

# New Zealand Mental Health Survey and Health and Lifestyles Survey:

Methods report for the combination of three survey datasets

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**NOTE:** From 2018 The New Zealand Mental Health Survey (NZMHS) is referred to as the New Zealand Mental Health Monitor (NZMHM).

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# 1. EXECUTIVE SUMMARY

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The 2015 and 2016 New Zealand Mental Health Survey (NZMHS) and the 2016 Health and Lifestyles Survey (HLS) datasets were pooled in order to allow researchers to analyse items related to mental health for small sub-population groups, such as subgroups of Pacific peoples or Māori.

In the pooled data there were 1,515 Māori, 1,281 Pacific and 1,147 young people aged 15 to 24 years. The responses of these individuals were pooled for questions that were in common between the three surveys. For questions that were only asked in the NZMHS, responses were pooled for the two waves.

Several questions were considered before pooling the data and steps were taken to ensure the pooled data was robust:

1. Are survey designs the same? A few small differences existed but they were similar enough to expect no significant effect in the survey estimates.
2. Are the survey samples independent? No, but they were made to be independent by removing several respondents.
3. Are the questionnaires the same? Do the variables mean the same thing? Only items that were asked in the same way were harmonised.

An adjustment was done to the survey weighting to ensure that estimates relate to the 2016 NZMHS target population.

The pooled dataset is a robust resource for the analysis of behaviours, attitudes and prevalences relating to mental health, especially for small sub-population groups.

## 2. INTRODUCTION

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Combining two or more datasets allows enough observations, in particular for respondents from various sub-population groups, for more specific analyses and to produce estimates with greater statistical precision. The combination of survey datasets over adjacent years or surveys is termed 'pooling'.

Pooling surveys is a common approach used in analysis. For example two cycles of the Canadian Community Health Survey were pooled in order to study rare socio-demographic or health characteristics (Thomas & Wannell, 2009).

The 2015 and 2016 NZMHS, and the 2016 HLS datasets were pooled in order to allow researchers to analyse items related to mental health for small sub-population groups, such as subgroups of Pacific peoples or young people.

These three surveys were suitable for pooling because the surveys were conducted using essentially the same methodology and design, and some questionnaire items relating to mental health were common between the three surveys. The three surveys were conducted in 2015 and 2016 and represent the same target population of New Zealanders ie, all adults aged 15+ years usually resident in New Zealand.

Pooling survey datasets must be done with care. This report presents details of the questions considered before pooling, the weighting of the pooled data, and considerations when analysing the pooled data.

### 2.1 BACKGROUND

The NZMHS is a nationally representative survey of New Zealand adults aged 15 years and over, aimed at providing regular and robust quantitative data on key mental health issues in New Zealand. The NZMHS is managed by the Health Promotion Agency (HPA) and aims to assess depression rates, monitor community-based stigma towards those suffering mental distress, measure psychological distress rates, gauge social connectedness, and appraise societal knowledge of mental health illnesses. The NZMHS was run for the first time in 2015, and again in 2016.

HPA also manages the HLS which is a monitor of the health behaviours and attitudes of New Zealand adults aged 15 years and over. The HLS is a biennial monitor, first carried out in 2008. The latest survey was in 2016 with a sample size of 3,854 adults. The HLS covers several topic areas, including alcohol, gambling harm, health education, immunisation, nutrition and physical activity, tobacco, skin cancer prevention and mental health.

## 3. CONSIDERATIONS

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The considerations before pooling data presented by Wendt (2007) were reviewed carefully. In particular, three of the considerations were determined to be the most relevant to the current study:

1. Are survey designs the same?
2. Are the survey samples independent?
3. Are the questionnaires the same? Do the variables mean the same thing?

Each of these considerations are presented below.

