

## Chapter 2: Overview of methodological approach

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### Recruitment of providers and consumers

Our original aim was to recruit eighty psychologists, 160 GPs and 40 psychiatrists into the study, each of whom would recruit 5-10 English-speaking consumers.

The Medical Benefits Division of the Department of Health and Ageing acted as an intermediary in the recruitment of psychologists, psychiatrists and GPs, identifying the potential pool of providers through their use of the relevant Medicare item numbers. Random samples of clinical psychologists (n=509), registered psychologists (n=640), GPs (n=1,280) and psychiatrists (n=203) were selected from listings of those who billed for at least 100 occasions of service under the Better Access item numbers in 2008. These random samples were stratified by urbanicity/rurality, in order to address a request from the Department of Health and Ageing that we over-sample rural providers. The Medical Benefits Division provided us with contact details for these providers, and we sent them letters of invitation, plain language statements and consent forms. We subsequently conducted a second mail-out, in order to maximise our response rate. Providers who agreed to participate returned signed consent forms to the study team, and were enrolled in the project.

Participating providers acted as intermediaries and were asked to approach their first 20 consecutive new English-speaking consumers when they first presented for services partially or fully funded through the MBS item numbers. Consumers who agreed to be part of the project were asked to sign a consent form which indicated that they agreed to their contact details being made available to us, as well as data on the nature and outcomes of their care. Consumers returned the consent form to providers who then forwarded them to our study team. This method ensured that only the names and contact details of consumers who agreed to participate were made known to us.

### Data collection

The data collection period began on 1 October 2009. Originally, the data collection period was to have ended on 30 September 2010, but we revised this to 31 October 2010. This decision was made to maximise the numbers of participating consumers by extending the window for recruitment. Effectively, the decision extended the data collection period from 12 months to 13 months, and recognised that the first month was something of a “settling in” period where recruitment was relatively slow.

Seven main types of data were collected from consumers and providers over the 13-month data collection period, most via a password-protected, secure, web-based minimum dataset and some via telephone interviews or surveys.

#### ***Data collection via the minimum dataset***

Four types of data were collected via the minimum dataset:

1. Provider-level data (demographic, professional): These data were collected from providers when they enrolled in the project at the beginning of the 13-month data collection period and included demographic details, professional qualification(s), year of most recent qualification, mental disorders treated etc.

2. Consumer-level data (socio-demographic, clinical): These data were collected from consumers when they began treatment (i.e., at their first session) and included demographic details, socio-economic indicators (e.g., postcode, health care card status) and clinical information (e.g., diagnoses, previous psychiatric service use).
3. Consumer-level (outcomes): These data involved the use of two standardised outcome measures, namely the Depression Anxiety Stress Scales (DASS-21)<sup>2</sup> (used with consumers recruited by clinical and registered psychologists) and the Kessler-10 (K-10)<sup>2</sup> (used with consumers recruited by all providers). These instruments are described in Table 1, and full versions of each are provided in Appendices 1 and 2. Data from these instruments were collected from consumers when they began treatment (i.e., at their first session) and end treatment (i.e., at their final session, or in the final month of the data collection period, whichever came first).
4. Session-level data: These data were collected at each session and included detail on the duration of the session, the assessment(s) and intervention(s) that were provided during its course, the item number billed, and whether the session attracted a co-payment.

Logistically, data entry into the minimum dataset worked in the following way. The minimum dataset contained linked provider, consumer and session modules, each of which took the form of a screen that showed the relevant questions and provided check boxes which could be automatically ticked as appropriate. Once they were recruited into the study and had consented, providers were given access to the web-based minimum dataset, via a user name and password. They were then able to enter data into it from their own computers. They were asked to enter the above provider-level data into the minimum dataset, and then begin the process of recruiting their 5-10 new English-speaking consumers. Once the consumers were recruited, providers collected the relevant consumer-level data for them at the required points in time. In most cases, this involved asking consumers to complete a paper-based version of the particular instrument. Providers then took the completed paper-based forms from consumers, and entered the relevant data into the minimum dataset. For example, in the case of the consumer-level outcome data, consumers were given paper-based versions of the instruments and asked to complete them before they left. Once they returned these, providers entered the data into the web-based minimum dataset. Providers differed in how they chose to do this – some encouraged consumers to complete the instruments during the session, whereas others ask them to complete them in the waiting room once the session was over. The consumer-based clinical data was not elicited from consumers, but relied on judgements made by providers. Similarly, the session-based data did not require input from consumers, and was generated by providers. These data were entered by providers into the minimum dataset in the same way as data elicited directly from consumers.

