TĀKU REO, TĀKU MAURI ORA
MY VOICE, MY LIFE

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RESEARCH
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TĀKU REO TĀKU MAURI ORA
MY VOICE, MY LIFE

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Ka oho te Wairua
Ka mataara te Tinana
He Aroha ki te Aroha
Ka kā te Rama

When your Spirit's awakened
When your Body's alive
When Love is unconditional
Enlightenment flows

When your Mind, Spirit and Body are in tune
You can achieve anything

Nā Te Rauparaha

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Most of all we would like to thank those people who completed the measure either through the pilot of the preliminary measure and/or the testing of the revised measure. Without you this piece of work and the resulting measure would not exist. We acknowledge the time and effort involved and the trust you placed in us to produce something that truly reflects your input.

EXECUTIVE SUMMARY

The aim of the New Zealand mental health outcomes initiative is to roll out a suite of standard measures of outcome. The preliminary work towards the development of a self-assessed measure of consumer outcome (Gordon, Ellis, Haggerty, Pere, Platz & McLaren, 2004) found that existing self-assessed measures are seriously wanting and inappropriate for the Aotearoa/New Zealand context, even in modified form, because of their fundamental philosophical differences with current consumer/tāngata whaiora perspectives. However, through the preliminary work also suggested a framework on which such a measure could be developed and validated in Aotearoa /New Zealand.

Based on this preliminary work, the present project has been undertaken to develop and test a psychometrically sound self-assessed consumer/tāngata whaiora outcome measure for Aotearoa/New Zealand which will facilitate reflection upon an individual's situation at a particular point in time which, when used at several different points over time, reflects change that has occurred. Its primary purpose is to provide consumers/tāngata whaiora with a measure to support individual reflection and communication. Collecting and aggregating this information from many individuals over a significant period of time will also supports the detection of trends. Factors explaining these trends can then be explored to inform decision-making and ongoing personal and service development in relation to mental health at individual, organisational, regional and national levels.

This paper reports the project as it progressed through the following phases:

Phase 1: develop and pilot a preliminary measure (based on the recommendations from the preliminary work)

Phase 2: refine the preliminary measure into a robust measure for routine use (based on the assessment of the psychometric properties of the preliminary measure as determined through analysis of the pilot data)

Phase 3: test the revised measure

Phase 4: develop normative data for the measure.

The framework and methodology of this project is consumer/tāngata whaiora focused in every way. More specifically the research team (a group of people with relevant project experience and excellent topic based knowledge and expertise necessary to undertake the project) was led consumers/tāngata whaiora. To further enhance this perspective a consumer/tāngata whaiora reference group was established. The key role of this group was to ensure the research team maintained a consumer/tāngata whaiora focus in all aspects of the work undertaken.

Another important aspect of this work is its responsiveness to, and inclusion of, Māori. This goes beyond understanding the significance and place of kōha and mihimihi, to acknowledging the status of Māori as tāngata whenua. The present work did this by not only ensuring that there was

adequate Māori representation on both the research team and reference group to the project, but by also ensuring the project accommodated Māori process and understandings.

Phase 1: ***develop and pilot a preliminary measure (based on the recommendations from the preliminary work)***

The preliminary measure consisted of 147 items, made up of 5-20 items for each of the 12 potential domains that had been identified through the preliminary work. This also included a separate section with items specifically relevant to Māori, developed by the researchers responsible for supporting the responsiveness of the study to Māori.

The preliminary measure was piloted with 511 people who self-identified as having experience of mental illness. They were invited to participate through mental health services (both district health boards and non-government organisations); consumers/tāngata whaiora organisations, networks, hui and forums; and mental health conferences held in Aotearoa/New Zealand during the pilot period.

Phase 2: ***refine the preliminary measure into a robust measure for routine use (based on the assessment of the psychometric properties of the preliminary measure as determined through analysis of the pilot data)***

Analysis of the pilot study data identified and confirmed a very strong factor structure, with one substantial underlying construct and 11 distinct and relatively independent factors. Furthermore, analysis also identified and confirmed the additional Māori section has a strong two-factor structure.

Based on the results of the analysis of the pilot data the preliminary measure was refined into a 79 item measure, made up of between three and ten items for each of the 11 domains of the main section and nine and five items respectively for each of the two Māori section domains.

Phase 3: ***test the revised measure***

Testing the revised measure was undertaken through three mental health services: including an acute in-patient service; and two community services (one mainstream and one Kaupapa Māori) that each provided residential support, support in the community and respite mental health services. For the purposes of re-testing participants from the acute in-patient service were invited to complete the revised measure at weekly intervals and all others at monthly intervals.

The re-testing of the measure through the acute in-patient service produced some promising results. The analysis showed a change in scores (from lower to higher) in the predicted direction for all domains and totals indicating responsiveness to change, although limited sample size precluded this uniformly reaching statistical significance.

Phase 4: ***develop normative data for the measure***

The reference norms, developed through the present study, were based on the preliminary measure pilot data. Within this sample, there was variation in dimension scores for different age groups, and by self-identified diagnosis. Therefore norms were calculated by age group (18-54, 55-65) and diagnoses (schizophrenia, bipolar disorder, and depression).

Conclusion

Based on these results, and consideration of the development processes generally associated with measures of this type, the research team believes the measure is appropriate and ready for implementation and use. This should be done in conjunction with continued testing of the measure to further explore and confirm the psychometric properties of the measure.

If supported with appropriate and robust systems and processes for implementation and use, *Tāku Reo, Tāku Mauri Ora* will contribute to enhanced mental health outcome measurement. Whilst this will necessitate significant resource commitment it is believed that *Tāku Reo, Tāku Mauri Ora* will serve to support consumer/tāngata whaiora engagement in a most valuable manner which will ultimately result in more effective and efficient recovery processes and consequently contribute to achieving the aims of the Aotearoa/New Zealand mental health strategy.

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INTRODUCTION

The aim of the New Zealand mental health outcomes initiative is to roll out a suite of standard measures of outcome. The preliminary work towards the development of a self-assessed measure of consumer outcome (Gordon, Ellis, Haggerty, Pere, Platz & McLaren, 2004) found that existing self-assessed measures are seriously wanting and inappropriate for the Aotearoa/New Zealand context, even in modified form, because of fundamental philosophical differences between current Aotearoa/New Zealand consumer/tāngata whaiora perspectives and existing measures. However, through the preliminary work Aotearoa/New Zealand consumers/tāngata whaiora clearly indicated a framework on which such a measure could be developed and validated. As a result of those findings, it was recommended that a project be established for a self-assessed measure to be developed and tested by consumers/tāngata whaiora in Aotearoa/New Zealand.

In response to that recommendation, the present project was set up to develop a psychometrically sound self-assessed consumer/tāngata whaiora outcome measure for Aotearoa/New Zealand. This paper reports the project as it progressed through the following phases:

- PHASE 1: develop and pilot a preliminary measure (based on the recommendations from the preliminary work)
- PHASE 2: refine the preliminary measure into a robust measure for routine use (based on the assessment of the psychometric properties of the preliminary measure as determined through analysis of the pilot data)
- PHASE 3: test the revised measure
- PHASE 4: develop normative data for the measure

A key finding of the preliminary work was that:

> *Consumer participation in the development of a self-assessed measure of consumer outcome was vital to generate a measure that was relevant to not only the needs of consumers but also sensitive to the perspective and position of those people. Given the lack of substantial consumer participation in the development of most of the measures, it was not surprising that these issues were raised consistently through the consultation process. Despite the relevant literature highlighting the value and importance of consumer participation, the results of the present research raise questions about the effectiveness of the way consumers are currently involved in the design and evaluation of outcome measures. It is contended that consultation and participation are not effective strategies to ensure a consumer perspective and that consumers actually need to be taking a leading role in terms of the entire process of the development and testing of a self-assessed measure.* (Gordon et al., 2004)

The present project involved a framework and methodology which was consumer/tāngata whaiora led and focused in every way. More specifically this involved the research team (a group of people with relevant project experience and excellent topic based knowledge and expertise necessary to undertake the project) being led by consumers/tāngata whaiora. To further enhance this focus, a consumer/tāngata whaiora reference group was established. The key role of this

group was to ensure the research team maintained a consumer/tāngata whaiora focus in all aspects of the work undertaken.

Another important aspect of this work is its responsiveness to, and inclusion of, Māori. This goes beyond understanding the significance and place of kōha and mihimihi, to acknowledging the status of Māori as tāngata whenua. Māori health status fares poorly in comparison to non-Māori, and Māori mental health has been identified as a one of the priority health issues facing the Indigenous people of Aotearoa/New Zealand (Baxter, 2008; Ministry of Health, 2008; Oakley Browne, Wells, & Scott, 2006). Any project addressing mental health outcomes must be cognisant of these facts and in keeping with Treaty principles, actively address them. The present work did this by not only ensuring that there was adequate Māori representation on both the research team and reference group to the project, but by also ensuring the project accommodated Māori process and understandings. Time and resources were specifically allocated for consultation with relevant groups or people and for different approaches to information gathering (e.g. Māori participants being matched with Māori interviewers for any data gathering).

It was also important, not only in terms of the results of the present project but also looking to the future implementation and use of the measure, that the work was not undertaken in isolation but with the support and buy-in of the wider mental health sector, particularly the consumer/tāngata whaiora population. This was achieved through continuous engagement with organisations and individuals through all stages of the project.

Through the preliminary work (Gordon et al., 2004) it was identified that certain common assumptions about outcome measurement lacked an evidence base. For example, it is generally assumed that all change is due to specific mental health interventions, when a much wider range of influences can lead to changes in mental wellbeing. Change is the sum effect of many complex factors, of which mental health service intervention will be only one. Scores from outcome measures can at best tell us that there has been a change, but not what has caused this change. Hence, any definition of mental health outcome measurement must stand alone from considerations of causal attribution.

Based on this earlier work relating to outcome measure definition, the research team identified that the aim of the present work was to develop a:

> *measure which facilitates reflection upon an individual's situation at a particular point in time which, when used at several different points over time, can reflect change that has occurred.*

The earlier work also highlighted that the most frequently cited purpose of mental health outcome measurement is to improve services, in particular, service effectiveness and efficiency. We contended that a wider view, including an explicitly consumer/tāngata whaiora-focused agenda and general principles of best practice, should see the primary purpose of mental health outcome measurement to be its direct potential benefits to the consumer/tāngata whaiora, particularly providing them with an additional measure to support participation in their mental health care. Therefore, the primary purpose of this measure is to:

provide consumers/tāngata whaiora with a tool to support individual reflection and communication.

As well as fostering individual reflection and communication, outcome measurement data can also serve a valuable secondary purpose at organisational, regional and national levels to support decision-making and continuous mental health service development. Thus the secondary purpose of this measure acknowledges that:

> *collection and aggregation of information from many individuals over a significant period of time supports detection of trends. Factors explaining these trends can then be explored to inform decision-making and ongoing personal and service development in relation to mental health at individual, organisational, regional and national levels.*

The key premise of the preliminary work (Gordon et al., 2004) was that the best source of information on what actually constitutes a good outcome, and how one knows it has occurred, is likely to come from the people who have experienced it. That work consequently focused on consumer/tāngata whaiora conceptualisations of mental illness and mental wellbeing and the recovery literature as the best, and most accessible, source of relevant published information.

Our literature review identified a number of domains that consumers/tāngata whaiora (across cultures) have identified as being important in terms of their mental wellbeing. They were:

- relationships, trust, connectedness, taha wairua/whānau, whānau/family support, social support, interdependence
- day to day functioning, coping and managing, including work (having the ability to work), taha tinana
- connection to one's culture, cultural identity, drawing strength from one's culture, taha wairua
- physical health and health risks, taha tinana, includes alcohol and drug use, side-effects of medications, sleeping and eating
- quality of life, life satisfaction, enjoying the environment, feeling alert and alive, able to enjoy pastimes/hobbies
- illness symptoms, taha hinengaro
- coping with and recovering from illness, self-managed care, staying out of the mental health system, understanding of illness
- hope, journey from alienation to purpose, reawakening of hope after despair
- empowerment, being in control, exercising choice, positive sense of self, self-determination
- spiritual strength, increased spirituality, taha wairua
- resources, basic needs (e.g. food, money, accommodation, transport)
- satisfaction with services (including cultural relevance of services).

The literature review also identified considerable material relevant to the design, format, language, parameters and processes associated with self-assessed measures. Based on these key

findings of the literature review the following criteria were formulated and used to assess existing self-assessed measures and determine those suitable for more detailed analysis:

- that they were developed by consumers/tāngata whaiora
- that they were developed with significant consumer/tāngata whaiora involvement
- that they were developed in Aotearoa/New Zealand
- that they included domains relevant to cultural identity/connection and/or were based on cultural research/consultation
- that they received positive evaluations by consumers/tāngata whaiora (e.g. easy to use and understand, covered relevant domains of wellbeing, culturally relevant)
- that they covered all or many of the domains that have been identified as important to consumers/tāngata whaiora
- that they were designed for an adult, rather than adolescent or child, population
- that they were well researched for validity, reliability, sensitivity to change, cultural appropriateness, and feasibility

Based on that assessment, the following 18 self-assessed measures were analysed in-depth:

Comprehensive self-assessed outcome measures

- Assessment of Wellness Outcome Tool
- Behaviour and Symptom Identification Scale (BASIS)
- Client's Assessment of Strengths, Interests & Goals (CASIG)
- Crisis Hostel Healing Scale
- Hua Oranga
- Lotofale Evaluation Measure
- Medical Outcomes Study 36 item Short Form Scale (SF-36)
- Mental Health Inventory (MHI)
- Mental Health Recovery Measure
- Multnomah Community Ability Scale
- Ohio Mental Health Consumer Outcomes System
- Outcome Questionnaire (OQ)
- Personal Vision of Recovery Questionnaire (PVRQ)
- Recovery Assessment Scale (RAS).

Single factor self-assessed outcome measures

- Lehman Quality of Life Interview
- Quality of Life Index

- Satisfaction Index – Mental Health
- Verona Service Satisfaction Scale (VSSS).

The detailed analysis examined the following aspects:

- rater or format
- key outcomes assessed
- missing content areas
- number of items and rating methods
- intervals of measurement
- time to administer
- sample(s) tested on
- consumer/tāngata whaiora views on measure
- face validity
- construct validity
- content validity
- criterion validity
- convergent and divergent validity
- inter-rater reliability
- test-retest reliability
- internal consistency
- sensitivity to change
- feasibility – acceptability
- feasibility – applicability
- feasibility – practicality
- current usage in Aotearoa/New Zealand and overseas
- development
- cultural needs considered
- consumer/tāngata whaiora input to development
- family/whānau input to development
- clinical input to development
- limitations of measure
- effect of setting (e.g. hospital, community, etc.)
- effects for type of mental illness.

From this analysis (detailed and tabulated in the preliminary work, Gordon et al., 2004), it was apparent that none of the measures covered all the domains identified as important to consumers/tāngata whaiora. Six measures partially satisfied the criteria that had been formulated based on the information collected through the literature review: the consumer completed part of

the Assessment of Wellness Outcome Tool; the Behaviour and Symptom Identification Scale (BASIS); the Crisis Hostel Healing Scale; the consumer schedule of Hua Oranga; the Lotofale Evaluation Measure; and the Mental Health Inventory (MHI). These six measures were presented to the consumer reference group to discuss their respective strengths and relevance to consumer/tāngata whaiora issues as perceived by that group.

The reference group was unanimous that none were appropriate for direct application in Aotearoa/New Zealand. However, they did choose three they believed were most appropriate for taking out for wider consumer/tāngata whaiora consultation: the consumer completed part of the Assessment of Wellness Outcome Tool, Crisis Hostel Healing Scale, and the consumer schedule of Hua Oranga. This wider consultation largely echoed the views of the reference group. In addition, the group responses from the consumer/tāngata whaiora consultation forums highlighted that the literature based finding of the set of domains, that consumers (across cultures) have identified as being important in terms of their mental wellbeing, are definitely relevant and appropriate to Aotearoa/New Zealand consumers/tāngata whaiora.

The inclusion of service satisfaction constructs within outcome measurement is contentious. It is clear from the consumer literature and consultation associated with the preliminary work that satisfaction with services (which includes cultural relevance of services) is a factor that people feel affects their mental wellbeing and hence we determined that it should be included in any self-assessed consumer/tāngata whaiora outcome measure. While being included it was also acknowledged and considered, in terms of application, as a slightly different construct (as compared with the other proposed domains) in that satisfaction with services would not be expected to necessarily reflect changes in mental wellbeing.

While it would have been convenient to have found that an existing self-assessed measure was suitable for unconditional and immediate application in the Aotearoa/New Zealand context the preliminary work concluded that this was not possible. Neither was it found possible to recommend some limited revision or modification of such a measure, due to the fundamental philosophical differences between current Aotearoa/New Zealand consumer/tāngata whaiora perspectives and existing measures. The development of a new self-assessed measure of consumer/tāngata whaiora outcome for Aotearoa/New Zealand was deemed necessary for self-assessed outcome measurement to be an effective and efficient process for both consumers/tāngata whaiora and other stakeholders in Aotearoa/New Zealand. That development, as progressed through the present work, was very much informed and founded upon the results of the preliminary work. In particular the measure was developed based on the sum of domains identified together with the substantial body of information on both technical and pragmatic aspects of outcome measure design, implementation and use from both a consumer/tāngata whaiora and general perspective.

METHODOLOGY

Consumer reference group

A reference group was established at the outset of the project. The key tasks of the group were:

- to consider, monitor and advise on the process for undertaking the work
- to consider, monitor and advise on the material generated through the work
- to ensure the research team maintain a consumer and tāngata whaiora focus in all aspects of the work undertaken
- to communicate and consult with other consumers and tāngata whaiora about the project work
- to disseminate information to other consumers and tāngata whaiora, regarding the progress of the project and to ensure consumers/tāngata whaiora are kept informed of the work being undertaken.

The group consisted of 15 persons from around Aotearoa/New Zealand who reflected a wide range of consumer and tāngata whaiora experience, perspectives, background, and networks.

During the course of the project, the group came together for five full day meetings. The first full day meeting of the reference group was organised prior to embarking on the study. Reference group members were asked to consider the study proposal and advise the research team on any issues (in terms of the process and content of the proposal) that they foresaw as affecting consumers and tāngata whaiora in some manner. The feedback from this initial meeting of the reference group was used to inform the development of the detail in respect of the methodology associated with the project. At this meeting the group also determined that the measure developed through the project be known as *Tāku Reo, Tāku Mauri Ora: My Voice, My Life.*

Ethics

Ethical approval for the study was sought and obtained from the New Zealand multi-region health and disability ethics committee1.

Phase 1: Develop and pilot a preliminary measure

Guidelines (Appendix 1) for the development of the preliminary measure were prepared based on the key findings of the preliminary work (Gordon et al., 2004). In accordance with the guidelines, through a series of workshops the research team brainstormed to generate a number of stem

[1] The multi-region Ethics Committee is responsible for reviewing health and disability research studies that either:

- have study localities in more than one ethics committee region of New Zealand
- are actively recruiting participants in more than one ethics committee region of New Zealand, or
- use a database, samples or other information gathered from more than one ethics committee region of New Zealand.

options, response scale options and proposed individual items relevant to each of the 12 domains identified in the preliminary work which were entitled 'Relationships'; 'Day-to-day life'; 'Culture'; 'Physical Health'; 'Mental Health'; 'Recovery'; 'Hope'; 'Empowerment'; 'Spirituality'; 'Resources'; and 'Satisfaction with Services'. This also included a separate section with items specifically relevant to Māori, advised as necessary by the researchers responsible for supporting the responsiveness of the study to Māori.

All proposed items and the measure format (including stem and response scale options) were presented for consideration at the second full day meeting of the reference group. Specifically they were asked to advise on the material in terms of:

- Readability (in respect of both the content and format)
- Acceptability to the target group (in respect of both the content and format)
- Comprehensibility

Based on the consumer reference group feedback, the initial preliminary measure was modified. Thirty consumers and tāngata whaiora, working with mental health services, were asked to complete the measure at this stage. Based on their feedback minor amendments were made to produce the final version (Appendix 2) for the pilot.

Participants were invited (see Appendix 3 for invitation) to participate in the pilot of this measure through mental health services (both district health boards and non-government organisations); consumers/tāngata whaiora organisations, networks, hui and forums; and mental health conferences held in Aotearoa/New Zealand during the pilot period.

Participants who volunteered were informed by the researcher of all the main points relevant to participation as included in the information sheet (Appendix 4). The sheet was then given to the participants to read. All participants signed a consent form (Appendix 5) prior to participation. Consenting participants completed the preliminary measure either independently or with the assistance of a support person or one of the researchers.

The demographics of the participants involved with the piloting of the preliminary measure were reviewed throughout the process to ensure the sample reflected a diversity of experience in respect of age, diagnosis, severity, and duration of illness; and purposeful sample over-representation of Māori.

Phase 2: Refine the preliminary measure into a robust measure for routine use

An SPSS dataset was prepared for the analysis of the results from the piloting of the preliminary measure. Individual participant data were double entered into the SPSS dataset to detect and correct entry errors.

Before commencing any psychometric analysis, the full data set was randomly split into two discrete sets of 300 and 204 participants. The rationale for this was to provide one data set for the initial exploratory factor analysis and an independent data set for subsequent confirmatory factor analysis and reliability estimation. The exploratory analysis using SPSS for Windows Rel. 13.0 (SPSS Inc., 2004) was undertaken using the data set of 300 and confirmatory data analysis using

the AMOS 6 Structural Equation Modelling software (Arbuckle, 2005) was conducted with the data set of 204.

Initially the frequency distributions of the responses for each individual item were examined to determine the proportion of '*not applicable*' responses. When more than 9% of respondents identified *not applica*ble for an item the content of that item was examined closely to determine whether this reflected either (a) a potentially good item that was simply not relevant for a proportion of participants for obvious reasons e.g. an item about smoking tobacco is clearly irrelevant and hence not applicable to the non-smokers; or (b) a poorly written item that a significant proportion of participants saw as irrelevant to their lives.

If a 10% or higher response rate for *not applicable* was readily explained by the nature of the question it was retained in the item pool. All responses of 'not applicable' were then changed to '3' which is the mid-point on the 1-5 Likert response scale, enhancing the efficiency of the data analysis without changing the variance significantly. Based on a conservative premise, this is a well recognized approach for handling missing data.

The next stage of the analysis involved creating separate 'parcels' of items that were statistically relatively homogeneous. An item parcel is simply a small group of highly correlated items that are added together to give a single composite score. The rationale for parceling comes from classical test theory where summing related items increases the proportion of the summed item that captures the true content since the error component of the response is reduced by summing (Anastasi & Urbina, 1997). Item parcels were created by completing a principal components analysis for each of the 12 groups of items written to capture a particular construct and included together in the questionnaire. The item loadings on the first (unrotated) principal component are closely analogous to the item-to-total correlations for that data set.

The items for each proposed factor or dimension were rank ordered by the magnitude of their individual loading on the first principal component. Then these rank ordered items for each proposed factor were allocated to one of two parcels for that factor (i.e. the highest loading item went into parcel 1, the next two items into parcel 2, the next item into parcel 1 etc.). The scores on the items allocated to each parcel were then totaled to form a parcel score and this score, instead of the individual item scores, was used in the factor analysis.

Principal components analysis with Varimax rotation (PCA:VR) was then performed on the resulting 24 'parcels' with the specification that 12 factors be extracted. The decision to rotate 12 factors was based upon theoretical grounds – specifically that 12 separate and important different dimensions relating to the concept of recovery had been identified through the literature review and consultation associated with the preliminary work.

Wanting to significantly reduce the number of items of the preliminary measure (without affecting the factor structure) items with loadings <0.7 on the general, unrotated factor were eliminated from each proposed dimension (down to a minimum of four items for each factor). The items were then once again parceled (following the same process as previously undertaken). Once the item pool had been reduced a principal components analysis with Varimax rotation (PCA:VR) was once again performed.

At this stage the results were presented to the reference group for feedback. In particular they were asked to consider the face validity of the preliminary revised measure in terms of (i) any items that had been removed that should be included in the final revised measures; (ii) any items included in the preliminary revised measure that should be removed.

The measure was modified based on the feedback of the reference group, the items parceled again, and a principal components analysis with Varimax rotation (PCA:VR) was performed once more.

Confirmatory factor analysis using the second dataset of 204 participants was conducted with the AMOS 6 Structural Equation Modelling Software (Arbuckle, 2005). As some analyses cannot be undertaken with data containing missing values, participants with missing data were not included in the confirmatory factor analysis. Hence the dataset was reduced to 142 participants. This CFA was carried out using the factor parcels identified through the exploratory analysis. A variety of indices of fit were calculated through the confirmatory factor analysis, including the Normed Fit Index (NFI), the Comparative Fit Index (CFI), and the Chi-squared analysis. An estimate of residual covariances was also calculated through the Root Mean Square of Approximation (RMSEA).

Māori section

The Māori specific section was analysed as a separate part of the preliminary measure. Firstly, the responses of those participants who identified as Māori were extracted from the full dataset. Once again the frequencies for each of the individual items in that section were checked to assess if any high proportion of 'not applicable' responses could be explained by the nature of the question.

All 'not applicable' responses were then changed to '3'. Principal components analysis with varimax rotation (PCA:VR) was initially performed without specifying the number of factors to extract, since there was no expected factor structure for this section.

At this stage the results were presented to the reference group for feedback. The Māori section was modified based on the reference group feedback and a principal components analysis with Varimax rotation (PCA:VR) once again performed. The items were then parceled (following the same process as previously) and a principal components analysis with varimax rotation was then performed on the resulting parcels.

Confirmatory factor analysis, with the AMOS 6 Structural Equation Modelling Software (Arbuckle, 2005), of the Māori section was undertaken using the same dataset as that used for the exploratory analysis but with participants with missing data not included, the dataset being reduced to 167 participants. This CFA was carried out using the factor parcels identified through the exploratory analysis. A variety of indices of fit were calculated. An estimate of residual covariances was also calculated through the Root Mean Square of Approximation (RMSEA).

Reliability

Reliability, measured by Cronbach's alpha and the Split-Half Coefficient (with the Spearman-Brown correction), was computed for each of the individual dimension scales identified through the exploratory analysis and confirmed through the confirmatory analysis.

Participant Feedback

A thematic analysis of the material, which participants communicated through the space made available at the end of the measure for people to write about any matters that were personal to them or thoughts and feelings that had been raised while they had been completing the measure, was undertaken.

Revised Measure

Based on the results of the analysis of the pilot data the preliminary measure was refined into a 79 item measure (Appendix 7) which was made up of between three and ten items for each of the 11 domains of the main section and nine and five items respectively for each of the two Māori section domains. Based on the five point Likert scale with anchors 1-5, labelled 'none of the time' (1); 'a little of the time' (2); 'some of the time' (3); 'most of the time' (4); 'all of the time' (5) the range of subscale scores for each of the domains and total scores were calculated (Table 1).

Table 1: Range of domain and total scores for the revised measure

Domain	Low score (minimum)	High score (maximum)
Relationships	10	50
Day-to-Day Life	3	15
Culture	6	30
Physical Health	4	20
Quality of Life	7	35
Mental Health	7	35
Recovery	4	20
Hope and Empowerment	8	40
Spirituality	4	20
Resources	4	20
Satisfaction with Services	8	40
Total: main section	65	325
Whanaungatanga	9	45
Te Reo me ōnā Tikanga	5	25
Total: Māori section	14	70
Total: all domains	79	395

Phase 3: Test the revised measure

The research team identified three services to approach for the purposes of undertaking the re-testing of the revised measure. These were an acute in-patient service; a mainstream organisation that provided residential support, support in the community and respite mental health services, and a Kaupapa Māori organisation that provided residential support, support in the community and respite mental health services. All services approached accepted the invitation to be involved in the re-testing.

For the purposes of re-testing it was determined that participants from the acute in-patient service be invited to complete the revised measure at weekly intervals and all others at monthly intervals.

The researchers held meetings with the relevant management of the services involved to discuss and determine processes for the recruitment of participants. It was established that the main approach should involve staff of the services identifying an appropriate time (in relation to both state of wellness and practicability) to speak to consumers/tāngata whaiora about the study and the possibility of meeting with one of the researchers to get more information about what participation in the study would involve. The staff member would then contact the researchers to organise a meeting with those consumers/tāngata whaiora interested in participating. Information and instructions pertaining to inviting people to participate in the re-testing were prepared for managers to distribute to the staff of the services. This information was also presented at some staff forums held during the re-testing period. In addition, the researchers were asked to visit the in-patient facility to present information on the study and invite people to participate directly.

An initial meeting was organised between one of the researchers[2] and any person that expressed interest in being involved in the re-testing. Participants who volunteered were informed by the researcher of all the main points relevant to participation as included in the information sheet (Appendix 8). The sheet was then given to the participants to read. All participants signed a consent form (Appendix 5) prior to participation. Consenting participants completed the revised measure either independently or with the assistance of a support person or one of the researchers. The researcher and participant then made arrangements directly for repeating the revised measure either weekly or monthly (as appropriate). An individual code number was attached to each participant for the purposes of analysing results across intervals.

SPSS datasets were prepared for analysis of the results from the testing of the revised measure across both weeks and months. Individual participant data were double entered into the SPSS dataset to detect and correct entry errors.

The frequency of responses for each domain across each testing occasion were calculated to determine rates of completion prior to any revision of the raw dataset. All responses of 'not applicable' were then changed to '3' which is the mid-point on the 1-5 Likert response scale. In addition, where the missing item responses of a domain for any participant were 25% or less of the total number of domain items they were replaced with a '3', as some analyses cannot be undertaken with data containing missing values.