### 3.1 ARE SURVEY DESIGNS THE SAME?

Key aspects of the methods for the NZMHS and the HLS are summarised below. Specific details on the survey methodologies, including the sampling, recruitment, selection processes and interviewing procedures, can be found in the following three reports published on the HPA's website:

- *2016 New Zealand Mental Health Survey Methodology Report* (HPA, 2016)
- *2015 New Zealand Mental Health Survey Methodology Report* (HPA, 2015)
- *2016 Health and Lifestyles Survey Methodology Report* (HPA, 2016a).

#### **Sampling frames and recruitment**

The NZMHS and HLS are both nationwide face-to-face surveys of New Zealand adults aged 15 years and over. Participants were recruited into the surveys using an area-based frame made up of New Zealand Census 2013 meshblocks<sup>1</sup> as a sampling frame.

The selection process was done in stages. A sample of meshblocks was selected first, followed by a sample of dwellings within each selected meshblock. If eligible, one adult was selected to participate in the surveys from each selected dwelling. At each stage, the probability of selection is known, allowing results to be weighted back to population estimates.

Booster samples were used to adequately represent some ethnicity and age groups. In the HLS, these were Māori and Pacific and in the NZMHS, young people aged 15 to 24 were also boosted.

#### **Data collection**

The interview procedures involved face-to-face interviews in respondents' homes, using a Computer Assisted Personal Interview (CAPI) methodology. Show cards with predetermined response categories were used to assist respondents where appropriate. The fieldwork dates for

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<sup>1</sup> Meshblocks are defined as the smallest geographical measure used by Statistics New Zealand (Statistics New Zealand, 2014).

the NZMHS and HLS are provided in Table 3-1. The fieldwork for the three surveys was all done over an 18-month period between July 2015 and December 2016.

**Table 3-1: Fieldwork dates for the NZMHS and HLS**

	Start date	End date	Research provider
<b>2015 NZMHS</b>	25 July 2015	27 September 2015	National Research Bureau Ltd.
<b>2016 NZMHS</b>	9 June 2016	13 September 2016	CBG Health Research Ltd.
<b>2016 HLS</b>	5 May 2016	7 December 2016	CBG Health Research Ltd.

## Response rates

The response rate is a measure of how many of the people selected to take part in the survey actually participated. It describes the success of the study in terms of achieving cooperation from the population being measured. A high response rate suggests the survey results are more representative of the New Zealand adult population.

Unweighted response rates were calculated using the raw counts and reflect the success of the survey in terms of being able to get people selected to participate, whereas weighted response rates take probability of selection into account and reflect the success of the survey in terms of the population being measured. The overall weighted and unweighted response rates for each survey are presented in Table 3-2.

**Table 3-2: Response rates for the NZMHS and HLS**

	2015 NZMHS	2016 NZMHS	2016 HLS
<b>Unweighted</b> (success of the survey in terms of being able to get people selected to participate)	59%	71%	75%
<b>Weighted</b> (success of the survey in terms of the population being measured)	58%	75%	66%

The response rate for all three surveys was high enough for the data to be considered robust. Also, the response rate was similar enough between the surveys that the samples are assumed to be comparable.

## Summary of survey design

The two waves of the NZMHS used exactly the same methodology, the only difference was the research provider: National Research Bureau in 2015 and CBG Health Research in 2016.

The NZMHS and the HLS had very similar survey designs. Three points of difference were noted between the surveys:

1. There were slight differences in the selection of boosted samples. The NZMHS had boosted samples of young people aged 15 to 24, Māori and Pacific, while the HLS had boosted samples of Māori and Pacific only. Survey weights were used to account for this difference in the boosted samples.
2. There was also a difference in the sample frame. In the NZMHS, meshblocks would qualify for selection if they contained 30 or more private dwellings, and for the HLS, it was 10 or more dwellings. This difference would exclude more rural meshblocks than urban from the NZMHS sample frame because rural meshblocks often have fewer dwellings. To account for this, a different stratification scheme was used for the NZMHS, as follows.
3. The NZMHS was stratified into five strata: Pacific-dense, Major urban, Secondary urban, Minor urban and rural. The HLS had only two strata: Pacific-dense<sup>2</sup> and Others. The number of meshblocks drawn from each of the NZMHS strata were designed to be representative of all New Zealand meshblocks. The HLS meshblocks are also representative because they were randomly selected. This makes the NZMHS meshblock sample comparable to the HLS. However, because of the differences in the sample frame and stratification, comparing estimates for urban and rural populations is not possible with the pooled dataset.

