

New Zealand hand hygiene programme: Requirements to sustain improvement in a changing environment

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Introduction

- Since 2011 the Hand Hygiene New Zealand (HHNZ) programme has been in place across all 20 publicly funded district health boards (DHBs).
- The World Health Organization's '5 moments for hand hygiene' was adopted and the programme took a multi-modal approach with a strong emphasis on regular audits (thrice-yearly) and collection of monitoring information.
- HHNZ provided several core functions: clinical leadership, coordination, communication expertise, training of auditors and reporting.
- National reporting of hand hygiene compliance started in June 2012. The Commission's board set increasing targets and from 2015 the target has been $\geq 80\%$.
- A formal external review of the programme in 2014 estimated the public health system to be spending around NZ\$3 million per year on the HHNZ programme. Theoretical calculations based on New Zealand data suggested avoided costs of upward of NZ\$13 million per year.
- In 2016 it was considered that the necessary structure was in place for HHNZ to be self-sustaining within each DHB and the funding was reduced.

Objectives

To determine the challenges for sustaining the HHNZ programme at a local and regional level and to better understand the essential requirements to sustain a successful national hand hygiene programme.

Methods

1. Qualitative data was collected during the following activities:

- 2017 - Information shared by DHB hand hygiene coordinators during Commission-led webinars.
- October 2017 - New Zealand Nursing Organisation IPC conference:
 - Workshop - HHNZ: Where have we been and where are we going?
- 2017-18 - Regional IPC meetings attended by DHB and Commission IPC teams.
- 2018 - 1:1 interviews between HHNZ and DHB hand hygiene coordinators.
 - Compliance data, best practices and barriers to spread of hand hygiene auditing and improvement across all clinical areas.
- May 2018 - National IPC workshop.
 - Putting Prevention First: Leadership and action on preventing healthcare-associated infections.
- March 2019 - Auditor training and 'train the trainer' training provided by Hand Hygiene Australia.
 - Participant evaluations.

2. Hand hygiene database was reviewed.

Results

Clinical leadership

- Senior clinical leadership at a local and a national level was seen as very important to sustain improvement in hand hygiene performance.
- National activities, such as World Hand Hygiene Day and Patient Safety Week, supported local engagement.
- Provided a resource for smaller DHB with no onsite infectious diseases support.

Coordination

- The national hand hygiene coordinator was seen as a key support person:
 - Provided support for day-to-day activities such as use of the HHA app.
 - Supported auditor training and validation at a national, regional and local level.
- Supported smaller DHBs where loss of key staff significantly impacted on sustainability.
- Promoted DHB best practice and campaigns across New Zealand through newsletters, 1:1 discussions and meeting presentations.
- Developed national multi-language hand hygiene resources used across health settings (eg, posters, stickers, email signatures).

Communication expertise

- Provided regular updates and supported communication among DHB teams.
- Provision of promotional material for World Hand Hygiene Day activities.

Training of auditors

- The four regional DHB networks (Northern, Midland, Central and South Island) were expected to support auditor training but the success of the networks was variable.
- Outside of the larger urban centres, release of time and the cost of travel to provide auditor training were challenging.
- There was a limited number of auditor training days per year which were often over-subscribed.
- Of the 196 auditors trained in 2017, only 51% completed the annual validation requirements the following year.

Reporting

- Thrice-yearly public reporting of DHB compliance with hand hygiene maintained a focus on the programme at an organisational level.

