

**Ngā Poutama Oranga Hinengaro:  
Quality in Context  
survey of mental health and  
addiction services**

**Technical report**

**December 2018**

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## Document purpose

This is a technical report to accompany the results of the national survey – Ngā Poutama Oranga Hinengaro: Quality in Context in mental health and addiction services. The survey was conducted in August 2018 by the Health Quality & Safety Commission to inform the future direction and focus of MHA quality improvement initiatives.

For more information, please go to: [www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/projects/quality-in-context](http://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/projects/quality-in-context).

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## Methodology at a glance

The following table gives an overview of the key methodological aspects of Ngā Poutama Oranga Hinengaro: Quality in Context survey of mental health and addiction services.

<b>Target population</b>	People working in publicly funded mental health and addiction (MHA) services in New Zealand, including: <ul style="list-style-type: none"> <li>• district health board (DHB) inpatient and community services</li> <li>• non-governmental organisation (NGO) services (Vote Health funded)</li> <li>• primary mental health care (excluding general practitioners (GPs))</li> </ul> Older adult mental health services were also included in the above.
<b>Sample size</b>	The final sample size was 2,564 people. This includes 2,342 fully completed responses plus 222 partial responses where the participant completed to the end of the culture questions.
<b>Response rate</b>	Estimated 19 percent
<b>Survey period</b>	1–31 August 2018
<b>Survey mode</b>	Online questionnaire, with options for paper-based or telephone interviews on request
<b>Invitation to participate</b>	Invitations to take part in the survey were sent through points of contact in the sector. There was extensive universal and targeted follow-up and promotion of the survey throughout August 2018 to maximise response rates and representation of the sector.
<b>Survey content</b>	Questions related to quality and safety organisational culture in mental health and addiction services.
<b>Survey framework</b>	The framework for the survey content fits under the following four domains (adapted from the Health Quality & Safety Commission's (the Commission's) <a href="#">Clinical governance: Guidance for health and disability providers</a> ): <ol style="list-style-type: none"> <li>1. Consumer engagement and participation</li> <li>2. Clinical effectiveness</li> <li>3. Quality improvement and consumer safety</li> <li>4. Engaged, effective workforce.</li> </ol>
<b>Question development</b>	The survey content was developed from sub-domains within the four framework domains. It had significant peer review from a range of sector experts. The survey questions aligning to the sub-domains were then tested and refined through a rigorous cognitive testing process.
<b>Question reporting scale</b>	The quality and safety organisational culture questions were asked against a 1–7 Likert scale, ranging from 'Strongly disagree' to 'Strongly agree', with 'Don't know' and 'Not applicable' options. For reporting, the Likert scale responses were converted to 1–3 = negative; 4–5 = neutral; 6–7 = positive. The percentage of positive responses to each culture question was reported. 'Not applicable' responses were excluded from the denominator in these calculations, and 'Don't know' responses were included.
<b>Data cleaning</b>	The survey responses were checked for any data errors, potential duplicates or inclusion of people outside the target population. Three survey responses were removed during this data cleaning process.
<b>Data analysis</b>	Weighting was not applied when analysing the data. A measure of statistical variability, the margin of error, is provided. Any comparisons between groups was tested for statistical significance.

# Methodology

## *Research approach*

This was an online survey conducted with people working in publicly funded MHA services in New Zealand, including:

- DHB inpatient services and community services
- NGO services (Vote Health funded)
- primary mental health care (excluding GPs)

Older adult mental health services were also included in the above.

Potential respondents were offered the option of completing the survey on paper or by telephone if the online format was not suitable. One query was received regarding the paper-based option however the final data set consisted of online responses only.

## *Final sample size*

The total sample size was 2,564. This included 2,342 fully and 222 partially completed surveys.

Partially completed surveys included in the final data set were those where all of the quality and safety culture measurement questions were answered but not necessarily the final section of demographic questions.

**Table 1: Final sample size – DHB, NGO and primary health care**

Category	N	Percentage (%)
DHB inpatient services	542	21
DHB community services	1,175	46
NGO	753	29
Primary health care	94	4
<b>Total</b>	<b>2,564</b>	<b>100</b>

# Questionnaire design

## ***Framework***

A framework for the survey content (see [Appendix 1](#)) was adapted from the four domains of the Commission's [clinical governance framework](#):

1. Consumer engagement and participation
2. Clinical effectiveness
3. Quality improvement and consumer safety
4. Engaged, effective workforce.