Participant scores for each completion occasion were calculated in relation to:

- each of the domains
- a total for the main section

In addition, separate scores were calculated for those participants that identified as Māori in relation to:

- each of the Māori section domains
- a total for the Māori section
- a total for the main section plus the Māori section.

Individual participant scores were then added to produce overall domain and total scores for each completion occasion. Using these individual composite scores, the range, mean and standard deviation for each completion interval in relation to all individual domains and totals were calculated.

A repeated measures analysis of variance was conducted to investigate any change in mean scores, and any significance of such, across completion intervals for all individual domains and totals.

[2] Note: In accord with the approaches identified for the project to be responsive, and inclusive, to Māori only the Māori researcher was involved with the re-testing through the Kaupapa Māori service.

Phase 4: Develop normative data for the measure

The normative data was prepared using the full preliminary measure pilot dataset. In preparation for the development of the normative data, total scores, based on each of the items included in the revised measure, were calculated for:

- each of the main section domains separately
- a total for the main section as a whole
- each of the Māori section domains separately
- a total for the Māori section as a whole
- a total for the main section plus the Māori section as a whole.

T-tests and analysis of variance were then conducted in relation to sex, ethnicity, age, length of experience and diagnosis for each of the domains and totals to determine where there were any significant differences. The resulting significant differences informed the choice of demographic categories around which the norms were developed.

Quartile and decile scores were then computed and tabulated for each of the domains and totals in relation to the significant demographic categories.

RESULTS

Phase 1: Develop and pilot a preliminary measure

The final preliminary measure consisted of 147 items, made up of 5-20 items for each potential domain (Appendix 2). The response scale was a five point Likert scale with anchors 1-5, labelled 'none of the time' (1); 'a little of the time' (2); 'some of the time' (3); 'most of the time' (4); 'all of the time' (5). A 'not applicable' option was included and labelled as 9. The stem read 'over the past week I have…'.

The preliminary measure was piloted with 511 people who self-identified as having experience of mental illness. The data for seven participants were not included because of obvious evidence of poor quality (e.g. substantially incomplete measure).

All the demographic data collected was from self-report. A summary of the data is presented in table 2.

Ethnicity

The New Zealand census approach was adopted (whereby Māori is recorded as the primary ethnicity if more than one ethnicity (including Māori) is recorded by any participant). The final sample included 194 (38%) Māori, 83 of whom identified with at least one other ethnicity. Sixty seven percent of all Māori identified with at least one Iwi. A total of 161 Iwi affiliations were reported by the 130 participants who identified with at least one Iwi, 25 participants identified two or more Iwi. Of all the participants who identified an Iwi affiliation, 13.7% identified with Ngapuhi, 11.8% identified with Ngāti Porou, 19.9% identified with Ngāti Kahungnunu, 5.0% identified with Tainui and 4.3% identified with Ngāi Tahu which is broadly consistent with the census distribution. The remainder of the participants identified as follows; 49.0% New Zealand European, 2.6%, Samoan, 1.2%, Cook Island Maori, 0.2%, Tongan, 0.4%, Niuean, 1.8%, Chinese, 0.2%, Indian and 3.6%, and other (including Australian, Dutch, Japanese, Tokelauan). Fifteen participants did not provide data on this subject.

Of the 194 participants who identified as Māori, 97% completed the Māori section of the preliminary measure.

Age

The ages of the participants were 18-24 years (4.6%), 25-34 years (14.5%), 35-44 years (33.7%), 45-54 years (30.2%), and 55-65 (14.3%). Fourteen participants did not provide data on this subject.

Gender

Some 52.8% of participants were female and 41.3% were male. Thirty participants did not provide data on this subject.

Years spent at secondary school

Attendance at secondary school ranged from not at all (2.8%) through to six years (one year 3%, two years 10.5%, three years 22.4%, four years 24.4%, five years 22.6%, six years 9.7%). Twenty three participants did not provide data on this subject.

Highest qualification

Whilst 8.3% of participants recorded that they had no qualification, 8.3% Indicated that they had New Zealand School Certificate in one or more subjects, or National Certificate Level 1 (or overseas equivalent), 7.3% recorded that they had NZ Sixth Form Certificate in one or more subjects, or National Certificate Level 2 (or overseas equivalent), 11.1% indicated that they had a Bachelors degree level qualification, 4.0% a Masters level qualification, 9.7% a Diploma, 6.0% a NZQA certificate (or overseas equivalent), and 4.6% a University entrance qualification (or overseas equivalent). One hundred and thirty five participants did not provide data on this subject.

Experience of mental illness

People had experienced mental illness for periods ranging from under one year for 0.4% of participants, 1-2 years for 2.2% of participants, 3-5 years for 9.3% of participants, 6-10 years for 13.7% of participants, 11-15 years for 16.9% of participants, 16-20 years for 17.6% of participants, and 20 years or more for 35.9% of participants. Twenty participants did not provide data on this subject.

Lifetime affect of mental illness

When asked how often they had been affected by their experience of mental illness during their lifetime, 45.6% of the sample indicated 'some of the time', 32.5% 'most of the time', 8.1% 'all of the time', 7.9% 'a little of the time', and 1.4% 'none of the time'. Twenty two participants did not provide data on this subject.

Last year affect of mental illness

When asked how often, during the last year, people had been affected by their experience of mental illness, 35.5% of participants indicated 'some of the time', 24.4% 'most of the time', 20.4% 'a little of the time', 9.1% 'all of the time', and 6.2% 'none of the time'. Twenty two participants did not provide data on this subject.

Lifetime contact with mental health services

When asked how often they had had contact with mental health services, 43.1% of the sample indicated 'some of the time' during their lifetime, 23.0% 'a little of the time', 20.6% 'most of the time', 6.7% 'all of the time' and 4.0 'none of the time'. Thirteen participants did not provide data on this subject.

Last year contact with mental health services

When asked how often they had had contact with mental health services during the last year, 28.8% of the sample indicated 'some of the time', 19.8% 'most of the time', 16.5% 'a little of the time', 18.7% 'none the time' and 13.3% 'all of the time'. Fifteen participants did not provide data on this subject.

Understanding of the diagnosis the mental health service has given to you

2.6% of people marked the box indicating that they would prefer not to answer the question. 30.4% of people indicated schizophrenia, 27.8% bipolar, 25.6 depression, 1.6% anxiety, 1.0% substance abuse; and 5.4% other (such as borderline personality disorder, bulimia, and post-traumatic stress disorder). 46.8% of participants identified two or more diagnoses. Twenty three participants did not provide data on this subject.

Phase 2: Refine the preliminary measure into a robust measure for routine use

Just three items, numbers 116, 117 and 120 of the preliminary measure were removed from the item pool because of the high proportion of 'not applicable' responses (30.2%, 31.2% and 31.7% respectively) that could not readily be explained by the nature of the question.

The results of the initial principal component analysis for each of the proposed dimensions are presented in tables 3 to 14 and graphs 1 to 12 in Appendix 6.

The principal components analysis revealed that uniformly large loadings were present on the first factor for all 12 of the proposed domains, indicating that each dimension was measuring a single overall construct identified by the name applied to that dimension.

The items for each proposed factor or dimension were then parceled (see tables 3 to 14, Appendix 6 for parcel allocations) and a principal components analysis with varimax rotation (PCA:VR) performed on the resulting 24 'parcels' with the specification that 12 factors be extracted.

Table 2: Demographic Profile of Participants involved with the Pilot of the Preliminary Measure

Demographic										
Sex	Male					Female				Missing
n	208					266				30
%	41.3					52.8				5.9
Age (years)	18-24		25-34		35-44		45-54		55-65	Missing
n	23		73		170		152		72	14
%	4.6		14.5		33.7		30.2		14.3	2.8
Ethnicity	Māori	NZ European	Samoan	Cook Island	Tongan	Niuean	Chinese	Indian	Other	Missing
n	194	245	13	6	1	2	9	1	18	15
%	38.0	49.0	2.6	1.2	0.2	0.4	1.8	0.2	3.6	3.0
Years spent in secondary school	Not at all	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	Missing		
n	14	15	53	113	123	114	49	23		
%	2.8	3.0	10.5	22.4	24.4	22.6	9.7	4.6		

Iwi	Ngapuhi	Ngāti Porou	Ngāti Kahungungu	Tainui	Ngāi Tahu	Ngāti Tuwharetoa	Tuhoe	Te Atiawa
n	22	19	32	8	7	6	6	6
%	13.7	11.8	19.9	5.0	4.3	3.7	3.7	3.7

Highest Qualification	No Qualification	NZ School Cert/ Nat. Cert. Lvl 1/ Overseas equiv.	NZ 6th form Cert./ Nat. Cert. Lvl 2/ Overseas equiv.	NZQA cert. / Overseas equiv.)	University entrance qual./ Overseas equiv.	Bachelors degree	Masters	Diploma	Missing
n	65	42	37	30	45	56	2	49	135

%	12.9	83.0	7.3	6.0	8.9	11.1	4.0	9.7	26.8

Length of mental illness experience	Under 1 year	1-2 years	3-5 years	6-10 years	11-15 years	16-20 years	20 years or more	Missing
n	2	11	47	69	85	89	181	20
%	0.4	2.2	9.3	13.7	16.9	17.6	35.9	4.0

Lifetime affect of mental illness	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	7	40	230	164	41	22
%	1.4	7.9	45.6	32.5	8.1	4.4

Last year affect of mental illness	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	31	103	179	123	46	22
%	6.2	20.4	35.5	24.4	9.1	4.4

Lifetime contact with mental health services	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	20	116	217	104	34	13
%	4.0	23.0	43.1	20.6	6.7	2.6

Last year contact with mental health services	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	94	83	145	100	67	15
%	18.7	16.5	28.8	19.8	13.3	3.0

Understanding of diagnosis mental health service has	Schizophrenia	Bipolar	Depression	Anxiety	Substance abuse	Other	Prefer not to answer question	Missing
n	153	140	129	8	5	27	13	23
%	30.4	27.8	25.6	1.6	1.0	5.4	2.6	4.6

Note: In order to simplify percentages have been rounded to one decimal place.

However, it was not possible to identify 12 factors as a small number of parcels from supposedly different 'dimensions' were found to load high on the same factor. The two item parcels for the proposed dimension called 'hope' could not be distinguished from the set of item parcels for the proposed dimension entitled 'empowerment'. These four parcels both showed high loadings upon the same factor. Thus an eleventh factor was identified by combining the items of the proposed hope and empowerment dimensions. This factor was entitled 'hope and empowerment'. The combined hope and empowerment items were then split into two parcels (as for each of the other factors), as shown in table 15, Appendix 6.

Once the item pool had been reduced, by eliminating items with loadings <0.7, a principal components analysis with varimax rotation was performed on the now 22 'parcels' with the specification that 11 factors be extracted (due to the fact that the 'hope' and 'empowerment' dimensions had been combined). The analysis (see table 16) showed the two item parcels from each of the 11 dimensions had their highest loadings on the same factor, clearly indicating that the 11 subscales from which they were derived are distinct and independent. The critical loadings are high, ranging from .59 to .96.

Table 3: Rotated Component Matrix (a) for the Eleven Factor Rotation of the Twenty-two Parcels

Parcel	Component										
	1	2	3	4	5	6	7	8	9	10	11
Culture1	.86										
Culture2	.86										
Recovery1		.85									
Recovery2		.79									
MentalHealth2			.78								
MentalHealth1			.72								
Satisfaction1				.96							
Satisfaction2				.94							
Relationships1					.82						
Relationships2					.81						
Spirituality2						.88					
Spirituality1						.81					
Resources1							.93				
Resources2							.91				
Physicalhealth2								.87			
Physicalhealth1								.76			
Daytoday2									.85		
Daytoday1									.54		
hemp2										.63	
hemp1										.59	
Qualityoflife1											.61
Qualityoflife2											.57

Note: In order to simplify this table loadings have been rounded to two decimal places and loadings < .5 have been eliminated.

At this stage, the reference group reviewed the revised measure and advised that the following amendments needed to be made:

- That item number 89 (I have felt I can contribute to my community) from the 'quality of life' dimension be included in the 'relationships' section because involvement and reciprocity at this level is very important to some people in relation to their recovery and at present no other item of the measure is relevant to that
- That item number 94 (I have felt I am an important part of my family) from the 'quality of life' section be included in the relationships' section because family/whānau is very important to some people in relation to recovery and at present no other item of the measure is relevant to that
- That item number 68 (I have felt comfortable with how clear-headed I am) be removed from the 'mental health' section because it is very similar to item 57 (I have been able to think clearly)
- That item number 24 (I have been able to do my usual household tasks) be removed from the 'day-to-day' life section because it is encompassed within item numbers 22 (I have been able to do my usual activities) and/or 26 (I have been able to do my daily tasks)
- That item number 61 (I have felt safe) be included in 'quality of life', rather than mental health, because it is an important question but should be considered from a wider perspective than 'mental health' alone
- That item 82 (I have felt a sense of purpose for my life) be removed from the 'hope and empowerment' section because it is very similar to item 80 (I have felt a sense of meaning for my life) from the 'hope and empowerment' section
- That 83 (I have felt like I have choices) be included in the 'hope and empowerment' section because 'choice' is an important concept associated with recovery and at present no other item of the measure is relevant to that
- That item 108 I have had decent food) be removed from the 'resources' section because there is another item on food (104 – I have had enough food to eat) which satisfactorily covers this matter
- That item 114 (I have felt respected by the service) of the 'satisfaction with services' section be removed because all elements of the other questions included in this section relate to that overall concept of respect
- That item 127 (I have felt the service has provided me with the information I need) be included in the 'satisfaction with services' section because information is vital to facilitating choice and consent.

The measure was modified based on the feedback of the reference group. One particular major change involved the 'day-to-day life' section. The removal of an item from this section reduced it to a total of three items. This meant that there were not sufficient items to form separate parcels. Hence all the items were combined to form one 'day-to-day life' dimension parcel.

Once the modifications had been made a principal components analysis with varimax rotation was performed on the now 21 'parcels' with the specification that 11 factors be extracted (due to

the fact that the 'hope' and 'empowerment' dimensions had been combined and the 'day-to-day life' dimension consisted of only one parcel). The analysis (see table 17) showed the two item parcels from each of the ten 'parceled' dimensions had their highest loadings on the same factor, and the one 'day-to-day life' dimension loaded on another factor, clearly indicating that the 11 subscales from which they were derived are distinct and independent. The critical loadings remain high, ranging from .59 to .96.

Table 4: Rotated Component Matrix (a) for the Eleven Factor Rotation of the Twenty-one parcels

Parcel	Component										
	1	2	3	4	5	6	7	8	9	10	11
Recovery1	.82										
Recovery2	.81										
Culture1		.87									
Culture2		.86									
Satisfaction1			.96								
Satisfaction2			.95								
Physicalhealth2				.88							
Physicalhealth1				.77							
Spirituality2					.88						
Spirituality1					.81						
MentalHealth1						.83					
MentalHealth2						.70					
Resources2							.91				
Resources1							.90				
Relationships2								.76			
Relationships1								.75			
Qualityoflife1									.73		
Qualityoflife2									.59		
Hemp1										.64	
Hemp2										.61	
Daytodaylife											.74

Note: In order to simplify this table loadings have been rounded to two decimal places and loadings < .55 have been eliminated.

The final individual items and their individual factor loadings for each of the 11 factors are reported in table 18, Appendix 6.

This confirmatory factor analysis was carried out using 21 factor parcels (those being the two each for all of the domains with the exception of day-to-day life which only had one at this stage). The results of the confirmatory factor analysis are presented in figure13, Appendix 6.

A rule of thumb frequently used in interpreting the Chi-squared statistic in CFA is that if the ratio of the Chi-squared to the degrees of freedom is less than 2.0 the model is a good fit (Ullman, 1996). In this case the Chi-squared/df ratio was 1.54 thus suggestive of a good fit. The other

indices of fit were all high, further supporting the eleven-factor model (NFI=.931; CFI=.974; RFI=.897). The RMSEA was .062, close to being less than the 0.05 suggested as indicative of a good fit (Browne & Cudeck, 1993).

Māori section

The frequency of responses to the items that had been removed during the exploratory analysis of the main dataset – those being questions 116,117, and 120 – were specifically analysed to determine the proportion of 'not applicable' responses for the Māori participants alone. It was found that the proportion of 'not applicable' responses to these questions for the Māori participants were not proportionally high (being 14.0%, 14.0% and 13.2% respectively). Hence, questions 116, 117 and 120 were analysed as part of the Māori specific question section.

The initial principal components analysis revealed a number of items loading unequivocally on five separate factors. This result is presented in Table 19, Appendix 6.

At this stage, the reference group reviewed the revised measure and advised that the following items should be removed due to replication (in relation to consideration of the overall measure): item 28 (I have felt my whānau understands me; item 136 (I have felt proud to be Māori); item 138 (I have had good support from my whānau); item 139 (I have felt I can contribute to my whānau); item 141 (I have been supported by kuia (female elder); item 142 (I have felt supported by koroua (male elder); item 116 (I have felt the service has respected my culture); 117 (I have felt the service has reflected my culture). Once the modifications had been made a principal components analysis with Varimax rotation (PCA:VR) was performed on the 15 remaining items. Once again, the number of factors was not specified. However, the results revealed 14 of the items loading on two factors (see Table 20, Appendix 6). In response another principal components analysis was undertaken, this time with a specification that two factors be extracted (see Table 21, Appendix 6). Examination of the scree graph (figure 14, Appendix 6) confirmed the extraction of two factors.

One item, question 20, did not load on either of the two identified factors so was removed at this stage. The items were then parceled (following the same process as previously), with two parcels for each factor, as shown in table 21, Appendix 6. Principal components analysis with varimax rotation was then performed on the resulting four parcels with the specification that two factors be extracted. The analysis (see table 22) showed the two item parcels from each of the two dimensions had their highest loadings on the same factor, clearly indicating that the two subscales are distinct and independent. The critical loadings are high, ranging from .87 to .94.

Table 5: Rotated Component Matrix (a) for the Two Factor Rotation of the Four Parcels

Parcel	Component	
	1	2
MP12	.93	
MP11	.92	
MP22		.94
MP21		.87

Note: In order to simplify this table loadings have been rounded to two decimal places and loadings < .55 have been eliminated.

These factors were subsequently titled, on the advice of the reference group, 'Whanaungatanga' (factor one) and 'Te Reo me ōnā Tikanga' (factor two).

The final individual items for each of the two Māori subscales and their individual factor loadings for each of the two factors are reported in table 23, Appendix 6.

The confirmatory factor analysis was carried out using the four factor parcels (those being the two for each of the two domains) identified through the exploratory analysis. The results of the confirmatory factor analysis are presented in figure 15, Appendix 6. Similar to the analysis of the main section, the indices of fit for the Māori section all support the two factor model. The Chi-squared/df ratio was .580; the GFI was .998 and the RMSEA was 0.00.

Reliability

Reliability, measured by Cronbach's alpha and the Split-Half Coefficient (with the Spearman-Brown correction) was computed for each of the individual 11 factors, the 11 domains as a whole (main section), each of the two Māori factors, the Māori section as a whole, and all of the factors together. Results are presented in table 24.

Table 6: Reliability coefficients for all factors and sections

Factor	Cronbach's Alpha	Split-Half Coefficient
Relationships	.91	.90
Day-to-Day Life	.84	.76
Culture	.92	.87
Physical Health	.80	.69
Quality of Life	.89	.85
Mental Health	.91	.91
Recovery	.88	.85
Hope and Empowerment	.96	.94
Spirituality	.88	.86
Resources	.81	.82
Satisfaction with Services	.96	.96
Main section	.94	.90
Whanaungatanga	.92	.93
Te Reo me ōnā Tikanga	.89	.84
Māori section	.84	.63
All factors	.96	.92

Note: In order to simplify this table values have been rounded to two decimal places.

Participant Feedback

As recommended during consultations undertaken during the earlier review (Gordon et al., 2004), space was made available at the end of the preliminary measure for people to write something once they had completed the measure. This page began with the following explanatory communication: 'on this page is some space for you to write about any matters that are personal to you or thoughts and feelings that have been raised for you while you have been completing the questionnaire'. This proved a very valuable section of the measure with 200 participants (close to 40% of the total) writing something in this space, relating either to their personal situation or the measure itself. Given the extent of this information, a thematic analysis was undertaken to complement the psychometric analysis.

Monitor, reflect and communicate

We had intended the key purpose of the measure to be to '*provide consumers/tāngata whaiora with a measure to support individual reflection and communication*'. Participants provided significant feedback on this aspect of the measure. The following quotes reflect the main points communicated – that the measure facilitated both positive and negative self-reflection:

> *Anger, frustration, sadness; has deepened sense of 'loneliness'; being a failure. Not a fault of the survey! Just having to answer 1 or 2 to most makes you realise how bad it is in life at the moment. I have been coping by not letting myself realise the 'reality' of what I am going*

through. Without support that is the best strategy- but I feel I am collapsing and nearly having a breakdown because there is only so long one can last by themselves.

My last week has been different as my wife and I have a new baby who demands a lot of attention thus a lot of things I do outside of work have been focused on his needs. Tiredness and lack of sleep have been predominant features in the last week. The survey has reminded me that mental health for me encompasses mental, physical, spiritual and emotional and family health- a useful reminder to me.

Your survey made me realise I am in control of my life. I need to relax more, be patient with my illness, understand others have needs. To talk more slowly. I have a lot of strengths, I just fail to see them.

I have realised that I am experiencing some of my early warning signs and therefore, will do something about it. Having to stop and fill this out has made me more aware of where I am at the moment.

While completing the questions I found it encouraging and self reflective and appreciate how far I have come over years.

Made me consider how much I am control of my life and future and where I could possibly improve it.

I found that some of the questions I didn't want to answer as they were about me and having to look inside myself for the answers was hard as normally I try not to think about me and my feelings and what I think about myself.

It's interesting to see that if I filled this out over a month ago it would have been totally different. Good to increase self awareness.

I believe this has been a useful exercise for me and can see it being not only useful for government but could also be used widely as an aid to effective communication between patients and both their support network and health professionals.

Recovery

The development of the preliminary measure was based on the literature review and consultation undertaken through the preliminary work. In particular, this related to the 12 dimensions that consumers (across cultures) have consistently identified as important to recovery. Quotes from the preliminary measure included commentary and reflection both on the concept of the recovery journey and the indicators reflective of the recovery paradigm:

Doing this questionnaire has helped me see just how far I have come on my journey to recovery. Even though I was dislocated from my whānau, which lead in turn to my mental issues, I have survived this year. I have a future and I have hope. Kia kaha, kia manawanui.

I am well into my recovery, so much better than where I was at the start of this year and all the years before.

Made me realise how far I have come in my recovery journey. If I had been asked these questions 8-9 years ago I would have answered very differently- particularly in respect of living in my own skin and expressing myself. I now feel life has meaning and I am able to integrate in my community- before I would have hidden in a shell of shame.

It has shown me that even though I have remained well for the last three years, my wellness is something I cannot take for granted and is a continual work in progress that requires continual evaluation of self, service, medication and relationships.

Treatments and support

The preliminary measure was piloted with people who self-identified as having experience of mental illness, many of whom had past and/or current experience of various treatment/s and support/s for mental illness. There were numerous quotes reflecting consideration of the impact of these:

I realised that I am resigned to having side effects of my medication. No alternatives have been explored. It's too long!

I haven't accessed a mental health service in the last week but I did have a time in the hospital with chest pain- this impacted on my thoughts and mood. My medication (amongst other things) caused a rise in my blood pressure and high cholesterol. Why do we always lose something for every gain?

Without support, being in the community, work and whānau I would not be where I am today.

Had bi-polar diagnosis at age 51 after becoming manic. Was very well served by mental health services in Dunedin, both inpatient and outpatient over two year period. Also well loved and supported by family and friends. Their acceptance and loving support was a huge factor in my recovery.

What bugs me so much about psychiatric services is the medication. I eat all the time and sleep all the time because of my psychiatric medication. Half the time I feel like a fat lazy slob. Why is my medication dragging me down when it is supposed to be making me feel better? Now I am a social reject.

Mental health services

Whilst researchers still disagree as to whether satisfaction with services should be included as a dimension within mental health outcome measurement, the preliminary work showed (through both the literature review and consultation) that consumers/tāngata whaiora believe satisfaction with services does affect their mental wellbeing and therefore, should be included in any such measure. Participants who engaged in the pilot of the preliminary measure certainly supported this assertion with a significant number of comments relating to mental health services. The following quotes reflect the main points communicated in relation to mental health services:

I feel my opinions are well listened to by my psychiatrist but this is probably because I am not intimidated by him and am an articulate individual. I feel concerned that sometimes less articulate mental health service-users are "dismissed" because they do not present well.

It's very hard to judge a service if you are unsure what they can provide for you.

I am caught in the place between boundaries, between Māori and Pākehā; man and woman; mental health and addictions; old age and young age; spiritual and physical. What happens is that mental health services, just like society, form boundaries within which you are okay but without which you don't belong.

I belong to a subsidised G.P. service in which the care I receive is excellent. My G.P has read my notes and is very communicative. This combined with easy access is great and keeps me out of hospital. Continuity of care is important with a GP who knows who I am either with or without my illness being present.

I find, having completed this, that I am incredibly "pissed off" with the lack of "service" I receive from services. I get concerned about what happens when I become really unwell if I have a service that is completely unresponsive to my situation.

Reflections on preliminary measure – content and format

The majority of feedback on the content and format of the actual measure was about the length with participants communicating that they thought it was too long. This was understandable given the preliminary nature of the measure and the inclusion of 147 potential items. This feedback was in keeping with the research team plans to significantly reduce the number of items in the revised measure. This was communicated to participants prior to, and after, completion of the measure. The following quotes reflect the main points communicated about the preliminary measure:

There is a lot of repetition in this-many questions asked in many different ways

I love how the survey flows from one subject to the next. Excellent use of colour to separate sections.

Understandable-simple to read.

I'm feeling ok about the questionnaire. Was easy to follow and easy to answer.

This was pretty good and easy but it was too long and tiring, but I made it through.

This is a fairly easy questionnaire although lengthy but that's okay.

I thought that this was great for my levels of comprehension, for people that have reading difficulties I think that it would work well to have open forums that one taped. We need to be getting feedback from people that are receiving service delivery at grass roots. We need to be talking to people one on one.

It would be helpful if after each segment there is a comments section.

Too many repeats of questions. Too many questions in total. Need to make it 50-70 questions at the most.

Normally, I would resist a survey that sought to quantify my experience. The fact that it is consumer driven makes me wish to participate. I feel this is giving voice to my experience which speaks the language of traditional outcomes to clinical services and funders.

Phase 3: Test the revised measure

The revised measure (Appendix 7) consisted of 79 items made up of between three and ten items for each of the 11 domains of the main section and nine and five items respectively for each of the two Māori section domains. The response scale remained a five point Likert scale with anchors 1-5, labelled 'none of the time' (1); 'a little of the time' (2); 'some of the time' (3); 'most of the time' (4); 'all of the time' (5) which was used to generate subscale scores for each of the domains and total scores.

The revised measure was tested with 30 people from the acute in-patient service. The data for one participant was discarded due to poor quality. Of the 29 participants 29 people completed the measure once; 21 people completed the measure on two occasions (at weekly intervals); 14 people completed the measure on three occasions (at weekly intervals); seven people completed the measure on four occasions (at weekly intervals); five people completed the measure on five occasions (at weekly intervals); and two people completed the measure on six occasions (at weekly intervals).

All the demographic data collected was from self-report. A summary of the data is presented in table 25.

Ethnicity

The New Zealand census approach was adopted (whereby Māori is recorded as the primary ethnicity if more than one ethnicity, which includes Māori, is recorded by any participant). The final sample included 11 (37.9%) Māori, five of whom identified Māori plus at least one other ethnicity. Eighty two (82%) of all Māori identified at least one Iwi. A total of 13 Iwi affiliations were reported by the 11 participants that identified with at least one Iwi, three participants identifying two or more Iwi. Of all the participants who identified as being affiliated with an Iwi, 15.4% identified with Ngapuhi, 15.4% with Ngāti Kahungnunu, 15.4 with Te Arawa, and 7.7% with each of Tainui, Ngāti Ruanui, Ngāti Haua, Ngāi Tahu, Ngāti Ruakawa ki Waikato, Te Ure o Uenuku, and Ngāti Tuwharetoa. The remainder of the participants identified as 41.3% New Zealand European, 6.9% Samoan, 3.4% Cook Island, 3.4 % Chinese, 3.4% Indian, and 3.4% Other (such as Australian, Dutch, Japanese, and Tokelauan).

Of the 11 participants that identified as Māori, 91% completed the Māori section of the measure.

Age

The ages of the participants were 18-24 years (13.8%), 25-34 years (20.7%), 35-44 years (38%), 45-54 years (17.2%), and 55-65 (10.3%).

Gender

Some 62.1% of participants were female and 37.9% were male.

Years spent at secondary school

The number of years that participants spent at high school ranged from one year through to six years (one year 3.4%, three years 17.2%, four years 37.9%, five years 31%, and six years 10.3%).

Highest qualification

Whilst 20.7% of participants recorded that they had no qualification, 24.1% indicated that they had New Zealand School Certificate in one or more subjects, or National Certificate Level 1 (or overseas equivalent), 3.4% recorded that they had NZ Sixth form Certificate, or National Certificate Level 2 (or overseas equivalent), 17.2% indicated that they had a Bachelors degree level qualification, 13.8% a NZQA certificate (or overseas equivalent), 3.4% a University entrance qualification (or overseas equivalent), 3.4% a NZ A or B Bursary, Scholarship, or National Certificate Level 3 (or overseas equivalent); 3.4% a Doctorate, and 3.4% a NZ A or B bursary, scholarship, or National Certificate Level 3 (or overseas equivalent). Two participants did not provide data on this subject.