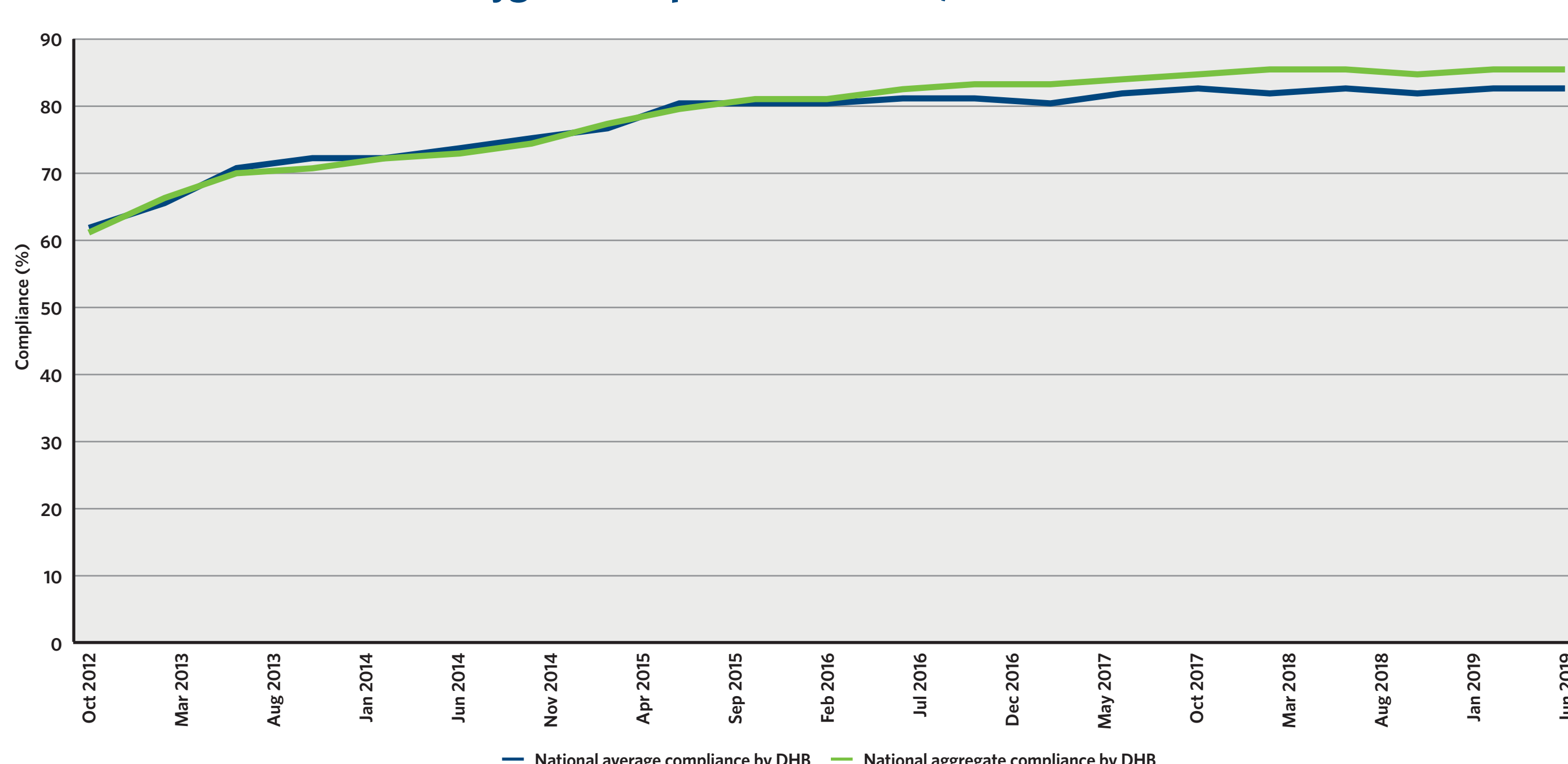


Compliance over time by DHB, July 2012-June 2019

District health board (DHB)	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
Auckland DHB	70	75	75	76	77	76	76	79	78	81	83	84	84	84	85	86	85	85	86	86	86
Bay of Plenty DHB	43	59	67	65	75	80	77	77	80	83	83	82	78	81	81	85	83	83	81	76	76
Canterbury DHB	60	65	67	68	68	67	62	73	77	78	78	79	83	81	80	81	82	81	82	83	83
Capital & Coast DHB	60	62	75	71	75	75	76	72	79	81	80	78	82	79	76	84	82	80	82	83	84
Courties Manukau Health	59	70	72	75	72	74	77	81	78	77	81	83	81	84	84	85	87	87	87	87	88
Hauora Tairāwhiti	74	73	79	78	81	70	72	69	72	73	73	69	72	71	71	64	66	ND	72	72	72
Hawke's Bay DHB	54	65	73	72	70	72	81	81	85	86	90	87	88	89	87	88	89	85	87	88	85
Hutt Valley DHB	47	62	73	82	61	50	60	66	78	78	80	80	80	80	82	80	78	79	81	83	86
Lakes DHB	62	64	71	68	74	79	86	80	82	77	73	82	80	82	81	84	82	77	81	82	80
MidCentral DHB	65	72	70	72	66	72	72	76	78	75	75	81	81	79	81	79	75	79	78	79	81
Nelson Marlborough DHB	50	55	64	67	70	71	75	74	80	81	75	76	81	78	81	79	80	81	85	88	79
Northland DHB	77	73	68	76	69	66	76	80	84	83	86	87	88	86	87	84	87	88	88	88	88
South Canterbury DHB	60	54	63	72	75	86	78	84	84	80	72	67	80	66	76	79	75	82	83	84	83
Southern DHB	63	62	59	69	72	75	76	78	85	86	85	83	86	83	86	82	82	82	81	81	83
Taranaki DHB	65	64	ND	83	71	68	60	69	77	77	84	78	78	70	72	73	82	78	66	70	70
Waikato DHB	67	60	72	66	71	76	79	77	82	79	83	86	87	84	85	82	84	83	78	79	80
Wairarapa DHB	71	68	77	78	82	81	80	79	80	81	79	87	81	81	82	93	90	87	82	91	90
Waitematā DHB	62	73	74	71	75	79	80	80	80	85	81	83	85	86	86	88	89	90	89	89	90
West Coast DHB	66	66	73	71	72	77	80	81	83	86	78	81	79	80	82	79	78	82	81	84	86
Whanganui DHB	70	74	75	77	78	79	83	82	84	85	84	84	84	85	86	87	86	88	84	85	86
New Zealand	62	67	71	71	73	73	75	77	80	81	81	82	83	84	84	85	85	85	85	86	85

Upper group	$\geq 70\%$ before July 2014 $\geq 75\%$ before November 2014 $\geq 80\%$ from November 2014
Middle group	Percentage is 60% to target
Lower group	Percentage is $< 60\%$
ND	No data reported

National hand hygiene compliance over time, October 2012-June 2019



Conclusion

Key elements required to support the ongoing sustainability of the programme:

- Public-facing reporting of DHB performance.
- Central oversight of the auditing process to ensure:
 - consistent process for training of auditors
 - annual validation requirements are met.
- Effective communication with DHB hand hygiene coordinators to retain engagement and provide support via:
 - online meetings
 - face-to-face meetings linked to other activities.
- Clinical leadership at local and national levels is essential.