Although there were some minor differences in the methodologies of the 2015 and 2016 NZMHS and the 2016 HLS, these were judged to not have a significant impact of the viability of pooling the datasets or the analysis planned with the pooled data.

## 3.2 ARE THE SURVEY SAMPLES INDEPENDENT?

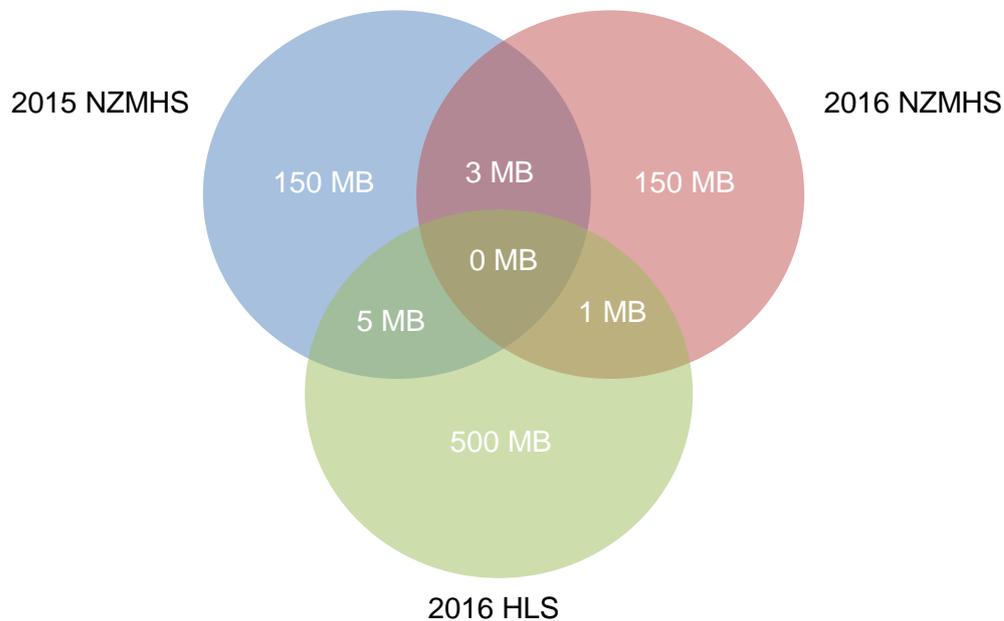
The 2015 and 2016 NZMHS and the HLS were designed to be cross-sectional population level surveys. They were not originally designed to be pooled together, so some individuals interviewed in one of the surveys may have been interviewed in another.

It is not possible to identify individual respondents within the datasets because identifying information such as names and date of birth are not recorded. Some re-contact information was collected but it was not complete enough to be used to identify all of the respondents who were interviewed more than once.

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<sup>2</sup> The Pacific-dense stratum was comprised of meshblocks with a population of at least 20% Pacific peoples (by total response ethnicity), according to the 2013 Census.

There were nine meshblocks that were selected into more than one of the three surveys and four of these were from the Pacific dense stratum. Figure 1 shows the number of meshblocks in each of the surveys, and the number of meshblocks that were common between the surveys.



**Figure 1: Meshblocks (MB) in common between the 2015 NZMHS, 2016 NZMHS and 2016 HLS**

The average probability that a respondent was interviewed twice in the doubly sampled meshblocks was estimated. The highest probability was 33%, indicating that it was likely that there are some respondents who were interviewed twice in the pooled data.