Experience of mental illness

The number of years that people had experienced mental illness ranged from under one year for 10.3% of participants, 1-2 years for 20.7% of participants, 3-5 years for 3.4% of participants, 6-10 years for 13.8% of participants, 11-15 years for 17.2% of participants, 16-20 years for 13.8% of participants, and 20 years or more for 20.7% of participants.

Lifetime affect of mental illness

When asked how often they had been affected by their experience of mental illness during their lifetime, 6.9% of the sample indicated 'none of the time', 41.4% 'some of the time', 27.6% 'most of the time', 13.8% 'all of the time' and 6.9% 'a little of the time'. One participant did not provide data on this subject.

Last year affect of mental illness

When asked how often, during the last year, people had been affected by their experience of mental illness, 27.6% of participants indicated 'some of the time', 17.2% 'most of the time', 10.3% 'a little of the time', 27.6% 'all of the time', and 13.8% 'none of the time'. One participant did not provide data on this subject.

Lifetime contact with mental health services

When asked how often they had had contact with mental health services during their lifetime, 41.4% of the sample indicated 'some of the time', 13.8% 'a little of the time', 27.6% 'most of the time', 6.9% 'all of the time' and 10.3% 'none of the time'.

Last year contact with mental health services

When asked how often they had had contact with mental health services during the last year, 27.6% of the sample indicated 'some of the time', 31.0% 'most of the time', 13.8% 'a little of the time', 10.3% 'none the time' and 13.8% 'all of the time'. One participant did not provide data on this subject.

Understanding of the diagnosis the mental health service has given to you

17.2% of people marked the box indicating schizophrenia, 34.5% bipolar, 34.5 depression, and 10.3% other (such as borderline personality disorder, bulimia, and post-traumatic stress disorder). 3.4% of participants identified that they had no understanding of the diagnosis the mental health service had for them 41.4% identified two or more diagnoses.

There was insufficient data collected from the community based samples across months for statistical analysis.

Response completion frequencies for each domain across each testing occasion, for consumers/tāngata whaiora that completed the revised measure through the in-patient service, are presented in table 26, appendix 9. The percentage completion rates range from 83% through to 100%. There is no indication whatsoever of any reduction in response rates as completion of the measure progresses. In addition, there is nothing warranting of any concern in relation to response rates associated with any particular domain.

Table 7: Demographic Profile of Participants involved with the Testing of the Revised Measure

Demographic								
Sex	Male				Female			Missing
n	11				18			0
%	37.9				62.1			0.0
Age (years)	18-24	25-34	35-44	45-54	55-65			Missing
n	4	6	11	5	3			0
%	13.8	20.7	38.0	17.2	10.3			0.0
Ethnicity	Māori	NZ European	Samoan	Cook Island	Chinese	Indian	Other	Missing
n	11	12	2	1	1	1	1	0
%	37.9	41.3	6.9	3.4	3.4	3.4	3.4	0.0
Years spent in secondary school	Not at all	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	Missing
n	0	1	0	5	11	9	3	0
%	0.0	3.4	0.0	17.2	37.9	31.0	10.3	0.0

Iwi	Ngapuhi	Te Arawa	Ngāti Kahungungu	Tainui	Ngāti Ruanui	Ngāti Haua	Ngāi Tahu	Ngāto Ruakawa ki Waikato	Ngāti Tuwharetoa	Te Ure o Uenuku
n	2	2	2	1	1	1	1	1	1	1
%	15.4	15.4	15.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7

Highest Qualification	No Qualification	NZ School Cert/ Nat. Cert. Lvl 1/ Overseas equiv.	NZ 6th form Cert./ Nat. Cert. Lvl 2/ Overseas equiv.	NZQA cert. / Overseas equiv.)	University entrance qual./ Overseas equiv.	Bachelors degree	Doctorate	NZ Higher School Cert./ Higher Leaving Cert. Overseas equiv.	NZ A or B Bursary, Scholarship/ Nat. Cart. Lvl 3/ Overseas equiv.	Missing
n	6	7	1	4	1	5	1	1	1	2
%	20.7	24.1	3.4	13.8	3.4	17.2	3.4	3.4	3.4	6.9

Length of mental illness experience	Under 1 year	1-2 years	3-5 years	6-10 years	11-15 years	16-20 years	20 years or more	Missing
n	3	6	1	4	5	4	6	0
%	10.3	20.7	3.4	13.8	17.2	13.8	20.7	0.0

Lifetime affect of mental illness	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	2	2	12	8	4	1
%	6.9	6.9	41.4	27.6	13.8	3.4

Last year affect of mental illness	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	4	3	8	5	8	1
%	13.8	10.3	27.6	17.2	27.6	3.4

Lifetime contact with mental health services	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	3	4	12	8	2	0
%	10.3	13.8	41.4	27.6	6.9	0.0

Last year contact with mental health services	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Missing
n	3	4	8	9	4	1
%	10.3	13.8	27.6	31.0	13.8	3.4

Understanding of diagnosis mental health service has	Schizophrenia	Bipolar	Depression	Other	None	Missing
n	5	10	10	3	1	0
%	17.2	34.5	34.5	10.3	3.4	0.0

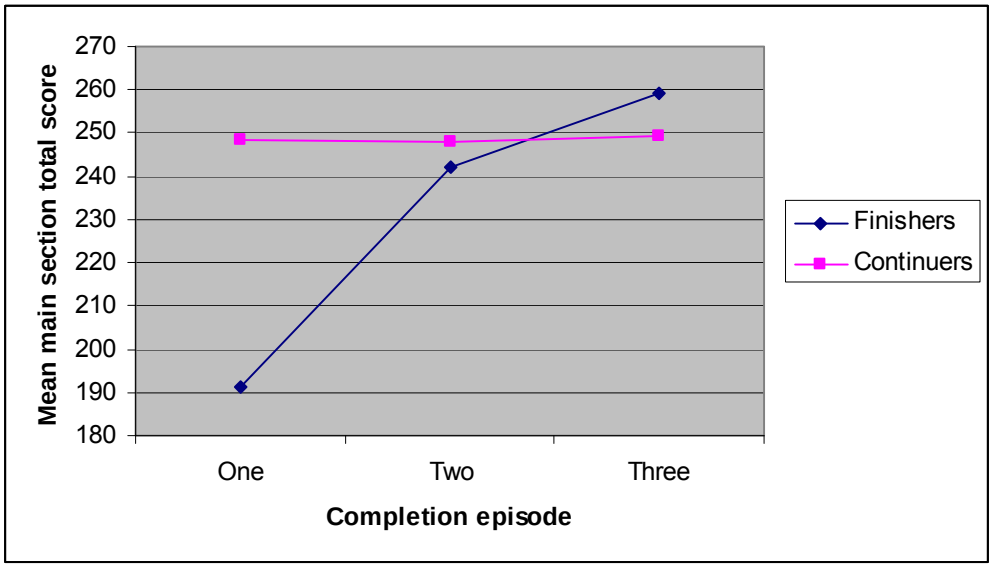
Note: In order to simplify percentages have been rounded to one decimal place

The range of scores for each domain, and total plus mean and standard deviation in relation to each completion interval, are presented in table 27, appendix 9. The mean scores generally move in the expected direction (from lower to higher) for all domains and totals. There are a couple of exceptions to this, mostly regarding small numbers of participants at late stages of follow-up. In addition, scores on the service satisfaction domain, as compared with the other domains, would not be expected to vary in direct relation to, and/or as a reflection of, changes in mental well-being. The mean scores associated with the initial completion occasion mostly fall within the 25th-50th quartile category of the normative data (appendix 10) with the increases over time resulting in scores in the 50^{th}-75^{th} quartile range. These changes reflect expected progress during the course of an acute inpatient admission.

At this stage it was decided that the analysis would focus on the data of participants who completed the measure on three occasions. This provided a reasonable size sample at each time point. (Participant numbers reduced significantly between period three and period four.) An analysis of variance of domain and total mean scores across these three occasions was performed. The results are presented in tables 28 to 43 (appendix 9). The analysis revealed that the physical health, resource and whanaungatanga domain mean scores for completion occasion two and completion occasion three were significantly different at the 0.05 level. In addition, the mean scores for the quality of life domain were significantly different ($p<0.05$) between completion occasion one and completion occasion two. The total mean scores for the Māori section were also shown to differ significantly between completion occasions two and three. No other mean score variance was found to be significant.

Consideration of the results at this stage suggested that there may be some interesting differences between scores for participants who completed the process after three occasions (and were then presumably discharged) and scores for participants who continued to undertake one or more subsequent completion (while continuing as inpatients). To investigate this further the main section total scores for the first three completion occasions were calculated for 'finishers' (those participants who finished the process after the third measure completion) and 'continuers' (those participants that had one or more completion subsequent to the third). The results are presented in figure 16. This shows that, whilst the mean main section total scores were lower for the finishers at first completion, the increase in their scores was proportionally greater over the period culminating in an actual higher value on the third completion occasion.

Figure 1: Mean main section total scores across three completion occasions for 'finishers' and 'continuers'



Phase 4: Develop normative data for the measure

The results of the t-tests and analysis of variance identified significant differences for some of the dimensions and totals in relation to age and diagnosis. In particular, some of the scores were significantly different for those aged between 18-54 years as compared with those aged between 55-65 years. For diagnosis, some scores differed significantly between those that identified diagnoses of schizophrenia, bipolar, and depression.

Based on these results norms were calculated for:

- All diagnoses; ages 18-54
- All diagnoses; ages 55-65
- Reported diagnosis of schizophrenia; ages 18-54
- Reported diagnosis of schizophrenia; ages 55-65
- Reported diagnosis of bipolar disorder; ages 18-54
- Reported diagnosis of bipolar disorder; ages 55-65
- Reported diagnosis of depression; ages 18-54
- Reported diagnosis of depression; ages 55-65.

The norms for each domain and total are reflected in decile and quartile score categories (Appendix 10).

DISCUSSION

This project aimed to develop a psychometrically sound self-assessed consumer and tāngata whaiora outcome measure for Aotearoa/New Zealand, to facilitate reflection upon an individual's situation at a particular point in time which, when used at several different points over time, reflects changes that have occurred. The primary purpose is to provide consumers/tāngata whaiora with a measure to support individual reflection and communication. Collecting and aggregating information from many individuals over a significant period of time also supports detection of trends. Factors explaining these trends can then be explored to inform decision-making and ongoing personal and service development in relation to mental health at individual, organisational, regional and national levels.

Preliminary work (Gordon et al., 2004) identified, through a comprehensive review of the literature on recovery and consumer/tāngata whaiora consultation, a sum of 12 domains that consumers (across cultures) considered important to their mental wellbeing. Analysis of existing self-assessed measures revealed that none of these covered all these domains. This preliminary work was the foundation of this project. The measure developed addresses all the identified domains and incorporates technical and pragmatic aspects of outcome measure design, implementation and use considered important from a consumer/tāngata whaiora perspective.

The need for development of this type in the area of outcome measurement has been highlighted by others internationally (Campbell-Orde, Chamberlin, Carpenter & Leff, 2005, Ridgway & Press, 2004; Fonagy, Matthews & Pilling, 2005; Schrank & Slade, 2007; Health Scotland, 2005; Ohio Department of Mental Health, 2000; Chopra, Couper, & Herrman, 2004) who stress the necessity for clarity on the purpose of outcome measurement, the importance of the consumer/tāngata whaiora perspective, the need to evaluate factors influencing the improvement in a consumer/tāngata whaiora's life and the concept of recovery:

> *Outcome measurement has been constrained by a lack of clarity concerning the nature of the outcomes themselves, for example many early outcome measures focused on symptomatic improvement but neglected the other areas such as social functioning or satisfaction with services. More recently the importance of other perspectives including those of service users and carers and the importance of new concepts, such as recovery, have forced a re-evaluation of the nature of the outcomes that need to be considered.* (Fonagy et al., 2005)

The preliminary work (Gordon et al., 2004) also identified that the easiest and most obvious way to make measures relevant to consumers/tāngata whaiora is to involve consumers/tāngata whaiora in designing them and that internationally, there were increasing moves to do this in mental health outcome work. As a result, the whole foundation of the present work was for it to be driven and focused, in every respect, by consumer/tāngata whaiora leadership and conceptualisations of mental illness and mental wellbeing. It is heartening to see other work that has similarly utilised this approach (Campbell-Orde et al., 2005; Ridgway et al., 2004; Ashworth, Robinson, Godfrey, Shepherd, Evans, Chris, Seed, Parentier, & Tylee, 2005; Lelliott, Beevor,

Hogman, Hyslop, Lathlean, & Ward, 2001; Campbell, Cook, Jonikas, & Einspahr, 2004a,b; Ralph, 2004):

> *Maintaining consumer involvement and authorship, drawing upon and reflecting the recovery experiences of diverse populations, and designing and utilizing innovative measures of instrument validity will be critical goals in the continued development of these instruments.* (Campbell-Orde et al., 2005)

It is interesting to reflect on the impact that this approach, which seeks to provide the utmost commitment to the consumer/tāngata whaiora perspective, has on this type of work. The research team strove to ensure that from the outset of the preliminary work all aspects of this project have been consistently aligned with best practice research, policy and practice from a recovery-focused perspective. In that sense the work has been relatively easy. However, existing systems and services have been, and are expected to continue to be, one of the main barriers to the development and implementation of the measure. We believe this is a result of the differing approaches of 'expectation' versus 'aspiration'.

Expectation seems to be associated with an understanding of, and commitment to, identifying the how and what associated with best practice, reviewing that against the how and what of present systems and services, and identifying, promoting and implementing either necessary changes or new systems and services to address any discrepancies between the two. The expectation approach acknowledges and actively pursues the drastic changes necessary to apply a recovery focused approach.

In contrast, the aspiration approach (prevalent in many mental health services) involves an acceptance and continued working with the status quo, acknowledgment of the differences between best practice and current systems and services, and a 'hope' that things will change for the better as time goes on.

The research team appreciates that both approaches are of value depending on the situation under consideration. In the present case we firmly believe that the development and implementation of self-assessed measures of consumer outcome must be based on an expectation approach. The reason for our belief is very much founded on an appreciation of the significant difficulties that various outcomes initiatives around the world are experiencing and reporting in respect of both self-assessed measures in themselves and the processes associated with such measures. These difficulties are not being dramatically resolved through concentrated work which is focused on those existing measures and processes. We feel the expectation approach is particularly supported through the results of the present work where the recommendations of the preliminary work, in terms of the 12 domains relevant and appropriate to Aotearoa/New Zealand consumers/tāngata whaiora, which were identified through the literature review and corroborated by consumer/tāngata whaiora consultation, have been absolutely supported through the psychometric testing associated with the development of the measure.

Once again, as with the preliminary work, we are proposing quite a different approach, through the guidelines for the implementation and use of the measure, in terms of the systems and processes associated with that. This continues to be based upon an 'expectation' model and, whilst it is consistent with all best practice material, it will generate difficulty for those not willing or able to actively explore a different way of doing things.

From a psychometric perspective, it was anticipated that the iterative process adopted, informed by item and factor analysis, would result in the 12 domains identified through the preliminary work (Gordon et al., 2004) being represented by a smaller number of factors or subscales. However, analysis of the preliminary pilot study data identified and confirmed a very strong factor structure, with one substantial underlying construct and 11 distinct and relatively independent factors. Furthermore, analysis also identified and confirmed the separate Māori section has a strong two-factor structure.

As already detailed, this project adopted a bottom-up development process whereby the important content of a self-assessed measure was identified, not in relation to the content of existing measures, but from information on consumer/tāngata whaiora conceptualisations of mental illness and mental wellbeing, particularly the essential elements of the construct of recovery. Those conceptualisations formed the hypothesised content domains of the measure, which were then supported by the analysis of the pilot and later data. Hence, the results of the present work contribute to the growing body of research material which provides evidential support for the theoretical validity of the recovery construct.

Whilst it is pleasing to have achieved this result (a measure with 11 independent factors plus two specific to Māori), it is longer than the 36 item measure that was envisaged at the outset of the project. However, upon reflection this expectation was based upon the length of traditional existing measures which do not cover all the domains that consumers (across cultures) consider important to their mental wellbeing. As the 11 domains were identified and confirmed through the factor analysis, it would have been very difficult to have got the number of items down to 36 irrespective of the item analysis, not only because of psychometric considerations of domain reliability but also because of our commitment to maintaining domain coverage, an issue identified as of fundamental importance by consumer/tāngata whaiora.

Item analysis (in particular item-total correlations) was used to find the most reliable and internally consistent items for each of the domains. Factor loadings above 0.50 are generally considered to indicate adequately reliable and consistent items. In the present case all items with factor loadings below 0.7 were removed. The research team considered removing more items. However, the resulting impact on the reliability of the measure in doing this was considered too great a risk at this stage of the measure's development.

While most of the traditional existing measures are shorter the more recently developed measures, based on the concept of recovery, do tend to be longer. For example, the Peer Outcomes Protocol (Campbell et al., 2004a, 2004b) presently has 241 items, the Recovery Measurement Tool (Ralph, 2004) presently has 91 items, the Recovery Enhancing Environment Measure (Ridgway et al., 2004) presently has 166 items, and the adult consumer form of the Ohio outcomes system (Ohio Department of Mental Health, 2000) has 67 items. One benefit that results from measures, which do not focus on assessing symptomatology is that different measures are not required for different illness types, nor for different types of intervention settings. The use of a single measure certainly has implications for the implementation of an outcome measurement process. Utilising one measure across illness and service types reduces the amount of administration involved and alleviates any difficulties associated with possible conflict of results between different measures. In proposing such an approach, it is important to

acknowledge that the impact of any given service intervention may be predominantly on a single domain or a few domains, although it will not be the sole factor influencing that domain/s.

Obviously the primary concern with lengthier measures is consumer/tāngata whaiora acceptability. This is an area that will need to be considered further through the continued testing of Tāku Reo, Tāku Mauri Ora as it is used more in practice. The analysis of the re-testing results did not show that the size of the measure had any apparent negative impact on completion. However, if the number of items is subsequently found to be excessive, and thus a barrier to consumer/tāngata whaiora acceptability, a possible strategy for future development of the measure would be to reduce the number of dimensions measured by the scale. This could be undertaken by identifying a smaller number of second-order factors within the 11-factor, first order structure currently in use. Such second-order factors, derived from clusters of highly correlated first-order factors might be used to reduce the number of dimensions and therefore, the number of subscales from 11 to perhaps five or six. With just six or seven items representing each of the new factors, and any current factors which persist in remaining outside any identified clusters, the number of items could be reduced to as few as 36. This would provide a considerably more readily completed scale without unduly compromising reliability, though with the inevitable loss of consumer/tāngata whaiora information as the number of dimensions is reduced. Such development would require significant further validation and risks losing the clear relationship between domain scores and consumer/tāngata whaiora-identified domains, which are expected to support consumer/tāngata whaiora reflection and communication in relation to the very areas that consumers/tāngata whaiora (across cultures) consider important in terms of their mental wellbeing.

It is not uncommon for new measures to later be reduced in length once there is sufficient data on their use in the medium term. For example, the widely used General Health Questionnaire originally developed by Goldberg in the 1970s, and still used today, as a 60-item instrument also has a range of shortened versions including the GHQ-30, the GHQ-28, the GHQ-20, and the GHQ-12 (Goldberg & Williams, 1988).

The re-testing of the measure through the acute in-patient service produced some promising results. The analysis showed a change in scores (from lower to higher) in the predicted direction for all domains and totals indicating responsiveness to change, although limited sample size precluded this uniformly reaching statistical significance. The scores for this group reflected expectations compared to the normative data from the pilot study. Some very tentative, but also very promising indications of criterion validity of the measure as a whole, were shown by the indications of rising (improving) "recovery" scores over three completions of the measure achieved by a criterion group who left the acute ward after the three completions (over two weeks), compared with the stable scores (indicating no improvement) shown by a group who remained in the ward after the third completion. The "criterion" in this situation was the judgement of clinicians who had apparently identified the "recovery" identified by the measure, and consequently moved the patients from the acute ward. In contrast, the group of patients with stable scores, though they had shown higher levels of recovery at the first time of completion, were apparently also identified by the clinicians as "not improving", and were still in the acute ward on the fourth week.

While sequential data was successfully collected from people with the inpatient unit, this was not so for those attending community services. As a result there was no analysis of the measure in relation to consumers/tāngata whaiora accessing and using those services and this is a limitation of the present work. The researchers were able to visit the inpatient unit regularly and directly engage with consumers/tāngata whaiora of that service in order to provide them with information about, and invite them to participate in, the study. The positive outcomes ensuing from those direct engagement processes are also evidenced by the results of the preliminary measure pilot where the target of 500 participants was easily achieved within four months. The engagement associated with that process involved consumer/tāngata whaiora being directly invited to participate in the pilot of this measure through mental health services (both district health boards and non-government organisations); consumers/tāngata whaiora organisations, networks, hui and forums; and mental health conferences held in Aotearoa/New Zealand during the pilot period.

The re-testing of the revised measure through the community mental health services did not involve any direct engagement processes so the researchers were reliant on staff supporting and facilitating consumer/tāngata whaiora engagement with the study. The researchers believe that the lack of direct engagement processes is the primary reason for the insubstantial sequential data collected through the community services. As compared with the staff of the services that were involved with the re-testing of the revised measure, the researchers' role was primarily focused on supporting consumer/tāngata whaiora participation in the study by way of completion of the measure. These results suggest that the nature and responsibilities of the role associated with the support of measure implementation and use is crucial in terms of completion rates.

The reference norms (Appendix 10) for *Tāku Reo, Tāku Mauri Ora*, developed through the present study, were based on the preliminary measure pilot data which involved 511 people who self-identified as having experience of mental illness, invited to participate in the study through mental health services (both district health boards and non-government organisations); consumers/tāngata whaiora organisations, networks, hui and forums; and mental health conferences held in Aotearoa/New Zealand during the pilot period. Hence the current normative data is reflective of that particular population only, the characteristics of which are presented through the demographic data analysis. This should be kept in mind when any data is interpreted in relation to these norms. It would be appropriate that wider population and/or more defined population norms are established for the measure in the future.

In summary, the present study began with a procedure emphasising the face validity and content validity of the measure as a whole, around a clearly defined theoretical structure derived from the literature, and informed by expert advice and consumer/tāngata whaiora participation. The adequacy of the measure in relation to this a priori structure was confirmed through construct validation provided by exploratory factor analytic procedures confirmed by structural equation modeling using confirmatory factor analysis.

The foregoing procedures also provided item information which was used to develop 11 individual scales with acceptable levels of reliability, as indicated by measures of internal consistency, (Cronbach's Alpha, and split-half correlations corrected for attenuation using the Spearman-Brown formula).

The re-testing results provide indications of sensitivity to change, in relation to both individual domains and the measure overall, and criterion validity of the measure as a whole.

Based on these results, and consideration of the development processes generally associated with measures of this type, the research team believes the measure is appropriate and ready for implementation and use as soon as the necessary resources, systems and processes to support implementation and use of the measure have been developed. However, in the light of at least two outstanding issues, it is recommended that this should be undertaken in conjunction with additional testing of the measure to further confirm and explore its psychometric properties. Participants at the invitational conference, *Measuring the Promise: Assessing Recovery and Self-Determination Instruments for Evidence-Based Practices* (Campbell-Orde et al., 2005), identified and supported the approach of putting the instrument to use in the field and having information generated through the instrument's application inform its development as one of the strategies for the further development and testing of these new measures.

One outstanding problem relates to the estimation of test-retest reliability (as contrasted with the estimates of internal consistency which have already been undertaken). The measure is normally used in a context in which change (recovery) is a desired outcome, but also one in which it would be expected to vary widely (both positively and negatively) among consumers/tāngata whaiora. In such a context, the notion of test-retest stability is virtually a contradiction in terms.

A second outstanding issue lies in establishing the concurrent validity of the measure. This is difficult, given that the present measure was developed as a result of establishing the current lack of suitable, self-assessed measures that met the parameters that consumers/tāngata whaiora had widely expressed a necessary. Obviously, as more of this work is advanced, this will become less of an issue. As identified through the invitational conference, *Measuring the Promise: Assessing Recovery and Self-Determination Instruments for Evidence-Based Practices* (Campbell-Orde et al., 2005) the field of recovery based outcome measure development is relatively embryonic making a fair comparison of the instruments premature.

The framing and presentation of the measure in terms of the stem, response scale and individual items was based on the considerable material relevant to the design, format, language parameters and processes associated with self-assessed measures as identified through the preliminary work. While we anticipate individual based critique of the measure, it should be kept in mind that the results of the present work are based on a framework and methodology which involved numerous processes to support extensive consumer/tāngata whaiora input. It is this collective body of information, and the analysis of such, that was used to inform the development.

The preliminary work highlighted that different cultures have different perceptions of what mental health and illness are, and what bring both about. When a measure is based on the concept of health and recovery prevalent in one culture, it may not measure aspects of health and recovery that are important to people from a different culture. Other work has shown that attempts to validate a single measure across diverse and evolving cultures are fundamentally flawed. Simply translating a Western instrument is insufficient and culturally valid measures have to be constructed from an understanding of respective cultural value bases (Fonagy et al., 2005; Niumata-Faleafa & Lui, 2005; Kingi & Durie, 2000)). In Aotearoa/New Zealand it is imperative that any outcome measure is valid and reliable across a number of cultures, or is specifically

targeted at a particular cultural population. Acknowledging the status of Māori as tāngata whenua, being aware that Māori health status fares poorly in comparison to non-Māori and that Māori mental health is therefore, a health priority, made it imperative that this project was responsive to, and inclusive, of Māori. The results reflect the success of this approach with a high proportion of Māori engaging in the processes associated with the work and with a specific Māori section (with good psychometric properties) being developed as part of the overall measure. In addition, the present work was undertaken in close consultation with the developers of Hua Oranga (Kingi et al., 2000) who believe it is highly likely that two measures will complement each other.

Another key aspect of the present project has been the support and buy-in of the wider mental health sector, particularly the consumer/tāngata whaiora population. This has been achieved by ensuring the sector has had on-going awareness and information about the project via regular newsletters and presentations at various forums and conferences. Over the course of the project and particularly more recently, knowing that the development project is near completion, several organisations have approached us and expressed a desire to implement and use the measure.

The current national Aotearoa/New Zealand mental health strategy. Te Tāhuhu – Improving Mental Health 2005-2015: The Second New Zealand Mental Health and Addiction Plan (Ministry of Health, 2005a) identifies key mental health outcomes to be realised at both personal and service levels**.** The foundation necessary for achieving these outcomes is a:

> *…culture of recovery and wellness; that fosters leadership and participation by people affected by mental illness; is supported by a workforce that delivers effectively at the interface between cultural and clinical practice and is firmly grounded in robust evidence base, quality information, innovation and flexible funding mechanisms that support recovery. (Ministry of Health, 2005a)*

Te Kōkiri: The Mental Health and Addiction Action Plan 2006-2015 (Ministry of Health, 2006) specifies the way in which Te Tāhuhu's outcomes can be achieved by identifying a mix of both high-level initiatives and specific operational actions.

Tāku Reo, Tāku Mauri Ora has the potential to practically support the specific operational actions of Te Kōkiri that contribute to achieving the high level outcomes of Te Tāhuhu. Whilst it is envisaged that the implementation and use of *Tāku Reo, Tāku Mauri Ora* could in all likelihood have some impact across all areas it has been identified that, in particular, it will address, and support responsiveness to, the following specific actions of Te Kōkiri:

- acknowledging the wide range of social, economic and cultural determinants of mental health and wellbeing
- increasing people's awareness of how to maintain their mental health and wellbeing
- addressing the needs of Māori and other specific population groups
- supporting consumer/tāngata whaiora to actively participate in planning their own recovery
- services responding to the needs of specific groups through a sound evidence base, knowledge of specific cultural and clinical needs and relevant recovery models of practice
- services responding to service user expectations

- recovery plans being worked on collaboratively with consumers/tāngata whaiora and whānau, addressing physical, spiritual, social, psychological needs and aspirations
- services actively fostering a research and evaluation-based approach to recovery practice
- mechanisms for feedback on the responsiveness of services being established and used in services
- increasing the availability of information systems for services to support decision making and improving services and making an environment where consumers/tāngata whaiora and mental health workers can easily use information to support recovery.

The second Māori Mental Health National Strategic Framework (*Te Puāwaiwhero*) provides direction to the sector as we continue to work towards achieving better outcomes for whānau and tāngata whaiora living with mental illness and addiction and should be used to inform those implementing the actions in Te Kōkiri. The overall aim of Te Puāwaiwhero is whānau ora: Māori families/whānau supported to reach their maximum health and wellbeing. Not only is oranga hinengaro (Māori mental health and wellbeing) a foundation for whānau ora, but whānau ora is also a foundation for Māori mental health and wellbeing. The strategy provides direction for the achievement of this aim through three key principles (wider population approach, prioritising Māori, and place emphasis on tāngata whaiora severely affected by mental illness) and associated prioritised actions of promotion and prevention, responsiveness to Māori, early intervention and primary health care, building on the gains that have been achieved in relation to orange hinengaro, and specialist services.

In keeping with the commitment of the present project to being responsive to, and inclusive, of Māori, the implementation and use of *Tāku Reo, Tāku Mauri Ora* must be guided, considered and informed by Te Puāwaiwhero.