## ***Peer review process***

Significant peer review was undertaken with a range of internal and external reviewers to develop sub-domains within this framework. The sub-domains were then converted into survey questions. The initial wording of the questions drew on a range of international culture surveys and surveys run previously by the Commission. New questions were also needed.

The peer review process resulted in the identification of 33 quality and safety organisational culture questions and demographic questions which were then tested through two rigorous cognitive testing phases.

## ***Cognitive testing***

There were two phases of cognitive testing:

1. Core cognitive testing phase
2. Confirmatory testing phase.

The first phase involved testing all the questions with 37 MHA staff volunteers from across the sector to identify any wording changes needed, along with any clarity and interpretation issues. The Commission also hoped the testing phase would help to identify a shorter set of 16–20 questions for the final survey.

The second testing phase involved 16 MHA staff members, half of whom had already been interviewed during the core cognitive testing phase. The purpose of the second phase was to check and confirm the final survey changes with previous interviewees, and to test the final survey with MHA staff who had not previously given feedback (ie, participants who were seeing the survey for the first time as would be the case when it was formally launched to the MHA sector).

The questions were also tested on wider health professionals to gauge the suitability of the culture survey questions for other surveys run by the Commission. Twenty-five wider health professionals were included in both testing phases.

## **Recruitment of participants**

To include a good cross-section of MHA staff, the MHA quality improvement programme leadership group were asked to identify two volunteers each from their organisations. Other volunteers were also invited to take part, using existing Commission networks. The new participants included in the confirmatory testing phase (half of participants) were a mix of colleagues of previous interview

participants who had not yet seen the survey, and those sourced directly by Mobius Ltd, who conducted the survey on behalf of the Commission.

## Participant profile

**Table 2: Cognitive testing MHA staff participant profile – core cognitive testing phase**

Participant breakdown	N
<b>Māori/non-Māori</b>	
Māori	14
Non-Māori	26
	<b>40</b>
<b>Organisation</b>	
DHB	23
NGO	13
Primary health care	4
	<b>40</b>
<b>Role</b>	
Nurse	8
Allied health (suicide prevention, CEP clinician)	2
Social worker	3
Specialist advisor	1
Psychologist	2
Patient safety officer	1
Peer support	3
Whānau support	1
Community support	3
Cultural advisor	1
Manager/team leader	5
Clinician (doctors)	4
Quality improvement	1
Counsellor	1
GPs (1 interview was a group discussion of 4 GPs – counted as 1 interview)	4
	<b>40</b>
<b>Region</b>	
Northern (includes Waikato)	26
Midland	2
Central	6
South Island	6
	<b>40</b>

CEP = co-existing problems

The 16 participants taking part in the confirmatory testing phase were, as much as was possible, a mix of the above.

## **Cognitive testing process**

The cognitive testing process was iterative in nature, with changes made to the questions throughout and in consultation with the Commission once consistent feedback had begun to be received. Early and consistent feedback related to terminology (eg, the use of the word 'service' rather than 'organisation'), question duplication and clarity of wording. The iterative approach meant that timely interim recommendations could be made before continuing with the next set of interviews. Changes to the survey questions were made at four key stages – after an initial nine interviews, again after a further nine, and so on. At the end of the first 37 interviews a final set of 22 quality and safety culture survey questions were identified, and these were tested as part of the confirmatory phase. Minor wording changes were made based on feedback. The cognitive testing process did not identify any changes needed to question content. Participants agreed the question content developed through the rigorous peer review process was relevant to their role and the sector overall.

Interviews were an hour long and conducted face-to-face where possible (in Auckland, Waikato and Invercargill) and by phone in other locations or if a phone interview was preferred by a participant. Where interviews were conducted in person, participants did not receive a copy of the questions beforehand. In-person participants were asked to complete the survey at the time of the interview, which also allowed for observational analysis. Phone participants were sent a copy of the survey (online as an MS Word document) the day before the scheduled interview. Some participants completed the survey prior to the interview and others preferred to complete it at the time of the interview. Many participants who completed the survey beforehand made notes about their experience and about question wording and clarity, which they used during the interview.

Online, phone and paper-based versions of the survey were tested. The final survey consisted of 22 quality and safety culture questions, two open-ended questions and nine core demographic questions (some with additional sub-questions). The 22 quality and safety culture questions were asked using a 1–7 scale of agreement where 1 = 'Strongly disagree' and 7 = 'Strongly agree'. Participants could also select 'Not applicable' or 'Don't know'.

