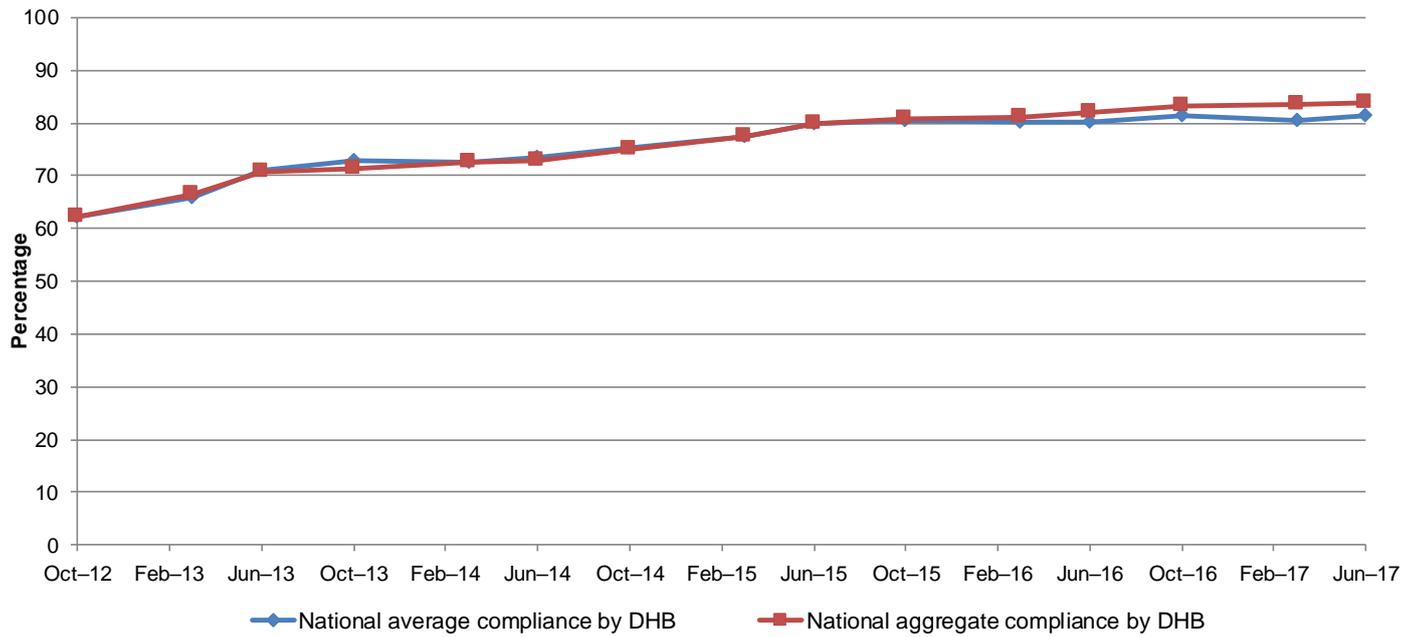
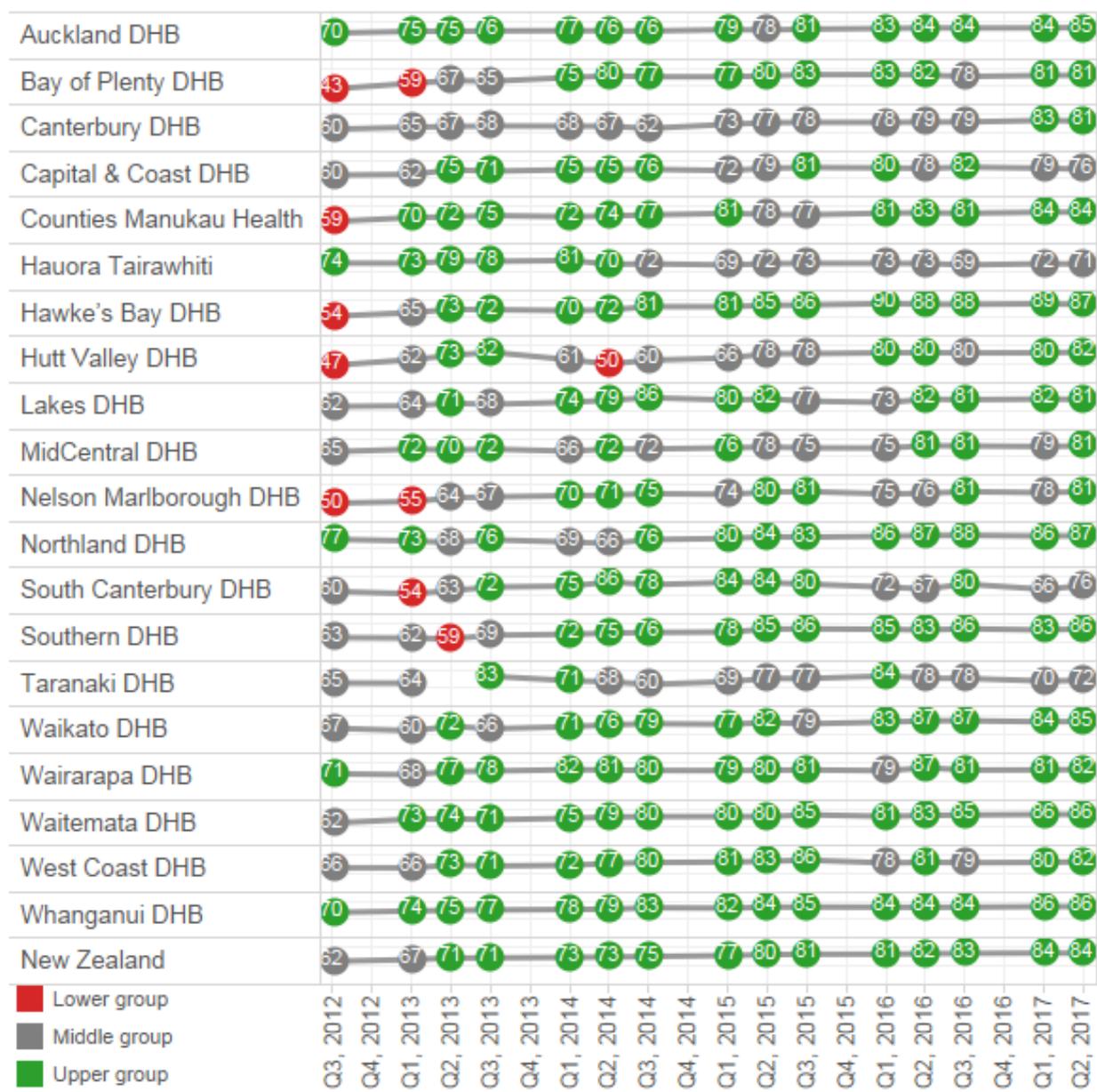