In order to ensure statistical independence, all respondents from duplicate meshblocks were removed from the pooled dataset. In total, 100 respondents were removed from the pooled dataset, including 40 Pacific respondents. This yielded a total sample size of 6,777 for the pooled data.

For meshblocks that were selected for both the NZMHS and HLS, the respondents in the NZMHS were retained because mental health measures were the focus of the intended analysis. For meshblocks that were selected in the 2015 and 2016 NZMHS, the respondents in the 2016 NZMHS were retained because this was the latest year.

### 3.3 ARE THE QUESTIONNAIRES THE SAME? DO THE VARIABLES MEAN THE SAME THING?

Full details of questionnaires for the NZMHS and HLS can be viewed in the following three reports published on HPA's website:

1. *2016 New Zealand Mental Health Survey Questionnaire* (HPA, 2016b)
2. *2015 New Zealand Mental Health Survey Questionnaire* (HPA, 2015a)
3. *2016 Health and Lifestyles Survey Questionnaire* (HPA, 2016c).

The NZMHS questionnaire assesses depression rates, monitors community-based stigma towards those suffering mental distress, measures psychological distress rates, gauges social connectedness, and appraises societal knowledge of mental health illnesses. The questionnaires of the two waves of the NZMHS were very similar, with minor improvements to some questions in 2016. A list of questions that were added, altered or deleted from the 2016 NZMHS is included in the questionnaire document.

The HLS covers a range of topic areas, including alcohol, gambling harm, health education, immunisation, nutrition and physical activity, tobacco, skin cancer prevention and mental health. The mental health section of the HLS appears towards the end of the questionnaire. The context of the mental health items in the questionnaire was judged to be similar enough to allow pooling of the responses.

The process of manipulating the data to pool it is called ‘harmonisation.’ Only items that were the same or with minor wording differences were harmonised. Where response options differed for the same question, care was taken in only harmonising like responses. For example, if a question was asked with two response options (eg, yes/no) given in one survey, and the same question was asked but with three possible responses (eg, yes/no/maybe) in another survey, the responses were not harmonised.

Most items in the 2015 and 2016 NZMHS were able to be harmonised. Only a few items in the HLS were able to be harmonised with the NZMHS data. These included five questions on general wellbeing, four questions on connection to Māori culture, and the K10 scale of psychological distress.

A data dictionary for the items that were harmonised is supplied in the appendix.

## 4. WEIGHTING

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Weighting was applied to the pooled dataset to ensure that no specific population was over- or under-represented in survey estimates and to ensure that it reflected the underlying New Zealand population in regards to age, gender and ethnicity. Estimation weights were used to achieve this, and can be thought of as the number of people in the population represented by a given survey participant. There are several ways of computing estimates from pooled data, and the most widely applicable method is to simply adjust the weights and compute as if one had only one sample, as described in Chu, Brick, and Kalton (1999).

The weighting was performed in Stata, version 13.

The original selection weights for the three surveys were adjusted and estimates were computed as if the pooled dataset was only one sample. The pooled population was taken to be the population represented by the 2016 NZMHS (that is, the sum of the weights of the 2016 NZMHS respondents). The weights of the pooled dataset were normalised such that the sum of all weights in the pooled dataset was the sum of weights in the 2016 NZMHS.

The adjustment to the weights was a multiplying factor applied to the selection weight of all respondents in the pooled dataset,

$$\frac{N_{2016NZMHS}}{N_{2016NZMHS} + N_{2015NZMHS} + N_{2016HLS}}$$

Where the estimated population size,  $N$ , for each survey is the sum of the weights in the survey.

The pooled dataset was finally weighted using benchmarking – it was treated as if all of the participants were drawn from a single survey year and the one large sample formed the population. All three surveys were done within an 18-month period so it was safe to assume that the underlying population of interest had not changed significantly during that time.