# Data collection

## ***Survey programming and invitations***

The survey was programmed in Verint (online survey software used by Mobius).

Invitations to participate in the survey were sent out through cascading key points of contact, including MHA portfolio managers, MHA general managers and their executive assistants, and other senior staff. MHA portfolio managers were also initially asked to forward on a short, separate questionnaire to their key contacts in NGOs and primary mental health care, asking for survey points of contacts within those organisations. The points of contact identified through this process were then also asked to cascade the survey. All cognitive interview participants were invited to take part and emailed a survey link directly.

A prize draw of three team morning teas was offered as a way of acknowledging respondents' time in completing the survey.

## **Survey period**

The survey went live on 1 August 2018 and closed on 31 August 2018.

## **Survey materials**

A3 and A4 posters were provided to the key points of contact with the survey invitation. The posters provided background information about the nature and purpose of the research, and how the results were going to be used. They also reiterated anonymity of responses and provided an email address and 0800 number for a Mobius director for any questions or technical issues, or to request a paper version of the survey or a telephone interview.

## **Reminders and follow-up**

Two reminders were sent out via the key points of contact mentioned above. The first reminder was sent out halfway through the data collection period. A final reminder was sent out early in the week commencing 27 August (one week before the survey closed). Several follow-ups were also made through a range of targeted and universal strategies, including:

- existing email networks of MHA quality improvement programme, Māori Advisory Group, etc
- colleges, New Zealand Nurses Organisation, Public Service Association, etc
- *New Zealand Medical Journal*
- the Commission website
- social media
- NGO leaders
- professional contacts.

## **Participant queries**

The 0800 number for participant queries or technical issues was made available during the entire fieldwork phase. A few queries were received, relating mainly to technical issues in one South Island location, which were quickly resolved.



## Response rates

The final estimated response rate was 19 percent. This is an estimate only, based on the 2014 Te Pou o te Whakaaro Nui *More than Numbers* organisation workforce survey data for MHA staff working in adult MHA services.<sup>1</sup>

The 2014 data was used because that survey collected the number of people employed in most of the organisations surveyed. The 2018 *More than Numbers*, in comparison, focused on estimating full-time equivalent (FTE) positions using various sources. To estimate response rates for Ngā Poutama, the number of people employed was needed rather than FTE estimates. The 2014 survey included staff working in DHB or NGO adult MHA services, but not those in child and youth or older adult services. Hence the response rate is estimated only for Ngā Poutama survey respondents in DHB or NGO services for adults (2,026 of the total 2,564 sample). *More than Numbers* 2014 identified 10,845 people employed in the adult MHA service workforce.

There is currently no workforce data available for MHA staff working in child and youth, and older adult services, hence response rates for these parts of the sample could not be estimated.

The calculations have pro-rated an estimate for the number in adult MHA services for respondents who were partial responses or did not state which service they worked in (child and youth, adult or older adult).

### **Response rate calculations**

**Table 3: Response rates by role – MHA staff working in adult MHA services**

Role*	DHB (%)	NGO (%)	Total (%)
Allied health professional	23	6	16
Nurse	20	14	20
Medical practitioner	13	0	13
Support worker	13	11	11
Leadership and management role	63	35	45
Consumer advisor/leader	64	71	67
Family/whānau advisor	95	91	93
Cultural advice and support role	17	9	13
Administrative/technical support role	22	12	19
Other	27	47	35
<b>Total</b>	<b>22</b>	<b>14</b>	<b>19</b>

\* MHA staff working in adult MHA services (excludes child and youth, and older adult).

<sup>1</sup> Te Pou o Te Whakaaro Nui. 2015. *Adult mental health and addiction workforce: 2014 survey of Vote Health funded services*. Auckland: Te Pou. URL: [www.tepou.co.nz/initiatives/2014-more-than-numbers-workforce-reports/138](http://www.tepou.co.nz/initiatives/2014-more-than-numbers-workforce-reports/138).

**Table 4: Response rates by DHB – MHA staff working in adult MHA services**

<b>DHB*</b>	<b>Total (%)</b>
Auckland DHB	25
Bay of Plenty DHB	18
Canterbury DHB	19
Capital & Coast DHB	28
Counties Manukau DHB	14
Hawke's Bay DHB	44
Hutt Valley DHB	21
Lakes DHB	35
MidCentral DHB	21
Nelson Marlborough DHB	30
Northland DHB	34
South Canterbury DHB	50
Southern DHB	15
Tairāwhiti DHB	47
Taranaki DHB	22
Waikato DHB	42
Wairarapa DHB	34
Waitemata DHB	17
West Coast DHB	18
Whanganui DHB	20

\* MHA staff working in adult MHA services (excludes child and youth, and older adult)

# Analysis of results

## ***Data cleaning***

The survey responses were checked for any data errors, potential duplicates, or inclusion of people outside the target population. Three survey responses were removed during this data cleaning process.