Figure 2: Compliance over time by DHB, October 2012 to June 2017

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.



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

Hand hygiene national compliance data is reported on three times per annum, therefore no data point is shown specifically for the fourth quarter in any year.

The bar graphs representing hand hygiene compliance by moment, health care worker type and high-risk ward, have been replaced with a RAG (red, amber, green) table using a 'traffic light' approach (Figure 3 to Figure 5). A cell is coloured green if the 80 percent target was achieved, amber if within five percent of the target, and red if more than five percent from the target.

Figure 3: Change in national hand hygiene compliance over time by moment, October 2012 to June 2017

Key
< 75% 75–80% ≥80% target achieved

Moment	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17	Jun-17
Before touching a patient	55.5	61.8	66.0	66.4	68.0	68.8	70.6	73.3	76.0	77.6	76.1	78.4	79.8	79.3	79.9
Before procedure	55.6	60.5	61.4	65.9	70.3	68.5	70.2	75.5	78.7	80.5	80.5	82.0	83.3	83.2	83.2
After a procedure or body fluid exposure risk	69.4	73.1	73.8	75.4	79.0	76.9	79.0	82.5	85.1	85.0	88.7	87.7	90.0	90.6	90.3
After touching a patient	71.9	74.2	77.7	77.6	78.5	79.3	82.3	87.3	84.9	85.6	86.2	87.4	87.6	88.6	88.5
After touching a patient's surroundings	54.9	60.7	65.2	68.0	67.6	69.2	70.1	76.2	74.7	76.1	75.3	77.4	77.0	77.7	77.3

Figure 4: Change in national hand hygiene compliance over time for health care workers, October 2012 to June 2017

A. Nurse/midwife, medical practitioner, allied health care worker and phlebotomy invasive technician

Key
< 75% 75–80% ≥80% target achieved

Health care worker	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17	Jun-17
Nurse/midwife	65.0	69.4	72.4	74.1	75.3	75.7	77.7	80.5	83.1	83.5	84.4	86.0	86.6	87.0	86.8
Medical practitioner	55.0	56.6	61.4	62.2	62.5	63.8	67.3	69.4	72.3	76.4	74.2	76.0	76.3	75.0	75.0
Allied health care worker	62.7	66.2	65.3	68.5	72.8	72.2	74.1	76.2	76.9	83.4	79.0	81.0	81.5	84.0	83.3
Phlebotomy invasive technician	70.4	73.0	76.3	74.9	84.9	76.1	83.6	80.9	79.1	84.8	88.9	87.0	88.7	88.0	90.6

B. Health care assistant, student doctor, student allied health worker and student nurse/midwife

Key

< 75%	75–80%	≥80% target achieved
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	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17	Jun-17
Health care worker															
Health care assistant	61.5	69.8	75.2	70.0	73.0	74.9	74.3	74.7	77.9	76.7	76.9	80.0	80.6	81.0	79.9
Student doctor	42.6	46.6	62.5	52.1	61.2	57.5	72.9	76.3	81.2	79.2	75.8	78.0	78.9	82.0	77.5
Student allied health	46.7	68.2	61.7	65.6	69.5	70.1	71.4	74.7	84.6	79.7	80.7	84.0	84.7	79.0	84.1
Student nurse/midwife	61.2	68.4	68.5	70.1	72.5	69.1	70.3	76.8	78.4	79.9	82.6	82.0	81.6	84.0	81.7

Figure 5: Changes in national hand hygiene compliance by high-risk ward type, October 2012 to June 2017

Key

< 75%	75–80%	≥80% target achieved
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Ward type	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17	Jun-17
Critical care	61.0	63.8	68.3	69.3	71.0	71.1	71.0	74.0	77.0	78.0	79.6	80.4	82.1	83.0	83.9
Neonatal intensive care	70.1	74.8	69.2	75.7	81.1	81.7	81.0	84.0	85.0	86.0	86.8	88.2	86.6	88.5	87.1
Oncology/ haematology	68.7	70.0	72.8	73.7	75.6	75.9	83.0	82.0	84.0	87.0	87.0	87.6	90.3	86.6	87.9
Renal	64.7	72.4	73.0	75.1	79.0	80.2	80.0	82.0	81.0	81.0	86.7	85.9	88.3	88.4	87.8
Emergency department	34.1	46.8	60.5	61.5	62.8	63.7	73.0	69.0	67.0	74.0	73.2	74.6	77.5	78.6	76.1