The dataset was benchmarked to the estimated resident population of 2016 using gender, age and prioritised ethnicity (Maori, Pacific, and European/Asian/Other).

## 5. POOLED DATA SAMPLE SIZES

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The sample sizes of Māori, Pacific and young people in the pooled data and the original NZMHS and HLS datasets are presented in Table 5-1. Most items were only able to be harmonised for the two waves of the NZMHS, with a pooled sample size of 3,002. Only a few items were able to be harmonised between all three surveys, resulting in a pooled sample size of 6,777.

**Table 5-1: Sample sizes of the pooled data**

Group	Original datasets			Pooled dataset	
	2015 NZMHS	2016 NZMHS	2016 HLS	Items from 2015 and 2016 NZMHS only	Items from NZMHS and HLS
<b>Māori</b>	270	341	930	607	1,515
<b>Pacific</b>	269	346	706	614	1,281
<b>Young people (aged 15-24 years)</b>	334	414	413	744	1,147
<b>All respondents</b>	<b>1,377</b>	<b>1,646</b>	<b>3,854</b>	<b>3,002</b>	<b>6,777</b>

Notes: Māori, Pacific and Young people are not mutually exclusive categories; one person can belong to more than one group. The pooled data sample sizes do not equal the sum of the constituent surveys because 100 respondents were removed from the pooled dataset to ensure statistical independence.

## 6. CONSIDERATIONS WHEN ANALYSING THE POOLED DATASET

Descriptive statistics calculated from the pooled dataset might differ from an estimate that was calculated from separate surveys (such as using only 2016 NZMHS survey data), with potentially different interpretations.

Because the dates of the fieldwork were within 18 months, the estimates represent the average population of this time period. Many of the attitudes and behaviours accessed by the NZMHS are not expected to change in a short time frame, but with gradual societal change. So the uncertainty of the 18-month time-frame is not material, and these measures can reasonably be interpreted as 2016 estimates. However, some questionnaire items measure things like the recall of campaigns which could change substantially over a short time, so care must be taken to check for changes over time of the estimates.

When estimating model parameters, it is good practice to add a 'mode' for each of the surveys into the model term as an additional independent variable, to adjust for any variation with time or survey context.

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## APPENDIX A DATA DICTIONARY FOR POOLED DATASET

This data dictionary provides the variable name of variables in the pooled dataset, the question text, and the question number of the question in the three surveys, where that item was included. Variables in orange were harmonised despite differences in wording.

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
<b>SECTION B: OVERALL WELLBEING AND CONNECTEDNESS</b>				
b2	I make an effort to see family, whānau or friends I don't live with.	b2	b2	m14
b3	I can always rely on a friend or family or whānau member for support	b3	b3	m15
b4	I feel strongly connected to my culture. For example: Māori, New Zealand, Samoan, Hindu or Jewish culture.	b4		
	I feel strongly connected to my culture.		b5	
b5	Maintaining a strong connection to my culture is important to me.	b5	b4	m16
b1	The last twelve months have been among the most difficult times of my life.	b1	b1	m13
b6	In the last four weeks, how often have you felt isolated from others?	b6	b6	m17
m7	Thinking about your life as a whole, how important is it for you to be involved in things to do with Māori culture?	m7	m7	x2
m8	Have you ever been to any of your ancestral marae? By this I mean a marae that your parents, grandparents, tipuna or ancestors are from.	m8	m8	x3
m9	How well are you able to speak Māori in day-to-day conversation?	m9	m9	x4
<b>Which of these do you know? Please say yes or no for each item I read out to you.</b>				
m10_01	Your iwi or tribe	m10_01	m10_1	x5_01
m10_02	Your hapū or sub-tribe	m10_02	m10_2	x5_02
m10_03	Your maunga or mountain	m10_03	m10_3	x5_03
m10_04	Your awa, moana, river or water	m10_04	m10_4	x5_04
m10_05	Your waka or canoe	m10_05	m10_5	x5_05
m10_06	Your tipuna, tupuna or ancestors	m10_06	m10_6	x5_06
	What is the name of your iwi or tribe?	m10a		
b11	How would you rate how your family/whānau is doing these days?	b11	b12	
b12	In general, how would you rate how well your family/whānau get along with one another?	b12	b11	
	How easy or hard would it be to find someone to help you with things such as looking after pets, collecting mail, or checking your house while you are away from home?		b13	
b13	How easy or difficult would it be to find someone to help you in times of need, such as providing a place to stay if you suddenly needed one, or looking after pets while you're away from home?	b13		
	How easy or hard would it be to find someone to help you in times of need, such as providing a place to stay if you suddenly needed one?		b14	