## ***Data analysis***

Weighting was not applied when analysing the data because there was incomplete sector data available with respect to staff numbers across all roles and services. Data was available from the 2018 *More than Numbers* survey for MHA staff working in adult mental health services, but not for child and youth, or older adults. It was not considered appropriate to partially weight the data (ie, for staff working in adult MHA services only). Nor was it considered appropriate to base the weighting of child and youth, and older adult MHA responses based on the adult-only data.

Furthermore, while in percentage terms some roles (namely consumer advisor/leader and family/whānau advisors) had higher response rates, the number of people in these roles is small. The potential impact of weighting was tested with the assumption made that the adult workforce was equivalent to other parts of the MHA sector. Due to the small number of people in roles with higher response rates, the application of weights made minimal difference (for example, less than 0.5 percent). This confirmed the decision not to apply weighting to analyse the data.

## ***Margin of error calculations***

The 95% confidence level margin of error for the survey results are as follows:

- national results +/-1.9 percent
- DHB overall +/-2.4 percent
- NGO overall +/-3.6 percent.

The margin of error was calculated from the sample size ( $n$ ) with the following formula:

$$\sqrt{\frac{0.25}{n}} \times 1.96$$

For individual DHBs and NGO regions, the margin of error formula included a finite population calculation. This calculation was based on the 2018 *More than Numbers* survey data for MHA staff working in adult MHA services.

## ***Significance testing***

Significance testing was calculated using the two-proportion z-test and differences were reported at the 95% confidence level. Comparisons were made between the percentage of positive responses between two groups. In most cases, comparisons were made between a sub-segment of respondents and the national percentage of positive responses.

## ***Analysis of open-ended comments***

There were two open-ended questions in the survey. The first asked respondents what one thing in their service could make things better for tāngata whaiora care/support. The second asked respondents to describe one thing that currently works well for tāngata whaiora care/support in their service.

Most of the 2,500+ survey respondents provided a comment for each of these questions.

An inductive coding approach was used in the analysis of the open-ended questions. Comments were randomised, and the first 200 comments for each question were reviewed to create a set of draft thematic codes. A keyword search was undertaken across the remaining open-ended data set using these thematic codes (words) to identify the incidence of thematised comments. Multiple variations of words to describe similar themes were included where relevant (eg, environment/spaces/rooms/buildings). Each time the word search located a word, a review of the entire comment was undertaken to check and confirm the context of the comment. Through this process, additional thematic codes were added where relevant. A further 150 comments for each question in the randomised data set were reviewed and compared against the initial thematic codes identified.

The core themes were consistent across all comments.

# Reporting

## **Reporting positive responses**

The overall survey results are presented in *Ngā Poutama Oranga Hinengaro: Quality in Context survey of mental health and addiction services | National report*.

A seven-point Likert scale was used to give respondents more options and to allow for more sensitive analysis. For reporting, the responses were converted to:

- 1–3 = negative
- 4–5 = neutral
- 6–7 = positive.

The percentage of positive responses to each culture question is reported. ‘Not applicable’ responses were excluded from the denominator in these calculations, and ‘Don’t know’ responses were included.

The decision to group responses on the scale into negative (1–3), neutral (4–5) and positive (6–7) was based on the following factors.

1. Harvard University’s School of Public Health utilises a seven-point scale in its surgical safety culture survey. For analysis purposes, the scale is converted into 1–4 = negative, 5–6 = neutral and 7 = positive. The Commission has replicated this survey twice and used the same scale conversion (to provide a direct comparison). However, labelling a score of 6 out of 7 (86 out of 100) as a neutral response is a relatively narrow measure of ‘positive’ agreement and there are very few other examples of this approach to determining levels of agreement. For the Ngā Poutama survey, a more appropriate representation of a positive response was chosen to convert a score of 6–7 into a positive response.
2. While a score of 5 out of 7 provides a symmetrical scale, a review of Likert scale response scores identified that 5 is variously labelled as, for example, ‘Slightly acceptable’, ‘Somewhat agree’, ‘Moderately important’ and ‘Sometimes true’. If 5–7 responses are grouped as positive responses, this can over-represent the level of positivity (agreement) of aggregated survey responses. In the case of all surveys, the higher the score, the higher the level of agreement. Given that the Ngā Poutama survey is intended to be repeated at least one more time, assigning positive responses as 6–7 means that longitudinal analysis will enable the research and wider project to best track shifts in levels of agreement and therefore change within the sector.