**Table 1: Summary of outcome measures used in the evaluation**

Instrument	Description	Scoring	Use in evaluation
<p><b>Depression Anxiety Stress Scales (DASS-21)<sup>1</sup></b></p>	<p>Consumer-rated measure consisting of three sub-scales designed to measure depression, anxiety and stress, respectively. Each sub-scale consists of seven items, each of which consists of a statement relating to a symptom of depression, anxiety or stress. The consumer is asked to consider how much each statement applied to him or her in the past week.</p>	<p>Each item is scored from 0 (“Did not apply to me at all”) to 3 (“Applied to me very much, or most of the time”). The raw sub-scale score on the DASS-21 ranges from 0 to 21 and is then doubled so that it ranges from 0 to 42.</p> <p>Recommended cut-off scores for conventional severity labels (normal, mild, moderate, severe) are as follows:</p> <ul style="list-style-type: none"> <li>• Depression: 0-9 (Normal); 10-13 (Mild); 14-20 (Moderate); 21-27 (Severe); ≥28 (Extremely severe);</li> <li>• Anxiety: 0-7 (Normal); 8-9 (Mild); 10-14 (Moderate); 15-19 (Severe); ≥20 (Extremely severe); and</li> <li>• Stress: 0-14 (Normal); 15-18 (Mild); 19-25 (Moderate); 26-33 (Severe); ≥37 (Extremely severe).</li> </ul> <p>A positive difference between pre- and post-treatment scores on the DASS-21 indicates improvement.</p>	<p>Used to assess pre- and post- treatment levels of depression, anxiety and stress for consumers recruited by:</p> <ul style="list-style-type: none"> <li>• Clinical psychologists; and</li> <li>• Registered psychologists.</li> </ul>
<p><b>Kessler-10 (K-10)<sup>2</sup></b></p>	<p>Consumer-rated measure developed to assess non-specific psychological distress. Comprises 10 items which ask the consumer about symptoms of depression and anxiety in the past four weeks.</p>	<p>Each item is rated from 1 (“None of the time”) to 5 (“All of the time”), resulting in a total score that ranges from 10 to 50.</p> <p>Standard cut-off scores for levels of psychological distress are as follows: 10-15 (Low); 16-21 (Moderate); 22-29 (High); ≥30 (Very high).</p> <p>A positive difference between pre- and post-treatment scores indicates improvement.</p>	<p>Used to assess pre- and post- treatment levels of psychological distress for consumers recruited by:</p> <ul style="list-style-type: none"> <li>• Clinical psychologists;</li> <li>• Registered psychologists; and</li> <li>• GPs.</li> </ul>

## ***Data collection via interviews/surveys with consumers and providers***

In addition to the primary data that were collected via the minimum dataset, data were collected via brief (15 minute) telephone interviews or surveys with consumers and providers conducted at the end of their participation in the study. Both were initially asked to complete the interview but those who were not able to do this were offered the survey option. Both methods elicited data via the same set of questions (see Appendices 3 and 4). The following three types of data were sought through the questions in the interviews/surveys:

1. Consumer-level data (experiences with receiving care through Better Access).
2. Consumer-level data (any change in health and wellbeing attributable to Better Access): This was ascertained by a question which required them to indicate whether their health and wellbeing had changed during the course of their care, and, if so, whether they attributed the change to the care they received.
3. Provider-level data (experiences with providing care under Better Access).

Members of the study team conducted the interviews and sent out the surveys. Consumer interviews/surveys were conducted in a staggered fashion, within one month of the last session being provided to a given consumer or in the last month of data collection, whichever came first; provider interviews/surveys were conducted in a block, towards the end of the 13-month data collection period. All consumers for whom data existed on the minimum dataset and all providers who had recruited consumers were invited to complete the interview/survey.

## **Data analysis**

### ***Quantitative data from outcome measures***

We used paired t-tests to examine the difference between mean pre- and post-treatment scores on the K-10 and the DASS-21, excluding consumers who did not have a “matched pair” of pre- and post-treatment scores. We then conducted linear regression analyses using scores on the K-10 as the outcome of interest, and a range of socio-demographic, clinical and treatment variables as covariates. We selected the K-10 for this analysis because it was available for consumers from all providers groups, whereas the DASS-21 was only available for consumers who had been recruited by clinical and registered psychologists. Because outcomes for consumers recruited by the same provider were likely to be correlated, variance was calculated using cluster-robust standard errors. Pre-treatment scores were included as a covariate. The effect of categorical predictors was assessed using the joint Wald test.

### ***Qualitative data from the interviews/surveys***

Coding templates or “code books” were developed to summarise and organise salient themes as they emerged from the data. Separate code books were developed to manage the providers’ responses and the consumers’ responses. In each case, the process began with the identification of some broad, apriori themes. Responses to each question were read and re-read with these themes in mind, and segments of text were coded as belonging to these themes. During this process, additional broad themes were identified and portions of text were coded as being relevant to these new themes. Once the final set of broad themes was settled upon, the text relating to each theme was re-examined and narrower themes were identified and coded. The complete set of broad and narrow themes then formed the final code book that was applied

across all relevant responses. This process was iterative, and each set of responses was read a number of times.

Wherever possible, an attempt was made to quantify the qualitative responses once they had been coded into broad and narrow themes. There is debate among qualitative researchers about whether such quantification is appropriate. Those who are opposed to this approach argue that it is contrary to the purpose of qualitative research, which is to elicit a range of views on a given issue rather than to gauge the representativeness of these views. Those who favour this approach argue that, in the right circumstances, quantifying qualitative responses can increase the objectivity and replicability of a given study, and can strengthen the potential for generalising its findings if the sampling strategy permits this. In the current evaluation, quantifying the qualitative responses was considered justified on the grounds that the thematic coding categories were systematically generated using the code books described above, and the sampling strategy did not involve purposive selection.