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
b14	How easy or difficult would it be for you to be able to provide help to someone when they needed it, such as an elderly relative, grandchild or mokopuna in need of care?	b14		
b15	In the recent past, has there been an occasion when you felt personally excluded: From a social situation?	b15	b15	
b16	In the recent past, has there been an occasion when you felt personally excluded: At work?	b16	b16	
b17	Overall, how satisfied are you with life as a whole these days?	b17	b17	
b18	Overall, to what extent do you feel the things you do in your life are worthwhile?	b18	b18	
b19	I am able to cope with everyday stresses of life.	b19	b19	
<b>SECTION K: MENTAL HEALTH TERMINOLOGY</b>				
k1	Have you ever heard someone use the term 'mental distress' when talking about mental illness?	k1		
<b>What do you think mental distress means?</b>				
k2_01	Mental illness/mental health problem	k2_01		
k2_02	Feeling stressed/under pressure	k2_02		
k2_03	Not coping/feeling overwhelmed	k2_03		
k2_04	Feeling like you're about to snap or melt down	k2_04		
k2_05	When mental condition deteriorates	k2_05		
k2_06	Not being able to think straight	k2_06		
k2_07	When you need help	k2_07		
k2_08	Euphemism	k2_08		
k2_09	Other (please specify in K2a)	k2_09		
k2_98	Don't Know	k2_98		
k2_99	Refused	k2_99		
k2a_other	Other response	k2a_other		
k3	If a friend was feeling stressed out because of a deadline at work, would you think they might be experiencing mental distress?	k3		
k4	If something happened to a friend that made them feel down, and a week later they were still feeling the same way, would you think they might be experiencing mental distress?	k4		
k5	If a friend felt down for two weeks or longer for no known reason, and had lost interest in the things they usually enjoy doing, would you think they might be experiencing mental distress?	k5		
<b>SECTION C: KNOWLEDGE OF DEPRESSION AND ANXIETY</b>				
<b>c3 and c5 response options were quite different so variables were not harmonised</b>				
-	If you thought you or someone you know might be experiencing depression, do you know where you could get help?	c3	c5	
c4	If you were experiencing depression, where would you first go for help?	c4		
	If you thought you might be experiencing depression, who or where would you be most likely to turn to for help?		c6	
c5	Have you heard about any New Zealand websites that can assist people to find out about, or get through, depression?	c5	c8	
<b>What are the names of those websites?</b>				