The results, and the ensuing recommendations, from the preliminary work have been used as the foundation to produce what appears to be a good measure which, if supported with similarly appropriate and robust systems and processes for implementation and use, will contribute to enhanced mental health outcome measurement. Whilst this will necessitate significant resource commitment it is believed that *Tāku Reo, Tāku Mauri Ora* will serve to support consumer/tāngata whaiora engagement in a most valuable manner which will ultimately result in more effective and efficient recovery processes and consequently contribute to achieving the aims of national Aotearoa/New Zealand mental health strategy.

Recommendations for use of the measure

- Consumers/tāngata whaiora must have ownership and control of the information and process associated with the measure
- The presentation of the measure, in which different colours are used to differentiate the domains of the measure, was initially used to assist the researchers with the analysis of results. The reference group to the project feel that this domain colour coding supports the engaging presentation of the measure and should be maintained
- The measure has been developed specifically for adults, and should not be used with children or adolescents or with older people who experience dementia

- The measure should be offered at admission, discharge and mid-way point of expected length of engagement with service but at a minimum of every three months
- Various modes of completion of the measure should be offered and available, including a peer support person or advocate to assist
- Both the preliminary work and the present project have been consumer/tāngata whaiora led and focused and this has been a key influence in terms of the results that have been realised. Such an approach needs to be continued through the processes associated with the implementation and use of the measure, particularly in relation to any work involving the interpretation of results associated with the measure.
- The implementation and use of the measure should not be obligatory at any level: individual, organisational, regional or national. However, the measure should be endorsed as one of the suite of standard measures of outcome associated with the national New Zealand mental health outcomes initiative and consequently should be supported by the administration associated with such.
- The measure has been developed to, and should always, be used in a manner which yields item and subscale scores for each of the domains; an overall score for the main section; an overall score for the Māori section (where relevant); and an overall score for the main section plus Māori section (where relevant)
- Feedback and results from completed measures should be generated and provided to the consumer/ tāngata whaiora within 72 hours of measure completion
- The response scale for *Tāku Reo, Tāku Mauri Ora* is a five point Likert scale with anchors 1-5, labelled 'none of the time' (1); 'a little of the time' (2); 'some of the time' (3); 'most of the time' (4); 'all of the time' (5). A 'not applicable' option is also included and labelled as 9. The stem for items, which are all stated positively, reads 'over the past week I have……', so no reverse scoring is required. Higher scores represent more positive ratings and lower score represent less positive ratings
- Valid collections and data cleansing for the purposes of aggregation: 75% or more completion constitutes a valid collection for any domain or overall score. Where the missing item responses of a domain for any participant are 25% or less of the total number of domain items they should be replaced with a '3' which is the mid-point on the 1-5 Likert scale

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APPENDICES

Appendix 1 – Guidelines to inform development of preliminary measure

Based on the preliminary work the following guidelines were prepared to inform the development of the preliminary measure.

Definition: *A measure which facilitates reflection upon an individual's situation at a particular point in time which, when used at several different points over time, can reflect change that has occurred.*

Purpose:

Primary: *Providing consumers/ tāngata whaiora with a measure to support individual reflection and communication.*

Secondary: *Collecting and aggregating information from many individuals over a significant period of time supports detection of trends. Factors explaining these trends can then be explored to inform decision-making and ongoing personal and service development in relation to mental health at individual, organisational, regional and national levels.*

Key findings of the preliminary work:

Content of the measure

From the comprehensive examination of the recovery literature, a sum of domains, that consumers (across cultures) have identified as being important in terms of their mental wellbeing, were identified. In addition, the group responses from the consumer consultation forums corroborated the literature-based findings that the identified set of domains are relevant and appropriate to Aotearoa/New Zealand consumers. The 12 domains are:

- relationships, trust, connectedness, taha wairua/whānau, whānau/family support, social support, interdependence
- day to day functioning, coping and managing, including work (having the ability to work), taha tinana
- connection to one's culture, cultural identity, drawing strength from one's culture, taha wairua
- physical health and health risks, taha tinana, includes alcohol and drug use, side-effects of medications, sleeping and eating
- quality of life, life satisfaction, enjoying the environment, feeling alert and alive, able to enjoy pastimes/hobbies

- illness symptoms, taha hinengaro
- coping with and recovering from illness, self-managed care, staying out of the mental health system, understanding of illness
- hope, journey from alienation to purpose, reawakening of hope after despair
- empowerment, being in control, exercising choice, positive sense of self, self-determination
- spiritual strength, increased spirituality, taha wairua
- resources, basic needs (e.g. food, money, accommodation, transport)
- satisfaction with services (including cultural relevance of services).

Technical and pragmatic aspects of the measure

The preliminary work also identified a substantial body of information on both technical and pragmatic aspects of outcome measure design, implementation and use from both a consumer and general perspective. These are summarised below.

- Preference for measure that focuses on strengths as well as difficulties
- Plain English should be used throughout
- Preference for the written version of the measure to contain an explanation of the purpose of the instrument. In addition, want the purpose of the measure to be explained in person. Want information in writing, attached to the measure, about who will have access to the data and how it will be used.
- Measure should contain a statement to the effect that completion of all items is voluntary, and should an item be inapplicable or unknown, it could be left blank.
- Through the preliminary work, some people questioned whether 'independence' was necessarily a state of being that most consumers were pursuing through recovery. They highlighted the tendency of many people with experience of mental illness to isolate from support people, family/whānau and relationships during periods of unwellness. They also considered that re-connection was often reported as being important to people during recovery times. In this sense, they suggested that interdependence may be a more appropriate concept to be considered in a self-assessed measure of outcome.
- Both non-Māori and Māori participants consulted through the preliminary work were critical that existing measures had a lack of content about key relationships, family/whānau and community with the focus tending to be more on the individual and their state of mind.
- Through the preliminary work, there was a mixed response from consumers to some of the questions that people identified as being more 'personally sensitive'. For example, question five: 'I remember abuse but am not overwhelmed by it', question 13: 'I have deliberately hurt myself', question 15: 'My self-inflicted violence has decreased', and question 31: 'I can cry'

- In the main participants involved with the preliminary work felt that the lack of any specific questions about drug and alcohol issues was a shortcoming of measures
- There was widespread concern among participants involved with the preliminary work that measures had no cultural component contained within the questions covered. In particular, Tāngata Whaiora noted the lack of assessment in regard to cultural identity, connectedness and spirituality.
- Many people in the non-Māori consultation associated with the preliminary work commented on the value of including some questions about physical wellbeing in a self-assessed measure of consumer outcome.

Format of the measure

- Measure should be relatively brief
- Consumers involved with the preliminary work stressed the importance of ensuring that any outcome measure be well presented, easy to follow and understand, and complete - indeed, consumer friendly. Several specific considerations were identified. Firstly, there needs to be sufficient coverage of major indicators in enough detail to facilitate observation of significant changes in mental wellbeing so that it is sensitive to change. However, there is a fine line between sufficient detail and too much detail, which can lead to an over-long measure and decreased acceptance. Increasing the specificity of a measure will lessen the overall relevance of the measure (and items contained within it) to the wider population of consumers. For example, with the Crisis Hostel Healing Scale (the lengthiest measure that was taken out for consultation), many people identified items that they did not feel were relevant to their individual mental wellbeing at all. Participants of the consultation fono also identified particular concerns around the comfort and safety of Pacific consumers responding to sensitive items such as self-harm, abuse, sex, and violence. It is suggested that in seeking an appropriate balance it is recognised that the details and specificity of personal consumer issues should be dealt with on an individual basis rather than through a standardized outcome measure. Outcome measures should be used as measures to reflect on and communicate about a broad set of domains that are generally relevant to the consumer population. At the same time, if some individuals wish to consider more specific and sensitive issues as part of outcome assessment, it would be desirable for this to be facilitated as an adjunct to the measure, provided it was clear that such information would remain personal and that aggregation of data across individuals would only be in relation to the generic domains.
- Measure should be simple enough to be completed in ten minutes
- Measure should be presented in a font big enough to see
- Consumers involved with the preliminary work suggested that the use of 'I am' (rather than 'you are'), as the preliminary to any question, serves to personalise a measure and make it more consistent with the whole concept of a self-assessed measure of consumer outcome

- A flexible approach needs to be adopted in relation to the completion of self-assessed outcome measures (see further detail under *process of completing measure)*
- Widely identified by participants involved with the preliminary work was the wish to have the opportunity and space to write in more detail about the issues personal to them and/or the thoughts and feelings that had been raised during the completion of the measure
- In the main people involved with the preliminary work felt that the visual images aligned with the rating scale were a valuable adjunct to the measure
- Overwhelmingly, participants involved with the preliminary work argued that there was a need for a 'not applicable' option within the scales of outcome measures
- Participants involved with the preliminary work felt that questions which were phrased in a manner that was presumptive were not suitable. For example, question 9: 'You feel more aroha or love from others' presumes that, at some time, you did not feel aroha or love from others. The formatting of the questions in this manner creates a presumed generalization about all people with experience of mental illness and the issues they are likely to face. This issue is exacerbated when there is no option of 'not applicable' within the rating scale.
- People in the non-Māori consultation associated with the preliminary work felt that by framing the questions in a comparative style (where you were reflecting on some earlier time) was not the best approach. They expressed that it was difficult to provide one overall response about a period of time that may have included the experience of a multitude of different states of being. Rather, people thought it would be better to have the questions framed to assess current mental health wellbeing at any point in time. In contrast, some Māori participants suggested a comparison with another time period was required, in order to avoid misinterpretation of responses.
- Overwhelmingly people in the non-Māori consultation associated with the preliminary work identified that combining two (or more) concepts within a question that was formatted to receive a single response was not appropriate. For example, question 13: 'You are more clear and consistent in your thinking'; question 5: 'You are more content, calm or happy'; question 6: 'You are less anxious or stressed'; and question 19: 'You are better prepared or trained for work, or better able to manage work'. People identified the need to answer each of the concepts quite differently (e.g. someone may be much more content but their state of happiness had not changed) yet had the option of only a single response.
- Non-Māori participants involved with the preliminary work argued strongly that jumping between framing the questions in the negative and then framing the questions in the positive was not a good idea. They felt that it created much confusion and made the measure less user-friendly. Tāngata Whaiora also agreed that the questions needed to be re-phrased to become positive statements, rather than negative ones.
- Overwhelmingly, participants in the non-Māori consultation associated with the preliminary work reported that the use of thematic sub-sections, within a measure of this nature, was a good idea

Psychometric parameters of the measure

- In terms of technical data, Burlingame and Lambert (1995) suggest the following parameters. For internal consistency, the coefficient alpha should be .80 or above. Test-retest reliability should come in at .70 or above. Validity coefficients should be no lower than .50, and coefficients of over .75 would suggest excellent concurrent validity. The measure should also show sensitivity to meaningful changes in wellbeing over time.

Processes associated with use of the measure

- Preference for the written version of the measure to contain an explanation of the purpose of the instrument. In addition, want the purpose of the measure to be explained in person. Want information in writing, attached to the measure, about who will have access to the data and how it will be used.
- Measure should contain a statement to the effect that completion of all items is voluntary, and should an item be inapplicable or unknown, it could be left blank.
- A measure's results should provide easy feedback to consumers and be readily interpretable without extensive statistical skill.
- A flexible approach needs to be adopted in relation to the completion of self-assessed outcome measures to accommodate differing levels of literacy, comfort and safety and simple preference. The following options should be considered: pen and paper, face to face/phone interview, discussion group, and computer based systems.
- Assistance with completing measure should be offered
- Whilst acknowledging that it would be useful on a personal level, a large number of non-Māori consumers involved with the preliminary work communicated that they would not feel comfortable completing such a measure in front of others and/or sharing the information with others. In contrast, many Māori participants reported that they would like the option of having somebody else write their responses for them, allowing them to be able to talk rather than write
- Māori participants involved with the preliminary work identified that a preferable method of communication for Māori was through verbal kanohi-ki-te-kanohi, face to face discussion, as opposed to communication through paperwork. They indicated that written responses did not serve to give accurate assessments of their wellbeing
- Non-Māori participants involved with the preliminary work were unanimous in the view that if someone was to support them with the completion of a measure of this nature then it would need to be a peer support person or advocate. Māori participants believed it imperative that the person interviewing was known to them through having continued involvement in their care.

Appendix 2 – The Preliminary Measure

Instructions

Please complete the following questionnaire. You can do this by yourself, or together with your support people, family or whānau, or with the person who has given you this information sheet.

The questionnaire includes some general questions. This information will be used to make sure we get feedback on the questionnaire from a range of people.

Following the general questions, a number of statements are presented. We would like you to think about each statement and identify the **one** option that best describes how you have generally been **over the past week (including today).**

For example:

I have been relaxing:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable

We think it will take you about twenty minutes to complete the questionnaire. There are no right or wrong answers. If any statement doesn't apply to you, there is a 'not applicable' option. If you are not sure of what a statement means, just leave it and go onto the next statement.

Throughout this questionnaire think about mental illness in whatever way is meaningful to you.

There may be some statements that seem quite similar – don't worry about this.

A few questions about you…….

1) Which age group do you belong to?
□ 18-24 years
□ 25-34 years
□ 35-44 years
□ 45-54 years
□ 55-65 years

2) Are you?
□ Male
□ Female

3) Which ethnic group do you belong to?
Tick the box or boxes which apply to you.
□ New Zealand European
□ Māori → iwi: _____
□ Samoan
□ Cook Island
□ Tongan
□ Niuean
□ Chinese
□ Indian
□ other *(such as Australian, Dutch, Japanese, Tokelauan).*
Please state:_____

4) How many years did you spend at secondary school?
□ none
□ 1
□ 2
□ 3
□ 4
□ 5
□ 6

5) What is your highest qualification?
Please state:_____

6) For how long have you experienced mental illness?
□ Not at all → go to question 9
□ Under 1 year
□ 1-2 years
□ 3-5 years
□ 6-10 years
□ 11-15 years
□ 16-20 years
□ Over 20 years

7) During your lifetime how often have you been affected by your experience of mental illness?

None of the time	A little of the time	Some of the time	Most of the time	All of the time

8) During the last year how often have you been affected by your experience of mental illness?

None of the time	A little of the time	Some of the time	Most of the time	All of the time

9) During your lifetime how often have you had contact with mental health services?

None of the time	A little of the time	Some of the time	Most of the time	All of the time

10) During the last year, how often have you had contact with mental health services?

None of the time	A little of the time	Some of the time	Most of the time	All of the time

11) What do you understand as the diagnosis the mental health service has for you?
Tick the box or boxes which apply to you. Please note: we are only asking this question to help analyse the results of the project.

□ Schizophrenia
□ Bi-polar
□ Depression
□ Anxiety
□ Substance abuse
□ None
□ Other. Please state:_____
□ I would prefer not to answer this question.

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

1. Over the past week I have been able to express my feelings to other people:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

2. Over the past week I have had satisfying relationships with other people:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

3. Over the past week I have had good support from my family:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

4. Over the past week I have been able to support other people:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

5. Over the past week I have felt understood:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

6. Over the past week I have been able to share my feelings:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

7. Over the past week I have felt that others trust me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

8. Over the past week I have felt valued by others:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

9. Over the past week I have felt heard by other people:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

10. Over the past week I have been able to enjoy my friendships:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

11. Over the past week I have felt part of my community:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

12. Over the past week I have had someone I can depend on:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

13. Over the past week I have been close to someone else:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

14. Over the past week I have had someone I can trust:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

15. Over the past week I have felt connected to the people who are important to me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

16. Over the past week I have felt other people can depend on me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

17. Over the past week I have felt other people do depend on me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

18. Over the past week I have been able to love:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

19. Over the past week I have felt loved:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

20. Over the past week I have had someone to share my hopes and dreams with:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

21. Over the past week I have been able to concentrate:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

22. Over the past week I have been able to do my usual activities:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

23. Over the past week I have been able to work:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

24. Over the past week I have been able to do my usual household tasks:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

25. Over the past week I have been able to study:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

26. Over the past week I have been able to do my daily tasks:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purpose of this section 'culture' means your beliefs, values, customs, and way of life.

27. Over the past week I have felt connected to my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

28. Over the past week I have felt a part of my ethnic group:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

29. Over the past week I have been able to draw strength from my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

30. Over the past week I have felt proud of who I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

31. Over the past week I have felt able to practice my cultural beliefs:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

32. Over the past week I have been able to draw strength from others who share my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purpose of this section 'culture' means your beliefs, values, customs, and way of life.

33. Over the past week I have been able to draw strength from others who are a part of my ethnic group:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

34. Over the past week I have felt comfortable with my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

35. Over the past week I have felt my culture has been respected by others:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

36. Over the past week I have been able to deal with the side-effects of my medication:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

37. Over the past week I have been sleeping well:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

38. Over the past week I have been eating well:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

39. Over the past week I have been in good physical health:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

40. Over the past week I have been comfortable with my level of alcohol use:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

41. Over the past week I have been comfortable with my level of smoking:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

42. Over the past week I have been able to exercise:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

43. Over the past week I have been satisfied with the medication I am on:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

44. Over the past week I have had energy:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

45. Over the past week I have been able to have fun:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

46. Over the past week I have been able to enjoy leisure time:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

47. Over the past week I have been able to laugh:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

48. Over the past week I have been able to make my own decisions:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

49. Over the past week I have felt a sense of achievement:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

50. Over the past week I have felt comfortable with where I live:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

51. Over the past week I have felt content with my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

52. Over the past week I have been able to relax:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

53. Over the past week I have been able to do the things I like doing:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

54. Over the past week I have felt in control of my mental health:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

55. Over the past week I have been able to express my emotions:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

56. Over the past week I have felt in control of expressing my emotions:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

57. Over the past week I have been able to think clearly:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

58. Over the past week I have been able to be calm:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

59. Over the past week I have felt content:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

60. Over the past week I have been able to manage the distressing symptoms of mental illness that I experience:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

61. Over the past week I have felt safe:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

62. Over the past week I have felt in control of my actions:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

63. Over the past week I have felt in control of my thoughts:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

64. Over the past week I have felt in control of my feelings:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

65. Over the past week I have been satisfied with the decisions I have made:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

66. Over the past week I have felt comfortable with my level of energy:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

67. Over the past week I have felt comfortable with how in touch with reality I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

68. Over the past week I have felt comfortable with how clear-headed I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

69. Over the past week I have felt comfortable with how alert I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

70. Over the past week I have felt comfortable with the medication I am taking:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

71. Over the past week I have felt comfortable with my level of motivation:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'recovery' means living well in the presence or absence of symptoms of mental illness.

72. Over the past week I have been able to make my own decisions about my recovery

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

73. Over the past week I have felt in control of my recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

74. Over the past week I have felt I have a good understanding about recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

75. Over the past week I have felt satisfied with the level of support I have received from the mental health system:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

76. Over the past week I have felt satisfied with my rate of recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

77. Over the past week I have felt there is a future for me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

78. Over the past week I have felt hopeful about my future:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

79. Over the past week I have felt hope for myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

80. Over the past week I have felt a sense of meaning for my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

81. Over the past week I have felt positive about myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

82. Over the past week I have felt a sense of purpose for my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

83. Over the past week I have felt like I have choices:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

84. Over the past week I have felt a sense of belonging:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

85. Over the past week I have felt like I know where I'm going in life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

86. Over the past week I have felt I can choose my own path:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

87. Over the past week I have felt strong in myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

88. Over the past week I have felt I can contribute to my family:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

89. Over the past week I have felt I can contribute to my community:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

90. Over the past week I have felt I value myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

91. Over the past week I have felt confident in myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

92. Over the past week I have felt in control of my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

93. Over the past week I have felt I value my achievements:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

94. Over the past week I have felt I am an important part of my family:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

95. Over the past week I have felt my decisions have been respected by others:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

96. Over the past week I have been able to draw strength from my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

97. Over the past week I have been able to draw strength from others who share my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

98. Over the past week I have felt connected to my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

99. Over the past week I have felt comfortable with my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

100. Over the past week I have felt my spiritual beliefs have been respected by others:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

101. Over the past week I have felt able to practice my spiritual beliefs:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

102. Over the past week I have had enough money to live on:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

103. Over the past week I have had housing I can afford:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

104. Over the past week I have had enough food to eat:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

105. Over the past week I have been satisfied with my financial circumstances:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

106. Over the past week I have had access to transport to get where I have wanted to go:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

107. Over the past week I have had money to do the things I enjoy:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

108. Over the past week I have had decent food:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

109. Over the past week I have had a decent place to live:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

110. Over the past week I have been able to manage my money:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

111. Over the past week I have had meaningful things to do (e.g. job, hobbies, time with children):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'the service' refers to the mental health service that you have most contact with.

112. Over the past week I have been able to access what I have needed from the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

113. Over the past week I have felt listened to by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

114. Over the past week I have felt respected by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

115. Over the past week I have felt I know what is are available to me through the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

116. Over the past week I have felt the service has respected my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

117. Over the past week I have felt the service has reflected my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'the service' refers to the mental health service that you have most contact with.

118. Over the past week I have felt my opinions have mattered to the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

119. Over the past week I have felt comfortable asking questions of the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

120. Over the past week I have felt the service has supported my cultural well-being:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

121. Over the past week I have been satisfied with the service I have received:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

122. Over the past week I have felt the service has been delivered in good time:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

123. Over the past week I have felt the service provided has been of good quality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'the service' refers to the mental health service that you have the most contact with.

124. Over the past week I have felt my rights have been respected by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

125. Over the past week I have been able to choose what has been delivered by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

126. Over the past week I have felt comfortable with the environment where the service has been delivered:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

127. Over the past week I have felt the service has provided me with the information I need:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

If you identify as Māori these is another section you can complete which starts on the next page. Otherwise please go to the last page.

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

128. Over the past week I have felt my whānau understands me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

129. Over the past week I have felt connected to the whenua/land:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

130. Over the past week I have felt connected to my whānau:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

131. Over the past week I have felt connected to my hapū:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

132. Over the past week I have felt connected to my iwi:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

133. Over the past week I have felt connected to my marae:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

134. Over the past week I have felt satisfied with the mental health services' use of tikanga Māori (Māori practices):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

135. Over the past week I have felt connected to my Māoritanga (Māori culture):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

136. Over the past week I have felt proud to be Māori:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

137. Over the past week I have felt able to express myself in a Māori way:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

138. Over the past week I have had good support from my whānau:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

139. Over the past week I have felt I can contribute to my whānau:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

140. Over the past week I have been supported by kaumatua:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

141. Over the past week I have been supported by kuia (female elder):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

142. Over the past week I have been supported by koroua (male elder):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

143. Over the past week I have had support from Māori tohunga (healers):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

144. Over the past week I have felt in control of my life (mauri ora):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

145. Over the past week I have felt in control of my physical well-being (tinana):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

146. Over the past week I have felt in control of my emotional well-being (hinengaro):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

147. Over the past week I have felt in control of my spiritual well-being (wairua):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

On this page is some space for you to write about any matters that are personal to you or thoughts and feelings that have been raised for you while you have been completing the questionnaire.

Thank-you for completing this questionnaire. Kia ora.

Appendix 3 – Invitation to participate in pilot of preliminary measure

Are you interested in being part of a unique study which is being lead by consumers/tāngata whaiora?

What is this study about?
This study aims to develop a measure that mental health consumers/tāngata whaiora can use to reflect and communicate on their own mental health outcomes.

Who can take part in the study?
If you are a consumer/tāngata whaiora aged between 18 and 65 we welcome you to participate in this study. Participation will involve completing a questionnaire about how you have generally been over the past week. The questionnaire will take about twenty minutes to complete.

What about confidentiality?
Your participation in this study will always be completely confidential and won't affect your future care or treatment.

How do I take part?
If you are interested in taking part in the study, or would like some more information, please ring Sarah Gordon on 0508 0882663 or e-mail at caseconsulting@paradise.net.nz.

Appendix 4 – Information sheet for pilot of preliminary measure

INFORMATION SHEET

1. What is this study about?
We invite you to take part in this study which aims to develop a measure that mental health consumers/tāngata whaiora can use to reflect and communicate on their own mental health outcomes.

This is a unique study which is being lead by mental health consumers/tāngata whaiora.

2. How do I decide if I want to take part in the study?
Please take your time to decide whether to take part. Your involvement is entirely voluntary (your choice). You are welcome to involve a support person, friend, family or whānau in asking questions about the study and considering your involvement.

3. Who is being asked to take part in the study?
We are inviting mental health consumers/tāngata whaiora aged between 18 and 65 to take part in the study.

4. What will I be asked to do for the study?
If you agree to take part, we would like you to complete a questionnaire. You can do this by yourself, or together with your support people, family or whānau, or with the person who has given you this information sheet.

The questionnaire includes some general questions about you. This information will be used to make sure we get feedback on the questionnaire from a range of people.

Following the general questions, a number of statements are presented. We would like you to think about each statement and identify the option that best describes how you have generally been over the past week (including today). If any statement doesn't apply to you, there is a 'not applicable' option. If you are not sure of what a statement means, just leave it and go onto the next statement.

5. How long will the questionnaire take?
The questionnaire will take about twenty minutes to complete. If you change your mind about being involved, you can stop at any time.

6. Why is this study being done?
We are asking a large number of mental health consumers/tāngata whaiora to complete this questionnaire so we can find out which are the best statements to use in a shorter, revised version. We hope the final version will help mental health consumers/tāngata whaiora participate in their own mental health care and inform ongoing mental health service development.

7. How will being involved in this study affect me?
Taking part in the study won't affect your future care or treatment.

We don't expect you to experience any ill-effects from taking part in the study. If you do, you may wish to contact your local mental health support person or organisation. Alternatively you can contact one of the study investigators on 0508 0882663 (free phone) who will help you to access the support you need.

8. Who will know that I have taken part in the study?
Your participation in this study will always be completely confidential. Your name does not go on the questionnaire. We will not use any information that might identify you personally in any reports on this study. The questionnaires will be stored securely until the study is completed and the results published. Then they will be destroyed.

9. What about cost or payment?
There will be no cost to you for being involved in this study, nor will you receive any payment for taking part.

10. How will I know about the results of the study?
Your completion of the questionnaire is part of a bigger project that is taking three years. At the end, we will write a report on the results. If you wish to receive a summary of these results or want to know any more about the study, please tell the person who has given you this information sheet or contact the Principal Investigator, Sarah Elizabeth Gordon: Free phone: 0508 088266
E-mail: s.gordon@paradise.net.nz
PO Box 51-273, Wellington.

11. Where do I get more information on my rights?
If you have any queries or concerns regarding your rights as a participant in this study you may wish to contact a Health and Disability Advocate, telephone: 0800 42 36 38 (0800 4 ADNET).
The Mental Health Research and Development Strategy funded this study. It has Multi-region Ethics Committee approval.

Appendix 5 – Consent form

CONSENT FORM

1. I have read and I understand the information sheet dated February 2006 for volunteers taking part in the study which aims to develop a measure that mental health consumers/tāngata whaiora can use to reflect and communicate on their own mental health outcomes. I have had the opportunity to discuss this study. I am satisfied with the answers I have been given.

2. I have had the opportunity to have a support person, friend, family or whanau to help me ask questions and understand the study.

3. I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time and this will in no way affect my future care or treatment.

4. I understand that my participation in this study is confidential and that no material which could identify me will be used in any reports on this study.

5. I have had time to consider whether to take part in the study.

6. I know who to contact if I experience any ill-effects from taking part in the study.

7. I know who to contact if I have any questions about the study.

8. I wish to receive a summary of the results of the study YES/NO

If YES would you like to receive the summary by:
□ E-mail _____ (please print your e-mail address)
□ Postal mail _____ (please print your address)

9. I _____ (full name) hereby consent to take part in this study.

Signature: _____Date:_____

Full names of Researchers: Mrs Sarah Elizabeth Gordon; Professor Peter Maxwell Ellis; Mrs Lynne Mereana Pere; Mrs Cheri Ratapu-Foster; Mrs Carmel Elizabeth Anne Haggerty; Dr Richard Siegert.

Contact Phone Number for researchers: 0508 0882663

Project explained by: _____

Project role: _____

Signature:_____ Date:_____

Appendix 6 – Results of analysis of pilot of preliminary measure

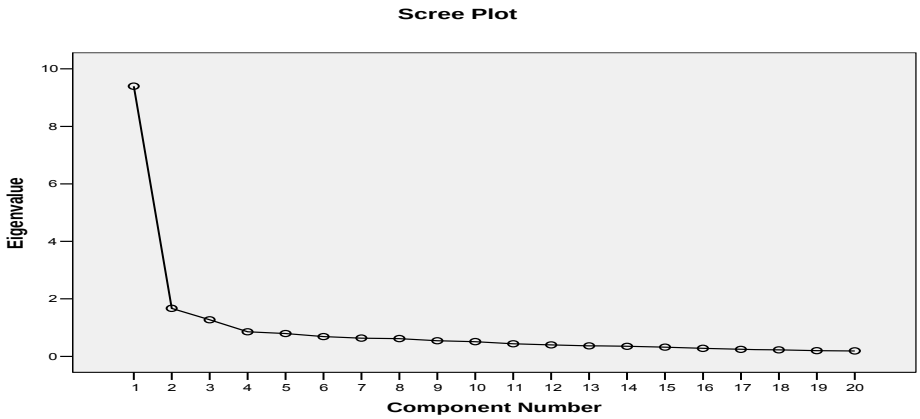


Figure 2: Scree Plot from Principal Components Analysis for Proposed Dimension 1, entitled 'Relationships

Table 8: Result of Principal Component Analysis for Proposed Dimension 1, entitled 'Relationships'.