## **Sample size threshold for reporting**

A threshold of 20 or more respondents per category was applied for reporting. This means there needs to be at least 20 respondents to report DHB-specific results, or within a sub-segment such as ethnic group, role and service type. This threshold was applied to ensure the results are statistically valid and responses remain confidential.

## Other resources available

Other resources containing results from the Ngā Poutama survey are available at:

[www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/projects/quality-in-context](http://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/projects/quality-in-context).

These include:

- the national report
- individual DHB and NGO region summaries
- the survey questionnaire.

For information not contained in the above resources, please contact the Commission MHA team at:

[MentalHealthAddiction@hqsc.govt.nz](mailto:MentalHealthAddiction@hqsc.govt.nz)

# Appendix 1: Survey content framework

The following table illustrates the framework used as a starting point for the survey content. A subset of the sub-domains were prioritised and converted into survey questions. All four domains are adapted from the Commission’s [clinical governance framework](#).

Clinical governance				
Domain <sup>1</sup>	Consumer <sup>2</sup> engagement and participation	Clinical effectiveness	Quality improvement and consumer safety	Engaged, effective workforce
Domain description <sup>1</sup>	Enabling consumers and their families/whānau as members of the health team	The application of knowledge, derived from research, clinical experience and consumer preferences to achieve optimum process and outcomes of care for consumers	Increasing the capabilities of everyone participating in the health workforce in quality and safety improvement appropriate to their role and sphere of work	An engaged, effective workforce that works in partnership with consumers and their families/whānau and actively participates in an ongoing process of self and peer review
Sub-domains	<ul style="list-style-type: none"> <li>• Clear, open and respectful communication with consumers, families and whānau</li> <li>• Consumers involved in shared decision-making</li> <li>• Families and whānau involved in shared decision-making</li> <li>• Consumer, family and whānau feedback is captured and incorporated into improvements</li> <li>• Seeking and valuing diverse<sup>3</sup> consumer participation</li> <li>• Co-design and co-production are mandatory</li> <li>• Consumer influencing at governance level (such as consumer councils)</li> </ul>	<ul style="list-style-type: none"> <li>• An environment of clinical effectiveness</li> <li>• An environment of cultural competence,<sup>4</sup> cultural safety and cultural appropriateness</li> <li>• Understanding the importance of recording data</li> <li>• Systems in place to collect data</li> <li>• Learning from data and evidence</li> <li>• Team decision-making</li> <li>• Teams take responsibility for work</li> <li>• Teams identify barriers to optimal care</li> <li>• Effective handovers and transitions of care</li> <li>• Utilisation of clinical evidence and guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Culture permits raising concerns</li> <li>• Culture permits questioning decisions</li> <li>• Systems in place to learn from mistakes</li> <li>• Systems in place to improve</li> <li>• Mitigation of clinical risks</li> <li>• Leadership in quality improvement and consumer safety</li> <li>• Leadership commitment to culturally competent,<sup>5</sup> culturally safe and culturally appropriate care</li> <li>• Transparency and openness of outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Workforce engagement</li> <li>• Engagement in improving care</li> <li>• Empowered to improve systems</li> <li>• Clear, open and respectful communication between health professionals</li> <li>• Culture does not support bullying</li> <li>• Professional development and mentoring</li> <li>• Working together in well-coordinated team</li> <li>• Knowledge and capability to perform job as expected</li> <li>• Credentialling</li> <li>• Orientation and induction</li> </ul>

<sup>2</sup> The Ngā Poutama survey uses the term ‘tāngata whaiora’ for health consumers, but the term ‘consumer’ has been used in this table to be consistent with the terminology within the MHA quality improvement programme.

<sup>3</sup> The term ‘diversity’ here is broad and could refer to ethnicity, gender, sexual identity and orientation, religion, etc.

<sup>4</sup> The term ‘culturally competent’ refers to the delivery of health care that meets the social, cultural and language needs of consumers/tāngata whaiora and their families/whānau.

<sup>5</sup> The term ‘culturally competent’ refers to the delivery of health care that meets the social, cultural and language needs of consumers/tāngata whaiora and their families/whānau.