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
c6_01	depression.org.nz/John Kirwan website	c6_01	c9_1	
c6_02	thelowdown.co.nz	c6_02	c9_4	
<b>Other responses to this question were not similar so were not harmonised</b>				
c6a	Record other names mentioned.	c6a	c9a_unco ded	
c7	Have you heard of a website called depression.org.nz?	c7	c10	
c7a	Have you heard of a website called thelowdown.co.nz?	c7a		
	If you, or someone you knew, was experiencing depression or anxiety, what would prevent you from going onto depression.org.nz or thelowdown.co.nz websites?	c7b		
	If something happened to a friend that made them feel down, and a week later they were still feeling the same way, would you think they might be experiencing depression?	c1		
	If a friend felt down for two weeks or longer for no known reason, and had lost interest in the things they usually enjoyed doing, would you think they might be experiencing depression?	c2		
<b>c1 and c2 were not included in the pooled data because of a routing error</b>				
c8	Most people with mental illness want to have paid employment.	c8	c11	
c9	If a friend had a mental illness, I know what advice to give them to get professional help.	c9	c12	
c10	Medication can be an effective treatment for people with mental illness	c10	c13	
c11	Psychotherapy, like counselling or talking therapy, can be an effective treatment for people with mental illness.	c11	c14	
c12	People with severe mental illness can fully recover.	c12	c15	
c13	Most people with mental illness go to a healthcare professional to get help.	c13	c16	
c14	If a close friend was excessively worried over a few weeks, would you think they might have problems with anxiety?	c14		
c15	If a close friend was excessively worried more days than not, over six months or longer, would you think they might have problems with anxiety?	c15		
	If you or someone you know had problems with anxiety, do you know where you could get help? Please say where. You can mention more than one.	c16	c26	
<b>c16 and c26 response options were different so variables were not harmonised</b>				
	If you had problems with anxiety, where would you first go for help?	c17		
	If you thought you might have problems with anxiety, who or where would you be most likely to turn to for help?		c27	
c18	Have you heard about any New Zealand websites that can assist people to find out about anxiety, or find help getting through their problems with anxiety?	c18	c29	
	What are the names of those websites?	c19	c30	
<b>c19 and c30 response options were different so variables were not harmonised</b>				

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
c20	Do you know someone who has been diagnosed with a mental illness, not including yourself?	c20		
c20_HLS	Has anyone you know disclosed to you that they have experienced mental illness?			m20
c21	Do you have a family or whānau member who has experienced mental illness?	c21		
c22	Have you ever personally had an experience of mental illness?	c22		
c22_HLS	Have you ever been diagnosed with a mental illness?			m22
<b>SECTION D: STIGMA BEHAVIOURS</b>				
d1	Are you currently living with, or have you ever lived with, someone with a mental illness?	d1	d1	
d2	Are you currently working with, or have you ever worked with, someone with a mental illness?	d2	d2	
d3	Do you currently have, or have you ever had, a neighbour with a mental illness?	d3	d3	
d4	Do you currently have, or have you ever had, a close friend with a mental illness?	d4	d4	
d5	In the future, I would be willing to live with someone with a mental illness.	d5	d5	
d6	In the future, I would be willing to work with someone with a mental illness.	d6	d6	
d7	In the future, I would be willing to live nearby to someone with a mental illness.	d7	d7	
d8	In the future, I would be willing to continue a relationship with a friend who developed a mental illness.	d8	d8	
<b>SECTION E: STIGMA IN THE COMMUNITY</b>				
<b>*The phrase 'mental illness' was used in place of 'severe mental illness' in 2016 NZMHS</b>				
<b>These questions were not harmonised because the context was different in 2016 (the perceived severity of mental illness different)</b>				
	More tax money should be spent on the care and treatment of people with mental illness.	e1	e1*	
	The best therapy for many people with mental illnesses is to be a part of a normal community.	e2	e10*	
	We need to adopt a far more tolerant attitude towards people with mental illnesses in our society.	e3	e2*	
	Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community.	e4	e12	
	We have a responsibility to provide the best care for people with mental illnesses.	e5	e4*	
	Locating mental health services in residential neighbourhoods does not endanger local residents.	e6	e8	
	People with mental illness have been the subject of ridicule for too long.	e7	e7*	
	Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services.	e8	e18	
	As far as possible, mental health services should be provided through community-based facilities.	e9	e19	