Question Number	First Principal Component Loading	Parcel allocation
q14	.80	p1
q15	.78	p2
q13	.74	p2
q5	.74	p1
q19	.73	p1
q10	.73	p2
q6	.73	p2
q12	.73	p1
q2	.73	p1
q8	.72	p2
q9	.72	p2
q11	.68	p1
q20	.67	p1
q18	.65	p2
q1	.65	p2
q16	.64	p1
q7	.58	p1
q3	.57	p2
q4	.55	p2
q17	.50	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

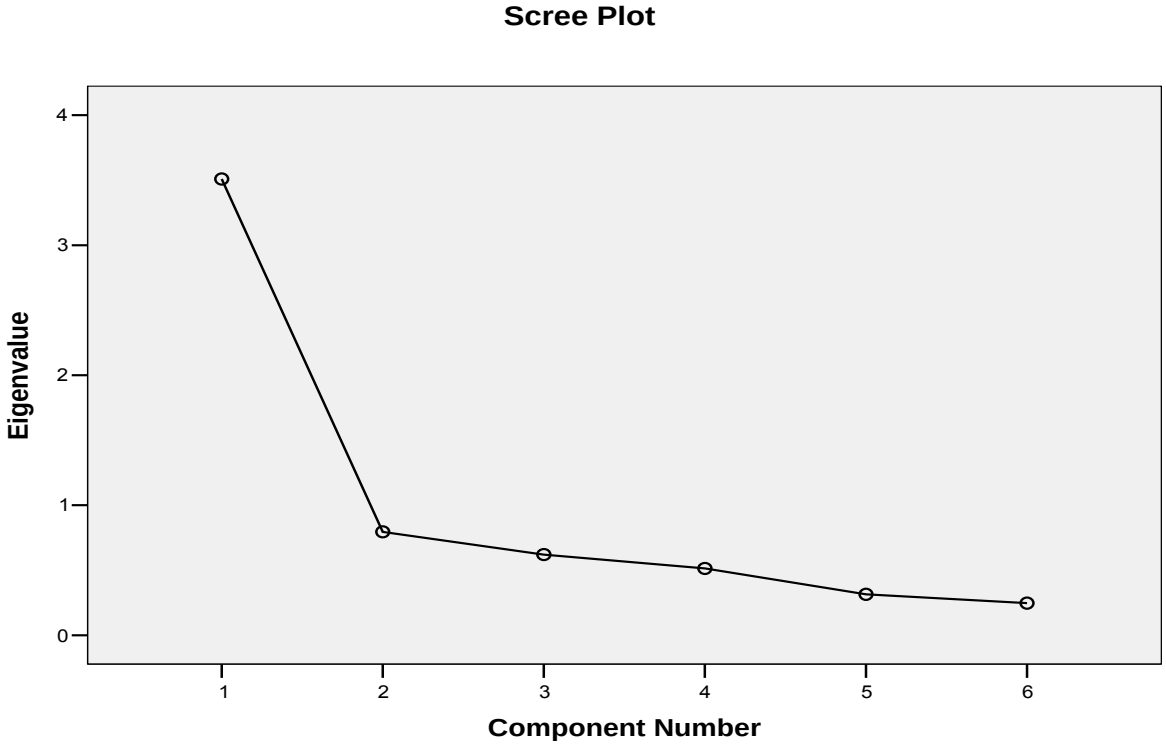


Figure 3: Scree Plot from Principal Components Analysis for Proposed Dimension 2, entitled 'Day-to-Day Life'

Table 9: Result of Principal Component Analysis for Proposed Dimension 2, entitled 'Day-to-Day Life'

Question number	First Principal Component Loading	Parcel Allocation
q22	.85	p1
q26	.84	p2
q24	.79	p2
q21	.77	p1
q25	.69	p2
q23	.61	p1

Note: In order to simplify this table loadings have been rounded to two decimal places

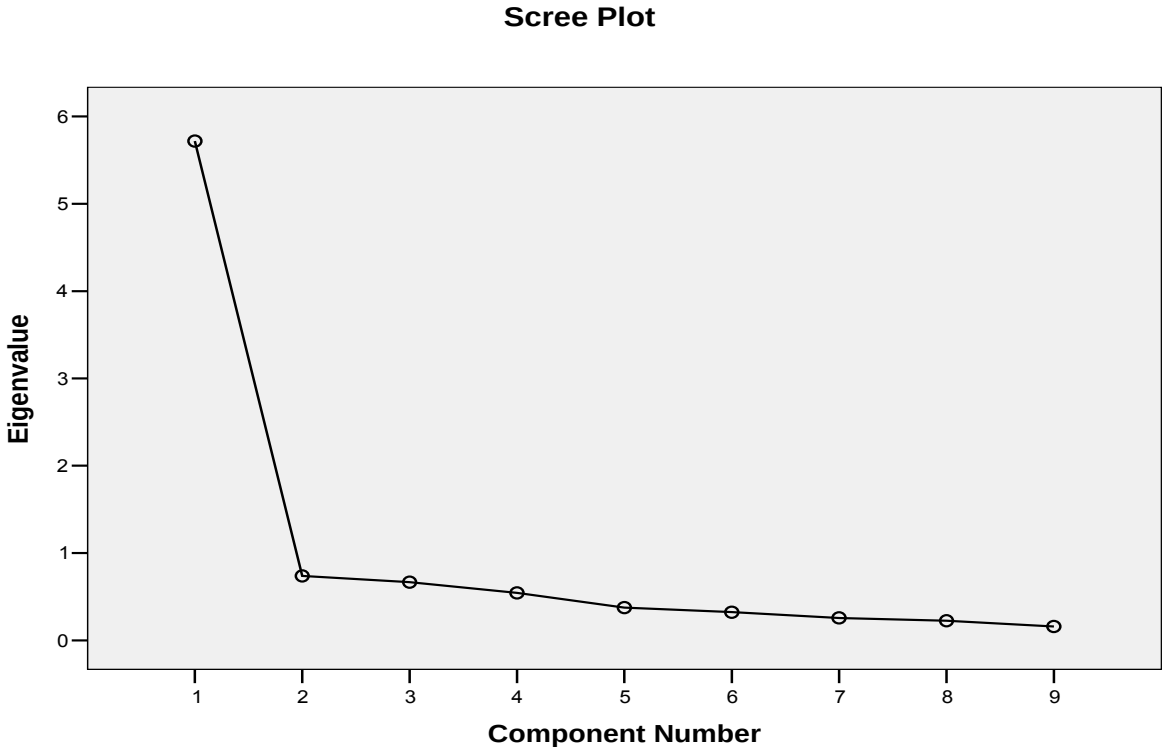


Figure 4: Scree Plot from Principal Components Analysis for Proposed Dimension 3, entitled 'Culture'

Table 10: Result of Principal Component Analysis for Proposed Dimension 3, entitled 'Culture'

Question number	First Principal Component Loading	Parcel Allocation
q27	.87	p1
q29	.84	p2
q28	.84	p2
q31	.83	p1
q32	.82	p1
q33	.79	p2
q34	.79	p2
q30	.70	.p1
q35	.69	.p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

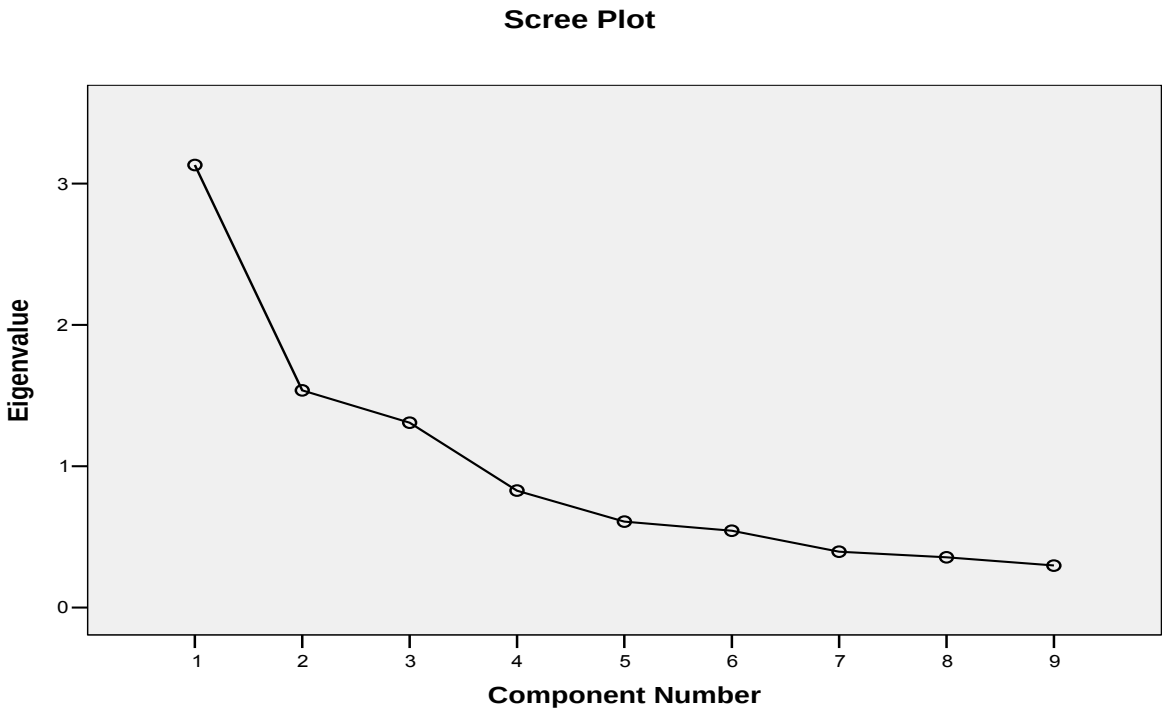


Figure 5: Scree Plot from Principal Components Analysis for Proposed Dimension 5, entitled 'Physical Health'

Table 11: Result of Principal Component Analysis for Proposed Dimension 5, entitled 'Physical Health'

Question Number	First Principal Component Loading	Parcel Allocation
q44	.79	p1
q39	.77	p2
q37	.72	p2
q38	.72	p1
q42	.64	p1
q43	.56	p2
q36	.54	p2
q41	.40	p1
q40	.31	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

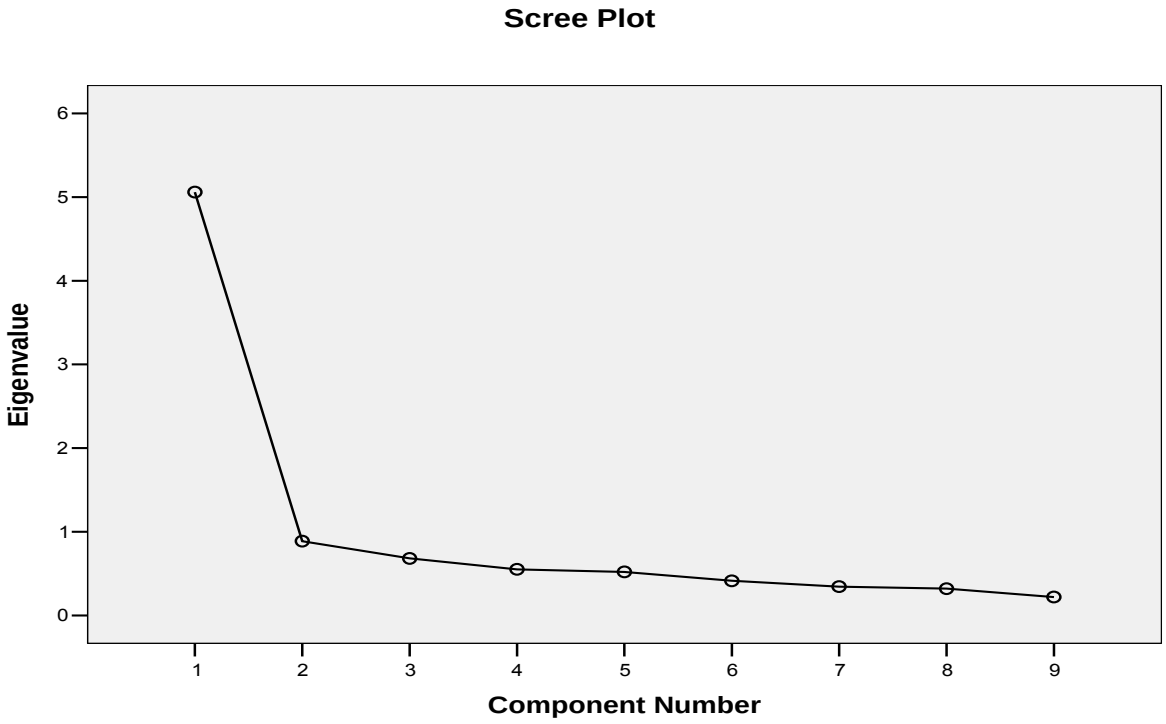


Figure 6: Scree Plot from Principal Components Analysis for Proposed Dimension 5, entitled 'Quality of Life'

Table 12: Result of Principal Component Analysis for Proposed Dimension 5, entitled 'Quality of Life'

Question Number	First Principal Component Loading	Parcel Allocation
	1	
q45	.82	p1
q46	.81	p2
q47	.75	p2
q48	.64	p1
q49	.75	p1
q50	.54	p2
q51	.83	p2
q52	.77	p1
q53	.80	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

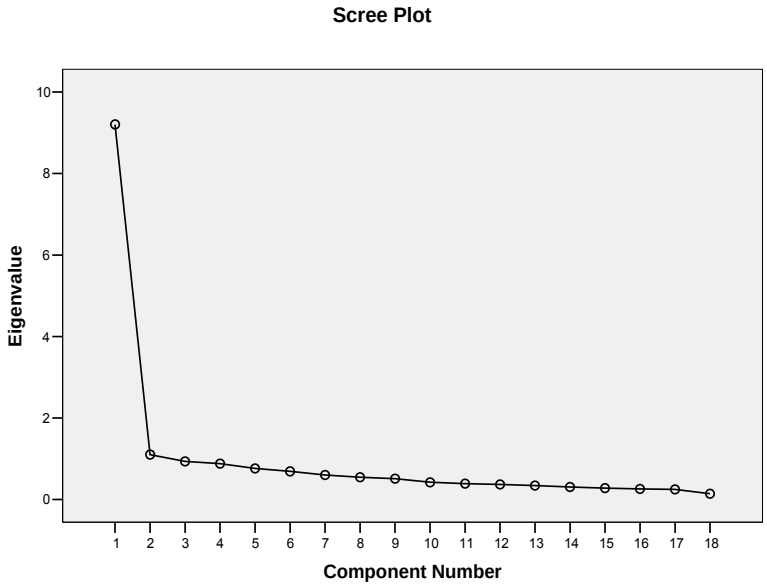


Figure 7: Scree Plot from Principal Components Analysis for Proposed Dimension 6, entitled 'Mental Health'

Table 13: Result of Principal Component Analysis for Proposed Dimension 6, entitled 'Mental Health'

Question number	First Principal Component Loading	Parcel Allocation
q64	.835	.835
q57	.816	.816
q54	.803	.803
q63	.793	.793
q69	.792	.792
q68	.791	.791
q62	.789	.789
q67	.758	.758
q61	.754	.754
q65	.747	.747
q59	.729	.729
q56	.719	.719
q58	.685	.685
q55	.650	.650
q66	.633	.633
q60	.576	.576

Note: In order to simplify this table loadings have been rounded to two decimal places.

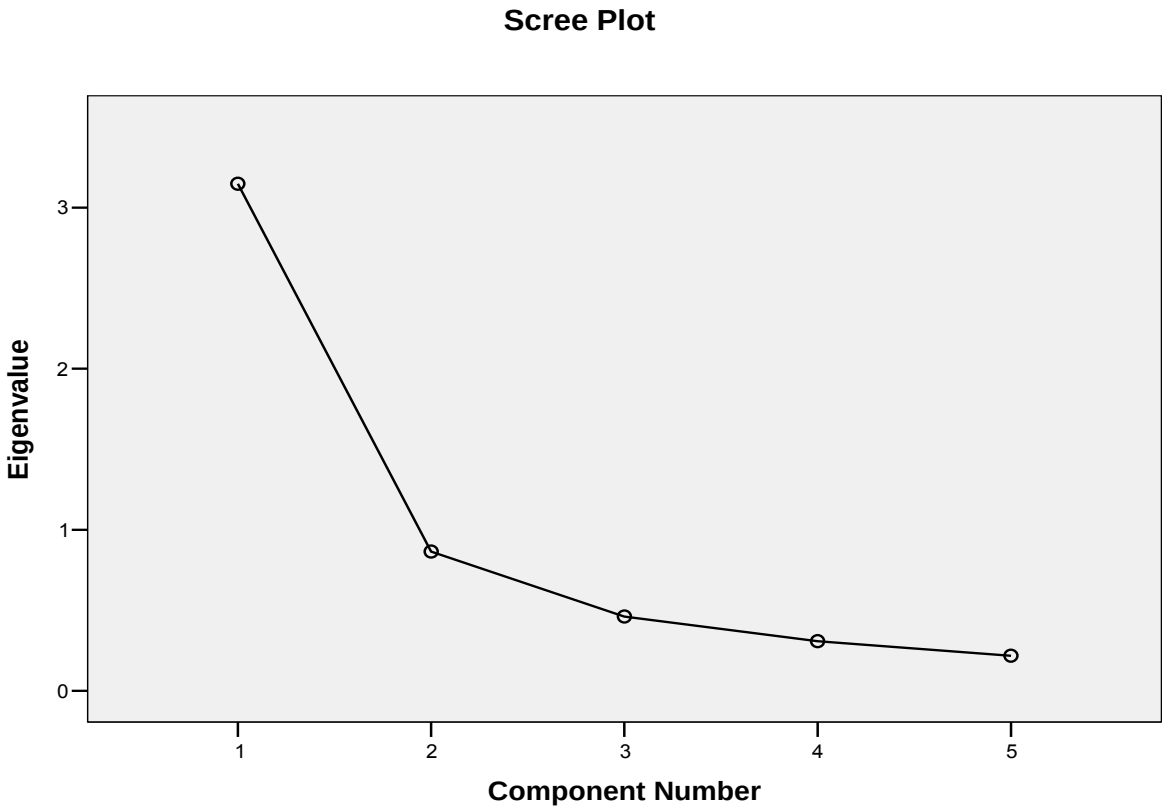


Figure 8: Scree Plot from Principal Components Analysis for Proposed Dimension 7, entitled 'Recovery'

Table 14: Result of Principal Component Analysis for Proposed Dimension 7, entitled 'Recovery'

Question Number	First Principal Component Loading	Parcel Allocation
q73	.90	p1
q74	.86	p2
q72	.85	p2
q76	.81	p1
q75	.48	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

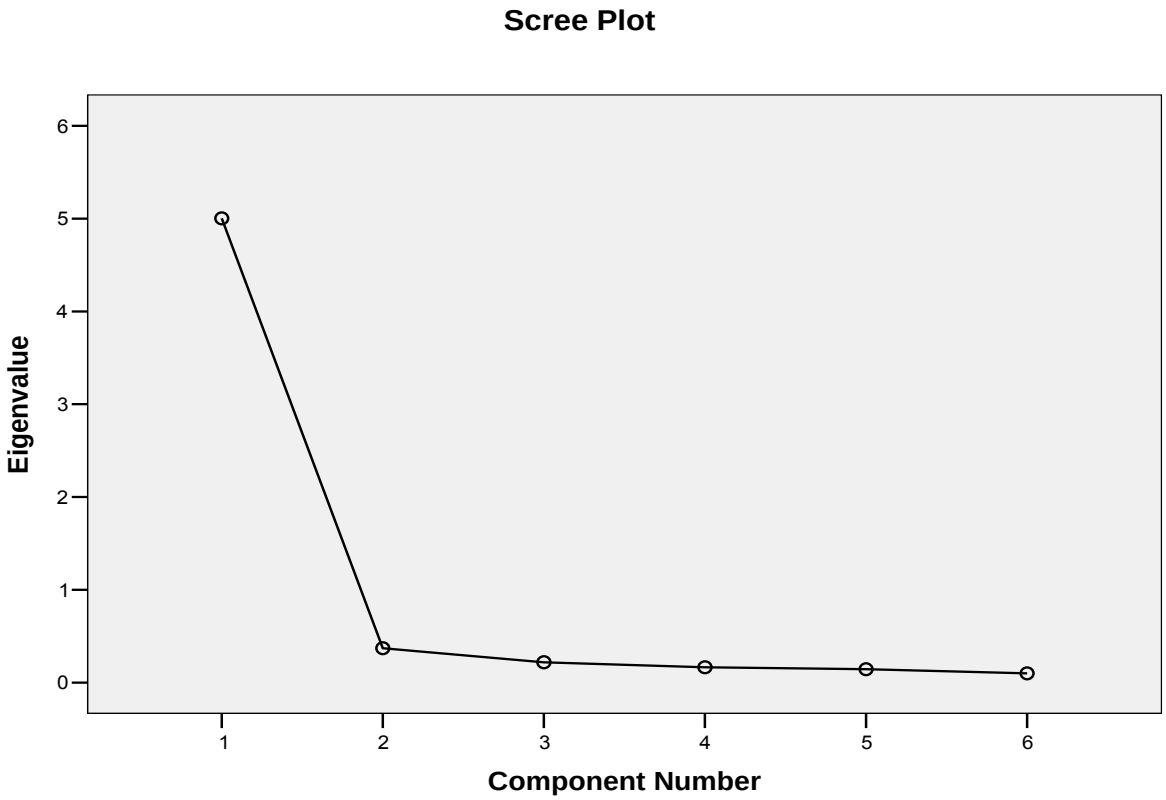


Figure 9: Scree Plot from Principal Components Analysis for Proposed Dimension 8, entitled 'Hope'

Table 15: Result of Principal Component Analysis for Proposed Dimension 8, entitled 'Hope'

Question number	First Principal Component Loading	Parcel Allocation
q79	.94	p1
q78	.93	p2
q80	.92	p2
q82	.92	p1
q81	.89	p1
q77	.89	p2

Note: In order to simplify this table loadings have been rounded to two decimal places.

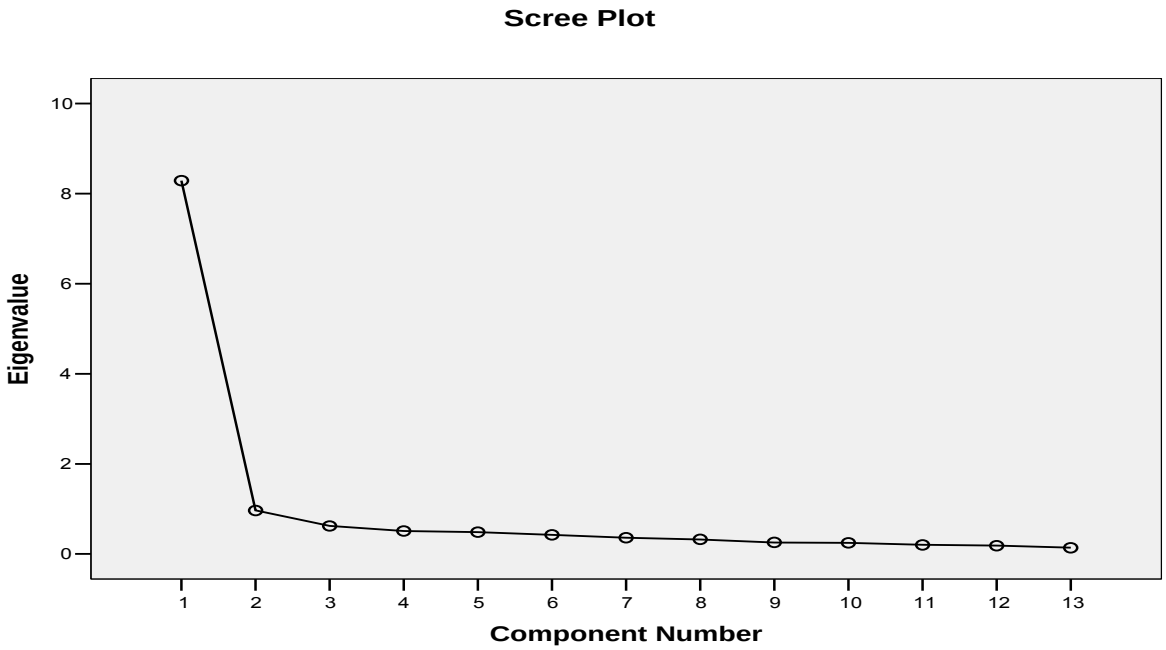


Figure 10: Scree Plot from Principal Components Analysis for Proposed Dimension 9, entitled 'Empowerment'

Table 16: Results of Principal Component Analysis for Proposed Dimension 9, entitled 'Empowerment'

Question Number	First Principal Component Loading	Parcel Allocation
q87	.89	p1
q91	.88	p2
q92	.87	p2
q90	.87	p1
q85	.83	p1
q86	.81	p2
q93	.81	p2
q84	.78	p1
q83	.76	p1
q89	.75	p2
q95	.74	p2
q88	.70	p1
q94	.65	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

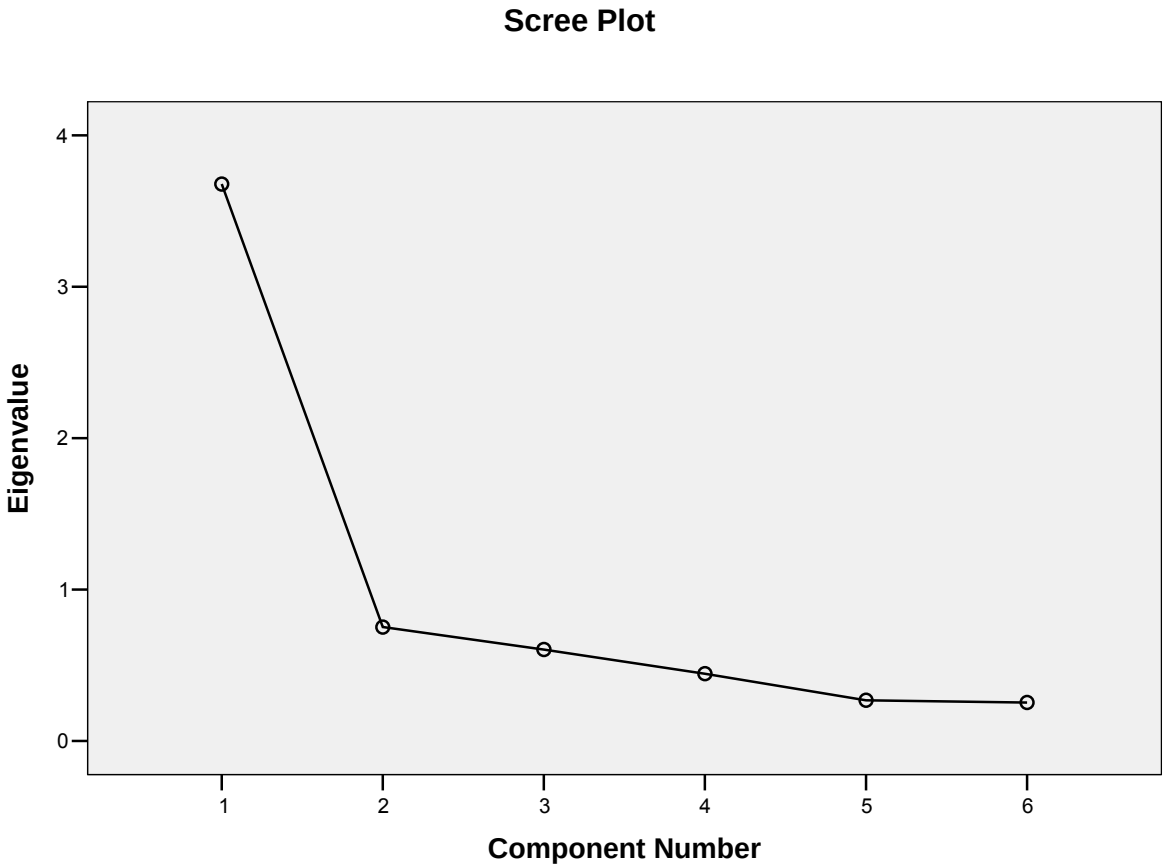


Figure 11: Scree Plot from Principal Components Analysis for Proposed Dimension 10, entitled 'Spirituality'

Table 17: Result of Principal Component Analysis for Proposed Dimension 10, entitled 'Spirituality'

Question Number	First Principal Component Loading	Parcel Allocation
q101	.87	p1
q96	.86	p2
q99	.82	p2
q97	.79	p1
q100	.71	p1
q98	.62	p2

Note: In order to simplify this table loadings have been rounded to two decimal places.