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
	Employers should be understanding of how mental illness could affect an employee's performance at work.	e10		
	Co-workers should stick up for a workmate with experience of mental illness if they are being teased because of their experience.	e11		
	Employers need to set a good example of how to treat people with experience of mental illness.	e12		
	Workers should make an effort to include a co-worker who has experience of mental illness in their social circles.	e13		
	If someone has had an experience of mental illness, it is up to them whether or not they tell their co-workers about it.	e14		
	It is wrong to avoid a co-worker because they have mentioned that they've had an experience of mental illness.	e15		

#### SECTION F: PHQ-9

Over the last two weeks, how often have you been bothered by the following problems?

f1	Little interest or pleasure in doing things	f1	f1
f2	Feeling down, depressed, or hopeless	f2	f2
f3	Trouble falling or staying asleep, or sleeping too much	f3	f3
f4	Feeling tired or having little energy	f4	f4
f5	Poor appetite or overeating	f5	f5
f6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	f6	f6
f7	Trouble concentrating on things, such as reading the newspaper or watching television	f7	f7
f8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being fidgety or restless	f8	f8
f9	Thoughts that you would be better off dead, or of hurting yourself	f9	f9
f10	How difficult have problems f1-f9 made it for you to do your work, take care of things at home, or get along with other people	f10	f10

#### SECTION H: GAD-7

How often have you been bothered by the following problems, over the last two weeks?

h1	Over the last two weeks, how often have you been bothered by feeling nervous, anxious or on edge	h1	h1
h2	Over the last two weeks, how often have you been bothered by not being able to stop or control worrying	h2	h2
h3	Over the last two weeks, how often have you been bothered by worrying too much about different things	h3	h3
h4	Over the last two weeks, how often have you been bothered by trouble relaxing	h4	h4
h5	Over the last two weeks, how often have you been bothered by being so restless that it is hard to sit still	h5	h5
h6	Over the last two weeks, how often have you been bothered by becoming easily annoyed or irritable	h6	h6
h7	Over the last two weeks, how often have you been bothered by feeling afraid as if something awful might happen	h7	h7

Pooled dataset	Question Text	2016 NZMHS	2015 NZMHS	2016 HLS
<b>SECTION G: K10</b>				
<b>g1</b>	In the past 4 weeks, about how often did you feel tired out for no good reason	<b>g1</b>	<b>g1</b>	<b>m3</b>
<b>g2</b>	In the past 4 weeks, about how often did you feel nervous	<b>g2</b>	<b>g2</b>	<b>m4</b>
<b>g3</b>	In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down	<b>g3</b>	<b>g3</b>	<b>m5</b>
<b>g4</b>	In the past 4 weeks, about how often did you feel hopeless	<b>g4</b>	<b>g4</b>	<b>m6</b>
<b>g5</b>	In the past 4 weeks, about how often did you feel restless or fidgety	<b>g5</b>	<b>g5</b>	<b>m7</b>
<b>g6</b>	In the past 4 weeks, about how often did you feel so restless you could not sit still	<b>g6</b>	<b>g6</b>	<b>m8</b>
<b>g7</b>	In the past 4 weeks, about how often did you feel depressed	<b>g7</b>	<b>g7</b>	<b>m9</b>
<b>g8</b>	In the past 4 weeks, about how often did you feel that everything was an effort	<b>g8</b>	<b>g8</b>	<b>m10</b>
<b>g9</b>	In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up	<b>g9</b>	<b>g9</b>	<b>m11</b>
<b>g10</b>	In the past 4 weeks, about how often did you feel worthless	<b>g10</b>	<b>g10</b>	<b>m12</b>
<b>SECTION I: ADULT PSYCHOLOGICAL/PSYCHIATRIC IMPAIRMENT</b>				
<b>i1</b>	Does a long-term emotional, psychological, or psychiatric condition cause you difficulty doing everyday activities that people your age can usually do? Common conditions include depression, anxiety or bipolar disorder.	<b>i1</b>	<b>i1</b>	
<b>i2</b>	Does a long-term emotional, psychological or psychiatric condition cause you difficulty communicating, mixing with others, or socialising?	<b>i2</b>	<b>i2</b>	