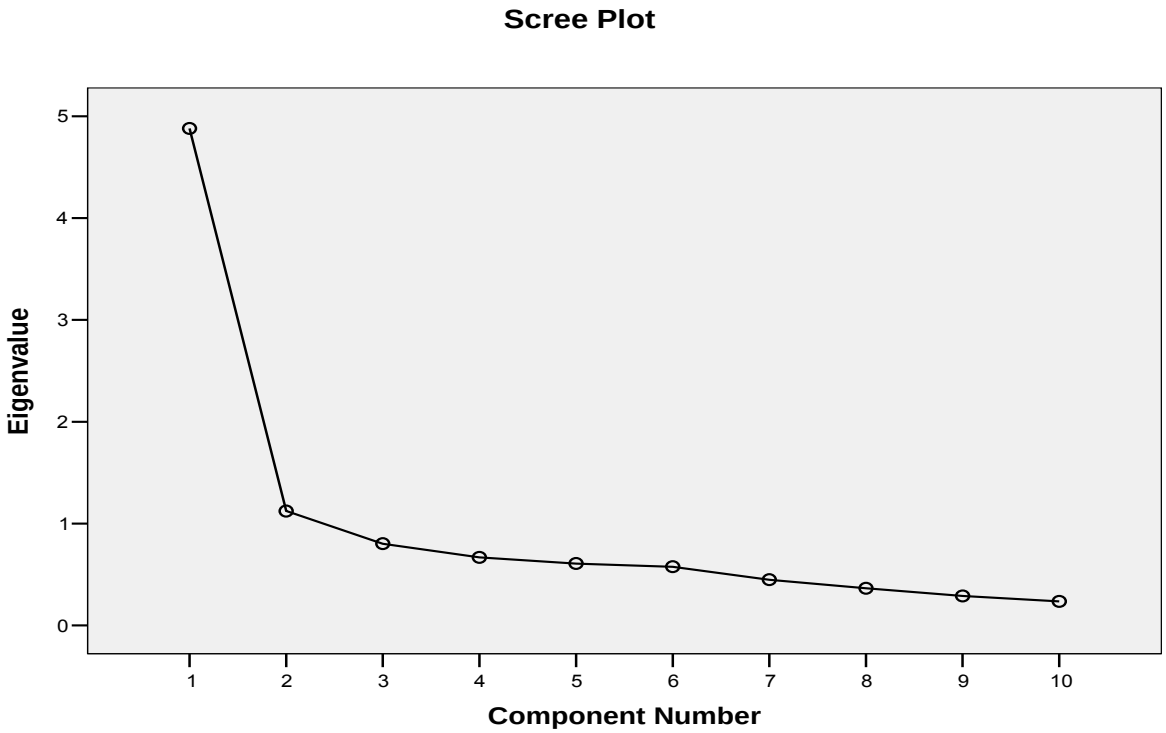


Figure 12: Scree Plot from Principal Components Analysis for Proposed Dimension 11, entitled 'Resources'

Table 18: Result of Principal Component Analysis for Proposed Dimension 11, entitled 'Resources'

Question Number	First Principal Component Loading	Parcel Allocation
q104	.79	.788
q108	.78	.780
q106	.72	.721
q107	.72	.720
q103	.70	.697
q105	.70	.696
q109	.67	.673
q111	.65	.653
q110	.64	.635
q102	.43	.427

Note: In order to simplify this table loadings have been rounded to two decimal places.

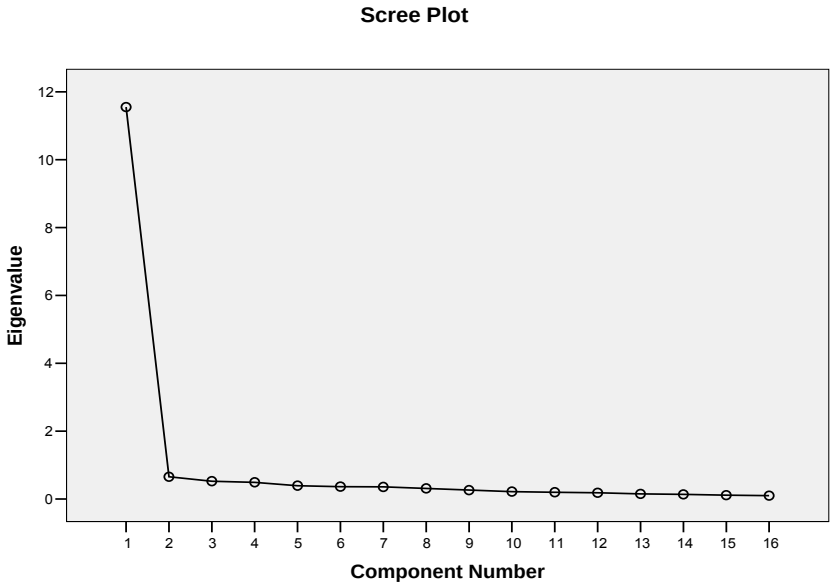


Figure 13: Scree Plot from Principal Components Analysis for Proposed Dimension 12, entitled 'Satisfaction with Services'

Table 19: Result of Principal Component Analysis for Proposed Dimension 12, entitled 'Satisfaction with Services'

Question number	First Principal Component Loading	Parcel Allocation
q123	.90	p1
q113	.89	p2
q121	.88	p2
q114	.88	p1
q122	.88	p1
q124	.88	p2
q118	.87	p2
q119	.85	p1
q127	.85	p1
q112	.84	p2
q126	.82	p2
q125	.79	p1
q115	.75	p1

Note: In order to simplify this table loadings have been rounded to two decimal places.

Table 20: Parcel Allocation for Proposed Dimension entitled 'Hope and Empowerment'.

Hope and Empowerment	
Parcel	
1	**2**
q80	q82
q92	q87
q90	q79
q91	q81
q78	q85
q86	q77
q93	q83
q84	q89
q95	q88
	q94

Table 21: Individual Item Factor Loadings for Main Section of Revised Measure

Relationships **– Items**	**Factor loading**
Over the past week I have had someone I can trust	.84
Over the past week I have been close to someone else	.81
Over the past week I have felt connected to the people who are important to me	.81
Over the past week I have been able to share my feelings	.77
Over the past week I have felt understood	.77
Over the past week I have been able to enjoy my friendships	.76
Over the past week I have felt loved	.75
Over the past week I have felt heard by other people	.74
Over the past week I have felt I am an important part of my family	.59
Over the past week I have felt I can contribute to my community	.61
Day to Day Life **– Items**	
Over the past week I have been able to do my daily tasks	.88
Over the past week I have been able to do my usual activities	.88
Over the past week I have been able to concentrate	.72
Culture **– Items**	
Over the past week I have felt connected to my culture	.87
Over the past week I have been able to draw strength from my culture	.87
Over the past week I have been able to draw strength from others who share my culture	.85
Over the past week I have felt able to practice my cultural beliefs	.84
Over the past week I have felt a part of my ethnic group	.83
Over the past week I have been able to draw strength from others who are a part of my ethnic group	.82
Physical Health **– Items**	
Over the past week I have been in good physical health	.81
Over the past week I have been eating well	.81
Over the past week I have had energy	.78
Over the past week I have been sleeping well	.77
Quality of Life **– Items**	
Over the past week I have been able to have fun	.85
Over the past week I have been able to enjoy leisure time	.83
Over the past week I have felt content with my life	.82
Over the past week I have been able to relax	.80
Over the past week I have been able to do the things I like doing	.82
Over the past week I have been able to laugh	.75
Over the past week I have felt safe	.57
Mental Health **– Items**	
Over the past week I have been able to think clearly	.84
Over the past week I have felt in control of my feelings	.83
Over the past week I have felt in control of my thoughts	.82
Over the past week I have felt comfortable with how in touch with reality I am	.81

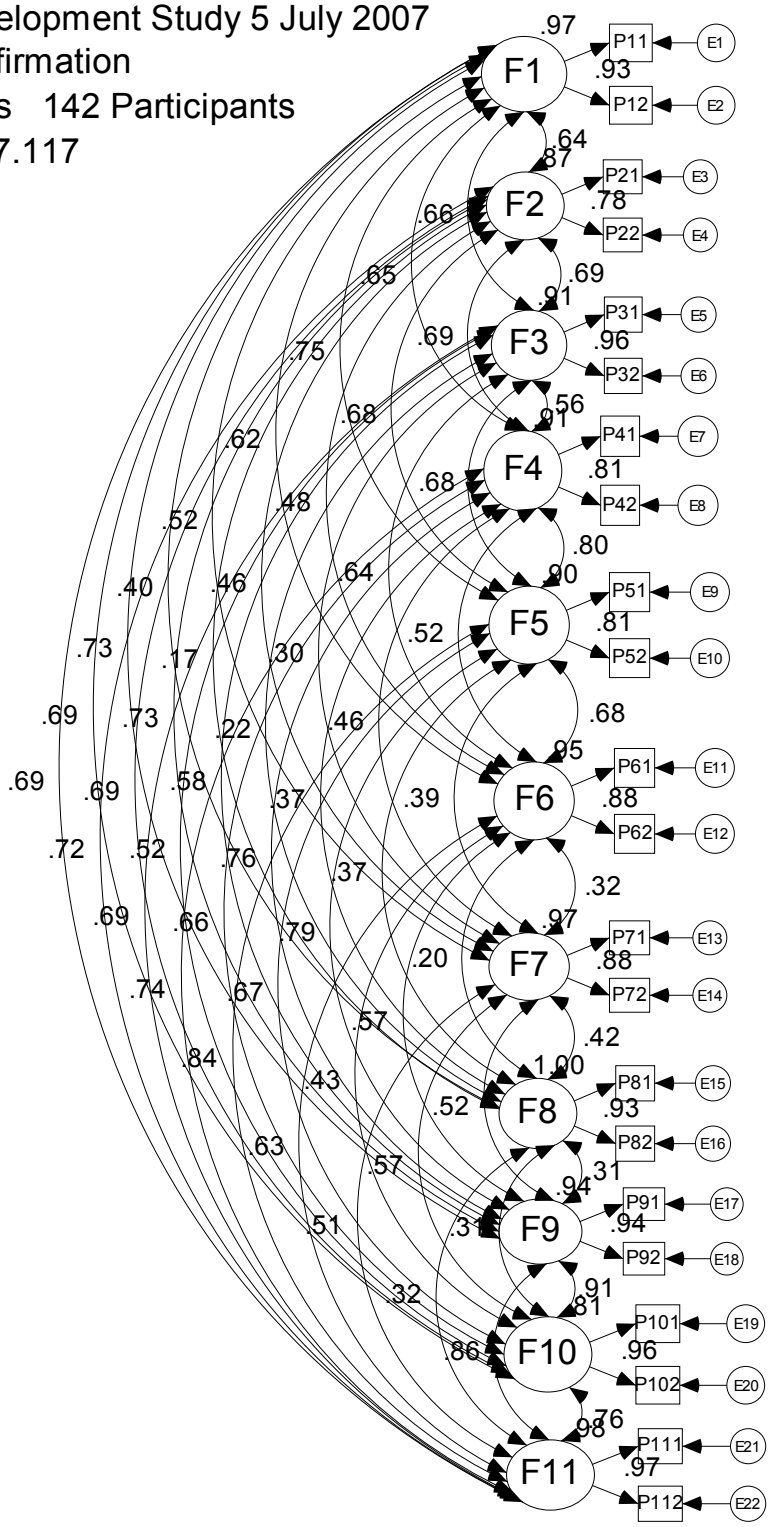
Over the past week I have felt in control of my actions	.81
Over the past week I have felt comfortable with how alert I am	.80
Over the past week I have felt in control of my mental health	.78
***Recovery* – Items**	
Over the past week I have felt in control of my recovery	.90
Over the past week I have felt I have a good understanding about recovery	.87
Over the past week I have been able to make my own decisions about my recovery	.87
Over the past week I have felt satisfied with my rate of recovery	.81
***Hope and Empowerment* – Items**	
Over the past week I have felt positive about myself	.91
Over the past week I have felt confident in myself	.91
Over the past week I have felt a sense of meaning for my life	.90
Over the past week I have felt hope for myself	.90
Over the past week I have felt strong in myself	.89
Over the past week I have felt in control of my life	.88
Over the past week I have felt I value myself	.88
Over the past week I have felt like I have choice	.76
***Spirituality* – Items**	
Over the past week I have been able to draw strength from my spirituality	.89
Over the past week I have felt able to practice my spiritual beliefs	.89
Over the past week I have felt comfortable with my spirituality	.85
Over the past week I have been able to draw strength from others who share my spirituality	.78
***Resources* - Items**	
Over the past week I have had enough food to eat	.83
Over the past week I have had access to transport to get where I have wanted to go	.74
Over the past week I have had housing I can afford	.73
Over the past week I have had money to do the things I enjoy	.72

***Service satisfaction* – Items**	
Over the past week I have felt the service provided has been of good quality	.92
Over the past week I have listened to by the service	.90
Over the past week I have been satisfied with the service I have received	.90
Over the past week I have felt the service has been delivered in good time	.90
Over the past week I have felt the service has provided me with the information I need	.81
Over the past week I have felt my rights have been respected by the service	.87
Over the past week I have felt my opinions have mattered to the service	.86
Over the past week I have been able to access what I have needed from the service	.86

In order to simplify this table loadings have been rounded to two decimal places.

Figure 14: *Result of Confirmatory Factor Analysis*

Questionnaire Development Study 5 July 2007
Eleven Factor Confirmation
Twenty-two Parcels 142 Participants
CHISQUARE = 237.117
DF = 154
p = .000
CHISQ/DF= 1.540



GFI = .875
AGFI = .795
PGFI = .533
NFI = .931
RFI = .897
CFI = .974
RMR = .271
RMSEA = .062

Table 22: Result of Principal Component Analysis for the Māori section plus questions 116, 117 & 120

Question Number	First Principal Component Loading				
	1	2	3	4	5
q137	.75				
q135	.72				
q131	.67				
q132	.65				
q133	.65				
q136	.65				
q142		.87			
q141		.81			
q140		.80			
q143		.79			
q130			.83		
q128			.82		
q138			.77		
q139			.67		
q129			.54	.51	
q146				.84	
q147				.82	
q144				.80	
q145				.77	
q117					.90
q116					.89
q120					.86
q134					.51

In order to simplify this table loadings have been rounded to two decimal places and loadings < .45 have been eliminated.

Table 23: Result of Principal Component Analysis for Revised Māori section

Question Number	First Principal Component Loading		
	1	2	3
q132	.87		
q131	.86		
q133	.82		
q130	.70		
q135	.69		
q137	.68		
q140	.66		
q143	.52	.50	
q146			.86
q147			.82
q144			.81
q145			.80
q129	.56		.62
q120		.80	
q134	.43	.72	

In order to simplify this table loadings have been rounded to two decimal places and loadings < .42 have been eliminated.

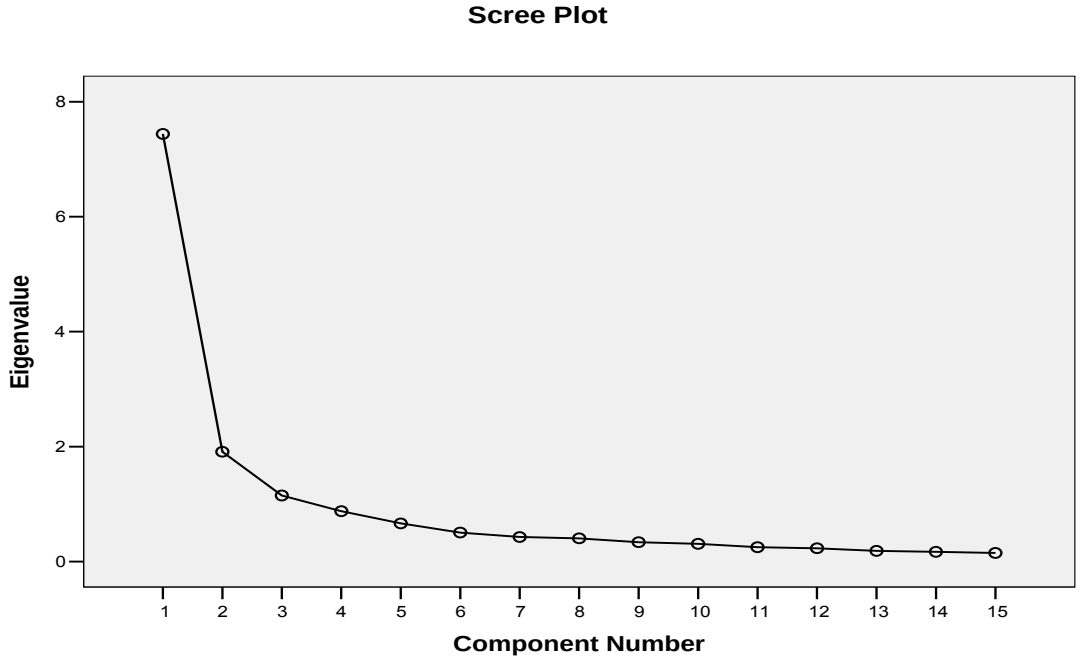


Figure 15: Scree Plot from Two Factor Principal Components Analysis for Revised Māori section

Table 24: Result of Two Factor Principal Component Analysis for the Māori section

Question Number	First Principal Component Loading		Parcel Allocation
	1	2	
q131	.88		p11
q132	.83		p12
q133	.82		p12
q140	.74		p11
q135	.72		p11
q137	.69		p12
q130	.65		p11
q143	.65		p12
q134	.64		p12
q146		.87	p21
q145		.83	p22
q144		.83	p22
q147		.81	p21
q129		.62	p21
q120			

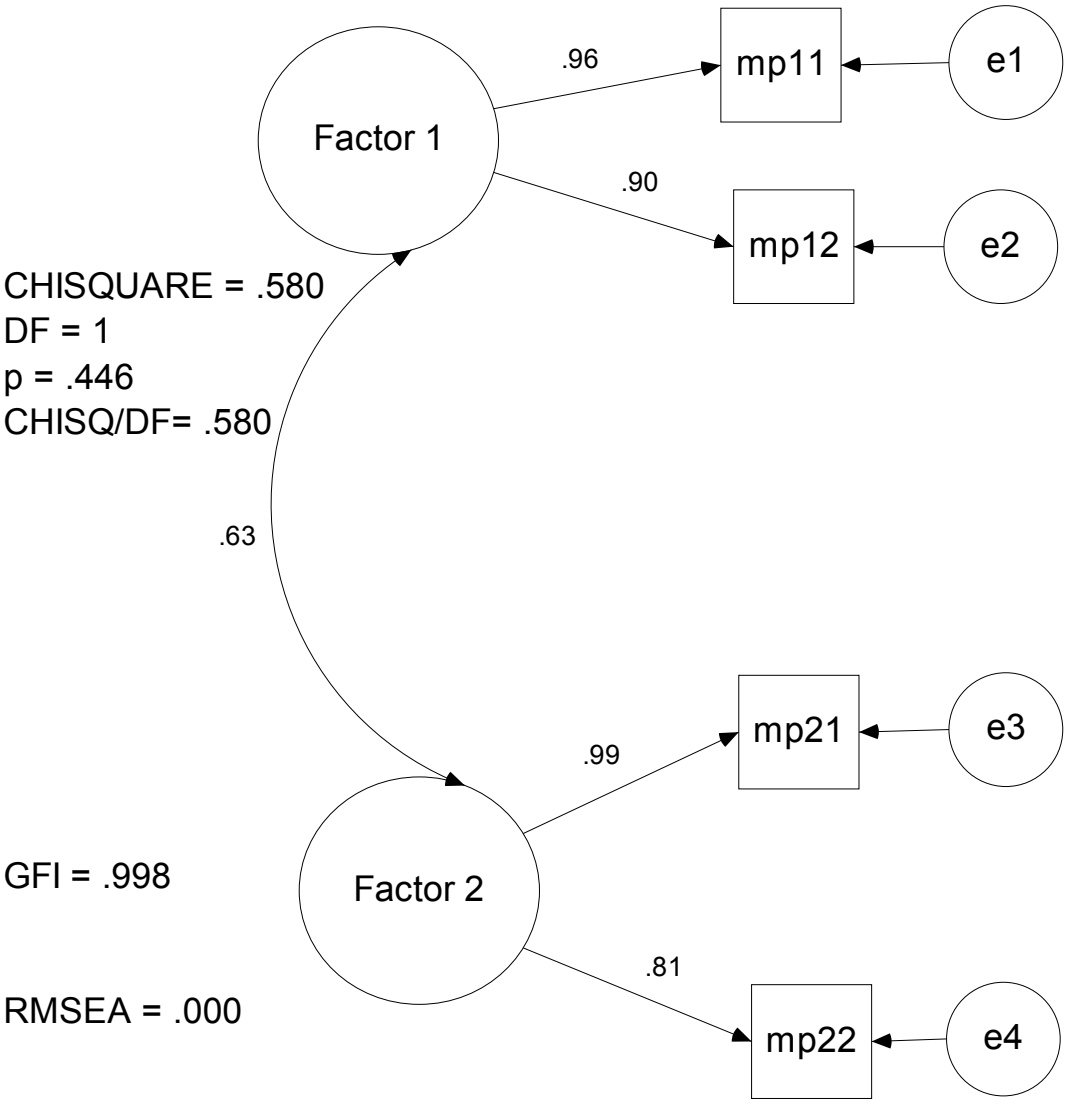
In order to simplify this table loadings have been rounded to two decimal places and loadings < .55 have been eliminated.

Table 25: Individual Item Factor Loadings for the Māori section

***Whanaungatanga* – Items**	
Over the past week I have felt connected to my hapu	.89
Over the past week I have been supported by kaumatua	.73
Over the past week I have felt connected to my Māoritanga (Māori culture)	.80
Over the past week I have felt connected to my whānau	.73
Over the past week I have felt satisfied with the mental health services' use of tikanga Māori (Māori practices)	.67
Over the past week I have felt connected to my iwi	.88
Over the past week I have felt connected to my marae	.85
Over the past week I have felt able to express myself in a Māori way	.76
Over the past week I had support from Māori Tohunga (healers)	.66
***Te Reo me ōnā Tikanga* – Items**	
Over the past week I have felt in control of my spiritual well-being (wairua)	.84
Over the past week I have felt in control of my emotional well-being (hinengaro)	.89
Over the past week I have felt in control of my physical well-being (tinana)	.81
Over the past week I have felt in control of my life (mauri ora)	.89
Over the past week I have felt connected to the whenua/land	.75

In order to simplify this table loadings have been rounded to two decimal places.

Figure 16: Result of Confirmatory Factor Analysis



Appendix 7 – Final Measure: Tāku Reo, Tāku Mauri Ora: My Voice, My Life

Ka ōhō te Wairua
Ka mātaara te Tinana
He Aroha ki te Aroha
Ka kaa te Rama

When your Spirit's awakened
When your Body's alive
When Love is unconditional
Enlightenment flows

When your Mind, Spirit and Body are in tune
You can achieve anything

Na Te Rauparaha

Instructions

This measure has been developed to help mental health consumers/tāngata whai ora to reflect and communicate on their own mental health.

You can complete this measure by yourself, or together with your support people, family or whānau, or with the person who has given you this measure.

We don't expect you to experience any ill-effects from completing this measure. If you do, you may wish to contact your local mental health support person or organisation.

The measure is made up of a number of statements. Think about each statement and identify the **one** option that best describes how you have generally been **over the past week (including today).**

For example:

I have been relaxing:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable

We think it will take you about twenty minutes to complete the measure. There are no right or wrong answers. If any statement doesn't apply to you, there is a 'not applicable' option. If you are not sure of what a statement means, just leave it and go onto the next statement.

Throughout this measure think about mental illness in whatever way is meaningful to you.

The information from your completed measure will be summarised and returned to you with some ideas about things you might like to think about doing. This could include sharing your information with some key people but that will always be your choice. No-one else will be given your information from this measure. In an anonymous form the information will be used to help with mental health service development.

Relationships

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

1. Over the past week I have felt understood:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

2. Over the past week I have been able to share my feelings:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

3. Over the past week I have felt heard by other people:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

4. Over the past week I have been able to enjoy my friendships:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

5. Over the past week I have been close to someone else:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

6. Over the past week I have had someone I can trust:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

7. Over the past week I have felt connected to the people who are important to me:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Relationships continued…

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

8. Over the past week I have felt loved:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

9. Over the past week I have felt I am an important part of my family:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

10. Over the past week I have felt I can contribute to my community:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Day-to-Day Life

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

11. Over the past week I have been able to concentrate:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

12. Over the past week I have been able to do my usual activities:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

13. Over the past week I have been able to do my daily tasks:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Culture

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purpose of this section 'culture' means your values, customs, and way of life.

14. Over the past week I have felt connected to my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

15. Over the past week I have felt a part of my ethnic group:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

16. Over the past week I have been able to draw strength from my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

17. Over the past week I have felt able to practice my cultural beliefs:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

18. Over the past week I have been able to draw strength from others who share my culture:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

19. Over the past week I have been able to draw strength from others who are a part of my ethnic group:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Physical Health

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

20. Over the past week I have been sleeping well:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

21. Over the past week I have been eating well:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

22. Over the past week I have been in good physical health:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

23. Over the past week I have had energy:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Quality of Life

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

24. Over the past week I have been able to have fun:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

25. Over the past week I have been able to enjoy leisure time:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

26. Over the past week I have been able to laugh:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

27. Over the past week I have felt content with my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

28. Over the past week I have been able to relax:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

29. Over the past week I have been able to do the things I like doing:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

30. Over the past week I have felt safe:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Mental Health

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

31. Over the past week I have felt in control of my mental health:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

32. Over the past week I have been able to think clearly:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

33. Over the past week I have felt in control of my actions:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

34. Over the past week I have felt in control of my thoughts:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

35. Over the past week I have felt in control of my feelings:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

36. Over the past week I have felt comfortable with how in touch with reality I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

37. Over the past week I have felt comfortable with how alert I am:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Recovery

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'recovery' means living well in the presence or absence of mental illness.

38. Over the past week I have been able to make my own decisions about my recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

39. Over the past week I have felt in control of my recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

40. Over the past week I have felt I have a good understanding about recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

41. Over the past week I have felt satisfied with my rate of recovery:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Hope and Empowerment

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

42. Over the past week I have felt hope for myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

43. Over the past week I have felt a sense of meaning for my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

44. Over the past week I have felt positive about myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

45. Over the past week I have felt like I have choices:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

46. Over the past week I have felt strong in myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

47. Over the past week I have felt I value myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

48. Over the past week I have felt confident in myself:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Hope and Empowerment continued…

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

49. Over the past week I have felt in control of my life:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Spirituality

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'spirituality' means your beliefs, faith and convictions.

50. Over the past week I have been able to draw strength from my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

51. Over the past week I have been able to draw strength from others who share my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

52. Over the past week I have felt comfortable with my spirituality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

53. Over the past week I have felt able to practice my spiritual beliefs:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Resources

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

54. Over the past week I have had housing I can afford:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

55. Over the past week I have had enough food to eat:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

56. Over the past week I have had access to transport to get where I have wanted to go:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

57. Over the past week I have had money to do the things I enjoy:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Satisfaction with Services

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'the service' refers to the mental health service that you have most contact with, for your mental health.

58. Over the past week I have been able to access what I have needed from the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

59. Over the past week I have felt listened to by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

60. Over the past week I have felt my opinions have mattered to the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

61. Over the past week I have been satisfied with the service I have received:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

62. Over the past week I have felt the service has been delivered in good time:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

63. Over the past week I have felt the service provided has been of good quality:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

64. Over the past week I have felt my rights have been respected by the service:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Satisfaction with Services continued…

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

Note: For the purposes of this section 'the service' refers to the service that you have most contact with, for your mental health.

65. Over the past week I have felt the service has provided me with the information I need:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

If you identify as Māori please complete the following questions numbered 66-79. Otherwise please go to last page.

Whanaungatanga

If you identify as Māori please complete the following questions numbered 66-79. Otherwise please go to last page.

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

66. Over the past week I have felt connected to my hapū:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

67. Over the past week I have felt connected to my iwi:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

68. Over the past week I have felt connected to my marae:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

69. Over the past week I have been supported by kaumatua:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

70. Over the past week I have felt connected to my Māoritanga (Māori culture):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

71. Over the past week I have felt able to express myself in a Māori way:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

72. Over the past week I have felt connected to my whānau:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

73. Over the past week I have had support from Māori tohunga (healers):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

74. Over the past week I have felt satisfied with the mental health services' use of tikanga Māori (Māori practices):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

Te Reo me ōnā Tikanga

Please read each statement and circle the <u>one</u> option that best describes how you have generally been <u>over the past week (including today).</u>

75. Over the past week I have felt in control of my emotional well-being (hinengaro):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

76. Over the past week I have felt in control of my physical well-being (tinana):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

77. Over the past week I have felt in control of my life (mauri ora):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

78. Over the past week I have felt in control of my spiritual well-being (wairua):

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

79. Over the past week I have felt connected to the whenua/land:

None of the time	A little of the time	Some of the time	Most of the time	All of the time	□ Tick if not applicable
1	**2**	**3**	**4**	**5**	**9**

On this page is some space for you to write about any matters that are personal to you or thoughts and feelings that have been raised for you while you have been completing the measure.

Appendix 8 – Information sheet for testing of revised measure

INFORMATION SHEET

What is this study about?

We invite you to take part in this study which aims to develop a measure that mental health consumers/tāngata whai ora can use to reflect and communicate on their own mental health outcomes.

This is a unique study which is being lead by consumers/tāngata whai ora.

How do I decide if I want to take part in the study?

Please take your time to decide whether to take part. Your involvement is entirely voluntary (your choice). You are welcome to involve a support person, friend, family or whānau in asking questions about the study and considering your involvement.

Who is being asked to take part in the study?

We are inviting mental health consumers/tāngata whai ora aged between 18 and 65 to take part in the study.

What will I be asked to do for the study?

If you agree to take part, we would like you to complete a questionnaire at a number of different times. The first time is on admission to the mental health service, then once a week/month (as appropriate) while you are involved with the mental health service and then finally on discharge.

You can do this by yourself, or together with your support people, family or whānau, or with the person who has given you this information sheet.

The questionnaire includes some general questions about you. This information will be used to make sure we get feedback on the questionnaire from a range of people.

Following the general questions, a number of statements are presented. We would like you to think about each statement and identify the option that best describes how you have generally been over the past week (including today). If any statement doesn't apply to you, there is a 'not applicable' option. If you are not sure of what a statement means, just leave it and go onto the next statement.

How long will the questionnaire take?

The questionnaire will take about twenty minutes to complete. If you change your mind about being involved, you can stop at any time.

Why is this study being done?

We are asking mental health consumers/tāngata whai ora to complete this questionnaire so we can investigate if there are any changes in the measure over time. We hope the final version of the questionnaire will help mental health consumers/tāngata whai ora participate in their own mental health care and inform ongoing mental health service development.

How will being involved in this study affect me?

Taking part in the study won't affect your future care or treatment.

We don't expect you to experience any ill-effects from taking part in the study. If you do, you may wish to contact Warmline, a free peer support helpline, which is available 7pm-1am, Tuesday-Sunday, on 0800 200 207. Alternatively you can contact one of the study investigators on free phone 0508 0882663 who will help you to access the support you need.

Who will know that I have taken part in the study?

Your participation in this study will always be completely confidential. Your name does not go on the questionnaire. We will not use any information that might identify you personally in any reports on this study. The questionnaires will be stored securely until the study is completed and the results published. Then they will be destroyed.

What about cost or payment?

There will be no cost to you for being involved in this study, nor will you receive any payment for taking part.

How will I know about the results of the study?

Your completion of the questionnaire is part of a bigger project that will take three years. At the end, we will write a report on the results. If you wish to receive a summary of these results or want to know any more about the study, please tell the person who has given you this information sheet or contact Sarah O'Connor on free phone: 0508 0882663, e-mail: saraho@caseconsulting.co.nz or address: PO Box 27-482, Marion Square Wellington.

Where do I get more information on my rights?

If you have any queries or concerns regarding your rights as a participant in this study you may wish to contact a Health and Disability Advocate, telephone: 0800 42 36 38 (4 ADNET).

The Mental Health Research and Development Strategy funded this study. It has Multi-region Ethics Committee approval.

Appendix 9 – Results of analysis of revised measure re-testing

Table 26: Frequency and percentage of domain item completion for each testing occasion

Domain	Number of item responses	Percentage completed
Relationships		
Week 1	282	97%
Week 2	206	98%
Week 3	140	100%
Week 4	70	100%
Week 5	49	98%
Week 6	18	90%
Day-to-Day Life		
Week 1	87	100%
Week 2	62	98%
Week 3	42	100%
Week 4	21	100%
Week 5	14	93%
Week 6	5	83%
Culture		
Week 1	174	100%
Week 2	122	97%
Week 3	84	100%
Week 4	42	100%
Week 5	30	100%
Week 6	12	100%
Physical Health		
Week 1	115	99%
Week 2	83	99%
Week 3	56	100%
Week 4	28	100%
Week 5	19	95%
Week 6	8	100%
Quality of Life		
Week 1	173	85%
Week 2	145	99%
Week 3	97	99%
Week 4	49	100%
Week 5	35	100%
Week 6	13	93%

Domain	Number of item responses	Percentage completed
Mental Health		
Week 1	189	93%
Week 2	146	99%
Week 3	98	100%
Week 4	49	100%
Week 5	35	100%
Week 6	13	93%
Recovery		
Week 1	110	95%
Week 2	79	94%
Week 3	56	100%
Week 4	28	100%
Week 5	19	95%
Week 6	7	88%
Hope and Empowerment		
Week 1	222	96%
Week 2	168	100%
Week 3	111	99%
Week 4	56	100%
Week 5	39	98%
Week 6	16	100%
Spirituality		
Week 1	108	93%
Week 2	83	99%
Week 3	56	100%
Week 4	28	100%
Week 5	19	95%
Week 6	8	100%
Resources		
Week 1	107	92%
Week 2	80	95%
Week 3	56	100%
Week 4	28	100%
Week 5	20	100%
Week 6	8	100%

Domain	Number of item responses	Percentage completed
Satisfaction with Services		
Week 1	214	92%
Week 2	165	98%
Week 3	112	100%
Week 4	55	98%
Week 5	37	93%
Week 6	15	94%
Māori section		
Whanaungatanga		
Week 1	87	97%
Week 2	78	96%
Week 3	48	86%
Week 4	18	100%
Week 5	18	100%
Te Reo me ōnā Tikanga		
Week 1	50	100%
Week 2	45	100%
Week 3	36	100%
Week 4	10	100%
Week 5	10	100%

In order to simplify this table values have been rounded to whole numbers.

Table 27: Range, mean and standard deviation of scores for domains and totals across each testing occasion

Domain	Score range	Score mean	Score standard deviation
Relationships			
Week 1	15-47	34.32	8.66
Week 2	24-50	36.80	8.26
Week 3	20-50	39.64	8.26
Week 4	19-48	37.86	10.22
Week 5	10-46	29.80	14.08
Week 6	33-40	36.50	4.9
Day-to-Day Life			
Week 1	3-15	9.41	3.48
Week 2	4-14	10.81	2.50
Week 3	7-15	10.64	2.53
Week 4	5-14	10.86	2.79
Week 5	7-13	10.80	2.39
Week 6	9-12	10.50	2.12
Culture			
Week 1	6-30	18.72	7.24
Week 2	6-29	20.95	5.74
Week 3	12-30	20.57	5.03
Week 4	12-30	21.29	5.96
Week 5	15-30	22.60	5.55
Week 6	22-24	23.00	1.41
Physical Health			
Week 1	4-20	13.45	4.08
Week 2	8-20	14.38	3.37
Week 3	6-20	15.57	3.76
Week 4	9-19	16.14	3.58
Week 5	7-18	14.40	4.28
Week 6	16-19	17.50	2.12
Quality of Life			
Week 1	7-31	21.22	6.68
Week 2	13-35	24.81	5.97
Week 3	11-35	25.00	5.72
Week 4	11-32	24.29	6.95
Week 5	9-28	20.00	8.15
Week 6	18-28	23.00	7.07

Domain	Score range	Score mean	Score standard deviation
Mental Health			
Week 1	7-35	23.89	7.67
Week 2	11-35	26.76	5.96
Week 3	16-35	27.64	5.96
Week 4	18-35	29.43	6.24
Week 5	22-35	29.80	5.45
Week 6	22-33	30.50	3.53
Recovery			
Week 1	4-20	13.00	4.26
Week 2	4-19	13.85	3.84
Week 3	10-20	14.93	3.05
Week 4	11-20	14.86	3.08
Week 5	4-18	13.00	5.39
Week 6	14-16	15.00	1.41
Hope and Empowerment			
Week 1	8-39	27.36	8.68
Week 2	12-40	30.00	7.50
Week 3	12-40	30.71	7.26
Week 4	15-40	31.57	8.06
Week 5	12-32	24.00	10.10
Week 6	32	32.00	0.00
Spirituality			
Week 1	4-20	12.44	4.76
Week 2	4-20	15.00	4.49
Week 3	8-20	15.21	3.74
Week 4	13-20	16.14	2.34
Week 5	8-16	14.40	3.58
Week 6	16-16	17.00	1.41
Resources			
Week 1	7-20	13.93	3.34
Week 2	7-20	13.80	3.43
Week 3	14-20	16.64	2.02
Week 4	13-20	17.14	2.61
Week 5	11-20	15.80	4.27
Week 6	12-20	16.00	5.66

Domain	Score range	Score mean	Score standard deviation
Satisfaction with Services			
Week 1	10-40	29.27	8.57
Week 2	12-40	29.50	8.61
Week 3	17-40	30.79	7.32
Week 4	15-40	30.00	10.60
Week 5	8-34	21.60	11.08
Week 6	16-40	28.00	16.97
Total: main section			
Week 1	90-306	218.80	47.24
Week 2	127-306	237.94	46.61
Week 3	149-308	247.36	45.50
Week 4	161-302	249.57	49.48
Week 5	163-268	216.20	51.04
Week 6	226-272	249.00	32.53
Māori section			
Whanaungatanga			
Week 1	18-45	27.56	8.59
Week 2	9-39	28.25	10.98
Week 3	18-45	33.33	9.58
Week 4	35-45	40.00	7.07
Week 5	29-36	32.50	4.95
Te Reo me ōnā Tikanga			
Week 1	11-25	17.89	5.13
Week 2	9-25	19.75	5.26
Week 3	10-25	19.33	5.57
Week 4	20-25	22.50	3.54
Week 5	20-25	22.50	3.54

Domain	Score range	Score mean	Score standard deviation
Total: Māori section			
Week 1	29-70	45.44	12.76
Week 2	18-64	48.00	15.43
Week 3	28-70	52.67	14.91
Week 4	55-70	62.50	10.61
Week 5	54-56	55.00	1.41
Total: All			
Week 1	206-376	273.00	51.87
Week 2	206-370	294.29	56.19
Week 3	216-366	308.83	55.48
Week 4	322-365	343.50	30.41
Week 5	217-323	270.00	74.95

In order to simplify this table values have been rounded to two decimal places.

Table 28: Results of analysis of variance between mean relationship domain scores for three completion occasions (weekly intervals)

(I) relation	(J) relation	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.154	2.342	.949	-5.257	4.949
	3	-1.077	2.561	.682	-6.656	4.502
2	1	.154	2.342	.949	-4.949	5.257
	3	-.923	1.704	.598	-4.636	2.789
3	1	1.077	2.561	.682	-4.502	6.656
	2	.923	1.704	.598	-2.789	4.636

Table 29: Results of analysis of variance between mean day-to-day life domain scores for three completion occasions (weekly intervals)

(I) daylife	(J) daylife	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.357	.775	.652	-2.031	1.316
	3	-.500	.600	.420	-1.796	.796
2	1	.357	.775	.652	-1.316	2.031
	3	-.143	.512	.785	-1.249	.963
3	1	.500	.600	.420	-.796	1.796
	2	.143	.512	.785	-.963	1.249

Table 30: Results of analysis of variance between mean culture domain scores for three completion occasions (weekly intervals)

(I) culture	(J) culture	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-5.385	3.672	.168	-13.385	2.615
	3	-5.000	3.927	.227	-13.557	3.557
2	1	5.385	3.672	.168	-2.615	13.385
	3	.385	1.347	.780	-2.550	3.320
3	1	5.000	3.927	.227	-3.557	13.557
	2	-.385	1.347	.780	-3.320	2.550

Table 31: Results of analysis of variance between mean physical health domain scores for three completion occasions (weekly intervals)

(I) physical	(J) physical	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.071	.412	.865	-.962	.819
	3	-1.214	.613	.069	-2.538	.110
2	1	.071	.412	.865	-.819	.962
	3	-1.143*	.523	.048	-2.272	-.014
3	1	1.214	.613	.069	-.110	2.538
	2	1.143*	.523	.048	.014	2.272

Table 32: Results of analysis of variance between mean quality of life domain scores for three completion occasions (weekly intervals)

(I) quality	(J) quality	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-2.143*	.776	.016	-3.820	-.466
	3	-2.357	1.142	.059	-4.824	.109
2	1	2.143*	.776	.016	.466	3.820
	3	-.214	1.144	.854	-2.687	2.258
3	1	2.357	1.142	.059	-.109	4.824
	2	.214	1.144	.854	-2.258	2.687

Table 33: Results of analysis of variance between mean mental health domain scores for three completion occasions (weekly intervals)

(I) mentalh	(J) mentalh	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.143	.864	.871	-2.008	1.723
	3	-1.143	1.037	.290	-3.383	1.097
2	1	.143	.864	.871	-1.723	2.008
	3	-1.000	1.069	.367	-3.310	1.310
3	1	1.143	1.037	.290	-1.097	3.383
	2	1.000	1.069	.367	-1.310	3.310

Table 34: Results of analysis of variance between mean mental health domain scores for three completion occasions (weekly intervals)

(I) recovery	(J) recovery	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.154	.478	.753	-.888	1.196
	3	-1.462	1.147	.227	-3.961	1.038
2	1	-.154	.478	.753	-1.196	.888
	3	-1.615	1.083	.162	-3.976	.745
3	1	1.462	1.147	.227	-1.038	3.961
	2	1.615	1.083	.162	-.745	3.976

Table 35: Results of analysis of variance between mean mental health domain scores for three completion occasions (weekly intervals)

(I) hemp	(J) hemp	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.786	1.060	.472	-3.075	1.504
	3	-1.786	1.559	.273	-5.154	1.582
2	1	.786	1.060	.472	-1.504	3.075
	3	-1.000	.989	.330	-3.136	1.136
3	1	1.786	1.559	.273	-1.582	5.154
	2	1.000	.989	.330	-1.136	3.136

Table 36: Results of analysis of variance between mean spirituality domain scores for three completion occasions (weekly intervals)

(I) spirit	(J) spirit	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-1.846	1.344	.195	-4.774	1.082
	3	-2.308	1.379	.120	-5.313	.697
2	1	1.846	1.344	.195	-1.082	4.774
	3	-.462	.852	.598	-2.318	1.395
3	1	2.308	1.379	.120	-.697	5.313
	2	.462	.852	.598	-1.395	2.318

Table 37: Results of analysis of variance between mean resources domain scores for three completion occasions (weekly intervals)

(I) resource	(J) resource	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.000	.793	1.000	-1.727	1.727
	3	-1.846	1.197	.149	-4.455	.763
2	1	.000	.793	1.000	-1.727	1.727
	3	-1.846*	.767	.033	-3.517	-.176
3	1	1.846	1.197	.149	-.763	4.455
	2	1.846*	.767	.033	.176	3.517

Table 38: Results of analysis of variance between mean satisfaction with services domain scores for three completion occasions (weekly intervals)

(I) satisfac	(J) satisfac	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-1.769	1.868	.362	-5.839	2.301
	3	-3.000	3.126	.356	-9.810	3.810
2	1	1.769	1.868	.362	-2.301	5.839
	3	-1.231	2.187	.584	-5.996	3.535
3	1	3.000	3.126	.356	-3.810	9.810
	2	1.231	2.187	.584	-3.535	5.996

Table 39: Results of analysis of variance between mean main section scores for three completion occasions (weekly intervals)

(I) totexm	(J) totexm	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-14.000	10.943	.227	-38.085	10.085
	3	-23.167	15.686	.168	-57.691	11.357
2	1	14.000	10.943	.227	-10.085	38.085
	3	-9.167	9.287	.345	-29.606	11.273
3	1	23.167	15.686	.168	-11.357	57.691
	2	9.167	9.287	.345	-11.273	29.606

Table 40: Results of analysis of variance between mean whanaungatanga domain scores for three completion occasions (weekly intervals)

(I) maori1	(J) maori1	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	1.400	2.857	.650	-6.531	9.331
	3	-4.400	1.913	.083	-9.712	.912
2	1	-1.400	2.857	.650	-9.331	6.531
	3	-5.800*	1.715	.028	-10.561	-1.039
3	1	4.400	1.913	.083	-.912	9.712
	2	5.800*	1.715	.028	1.039	10.561

Table 41: Results of analysis of variance between mean Te Reo me ōnā Tikanga domain scores for three completion occasions (weekly intervals)

(I) maori2	(J) maori2	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.200	.663	.778	-2.042	1.642
	3	-.400	1.030	.717	-3.259	2.459
2	1	.200	.663	.778	-1.642	2.042
	3	-.200	.663	.778	-2.042	1.642
3	1	.400	1.030	.717	-2.459	3.259
	2	.200	.663	.778	-1.642	2.042

Table 42: Results of analysis of variance between mean Māori section scores for three completion occasions (weekly intervals)

(I) totalm	(J) totalm	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	1.200	3.484	.748	-8.474	10.874
	3	-4.800	2.518	.129	-11.791	2.191
2	1	-1.200	3.484	.748	-10.874	8.474
	3	-6.000*	1.517	.017	-10.211	-1.789
3	1	4.800	2.518	.129	-2.191	11.791
	2	6.000*	1.517	.017	1.789	10.211

Table 43: Results of analysis of variance between mean total scores for three completion occasions (weekly intervals)

(I) twm	(J) twm	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-10.200	8.052	.274	-32.557	12.157
	3	-24.200	10.552	.084	-53.496	5.096
2	1	10.200	8.052	.274	-12.157	32.557
	3	-14.000	7.301	.128	-34.270	6.270
3	1	24.200	10.552	.084	-5.096	53.496
	2	14.000	7.301	.128	-6.270	34.270

Appendix 10 – Normative data

CONTENTS

RELATIONSHIPS

Domain: Relationships	
Age 18-54	
Decile	Score
10	10-24
20	25-29
30	30
40	31-32
50	33-36
60	37-38
70	39-40
80	41-42
90	43-44
100	45-50

Domain: Relationships	
Variable: Age 55-65	
Decile	Score
10	10-26
20	27-28
30	29-33
40	35
50	36-38
60	39-40
70	41
80	42
90	43-46
100	47-50

Domain: Relationships	
Age 55-65/Schizophrenia	
Decile	Score
10	10-28
20	29-33
30	34-36
40	37-38
50	38
60	39-40
70	40
80	40
90	40
100	41-50

Domain: Relationships	
Age 55-65/Schizophrenia	
Quartile	Score
25	10-35
50	36-38
75	39-40
100	41-50

Domain: Relationships	
Variable: Age 55-65	
Quartile	Score
25	10-31
50	32-38
75	39-42
100	43-50

Domain: Relationships	
Age 18-54/Schizophrenia	
Quartile	Score
25	10-30
50	31-34
75	35-40
100	41-50

Domain: Relationships	
Age 18-54/Schizophrenia	
Decile	Score
10	10-23
20	24-29
30	30
40	31-32
50	33-34
60	35-37
70	38-40
80	41
90	42-44
100	45-50

Domain: Relationships	
Age 18-54/Bipolar	
Decile	Score
10	10-24
20	25-29
30	30-31
40	32-33
50	34-36
60	37-39
70	40
80	41-42
90	43-44
100	45-50

Domain: Relationships	
Age 18-54/Bipolar	
Quartile	Score
25	10-30
50	31-36
75	37-41
100	42-50

Domain: Relationships	
Age 55-65/Bipolar	
Quartile	Score
25	10-36
50	37-41
75	42-44
100	45-40

Domain: Relationships	
Age 18-54/Depression	
Decile	Score
10	10-22
20	23-26
30	27-30
40	31-32
50	33-36
60	37-38
70	39
80	40-41
90	42-44
100	45-50

Domain: Relationships	
Age 18-54/Depression	
Quartile	Score
25	10-27
50	28-36
75	37-40
100	41-50

Domain: Relationships	
Age 55-65/Depression	
Quartile	Score
25	10-26
50	27-31
75	32-39
100	40-50

Domain: Relationships	
Age 55-65/Depression	
Decile	Score
10	10-19
20	20-25
30	26
40	26
50	27-31
60	32-33
70	34-36
80	37-40
90	41-48
100	49-50

Domain: Relationships	
Age 55-65/Bipolar	
Decile	Score
10	10-28
20	29-34
30	35-39
40	40-41
50	41
60	42
70	43
80	45-46
90	47
100	48-50

DAY TO DAY LIFE

Domain: Day-to-Day Life	
Age 18-54	
Decile	Score
10	3-8
20	9
30	9
40	10
50	11
60	12
70	12
80	13
90	14
100	15

Domain: Day-to-Day Life	
Variable: Age 55-65	
Decile	Score
10	3-8
20	8
30	9
40	10
50	11
60	12
70	12
80	13
90	14
100	15

Domain: Day-to-Day Life	
Variable: Age 18-54	
Quartile	Score
25	3-9
50	10-11
75	12
100	13-15

Domain: Day-to-Day Life	
Variable: Age 55-65	
Quartile	Score
25	3-8
50	9-11
75	12
100	13-15

Domain: Day-to-Day Life	
Age 18-54/Schizophrenia	
Decile	Score
10	3-8
20	9
30	9
40	9
50	10
60	11-12
70	12
80	13
90	14
100	15

Domain: Day-to-Day Life	
Age 55-65/Schizophrenia	
Decile	Score
10	3-7
20	8
30	9
40	10
50	11
60	12
70	12
80	13-14
90	15
100	15

Domain: Day-to-Day Living	
Age 18-54/Schizophrenia	
Quartile	Score
25	3-9
50	10
75	11-12
100	13-15

Domain: Day-to-Day Living	
Age 55-65/Schizophrenia	
Quartile	Score
25	3-9
50	10-11
75	12-13
100	14-15

Domain: Day-to-Day Life	
Age 18-54/Bipolar	
Decile	Score
10	3-8
20	9
30	9
40	10
50	11
60	12
70	12
80	13
90	14
100	15

Domain: Day-to-Day Life	
Age 55-65/Bipolar	
Decile	Score
10	3-7
20	8-9
30	10
40	11
50	11
60	12
70	12
80	12
90	13-14
100	15

Domain: Day-to-Day Living	
Age 18-54/Bipolar	
Quartile	Score
25	3-9
50	10-11
75	12-13
100	14-15

Domain: Day-to-Day Living	
Age 55-65/Bipolar	
Quartile	Score
25	3-10
50	11
75	12
100	13-15

Domain: Day-to-Day Life	
Age 18-54/Depression	
Decile	Score
10	3-8
20	9
30	10
40	11
50	11
60	12
70	12
80	13
90	13
100	14-15

Domain: Day-to-Day Life	
Age 55-65/Depression	
Decile	Score
10	3-7
20	8
30	8
40	9
50	10
60	11-12
70	12
80	13
90	13
100	14-15

Domain: Day-to-Day Living	
Age 18-54/Depression	
Quartile	Score
25	3-8
50	9-11
75	12
100	13-15

Domain: Day-to-Day Living	
Age 55-65/Depression	
Quartile	Score
25	3-8
50	9-10
75	11-12
100	13-15

CULTURE

TableDomain: Culture	
Variable: Age 18-54	
Decile	Score
10	6-11
20	12-15
30	16-17
40	18
50	18
60	19-20
70	21-23
80	24
90	25-27
100	28-30

Domain: Culture	
Variable: Age 55-65	
Decile	Score
10	6-13
20	13-16
30	17-18
40	19
50	20-21
60	22-23
70	24
80	24
90	25-28
100	29-30

Domain: Culture	
Variable: Age 18-54	
Quartile	Score
25	6-16
50	17-18
75	19-24
100	25-30

Domain: Culture	
Variable: Age 55-65	
Quartile	Score
25	6-17
50	18-21
75	22-24
100	25-30

Domain: Culture	
Age 18-54/Schizophrenia	
Decile	Score
10	6-12
20	13-16
30	17-18
40	18
50	18
60	19-21
70	22-23
80	24
90	25-28
100	29-30

Domain: Culture	
Age 55-65/Schizophrenia	
Decile	Score
10	6-15
20	16-20
30	20
40	21
50	22-23
60	24
70	24
80	25-26
90	27-29
100	30

Domain: Culture	
Age 18-54/Schizophrenia	
Quartile	Score
25	6-17
50	18
75	19-24
100	25-30

Domain: Culture	
Age 55-65/Schizophrenia	
Quartile	Score
25	6-20
50	21-23
75	24
100	25-30

Domain: Culture	
Age 18-54/Bipolar	
Decile	Score
10	6-8
20	9-15
30	16
40	17-18
50	18
60	19-20
70	21-22
80	23-24
90	25-26
100	27-30

Domain: Culture	
Age 55-65/Bipolar	
Decile	Score
10	6-15
20	16-17
30	18
40	18
50	19-22
60	23-24
70	24
80	25-26
90	27-29
100	30

Domain: Culture	
Age 18-54/Bipolar	
Quartile	Score
25	6-15
50	16-18
75	19-23
100	24-30

Domain: Culture	
Age 55-65/Bipolar	
Quartile	Score
25	6-17
50	18-22
75	23-24
100	25-30

Domain: Culture	
Age 18-54/Depression	
Decile	Score
10	6-10
20	11-13
30	14-16
40	17
50	18
60	19-20
70	21-22
80	23-24
90	25-27
100	28-30

Domain: Culture	
Age 55-65/Depression	
Decile	Score
10	6-9
20	10-11
30	12-13
40	13
50	14-19
60	20
70	21-22
80	23-24
90	25-28
100	29-30

Domain: Culture	
Age 18-54/Depression	
Quartile	Score
25	6-15
50	16-18
75	19-23
100	24-30

Domain: Culture	
Age 55-65/Depression	
Quartile	Score
25	6-11
50	12-19
75	20-24
100	25-30

PHYSICAL HEALTH

Domain: Physical Health	
Variable: Age 18-54	
Decile	Score
10	4-10
20	11
30	12
40	13
50	13
60	14
70	15-16
80	16
90	17-18
100	19-20

Domain: Physical Health	
Variable: Age 55-65	
Decile	Score
10	4-10
20	11
30	12-13
40	13
50	14-15
60	16
70	17
80	18
90	19
100	20

Domain: Physical Health	
Variable: Age 18-54	
Quartile	Score
25	4-12
50	13
75	14-16
100	16-20

Domain: Physical Health	
Variable: Age 55-65	
Quartile	Score
25	4-10
50	11-15
75	16-18
100	19-20

Domain: Physical Health	
Age 18-54/Schizophrenia	
Decile	Score
10	4-11
20	12
30	12
40	13
50	14
60	15
70	16
80	17
90	18
100	19-20

Domain: Physical Health	
Age 55-65/Schizophrenia	
Decile	Score
10	4-9
20	10-12
30	13
40	14-16
50	16
60	16
70	17-19
80	19
90	20
100	20

Domain: Physical Health	
Age 18-54/Schizophrenia	
Quartile	Score
25	4-12
50	13-14
75	15-16
100	17-20

Domain: Physical Health	
Age 55-65/Schizophrenia	
Quartile	Score
25	4-12
50	13-16
75	17-19
100	20

Domain: Physical Health	
Age 18-54/Bipolar	
Decile	Score
10	4-9
20	10-11
30	12
40	12
50	13
60	14
70	15-16
80	16
90	17-18
100	19-20

Domain: Physical Health	
Age 55-65/Bipolar	
Decile	Score
10	4-12
20	13
30	13
40	13
50	14-16
60	16
70	17
80	18
90	19
100	20

Domain: Physical Health	
Age 18-54/Bipolar	
Quartile	Score
25	4-9
50	10-11
75	12-16
100	17-20

Domain: Physical Health	
Age 55-65/Bipolar	
Quartile	Score
25	4-13
50	14-16
75	17-18
100	19-20

Domain: Physical Health	
Age 18-54/Depression	
Decile	Score
10	4-8
20	9-10
30	11
40	12
50	13
60	13
70	14
80	15
90	16
100	17-20

QUALITY OF LIFE

Domain: Physical Health	
Age 55-65/Depression	
Decile	Score
10	4-9
20	10
30	10
40	11
50	12-14
60	14
70	15
80	16-17
90	18
100	19-20

Domain: Physical Health	
Age 18-54/Depression	
Quartile	Score
25	4-11
50	12-13
75	14-15
100	16-20

Domain: Physical Health	
Age 55-65/Depression	
Quartile	Score
25	4-10
50	11-14
75	15-16
100	17-20

Domain: Quality of Life	
Variable: Age 18-54	
Decile	Score
10	7-17
20	18-20
30	21
40	22
50	23-24
60	25
70	26-27
80	28
90	29-31
100	32-35

Domain: Quality of Life	
Variable: Age 55-65	
Decile	Score
10	7-16
20	17-19
30	20-21
40	22-23
50	24-26
60	27-28
70	28
80	29
90	30
100	31-35

Domain: Quality of Life	
Variable: Age 18-54	
Quartile	Score
25	7-21
50	22-24
75	25-28
100	29-35

Domain: Quality of Life	
Variable: Age 55-65	
Quartile	Score
25	7-21
50	22-26
75	27-28
100	29-35

Domain: Quality of Life	
Age 18-54/Schizophrenia	
Decile	Score
10	7-20
20	21
30	21
40	21
50	22-23
60	24-25
70	26-27
80	28
90	29-32
100	33-35

Domain: Quality of Life	
Age 55-65/Schizophrenia	
Decile	Score
10	7-16
20	17-21
30	22-25
40	26-27
50	28
60	28
70	28
80	29
90	30-31
100	32-35

Domain: Quality of Life	
Age 18-54/Schizophrenia	
Quartile	Score
25	7-21
50	22-23
75	24-28
100	29-35

Domain: Quality of Life	
Age 18-54/Schizophrenia	
Quartile	Score
25	7-21
50	22-23
75	24-28
100	29-35

Domain: Quality of Life	
Age 18-54/Bipolar	
Decile	Score
10	7-16
20	17-20
30	21
40	22
50	23-24
60	25
70	26-27
80	28
90	29-30
100	31-35

Domain: Quality of Life	
Age 55-65/Bipolar	
Decile	Score
10	7-17
20	18-21
30	22-24
40	25-26
50	27
60	28
70	28
80	29
90	30
100	31-35

Domain: Quality of Life	
Age 18-54/Bipolar	
Quartile	Score
25	7-16
50	17-24
75	25-28
100	29-35

Domain: Quality of Life	
Age 18-54/Bipolar	
Quartile	Score
25	7-22
50	23-27
75	28
100	29-35

Domain: Quality of Life	
Age 18-54/Depression	
Decile	Score
10	7-13
20	14-18
30	19-20
40	21-22
50	23
60	24-25
70	26
80	27-28
90	29-31
100	32-35

Domain: Quality of Life	
Age 55-65/Depression	
Decile	Score
10	7-14
20	15-16
30	17-19
40	20-21
50	21
60	22-24
70	25-27
80	28
90	29-32
100	33-35

Domain: Quality of Life	
Age 18-54/Depression	
Quartile	Score
25	7-19
50	20-23
75	24-27
100	28-35

Domain: Quality of Life	
Age 18-54/Depression	
Quartile	Score
25	7-18
50	19-21
75	22-28
100	29-35

Domain: Mental Health	
Variable: Age 18-54	
Decile	Score
10	7-19
20	20-21
30	22-23
40	24
50	25-26
60	27-28
70	29
80	30-31
90	32-33
100	34-35

Domain: Mental Health	
Variable: Age 55-65	
Decile	Score
10	7-18
20	19-24
30	25
40	26
50	27-28
60	29
70	30
80	31-33
90	34
100	35

Domain: Mental Health	
Variable: Age 18-54	
Quartile	Score
25	7-21
50	22-26
75	27-30
100	31-35

Domain: Mental Health	
Variable: Age 55-65	
Quartile	Score
25	7-18
50	19-28
75	29-31
100	32-35

Domain: Mental Health	
Age 18-54/Schizophrenia	
Decile	Score
10	7-17
20	18-21
30	21
40	22
50	23-25
60	26-27
70	28
80	29-30
90	31-33
100	34-35

Domain: Mental Health	
Age 55-65/Schizophrenia	
Decile	Score
10	7-16
20	17-22
30	22
40	23-26
50	27
60	28
70	29
80	30-31
90	32-34
100	35

Domain: Mental Health	
Age 18-54/Schizophrenia	
Quartile	Score
25	7-21
50	22-25
75	26-29
100	30-35

Domain: Mental Health	
Age 55-65/Schizophrenia	
Quartile	Score
25	7-22
50	23-27
75	28-29
100	30-35

Domain: Mental Health	
Age 18-54/Bipolar	
Decile	Score
10	7-19
20	20-21
30	22
40	23-24
50	25-26
60	27-28
70	29
80	30-31
90	32-33
100	34-35

Domain: Mental Health	
Age 55-65/Bipolar	
Decile	Score
10	7-18
20	19-25
30	26
40	27-28
50	29
60	30
70	30
80	31-32
90	33-35
100	35

Domain: Mental Health	
Age 18-54/Bipolar	
Quartile	Score
25	7-19
50	20-26
75	27-30
100	31-35

Domain: Mental Health	
Age 55-65/Bipolar	
Quartile	Score
25	7-16
50	27-29
75	30-31
100	32-35

Domain: Mental Health	
Age 18-54/Depression	
Decile	Score
10	7-17
20	18-21
30	22-23
40	24
50	25-26
60	27-28
70	29
80	30-31
90	32
100	33-35

RECOVERY

Domain: Mental Health	
Age 55-65/Depression	
Decile	Score
10	7-15
20	16-19
30	20-25
40	25
50	26
60	27-28
70	29-30
80	31-33
90	34
100	35

Domain: Mental Health	
Age 18-54/Depression	
Quartile	Score
25	7-17
50	18-26
75	27-30
100	31-35

Domain: Mental Health	
Age 55-65/Depression	
Quartile	Score
25	7-24
50	25-26
75	27-32
100	33-35

Domain: Recovery	
Variable: Age 18-54	
Decile	Score
10	4-11
20	12
30	13
40	14-15
50	16
60	16
70	17-18
80	19
90	20
100	20

Domain: Recovery	
Variable: Age 55-65	
Decile	Score
10	4-10
20	11-12
30	13-15
40	16
50	16
60	17
70	18-19
80	20
90	20
100	20

Domain: Recovery	
Variable: Age 18-54	
Quartile	Score
25	4-12
50	13-16
75	17-18
100	19-20

Domain: Recovery	
Variable: Age 55-65	
Quartile	Score
25	4-14
50	15-16
75	17-19
100	20

Domain: Recovery	
Age 18-54/Schizophrenia	
Decile	Score
10	4-10
20	11-12
30	12
40	12
50	13-14
60	15-16
70	16
80	17-18
90	19-20
100	20

Domain: Recovery	
Age 55-65/Schizophrenia	
Decile	Score
10	4-10
20	11-12
30	12
40	13-15
50	16
60	16
70	16
80	17-18
90	19
100	20

Domain: Recovery	
Age 18-54/Schizophrenia	
Quartile	Score
25	4-12
50	13-14
75	15-17
100	18-20

Domain: Recovery	
Age 55-65/Schizophrenia	
Quartile	Score
25	4-10
50	11-16
75	17
100	18-20

Domain: Recovery	
Age 18-54/Bipolar	
Decile	Score
10	4-12
20	12
30	13
40	14-15
50	16
60	17
70	18
80	19
90	20
100	20

Domain: Recovery	
Age 55-65/Bipolar	
Decile	Score
10	4-8
20	9-14
30	15-16
40	16
50	17
60	18-19
70	20
80	20
90	20
100	20

Domain: Recovery	
Age 18-54/Bipolar	
Quartile	Score
25	4-13
50	14-16
75	17-19
100	20

Domain: Recovery	
Age 55-65/Bipolar	
Quartile	Score
25	4-15
50	16-17
75	18-20
100	20

Domain: Recovery	
Age 18-54/Depression	
Decile	Score
10	4-9
20	10-12
30	13-14
40	15-16
50	16
60	17-18
70	19
80	19
90	20
100	20

Domain: Recovery	
Age 55-65/Depression	
Decile	Score
10	4-9
20	10-12
30	13-14
40	14
50	15-16
60	17
70	18
80	19-20
90	20
100	20

Domain: Recovery	
Age 18-54/Depression	
Quartile	Score
25	4-13
50	14-16
75	17-19
100	20

Domain: Recovery	
Age 55-65/Depression	
Quartile	Score
25	4-12
50	13-16
75	17-19
100	20

HOPE AND EMPOWERMENT

Domain: Hope and Empowerment	
Variable: Age 18-54	
Decile	Score
10	8-19
20	20-24
30	24
40	25-27
50	28-29
60	30-31
70	32
80	33-35
90	36-38
100	39-40

Domain: Hope and Empowerment	
Variable: Age 55-65	
Decile	Score
10	8-20
20	21-24
30	25-28
40	29
50	30-31
60	32
70	33-35
80	36-38
90	39-40
100	40

Domain: Hope and Empowerment	
Variable: Age 18-54	
Quartile	Score
25	8-24
50	25-29
75	30-34
100	35-40

Domain: Hope and Empowerment	
Variable: Age 55-65	
Quartile	Score
25	8-26
50	27-31
75	32-36
100	37-40

Domain: Hope and Empowerment	
Age 18-54/Schizophrenia	
Decile	Score
10	8-19
20	20-24
30	24
40	24
50	25-29
60	30-31
70	32
80	33-35
90	36-38
100	39-40

Domain: Hope and Empowerment	
Age 55-65/Schizophrenia	
Decile	Score
10	8-21
20	22-24
30	25-27
40	28-31
50	32
60	32
70	33-36
80	37-38
90	39-40
100	40

Domain: Hope and Empowerment	
Age 18-54/Schizophrenia	
Quartile	Score
25	8-19
50	20-29
75	30-32
100	33-40

Domain: Hope and Empowerment	
Age 55-65/Schizophrenia	
Quartile	Score
25	8-21
50	22-32
75	33-36
100	37-40

Domain: Hope and Empowerment	
Age 18-54/Bipolar	
Decile	Score
10	8-20
20	21-24
30	24
40	25-26
50	27-29
60	30-31
70	32
80	33-34
90	35-37
100	38-40

Domain: Hope and Empowerment	
Age 55-65/Bipolar	
Decile	Score
10	8-22
20	23-26
30	27-28
40	29-31
50	32
60	33-35
70	36-37
80	38-39
90	40
100	40

Domain: Hope and Empowerment	
Age 18-54/Bipolar	
Quartile	Score
25	8-24
50	25-29
75	30-33
100	34-40

Domain: Hope and Empowerment	
Age 55-65/Bipolar	
Quartile	Score
25	8-27
50	28-32
75	33-39
100	40

Domain: Hope and Empowerment	
Age 18-54/Depression	
Decile	Score
10	8-16
20	17-21
30	22-24
40	25-26
50	27-29
60	30-31
70	32
80	33-34
90	35-38
100	39-40

SPIRITUALITY

Domain: Hope and Empowerment	
Age 55-65/Depression	
Decile	Score
10	8-11
20	12-15
30	16-21
40	22-24
50	25-29
60	30
70	31-32
80	33-35
90	36-40
100	40

Domain: Hope and Empowerment	
Age 18-54/Depression	
Quartile	Score
25	8-23
50	24-29
75	30-33
100	34-40

Domain: Hope and Empowerment	
Age 55-65/Depression	
Quartile	Score
25	8-21
50	22-29
75	30-33
100	34-40

Domain: Spirituality	
Variable: Age 18-54	
Decile	Score
10	4-8
20	9-11
30	12
40	12
50	12
60	13-14
70	15-16
80	16
90	17-20
100	20

Domain: Spirituality	
Variable: Age 55-65	
Decile	Score
10	4-10
20	11-12
30	13
40	13
50	14-16
60	16
70	17
80	18
90	19-20
100	20

Domain: Spirituality	
Variable: Age 18-54	
Quartile	Score
25	4-12
50	12
75	13-16
100	17-20

Domain: Spirituality	
Variable: Age 55-65	
Quartile	Score
25	4-12
50	13-16
75	17-18
100	19-20

Domain: Spirituality	
Age 18-54/Schizophrenia	
Decile	Score
10	4-8
20	9-10
30	11-12
40	12
50	12
60	13-14
70	15-16
80	17
90	18-20
100	20

Domain: Spirituality	
Age 55-65/Schizophrenia	
Decile	Score
10	4-11
20	12
30	12
40	13
50	14-16
60	16
70	16
80	17-19
90	20
100	20

Domain: Spirituality	
Age 18-54/Schizophrenia	
Quartile	Score
25	4-12
50	12
75	13-16
100	17-20

Domain: Spirituality	
Age 55-65/Schizophrenia	
Quartile	Score
25	4-11
50	12-16
75	17-18
100	19-20

Domain: Spirituality	
Age 18-54/Bipolar	
Decile	Score
10	4-8
20	9-11
30	12
40	12
50	12
60	13-14
70	15
80	16
90	17-19
100	20

Domain: Spirituality	
Age 55-65/Bipolar	
Decile	Score
10	4-11
20	12
30	13
40	13
50	14-16
60	16
70	17
80	18-20
90	20
100	20

Domain: Spirituality	
Age 18-54/Bipolar	
Quartile	Score
25	4-12
50	12
75	13-15
100	16-20

Domain: Spirituality	
Age 55-65/Bipolar	
Quartile	Score
25	4-12
50	13-16
75	17-20
100	20

Domain: Spirituality	
Age 18-54/Depression	
Decile	Score
10	4-7
20	8-9
30	10-11
40	12
50	12
60	13
70	14-15
80	16
90	17-18
100	19-20

Domain: Spirituality	
Age 55-65/Depression	
Decile	Score
10	4-8
20	9
30	10-11
40	12-13
50	14-15
60	16
70	16
80	17-18
90	18
100	19-20

Domain: Spirituality	
Age 18-54/Depression	
Quartile	Score
25	4-10
50	11-12
75	13-16
100	17-20

Domain: Spirituality	
Age 55-65/Depression	
Quartile	Score
25	4-10
50	11-15
75	16-17
100	18-20

Domain: Resources	
Variable: Age 18-54	
Decile	Score
10	4-11
20	12
30	13-14
40	15
50	16
60	17
70	18
80	19
90	20
100	20

Domain: Resources	
Variable: Age 55-65	
Decile	Score
10	4-10
20	11-13
30	14
40	15-16
50	16
60	17
70	18
80	19
90	20
100	20

Domain: Resources	
Variable: Age 18-54	
Quartile	Score
25	4-11
50	12-16
75	17-19
100	20

Domain: Resources	
Variable: Age 55-65	
Quartile	Score
25	4-13
50	14-16
75	17-19
100	20

Domain: Resources	
Age 18-54/Schizophrenia	
Decile	Score
10	4-10
20	11-12
30	12
40	13
50	14-15
60	16
70	16
80	17-18
90	19-20
100	20

Domain: Resources	
Age 55-65/Schizophrenia	
Decile	Score
10	4-13
20	13
30	14
40	15-16
50	16
60	16
70	16
80	17
90	18-19
100	20

Domain: Resources	
Age 18-54/Schizophrenia	
Quartile	Score
25	4-12
50	13-15
75	16-18
100	19-20

Domain: Resources	
Age 55-65/Schizophrenia	
Quartile	Score
25	4-13
50	14-16
75	16
100	17-20

Domain: Resources	
Age 18-54/Bipolar	
Decile	Score
10	4-12
20	13
30	14
40	15-16
50	16
60	17-18
70	19
80	19
90	20
100	20

Domain: Resources	
Age 55-65/Bipolar	
Decile	Score
10	4-9
20	10-13
30	14
40	15
50	16
60	17-18
70	19-20
80	20
90	20
100	20

Domain: Resources	
Age 18-54/Bipolar	
Quartile	Score
25	4-12
50	13-16
75	17-19
100	20

Domain: Resources	
Age 55-65/Bipolar	
Quartile	Score
25	4-13
50	14-16
75	17-20
100	20

Domain: Resources	
Age 18-54/Depression	
Decile	Score
10	4-12
20	13
30	14
40	15-16
50	16
60	17
70	18
80	19
90	20
100	20

SATISFACTION WITH SERVICES

Domain: Resources	
Age 55-65/Depression	
Decile	Score
10	4-8
20	9-10
30	11
40	12-14
50	15-16
60	17
70	18
80	19
90	19
100	20

Domain: Resources	
Age 18-54/Depression	
Quartile	Score
25	4-14
50	15-16
75	17-19
100	20

Domain: Resources	
Age 55-65/Depression	
Quartile	Score
25	4-11
50	12-16
75	17-18
100	19-20

Domain: Satisfaction with Services	
Variable: Age 18-54	
Decile	Score
10	8-18
20	19-24
30	24
40	24
50	25-26
60	27-29
70	30-32
80	33-34
90	35-39
100	40

Domain: Satisfaction with Services	
Variable: Age 55-65	
Decile	Score
10	8-24
20	24
30	24
40	25-26
50	27-30
60	31-32
70	32
80	33-36
90	37-39
100	39-40

Domain: Sat. with Services	
Variable: Age 18-54	
Quartile	Score
25	8-24
50	25-26
75	27-32
100	33-40

Domain: Sat. with Services	
Variable: Age 55-65	
Quartile	Score
25	8-24
50	25-30
75	31-33
100	34-40

Domain: Satisfaction with Services	
Age 18-54/Schizophrenia	
Decile	Score
10	8-21
20	22-24
30	24
40	25-26
50	27-29
60	30-31
70	32
80	33-35
90	36-39
100	40

Domain: Satisfaction with Services	
Age 55-65/Schizophrenia	
Decile	Score
10	8-22
20	23-24
30	24
40	25
50	26-30
60	31-32
70	33
80	34-35
90	36-39
100	40

Domain: Sat. with Services	
Age 18-54/Schizophrenia	
Quartile	Score
25	8-24
50	25-29
75	30-32
100	33-40

Domain: Sat. with Services	
Age 55-65/Schizophrenia	
Quartile	Score
25	8-22
50	23-30
75	31-33
100	34-40

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Domain: Satisfaction with Services	
Age 18-54/Bipolar	
Decile	Score
10	8-14
20	15-24
30	24
40	24
50	24
60	25-26
70	27-29
80	30-32
90	33-37
100	38-40

Domain: Satisfaction with Services	
Age 55-65/Bipolar	
Decile	Score
10	8-24
20	24
30	24
40	25-30
50	31-32
60	32
70	33
80	34-37
90	38
100	39-40

Domain: Sat. with Services	
Age 18-54/Bipolar	
Quartile	Score
25	8-24
50	24
75	25-30
100	31-40

Domain: Sat. with Services	
Age 55-65/Bipolar	
Quartile	Score
25	8-24
50	25-32
75	33-34
100	35-40

Domain: Satisfaction with Services	
Age 18-54/Depression	
Decile	Score
10	8-20
20	21-24
30	24
40	24
50	25-26
60	27-30
70	31-32
80	33-34
90	35-38
100	39-40

Domain: Satisfaction with Services	
Age 55-65/Depression	
Decile	Score
10	8-23
20	24
30	24
40	24
50	24
60	25-29
70	30-31
80	32-34
90	35-38
100	39-40

Domain: Sat. with Services	
Age 18-54/Depression	
Quartile	Score
25	8-24
50	25-26
75	27-33
100	34-40

Domain: Sat. with Services	
Age 55-65/Depression	
Quartile	Score
25	8-24
50	24
75	25-32
100	33-40

Domain: Whanaungatanga	
Age 18-54	
Decile	Score
10	9-16
20	17-23
30	24-26
40	27
50	28
60	29-31
70	32-33
80	34-36
90	37-39
100	40-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54	
Decile	Score
10	5-12
20	13-15
30	15
40	15
50	16-17
60	18-19
70	20
80	21
90	22-24
100	25

Domain: Whanaungatanga	
Age 55-65	
Decile	Score
10	9-14
20	15-18
30	18
40	19-21
50	22-26
60	27
70	28-32
80	33-36
90	37-40
100	41-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65	
Decile	Score
10	5-13
20	14-15
30	16-17
40	18-19
50	20
60	21
70	21
80	22-23
90	24
100	25

Domain: Whanaungatanga	
Age 18-54	
Quartile	Score
25	9-25
50	26-28
75	29-35
100	36-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54	
Quartile	Score
25	5-15
50	16-17
75	18-21
100	22-25

Domain: Whanaungatanga	
Age 55-65	
Quartile	Score
25	9-18
50	19-26
75	27-36
100	37-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65	
Quartile	Score
25	5-16
50	17-20
75	21-22
100	23-25

Domain: Whanaungatanga	
Age 18-54/Schizophrenia	
Decile	Score
10	9-18
20	19-24
30	25-27
40	27
50	28-29
60	30-31
70	32-34
80	35-36
90	37-41
100	42-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Schizophrenia	
Decile	Score
10	5-13
20	14-15
30	15
40	15
50	16
60	17-18
70	19
80	20
90	21-24
100	25

Domain: Whanaungatanga	
Age 55-65/Schizophrenia	
Decile	Score
10	9-21
20	22
30	23-25
40	26-27
50	28
60	29-32
70	33-36
80	36
90	37
100	38-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Schizophrenia	
Decile	Score
10	5-15
20	15
30	15
40	16-17
50	18-20
60	20
70	21
80	22-23
90	24
100	25

Domain: Whanaungatanga	
Age 18-54/Schizophrenia	
Quartile	Score
25	9-25
50	26-29
75	30-35
100	36-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Schizophrenia	
Quartile	Score
25	5-15
50	16
75	17-20
100	21-25

Domain: Whanaungatanga	
Age 55-65/Schizophrenia	
Quartile	Score
25	9-24
50	25-28
75	29-36
100	37-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Schizophrenia	
Quartile	Score
25	5-15
50	16-20
75	21-22
100	23-25

Domain: Whanaungatanga	
Age 18-54/Bipolar	
Decile	Score
10	9-16
20	17-24
30	25-26
40	27
50	27
60	28
70	29-30
80	31-35
90	36-37
100	38-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Bipolar	
Decile	Score
10	5-11
20	12-14
30	15
40	15
50	15
60	16
70	17-19
80	20
90	21
100	22-25

Domain: Whanaungatanga	
Age 55-65/Bipolar	
Decile	Score
10	9-17
20	17
30	17
40	18
50	19-22
60	23-26
70	27-34
80	35-43
90	43
100	44-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Bipolar	
Decile	Score
10	5-16
20	16
30	17-18
40	19
50	20-21
60	22
70	23
80	24
90	25
100	25

Domain: Whanaungatanga	
Age 18-54/Bipolar	
Quartile	Score
25	9-26
50	27
75	28-32
100	33-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Bipolar	
Quartile	Score
25	5-15
50	15
75	16-19
100	20-25

Domain: Whanaungatanga	
Age 55-65/Bipolar	
Quartile	Score
25	9-17
50	18-22
75	23-38
100	39-45

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Bipolar	
Quartile	Score
25	5-17
50	18-21
75	22-24
100	25

Domain: Whanaungatanga	
Age 18-54/Depression	
Decile	Score
10	9-14
20	15-22
30	23-24
40	25-26
50	27-29
60	30-33
70	34
80	35-36
90	37-41
100	42-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Depression	
Decile	Score
10	5-11
20	12-14
30	15
40	16-18
50	18
60	19-20
70	21
80	22-23
90	24
100	25

Domain: Whanaungatanga	
Age 55-65/Depression	
Decile	Score
10	
20	
30	Insufficient
40	numbers
50	for the
60	purposes
70	of generating
80	norms
90	
100	

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Depression	
Decile	Score
10	
20	
30	Insufficient
40	numbers
50	for the
60	purposes
70	of generating
80	norms
90	
100	

Domain: Whanaungatanga	
Age 18-54/Depression	
Quartile	Score
25	9-22
50	23-29
75	30-35
100	36-45

Domain: Te Reo me ōnā Tikanga	
Age 18-54/Depression	
Quartile	Score
25	5-15
50	16-18
75	19-22
100	23-25

Domain: Whanaungatanga	
Age 55-65/Depression	
Quartile	Score
25	
50	
75	
100	

Domain: Te Reo me ōnā Tikanga	
Age 55-65/Depression	
Quartile	Score
25	
50	
75	
100	

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Main section total

Main section: Total	
Variable: Age 18-54	
Decile	Score
10	65-184
20	185-195
30	196-203
40	204-213
50	214-229
60	230-240
70	241-250
80	251-262
90	263-281
100	282-325

Main section: Total	
Variable: Age 55-65	
Decile	Score
10	65-200
20	201-224
30	225-238
40	239-248
50	249-257
60	258-263
70	264-270
80	271-279
90	280-288
100	289-325

Main section: Total	
Variable: Age 18-54	
Quartile	Score
25	65-226
50	227-257
75	258-275
100	276-325

Main section: Total	
Variable: Age 55-65	
Quartile	Score
25	65-199
50	200-229
75	230-257
100	258-325

Main section: Total	
Age 18-54/Schizophrenia	
Decile	Score
10	65-185
20	186-195
30	196-197
40	198-204
50	205-213
60	214-233
70	234-248
80	249-264
90	265-288
100	289-325

Main section: Total	
Age 55-65/Schizophrenia	
Decile	Score
10	65-209
20	210-239
30	240-250
40	251-258
50	259
60	260-263
70	264-267
80	268-279
90	280-283
100	284-325

Main section: Total	
Age 18-54/Schizophrenia	
Quartile	Score
25	65-196
50	197-213
75	214-260
100	261-325

Main section: Total	
Age 55-65/Schizophrenia	
Quartile	Score
25	65-244
50	245-259
75	260-271
100	272-325

Main section: Total	
Age 18-54/Bipolar	
Decile	Score
10	65-188
20	189-197
30	198-205
40	206-218
50	219-231
60	232-242
70	243-252
80	253-261
90	262-278
100	279-325

Main section: Total	
Age 55-65/Bipolar	
Decile	Score
10	65-224
20	225-229
30	230-247
40	248-249
50	250-261
60	262-266
70	267-275
80	276-285
90	286-300
100	301-325

Main section: Total	
Age 18-54/Bipolar	
Quartile	Score
25	65-202
50	203-231
75	232-255
100	256-325

Main section: Total	
Age 55-65/Bipolar	
Quartile	Score
25	65-243
50	244-261
75	262-282
100	283-325

Main section: Total	
Age 18-54/Depression	
Decile	Score
10	65-158
20	159-189
30	190-200
40	201-214
50	215-229
60	230-240
70	241-251
80	252-259
90	260-266
100	267-325

Main section: Total	
Age 55-65/Depression	
Decile	Score
10	65-160
20	161-194
30	195-200
40	201-222
50	223-224
60	225-236
70	237-255
80	256-278
90	279-287
100	288-325

Main section: Total	
Age 18-54/Depression	
Quartile	Score
25	65-196
50	197-229
75	230-255
100	256-325

Main section: Total	
Age 55-65/Depression	
Quartile	Score
25	65-199
50	200-224
75	225-271
100	272-325

Maori Section Total

Māori section: Total	
Age 18-54	
Decile	Score
10	14-31
20	32-39
30	40-41
40	42
50	43-45
60	46-49
70	50-54
80	55-56
90	57-63
100	64-70

Māori section: Total	
Age 55-65	
Decile	Score
10	14-28
20	29-36
30	37-39
40	40-41
50	42-44
60	45-46
70	47-52
80	53-56
90	57-63
100	64-70

Māori Total	
Age 18-54	
Quartile	Score
25	14-41
50	42-45
75	46-55
100	56-70

Māori Total	
Age 55-65	
Quartile	Score
25	14-39
50	40-44
75	45-56
100	57-70

Māori Total	
Age 18-54/Schizophrenia	
Decile	Score
10	14-32
20	33-41
30	42
40	43
50	44-45
60	46-48
70	49-52
80	53-56
90	57-64
100	65-70

Māori Total	
Age 55-65/Schizophrenia	
Decile	Score
10	14-42
20	42
30	42
40	43
50	44-45
60	46-51
70	52-56
80	57
90	58
100	59-70

Māori Total	
Age 18-54/Schizophrenia	
Quartile	Score
25	14-42
50	43-45
75	46-55
100	56-70

Māori Total	
Age 55-65/Schizophrenia	
Quartile	Score
25	14-42
50	43-45
75	46-57
100	58-70

Māori Total	
Age 18-54/Bipolar	
Decile	Score
10	14-28
20	29-39
30	40-41
40	42
50	43
60	44-45
70	46-48
80	49-51
90	52-58
100	59-70

Māori Total	
Age 55-65/Bipolar	
Decile	Score
10	14-34
20	34
30	35
40	36
50	37-42
60	43-49
70	50-58
80	59-68
90	68
100	69-70

Māori Total	
Age 18-54/Bipolar	
Quartile	Score
25	14-41
50	42-43
75	44-51
100	52-70

Māori Total	
Age 55-65/Bipolar	
Quartile	Score
25	14-34
50	35-42
75	43-63
100	64-70

Māori Total	
Age 18-54/Depression	
Decile	Score
10	14-25
20	26-38
30	39-40
40	41-42
50	43-49
60	50-52
70	53-55
80	56-57
90	58-63
100	64-70

Māori Total	
Age 55-65/Depression	
Decile	Score
10	
20	
30	Insufficient
40	numbers
50	for the
60	purposes
70	of generating
80	norms
90	
100	

Māori Total	
Age 18-54/Depression	
Quartile	Score
25	14-39
50	40-49
75	50-55
100	56-70

Māori Total	
Age 55-65/Depression	
Quartile	Score
25	
50	
75	
100	

Main section & Maori Total combined

Total (main section & Māori)	
Age 18-54	
Decile	Score
10	79-225
20	226-237
30	238-240
40	241-250
50	251-263
60	264-281
70	282-299
80	300-312
90	313-332
100	333-395

Total (main section & Māori)	
Age 55-65	
Decile	Score
10	79-221
20	222-254
30	255-291
40	292-300
50	301-303
60	304-306
70	307-309
80	310-317
90	318-354
100	355-395

Total (main section & Māori)	
Age 18-54	
Quartile	Score
25	79-240
50	241-263
75	264-306
100	307-395

Total (main section & Māori)	
Age 55-65	
Quartile	Score
25	79-267
50	268-303
75	304-314
100	315-395

Domain: Total (main section & Māori)	
Age 18-54/Schizophrenia	
Decile	Score
10	79-225
20	226-237
30	238-242
40	243-249
50	250-256
60	257-265
70	266-301
80	302-321
90	322-344
100	345-395

Domain: Total (main section & Māori)	
Age 55-65/Schizophrenia	
Decile	Score
10	79-249
20	250-258
30	259-285
40	286-298
50	299-304
60	305
70	306-308
80	309-314
90	315-316
100	317-395

Total (main section & Māori)	
Age 18-54/Schizophrenia	
Quartile	Score
25	79-240
50	241-256
75	257-308
100	309-395

Total (main section & Māori)	
Age 55-65/Schizophrenia	
Quartile	Score
25	79-272
50	273-304
75	305-311
100	312-395

Domain: Total (main section & Māori)	
Age 18-54/Bipolar	
Decile	Score
10	79-233
20	234-237
30	238
40	239-241
50	242-259
60	260-269
70	270-287
80	288-301
90	302-318
100	319-395

Domain: Total (main section & Māori)	
Age 55-65/Bipolar	
Decile	Score
10	79-258
20	258
30	259-279
40	280-300
50	301-304
60	305-309
70	310-339
80	340-369
90	369
100	370-395

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Total (main section & Māori)	
Age 18-54/Bipolar	
Quartile	Score
25	79-237
50	238-259
75	260-293
100	294-395

Total (main section & Māori)	
Age 55-65/Bi-polar	
Quartile	Score
25	79-268
50	269-304
75	305-354
100	355-395

Domain: Total (main section & Māori)	
Age 18-54/Depression	
Decile	Score
10	79-189
20	190-250
30	251-270
40	271-280
50	281-286
60	287-294
70	295-303
80	304-315
90	316-359
100	360-395

Domain: Total (main section & Māori)	
Age 55-65/Depression	
Decile	Score
10	
20	
30	Insufficient
40	numbers
50	for the
60	purposes
70	of generating
80	norms
90	
100	

Total (main section & Māori)	
Age 18-54/Depression	
Quartile	Score
25	79-262
50	263-286
75	287-309
100	310-395

Total (main section & Māori)	
Age 55-65/Depression	
Quartile	Score
25	
50	
75	
100	